Listening to the Real

Pierre Schaeffer and Musique Concrète

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The candidate confirms that the work submitted is his own and that appropriate credit has been given where reference has been made to the work of others.

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Abstract

Musique concrète, a term coined by Pierre Schaeffer in the late 1940s, is regularly cited as among the defining innovations in twentieth-century music with ramifications for popular and art music traditions. Despite this, the aesthetic's prehistory—the preoccupations that shaped it and the signifying practices on which it drew—remains generally under-studied. This thesis develops an account of the style that combines detailed historical work with interpretative strategies shaped by a consideration of musique concrète's historical specificity. Drawing on material from archives and periodicals, I trace Schaeffer's political and cultural commitments in the 1930s and 1940s from the Catholic youth movements like the Scouts de France to the Vichy cultural programme of Jeune France and the radiophonic experimentation of the Studio d'Essai.

With this history charted, I present an intellectual history of the "concrete" as it came to inform Schaeffer's theorisation of a concrete music, drawing his thinking into relation with debates concerning realism and phenomenology among French Catholic thinkers in the interwar period. An excursus turns to the universalism, afforded by the radio's privileged access to the concrete, manifested simultaneously in the figure of the "primitive" in *musique concrète* and in Schaeffer's administration of colonial radio in the 1950s. The final chapter develops readings of the defining works of *musique concrète* by elaborating techniques and aesthetic categories from the field of radio drama. Taking a critical distance from the claims for immediacy and sound in itself frequently found in writing on experimental electronic music, this thesis suggests that an account of the historical and cultural specificity of thought and practice provides resources for enriched interpretations of the music.

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Introduction

The seminal importance accorded to *musique concrète*, the style of music named by Pierre Schaeffer in 1948, would seem to suggest that its place in the history of twentieth-century music was clear. Its influence is invoked everywhere: from the electroacoustic works diffused on the multi-speaker systems of universities in France, Canada and the United Kingdom and the Noise music of the Japanese underground to hip-hop and techno's loops and samples. Indeed, the style is often thought of as the defining moment in the development of electronic music. While young composers bemoan the hegemony of Schaeffer's thought in British universities, critics cite the style with such frequency that a fleeting invocation—perhaps just the adjective in isolation—is sufficient to orient the reader.²

The story of the development of *musique concrète* and its defining aesthetic characteristics has been rehearsed in countless histories of electronic music. In the late 1940s, while working at the French state broadcaster, in an atmosphere of technological optimism after the Second World War, Schaeffer developed a musical practice based on the manipulation of sound recordings on shellac discs, creating short loops and modifying their playback

¹ John Diliberto, 'Pierre Schaeffer & Pierre Henry: Pioneers in Sampling', *Electronic Musician*, December 1986, reproduced at http://www.emusician.com/artists/1333/pierre-schaeffer--pierre-henry-pioneers-in-sampling/35127> and subsequently archived at

<https://web.archive.org/web/20161012125913/http://www.emusician.com/artists/1333/pierre-schaeffer-pierre-henry-pioneers-in-sampling/35127> [accessed 3 December 2020]; Rob Young, 'Roll Tape: Pioneers in *Musique Concrète*', in Peter Shapiro (ed.), *Modulations—A History of Electronic Music: Throbbing Words on Sound* (New York: Caipirinha, 2000), 11–20; Art Lange, 'The Primer: Musique Concrète', *The Wire*, 174 (August 1998), 50–55; Jonathan Patrick, 'A guide to Pierre Schaeffer, the godfather of sampling', *Fact*, 23 February 2016 https://www.factmag.com/2016/02/23/pierre-schaeffer-guide/ [accessed 3 December 2020]; Moby, 'The Evolution of Techno According to Moby', *Vibe*, March 1994, 67; Simon Reynolds, *Generation Ecstasy: Into the World of Techno and Rave Culture* (New York: Routledge, 1999), 42–43.

² Tony Myatt, 'New aesthetics and practice in experimental electronic music', *Organised Sound*, 13 (2008), 1–3; Monty Adkins, Richard Scott and Pierre Alexandre Tremblay, 'Post-Acousmatic Practice: Reevaluating Schaeffer's heritage', *Organised Sound*, 21 (2016), 106–16; Chloe Lula, 'AGF & Various, *Arachnesound*', *The Wire*, 445 (March 2021), 46; 'Basic House: Government', *Boomkat*, 1 May 2019 https://boomkat.com/products/government-0a42cacd-9fc4-47d7-9cc8-f8be9c4abda0 [accessed 10 May 2021]; 'Equiknoxx: Bird Sound Power', *Bleep*, 12 August 2016 https://bleep.com/release/75081-equiknoxx-bird-sound-power [accessed 10 May 2021]; Jayson Greene, 'Death Grips', *Pitchfork*, 25 April 2012 https://pitchfork.com/features/interview/8815-death-grips/ [accessed 10 May 2021].

speed.³ This practice, such histories explain, was informed by the earlier avant-gardist experiments of Luigi Russolo, Edgar Varèse and John Cage, which had begun to open up art music composition to non-musical sounds and noises, an innovation that Schaeffer would subsequently develop in a systematic fashion.

For some, like Peter Manning and Douglas Kahn, this experimentation flowed out of the potentialities of newly available sound technologies, Kahn going so far as to suggest that 'artistic precedent was virtually unnecessary since the technology involved was suggestive in its own right'.⁴ Others emphasise the novel theoretical outlook that guided Schaeffer's project, his desire to begin 'with the sound material itself rather than with a mental schema, such as a score, laid out by the composer beforehand', thus upending the norms of art music composition.⁵ This new music expanded the timbral resources of post-war composition to include any sound at all, initiating a turn to 'sound as specific medium' that exists in parallel to that pioneered by Cage.⁶

These histories converge in their characterisation of *musique concrète* as a point of origin, a harbinger of future developments, and Schaeffer as a pioneer (a convergence not unrelated to their overwhelming reliance on Schaeffer's account in *In Search of a Concrete Music*). In both Holmes and Manning's texts, for example, *musique concrète* occupies the second chapter after an initial survey of pre-1945 experiments with electrified music.⁷ Schaeffer's legacy, as well as that of *musique concrète*, has been mostly closely associated with a style of composition developed at the institution he founded, the Groupe de

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³ Peter Manning, *Electronic and Computer Music* (Oxford: Oxford University Press, 2004), 19–38; Young, 'Roll Tape'; Richard Taruskin, *The Oxford History of Western Music: Music in the Late Twentieth Century* (Oxford: Oxford University press, 2005), 188; Thom Holmes, *Electronic and Experimental Music: Technology, Music and Culture* (New York: Routledge, 2008), 41–78; Évelyne Gayou, *GRM, Le Groupe de Recherches Musicales: Cinquante ans d'histoire* (Paris: Fayard, 2007), 48; Gayou, 'The GRM: landmarks on a historic route', *Organised Sound*, 12 (2007), 203–11; Marc Battier, 'What the GRM Brought to Music: From *Musique Concrète* to Acousmatic Music', *Organised Sound*, 12 (2007), 189–202 (p. 190).

⁴ Douglas Kahn, *Noise, Water, Meat: A History of Sound in the Arts* (Cambridge: MIT Press, 1999), 139; Manning, *Electronic and Computer Music*, 25; Daniel Warner, *Live Wires: A History of Electronic Music* (London: Reaktion, 2017).

⁵ Holmes, *Electronic and Experimental Music*, 50.

⁶ Brandon LaBelle, *Background Noise: Perspectives on Sound Art* (New York: Continuum, 2006), 24–26; Paul Hegarty, *Noise/Music: A History* (New York: Continuum, 2007), 33; Young, 'Roll Tape', 16.

⁷ Manning, Electronic and Computer Music, 19–38; Holmes, Electronic and Experimental Music, 41–78.

recherches musicales (GRM), and which has since influenced the aesthetics and pedagogies of studios in universities in Canada, the United Kingdom and elsewhere. Known today as acousmatic or electroacoustic music, this style involves the montaging of recorded sounds guided by an attentive, or "reduced", listening to sound quality. Through the 1960s and 1970s, composers including Luc Ferrari, Guy Reibel, Bernard Parmegiani and François Bayle created a rich body of electroacoustic works, as well as a set of particular performance practices involving multiple loudspeakers distributed in a darkened hall, with the amplitude of each loudspeaker modified during playback to give the impression of movement. The theoretical language rationalising this approach is derived from the pedagogy of Schaeffer and his colleagues at the GRM, particularly as presented in Schaeffer's 1966 text, *Traité des objets musicaux: Essai interdisciplines*. Here, Schaeffer set out a systematic approach to listening, enabling the development of a new *solfège*, describing and classifying fragments of sound known as "sound objects".

In the United Kingdom and Canada, composers who had studied at the GRM established studios within universities that adopted in some form the precepts of Schaeffer's approach and the aesthetics of his disciples. Schaeffer's 'typomorphological' classification of sounds has been influentially developed in the anglophone literature by the composer Denis Smalley in the form of a 'spectro-morphology'. Post-Schaefferian theory', then, might be summarised with reference to a handful of precepts: listening to sound without its source being visible—the situation, named "acousmatic", characteristic of technologically

⁸ Brian Kane, Sound Unseen: Acousmatic Sound in Theory and Practice (Oxford: Oxford University Press, 2014), 17–30.

⁹ Patrick Valiquet, 'Animating the Object: Marcelle Deschênes and acousmatic education in Quebec', *Organised Sound*, 22 (2017), 385–93; Francis Dhomont, 'Is there a Québec sound?', trans. by Ned Bouhalassa, *Organised Sound*, 1 (1996), 23–28; Jonty Harrison, 'Denis Smalley, EMAS and (electroacoustic) music', *The Musical Times*, 130 (1989), 528–31; Simon Emmerson, 'Pentes: A Conversation with Denis Smalley', *Electroacoustic Music*, 4 (1989), 15–25. The question of how closely these international disciples cleave to Schaeffer's thought is beyond the scope of this study; for one view, see Valiquet, 'Hearing the Music of Others: Pierre Schaeffer's Humanist Interdiscipline', *Music & Letters*, 98 (2017), 255–80 (p. 277).

¹⁰ Denis Smalley, 'Spectro-morphology and Structuring Processes', in Simon Emmerson (ed.), *The Language of Electroacoustic Music* (Basingstoke: Macmillan, 1986), 61–93; Smalley, 'Spectromorphology: explaining sound-shapes', *Organised Sound*, 2 (1997), 107–26; cf. Manuella Blackburn, 'The Visual Sound-Shapes of Spectromorphology: an illustrative guide to composition', *Organised Sound*, 16 (2011), 5–13.

reproduced sound—affords a mode of listening attuned to the "intrinsic" characteristics of sound that in turn supports a compositional practice grounded in these characteristics.¹¹

In less specialised histories, *musique concrète* is placed at the source of a host of artistic practices grouped together as "sound art" and "experimental electronic music". ¹² *Musique concrète* plays such a role in several texts from the late 1990s and 2000s that construct a more or less coherent canon from elements of installation art, modernist composition and experimental music. ¹³ This canon is unified, a writer like Christoph Cox or Brandon LaBelle claims, by its novel attention to sound beyond the conventional strictures of Western art music. The discourse constituted by these texts is in many ways the precursor to a sector of sound studies that Brian Kane opposes to the study of auditory culture (as represented by now canonical texts of the field by Jonathan Sterne and Emily Thompson), a sector—to which I return in more detail in the conclusion—that Kane defines by its commitment to theorise an ontology of sound. ¹⁴

In framing *musique concrète* as an embryonic form of later aesthetics and theories, there is a tendency to elide the significant aesthetic and historical distance between the late 1940s and the mid-1960s, presuming the stability of concepts such as the sound object

¹¹ Joanna Demers, *Listening through the Noise: The Aesthetics of Experimental Electronic Music* (Oxford: Oxford University Press, 2010), 21–42; Smalley, 'Spectromorphology'; Kane, *Sound Unseen*, 15–41.

¹² See the numerous invocations of Schaeffer in Marcel Cobussen, Vincent Meelberg and Barry Truax (eds.), *The Routledge Companion to Sound Art* (New York: Routledge, 2017).

¹³ This might include Douglas Kahn and Gregory Whitehead (eds.), *Wireless Imagination: Sound, Radio and the Avant-Garde* (Cambridge: MIT Press, 1992); David Toop, *Ocean of Sound: Aether Talk, Ambient Sound and Imaginary Worlds* (London: Serpent's Tail, 1995); Kahn, *Noise, Water, Meat* (1999); Christoph Cox and Daniel Warner (eds.), *Audio Culture: Readings in Modern Music* (London: Continuum, 2004); LaBelle, *Background Noise* (2006). This narrative appears in a particularly succinct form in a lecture delivered by Christoph Cox in 2017; Christoph Cox, 'A Brief History of Sound Art' (2017) https://www.youtube.com/watch?v=hh_5_CAySXY [accessed 20 May 2021].

¹⁴ Kane, 'Sound studies without auditory culture: a critique of the ontological turn', *Sound Studies*, 1 (2015), 2–21; cf. Michele Hilmes, 'Is There a Field Called Sound Culture Studies? And Does It Matter?', *American Quarterly*, 57 (2005), 249–59. This points to one way of reframing the divergence noted by Kane, which is that 'ontological' sound studies has a much greater interest in theorising and rationalising certain aesthetic practices; it is no coincidence, I think, that Christoph Cox, David Toop, Salomé Voegelin and Steve Goodman, for example, are themselves practitioners or regularly teach in contexts oriented towards practice.

and reduced listening.¹⁵ The characterisation of *musique concrète* that is developed from these elisions and narrativisations has a retroactive effect on the sort of practices and ideas that are thought to have formed *musique concrète*. A recurring group of names appears in accounts of the prehistory of *musique concrète*: Luigi Russolo, Edgar Varèse and, on occasion, John Cage.¹⁶ This is corroborated by Schaeffer himself: in a text written in 1953, though not published until 1957, he referred to Varèse as 'our only great man, in any case the sole precursor', a phrase that when it reappears in 1959 comes to include Cage.¹⁷ But such historical connections are tenuous at best, and might have as much to do with a retrospective affirmation of the musical character of *musique concrète* as with any real historical lineages.

Évelyne Gayou, for example, in her authorised history of the GRM, is determined to prove at least circumstantially that Schaeffer must have been influenced by the Italian Futurists and Varèse (and that he had subsequently obscured that debt because of the unsavoury politics of the Futurists), despite Schaeffer's earliest published references to both Futurism and Varèse being ambivalent at best. Gayou situates *musique concrète* among the avantgardes of the early twentieth-century: it cannot be comprehended, she claims, without reference to Futurism, dadaism and surrealism, a claim for which her reasonably detailed biography of Schaeffer before 1948 provides little evidence.

¹⁵ See, for example, LaBelle, *Background Noise*, 26; Gayou, *GRM*, 46; Cox, 'Abstract Concrete: Francisco López and the Ontology of Sound', *Cabinet*, 2 (2001), 42–45.

¹⁶ Gayou, GRM, 48; Gayou, 'The GRM'; Battier, 'What the GRM Brought to Music', 190.

¹⁷ Schaeffer, 'Vers une musique expérimentale', *La Revue Musicale*, 236 (1957), 11–27 (p. 20); Schaeffer, 'Historique des recherches de musique concrète', *La Revue Musicale*, 244 (1959), 57–61 (p. 58). For the publication history of the texts in *La Revue Musicale*, 236, see Albert Richard, 'Quatre ans après', *La Revue Musicale*, 236 (1957), 1–2, and Carlos Palombini, 'Pierre Schaeffer, 1953: Towards an Experimental Music', *Music & Letters*, 74 (1993), 542–57.

¹⁸ Gayou, *GRM*, 48 & 62; Gayou, 'The GRM', 204; Schaeffer, *In Search of a Concrete Music*, trans. by Christine North and John Dack (Berkeley: University of California Press, 2012), 88–89 & 169. Having consulted both Schaeffer's original French and North and Dack's translation, I mostly quote from the latter for the benefit of anglophone readers, though I occasionally modify the translation (in which case it is noted), unless I deem it necessary to translate directly from Schaeffer's original. Schaeffer later claimed not to have known of either Russolo or Filippo Marinetti in 1948; see Schaeffer, *Treatise on Musical Objects*, trans. by Christine North and John Dack (Oakland: University of California Press, 2017), 535.

Even a book that exhibits an unusually critical attitude towards Schaeffer's legacy, Brian Kane's *Sound Unseen*, situates *musique concrète* on a similar trajectory. Kane's remarkably thorough study concerns the acousmatic, the concept with which Schaeffer is most closely associated outside the field of electroacoustic music. This term was adopted in the late 1950s by Schaeffer and later used by François Bayle as a generic term for the music associated with Schaeffer's students and colleagues at the GRM. Through the writing of Michel Chion, a former GRM composer, on film sound, Schaeffer's terminology has made its way into the vocabulary of the academic humanities.²⁰

Kane's interest lies in dismantling the claims of the *Traité* and developing an alternative account of acousmaticity, a task he approaches by debunking Schaeffer's use of Edmund Husserl's phenomenology and charting the philological history of the term. As such, *musique concrète* in the late 1940s and early 1950s is treated as little more than an upbeat to Schaeffer's later theories, the site of an 'improvised ontology' that prefigures the 'mature theory' of the *Traité*. Thus, for example, Schaeffer's sound object, which in 1952 hardly denotes anything more sophisticated than a short recorded fragment, is understood by Kane to tend towards the Husserlian framework within which Schaeffer will theorise the term in the 1960s.²¹ Not unrelatedly, to support the claim that Schaeffer drew on phenomenology in developing *musique concrète*, Kane asserts without evidence that Maurice Merleau-Ponty's *Phenomenology of Perception* 'introduced Schaeffer [...] to phenomenology'.²²

²⁰ James A. Steintrager, 'Introduction: Closed Grooves, Open Ears', in Michel Chion, *Sound: An Acoulogical Treatise*, trans. by James A. Steintrager (Durham: Duke University Press, 2016), vii–xxvi; Chion, *La Voix au cinéma* (Paris: l'Étoile, 1982).

²¹ Kane, *Sound Unseen*, 15–17. Kane presents an account of the sound object with a greater sense of its historical contingency elsewhere: Kane, 'The Fluctuating Sound Object', in James A. Steintrager and Rey Chow (eds.), *Sound Objects* (Durham: Duke University Press, 2019), 53–70.

²² Kane, Sound Unseen, 18; Makis Solomis, 'Schaeffer phénoménologue', in Ouïr, entendre, écouter, comprendre après Schaeffer (Paris: Buchet/Chastel, 1999), 53–67 (p. 57). Salomé Voegelin makes the similar claim that Merleau-Ponty's 'voice was in the air that Schaeffer would have breathed', arguing for at least a shared Zeitgeist if not a direct line of influence; Salomé Voegelin, Sonic Possible Worlds: Hearing the Continuum of Sound (London: Bloomsbury, 2014), 40. This is not to rule out Schaeffer's being aware of Merleau-Ponty—it seems likely that Schaeffer would have known of him in the late 1940s, but Schaeffer himself admits to having developed an affinity for Merleau-Ponty's work only shortly before the latter's death in 1961; Marc Pierret, Entretiens avec Pierre Schaeffer (Paris: Pierre Belfond, 1969), 123. Martin

This speculative positing of intellectual filiations is also a feature of Carlos Palombini's writing on *musique concrète*, in which he identifies traces of the influence of Martin Heidegger and Walter Benjamin in Schaeffer's early writing on the radio.²³ While there are (rather weak) grounds for drawing Schaeffer and Benjamin into relation—in that an essay cited by Schaeffer cites Benjamin's mechanical reproducibility essay, the link between Schaeffer and Heidegger seems to be based on little more than a sense of affinity and the assumption that Schaeffer would have been conversant with Heidegger's thought. Like Kane's critical reading of Schaeffer as a philosopher, Palombini's attempt to contextualise Schaeffer's thought assumes a familiarity with intellectual currents for which there is little evidence.²⁴

A Little Historicism

Rather than scouring earlier periods for ideas and practices that resemble an existing conception of *musique concrète*, this study proceeds from the specific historical conjuncture that shaped Schaeffer's interests and commitments: if there is little to suggest that Schaeffer admired Russolo or read Merleau-Ponty before creating the first works of *musique concrète*, other, more proximate sources might have greater purchase and, more importantly, help to develop an account that significantly modifies the existing conception of *musique concrète*. Rather than disassociating *musique concrète* from phenomenology entirely, however, one of the claims of chapter 3 is that Schaeffer's concepts and practices were shaped by the articulation of German phenomenology to the realist claims of Catholic philosophy in the 1930s (in ways of which Schaeffer was most likely not cognisant). Drawing connections to this particular iteration of phenomenology,

Kaltenecker also dates Schaeffer's turn to phenomenology around 1960; Martin Kaltenecker, 'L'écoute comme exercice collectif', in Martin Kaltenecker and Karine Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes* (Paris: CNRS, 2012), 191–200 (p. 194).

²³ Carlos Palombini, 'Technology and Pierre Schaeffer: Pierre Schaeffer's *Arts-Relais*, Walter Benjamin's *technische Reproduzierbarkeit* and Martin Heidegger's *Ge-stell*', *Organised Sound*, 3 (1998), 35–43; cf. Palombini, 'Dans un bureau à Marseille, un jeune ingénieur rêve', in Schaeffer, *Essai sur la radio et le cinéma: Esthétique et technique des arts-relais 1941–1942*, ed. by Sophie Brunet and Carlos Palombini (Paris: Allia, 2010), 63–111 (pp. 69–70).

²⁴ cf. Valiquet, 'Review: Pierre Schaeffer, *In Search of a Concrete Music*, trans. Christine North and John Dack; Brian Kane, *Sound Unseen: Acousmatic Sound in Theory and Practice*', *Twentieth-Century Music*, 12 (2015), 285–90 (pp. 289–90).

one that differs significantly from those that came to prevail among post-war French intellectuals, generates a different conception of *musique concrète*.

While Schaeffer's commitments and associations in the 1930s and early 1940s have been treated in a range of publications by Philip Nord, Jane F. Fulcher and others, their significance to *musique concrète* has not been thoroughly considered.²⁵ *Musique concrète* is not absent from Nord's arguments, but Schaeffer serves as a case study for his wider claims about the significance of the Vichy period as a mediator, rather than an aberration, between the cultural politics of the 1930s and the post-Liberation order. Meanwhile, Fulcher's identification of continuities between the 1930s and the late 1940s relies on evaluating Schaeffer's artistic endeavours as significantly more politically and aesthetically radical than seems reasonable, and her argument leaves *musique concrète* fundamentally unchanged.

Like Fulcher, Alexander Stalarow emphasises the continuities between Schaeffer's radio work in the mid-1940s and *musique concrète* in fruitful ways.²⁶ Stalarow's dissertation is the most detailed anglophone account of Schaeffer's background prior to *musique concrète* in existence, and, in part as a consequence of this fact, his readings of the early works of *musique concrète* are unusually rich. The attention to Schaeffer's radio works allows *musique concrète* to appear as a gradual emanation from radiophonic experiments rather than an avant-gardist break from music, as well as justifying Stalarow's insistence on hearing the recordings that compose the pieces as implicated in conventional and everyday ways of hearing recorded sound.

²⁵ Philip Nord, 'Pierre Schaeffer and Jeune France: Cultural Politics in the Vichy Years', *French Historical Studies*, 30 (2007), 685–709; Nord, *France's New Deal: From the Thirties to the Postwar Era* (Princeton: Princeton University Press, 2010); Jane F. Fulcher, 'From "the Voice of the Maréchal" to *Musique Concrète*: Pierre Schaeffer and the Case for Cultural History', in Fulcher (ed.), *The Oxford Handbook of the New Cultural History of Music* (Oxford: Oxford University Press, 2011), 381–402; Fulcher, *Renegotiating French Identity: Musical Culture and Creativity in France during Vichy and the German Occupation* (Oxford: Oxford University Press, 2019), 125–77.

²⁶ Alexander Stalarow, 'Listening to a Liberated Paris: Pierre Schaeffer Experiments with Radio' (unpublished doctoral dissertation, University of California, 2016).

As Stalarow's history implies, the assumption that *musique concrète* emerges from a lineage of musical avant-gardism stretching from Arnold Schoenberg, Igor Stravinsky or Edgar Varèse to Karlheinz Stockhausen and John Cage has little basis in Schaeffer's biography. Prior to *musique concrète*, Schaeffer's musical energies had been devoted primarily to the rousing folkloric music associated with the Catholic youth movements, some distance from the shocking novelty of the avant-garde.²⁷ Like Stalarow, though perhaps more emphatically, the arguments advanced in the chapters that follow are guided by an overarching claim that musical history and musical aesthetics do not necessarily provide the most effective framework for understanding *musique concrète*.²⁸

In the last decade a cluster of publications have transformed the conditions for the anglophone study of *musique concrète*. The translation by Christine North and John Dack of the two books of Schaeffer's most concerned with music and *musique concrète*, *In Search of a Concrete Music* (2012) and *Treatise on Musical Objects* (2017), has made these texts significantly more accessible to readers of English. Nevertheless, while the translators lament the failure of existing scholarship 'to situate [Schaeffer's] complex and subtle theoretical system within the broader sweep of the history of ideas', they do little to remedy that state of affairs. It is also apparent from the introductions to both texts that Dack and North are concerned to rescue Schaeffer from the condescension of anglophone history and to encourage a re-evaluation such that he can assume his rightful place in the music theory pantheon.²⁹ This is also, as Patrick Valiquet suggests, an attempt to rescue Schaeffer *for* a certain form of post-Schaefferian musical practice that has solidified

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²⁷ Fulcher, Renegotiating French Identity, 133–34.

²⁸ This in turn entails that some musical connections familiar to musicologists are at most incidental to my account. These include, for example, Paul Claudel's highly involved collaborations with Arthur Honegger, Darius Milhaud and others or Jacques Copeau's work with Igor Stravinsky and Georges Auric. On some of these connections, see Tamara Levitz, *Modernist Mysteries: Perséphone* (Oxford: Oxford University Press, 2012); Levitz (ed.), *Stravinsky and His World* (Princeton: Princeton University Press, 2013); Barbara L. Kelly, *Music and Ultra-Modernism in France: A Fragile Consensus*, 1913–1939 (Woodbridge: Boydell, 2013).

²⁹ Schaeffer, *In Search of a Concrete Music*, x–xi; Schaeffer, *Treatise on Musical Objects*, xxi; cf. Valiquet, 'Review: Pierre Schaeffer, *In Search of a Concrete Music*; Brian Kane, *Sound Unseen*'. That francophone accounts of post-war music are any kinder to Schaeffer does not seem immediately obvious.

around the GRM and in universities across the world, a practice towards which Schaeffer was at best ambivalent.³⁰

The characterisation of Schaeffer as an important philosophical precursor to the contemporary field of sound studies is widespread today; it is a connection made, for example, by both Kane and Drott in their endorsements of North and Dack's translation of the *Traité*.³¹ Indeed, it is on these terms that Kane engages Schaeffer in *Sound Unseen*, a publication that, alongside the new translations, has defined the minor field of anglophone writing on Schaeffer. Only the most committed historicist would begrudge the use of Schaeffer's writing as a resource for further critical thought, but a more sober conception of Schaeffer's relation to the field of philosophy than Dack's is necessary to account for the inconsistencies and loose interpretations in Schaeffer's writing. As Valiquet notes, the ease with which Kane dispatches the Traité is telling in this regard.32 To take just one example, I align Schaeffer's writing in the 1940s with a philosophical outlook that is broadly critical of Descartes's influence on the course of Western philosophy, and yet Schaeffer invokes Descartes in positive terms on a number of occasions in In Search of a Concrete Music. This goes some way towards explaining references or connections felt to be absent or occluded by later writers: Schaeffer does not fail to cite Merleau-Ponty or Heidegger in the interest of obscurity, but because their disciplinary mode was simply not his own.³³ As such, one of the differences in approach between this thesis and Kane's work is that this study does not seek consistency or unity in Schaeffer's thought, and my argument does not stand or fall on the robustness of his philosophical claims.

³⁰ Valiquet, 'Review: Pierre Schaeffer, *Treatise on Musical Objects: An Essay Across Disciplines*, trans. by Christine North and John Dack', *SoundEffects*, 8 (2019), 158–64.

³¹ A recent article in the journal *Sound Studies* describes Schaeffer as a '*foundational* sound studies scholar' (emphasis in original); Lisa Chinn, 'The aporia of the veil: the influence of Walter Benjamin's aura in contemporary sound studies', *Sound Studies*, 6 (2020), 2–13 (p. 3).

³² Valiquet, 'Review: Pierre Schaeffer, In Search of a Concrete Music; Brian Kane, Sound Unseen', 289-90.

³³ Schaeffer's scepticism towards post-war philosophy is evidenced in an article from 1946: Schaeffer, 'Contribution à la presence d'esprit', *Esprit*, 126 (1946), 349–65 (p. 357).

Kane is joined in his critical approach to Schaeffer's thought by Patrick Valiquet, and together they represent something of a break with the generally celebratory tone of the literature on Schaeffer and *musique concrète*. Valiquet situates Schaeffer's thought and pedagogy in the 1960s and 1970s within broader pedagogical and media-theoretical currents, characterising Schaeffer's work in that period as less an artistic endeavour than an attempt to theorise the social and perceptual ramifications of the mass media.³⁴ More broadly, sound studies in recent years has increasingly adopted a critical attitude that theorises the centrality of such concerns as race and empire to how sound and music have been thought and heard, and exhibits scepticism towards earlier claims for the inherently emancipatory promise of sound and listening.³⁵ (This is not to characterise all earlier writing as uncritical, but something of a "turn" is detectable.) It is within a landscape shaped by such work, which has rendered certain presuppositions untenable and certain questions unavoidable, that this thesis necessarily operates.

Finally, it is worth outlining at this point what this thesis does not do, and why that is the case. First, I identify the *musique concrète* project rather closely with Schaeffer as a historical figure. As such, Pierre Henry, with whom Schaeffer collaborated on the two extended early works of *musique concrète*, *Symphonie pour un homme seul* (1950) and *Orphée 53* (1953), plays a relatively minor role in this thesis. In the period covered by this thesis, Henry was in his early twenties and, by his own account, very much under Schaeffer's influence; it is no great overstatement to say that *musique concrète* as both a theory and practice was dominated by Schaeffer (who, in any case, had a tendency to

³⁴ Valiquet, 'Hearing the Music of Others'; Valiquet, 'Animating the Object'; Valiquet, "All Sounds Are Created Equal": Mediating Democracy in Acousmatic Education', in Eliot Bates and Samantha Bennett (eds.), *Critical Perspectives on the Production of Music and Sound* (New York: Bloomsbury, 2018), 123–37; Valiquet, 'Scoring the Listener: Notation and Representation in Acousmatic Music', in Emily Payne and Floris Schuiling (eds.), *Material Cultures of Music Notation* (New York: Routledge, forthcoming).

³⁵ A brief survey might include: Ana María Ochoa Gautier, *Aurality: Listening & Knowledge in Nineteenth-Century Colombia* (Durham: Duke University Press, 2014); Jennifer Lynn Stoever, *The Sonic Color Line: Race and the Cultural Politics of Listening* (New York: New York University Press, 2016); Ronald Radano and Tejumola Olaniyan (eds.), *Audible Empire: Music, Global Politics, Critique* (Durham: Duke University Press, 2016); Marie Thompson, 'Whiteness and the Ontological Turn in Sound Studies', *Parallax*, 23 (2017), 266–82; Nina Sun Eidsheim, *The Race of Sound: Listening, Timbre, and Vocality in African American Music* (Durham: Duke University Press, 2019); Dylan Robinson, *Hungry Listening: Resonant Theory for Indigenous Sound Studies* (Minneapolis: University of Minnesota Press, 2020).

dominate). Similarly, this thesis does not provide a detailed study of studio life as the site of collaboration between agents human and non-human after the model of, say, Jennifer Iverson's history of the Westdeutscher Rundfunk Studio für elektronische Musik or Georgina Born's study of the Institut de recherche et coordination acoustique/musique.³⁶ As a consequence, I devote little attention to questions of technology, least of all as something possessing agency divorced from human activity, and nor do technical assistants like Jacques Poullin figure prominently. Such absences are not necessarily guided by strongly held historiographical positions, though a presupposition of what follows is that the terms of engagement with particular technologies are shaped by practices and concepts that are culturally and historically determined, even as those practices might be transformed in their encounter with the changing affordances of different technologies.³⁷

Chapter Overview

This thesis makes three principal contributions to the existing literature on *musique concrète*. The first is historical, supplementing existing accounts of the preconditions of *musique concrète* with a detailed exposition of the political and social world from which Schaeffer emerged, drawing on sources rarely if ever cited in other histories. The second is an intellectual prehistory that attends to the "*concrète*" rather than the "*musique*" through which *musique concrète* is more frequently explained: in historicising the conception of the "concrete" on which Schaeffer draws, the thesis clarifies the conceptual underpinnings of Schaeffer's critical writing in the late 1940s and early 1950s. The third contribution is a novel reading of works that have come to be representative of *musique concrète* but that are difficult to reconcile with the received conception of the style's fundamental tenets.

³⁶ Jennifer Iverson, *Electronic Inspirations: Technologies of the Cold War Musical Avant-Garde* (Oxford: Oxford University Press, 2019); Georgina Born, *Rationalizing Culture: IRCAM, Boulez, and the Institutionalization of the Musical Avant-Garde* (Berkeley: University of California Press, 1995).

³⁷ cf. Kane, 'Relays: Audiotape, Material Affordances, and Cultural Practices', *Twentieth-Century Music*, 14 (2017), 65–75.

Chapter 1 presents a chronological account of Schaeffer's biography until the early 1950s, with a particular focus on the 1930s and early 1940s, a period that has been passed over by some and misrepresented by others, situating Schaeffer in relation to a series of organisations and milieux within the social and political world of 1930s Catholic activism. Through the Scouts de France, Éditions du Seuil and Jeune France, Schaeffer was part of a generation of young Catholics who reacted against a modernity in which they felt ill at ease, one characterised by an impotent liberalism that prized individualism, materialism and commerce over older values of faith, patriotism and the common good, resulting in a social order riven by conflicts. While for the most part they saw themselves as above the cut and thrust of political action, the fall of France and the Vichy regime that emerged from the armistice of June 1940 forced their hand somewhat. Indeed, many, Schaeffer included, leapt at the opportunity to forge a renewed, Catholic and socially conservative France as part of Marshal Pétain's National Revolution. Nevertheless, the aim of my account here is not the sensationalist one of revealing a scandalous past, but to historicise the ideas and preoccupations that went on to structure *musique concrète*. Needless to say, perhaps, this situates Schaeffer at some distance from figures like Antonin Artaud or Filippo Marinetti, and instead in closer proximity to Paul Claudel, Paul Valéry and Charles Péguy.38

Chapter 2 provides an overview of Schaeffer's writings and works from the early 1940s to the early 1950s, charting the consistent conception of the particular capacities of the radio that develops there. This allows Schaeffer's written account of *musique concrète* in various publications between 1950 and 1953 to be integrated into a broader set of concerns that animated discourses on the aesthetics of the radio and cinema in this period, as well as emphasising the continuities in practice between the sorts of exploratory broadcasts Schaeffer had developed in the mid-1940s and works of *musique concrète* such as *Cinq études de bruits* (1948), *Symphonie pour un homme seul* and *Orphée 53*.

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³⁸ Greg Hainge, *Noise Matters: Towards an Ontology of Noise* (London: Bloomsbury, 2013), 163; Schaeffer, *Machines à communiquer: Genèse des simulacres* (Paris: Seuil, 1970), 89.

These early chapters map the terrain on which the subsequent chapters move, allowing the intellectual prehistory of the "concrete" as well as the radiophonic practices out of which *musique concrète* developed to be charted. Thus, rather than merely contributing to an ever more fine-grained narrative of Schaeffer's early life and the creation of *musique concrète*, this history grounds the arguments of chapters 3 and 4, in which that history is deployed in the revision of the categories that guide existing histories. In a sense, then, that Schaeffer was associated with Catholic nonconformism in the 1930s and early 1940s, and that *musique concrète* was preceded by radiophonic experiments would not be news to the specialist histories cited above, but cognisance of these histories has had little effect on what *musique concrète* as either a theoretical proposition or an aesthetic practice is thought to have been.

The third chapter draws the historical account of chapter 1 into a revised intellectual history of the "concrete" in *musique concrète*. I argue that the terms on which the "concrete" was not only thought but accorded such significance were ones delimited by debates within Catholic philosophy in the 1920s and 1930s. Schaeffer's concern for the "concrete" was thus not a pure, theoretical commitment, but was inflected by a philosophical realism forged in the enthusiastic reception of phenomenology among interwar Catholic intellectuals. This illuminates the particular form that *musique concrète* as a theoretical claim took, from its insistence on the 'primacy of the ear' to the farreaching metaphysical significance granted to the concrete in *In Search of a Concrete Music*.

The excursus, serving as a pivot between the third and the final chapters, follows further meanings that the concrete would accrue in the post-war period, drawing out conceptual continuities between Schaeffer's administration of colonial radio in the mid-1950s and the works of *musique concrète* from the preceding years. Here, the concrete is thought to provide access to universal essences (an instantiation of the concrete not unrelated to that traced in chapter 3: this post-war universalism drew on Catholic thinkers significant to nonconformism). The invocation of the "primitive" in Schaeffer's writing and music thus serves to buttress the universalising rhetoric of *musique concrète*, figuring it as a neutral

As such, *musique concrète* participates in the logic of a colonial humanism, in which empire is conceived as another such neutral framework. Rather than simply being an intellectual history, however, these ideas are legible and worked through in *musique concrète* at the level of its formal procedures, gesturing towards the approach taken in this study's final chapter.

In that final chapter, I generate new readings of *musique concrète* by bringing the historicisation of the earlier chapters to bear on the aesthetic categories through which it is read. Historically, readings of music in the French electroacoustic tradition have had recourse to a framework developed—by François Delalande among others—from the uneasy combination of Schaeffer's typological classifications with a semiotic formalism borrowed from Jean-Jacques Nattiez.³⁹ Such frameworks, as they have been taken up and transformed by figures such as Denis Smalley and Stéphane Roy, have continued to presume the music's meaning to be present in the relations between absolute sounds referring only to one another.⁴⁰ Such a presumption is, of course, historical, and has as much to do with identifications of music with pure syntax that precede—and possess significantly wider currency than—Nattiez's writing on music (witness the classicising impulse of Smalley's essays, which anoint 'spectro-morphological thinking [...] the rightful heir of Western musical tradition').⁴¹

³⁹ François Delalande, 'L'analyse des musiques électroacoustiques', *Musique en Jeu*, 8 (1972), 50–56. The journal in which this essay appears, *Musique en Jeu*, is the journal most closely associated with the structuralist musicology of Nattiez and Nicolas Ruwet. Nattiez himself turned his attention to electroacoustic music at various points, publishing an analysis of Bernard Parmegiani's *De Natura Sonorum* (1975) in 1982, and discussing electroacoustic music at some length in *Music and Discourse*; Philippe Mion, Jean-Jacques Nattiez and Jean-Christophe Thomas, *L'Envers d'une œuvre*: <u>De Natura Sonorum</u> de Bernard Parmegiani (Paris: Buchet/Chastel, 1982); Jean-Jacques Nattiez, *Music and Discourse*: *Toward a Semiology of Music*, trans. by Carolyn Abbate (Princeton: Princeton University Press, 1990), 94–97.

⁴⁰ Smalley, 'Spectromorphology'; Stéphane Roy, *L'analyse des musiques électroacoustiques: Modèles et propositions* (Paris: L'Harmattan, 2003); Roy, 'Form and referential citation in a work by Francis Dhomont', trans. by Ned Bouhalassa, *Organised Sound*, 1 (1996), 29–41; cf. Rajmil Fischman, 'Analysis of *Crosstalk*, a work by Michael Vaughan', *Organised Sound*, 2 (1997), 225–51.

⁴¹ Smalley, 'Spectro-morphology and Structuring Processes', 93; cf. John Mowitt, *Text: The Genealogy of an Antidisciplinary Object* (Durham: Duke University Press, 1992), 178–79.

In emphasising the historicity of the categories through which *musique concrète* has been understood, my readings are, in ways that are worked through in the conclusion, not just alternatives but a critical riposte to those accounts that are oriented towards an immanent, self-grounding meaning, whether it be located in a positive and unproblematically legible structure or in unalloyed sensation.⁴² Such an orthodoxy can have peculiar consequences, as exemplified by analyses of Schaeffer's *Étude aux chemins de fer* (1948) or François Bayle's *L'oiseau moqueur* (1963) that painstakingly avoid the obvious unifying figure—the train and the mockingbird, respectively—in favour of a hybrid Schaefferian typological and semiological analysis.⁴³

Rather than merely acknowledging the radiophonic field from which *musique concrète* departs before proceeding to apply the criteria of autonomous instrumental music to describe the style, in chapter 4 the radiophonic precedent places pressure on the terms of engagement with the music. In a sense, this is to develop the reading practised by Stalarow, which is undertheorised but guided by the practical intuition that how *musique concrète* means is shaped by the signifying practices of the radio. Drawing on accounts of "atmosphere" in literary studies, I deploy this term to describe the particular ways in which the radio drama makes meaning from and about the spatial disjuncture and perceptual affordances of the radio. This attention to the radio drama also serves to reaffirm the uncoupling of acousmatic listening (listening in which the source is invisible) from reduced listening (listening for the "intrinsic" characteristics of a sound) on which Kane has insisted; indeed, the vast majority of the variegated production and listening practices of the radio depend on the relation between the two being contingent.

⁴² This is to echo criticisms of Nattiez made by Raymond Monelle and Robert Samuels; Raymond Monelle, *The Sense of Music: Semiotic Essays* (Princeton: Princeton University Press, 2000); Robert Samuels, *Mahler's Sixth Symphony: A Study in Musical Semiotics* (Cambridge: Cambridge University Press, 1995).

⁴³ Stace Constantinou, 'Étude Aux Chemins De Fer Analysis' (2011), Online Repository for Electroacoustic Music Analysis http://www.orema.dmu.ac.uk/analyses/stace-constantious-%C3%A9tude-aux-chemins-de-fer-analysis [accessed 3 February 2021]; Pierre Couprie, 'Three analysis models for L'oiseau moqueur, one of the *Trois rêves d'oiseau* by François Bayle', trans. by Claire Parker, *Organised Sound*, 4 (1999), 3–14.

If chapters 3 and 4 are concerned with *musique concrète* as theory and practice, respectively, the relationship between these aspects remains uncertain. In other words, this thesis does not presume *musique concrète* to have been a unified field in which theory and practice mapped perfectly onto one another. The music that was created between 1948 and 1953 was not an application of ideas set out in *In Search of a Concrete Music*, and, as argued more fully in chapter 4, the function of that book is in part a narrativisation that transforms Schaeffer's experiments, grounded in the aesthetics and techniques of the radio play, into something more conventionally "musical".

1. Pierre Schaeffer: A Critical Biography, 1931–53

Relatively few published accounts of Pierre Schaeffer's work and ideas provide much detail as to his formative years prior to the development of *musique concrète*. In English, there is the work of Jane Fulcher and Philip Nord, and the as yet unpublished work of Alexander Stalarow, while in French there is an overview by Karine Le Bail and Martin Kaltenecker and Martial Robert's three-volume quasi-biography, along with Schaeffer's own haphazard and idiosyncratic autobiographical writing. In part, then, this chapter seeks to enrich those existing accounts, particularly with regard to Schaeffer's milieu in the 1930s. But this is not a 'life and works' history so much as a history of a set of intellectual coordinates, the conversions and transformations of an ideological formation and its structuring oppositions. As such, this account will not be concerned with personal tragedies or joys, so much as with historicising the conceptions of history, experience, the abstract and the concrete on which *musique concrète* rested.

Perhaps the most significant biographical particulars in Schaeffer's early life were that he was a committed Catholic who grew up in a provincial bourgeois family in the years following the First World War. Born in 1910 near Nancy, Schaeffer's young adulthood was framed by one of the most turbulent periods in twentieth-century French history; how he negotiated this period—his political and cultural commitments, decisions and personal relationships—can be illuminated by this précis. The short-term crises of the early twentieth century were frequently plotted within a broader narrative of long-term cultural decline, extending from the start of the Third Republic for some, from the French Revolution for others, and from the Renaissance for yet others.²

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¹ Fulcher, 'From "the Voice of the Maréchal" to Musique Concrète'; Fulcher, Renegotiating French Identity, 125–77; Nord, France's New Deal; Stalarow, 'Listening to a Liberated Paris; Kaltenecker and Karine Le Bail, 'Jalons', in Kaltenecker and Le Bail (eds.), Pierre Schaeffer: Les Constructions impatientes, 9–65; Martial Robert, Pierre Schaeffer: des Transmissions à Orphée: Communication et Musique en France entre 1936 et 1986 (Paris: L'Harmattan, 1999); Schaeffer, Les Enfants de cœur (Paris: Seuil, 1949); Schaeffer, Les Antennes de Jéricho (Paris: Stock, 1978); Schaeffer, Prélude choral et fugue (Paris: Flammarion, 1983).

² John Hellman, The Communitarian Third Way: Alexandre Marc's Ordre Nouveau, 1930–2000 (Montreal: McGill-Queen's University Press, 2002), 3; Hellman, The Knight-Monks of Vichy France:

The characterisation of World War I as either the result or the cause—in any case, the expression—of a crisis in Western culture loomed large in the decades that followed the conflict's end. In 1919, Paul Valéry had diagnosed a 'crisis of the mind' in Europe, and the spectre of atheistic communism at home and abroad provided further cause for alarm.³ By the time the shockwaves from the Wall Street Crash reached France in the early 1930s, the stage was set for a radical polarisation between left and right which found early expression in the deadly rioting of 6 February 1934. In 1936, faced with the rising tide of fascism both domestically (on the left it was feared that the 1934 riots had been an abortive coup attempt) and internationally, France elected the Popular Front government, a leftwing coalition including Socialists, Communists and Radicals, led by Léon Blum. The government quickly ran into difficulties in the form of capital flight, labour disputes and vociferous and violent opposition from the far right, and by the summer of 1937 Blum had resigned. Foreign policy presented further insurmountable difficulties to the Popular Front government, which quickly backed down on its commitment to aid the Spanish Republic against Franco's fascists, and proved indecisive with regard to the increasing aggression of Hitler's regime, caught between its dual commitments to anti-fascism and pacifism.4

Jean-Louis Loubet del Bayle portrays the 1930s as a period of renewed scepticism towards the principles of reason and progress, principles already shaken in the intellectual fallout of the First World War and characterised by the recurring theme of a 'civilisation crushed by its own products, man mechanised by his machines, the individual absorbed by the

Uriage, 1940–45 (Montreal: McGill-Queen's University Press, 1997), xiii; Emmanuel Mounier, 'Refaire la renaissance', *Esprit*, 1 (1932), 5–51.

³ Paul Valéry, 'The Crisis of the Mind' [1919], in *The Outlook for Intelligence*, trans. by Denise Folliot and Jackson Mathews (Princeton: Princeton University Press, 1989), 23–36. Cf. Marc Bloch's assessment of the interwar generation from the vantage point of the 'strange defeat' of 1940; Marc Bloch, *Strange Defeat: A Statement of Evidence Written in 1940*, trans. by Gerard Hopkins (New York: W. W. Norton, 1968 [1946]), 126–76.

⁴ Julian Jackson, *The Popular Front in France: Defending democracy, 1934–38* (Cambridge: Cambridge University Press, 1988), 7–13 & 210. Schaeffer's sarcastic reference in 1978 to the 'People's Commissar of the Popular Front' gives a sense of his attitude to Blum's government; Schaeffer, *Les Antennes de Jéricho*, 101.

mass'.5 Not unrelatedly, this was a turbulent period for the Catholic Church in France, a Catholic Church on the defensive in the face of the prevailing anticlericalism of the Third Republic (exemplified by the 1905 law on the Separation of Church and State), the threat of communism, and the perceived moral decay caused by the industrialisation and urbanisation of the French economy. The ennui of Georges Bernanos's country priest, and his dissatisfaction with 'a decaying Christianity', incapable of responding adequately to France's social and intellectual needs, is to be read as symptomatic of a prevailing disorder: a Church relegated to the margins of society, irrelevant to the lives of the working classes, regarded in utilitarian terms by the bourgeoisie.6

To meet these challenges, the Church made a renewed commitment to social justice, between Leo XIII's *Rerum Novarum* (1891) and Pius XI's *Quadregesimo anno* (1931).⁷ A French Catholic "Renaissance" beginning towards the end of the nineteenth century had laid the foundations for a renewal of Catholic thought and activism in the interwar decades: John Hellman lists, among others, Jacques Maritain, Paul Claudel and Charles Péguy as the leading lights in this renaissance.⁸ In varied ways, these figures all espoused an anti-modern philosophy founded on a renewal of the traditions and culture of an idealised Catholic France of the Middle Ages. In theory, this entailed a revival of Thomist theology (often, for Maritain, in dialogue with Henri Bergson) and a denunciation of contemporary "materialism"; in practice, it entailed missions to proletarian suburbs, preaching a message of a class reconciliation to counter that of class struggle preached by the left, and reviving an organic French community that, they felt, had been in decline since the Renaissance.⁹

⁵ Jean-Louis Loubet del Bayle, *Les non-conformistes des années 30: une tentative de renouvellement de la pensée politique française* (Paris: Seuil, 1969), 21.

⁶ Georges Bernanos, *Diary of a Country Priest*, trans. Howard Curtis (London: Penguin Classics, 2019 [1936]), 4.

⁷ Kaltenecker and Le Bail, 'Jalons', 16; Schaeffer, Les Antennes de Jéricho, 151.

⁸ Hellman, *The Knight-Monks of Vichy France*, 3–4. Péguy, of course, was an early casualty of the First World War, though he casts a long shadow over interwar Catholic thought.

⁹ Ibid., 3–7; Susan B. Whitney, *Mobilizing Youth: Communists and Catholics in Interwar France* (Durham, NC: Duke University Press, 2009), 82–3; cf. Pierre Lhande, *Le Christ dans la banlieue: enquête sur la vie religieuse dans les milieux ouvriers de la banlieue de Paris* (Paris: Plon, 1927); Jacques Maritain, *Art and Scholasticism, with other essays*, trans. by J. F. Scanlan (London: Sheed & Ward, 1943 [1920]), 37.

It is against this background that Schaeffer and his milieu developed their political and cultural preoccupations in the 1930s and early 1940s. Simone de Beauvoir, whose early social and religious commitments mirror Schaeffer's own describes her worldview in terms he would have recognised:

Bourgeois like myself, they too felt ill at ease and out of place. The war had destroyed their security without freeing them from the trammels of class distinction; they were in revolt, but only against their parents, their family, and tradition. [...] Rejecting all clichés and commonplaces, they disdainfully refused to accept the wisdom of their elders whose failure they had witnessed, but did not attempt to find another to take its place; they preferred to insist that one should never be satisfied with anything: theirs was a worship of disquiet.¹⁰

The present chapter follows this 'worship of disquiet' through a series of organisations and milieux with which Schaeffer was involved between 1931 and 1953: the Catholic scouting movement; the "nonconformist" milieu of Éditions du Seuil; Jeune France, the Vichy cultural initiative headed by Schaeffer; the Studio d'Essai and the Groupe de Recherche de la Musique Concrète (GRMC).

Some initial caveats about Schaeffer's politics and the reading of them that is advanced in this thesis are in order at this early juncture. The extent of Schaeffer's commitment to the far right politics of the Vichy regime has been debated in English by Nord and Fulcher, the former characterising Schaeffer and his associates as 'fellow travelers' of an authoritarian nationalism, the latter reading for crypto-résistant undertones in a Vichysponsored pageant representing the life of Joan of Arc. Some of Fulcher's claims are inferred from a mistaken conceptualisation of Schaeffer's political background in the 1930s as Christian democratic, a conclusion which is never really supported, and one the workings of which it is difficult to trace. Certainly, some of the figures with whom Schaeffer shared a worldview would go on to espouse something like a Christian democratic politics in the post-war period (Emmanuel Mounier and Alexandre Marc being perhaps the most clear examples), but, as Zeev Sternhell, John Hellman and Loubet

¹⁰ Simone de Beauvoir, *Memoirs of a Dutiful Daughter*, trans. by James Kirkup (London: Penguin, 1987 [1958]), 194.

¹¹ Nord, 'Pierre Schaeffer and Jeune France', 694; Fulcher, Renegotiating French Identity, 157–59.

del Bayle, among others, have argued, in the 1930s these were figures with much clearer leanings to the far right and little fondness for liberal democracy.¹² Indeed, Fulcher frequently takes Schaeffer and his milieu at their word, accepting Schaeffer's suggestion that 'by the beginning of 1942 they were all, in effect, résistant' and taking at face value the rhetoric of 'neither right nor left' that Sternhell's landmark study so thoroughly dismantles.¹³

Regardless—and the nature of Schaeffer's ideological commitments and political practice will become clearer in what follows—the point here is not so much to unveil a scandalous secret at the heart of *musique concrète* as to historicise Schaeffer's thought such that his concepts and works can be situated within the fraught political and cultural context that produced them, and to track their transformations and revaluations in the years following Liberation. To do this, however, a degree of honesty is required, and here Fulcher's excessively reparative reading falters: it would probably not be fair to describe Schaeffer as a fascist, but in the 1930s and early 1940s his politics, while generally maintaining a sceptical and aloof distance from everyday political antagonisms, tended towards the far right. He was an enthusiastic Vichyite for the first eighteen months of the regime at the least, and his theatrical and radio experiments in the early 1940s were not secretly subverting Vichy propaganda: sometimes a cigar is just a cigar; sometimes what looks like

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¹² Zeev Sternhell, *Neither Right Nor Left: Fascist Ideology in France*, trans. by David Maisel (Princeton: Princeton University Press, 1986); Hellman, *The Knight-Monks of Vichy France*; Hellman, *The Communitarian Third Way*; Loubet del Bayle, *Les non-conformistes des années 30*. See Jean-Claude Delbreil, 'Christian Democracy and Centrism: The Popular Democratic Party in France', in Wolfram Kaiser and Helmut Wohnout (eds.), *Political Catholicism in Europe 1918–45* (London: Routledge, 2004), 95–110, for an overview of the Parti démocratic populaire in the interwar years. Delbreil comments that the 'democratic personalism' of the PDP was explicitly articulated against Mounier's 'revolutionary personalism'. Fulcher notes that Marc's journal *Ordre Nouveau* was 'militantly antidemocratic' without acknowledging that in the 1930s Schaeffer had as much if not more in common with that journal than with Mounier's *Esprit*; Fulcher, *Renegotiating French Identity*, 141. While it is beyond the scope of this historical survey, the grain of truth in Fulcher's account is that there are uncomfortable continuities between the pre-war far right and post-war Christian democracy and European federalism, one enduring article of faith being a vehement anti-communism.

¹³ Fulcher, Renegotiating French Identity, 158 & 382.

a nationalist mass spectacle with logistical support from the army of an authoritarian and racist regime is just that.¹⁴

The Spiritual Reconstruction of the Nation: Schaeffer and Catholic Youth Movements

Schaeffer arrived in Paris to study at the École Polytechnique in 1929. Finding himself, in his own account, alienated from the other students and from the institutional culture, which, he felt, offered an over-specialised and rationalist education, Schaeffer found respite, a 'second life, the true one', in the world of Catholic scouting, which was to shape his thinking and his personal relationships in the years that followed.¹⁵ Founded in 1920, the Scouts de France were symptomatic of, if not key players in, a drive to transform Catholic theology and practice throughout the interwar years, alongside such organisations as the Équipes sociales, founded in the same year by Robert Garric, and Jeunesse ouvrière chrétienne. These groups espoused and practised an activist, lay Catholic programme, concerned with cultivating a collective spirit that would overcome class divides with an accent on youth and physical exertion.¹⁶ In the words of John Hellman, they 'provided young people with values, an altruistic lifestyle, and sense of community and collective identity that afforded high-minded and self-righteous alternatives to the "self-indulgent" individualism of Republican France'.¹⁷

The elite section of the scouts of which Schaeffer was a member, the Rover or *Routier* scouts, was founded by Fathers Paul Doncœur and Marcel Forestier, the former a military chaplain during the First World War, who together promulgated a nationalist, mystical Catholic version of Robert Baden-Powell's Boy Scouts ('rethought in a Catholic and a French mode') inspired by the writing of Claudel and Péguy.¹⁸ Modelled in particular on

¹⁴ Fulcher's deployment of Homi Bhabha in support of her claim that Schaeffer's *Portique pour une fille de France* was crypto-*résistant* is more than a little troubling; Fulcher, *Renegotiating French Identity*, 155.

¹⁵ Schaeffer, *Clotaire Nicole* (Paris: Seuil, 1941 [1938]), 89 & 95; Kaltenecker and Le Bail, 'Jalons', 11 & 16; Schaeffer, *Les Antennes de Jéricho*, 150.

¹⁶ Nord, France's New Deal, 31-32.

¹⁷ Hellman, The Knight-Monks of Vichy France, 6.

¹⁸ Bernarde Comte, *Une Utopie combattante: L'École des cadres d'Uriage 1940–1942* (Paris: Fayard, 1991), 35; Philippe Laneyrie, *Les Scouts de France: L'évolution du mouvement des origines aux années 80* (Paris: CERF, 1985), 94; Paul Doncœur, 'La Reconstruction spirituelle du pays: Les Scouts de France', *Études*, 186 (1926), 527–48 (p. 533).

the German *Quickborn* youth movement, Doncœur envisaged the *Routiers* as a crusading elite nourished by 'the good soil and the blood of our race'. The *Routiers* were to be at the forefront of a 'spiritual reconstruction of the nation' in the face of secularism, materialism and liberal-democratic ideology.¹⁹ To these ends, the *Routiers* set out on hiking trips that sought to reconnect with the French landscape and its traditions, singing revived folk songs and putting on neo-medieval mystery plays.²⁰

For the young Schaeffer, the figures of Claudel and Péguy were like 'Church Fathers', shaping what it meant to be a Catholic in modern France.²¹ While Péguy in particular was a complex figure—a Dreyfusard, opponent of anti-Semitism and socialist but also an anti-modern nationalist—their writing served as a touchstone for a particular articulation of a nationalist, Romantic anti-capitalist and Catholic ideology that saw a solution to the woes of modernity, and in particular of a decadent Third Republic, in a renewal of an ancient and Christian France.²²

In 1931, Schaeffer founded a *Routier* clan, the Clan des Rois Mages, while at the École Polytechnique.²³ Together, this group of idealistic young men experienced the 'splendour of nights on the mountain, but also misery of dismal suburbs, of a "world without soul"; the enchantment of art, music, hidden treasures of human culture, as well as humble everyday work, professional valour, social service'.²⁴ The chaplain to the unit was Eugène Joly, through whom Schaeffer encountered the work of Péguy, whose religious plays in

¹⁹ Doncœur, 'La Reconstruction spirituelle du pays: Les Scouts de France', 533; Doncœur, 'Aux écoutes de l'Allemagne qui vient: II – La nouvelle Jeunesse Catholique Allemande', *Études*, 173 (1922), 662–83; Laneyrie, *Les Scouts de France*, 135–36; Comte, *Une Utopie combattante*, 35.

²⁰ Laneyrie, *Les Scouts de France*, 133; Doncœur, 'Les Chansons Populaires des provinces de France: Une résurrection des vieilles traditions du pays', *Études*, 188 (1926), 680–88; Schaeffer, 'Promenade en France', *Études*, 235 (1938), 433–50.

²¹ Schaeffer, *L'Avenir à reculons* (Tournai: Casterman, 1970), 94; Paul Claudel, *Une visite à Brangues: Conversation entre Paul Claudel, Jacques Madaule et Pierre Schaeffer. Brangues, dimanche 27 février 1944* (Paris: Gallimard, 2005), 17.

²² David Carroll, *French Literary Fascism: Nationalism, Anti-Semitism, and the Ideology of Culture* (Princeton: Princeton University Press, 1995), 43–47; Schaeffer, *Clotaire Nicole* (Paris: Seuil, 1946 [revision of 1938 edition]), 69–74.

²³ Kaltenecker, 'Résonances théologiques de l'écoute chez Pierre Schaeffer', *Droits de cités*, 4 (2010), http://droitdecites.org/2010/10/15/kaltenecker/> [accessed 5 November 2017].

²⁴ Schaeffer, Clotaire Nicole (Paris: Seuil, 1941 [1938]), 114.

particular would influence Schaeffer in the following twenty years, and the philosophy of Teilhard de Chardin, a philosophy that combined Bergson, Darwin and Jesuit mysticism in a belief in the 'spiritual power of matter'.²⁵

Schaeffer's earliest published writings were in the *Revue des Jeunes*, a journal associated with various Catholic youth movements and directed by Forestier (from 1936, chaplaingeneral to the Scouts de France) and Robert Garric of the Équipes sociales. Bernarde Comte characterises the journal's rhetoric as straightforwardly reactionary, remarking that 'the word "democracy" is not familiar to the review's collaborators, who more readily employ those of France, nation, city [*Cité*], community'. From the end of 1933, the Clan des Rois Mages, led by Schaeffer, contributed a supplement to the *Revue des Jeunes*, titled—in reference to the Magi after whom the clan was named—*L'Étoile filante*. In the first issue, Schaeffer declared the clan's intellectual mission: 'rediscovering the living personality of Christ, making him one's Master, renewing, with the enthusiasm which we envy the first Christians, the traditions of simplicity, poverty, community, mutual aid'. *L'Étoile filante* promised to provide 'clear responses to the concerns that surround us...: a dissatisfied individualism, an unjust city, a materialist civilisation, a world without peace and "without soul". Soul "1000 peace" and "without soul".

One of Schaeffer's creative endeavours in this period was writing plays for scout troops. Plays had been a feature of the scouting of Baden-Powell, but from the late 1920s they took on a particular centrality among the Scouts de France.³⁰ The dramatist Léon Chancerel had founded a troop of Comédiens-Routiers in 1929, modelled on Jacques Copeau's programme of theatrical reform.³¹ Copeau, particularly at the Théâtre du Vieux-

²⁵ Kaltenecker and Le Bail, 'Jalons', 16. It perhaps goes without saying that Teilhard's heterodox scientific theology was proscribed by the Vatican.

²⁶ Schaeffer, 'Mystère des Rois Mages', *La Revue des Jeunes*, 24 (1933), 1103–1141; Schaeffer, 'Lagny', *La Revue des Jeunes*, 25 (1934), 3–11; Schaeffer, 'Des ondes ou des chansons?', *La Revue des Jeunes*, 25 (1934), 861–65; Hellman, *The Knight-Monks of Vichy France*, 16; Nord, *France's New Deal*, 264.

²⁷ Comte, Une Utopie combattante, 38.

²⁸ Kaltenecker and Le Bail, 'Jalons', 16.

²⁹ Routiers de l'X, 'L'Étoile filante', *La Revue des Jeunes*, 24 (1933), 1456-77 (p. 1457).

³⁰ Maryline Romain, *Léon Chancerel: Un réformateur du théâtre français* (Lausanne: L'Âge d'homme, 2005), 143.

³¹ Nord, France's New Deal, 226-27.

Colombier, a theatre he founded in 1913, sought to renew dramatic art by returning to the models of ancient Greek theatre and medieval mystery plays, calling for a sincere theatre in opposition to the bourgeois, verbose, realist and commercially-minded theatre of the boulevards.³² As such, the "Copiau" style of theatre was interested in the body, gymnastics and improvisation as much as a text, and frequently made use of mime, stylised gestures and masks. It was concerns such as these, with their ecclesiastical resonances brought to the fore, that defined the parameters of the theatrical aesthetics of the Comédien-Routiers and its adjacent units.

The ideological commitments as well as the pared back means—unadorned stages and a predilection for the amateur—of this theatrical aesthetic aligned happily with the ethos of the *Routiers*, and the Comédiens-Routiers enjoyed a certain level of popularity through the 1930s.³³ Before writing his own plays, Schaeffer had attended Chancerel's Centre d'études et de représentations théâtrales scoutes between 1932 and 1933.³⁴ Schaeffer's first mystery play, *Mystère des rois mages*, was published in the pages of the *Revue des Jeunes* in 1933, and performed in the same year by the Clan Epiphany. In his introduction to the play, Schaeffer sets out his commitment to the theatrical aesthetics of Chancerel and the Comédiens-Routiers: 'This is neither literature', he writes, 'nor reconstruction'; 'the difficulty of playing is none other than the difficulty of living'.³⁵ Indeed, Chancerel himself singled the piece out for praise as a significant representative of a 'theatrical renaissance'.³⁶ (In an example of the sort of casual anti-Semitism that was to appear in Schaeffer's later play *Tobie*, as well as in Chancerel's plays, the play features a caricature Jew with 'characteristic facies, large beard, an unmistakable accent'—'such an accent that it is incomprehensible'.)³⁷

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³² Romain, Léon Chancerel, 15 & 163.

³³ Ibid., 144.

³⁴ Ibid., 245; see Schaeffer, *Les Enfants de cœur*, 137–45 for Schaeffer's scantly fictionalised account of the sessions

³⁵ Schaeffer, 'Mystère des Rois Mages', 1103.

³⁶ Léon Chancerel, 'Vers une renaissance théâtrale', Études, 220 (1934), 795-806 (p. 806).

³⁷ Schaeffer, 'Mystère des Rois Mages', 1133; Romain, Léon Chancerel, 196.

Schaeffer was to write a number of further plays for performance by scout troops in the years that followed, including *La Belle est au jardin d'Amour* in 1935 and *Le Jeu du pain et du vin* in 1936, both of which borrowed scenarios and songs from Paul Doncœur's edited collection of traditional French songs.³⁸ In 1936, Schaeffer also composed a dramatic work for a commemoration at the tomb of Péguy, to be performed by the *Cadets*, a youth movement founded by Doncœur prior to his involvement with the *Routiers*.³⁹ Here, whatever his own professed anti-militarism, Schaeffer appears rather more in line with the politics of the traditionalist French Catholic right of Doncœur and his generation.⁴⁰ The performers declaim lines of Péguy's such as 'Happy are those who died for the carnal earth' (the line is taken from the 1913 poem *Eve*), denouncing 'a profound and violent French decadence, a profound disintegration of the race' and expressing a desire to save the nation through a revolutionary restoration of the Middle Ages.⁴¹ The ambivalence of Péguy's thought is difficult to detect here, and instead Péguy appears as a father figure to a reactionary project consonant with contemporary ideological formations such as the 'national socialism' of Thierry Maulnier.⁴²

Having spent two years in Strasbourg working as an engineer for the state telecommunications administrator, Schaeffer returned to Paris in 1936.⁴³ In 1937, Schaeffer set about establishing his own theatrical troop, publishing a call in the pages of *La Revue des Jeunes*.⁴⁴ This troop, which he named the Compagnie de l'Arc en ciel, shared with his previous theatrical endeavours a conception of amateur theatre developed along

³⁸ Schaeffer, 'La Belle est au jardin d'Amour', *La Revue des Jeunes*, 26 (1935), 393–400; Schaeffer, 'Jeu du Pain et du Vin', *l'Étoile filante*, 25 (1936), 264–84; Chantal Meyer-Plantureux, 'Le Théâtre de Pierre Schaeffer dans l'entre-deux-guerres', in Kaltenecker and Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes*, 69–75 (p. 71).

³⁹ Schaeffer, 1914–1936: Commémoration de Charles Péguy (Paris: La Revue des Jeunes, 1936); Comte, Une Utopie combattante, 34.

⁴⁰ Schaeffer, Clotaire Nicole (Paris: Seuil, 1941 [1938]), 120.

⁴¹ Schaeffer, 1914-1936, 14-29.

⁴² For Péguy's ambivalence and his decidedly unambivalent reception among the French right of the 1930s, see Carroll, *French Literary Fascism*, 43–58; for Maulnier's articulation of a 'national socialism', see Sternhell, *Neither Right nor Left*, 228–45.

⁴³ Schaeffer, *Les Antennes de Jéricho*, 92–115. Schaeffer's scouting comrades mournfully announced his departure in *l'Étoile filante*, describing it as a 'hard blow for the reputation of the Clan'; *l'Étoile filante*, 13 (1934), 725–43 (p. 740); *l'Étoile filante*, 14 (1935), 134–44 (p. 139).

⁴⁴ Schaeffer, 'Appel', La Revue des Jeunes, 28 (1937), 211-15.

"Copiau" lines by Chancerel and the Comédiens-Routiers: 'theatre', as Chantal Meyer-Plantureux puts it, 'considered as a source of "regeneration" for a sick society, theatre making a point of honour of realising works and an art of the people, a theatre, finally, which attempts to rediscover its original purity and simplicity'. The group's high point was a series of performances of Schaeffer's *Tobie* in 1939, which continued the Péguyian quest to remake France. While the work, not least in regard to the involvement of Jewish scouts in its performance, was received by some as an emblem of Judeo-Christian friendship, its anachronistic transposal of the Biblical tale of Tobit to contemporary France involves casting the Hebrews who have aligned themselves with a pagan establishment as supplicating, cringing Jewish caricatures, including a 'Jewish American banker' who declares that 'Il est brofidable à Israel d'oguper de demps en demps une terre d'exil; cela bermet le développement du gommerce et l'exdension des relations indernationales' (translation of which I leave to the reader). The work's political message is a straightforward one, following Tobias as he denounces the commercialist established order that has abandoned the true faith and awaits an apocalyptic renewal.

The Established Disorder: Schaeffer and Nonconformism

While Schaeffer took a great deal from the thinking of Doncœur and Forestier—a number of his plays are dedicated to them and an essay of Schaeffer's was published in *Études*, the journal Doncœur edited, while Forestier wrote a preface to Schaeffer's *Clotaire Nicole*— Schaeffer and his contemporaries saw themselves as members of a younger generation that needed to move beyond their elders' old-fashioned monarchism and militarism, particularly in the increasingly fraught political climate of France after the clashes of February 1934.⁴⁷ *Clotaire Nicole*, Schaeffer's lyrical account of the Clan des Rois Mages and homage to its co-founder, early portions of which had been published by Robert Garric's *Revue des Jeunes*, was published in 1938 by Éditions du Seuil.⁴⁸ This publishing

⁴⁵ Meyer-Plantureux, 'Le Théâtre de Pierre Schaeffer dans l'entre-deux-guerres', 72–73.

⁴⁶ Schaeffer, *Tobie*, *d'après la Bible* (Paris: Seuil, 1939), 25 & 32.

⁴⁷ Comte, *Une Utopie combattante*, 41; Schaeffer, *Les Enfants de cœur*, 188; Schaeffer gives an account of his close personal relationship with Doncœur, who appears as 'Diamant', in *Les Enfants de cœur*, 165–71.

⁴⁸ Nord, France's New Deal, 263.

house, through which the majority of Schaeffer's books appeared, is situated by Jean-Yves Mollier between the Scouts de France, the Équipes sociales and the Catholic revival's orientation towards the working class. Indeed, Schaeffer's was one of a number of Seuil's scouting-related publications in the late 1930s and early 1940s including another scouting memoir, *Étoile au grand large* (1943), which was the publisher's greatest commercial success of the period.⁴⁹ As such, it offers a route into the nonconformist current of the 1930s and Schaeffer's place within it.

Founded by Henri Sjöberg in 1935, Seuil came into existence at the suggestion of Jean Plaquevent, a cleric associated with figures such as Jacques Maritain, and similarly concerned with a renaissance of Catholic thought and practice, oriented in particular towards Catholic youth. Éditions du Seuil was initially marked by the politics of the right: close relatives of Sjöberg's had been Action française members, while Paul Flamand, codirector with Jean Bardet from 1937, was close to Alexandre Marc's *Ordre Nouveau*, which espoused a political vision inspired by Nietzsche, Péguy and Georges Sorel. (Plaquevent was a spiritual mentor to Marc and when the latter was received into the Church in 1933 it was Plaquevent who officiated.) Nevertheless theirs was a politics that thought itself above the petty squabbles of left and right; in terms that would be picked up by later writers, Plaquevent speaks in 1931 of the necessity of 'rebuilding a French and Christian nation', in opposition to American rationalisation, Soviet communism and fascism alike. 2

⁴⁹ Jean-Yves Mollier, Édition, presse et pouvoir en France au XX^e siècle (Paris: Fayard, 2008), 159-60.

⁵⁰ Ibid., 156–60; Hellman, *The Communitarian Third Way*, 30. Action française was perhaps the most notorious movement of the pre-fascist French far right, emerging in the wake of the Dreyfus affair and expounding a monarchist, anti-Revolutionary and anti-Semitic politics. Andrew and Ungar suggest that one of the factors in the coalescing of nonconformism was the reconfiguration of the French right after the papal proscription of Action française in 1926. See Dudley Andrew and Steven Ungar, *Popular Front Paris and the Poetics of Culture* (Cambridge, MA: Belknap, 2005), 114.

⁵¹ Hellman, The Communitarian Third Way, 80.

⁵² Hervé Serry, "Une Vie Nouvelle" dans une France laïque? Pierre Schaeffer et les Éditions du Seuil', in Kaltenecker and Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes*, 77–85 (p. 78). A comparable political project has emerged in France in recent years, particularly in the wake of protests against same sex marriage, drawing on the thought of figures like Péguy and Emmanuel Mounier, along with more recent thinkers like Jacques Ellul and Guy Debord; see Pascale Tournier, *Le vieux monde est de retour: Enquête sur les nouveaux conservateurs* (Paris: Stock, 2018).

Schaeffer entered Flamand's orbit around 1937, both regularly attending the circle of the Société de Saint-Louis, a group of intellectuals that met at the headquarters of Éditions du Seuil on the Rue des Poitevins.53 It is in this period that Schaeffer's tangible political commitments begin to come into focus, articulating a Catholic communitarianism such as Marc had promoted in the Dominican newspapers *La Vie intellectuelle*, *Sept* and *Temps* présent, one that looked to the clerico-fascism of António de Oliveira Salazar and Francisco Franco as both an antidote to liberal democracy and a bulwark against "Hitlerism".54 Indeed, an article that Schaeffer wrote in 1938 for Études, a Jesuit journal which had been edited by Doncœur since 1922, had as its epigraph a quotation from Salazar.55 The Société de Saint-Louis envisaged a social and economic transformation achieved through a sort of long march through the institutions: committed young Catholics would enter the halls of power and steer the nation towards a more rural, corporatist economy.⁵⁶ In the same year, Schaeffer with Flamand and a number of scouting comrades founded a journal, Départ, published by Seuil.⁵⁷ This short-lived journal contained, for example, comparative surveys of the corporatism of the German, Italian and Portuguese regimes and articles on rural depopulation and public health, with a particular emphasis on birth-rate, marrying the rhetoric of Christian "personalism" with a technocratic vision of a new political and economic order.58 The initial cautious enthusiasm of the nonconformists for the National Socialist regime in Germany, however, had been reversed by the end of the 1930s.⁵⁹ In an article for *Départ*, titled 'Notes sur les

⁵³ Hellman, The Communitarian Third Way, 82; Comte, Une Utopie combattante, 41.

⁵⁴ Hellman, *The Communitarian Third Way*, 27; Serry, *Les Éditions du Seuil: 70 ans d'histoires* (Paris: Seuil/IMEC, 2008), 16–18; Paul Flamand, 'Le Portugal et la guerre: Paroles d'un chrétien', *Temps présent*, 10 November 1939.

⁵⁵ Laneyrie, Les Scouts de France, 135; Schaeffer, 'Promenade en France', 433.

⁵⁶ Serry, "Refaire une France chrétienne": l'abbé Jean Plaquevent, aux origins d'une maison d'édition laïque', in Annette Becker, Frédéric Gugelot and Denis Pelletier (eds.), *Écrire l'histoire du christianisme contemporain: autour de l'œuvre d'Étienne Fouilloux* (Paris: Karthala, 2013), 227–38 (p. 231); Eugène Primard, 'La Chronique ouverte: Une mise au point', *Sept*, 4 September 1936, p. 20.

⁵⁷ Hellman, The Knight-Monks of Vichy France, 18; Comte, Une Utopie combattante, 41.

⁵⁸ See, for example, 'Équipe "Corporatisme" and 'Ville - Campagne' in *Départ*, 3 (1939).

⁵⁹ In 1933, *Ordre Nouveau* had published a collective 'Letter to Adolf Hitler', which was for the most part an optimistic assessment of the regime's early days. Both *Ordre Nouveau* and *Esprit* devoted column inches to the exposition of Otto Strasser's "red-brown" left-wing Nazism; Sternhell, *Neither Right nor Left*,

Allemands', Schaeffer reported his impressions of Nazi Germany while on a professional trip: while he was impressed by German industry and organisation, he had little fondness for Hitler and his warmongering (nor, in all probability, for Nazi racial policy; Schaeffer's casual anti-Semitism differed significantly from that of Hitler's regime).⁶⁰

The broader current from which Schaeffer, Flamand and others drew their intellectual coordinates was that of nonconformism, a movement that emerged in the early 1930s.⁶¹ Nonconformism can be understood as a sort of intellectual counterpart to the renewal of Catholic practice represented by the Scouts de France and the Équipes sociales. These writers, Catholics for the most part with some prominent exceptions, were unified by a disdain for the désordre établi, as Emmanuel Mounier, founder of the nonconformist journal Esprit, put it throughout the 1930s, and in particular for a Third Republic perceived as decadent, diseased and impotent.⁶² As such, the nonconformists were opposed to liberal democracy, unfettered commerce (a criticism that in some corners of the nonconformist milieu assumed a sinister anti-Semitic hue) and a "materialist", individualist state of things. In response, figures such as Mounier espoused an elite-led revolution that looked back to the French anti-liberal (and by extension anti-Revolutionary) tradition while at the same time embracing a certain sort of modernity, as in the economic theories of the Belgian socialist-turned-quasi-fascist Henri de Man, a revolution that would reinvigorate the nation both spiritually and economically, along technocratic, 'Planist' lines.63

Though it was a loose grouping, Dudley Andrew and Steven Ungar pinpoint the compilation by Denis de Rougement (to whom Schaeffer fleetingly refers in *In Search of*

284–86; Hellman, *Emmanuel Mounier and the New Catholic Left, 1930–1950* (Toronto: University of Toronto Press, 1981), 56–58 & 77.

⁶⁰ Schaeffer, 'Notes sur les Allemands', *Départ*, 7 (1939). Claude Arrieu, who, amongst other collaborations, wrote the music for *La Coquille à planètes*, was Jewish; Alexandre Marc was a convert from Judaism, and Emmanuel Mounier was outspoken in his denunciation of anti-Semitism.

⁶¹ Both Serry and Mollier suggest a close proximity between Éditions du Seuil and *Esprit*, pointing to the groups' shared sense of a generalised crisis of civilisation and desire for religious reform; Serry, "Une Vie Nouvelle" dans une France laïque?', 78; Mollier, *Édition, presse et pouvoir en France au XX^e siècle*, 160.

⁶² Sternhell, Neither Right Nor Left, xv.

⁶³ Andrew and Ungar, *Popular Front Paris*, 112–13; Nord, *France's New Deal*, 31–32.

a Concrete Music) of the December 1932 issue of La Nouvelle Revue Française dedicated to young writers as a seminal moment. The contents page of the issue gives some sense of the political and aesthetic polyvalence of the nonconformist generation: Henri Lefebvre and Paul Nizan are present alongside the far-right essayist Thierry Maulnier; Francis Ponge and Henri Michaux are also included, as are Emmanuel Mounier and Boris de Schloezer (with whom Schaeffer would cross paths later in the 1940s).⁶⁴

As is probably clear from the preceding overview, nonconformists were often attracted in varying degrees to the fascist regimes of the 1930s. Indeed, from the perspective of Zeev Sternhell, perhaps their harshest critic, nonconformists were either proto-fascist or, at the very least, protagonists in an ideological battle against liberal democracy and the Third Republic that cleared the ground for the Vichy regime, such that in 1940 the ideals of the French Revolution found few willing defenders. While Mounier consistently opposed appeasement during the 1930s, expressed alarm at other nonconformist publications' enthusiasm for Hitler and emerged after the war as a more clearly-defined leftist, he nevertheless appears to have admired Mussolini's regime, and in 1935 travelled to the Institute of Fascist Culture in Rome, reporting back enthusiastically on the regime's youthful vigour. This ambivalence towards fascism goes some way to explain the relationship many of these intellectuals had to Vichy; while Mounier, for instance, took issue with Vichy's race laws, he certainly seems for the first year to have preferred Vichy's authoritarian nationalism to the liberal democracy that preceded it and to have relished the prospect of a national regeneration.

⁶⁴ Andrew and Ungar, *Popular Front Paris*, 93; Valiquet, 'Hearing the Music of Others', 268. In 1953 Schloezer chaired a debate that included Schaeffer and Boulez at the Première Décade Internationale de Musique Expérimentale. See 'La pensée et l'instrument', *La Revue Musicale*, 236 (1957), 128–34.

⁶⁵ Sternhell, *Neither Right Nor Left*, 273–74. This echoes Bloch's description of the elites in 1940, who 'were ready to find consolation in the thought that beneath the ruins of France a shameful regime might be crushed to death, and that if they yielded it was to a punishment meted out by Destiny to a guilty nation'; Bloch, *Strange Defeat*, 170.

⁶⁶ Loubet del Bayle, *Les non-conformistes des années 30*, 153; Andrew and Ungar, *Popular Front Paris*, 123–24; Sternhell, *Neither Right Nor Left*, 215–16.

⁶⁷ Sternhell, Neither Right Nor Left, 274.

Remaking France: Schaeffer at Vichy

Jeune France, the Vichy arts organisation established by Schaeffer in 1940, ties together a number of the strands traced above, crystallising these related tendencies into a coherent cultural and political project. Indeed, many of those involved in Jeune France saw Pétain's takeover as an opportunity to put into practice the ideas that had been fomenting for the last decade.⁶⁸ The enthusiasm with which many nonconformists welcomed the Vichy regime, which was authoritarian, nationalist and unequivocally racist from very early on, expresses to a certain extent the truth of the 'neither-right-nor-left' equivocation of the 1930s: these were figures with whom Pétain's promise of a regenerated, virile, socially-conservative and Catholic French nation resonated.⁶⁹

Having been demobilised in 1940 at the armistice, Schaeffer, aware that many of his youth movement associates were congregating around the new regime in Vichy, contacted the Secretary-General for Youth, Georges Lamirand, who shared with Schaeffer a background in scouting and the Équipes sociales.⁷⁰ At Vichy, where French National Radio had been relocated under the terms of the armistice, Schaeffer was appointed director of the department for "Radio and Spectacle Propaganda" at the Secretariat-General for Youth.⁷¹ Here, he quickly assembled a team to work on Radio-Jeunesse, a daily radio programme aimed at young people. Schaeffer was joined by Flamand, Albert Ollivier (an associate of Marc's *Ordre Nouveau*), Roger Leenhardt (film critic for *Esprit* and close to *Ordre Nouveau*—it was Mounier, in fact, who suggested that Leenhardt join Schaeffer) and Claude Roy (an Action française member), among others.⁷² In his account, published in

⁶⁸ Ibid., 274; 'Schaeffer, Pierre', *Esprit*, https://esprit.presse.fr/ressources/portraits/schaeffer-pierre-298 [accessed 7 May 2018].

⁶⁹ See Robert O. Paxton's now classic account, *Vichy France: Old Guard and New Order 1940–1944* (New York: Columbia University Press, 2001).

⁷⁰ Schaeffer, *Prélude choral et fugue*, 260 & 333–34; Nord, *France's New Deal*, 263–64. Also at the Secretariat-General for Youth was Pierre Goutet, a former *Routier* and a close friend of Schaeffer's who had worked alongside him at *Départ*; Romain, *Léon Chancerel*, 311.

⁷¹ Comte, *Une Utopie combattante*, 91. Prior to arriving in Vichy, Schaeffer stopped in Aix-en-Provence, where he met Alexandre Marc; Schaeffer, *Les Antennes de Jéricho*, 300–301; Schaeffer, *Prélude choral et fugue*, 99–102.

⁷² Roger Leenhardt, *Les Yeux ouverts: Entretiens avec Jean Lacouture* (Paris: Seuil, 1979), 33 and 119–20; Nord, *France's New Deal*, 264. The team also included a young Chris Marker, not yet using the name by

1969, by which time he had been an avowed communist for two decades, Roy describes it as a politically diverse 'surprising melting pot'.⁷³

In October 1940, Radio-Jeunesse broadcast a seven-part *Réponse des jeunes au message du maréchal* in an attempt to interpret and disseminate Pétain's message for a young listenership.⁷⁴ Drawing on the theatrical aesthetics—and personnel—of the scouts and the Comédiens-Routiers, these broadcasts consisted of declaimed commentary on speeches by the *maréchal* (voiced by the pianist Alfred Cortot) interspersed with choral singing and speaking choirs, following closely the format of Schaeffer's *Commémeration de Charles Péguy*.⁷⁵ The text of the broadcasts was published in November 1940 with a preface and afterword by Schaeffer, in which he called on French youth to join the effort to save the nation, concluding: 'We have suffered for too long from living among people who believed in nothing, neither in themselves, nor in the French, nor in France, nor in a God or an honour worth living and dying for. All that is finished. [...] *Monsieur le maréchal*, we say thank you'.⁷⁶

Not long after, in the autumn of 1940, Schaeffer approached Lamirand with an ambitious proposal for a large-scale arts organisation.⁷⁷ Jeune France, as the organisation was named, drew together many familiar faces from Vichy radio, including Flamand, Pierre Barbier, Roy, Ollivier and Daniel Lesur, who had been one third of the first Jeune France, inaugurated in 1936 with Olivier Messiaen and André Jolivet. Jeune France consisted of two main branches: one for the southern zone, based in Lyon and directed by Schaeffer, and the other for the occupied zone, based in Paris and directed by Flamand. Each branch supported smaller regional offices or Maisons Jeune France, including one in Toulouse

which he would become famous; Claude Roy, *Moi je* (Paris: Gallimard, 1969), 351; Bamchade Pourvali, 'Jeunesses de Chris Marker', *Vertigo*, 46 (2013), 7–14.

⁷³ Roy, *Moi je*, 350–51. Roy himself continued to write for *L'Action française* as late as April 1943, and was frequently named as a friend of the newspaper right through to 1944; Roy, 'Suite Française', *L'Action française*, 15 April 1943, p. 3.

⁷⁴ Radio Jeunesse, *Réponse des Jeunes au message du maréchal* (Paris: Sequana, 1940); Hélène Eck, 'À la recherche d'un art radiophonique', in Jean-Pierre Roux (ed.), *La Vie culturelle sous Vichy* (Brussels: Complexe, 1990), 269–92 (p. 284); Nord, *France's New Deal*, 304.

⁷⁵ Nord, France's New Deal, 304-5.

⁷⁶ Schaeffer, 'Épilogue', in Réponse des jeunes au message du maréchal, 61-63 (p. 63).

⁷⁷ Nord, France's New Deal, 263-64.

run by Chancerel. Later recruits to Jeune France included Maurice Blanchot, Jean de Fabrègues, Maurice Martenot and Max-Pol Fouchet.⁷⁸ The organisation's statute of November 1940 set out its aims: it sought to support 'all artistic and cultural projects (drama, music, song, dance, fine arts, architecture...) and to provide work for young unemployed artists'. Explicitly calling on the rhetoric of Pétain, it promised, 'by rediscovering the unity of our generation, in a new combat, in a new fervour, [...] [to] rebuild the unity of the country'. It would set about fomenting a 'cultural revolution' in parallel to Pétain's National Revolution and 'renewing in youth, first of all, the very genius of the country'.⁷⁹ Anxious to avoid creating art and culture merely in the service of propaganda, Jeune France hoped to promote a long term, 'organic' renewal of national culture, applying the lessons and ideals of the 1930s Catholic youth movements to a stateled, national project.⁸⁰

At the time and in retrospect, Schaeffer and other members of Jeune France were insistent on the organisation's independence from official Vichy control; nevertheless, Hellman and Marc Fumaroli have argued that Jeune France and the École des Cadres d'Uriage, an institution with which it was closely aligned, were in fact the primary sites of the production of a specifically Vichy ideology.⁸¹ Indeed, in an article from 1941, Schaeffer suggests parallels—if not a direct analogue—between Jeune France and the Opera Nazionale Dopolavoro in Italy and Kraft durch Freude in Germany.⁸² While Jeune France certainly had no programme of 'brutal cultural expurgation', they sought a break with the artistic establishment of the Third Republic, tainted as it was by communist, foreign and

⁷⁸ Ibid., 264–66; Sylvie Dallet and Sophie Brunet, *Pierre Schaeffer: Itinéraires d'un chercheur* (Montreuil: CERPS, 1996), 38.

⁷⁹ Jeune France: Principes, Directions, Esprit (Lyon: Audin, 1941).

⁸⁰ This was, indeed, the logic followed by many who moved from scouting to Vichy: Schaeffer's friend Pierre Goutet, for example, declared in 1941 that 'the positions taken for years by *la Route*, its efforts to form character, appear today as the very ones that should be offered to all French youth'; quoted in Comte, *Une Utopie combattante*, 42–43.

⁸¹ Schaeffer, *Les Antennes de Jéricho*, 274–78; Hellman, *The Knight-Monks of Vichy France*, ix; Marc Fumaroli, *L'État culturel: Essai sur une religion moderne* (Paris: Fallois, 1991), 63–110. Fumaroli goes on to argue that the conception of the 'état culturel' forged by Jeune France was formative for the post-war ideology guiding French state involvement in the arts.

⁸² Schaeffer, 'Jeune France', Confluences, 1 (1941), 127-29 (p. 127).

commercial influences. In addition, under Vichy law a rigorous selection process had to be undertaken before being accepted to the organisation, and Jews and foreigners were explicitly excluded.⁸³

Jacques Copeau, an influence on many of the leading figures in Jeune France's theatrical activities, served on the directing committee and Emmanuel Mounier himself was recruited as a cultural adviser, offering suggestions for a curriculum for Jeune France's teaching workshops.⁸⁴ It was in theatre that Jeune France's achievements are most pronounced; the organisation was involved in an estimated half of all theatre production in France in 1941, a large proportion of which took place outside the capital and called on huge numbers of amateur participants.85 One such spectacle was Portique pour une fille de France (1941), a collaborative work with a text by Schaeffer and Pierre Barbier and music by Yves Baudrier and Olivier Messiaen.86 This spectacle, which follows the life of Joan of Arc, is marked by the influence of Schaeffer's 'Church fathers' Claudel and Péguy, as well as of Chancerel's theatrical work, and espouses a familiar sentimental nationalism (the text also borrows significantly from Robert Brasillach's theatrical rendering of Joan's trial).87 The performances were put on in sports arenas, relying on large amplification systems to make the 175 professional actors and 10,000 extras heard. 88 As well as symbolic resonances with Vichy ideology (and it is worth stating that Portique pour une fille de France was a part of Vichy's official Joan of Arc feast day celebrations in May 1941) there

⁸³ Hellman, *The Communitarian Third Way*, 173. However, Daniel Lee has discovered various cases in which Jews were allowed to participate, or even welcomed, in Jeune France events. See Daniel Lee, *Pétain's Jewish Children: French Jewish Youth and the Vichy Regime* (Oxford: Oxford University Press, 2014), 99. As such, Fulcher's unfounded claim that Jeune France modelled itself on the cultural activities of the Popular Front government is misguided: members of Jeune France were outspoken critics of the Popular Front; see, for example, Jeanne Laurent, *La République et les Beaux-Arts* (Paris: Julliard, 1955); cf. Fumaroli, *L'État culturel*, 81.

⁸⁴ Nord, France's New Deal, 266-70.

⁸⁵ Ibid., 270-71.

⁸⁶ Fulcher, 'From "the Voice of the Maréchal" to Musique Concrète', 388.

⁸⁷ Richard D. E. Burton, *Olivier Messiaen: Texts, Contexts, and Intertexts (1937–1948)*, ed. by Roger Nichols (Oxford: Oxford University Press, 2016), 83; Lucie Kayas and Christopher Brent Murray, 'Olivier Messiaen and *Portique pour une fille de France*', in Christopher Dingle and Robert Fallon (eds.), *Messiaen Perspectives 1: Sources and Influences* (London: Routledge, 2016), 45–67 (p. 48). Joan of Arc was a recurring subject for all three of these writers. Brasillach was a writer of the extreme right who was executed after Liberation for his intellectual contribution to collaboration.

⁸⁸ Dallet and Brunet, Pierre Schaeffer, 38.

was logistical support from the army and performances specifically for the Chantiers de la jeunesse, the official Vichy youth movement.⁸⁹

Of biographical significance in this period is the death in childbirth of Schaeffer's wife in June 1941, an event which seems to have shaken Schaeffer's faith in both God and the Vichy regime. 90 Jeune France's last significant achievement was a colloquium on poetry at Lourmarin in September 1941, which drew together writers and musicians associated with Esprit and Jeune France, promoting a reconciliation between poetry and national folk traditions.⁹¹ Here, Schaeffer encountered Lanza del Vasto, an unconventional Catholic mystic with an interest in Gandhi and Indian philosophy. 92 Vasto was to be crucial in Schaeffer's move away from organised religion and towards the sort of syncretic mysticism that would interest him in the late 1940s.93 1941 would continue to be a difficult year for Schaeffer: having been banned from Uriage in July, in the early autumn Mounier was excluded from Jeune France under official pressure, following an extensive denunciatory letter sent by Jean de Fabrègues (whose involvement in Jeune France at Schaeffer's instigation Michel Bergès implies had been an attempt to counterbalance the by now politically compromising association with Mounier) to Pierre Pucheu, the new minister for the interior. 94 By the end of 1941, with the Vichy regime tending increasingly towards an authoritarian government more closely aligned with Germany, Schaeffer was reprimanded for a perceived lack of commitment to Vichy propaganda, a characterisation he vehemently contested (perhaps simply in a last-ditch attempt to save what was very

⁸⁹ Nord, *France's New Deal*, 272; cf. Kayas and Murray, 'Portique pour une fille de France', in Kaltecker and Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes*, 99–115. The Chantiers come in for praise in an article of Schaeffer's from 1941; Schaeffer, 'Sur les chemins de folklore voici les Comédiens Routiers de Jeune France', *Patrie*, 3 (1941), 50–58 (p. 52). Schaeffer's old associate Forestier served as chaplain to the Chantiers, and in his diary, Copeau records approvingly a visit with Schaeffer to the Chantiers in early 1942; Jacques Copeau, *Journal*, *1901–1948*: *Deuxième partie*: *1916–1948* (Paris: Seghers, 1991), 626–27.

⁹⁰ Kaltenecker and Le Bail, 'Jalons', 26.

⁹¹ Nord, *France's New Deal*, 268–69; Leenhardt, *Les Yeux ouverts*, 123–24; Véronique Chabrol, 'L'ambition de "Jeune France", in Jean-Pierre Roux (ed.), *La Vie culturelle sous Vichy*, 161–178 (p. 176).

⁹² Schaeffer, Prélude choral et fugue, 419-21 & 439.

⁹³ Robert, Pierre Schaeffer: de Mac Luhan au fantôme de Gutenberg (Paris: L'Harmattan, 2002), 213.

⁹⁴ Nord, 'Pierre Schaeffer and Jeune France', 701; Fulcher, *Renegotiating French Identity*, 160–64; Michel Bergès, *Vichy contre Mounier: Les non-conformistes face aux années 40* (Paris: Economica, 1997), 106.

much his project). 95 Regardless, in January 1942 Schaeffer was removed from Jeune France and in March the organisation itself was shut down. 96

This was not, as Jocelyne Tournet-Lammer suggests, a consequence of clear-cut opposition to Vichy on the part of Jeune France, but rather an increasing impatience with the religiose, spiritualist and scoutish earnestness of the organisation on the part of the explicitly fascist cohort in Pétain's government.⁹⁷ While the return to office of Pierre Laval in the spring of 1942 is emblematic of this realignment of Vichy politics on emphatically collaborationist lines, for Jeune France it was the appointment of Pierre Pucheu, a former member of both Croix-de-Feu and the Parti Populaire Français (that is, unlike many at Vichy, an ardent fascist), as minister of the interior in the summer of 1941 that marked the beginning of the end.⁹⁸

The criticism of Schaeffer in the pages of *L'Action française* by Kléber Haedens gives a sense of the nature of Vichy's disdain for Jeune France: yes, Mounier was suspected of harbouring Christian democratic sympathies, but for the most part Haedens's criticisms were that Jeune France had been generously provided with funds and resources which had been squandered on crudely popularising projects (Haedens suggests a comparison with those of the Popular Front), abandoning the canon of great French art in favour of second-rate pastiches of Péguy and Claudel.⁹⁹ It is tempting to see this as a dispute within an essentially shared viewpoint; as late as November 1941, *L'Action française* had had nothing but kind words for Jeune France, and Schaeffer felt sufficiently shocked and hurt by Haedens's criticism to respond, defending the organisation's achievements to the newspaper's readers.¹⁰⁰ In his diary, Copeau confirms Schaeffer's dejection in early 1942:

⁹⁵ Nord, 'Pierre Schaeffer and Jeune France', 701–702.

⁹⁶ Kaltenecker and Le Bail, 'Jalons', 26.

⁹⁷ Jocelyne Tournet-Lammer, 'Plural and Singular', in Évelyne Gayou (ed.), *Pierre Schaeffer: Polychrome Portraits* (Paris: INA, 2009), 155–65 (p. 157); Nord, *France's New Deal*, 304.

⁹⁸ Chabrol, 'L'ambition de "Jeune France", 177; Nord, 'Pierre Schaeffer and Jeune France', 701. Bergès gives a detailed account of the final months of Jeune France and Schaeffer's various attempts to save the organisation—protesting, as late as December 1941, the loyalty of Jeune France to the government and to the National Revolution; Bergès, *Vichy contre Mounier*, 142–59.

⁹⁹ Kléber Haedens, 'Une œuvre à mettre au point', L'Action française, 10 March 1942, p. 3.

¹⁰⁰ 'Les Revues: Jeune France', *L'Action française*, 24 November 1941, p. 3. Indeed, this article reports on Jeune France's future publication of essays by, among others, Thierry Maulnier, a committed Action

'Schaeffer is humiliated', he writes, 'This humiliation is mixed in all his thoughts for the moment'. 101

Both Emmanuel Mounier and Pierre Schaeffer point to the many prominent or soon-to-be-prominent figures who were associated with Jeune France, and its influence on post-war French culture was far-reaching. The seeds of such institutions as the Institut des hautes études cinématographiques, the Avignon festival and Travail et Culture can all be located in the Jeune France milieu, and it was in a school of mime sponsored by Jeune France that Marcel Marceau developed his craft. Many Jeune France alumni—Roger Leenhardt, Claude Roy, Maurice Martenot, Albert Ollivier and others—continued to associate with Schaeffer as *musique concrète* began to take shape, most immediately at the Studio d'Essai, but later still at the Service de la recherche de l'ORTF and elsewhere. There are fainter traces, too; for example, when Schaeffer cites Philippe Soupault in the 1942 *Essai sur la radio et le cinéma*, it is an essay published in Max-Pol Fouchet's *Fontaine* to which he refers.

The Apprenticeship of our Craft: Schaeffer and the Studio d'Essai

After the demise of Jeune France, Schaeffer was sent to work as chief engineer for the radio in Marseille, where between March and May 1942 he wrote the *Essai sur la radio et le cinéma*: *Esthétique et technique des arts-relais*, an essay on the particularity of radio and cinema as 'relay arts', arts in which there is a gap or relay between production and reception. Many of Schaeffer's colleagues and associates regrouped in Marseille, including Roy, Barbier and Copeau, where they continued to produce radio programmes reporting on the cultural life of the occupied zone. Parallel to his theoretical writing,

française man. Haedens, 'À propos de Jeune France', *L'Action française*, 26 March 1942, pp. 3–4. A year earlier, René Brecy had published an extended article praising Jeune France; René Brecy, 'Les Arts populaire et l'effort de "Jeune France", *L'Action française*, 16 March 1941, pp. 3–4.

¹⁰¹ Copeau, Journal, 1901–1948: Deuxième partie: 1916–1948, 627.

¹⁰² Chabrol, 'L'ambition de "Jeune France", 176; Schaeffer, *Les Antennes de Jéricho*, 87.

¹⁰³ Chabrol, 'L'ambition de "Jeune France", 162; Nord, France's New Deal, 270-71.

¹⁰⁴ Soupault, residing in Tunisia at the time, had himself been approached with the idea of opening a Jeune France chapter there. See Leenhardt, *Les Yeux Ouverts*, 123.

¹⁰⁵ Palombini, 'Dans un bureau à Marseille, un jeune ingénieur rève'.

¹⁰⁶ Fulcher, Renegotiating French Identity, 166.

Schaeffer soon sought to develop a series of conferences for the staff of Radiodiffusion Nationale (RN), writing to Raymond Braillard, the director of technical services at Vichy with a proposal in May 1942.¹⁰⁷ Schaeffer swiftly broadened the remit of the cycle, establishing a Centre de Formation et de Perfectionnement du Personnel (CFPP) in Marseille in June.¹⁰⁸ This institution, Schaeffer hoped, would train the radio professionals of the future, teaching them to reflect on both the aesthetic and technical limits and possibilities of the radio. A first series of talks took place in July, the first delivered by Copeau and André Demaison, director general of RN, the second by Jean Masson, director of information, and Jean Antoine, and the third by Schaeffer, in which he expounded his theory of the 'relay arts'.¹⁰⁹ Moving between Marseille, Vichy and Paris, Schaeffer planned a further round of talks, calling on the expertise and prestige of Copeau, Émile Vuillermoz, a significant critic of music and film in the interwar years, Roy and Paul Gilson, in charge of literary programming for RN.¹¹⁰

Concurrently, Schaeffer set about developing an intensive course of experimentation in radiophonic aesthetics.¹¹¹ In July 1942, Schaeffer published an article in *Comœdia*, inviting applications from actors and singers to take part in a workshop under the direction of Copeau.¹¹² Around twenty participants were selected for the workshop, which took place from September to October 1942, on the basis of both technical ability and artistic flair.¹¹³ In a hall of the Hôtel des Ducs de Bourgogne, transformed into a crudely sound-proofed studio, Schaeffer and Copeau explored methods for recording the voice, seeking to develop a new style of radiophonic interpretation culminating in the recording of texts by

¹⁰⁷ Stalarow, 'Listening to a Liberated Paris', 37; letter from Schaeffer to Braillard, May 1942, Caen Institut Mémoires de l'édition contemporaine (IMEC), fonds Schaeffer, Box 96, Dossier 946.

¹⁰⁸ Letter from André Demaison, director general of Radiodiffusion Nationale, to Schaeffer, 20 May 1942, IMEC, fonds Schaeffer, Box 96, Dossier 946.

¹⁰⁹ 'Cycles de conférences 1942', IMEC, fonds Schaeffer, Box 96, Dossier 946.

¹¹⁰ Kaltenecker and Le Bail, 'Jalons', 28; Programme for the CFPP for 1942–43, IMEC, fonds Schaeffer, Box 96, Dossier 946. Whether these talks took place, as Kaltenecker and Le Bail suggest, is uncertain given that the proposed dates coincide with the Beaune workshop.

¹¹¹ Schaeffer had suggested something like this to Copeau as early as February 1942; Copeau, *Journal*, 1901–1948: Deuxième partie: 1916–1948, 629.

¹¹² Schaeffer, 'La Radio cherche des voix, la radio attend des œuvres', *Comœdia*, 55 (11 July 1942), pp. 1 & 6 (p. 6).

¹¹³ Kaltenecker and Le Bail, 'Jalons', 28-30; Stalarow, 'Listening to a Liberated Paris', 38.

Edgar Allan Poe, Homer and Péguy.¹¹⁴ These experiments with speaking choirs and closely-recorded voices expressed the overlapping aesthetic and technical concerns manifest in Copeau's hope that the radio might serve as a medium particularly suited to the intimate and sincere aesthetic that he had been promoting for some time.¹¹⁵

The fruits of the workshop were sufficient to persuade Hubert Devillez, administrator-general of Vichy radio, to place Schaeffer in charge of a newly-established experimental studio, the Studio d'Essai, in Paris towards the end of 1942. As the name—"Experimental Studio"—suggests, the Studio d'Essai sought to support radiophonic experiments that would be 'as adventurous as possible', at one remove from everyday broadcasting; it is at this point that the beginnings of the aesthetic avant-gardist rhetoric of *musique concrète* can be detected. Contrary to Schaeffer's post-war claims that the Studio was responsible for only a single afternoon broadcast (perhaps an attempt to downplay his involvement in Vichy, then occupied, radio), Karine Le Bail has identified numerous Studio d'Essai productions broadcast between the spring of 1943 and May 1944.

A familiar cast soon assembled at the Studio d'Essai, including Albert Ollivier, Claude Roy, Roger Leenhardt and Maurice Martenot, whose invention, the Ondes Martenot, can be heard in Schaeffer's major radio work of the period, *La Coquille à planètes*, a radio

¹¹⁴ Kaltenecker and Le Bail, 'Jalons', 30.

¹¹⁵ Jacques Copeau, 'Écrit en 1943', in *Dix Ans d'Essais Radiophoniques: Du Studio au Club d'Essai, 1942–1952* (Arles: Phonurgia Nova, 1989), 79–81; Nord, *France's New Deal*, 307. Copeau was ultimately disappointed and frustrated by the workshop, writing in his diary that Schaeffer was 'weak and presumptuous. Without organizing power, without overview, without intellectual will or perseverance'; Copeau, *Journal, 1901–1948: Deuxième partie: 1916–1948*, 652–53.

¹¹⁶ Robert, Pierre Schaeffer: de Mac Luhan au fantôme de Gutenberg, 30; Schaeffer, Les Antennes de Jéricho, 87.

¹¹⁷ Report by Schaeffer on the Studio d'Essai, 12 July 1943, IMEC, fonds Schaeffer, Box 97, Dossier 948. The "essai" of Studio d'Essai speaks to a conception of the experiment or essay as a practice of subjectivation, of experimentation on and with the self that finds its classic expression in Montaigne. Among Schaeffer's concerns at this juncture and in later groups is the constitution of a certain sort of (collective) subject through reflective listening practices; cf. Kaltenecker, 'L'écoute comme exercice collectif', in Kaltenecker and Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes*, 191–200; John Mowitt, 'On Trying: André Hodeir and the Music Essay', *Amodern*, 6 (2016) https://amodern.net/article/on-trying/> (accessed 11 October 2021).

¹¹⁸ Karine Le Bail, 'Émissions de Minuit', in Kaltenecker and Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes*, 117–27 (p. 120).

drama in eight hour-long episodes recorded between 1943 and 1944.¹¹⁹ In July 1943, the Studio d'Essai broadcast an entire afternoon of radiophonic works, including a work by Roy with music by Georges Auric and an adaptation by Ollivier from Marcel Proust's *Les Plaisirs et les jours*, read by Pierre Fresnay, a well-known film actor of the 1930s who had participated in Jeune France projects.¹²⁰ While some, like Ollivier and Roy, were either already involved in the Resistance by 1943 or were on the cusp of joining, others with whom Schaeffer continued to work, like Vuillermoz, Cortot and Florent Schmitt, can be unproblematically characterised as collaborators.¹²¹

Schaeffer's *La Coquille à planètes* is something of an exception in the output of the Studio d'Essai, which tended to specialise in understated, intimate readings and simple adaptations. The tone of *La Coquille* is distinctly fantastical, representing 'a day in the life of a character called Léonard, in dialogue with the twelve signs of the zodiac'. Like many of Schaeffer's works, there is an autobiographical element to *La Coquille*, and Kaltenecker, Le Bail and Giordano Ferrari have suggested that the protagonist's name refers to both Schaeffer's star sign, Leo, and to Paul Valéry's celebration of Leonardo da Vinci as the ideal Renaissance man, equal parts scientist and artist. In one exemplary scene, an astrologer teaches Léonard to discover the marvellous in the everyday, 'a crystalline ritournelle' in the sound of running water, for example.

Thematically, with its rhetoric of self-examining, its recourse to magical chants and a Zenlike contemplation of the insignificant, the work exhibits the influence of Georges-

¹¹⁹ Nord, *France's New Deal*, 331–32; Eck, 'À la recherche d'un art radiophonique', 288; Robert, *Pierre Schaeffer: des Transmissions à Orphée*, 100; Gayou, *GRM*, 26. In 1943, Leenhardt made a short film about the Ondes Martenot, titled *Le Chant des ondes*.

¹²⁰ Eck, 'À la recherche d'un art radiophonique', 288; André Bazin, 'Long Live Radio! Down with the 8th Art', in Dudley Andrew (ed. and trans.), *André Bazin's New Media* (Oakland: University of California Press, 2014), 74–78 (p. 77); Chabrol, 'L'ambition de "Jeune France", 167. André Bazin singles out this adaptation of Proust for praise in 1951 in one of the very few mentions of Pierre Schaeffer in his writings; Bazin, 'Long Live Radio! Down with the 8th Art', 77.

¹²¹ Le Bail, 'Émissions de minuit', 120-22

¹²² Andrea Cohen, *Les compositeurs et l'art radiophonique* (Paris: L'Harmattan, 2015), 53.

¹²³ Kaltenecker and Le Bail, 'Jalons', 30; Giordano Ferrari, 'La Coquille de Pierre Schaeffer', trans. by Martin Kaltenecker, in Kaltenecker and Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes*, 129–139 (p. 138).

Ivanovitch Gurdjieff, whom Schaeffer encountered in early 1943 through the circles of Lanza del Vasto, Luc Dietrich and Gurdjieff's disciple Jeanne de Salzmann. Mark Sedgwick characterises Gurdjieff's teaching as a syncretic mixture of theosophy and neo-Sufism, combining a harsh, sometimes degrading, discipline with gymnastic, quasi-eurhythmic exercises. Schaeffer regularly attended Gurdjieff sessions between 1944 and 1948, a year prior to the latter's death, and his thought and practice, termed 'the Work', seem to have resonated with Schaeffer's existing predilection for combining physical exercise and mystical contemplation, as well as with a turn inwards, and away from the Church, that coincided with his disavowal of his earlier 'general error of orientation [and] naïve belief in the possibility of changing the world'. 126

In its sudden leaps across time and space, its expansive plotting and its Baroque sensibility, *La Coquille* is similar to Claudel's *Le Soulier de satin*, which had been written in 1929 but received its first (abridged) performance in Paris in late 1943, just as Schaeffer and the Studio d'Essai were working on *La Coquille*. The production at the Comédie Française was directed by Jean-Louis Barrault, with music by Arthur Honegger, both of whom had worked on productions sponsored by Jeune France and subsequently served on the jury for the Studio d'Essai's selection process. Indeed, alongside its concern for astrology and the occult, *La Coquille* at times exhibits a rather Claudelian mystical

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¹²⁴ Schaeffer, La Coquille à planètes: Suite fantastique pour une voix et douze monstres en huit émissions radiophoniques (Paris: INA/Adès, 1990), 10, 28 & 64; Pierret, Entretiens avec Pierre Schaeffer, 115–117; Élisabeth Antebi, Ave Lucifer (Paris: Calmann-Lévy, 1970), 157–64; Robert, Pierre Schaeffer: de Mac Luhan au fantôme de Gutenberg, 212–13. Dietrich, something of a protégé to Lanza del Vasto, had attended Gurdjieff's sessions since the late 1930s. Schaeffer recorded a conversation between Dietrich and Lanza del Vasto in 1943; Schaeffer, Propos sur la coquille (Arles: Phonurgia Nova, 1990), 56.

125 Mark Sedgwick, 'European Neo-Sufi Movements in the Inter-war Period', in Nathalie Clayer and Eric Germain (eds.), Islam in Inter-war Europe (London: Hurst, 2008), 183–215 (pp. 207–213). Schaeffer recounts Gurdjieff's tempestuous sessions in an interview from 1987; Schaeffer, 'Un consolateur assez sévère', in Bruno de Panafieu (ed.), Georges Ivanovitch Gurdjieff (Paris: L'Âge d'homme, 1992), 71–78.

126 Robert, Pierre Schaeffer: de Mac Luhan au fantôme de Gutenberg, 175–77; Antebi, Ave Lucifer, 158. In Patrick Modiano's nightmarish depiction of occupied Paris, Gurdjieff appears, under the name 'Ivanoff the Oracle', as a sex-crazed mystic, frequenting debauched parties held by war profiteers and exercising a particular influence on wealthy women; Modiano, The Night Watch [1969], trans. by Patricia Wolf, in The Occupation Trilogy (London: Bloomsbury, 2015).

¹²⁷ Stalarow, 'Listening to a Liberated Paris', 52–55.

¹²⁸ Fulcher, *Renegotiating French Identity*, 181; Note concerning the competition jury for the "radiophonic half hour", October–November 1942, IMEC, fonds Schaeffer, Box 96, Dossier 946.

Catholicism, as in the opening of the fifth episode, in which Léonard, citing St Francis, expounds the mystical significance of flowers. Like the *Routiers* in the 1930s, *La Coquille* expresses a certain dissatisfaction with abstraction and language, preferring intense, mystical experience; at one point the personification of Sagittarius tells Léonard: 'words are outdated. The bow is an antique weapon. We make museum pieces of your blunt words. There remains this experimental symbolism which I have had the honour of illustrating since earliest antiquity. It will be the recourse of your generation'. The lesson of the work is one that Schaeffer had already developed with the *Routiers*, here expressed in increasingly mystical—and less political—terms: a layer of hardened abstraction lies between the subject and reality, a layer that can only be penetrated with courage and concentration, but that once penetrated renders experience meaningful once more. The lesson of the work is once that once penetrated renders experience meaningful once more.

Despite its distinctiveness among the output of the Studio d'Essai, *La Coquille* has parallels in contemporaneous radio production. The part played by dreams, the fantastical and the marvellous places it in close proximity to broadcasts like Paul Gilson and Albert Riéra's 'Le marchand de rêves: variétés musicales' (1943). Both men had a background in cinema, and Gilson, 'a walker in the streets who relished the marvellous and the fantastic' according to Nord, had been responsible for literary programme at Vichy, where he had worked with Roy, Leenhardt and Ollivier.

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It is the final few months of occupation that come to dominate the standard narrative of Schaeffer in wartime, and certainly the one that Schaeffer sought to promote after Liberation. Gayou and Tournet-Lammer, for example, paint Schaeffer as a hero of the Resistance by alternatively misrepresenting or passing over the nature of Radio-Jeunesse, Jeune France and the Studio d'Essai, while Schaeffer's involvement in Resistance radio

¹²⁹ Schaeffer, La Coquille à planètes, 113.

¹³⁰ Ibid., 50.

¹³¹ Ibid., 186–218.

¹³² Eck, 'À la recherche d'un art radiophonique', 282–83. Between the closure of the Studio d'Essai and its reincarnation as the Club d'Essai in 1946, Albert Riéra would lead a "radio laboratory" that took over some of its functioning; Christian Brochand, 'Du Studio d'Essai au Club d'Essai', *Cahiers d'Histoire de la Radiodiffusion*, 48 (1996), 29–33 (p. 30).

¹³³ Richard Abel (ed.), *French Film Theory and Criticism: A History/Anthology*, 1907–1939 (Princeton, New Jersey: Princeton University Press, 1988), I, 321–22; Nord, *France's New Deal*, 303.

At some point between the summer of 1943 and January 1944, Schaeffer made contact with the Comité de libération de la radio, culminating in his *temps héroïques*, a broadcast call for the church bells of Paris to sound in the final days before the Liberation. The accounts contradict each other: in *Prélude choral et fugue*, Schaeffer dates his contact to August 1943, though in the documents he submitted to the post-Liberation purge commission there is no mention of any involvement prior to January 1944. In spring 1944, the Studio d'Essai began making recordings in preparation for a series of post-Liberation broadcasts, including poetic readings by Jean Lescure, Paul Eluard and Louis Aragon. In May, Schaeffer was removed from his role at the Studio d'Essai, apparently on the pretext of a broadcast on Napoleon judged suspiciously anglophile. The Studio d'Essai's preparations for the first hundred hours of post-Liberation radio continued, and in August, from the night of the eighteenth, the call for a general mobilisation against the occupation was broadcast.

Schaeffer was far from unusual in his transition from enthusiastic Vichyite to *résistant* and, at least for Vichy's first two years, the ideologies of *résistants* and Vichyites were often remarkably close, with many sharing a vision of an elite-led, technocratic national regeneration. Nevertheless as Nord emphasises, Schaeffer's was a particularly tardy transition: after the German occupation of the southern zone, after Allied victory in North

¹³⁴ Gayou, *GRM*, 35; Tournet-Lammer, 'Plural and Singular', 156–159; Stalarow, 'Listening to a Liberated Paris', 1–6.

¹³⁵ Nord, France's New Deal, 307; Gayou, GRM, 35; Schaeffer, Dix Ans d'Essais Radiophoniques, 69.

¹³⁶ Schaeffer, *Prélude choral et fugue*, 464; Schaeffer, Note to "Marc" [code-name for Jean Guignebert], 1 June 1944, IMEC, fonds Schaeffer, Box 129, Dossier 1281. Reviewing the available sources, Stalarow settles on the beginning of 1944 as Schaeffer's first meaningful engagement with the resistance; Stalarow, 'Listening to a Liberated Paris', 71. A charitable reading would be that from some point in 1943 the Studio d'Essai was making illicit recordings independently of any resistance networks, and that an official engagement with existing networks was forged over the course of 1944.

¹³⁷ Schaeffer, *Les Antennes de Jéricho*, 258; Leenhardt, *Les Yeux ouverts*, 136; contradicting the accounts of Schaeffer and Leenhardt, Lescure claims that the recordings were made without Schaeffer's knowledge, and at times when the participants knew Schaeffer would not present. While this certainly sows a seed of doubt, Lescure is probably misremembering; Jean Lescure, *Poésie et Liberté: Histoire du Messages*, 1939–1946 (Paris: IMEC, 1998), 243–44.

¹³⁸ Le Bail, 'Émissions du minuit', 124.

¹³⁹ Ibid., 126.

¹⁴⁰ Nord, France's New Deal, 23.

Africa and after the introduction of the Service du travail obligatoire, the forced enlistment of French civilians to the industrial war effort in Germany.¹⁴¹ This is not to suggest that he remained a convinced Vichyite until the moment he joined the Resistance; rather, it seems likely that, having had his fingers burned once before, and enduring a turbulent period in his personal life, Schaeffer sought to avoid emphatic political commitments for as long as it was expedient to do so.

In the immediate aftermath of Liberation, Schaeffer's one-time proximity to the Vichy regime was to cause him some professional difficulty. The newly reformed national radio, led by Jean Guignebert, a leftist who had led the Comité de libération de la radio, carried out a purge of Vichyist radio professionals, to which Schaeffer was called in January 1945. Schaeffer seems to have anticipated this eventuality, and in a letter to Guignebert dated 1 June 1944, he made clear his sense that the power struggles within the Resistance would define the post-Liberation order. Continuing, he set out the conditions on which he would work with the Comité de libération de la radio: it should not be interpreted as an attempt to clear his name in relation to his public activities since August 1940, nor should it be thought of as an arriviste enterprise intended to benefit Schaeffer and his colleagues in the reorganisation of the future national radio. Schaeffer excused his involvement in Pétainist projects on the basis of his youth and political inexperience (he was 30 at the time he established Radio-Jeunesse and Jeune France; in June 1944 he is 33) and put the personnel and resources of the Studio d'Essai at the disposal of the Comité de libération de la radio.

Having emerged from the war as Guignebert's second-in-command, Schaeffer's Vichyist past quickly came under scrutiny. Until the end of 1944, he continued to work at Radiodiffusion Française where he collected material for a radio programme on the

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¹⁴¹ Ibid., 307.

¹⁴² Schaeffer, Note to "Marc". In a note for the president of the purge commission, Schaeffer later argued that between June 1940 and September 1944 he had not made any professional advancement, and that from August 1940 he had participated in 'passive resistance'; both claims are questionable; Schaeffer, Note for the president of the Radiodiffusion française purge commission, 9 January 1945, IMEC, fonds Schaeffer, Box 129, Dossier 1281.

Resistance, though he was removed from both the Studio d'Essai and from the Comité de libération de la radio. When his meeting with the purge commission came about, Schaeffer was offered the escape route of an official mission to the United States. 143

Schaeffer and the Aesthetics of Post-War Radio

Departing in February 1945, Schaeffer would spend the following six months in the United States and Canada as a 'technical adviser in studies and research concerning radio and television programmes'. ¹⁴⁴ Alongside this role, he gave frequent talks, presenting his 'sound chronicle' of the liberation of Paris and recordings of Resistance poetry; Schaeffer collaborated with Orson Welles to produce an anglophone version of the material, published as a record in September 1945 under the auspices of the Franco-American Cultural Exchange. As Stalarow emphasises, Schaeffer's mission was very much framed in the language of the post-war internationalism of organisations like the United Nations and its subsidiary, UNESCO. ¹⁴⁵

In April 1946, Schaeffer was briefly made chief of the artistic department of the Service de la télévision expérmentale, though this role soon came to an end after Schaeffer's plans for closer cooperation between television and cinema ran into the opposition of the unions. ¹⁴⁶ In the summer of 1946, Schaeffer produced a radio series titled *Une Heure du monde*. The programme's six episodes present a sort of liberal internationalism mediated by a reflexive rhetoric of radiophonic immediacy. ¹⁴⁷ The final episode, 'Radio Babel', is exemplary in this regard, utilising recordings from a number of international radio stations in the service of an idealised thesis on sound's universality; the script concludes thus: 'I dream of a radio that places in communication all the citizens of the world in the most candid, most familiar and most banal manner'. ¹⁴⁸

¹⁴³ Schaeffer, *Les Antennes de Jéricho*, 86–7, 158, 269–72; Nord, *France's New Deal*, 339–40. The content of Schaeffer's *Tobie* was deemed anti-Semitic, a judgement disputed by Schaeffer in 1978, and also by Martial Robert in 1999; Schaeffer, *Les Antennes de Jéricho*, 273; Robert, *Pierre Schaeffer: des transmissions à Orphée*, 85.

¹⁴⁴ Stalarow, 'Listening to a Liberated Paris', 93; Kaltenecker and Le Bail, 'Jalons', 31.

¹⁴⁵ Stalarow, 'Listening to a Liberated Paris', 97.

¹⁴⁶ Kaltenecker and Le Bail, 'Jalons', 32.

¹⁴⁷ See Stalarow's reading of the series; Stalarow, 'Listening to a Liberated Paris', 102–21.

¹⁴⁸ Quoted in Stalarow, 'Listening to a Liberated Paris', 119.

In his absence, the Studio d'Essai was re-established as the Club d'Essai in March 1946, with the poet Jean Tardieu at its head.¹⁴⁹ This organisation in many ways followed the blueprint of its precursor, employing much of the Studio's former personnel, but endowed with greater resources. The Club d'Essai was envisaged as a laboratory for radiophonic art and, unlike the Studio d'Essai, it was allotted a fixed fourteen hours of airtime a week.¹⁵⁰ In its early years, the Club d'Essai was notable in particular for programmes dedicated to poetry, and a great many prominent poets passed through its doors including Tristan Tzara, Paul Éluard, Francis Ponge and Jean Lescure. 151 These were for the most part fairly straightforward readings, underpinned by a logocentric valorisation of the live, authorial voice.¹⁵² There were others, like Jean Lescure and Blaise Cendrars, who went further, seeking to develop a poetry conceived specifically for the medium of radio, something like a 'poésie radiophonique'. 153 For many writers, Tardieu among them, poetry occupied a privileged position in literary broadcasting, sharing with the radio, they argued, a mechanism of suggestion in which mental images are prompted in the absence of visual information.¹⁵⁴ The single issue of the Club d'Essai's journal, La Chambre d'écho, which names Schaeffer as a member of its 'committee of radiophonic research', includes contributions by Tardieu, Claudel, Jean Cocteau, Gilson, and Maurice Cazeneuve, who had joined the Studio d'Essai in 1943; despite his absence, this was a milieu that shared an aesthetic outlook with Schaeffer. 155

The works that emerged from this conjuncture are worth dwelling on given their institutional and aesthetic proximity to Schaeffer's *musique concrète* experiments. While the broadcasts produced under the banner of 'radiophonic poetry' by and large continue to privilege a spoken text, the works and their justifications share a great deal with the

¹⁴⁹ Stalarow, 'Listening to a Liberated Paris', 92.

¹⁵⁰ Kaltenecker and Le Bail, 'Jalons', 32.

¹⁵¹ Céline Pardo, *La Poésie hors du livre (1945–1965): Le poème à l'ère de la radio et du disque* (Paris: Presses de l'université Paris-Sorbonne, 2015), 86–90.

¹⁵² Ibid., 62-63.

¹⁵³ Ibid., 153-54.

¹⁵⁴ Ibid., 158 & 165; cf. Maurice Cazeneuve, 'La mise en ondes', *La Chambre d'écho: Cahiers du Club d'Essai de la Radiodiffusion Française*, 1 (1947), 49–51 (p. 50); Samy Simon, 'Le Documentaire', *La Chambre d'écho*, 1 (1947), 54–56 (p. 54).

¹⁵⁵ La Chambre d'écho, 1 (1947).

underlying assumptions of the first few years of musique concrète. Lescure's Naissance du langage: Essai de poème radiophonique, produced at the Club d'Essai in 1947 and featuring the voice of Roger Blin, is one such work. The poem is a sort of dramatised reflection on the powers of speech and language, structured by sound effects and music. Céline Pardo identifies such themes as 'the paradox of non-communication and of solitude in the middle of a crowd' and the shock of telecommunication, Lescure comparing the telephone to a divine voice. The work places 'en abyme the conditions of speech and of listening specific to the radio itself', a communication 'at a distance', risking inaudibility in the form of mishearing, oversight or incomprehension.¹⁵⁶ This thematic complex involving technology, communication (and its failure) and a meaning destabilised by mechanical reproduction is a recurring one in this period: it can, for example, be found in Cocteau's La Voix humaine (1930) and Orphée (1950), in which a car radio stands in for divine inspiration, as well as in his essay for La Chambre d'écho. 157 It is also a cluster of themes present in Schaeffer and Henry's Symphonie pour un homme seul, from 1950, which, like Lescure's radiophonic poem, opposes a 'lone cry' to the 'hubbub of the crowd', exploring the tensions and slippages between man and machine. 158

Many other works produced before or in parallel to Schaeffer's development of *musique* concrète are noteworthy in this context. André Almuró's 1952 adaptation of Jean Genet's Le Condamné à mort and Cendrars's Rythmes et bruits du monde, from the same year, are particularly interesting, as is Almuró's 1955 adaptation, with André Breton's blessing, of

¹⁵⁶ Pardo, La Poésie hors du livre, 177-78.

¹⁵⁷ Jean Cocteau, 'Le Club d'Essai', La Chambre d'écho, 1 (1947), 13-16.

¹⁵⁸ Pierre Schaeffer, *In Search of a Concrete Music*, 47–48. A more notorious work recorded at Radiodiffusion française in the same year, which was in the end not broadcast until the 1970s, was Antonin Artaud's *Pour en finir avec le jugement de dieu*. While this was not a product of the Club d'Essai, Artaud had previously recorded two readings for the Club d'Essai in 1946, and personnel associated with the Club worked on the broadcast. Although it was pulled from air at the last minute, it was heard in two private sessions in front of a jury of radio professionals and cultural figures, many of whom Schaeffer knew, and portions of Artaud's text were published in *Combat*, a newspaper in which Schaeffer had published only weeks before. Whether or not he heard the recording, Schaeffer would have certainly been aware of it. See Antonin Artaud, *Pour en finir avec le jugement de dieu*, ed. by Évelyne Grossman (Paris: Gallimard, 2003) and Pardo, *La Poésie hors du livre*, 190.

the latter's *Nadja*, titled *Nadja etoilée*. ¹⁵⁹ Works such as these provide an illuminating context to the development of *musique concrète*, and often share a great deal both thematically and sonically with Schaeffer and Henry's early works. The body and excessive language are prominent in Genet's fictionalised account of an affair between the narrator and a prisoner awaiting execution, while Cendrars, a veteran of the interwar poetic and cinematic avant-garde, employs rhythm, noise and the voice in a way that places sound effect and text on an equal footing. One might tentatively identify in Almuró's impressive adaptations the germs of later works of *musique concrète* like Pierre Henry's *Fragments pour Artaud* (1970), Bernard Parmegiani and François Bayle's *Divine Comédie* (1973) and Michel Chion's *Le Tentation de Saint-Antoine* (1984). ¹⁶⁰ This institutionally supported experimentation with radiophonic means served as the immediate context out of which Schaeffer's development of *musique concrète* emerged.

In the spring of 1948, under the auspices of the Centre d'études radiophonique within the Club d'Essai, Schaeffer began developing what he termed a 'symphony of noises', gathering recordings of miscellaneous objects, with the technical assistance of Jacques Poullin. In June, he requested that the Club d'Essai be equipped with tape machines to facilitate his investigations into 'sound complexes', a request that was not granted. In October, the initial results of Schaeffer's experiments, *Cinq études de bruits* (at this stage still referred to as a 'symphony' or 'concert of noises'), were broadcast; a prefatory text by Schaeffer was read by Jean Toscane, in which Schaeffer outlined his project of a music of sounds divorced from their sources.¹⁶¹

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¹⁵⁹ Pardo, *La Poésie hors du livre*, 316; Almuró had worked with the Club d'Essai from 1948, as well as at the Maison des Lettres, where he introduced Bernard Parmegiani to tape manipulation techniques.

160 Almuró's *Nadja etoilée* was broadcast by the BBC in 1955 and he seems to have been a significant influence on the establishment of the BBC's Radiophonic Workshop in 1958; Louis Niebur, *Special Sound: The Creation and Legacy of the BBC Radiophonic Workshop* (Oxford: Oxford University Press, 2010), 16–17, 35, 42. Almost nothing has been published on this fascinating figure, whose early radio works share Schaeffer's commitments to immediate sensation, recast in a post-surrealist and emphatically homoerotic hue; see Philippe Jubard, *André Almuró: Du sensationnisme au dual-art* (Sampzon: Delatour France, 2015).

¹⁶¹ Kaltenecker and Le Bail, 'Jalons', 38–40; Esteban Buch, 'La Scène concrète', in Kaltenecker and Le Bail (eds.), *Les Constructions impatientes*, 153–63 (p. 155).

Schaeffer's new programme for a 'concrete music', which is unlikely to have seemed all that distinct from the various other experimental endeavours undertaken at the Club d'Essai, was soon put on hold by other professional commitments at conferences in the United States and elsewhere on the distribution of shortwave radio bandwidth. Leave Schaeffer did not return to the Club d'Essai until the summer of 1949. Having heard Schaeffer's broadcast in October, Pierre Henry, a pianist, percussionist and student of Messiaen's, approached the former with a soundtrack he was developing for a television documentary on the techniques of speed manipulation in film. After producing two further experimental works—*Variations sur une flûte mexicaine* and *Suite pour 14 instruments*—Schaeffer suggested that Henry contribute prepared piano material to his new piece, which was to be titled *Symphonie pour un homme seul*. As Schaeffer narrates, Henry swiftly moved from the studio to the control room, exhibiting a prodigious talent for manipulating recordings.

In early 1950, Schaeffer published his first written account of *musique concrète* in *Polyphonie*, consisting primarily of a version of the journal that was to constitute the first section of *In Search of a Concrete Music*. Setting out his conception of a 'concrete music' in opposition to an abstract music that deals in notes rather than sounds, Schaeffer writes that it was not until 1949 that he sought to develop his 'primitive hypotheses' into a more coherent programme for *musique concrète*. On March 18, the first concert of *musique concrète* was given at the École Normale de Musique, at which three of the *Études de bruits* and *Symphonie pour un homme seul* were heard (the latter comprising twenty-two

¹⁶² Robert, *Pierre Schaeffer: de Mac Luhan au fantôme de Gutenberg*, 415. That Schaeffer's 'symphony of noises' was comparable with other projects being undertaken at the Club d'Essai is suggested by Samy Simon's reflections on radiophonic documentary, which describe the sounds of a train as a 'symphony' that gradually loses its evocative character and becomes 'a noise reduced to itself'; Simon, 'Le Documentaire', 54–56.

¹⁶³ Pierre Henry, *Journal de mes sons* (Arles: Actes Sud, 2004), 13–17; Cyrille Delhaye, '*Orphée* de Pierre Henry et Pierre Schaeffer: 1951–2005, de palimpseste en palimpseste' (unpublished doctoral thesis: Université de Rouen, 2010), 46.

¹⁶⁴ Schaeffer, In Search of a Concrete Music, 58.

¹⁶⁵ Schaeffer, 'Introduction à la musique concrète', *Polyphonie*, 6 (1950), 30–52 (p. 44).

movements rather than the eleven to which it was eventually reduced). As Esteban Buch reports, the response in the press was muted; while some journalists reserved judgement, others found only 'a desolate skeleton of rhythms and sonorous inflections that haphazardly disturb the void'. With Schaeffer preoccupied with a further round of international conferences, Henry's *concrète* output flourished, developing a series of broadcasts called *Le microphone bien tempéré* (1951), a series of works including *Concerto des ambiguités* (1950) and *Musique sans titre* (1951), as well as fulfilling commissions for applied sounds for radio works.

In April 1951, Schaeffer and Henry began work on a concrete opera, *Orphée 51*, which would combine live instruments and voices with *concrète* elements, composed by Henry, in a 'lyric pantomime'. ¹⁶⁹ Far from the largely wordless aesthetic of *Symphonie pour un homme seul*, this work, performed to a select audience at the Théâtre de l'Empire on 6 July, was dominated by a structure of alternating recitative and aria. ¹⁷⁰ Referred to as a 'maquette' for a future opera by both Schaeffer and Michèle Henry (wife of Pierre and studio assistant), this was very much a work in progress presented in private, and received no mention in major newspapers. ¹⁷¹

Three days after the performance of *Orphée 51*, Schaeffer and Henry attended the Darmstadt Ferienkurse, by 1951 a focal point for the international musical avant-garde, where Schaeffer spoke and presented excerpts from *Orphée 51* and *Symphonie pour un homme seul*, apparently receiving a largely positive reception. ¹⁷² In November, the director general of Radiodiffusion-Télévision Française approved the creation of a Groupe de

¹⁶⁶ Buch, 'La Scène concrète', 153–58. This concert had in fact been preceded two days earlier by a concert at the Sorbonne, though Schaeffer was insistent that the concert of the eighteenth was the first that counted.

¹⁶⁷ Ibid., 159-62; Pierre Drouin, 'Où va la "musique concrète"?', Le Monde, 15 September 1951.

¹⁶⁸ Delhaye, 'Orphée', 130; Schaeffer, In Search of a Concrete Music, 70; see Hugh Davies, International Electronic Music Catalog (Cambridge, MA: MIT Press, 1967), 69–70 for the quantity and breadth of the studio's output in 1950–52.

¹⁶⁹ Delhaye, 'Orphée', 24 & 59.

¹⁷⁰ Ibid., 90–106.

¹⁷¹ Ibid., 116–17.

¹⁷² Stalarow, 'Listening to a Liberated Paris', 180–81; Martin Iddon, *New Music at Darmstadt: Nono, Stockhausen, Cage, and Boulez* (Cambridge: Cambridge University Press, 2013), xvi & 66.

recherche de la musique concrète (GRMC), with a central team of Schaeffer, Henry, Poullin and Philippe Arthuys, envisaged by Schaeffer as an endeavour of collective experimentation, taking on trainees (a first intake included Michel Philippot, Jean Barraqué, André Hodeir and Pierre Boulez) and producing pieces, half of which would be applied sound.¹⁷³ With the assistance in particular of Henry, these composers, along with Messiaen and Stockhausen, the latter two designated 'invited composers', produced a number of works of *musique concrète* over the course of 1951 and 1952.¹⁷⁴

In May 1952, as part of a festival under the auspices of the Congress for Cultural Freedom, two public concerts (and one exclusively for youth movements) were given, presenting the results of the 'première stage'. Included in the programme were Cinq études de bruits, Symphonie pour un homme seul, various recent works by Henry as well as two serial studies by Boulez, Timbres durées by Messiaen (credited here to both Messiaen and Henry) and studies by Hodeir, Monique Rollin, Yves Baudrier, Philippot, Jolivet and Barraqué. With the increased public profile of musique concrète, Schaeffer published À la recherche d'une musique concrète with his old associates Éditions du Seuil. In the summer, Bernard Blin travelled to the United States bearing works by Schaeffer and Henry, which were programmed at the Festival of the Creative Arts at Brandeis University, where Merce Cunningham danced to Symphonie pour un homme seul. Chaeffer's ambition, and his singular conception of the GRMC, which required avant-gardist composers and literary-minded radio professionals alike to follow a strict curriculum before they were allowed to follow creative impulses of their own, would soon

¹⁷³ Gayou, *GRM*, 103–105; 'Règlement du Groupe de Recherches de Musique Concrète', 21 November 1951, IMEC, fonds Schaeffer, Box 117, Dossier 887. One can imagine how these composers and musicians felt about their use of the studio's resources having as a condition the acceptance of a subordinate position—in theory committing to two years of apprenticeship—in Schaeffer's project.

¹⁷⁴ Gayou, *GRM*, 79; Christopher Murray, 'A History of *Timbres-durées*: Understanding Olivier Messiaen's role in Pierre Schaeffer's studio', *Revue de Musicologie*, 96 (2010), 117–29.

¹⁷⁵ Delhaye, 'Orphée', 133–35; Mark Carroll, *Music and Ideology in Cold War Europe* (Cambridge: Cambridge University Press, 2003), 89–90. Carroll provides a nuanced account of the rather heavy-handed anti-communist ideology guiding this festival, resisting the temptation to suspect the hand of the CIA in every aesthetic and practical decision.

¹⁷⁶ Stalarow, 'Listening to a Liberated Paris', 156–59; Bernard Blin, 'Rapport sur la presentation de musique concrète au "Festival of Creative Arts", 16 June 1952, reproduced in Delhaye, '*Orphée*', 654–55.

dampen his enthusiasm and that of those around him. In 1952, Schaeffer's decision to publish a six-record compilation of recordings by the Studio d'Essai and the Club d'Essai, titled *Dix ans d'essais radiophoniques* without asking the permission of Tardieu, head of the Club d'Essai, brought latent tensions between the two men to the surface.¹⁷⁷ In addition, from 1951 Schaeffer's time was increasingly occupied with the development of radio networks in France's colonial possessions.¹⁷⁸

Through the course of 1953, two more ambitious ventures of Schaeffer's would exacerbate existing tensions and disillusion Schaeffer with the *musique concrète* project. With the gulf between Schaeffer's pedagogical vision of musical research and composers like Boulez, Cage, Stockhausen and Herbert Eimert widening, Schaeffer attempted to create a united front under the banner of 'experimental music', with the GRMC firmly taking the reins.¹⁷⁹ Between 8 and 18 June a conference was held between three sites: the Centre d'Études Radiophoniques, UNESCO and the Centre de Documentation de Musique Internationale.¹⁸⁰ Contributors included Boulez, Eimert, Hermann Scherchen and Vladimir Ussachevsky, along with familiar figures from Schaeffer's milieu including Tardieu, Arthuys and Poullin.¹⁸¹ In the closing debate, chaired by Boris de Schloezer, Boulez and Schaeffer made clear their irreconcilable differences.¹⁸²

The impetus for *Orphée 53*, which could be said to mark the end of the initial period of *musique concrète*, came from Heinrich Strobel, who in December 1952 suggested that Schaeffer present *Orphée* at the Donaueschingen festival. Delhaye has traced the series of

¹⁷⁷ Roger Pradalié, 'Club d'Essai, Centre d'études, Modulation de fréquence: le triptyque radiophonique de Jean Tardieu', *Cahiers d'Histoire de la Radiodiffusion*, 48 (1996), 9–28 (p. 26).

¹⁷⁸ Delhaye, 'Orphée', 210; Robert, Pierre Schaeffer: de Mac Luhan au fantôme de Gutenberg, 411.

¹⁷⁹ Philippe Arthuys, 'Pour commencer', La Revue Musicale, 236 (1957), 8–10 (p. 8).

¹⁸⁰ Delhaye, 'Orphée', 145.

¹⁸¹ Talks given at the conference were eventually published in 1957 in a special issue of *La Revue Musicale* edited by Schaeffer; see Schaeffer, 'Lettre à Albert Richard', *La Revue Musicale*, 236 (1957), iv, for an account of the protracted publication process.

¹⁸² Boris de Schloezer, 'La Pensée et l'instrument', *La Revue Musicale*, 236 (1957), 128–34. Having initially been enthusiastic about the GRMC, soon after the conference Boulez reported to Cage that Schaeffer was 'a pain in the arse'; Jean-Jacques Nattiez, *The Boulez-Cage Correspondence*, trans. by Robert Samuels (Cambridge: Cambridge University Press, 1993), 145; in September, Schaeffer described their split in no uncertain terms: 'Boulaize [sic] has been snuffed out [*mouché*]'; Delhaye, '*Orphée*', 62.

disagreements and misunderstandings over duration, funding and whether the work would be performed in a theatre or a concert hall that culminated in its frustrating—and, to Schaeffer, it would seem, genuinely upsetting—performance on 10 October 1953.¹⁸³ Like *Orphée 51*, *Orphée 53* made extensive use of carefully choreographed coloured lighting, mime and a combination of live and pre-recorded voices and music, here including Arthuys's continuo-like harpsichord figures. Aesthetically, it shared much with the theatre of Schaeffer's early influences Copeau and Chancerel, making use of stylised gestures, masks and semi-ironic anachronism, as well as its invocation of Ancient Greek theatre and "primitive" ritual.

Notoriously, *Orphée 53* was not well-received, its mixture of *musique concrète* and pastiches of Gluck confounding even such usually sympathetic voices as Antoine Goléa.¹⁸⁴ The piece was, as M. J. Grant notes, 'worlds away' from the serialism that characterised the avant-garde in the early 1950s, and perhaps reflects the conservative retreat hinted at towards the end of *In Search of a Concrete Music*. Other, more banal factors probably played their part, too: Strobel had in mind not a ninety-minute opera but a 'scenic divertimento of around thirty minutes', and in a letter to Cage in January 1954, he suggested that the 'scandal' was explicable simply as a result of the failure to respect the prescribed duration of an hour.¹⁸⁵ In an open letter to the German press, Schaeffer insisted that critics had missed the point: the juxtaposition of the Baroque and the *concrète* was a pedagogical device, 'not there to be pretty'. Turning his anger on the French press, he wrote to the editor of *Table Ronde*, reprimanding their reporter for a disloyal failure to 'dissipate the misunderstanding'.¹⁸⁶

¹⁸³ Delhaye, 'Orphée', 147-207.

¹⁸⁴ Ibid., 191-92.

¹⁸⁵ M. J. Grant, *Serial Music, Serial Aesthetics: Compositional Theory in Post-War Europe* (Cambridge: Cambridge University Press, 2005), 56; Delhaye, '*Orphée*', 171; Strobel, quoted in Iddon, *New Music at Darmstadt*, 158.

¹⁸⁶ Delhaye, 'Orphée', 201-202.

From early 1954 to late 1957, Schaeffer would be almost entirely occupied with the development of radio networks in France's colonies. The running of the GRMC was delegated to Arthuys and Henry, to whom Schaeffer left strict instructions regarding the maintenance of his pedagogical programme. Much to his frustration, Arthuys and Henry showed little interest in carrying out this programme, and instead pursued the unsystematic composition of film soundtracks and works that, Schaeffer argued in 1957, did not constitute *musique concrète*. By the end of 1953, then, *musique concrète* as represented by pieces like *Symphonie pour un homme seul* was more or less over for Schaeffer; by 1958, Valiquet suggests, Schaeffer considered *musique concrète* 'a failed and partial experiment'. Schaeffer considered *musique concrète* 'a failed and partial experiment'.

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¹⁸⁷ Étienne L. Damone, 'Vers un reseau d'outre-mer', in Kaltenecker and Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes*, 165–77.

¹⁸⁸ Delhaye, 'Orphée', 213.

¹⁸⁹ Schaeffer, Note to Philippe Arthuys, 3 December 1956, IMEC, fonds Schaeffer, Box 99, Dossier 980; Schaeffer, 'Lettre à Albert Richard', iv.

¹⁹⁰ Valiquet, 'Hearing the Music of Others', 258.

2. Musique Concrète in Theory and Practice, 1942-

53

Schaeffer's writings and recordings between 1942 and 1953 form the central core of the account of musique concrète advanced in this study. Periodisation is a heuristic strategy rather than an exact science, and this displacement of musique concrète's Year Zero by six years seeks to situate the style more fully within the context of the radio, literary and musical cultures of mid-century France. In other words, this account disputes the suggestion that Schaeffer's coining of the term "musique concrète" in 1948 marks a categorical transformation in his work; while the avant-gardist rhetoric of In Search of a Concrete Music figures musique concrète as a new beginning, a cursory comparison of La Coquille à planètes with the available recordings of Orphée 53 would suggest that the difference is one of degree rather than of kind. The predominant characteristics and concerns of musique concrète develop out of Schaeffer's theoretical reflection on radio and cinema and the experimentation of Schaeffer and his collaborators with these forms. Schaeffer's writings on the radio and cinema prior to the *musique concrète* project principally Essai sur la radio et le cinéma: Esthétique et technique des arts-relais (1942) and Propos sur la coquille (1944-46) along with a handful of articles—form a closely related cluster of texts. Much of the content of these texts is developed out of Schaeffer's involvement with bodies like the CFPP and the impression of their intimate relation is borne out by the existence of sketches that propose the synthesis of various elements into a book in the early 1950s. Neither the Essai sur la radio et le cinéma nor Propos sur la coquille were published in full for several decades: the former in 2010 and the latter in 1990, though excerpts of both had previously been published in 1977 and 1970

¹ Schaeffer, table of contents titled 'Le phénomène radiophonique', 9 March 1953, IMEC, fonds Schaeffer, Box 91, Dossier 861; Schaeffer, 'Projet d'une histoire de la radio', May 1951, book proposal sent to Paul Flamand of Éditions du Seuil, IMEC, fonds Schaeffer, Box 91, Dossier 861; cf. Palombini, 'Dans un bureau à Marseille, un jeune ingénieur rêve', 73 & 92.

respectively.² While these texts were subject to revisions by Schaeffer in the late 1940s, the finally published versions can be dated to no later than 1950.³ Moreover, the texts in question, as will become clear, share a number of sources and arguments, including essays by Valéry, Soupault and André Malraux.

Before Musique Concrète

The Essai sur la radio et le cinéma has its origins in the talks Schaeffer gave as part of the CFPP. As such, much of the text is a didactic attempt to 'introduce a little order' into the 'bazaar' of theories of the radio and cinema.⁴ Summarising the confused and romantic accounts of writers including André Cœuroy, Éric Sarnette and Léon Moussinac, Schaeffer identifies the source of this confusion in the existence of a 'no man's land' between art and technique; both cinema and radio require a level of expertise uncommon among poets and other 'men of letters', a situation which is addressed by an extreme division of labour.⁵ The purpose of organisations like the CFPP and the Studio d'Essai was to transcend this divide, training not just technically but aesthetically capable radio professionals.⁶

The unity of cinema and radio, Schaeffer argues, lies in a shared structure of spatial disjuncture between production and reception. Both radio and cinema capture the trace (or 'image', in the case of cinema, and 'modulation' in the case of radio) of an object which is then 'broadcast'. Schaeffer suggests that the radio are to the classical arts as the

² Schaeffer, 'Le Langage des choses', in Sophie Brunet (ed.), *De la musique concrète à la musique même* (Paris: La Revue Musicale, 1977), 19–23; Schaeffer, 'Notes sur l'expression radiophonique', in *Machines à communiquer: Genèse des simulacres*, 89–118.

³ Palombini, 'Dans un bureau à Marseille'; see various drafts held in IMEC, fonds Schaeffer, Box 91, Dossier 861 and Box 137, Dossier 1354. References to "sound objects" in *Propos sur la coquille* and the drafts held in the archive, which do not appear in the 1970 'Notes sur l'expression radiophonique', perhaps reflect an attempt on Schaeffer's part to more clearly distinguish this text from later writings associated with *musique concrète*.

⁴ Schaeffer, *Essai sur la radio et le cinéma*, 18.

⁵ Ibid., 12–13; Schaeffer, *Propos sur la coquille*, 71–72. Such considerations of the division of labour and the degradation of craft recall the Romantic anti-capitalism of the nonconformists.

⁶ Schaeffer, Essai sur la radio et le cinéma, 14.

⁷ Ibid., 19–20. In the contents page to the proposed text on 'Le phénomène radiophonique' and in one version of *Propos sur la coquille*, Schaeffer writes of the '*image sonore*' as an analogue to the cinematic image; table of contents titled 'Le phénomène radiophonique', 9 March 1953, and 'III et IV, pp. 8-18.', IMEC, fonds Schaeffer, Box 91, Dossier 861.

telegraph is to the post: in the older partner in each pairing, the object is really present to the receiver; in the newer modes, they only receive 'signals'.⁸ These technologies, which he terms, after Valéry, 'relay arts', inaugurate novel forms of experience and of art, radically reordering perception.⁹

With reference to Plato, though he is effectively adhering to the argument of André Malraux's 1940 article 'Esquisse d'une psychologie du cinéma', Schaeffer describes the automatism of cinema and radio, arguing that it is not enough simply to allow the technologies to reproduce things, but that they must 'make them say something'. Drawing first on Frédéric Paulhan's distinction between *langage-signe* and *langage-suggestion*, between language as a semantic unit or as a sonorous effect, and then on that between prose and poetry, Schaeffer begins to sketch what that might mean: if the novel, for example, has as its basic unit the word, the words of cinema and radio are the shards of reality captured by the camera and the microphone. Instead of a *langage*, these forms speak a 'chosage', or a 'language of things'. This, Schaeffer argues, reverses the conventional relationship of abstract to concrete: instead of passing from ideas to things, cinema and radio necessarily pass from things to ideas.

Poetry serves as a model for Schaeffer's conception of radiophonic art because of the significance the poet accords to words as sounds. Schaeffer's comparison of radio and poetry is informed by an essay of Philippe Soupault's published in *Fontaine*, a journal close to the literary figures in *Jeune France*, in 1941. Soupault, associated in the 1920s with Dada and surrealism, had worked for the radio since the early 1930s and managed Radio-Tunis from 1937. Like Schaeffer, Soupault sees cinema and radio as parallel means of expression, and argues for the development of forms proper to these media as opposed to

8 Schaeffer, Essai sur la radio et le cinéma, 37.

⁹ Kaltenecker and Le Bail, 'Jalons', 27–28.

¹⁰ Schaeffer, *Essai sur la radio et le cinéma*, 47; André Malraux, 'Esquisse d'une psychologie du cinéma' [1940], in *Œuvres complètes, IV: Écrits sur l'art* (Paris: Gallimard, 2009), 1–16 (p. 14).

¹¹ Schaeffer, Essai sur la radio et le cinéma, 47.

¹² Keith Aspley, 'The Avant-Garde, Neo-Avant-Garde and Radio: Robert Desnos and Philippe Soupault', in David Hopkins (ed.), *Neo-Avant-Garde* (Amsterdam: Rodopi, 2006), 223–42 (p. 232–33).

adaptations of existing forms, derived from theatre.¹³ Soupault prescribes 'a cure of purity', a thorough reflection on the specificity and novelty of the radio and the cinema which he locates in the superhuman perception of these technologies. This perception, and particularly that of the radio, 'is faithful and this fidelity frightens. It attacks directly, without intermediary and permits neither correction or repentance'. The radio opens 'the great sonorous mystery', 'a new world', up to be conquered and exploited. Soupault proposes a poetry of the radio and cinema, one that does not involve the creation of radiophonic or cinematographic poems, but rather the forging of a 'state of mind'. This poetry would deliver its subject from habitual perception and allow life to be perceived anew.¹⁴

Propos sur la coquille, a text that accompanies and attempts to theorise the radiophonic experimentation of La Coquille à planètes, resumes Schaeffer's project of a poetics of the radio, arguing for the development of a style or aesthetic proper to the radio. Here, however, he allows himself a rather more far-reaching and poetic frame of reference. After a preamble that sets his theory of the radio against a metaphysical system of correspondences between man and universe, Schaeffer describes the spatial split between speaker and listener that defines the radio and the transformation wrought by transmission, which reveals the accidental, material quality of sounds. Radio as it exists, however, imitates existing forms such as the daily newspaper, the dramatic play or the discothèque, for example. There are two radiophonic realms, he concludes: 'that of the event in the instant that it takes place, with its smudges, its gaps, its blisters, the irregularities in rhythm and interest, which is the proper field of the radio'; and 'that of retransmission (at best) and imitation (at worst) of the most diverse genres, of the most opposed techniques, from typography to scenography, from lyricism to journalism'. The radio microphone, like the close-up of the film camera, Schaeffer argues, citing Malraux again, reveals the world anew and strips the speaker of all artifice. In turn, literary and

¹³ Soupault, 'Vers une poésie du cinéma et de la radio', Fontaine, 16 (1941), 172-75 (p. 172).

¹⁴ Ibid., 174–75.

¹⁵ Schaeffer, *Propos sur la coquille*, 49.

theatrical conventions are proven incompatible with the radio, necessitating new styles of acting and reinterpretations of texts.¹⁶

Much of the text is taken up with an account of the genesis and aesthetics of La Coquille à planètes, returning to the conception of radiophonic poetry drawn from Soupault's essay and aided by Valéry's essay 'Poésie et pensée abstraite'. Valéry's essay provides Schaeffer with a more detailed conception of what a poetry of the radio might sound like. Valéry seeks to describe a certain poetic sensibility that initiates his writing, a sensibility that registers or generates unexpected connections that short-circuit purely logical lines of thought. One route for these short-circuits lies in poetry's attention to the materiality of language. Drawing on the distinction between prose and poetry, Valéry argues that in the former the physical signifier is exhausted, passed over in the act of understanding, it is a mere means. In the latter, however, the sound of language slows understanding and generates new connections; the sensible and the intelligible mutually inform one another.¹⁷ Schaeffer's radio poetics takes up the thread suggested by these texts: a poetics of the radio, for Schaeffer, calls on a certain sort of mode of listening, as in his experience of listening to a rugby match as a poem.¹⁸ It listens beyond the meaning of sounds to a web of relations: 'Just as I had discovered, beyond words, that a simple recorded conversation taught us more about two beings than a long acquaintance of their person and even a thorough knowledge of their work, I was not surprised that, by recording the noise of the world, we could perceive, beyond the sounds, the daily metaphors it offers'.19 Schaeffer draws an analogy between his development of La Coquille à planètes and Valéry's development of his poem Le Cimetière marin as narrated in 'Poésie et pensée abstraite'. Schaeffer suggests that poetic and radiophonic creation share the same 'play of alternating incitements between sound and sense', and both accord great significance to the unexpected. Quoting Valéry at length, Schaeffer narrates the genesis of La Coquille à planètes from 'the click of a machine' which inaugurates the flights of fantasy that form

¹⁶ Ibid., 54–57.

¹⁷ Valéry, 'Poésie et pensée abstraite', in *Variété V* (Paris: Gallimard, 1944), 129–60.

¹⁸ Schaeffer, *Propos sur la coquille*, 59.

¹⁹ Ibid., 60-61.

the basis of the work, just as Valéry's poem had begun with 'a certain rhythm' before any determinate ideas. ²⁰ Schaeffer envisages this process as a model for radiophonic creation, in which the 'fundamental attitude [...] is therefore to listen and not to write, to construct with sonorous materials; and if one employ words, to consider first of all the noise that they make, their matter, their weight of reality, and not their intellectual signification'. ²¹ That such a practice is possible, drawing out the hidden meanings inherent in material existence, is proof for Schaeffer of the cosmic unities he had depicted at the text's opening, and to which he returns in concluding.

From Musique Concrète to Musique Expérimentale

Schaeffer's theorisation of *musique concrète* emerged from these earlier programmes for radiophonic aesthetics. Indeed, in texts on the radio contemporary with the early years of *musique concrète*, Schaeffer's musical experiments are figured in ways that affirm a continuity with radio work.²² Schaeffer's first account of *musique concrète*, 'Introduction à la musique concrète', was published in 1950 in *Polyphonie*. This text, later reworked to form the first three chapters of *In Search of a Concrete Music*, is presented as a journal of Schaeffer's experiments at the Club d'Essai.²² While attempting to compose a 'symphony of noises', initially manipulating objects before moving behind the controls to manipulate recordings, he develops his conception of a concrete music. In opposition to notated, 'abstract' music, this music depends 'no longer on sonorous abstractions, but on concrete sounds'.²⁴ Schaeffer recounts his creation of a cluster of studies, *Cinq études de bruits*, which utilise short loops or 'closed grooves', concatenated and played at different speeds. The article concludes by speculating on the implications of this concrete music: it is, Schaeffer claims, to ordinary music as 'classical mechanics is to that of relativity'. This

²⁰ Ibid.; cf. Valéry, 'Poetry and Abstract Thought', trans. by Charles Guenther, *The Kenyon Review*, 16 (1954), 208–33 (pp. 232–33).

²¹ Schaeffer, *Propos sur la coquille*, 73.

²² Schaeffer, 'Donner à entendre, donner à penser', La Nef, 73-74 (1951), 43-50 (p. 46); Schaeffer,

^{&#}x27;Pouvoirs de l'instrument' [1949], Machines à communiquer: Genèse des simulacres, 121-30 (p. 128).

²³ Schaeffer, 'Introduction à la musique concrète'.

²⁴ Ibid., 39.

new music 'would attempt to snatch pieces of time regained, to make them the object of a painful, promising contemplation of, who knows, eternity'.²⁵

In a text written during the planning stages of the Darmstadt summer course of 1951, Schaeffer's ideas have crystallised further. The first works of *musique concrète*, he argues, 'pose the question of a possible renewal of the whole of music'. Recalling the *Polyphonie* article, Schaeffer describes how, 'concerned with a radiophonic experiment on the evocative power of noises', he 'had been led to notice that ordinary noises were not susceptible to musical composition, being too closely bound to their dramatic connotations, hence a groping study to "snatch" these noises from their anecdotal context and to make of them musical materials'. In summarising the state of affairs in early 1951, Schaeffer gives intimations of the direction his project will soon take, suggesting the need for a 'phase of less attractive research, not directed immediately towards artistic expression in premature works but consecrated to the review of instrumental techniques, of rules of composition, liable to be subsequently practised and passed on'.26

Schaeffer's most extended account of *musique concrète* was published in 1952 as À *la recherche d'une musique concrète*. As noted above, Schaeffer's book opens with a revision of the 'Introduction à la musique concrète'. There is little significant difference between the two versions besides rephrasing and a few telling revisions: where, in 1950, Schaeffer acknowledges while distancing his prepared piano from that of John Cage, in *In Search of a Concrete Music* he insists that he had been unaware of Cage at the time.²⁷ After this familiar material, Schaeffer continues to narrate his work in journal form, recounting

²⁵ Ibid., 52.

²⁶ Schaeffer, 'La musique concrète' [1951], in Gianmorio Borio and Hermann Danuser (eds.), *Im Zenit der Moderne: die Internationalen Ferienkurse für neue Musik Darmstadt*, 1946–1966: Geschichte und Dokumentation, 3 vols (Freiburg im Breisgau: Rombach, 1997), III, 98–101.

²⁷ Schaeffer, 'Introduction à la musique concrète', 42; Schaeffer, *In Search of a Concrete Music*, 18. When exactly Schaeffer and Henry did encounter Cage is uncertain, though it seems likely that at least one of them would have heard excerpts of the *Sonatas and Interludes* for prepared piano during Cage's 1949 stay in Paris, during which Cage performed in Olivier Messiaen's harmony class, in which Henry was a student, as well as at the salon of Suzanne Tezenas, an evening to which Schaeffer makes reference in *La Musique Concrète*; Mark Delaere, 'Olivier Messiaen's Analysis Seminar and the Development of Post-War Serial Music', trans. by Richard Evans, *Music Analysis*, 21 (2002), 35–51 (p. 38); Schaeffer, *La Musique Concrète* (Paris: Presses Universitaires de France, 1967), 65.

Pierre Henry's arrival, the composition of *Symphonie pour un homme seul*, a piece promised in the earlier article, and the first concerts of *musique concrète*.²⁸

Schaeffer emphasises two "discoveries" in this early phase: the 'cut bell', a recording of a bell in which Schaeffer raises the amplitude potentiometer after the bell has been struck, resulting in a smooth attack that distances the recordings from a recognisable source, and the 'closed groove', allowing the repetition of a short fragment. For Schaeffer, these simple editing techniques, which reappear as a sort of primal scene in Schaeffer's later writing, exemplify the separation of recorded effects from their source, affording a transition from 'drama' or 'event' to 'music'.²⁹ Through its infinite repetitions, Schaeffer suggests, the closed groove empties recorded sound of its 'anecdotal' content, allowing sounds to be analysed in terms of their 'intrinsic' characteristics. As Kane notes, Schaeffer's rigid dichotomy between 'anecdotal' and 'musical' sound goes unquestioned throughout.³⁰

Part Two comprises a journal account from 1950 to 1951, following Henry's prodigious experiments, the development and performance of *Orphée 51* as well as Schaeffer's widening networks in the Parisian music scene and beyond. In the course of the conversations recalled here, Schaeffer toys with the usefulness of *Gestalt* theory and encounters Abraham Moles, an acoustic engineer among the earliest French adopters of cybernetics, who provides a theoretical language for the collaborative material that closes the book.³¹ The section culminates in Schaeffer's visit to Darmstadt in the summer of 1951, an occasion that solidifies Schaeffer's positioning of *musique concrète* against the *elektronische Musik* of the Cologne studio.

It is in Part Three that Schaeffer begins to develop *musique concrète* further as a theory. Chapters 14 to 16 rehearse arguments made by Ernest Ansermet in lectures in the late 1940s as well as Boris de Schloezer's phenomenological theories of music that take the music of Bach as their point of departure. Ansermet theorised an authentic relationship

²⁸ Schaeffer, In Search of a Concrete Music, 29-109.

²⁹ Schaeffer, Treatise on Musical Objects, 311; Schaeffer, In Search of a Concrete Music, 13.

³⁰ Kane, Sound Unseen, 28.

³¹ On the early French reception of cybernetics, see Christopher Johnson, "French' Cybernetics', *French Studies*, 69 (2014), 60–78.

between music and listener grounded in a pre-cultural sense of the 'dominant', one which the decadent composers of post-Schoenbergian serialism were abandoning.³² Schloezer, meanwhile, was a quietly influential figure on the post-war avant-garde, and his 1947 *Introduction à J.-S. Bach* sought to account for the concrete existence of the musical work in three simultaneous modes: 'the graphic materiality of the score, the vibrational materiality of acoustic waves, and the psychological materiality of the 'mental attitudes' to which the sounds give rise in the minds of listeners'.³³ Although, as Valiquet notes, Schaeffer does not cite Schloezer directly, his references to Bach, to *Gestalt* interpretations of Bach and his interest in the 'musical object' strongly suggest a connection.³⁴

Ansermet and Schloezer are also significant in having both been noteworthy for their writing on musical neoclassicism in between the wars (Schloezer's emphasis on Bach is therefore hardly coincidental, given the importance of Bach to articulations of neoclassicism).³⁵ Thus, while the themes and preoccupations present in Schaeffer's writing in this period situate *musique concrète* in much closer relation to debates about cinema, literature and literary radio broadcasting than to the musical experiments of, say, Varèse or Russolo, Schaeffer's rhetoric of musical objectivity at the expense of subjective expression ('[f]or us', Schaeffer writes, 'it is not so much a matter of expressing ourselves in front of an audience as of persuading them to consider the object') appears to be derived at least in part from the French interwar reception of neoclassicism. Along with Schaeffer's explicit reference to 'a rigorous classicism', a number of historical factors support this suggestion of a close link to the acolytes of neoclassicism and its afterlives in music aesthetics.³⁶ He had taken harmony lessons with Nadia Boulanger, a champion of

³² Valiquet, 'Hearing the Music of Others', 267–68.

³³ Edward Campbell, *Boulez, Music and Philosophy* (Cambridge: Cambridge University Press, 2010), 18–21; Valiquet, 'Hearing the Music of Others', 267.

³⁴ Among other connections, Schloezer chaired a debate between Schaeffer and Boulez at the Première Décade internationale de musique expérimentale in 1953, and reviewed *In Search of a Concrete Music* for *La Nouvelle revue française*; Boris de Schloezer, 'Musique concrète, musique abstraite, musique …', *La Nouvelle revue française*, 5 (1953), 920–23.

³⁵ Scott Messing, Neoclassicism in Music: From the Genesis of the Concept through the Schoenberg/Stravinsky Polemic (Rochester: University of Rochester Press, 1996), 135.

³⁶ Schaeffer, In Search of a Concrete Music, 186.

Stravinsky's music, in the 1930s and was associating with such critics as Roland-Manuel and Schloezer by the end of the 1940s.³⁷

In the 1920s, both Ansermet and Schloezer had published articles that praised the music of Stravinsky as an 'objective' antidote to a Teutonic (or more precisely Wagnerian), subjectivist decadence, offering instead a return to order, purity and youthful vigour.³⁸ To these writers, Stravinsky's neoclassical music was 'objective' in that it refused subjective expression or the imposition of a programme, avoiding the degeneration of the nineteenth century by drawing on earlier music.³⁹ For Ansermet, the point of Stravinsky's *métier* (a word that significantly implies a mode of artistic creation at odds with those stereotypically associated with the nineteenth-century composer) is neither to represent or express but 'to reveal the splendour of a form' and 'to manifest the life of the object itself'.⁴⁰ The preoccupations and value judgements of French neoclassical discourse are, clearly, closely aligned with those I have noted in relation to Schaeffer's intellectual milieu of the 1930s and 1940s, and there are some moments of explicit convergence, as in Ansermet's invocation of Jacques Maritain's Thomist aesthetics, leading the latter to endorse Stravinsky on the grounds of his 'purity, his authenticity and his glorious spiritual vigour'.⁴¹

A cluster of texts, from Pyotr Souvtchinsky's 'La notion du temps et la musique' (1939) through Schloezer's *Introduction à J.-S. Bach* (1947) and Gisèle Brelet's aesthetics of music (1947–51) to Ansermet's *Les fondements de la musique dans la conscience humaine* (1961), suggest a lineage from interwar critical discourses around neoclassicism to post-war quasi-phenomenological philosophical aesthetics of music, in which the "objectivity" of Stravinsky's music is reformulated in current philosophical language.⁴² Ansermet's

³⁷ Schaeffer, Les Antennes de Jéricho, 148.

³⁸ Messing, *Neoclassicism in Music*, 75–154.

³⁹ The extent to which this was a post facto discursive fabrication is emphasised by Messing; Messing, *Neoclassicism in Music*, 99–104.

⁴⁰ Ansermet, quoted in Kelly, *Music and Ultra-Modernism in France*, 170.

⁴¹ Kelly, Music and Ultra-Modernism in France, 207–208; Maritain, Art and Scholasticism, 60.

⁴² Benjamin M. McBrayer's dissertation outlines this discursive transformation; Benjamin M. McBrayer,

^{&#}x27;Mapping Mystery: Brelet, Jankélévitch, and Phenomenologies of Music in Post-World War II France' (unpublished doctoral dissertation, University of Pittsburgh, 2017). Brelet's *Le temps musical: essai d'une*

"objectivity", and by extension Schaeffer's, is thus imprinted with the musical thought of the interwar period.⁴³

Schaeffer theorises the 'musical object' as the musical work's existence independent of either composer or listener. The development of sound recording has, Schaeffer argues, allowed the previously fleeting to be captured in its objectivity rather than as a score or as a memory. The musical object is thus newly accessible to scientific study.⁴⁴ With this in mind, Schaeffer begins to develop a *solfège* adequate to sounds beyond those traditionally thought of as musical, proposing the related, if indistinctly so, concepts of the 'complex note', the 'sound object' and the 'large note'.⁴⁵

In the following chapters, Schaeffer returns to arguments and sources familiar from the earlier texts on radiophonic aesthetics. Chapter 17 opens with a discussion of Valéry's 'L'Homme et la coquille', an essay that had similarly opened *Propos sur la coquille*. Here, the sound object is compared to Valéry's seashell, a 'natural', or at least not exactly manmade, object, soliciting explanation and interpretation and suggesting secret correspondences between mind and universe. This leads to an argument that is adapted from *Propos sur la coquille*, drawing again on Valéry's essay 'Poésie et pensée abstraite'. *Musique concrète* takes the place of radiophonic art in the opposition between poetry and prose: if the sound object can be assimilated into a musical language, it will not be a discursive, informational prose, with which Schaeffer aligns 'ordinary' music, but a poetic language that calls on the sound object as sound.⁴⁶

At the end of the third section Schaeffer takes stock of the situation of *musique concrète* in theory and practice in 1952, arguing for the centrality of attentive listening in any

esthétique nouvelle de la musique, 2 vols (Paris: Presses Universitaires de France, 1949) contains what may well be the earliest reference to *musique concrète* in a book.

⁴³ Schaeffer, *In Search of a Concrete Music*, 114. Ansermet's diagnosis of musical decadence is entangled with an anti-Semitically inflected aversion to dodecaphony, making him a particularly unappealing source; see Louis Andriessen and Elmer Schönberger, *The Apollonian Clockwork: On Stravinsky* (Amsterdam: Amsterdam University Press, 2006), 191–92; cf. Valiquet, 'Hearing the Music of Others', 267–68.

⁴⁴ Schaeffer, In Search of a Concrete Music, 131-36.

⁴⁵ Ibid., 135-40.

⁴⁶ Ibid., 147-56.

practice of *musique concrète* and reflecting on the serial approaches of Henry's *Antiphonie* and Boulez's *Etude sur un son*. He echoes the ambivalence of his 1951 Darmstadt text, mourning the lack of a solid scientific theory to underpin the proliferating intuitive practice of the *concrète* composers.

The final section, a collaboration with Moles, is the section most suggestive of the path Schaeffer's thought would take after his period of absence from the GRMC and his founding of the GRM in 1958. The section is entitled 'Outline of a Concrete *Solfège*' and attempts the sort of typological classification that is the most well-known characteristic of the *Traité*. With the aid of Moles's cybernetic account of acoustics, Schaeffer and Moles devise visual representations of sound objects, mapping the sound's amplitude, pitch and timbre through time using a 'trihedron of reference'. As exemplified by their attempt to define the dynamic markings of notation in terms of decibels, Schaeffer and Moles's conception of sound is a scientific realist one: rather than the phenomenological account of sound that will inform the *Traité*, this chapter treats sound as a precisely measurable object.⁴⁷ In ways that very clearly prefigure the *Traité*, *In Search of a Concrete Music* finishes with a 'characterological' list of criteria and parameters for categorising sound objects.⁴⁸

'Vers une musique expérimentale', an essay written in 1953 in connection with the Première Décade Internationale de Musique Expérimentale, represents Schaeffer's final account of his musical project prior to his departure from the studio. Under the banner of 'experimental music', he attempts to unify the music being created by experimentalists in the United States, serialists in West Germany and *concrète* composers in France. As Schaeffer had noted towards the end of *In Search of a Concrete Music*, there remained a great deal of work to be done: '[t]hat which we had taken for an island was perhaps a continent where others have approached on other beaches. We had to return to our bases, compare our machines and our machinations, recognise the partners in a necessarily

⁴⁷ Ibid., 204.

⁴⁸ Iain Campbell, "Things begin to speak by themselves": Pierre Schaeffer's myth of the seashell and the epistemology of sound', *Sound Studies*, 7 (2021), 100–18 (p. 105).

collective adventure, and for that, to travel, correspond with the five parts of the world, with those who know the musical past of this planet and with those who imagine its future'.⁴⁹ This experimental music is unified in its radical questioning of conventional conceptions of music.

Musique concrète unsurprisingly appears in Schaeffer's account as the most advanced of these practices: the American experiments are characterised as naïve collages, while the serialist compositions of 'Pierre Boulez and his friends' are criticised with particular vehemence.⁵⁰ But Schaeffer is more or less disparaging of the works of *musique concrète* that had resulted from the previous five years, insisting on the need to cease composing and to devote attention to 'the two researches which all future composition calls for: research into sound objects, and into instrumental manipulations'.51 He hopes for the arrival of a time when 'the new discoveries, whether they be formal or material, and the new instrumental procedures, will have to join the already known ends and means and extend the most universal musical expression', and concludes with a summary of the field of 'experimental music' that recalls the outlook of *In Search of a Concrete Music*, leaving little room for the justifications and meanings of electronic, serial or experimental music that other composers may have preferred.⁵² As Carlos Palombini notes, this text represents a stepping-stone towards the programme of 'musical research' that Schaeffer would set out in reorganising the GRMC into the Groupe de recherches musicales in 1958.53

La Coquille à planètes

The project in which Schaeffer initially sought to put into practice his developing theories regarding radiophonic aesthetics was *La Coquille à planètes*. In 1943, Schaeffer and the Studio d'Essai began to develop the broadcast at their new Parisian studio. Setting in play figures and preoccupations from his contemporaneous writing, the seashell against the

⁴⁹ Schaeffer, 'Vers une musique expérimentale', La Revue Musicale, 236 (1957), 11–27 (p. 14).

⁵⁰ Ibid., 17–19.

⁵¹ Ibid., 19.

⁵² Ibid., 25–27.

⁵³ Carlos Palombini, 'Machine Songs V: Pierre Schaeffer: From Research into Noises to Experimental Music', *Computer Music Journal*, 17 (1993), 14–19; Palombini, 'Pierre Schaeffer, 1953'.

ear is deployed as a figure for new modes of experience, connecting man with the cosmos, subject with object; as the seashell provides access to the sounds of the sea, so *La Coquille* à planètes makes the universe available to auditory experience. Schaeffer, with Claude Arrieu's score, elaborates the gradations between sound effect, diegetic music, speech, song and non-diegetic music. The work follows Léonard, a young man on his twenty-fifth birthday, as he encounters the twelve signs of the Zodiac in the prosaic world of Paris, reluctantly guided by the astrologist Vicotrien Vobiscum towards experiencing the marvellous in the everyday.

As in so many of Schaeffer's works, there is an autobiographical undercurrent to La Coquille à planètes: Léonard is born in the same month as Schaeffer, and thus, significantly, shares his star-sign, and has, like Schaeffer, lost his beloved. Like his later works Symphonie pour un homme seul and Orphée, this is the tale of a solitary man's search for a revelation of meaning: 'Man is very alone, it is well known' declaims the announcer at the start of the first episode, and a beleaguered, split subject recurs in the work, Léonard conversing with his soul in a 'double soliloquy'. La Coquille à planètes operates with a thematic constellation familiar from the pre-war period: anxiety about mechanisation, commercialisation and the place of the individual in relation to the crowd, as well as exploring a number of themes that will come to characterise later works of musique concrète: the divination of meaning from material signifiers, the failures of a cliché-ridden, exhausted and inauthentic language and the revelation of an authentic, mystical language, either in the form of a magical incantation (as in the arch reference to Arthur Rimbaud's 'alchemy of the word') or a Claudelian decipherment of nature.

The first episode opens on the platform of Sèvres-Babylone metro station, where Léonard buys a horoscope reading from an automatic machine and encounters Vobiscum. Over the following episodes, Léonard meets the figures of the Zodiac through prosaic avatars: Taurus, for example, appears as a shop assistant in a department store, Sagittarius as a stone carving of a centaur come to life and Gemini as a boulevard singer named Castor Gemini. The work, as the first large-scale project of the Studio d'Essai, self-consciously explores the potential of the radiophonic medium, superimposing a narrating voice on

diegetic sound such that the voice is almost obscured, experimenting with different acoustics, microphone techniques and speaking choirs. In the 'Opéra de Minuit' sequence (the title perhaps referring to 'Les Éditions de Minuit', the Resistance publishing venture), in which Léonard attends a soundless opera performed exclusively for him in the middle of the night. The performance opens with silence, then creaks, snores and other ambient sounds, then a distant orchestra tunes up and the music comes into focus, a scene that recalls Schaeffer's account of radio broadcasts from the opera in *Propos sur la coquille*. ⁵⁴ In Stalarow's reading, having fallen asleep on settling into his seat in the auditorium, Léonard gradually wakes up and attempts to make sense of the confused sounds that assail him. ⁵⁵ The characters address Léonard, vacillating between a rhythmic chanting and *bel canto* singing, the pitch contours mirrored by distant solo instruments. Léonard eventually discovers that these unseen voices belong to signs of the Zodiac, Cancer and Scorpius.

Another striking scene takes place in Vobiscum's Chamber of Marvels, when one of his arcane devices, the 'backwards clock', transmits sounds from across the last two thousand years. The sonic signifiers of this transtemporal broadcast are, unsurprisingly, radiophonic, bursts of speech intercut by the sweeping tone of a shortwave radio. As Léonard and Vobiscum comment on the stations they encounter while turning the dial, fragments of different languages appear ('So spracht Zarathoustra, "Des Volkes Seele lebt in seiner Sprache", declaims one, a line Schaeffer attributes to Goethe). What follows is a three-minute passage of confused voices, shards of varied musical styles, languages and electronic sound, prefiguring later projects of Schaeffer's like *Une Heure du monde* and *Symphonie pour un homme seul*.

⁵⁴ Schaeffer, *Propos sur la coquille*, 46.

⁵⁵ Stalarow, 'Listening to a Liberated Paris', 66.

⁵⁶ Felix Dahn appears to be the actual source of the quotation; Kurt Frech, 'Die Verbreitung völkischen Gedankenguts durch den historischen Roman', in Uwe Puschner, Walter Schmitz and Justus H. Ulbricht (eds.), *Handbuch zur "Völkischen Bewegung"*, 1871–1918 (Munich: K.G. Saur, 1999), 685–98 (p. 686). 'It's a bit annoying', interjects Léonard.

The various machines that appear in the radio play—the horoscope machine, the record player, Vobiscum's arcane technologies and the radio itself—suggest a metatextual commentary on the medium of the radio as one that, for Schaeffer, extends human perception and reveals a previously hidden, more authentic or true reality. Eventually Vobiscum leads Léonard to the realisation that the marvellous is not to be found through occult magic but through a particular mode of perceiving reality, such that the dissolution of sugar in a glass of water, the sound of pouring water and the way an onion's skin reflects the conditions under which it grew can be marvellous; 'compared to those of nature, our tricks are crudely stitched together [cousues de fil blanc]', Léonard concludes.⁵⁷

As might be expected from Schaeffer's contemporaneous writing, the work takes great interest in the sounds of words; as well as Latinate magical chanting, the work features punning, wordplay, failed speech and an extended reflection on the 'power of words'. This passage is prompted by the seemingly redundant and meaningless element 'Babylone' in 'Sèvres–Babylone', leading Léonard to claim that 'Babylone' does not designate but rather evokes (echoing Paulhan's distinction between *langage-signe* and *langage-suggestion*) and to question the relationship between words and things: 'words are like covers on things: names are hand-me-downs on beings: our vision is like a cover for the eye', he declaims.⁵⁸ For the world to be experienced anew, authentically, the message seems to be, it is necessary to cast off 'jargon' and intellectual abstractions and, as Schaeffer will argue four years later, attend to the concrete.

Cinq études de bruits

Musique concrète had its first public presentation in the form of a 'concert of noises' broadcast on the Chaîne Parisienne on 5 October 1948, consisting of Schaeffer's Cinq études de bruits. These five studies, which Schaeffer had composed during the spring and summer of 1948, were introduced as an experiment in the expressive possibilities of noises: where generally they are deployed on the radio to 'recreate an atmosphere' or 'to

⁵⁷ Schaeffer, La Coquille à planètes, 157.

⁵⁸ Ibid., 187.

indicate a peripeteia', these pieces seek, 'in the rich material of natural or artificial noises, to remove portions that would serve as materials for an organised construction'.⁵⁹

The five studies make extensive use of closed grooves to create juddering rhythms from recorded material. The first, *Étude aux tourniquets*, takes as its source material original recordings of tuned and untuned West African percussion, as well as the pair of music boxes that give the piece its title.⁶⁰ As Stalarow notes, and as will be argued in much greater detail in the excursus, this movement calls on a set of claims about the "primitive" and musical universals that in many ways buttress Schaeffer's project.⁶¹

The second study was, according to Schaeffer's account, the first to be composed, and is probably the best-known of the five. Schaeffer envisaged a 'concert of railway engines', composed of recordings made at the Batignolles train depot combined with recordings from the radio's sound effect library.⁶² The piece vacillates between the 'dramatic' and the 'musical', Schaeffer preferring the latter but accepting to a degree, for now at least, the former, and it is primarily through rhythm that he seeks to 'musicalise' his recordings, extracting and repeating rhythmic cells.⁶³ The piece opens with the sound of a train whistle, a sound that reappears later at structurally significant moments, before playing the train's off-kilter mechanical repetition of the closed groove, contrasting different sound complexes with one another while maintaining a consistent pulse and drawing out,

⁵⁹ Schaeffer, 'Présentation du Concert de bruits' [1948], in François Bayle (ed.), *Pierre Schaeffer: L'Œuvre musicale* (Paris: INA and Libraire Seguier, 1990), 95; Stalarow, 'Listening to a Liberated Paris', 122. Schaeffer's use of words like 'atmosphere', 'scenery' and 'peripeteia' should alert the reader to the fact that these pieces are being crafted from the means of radio drama, a transformation that is the subject of chapter 4. As such, Schaeffer's use of 'noise' is neither primarily a reference to the frequency content of sounds, nor to information theory but instead to those sounds deployed in the radio play that are neither speech nor music; with this in mind, *Études de bruits* might even be translated as 'sound effect studies'. See also Schaeffer's discussion of the film soundtrack in 'L'élément non visuel au cinéma (I) – Analyse de la "bande son", *La Revue du Cinéma*, 1 (1946), 45–48, and of 'sound scenery' (*décor sonore*) in *Propos sur la coquille*, 50.

⁶⁰ Schaeffer, In Search of a Concrete Music, 16.

⁶¹ Stalarow, 'Listening to a Liberated Paris', 126–27.

⁶² Schaeffer, In Search of a Concrete Music, 10-11.

⁶³ Ibid., 13.

through repetition and percussive embellishment, the rhythmic profile of the recordings.⁶⁴

Étude pour orchestre, or déconcertante, pits recordings of an orchestra tuning against improvisations by Jean-Jacques Grunewald, creating an interplay between distorted concrete manipulations and unmodified pianistic flourishes. Étude au piano, on the other hand, treats the sounds of the piano, played by Boulez, to the full extent of the techniques available to Schaeffer. Both these pieces attempt to create a continuum between 'abstract' and 'concrete' approaches by drawing on conventional musical instruments and the techniques of musique concrète. The final study, Étude aux casseroles, has its origins in a serendipitous juxtaposition of fragments, including the voice of the actor Sacha Guitry, an ethnographic recording from Bali and recordings of a harmonica and canal barges, as well as the spinning tin can indicated by the title. 66

Symphonie pour un homme seul

Following *Cinq études de bruits*, Schaeffer composed three more works or studies in a similar vein, *Suite pour quatorze instruments* (1949), *Variations sur une flute mexicaine* (1949) and *L'Oiseau RAI* (1950). Having been joined by Henry in the autumn of 1949, the pair began work on the first extended piece of *musique concrète*, *Symphonie pour un homme seul*. In part in response to his disappointment with *Suite pour quatorze*

The importance accorded to rhythm in Schaeffer's attempt to divorce recorded sound from reference recalls earlier accounts of cinematic aesthetics—those of Jean Epstein, Germaine Dulac and Léon Moussinac, for example—that theorised 'cinematic rhythm' as both the form's defining characteristic and the means by which a pure cinema, modelled on music, might be created. On 'cinematic rhythm', see, for example, Abel (ed.), *French Film Theory and Criticism*, I, 112 & 209 and Laurent Guido, '"The supremacy of the Mathematical Poem": Jean Epstein's Conceptions of Rhythm', in Sarah Keller and Jason N. Paul (eds.), *Jean Epstein: Critical Essays and New Translations* (Amsterdam: Amsterdam University Press, 2012), 143–60. Having cited Maurice Jaubert's essay in the series, Schaeffer would have been familiar with Roger Leenhardt's series of articles in *Esprit*, among which was an attempt to reprise avant-garde accounts of cinematic rhythm for the realism of the 1930s; Schaeffer, 'L'élément non visuel au cinéma (III) – Psychologie du rapport vision-audition', *La Revue du Cinéma*, 3 (1946), 51–54 (p. 54); Roger Leenhardt, 'Petite école du spectateur: Le rythme cinématographique', *Esprit*, 40 (1936), 627–32.

⁶⁵ Schaeffer, *In Search of a Concrete Music*, 15–19; Stalarow, 'Listening to a Liberated Paris', 133–37. *Étude pour orchestra* was subsequently isolated as *Diapason concertino*, and *Étude au piano* was split into *Étude violette* and *Étude noire*.

⁶⁶ Schaeffer, In Search of a Concrete Music, 19-20.

instruments, Schaeffer set out to create a symphony whose material would be derived not from traditional instruments but from the sounds of man.

As Schaeffer himself noted on various occasions, this piece makes particularly apparent the relation of *musique concrète* to radiophonic art. Schaeffer's initial plans suggest a piece that intersperses a spoken text with *concrète* sound, one characterised by a quasi-existentialist angst concerning the individual in mass society that recalls the concerns of pre-war nonconformism.⁶⁷ The sketches provided in *In Search of a Concrete Music* allow a number of influences and resonances to be noted: the first sketch reprises the figure of the seashell against the ear that appears in *La Coquille à planètes* and *Propos sur la coquille* as a figure for the correspondence of interior and exterior that Schaeffer argues is made available by concrete listening. The second echoes Schaeffer and Jacques Copeau's invocations of an aesthetic of sincerity located in the slips and gaps of the recorded voice. More generally, the work shares with Schaeffer's earlier writings and radio works like 'Radio Babel', as well as with radio works like Lescure's *Naissance du langage*, a preoccupation with the voice, language and a quest for authentic expression.

Over the course of the work's creation, Schaeffer and Henry expunged most traces of a text, leaving a mosaic of abstracted human sounds—cries, footsteps, breathing, mumbled speech and laughter—and quasi-musical sounds, above all that of Henry's prepared piano, in which the line between musical background and dramatic foreground is entirely blurred. The first public performance on 18 March 1950 appears to have stretched to twenty-two movements, although this was later revised to eleven by 1951, and in *In Search of a Concrete Music* Schaeffer refers to 'about ten pieces'.68 Many of the movements' titles refer to musical genres or techniques, as in the 'Partita', 'Valse', 'Scherzo', 'Strette' and 'Cadence', while others refer to literary terms, as in 'Strophe', 'Apostrophe' and 'Prosopopée'. The piece is characterised by the interplay of voices and prepared piano, and throughout, Schaeffer and Henry toy with the boundaries between meaningful and

⁶⁷ Ibid., 47-52; Schaeffer, La Musique Concrète, 22; Schaeffer, Treatise on Musical Objects, 8.

⁶⁸ Stalarow, 'Listening to a Liberated Paris', 146 & 175; Schaeffer, In Search of a Concrete Music, 56.

nonmeaningful sound: sentences turn to murmurs or hums; a voice is rendered indecipherable through being played in reverse.

In the opening movement, 'Prosopopée I' (referring to the rhetorical device in which inanimate objects are presented as if alive), one hears the gradations between dramatic raps, footsteps and the percussive sounds of Henry's prepared piano, as well as oral sounds that skirt the fringes of meaning: murmurs, cries and whistles. The 'Scherzo' appears to thematise the opposition between speech and "non-signifying", musicalised sound and its undoing, opening with a dialogue between the prepared piano and vocal recordings treated in such a way that their semantic meaning is all but obscured. Through the course of the movement, however, this opposition is found to be unsustainable, with the prepared piano taking its rhythmic cues from closed groove records of voices. 'Apostrophe', which to Schaeffer encapsulated the tone of *Symphonie pour un homme seul* in general, explores the shearing off of a word ('absolument') from its meaning.⁶⁹ The word is drawn out, repeated and its intonation varied like a totemic mantra; Schaeffer's own invocation of Rimbaud's 'Voyelles' in relation to *Symphonie pour un home seul* illuminates the sense in which sounds are not only considered apart from semantic meaning but also elevated to the status of a mystical symbol.⁷⁰

As the references to rhetorical devices like apostrophe and prosopopeia suggest, there is a double logic implied by *Symphonie pour un homme seul*: conventional language fails to communicate, to express some pre-linguistic intention, while at the same time indistinct murmurs of an authentic, non-arbitrary language can be heard, a 'sincere' language of stutters and cries, of words as material signifiers, as intrinsically expressive things.⁷¹ In Schaeffer's own account, the piece wavers, like *Étude aux chemins de fer* before it, between the musical and the dramatic: 'listeners with dramatic inclinations could simply look for

⁶⁹ Schaeffer, In Search of a Concrete Music, 58.

⁷⁰ Ibid., 58 & 51.

⁷¹ As Paul de Man has argued, prosopopeia lends expressive intention to the inanimate, while apostrophe, in addressing an inanimate other, promises that that other might possess expressive intention. See Paul de Man, 'Autobiography as De-Facement', in Paul de Man, *The Rhetoric of Romanticism* (New York: Columbia University Press, 1984), 67–81.

a scenario, a sort of puzzle', he writes, 'while those who preferred music had time enough to enjoy a concrete score'. The Even individual sounds are capable of being cast as either semantic units or as musical phrases from one moment to the next: I only had to cut off a few bars of footsteps, for example, for the whole sequence to go from the dramatic to the rhythmic'. Throughout the work,' Jane Fulcher comments, 'the realistic character of the sounds disappears after having been only fleetingly suggested, thus revealing a world of latent meaning.'

Orphée 53

Schaeffer's last large-scale musical work, *Orphée 53*, composed in collaboration with Henry, amplifies the difficulty, already present for *Symphonie pour un homme seul*, of establishing an 'original', *Urtext* or complete version.⁷⁵ The piece is one instance in what Cyrille Delhaye has termed the 'Orpheus project', a palimpsestic series of reworkings that stretches from 1951 to 2010.⁷⁶ *Orphée 53* is the second version in the series, following *Orphée 51*, which had been performed at the Théâtre de l'Empire two years earlier. This first version, of which very little documentation remains bar a libretto, in part because the theatre's records were destroyed in a fire in 2005, was described by Schaeffer variously as a 'dramatic cantata' or a 'lyric pantomime'.⁷⁷ Schaeffer's interest in the Orpheus myth can be explained in part by his desire to situate his project in the operatic tradition; just as (canonically) the first opera was Monteverdi's treatment of the myth, so the first concrete opera was to be Schaeffer's. Schaeffer, so often keen to appeal to tradition, seems to have begun work on *Orphée 51* by drawing up a chronology of operatic Orpheuses.⁷⁸ First

⁷² Schaeffer, *In Search of a Concrete Music*, 56.

⁷³ Ibid. It is worth noting how rhythm again stands as the other of representation (see above note 60).

⁷⁴ Fulcher, 'From "the Voice of the Maréchal" to Musique Concrète', 397.

⁷⁵ Of course, this is not a problem unique to *musique concrète*, and in the history of notated music in Europe, or "the Western art music canon", the works that adhere to a straightforward work concept are exceptions, as any scholar of Verdi, for example, well knows; cf. Nicholas Till, 'The operatic work: texts, performances, receptions and repertoires', in Nicholas Till (ed.), *The Cambridge Companion to Opera Studies* (Cambridge: Cambridge University Press, 2012), 225–53.

⁷⁶ Delhaye, '*Orphée*'. In 2010, after the completion of Delhaye's research, Henry once again reworked the *Orphée* material for a version included on Pierre Schaeffer, *L'Œuvre Musicale* (INA-GRM, 6027/6029, 2010).

⁷⁷ Delhaye, 'Orphée', 24.

⁷⁸ Ibid., 71.

among these is Gluck's *Orphée et Eurydice*, a performance of which served, according to Schaeffer's account, as the initial catalyst for *Orphée 51*, and it is to this opera that Schaeffer most frequently refers, borrowing from the libretto and reworking the opera's most famous aria.⁷⁹

There are various other ways in which the Orpheus myth resonates with Schaeffer's concerns and personal history: as noted above, Schaeffer had lost his wife in 1942, and the figure of a heroic poet-musician transgressing the will of the gods to reach his dead wife must have particularly appealed to him. Equally, the Orpheus myth affords further exploration of themes that are characteristic of Schaeffer's theoretical and aesthetic concerns: themes of embattled subjects, (non-)communication, boundaries between worlds, the power of sensory experience and music and the isolation of the senses from one another. Jean Cocteau's *Orphée* seems to inform the piece's coupling of the Orpheus myth with uncanny tricks of mechanical reproduction and the arch and self-conscious anachronism of Schaeffer's initial sketches.⁸⁰

Orphée 51 was scored for four singers, two narrators and an orchestre concrèt, the recorded accompaniment combining Henry's musique concrète with musical cues written by Schaeffer and Maurice Jarre. The performance combined choreographed lighting and mime with a classicist alternation between recitative and aria, featuring the characters of Orpheus and Eurydice alongside Doctor Pluto, Mademoiselle Aimée (Cupid, or Amore) and Sisyphus. Throughout, Eurydice in particular addresses the audience, comments on the action and on the work's relation to previous treatments of the Orpheus myth. Many of those involved in the performance had previously worked with Schaeffer; Geneviève Touraine, who played Mademoiselle Aimée, had appeared in La Coquille à planètes, Denise Benoit, appearing in the role of Eurydice, had attended the Stage de Beaune and Habib Benglia, who mimed the pre-recorded voice of Doctor Pluto, had worked at the

⁷⁹ Schaeffer, In Search of a Concrete Music, 80; Delhaye, 'Orphée', 82-83.

⁸⁰ This tendency for anachronism is not entirely attributable to Cocteau, as it had been a feature of earlier works by Schaeffer, including *Portique pour une fille de France* and *La Coquille à planètes*; Laura Anderson, '*Musique concrète*, French New Wave Cinema, and Jean Cocteau's *le Testament d'Orphée* (1960)', *Twentieth-Century Music*, 12 (2015), 197–224.

Club d'Essai, including on Schaeffer's *Une Heure du monde*.⁸¹ After its only performance, a radiophonic version, now lost, was developed and broadcast on 5 October 1951.⁸²

Schaeffer emphasised the experimental character of Orphée 51, and when he began to rework it into Orphée 53 he made significant changes.83 The work almost doubled in length, expanding from around fifty minutes to an hour and a half, the cast was cut down to Orpheus, Eurydice, Sisyphus and Amour, who functions primarily as a narrator, and the amount of recitative was substantially reduced.⁸⁴ As in Orphée 51, the piece closed with an extended musique concrète 'solo', subsequently isolated as Le Voile d'Orphée, in which the musicians, dressed in eighteenth-century garb, ceremoniously tear the veil of Orpheus. In terms that echo Symphonie pour un homme seul, Orphée 53 emphasises Schaeffer's interpretation of the Orpheus myth as concerning primarily 'the lone man, a divided Orpheus, with Eurydice [...] only an obscure bit player', conversing with a prerecorded voice that claims to be an echo, or no one, and fearing the dissolution of his subjectivity in a crowd.85 While Orphée 53 relies to a far greater extent on the communication of a text, it shares with Symphonie pour un homme seul a considered approach to the voice, specifying that certain passages should be treated with reverberation, looping or filtering, or should be whispered or screamed, and the libretto is full of rhymes and half-rhymes. This adds to the marked sense of incantation or mantra to much of the vocal material, suggesting a magical performative power of words that echoes the aesthetic of La Coquille à planètes, such as when the figure of Amour declaims an Orphic hymn to Zeus, 'multiplied and in counterpoint with itself'. At another point, in one of the performance's more outlandish moments, there is a samba sequence in which Eurydice and Amour imitate the call and response routines of "Negro song", the

81 Stalarow, 'Listening to a Liberated Paris', 175.

⁸² Delhaye, 'Orphée', 82.

⁸³ Schaeffer, *Programme d'Orphée 51 ou Toute la lyre le 06 juillet 1951*, reproduced in Delhaye, '*Orphée*', 621–29.

⁸⁴ Delhaye, 'Orphée', 177.

⁸⁵ Schaeffer, *In Search of a Concrete Music*, 80; Schaeffer, *Livret d'Orphée 53*, *version française complete*, reproduced in Delhaye, '*Orphée*', 703–33.

former addressing Amour as 'Manitou', a reference to the belief systems of Algonquian peoples of North America.

It is in these texts and pieces that *musique concrète* as both a theory and a practice takes shape, not as an entirely unified or coherent project but nevertheless as the set of practices and preoccupations, shaped by those of post-war French radio, that are the object of the following chapters.

3. Towards the Concrete

from the philosophical point of view, as from the political point of view, the new revolution will be in essence a revenge of the concrete on the abstract

Robert Aron, 'Questions posées'

Schaeffer's commitment to the "concrete" in his theorisation of a *musique concrète* between 1948 and 1953 was not simply the logical outcome of a dry philosophical interrogation of contemporary musical aesthetics and ontology. The fundamental theoretical claims of *musique concrète*—that, through an intense, vital experience, a deeper reality can be glimpsed that bypasses an abstract, conventional and untrue intellectual edifice—reflect a sort of philosophical realism, a conviction about the knowability of a mind-independent reality. How, why and in what form such a realism mattered to someone like Schaeffer was shaped by the cultural politics of the intellectual world sketched in chapter 1. It is in this context that the conception of the "concrete" that underpins *musique concrète* was formed.²

A claim such as this is fleetingly suggested by Kaltenecker, who notes the significance of 'the vitalist experience of Scouting' to the 'habitus of *musique concrète*'; the present chapter follows through on this claim, thickening it both historically and theoretically to map the theoretical parameters of *musique concrète*.³ Here, the abstract, in the form of a fallen and degraded language or the objectifying concepts of bourgeois thought, is figured as incommensurable with, or even blocking access to, the genuine experience of the

¹ Robert Aron, 'Questions posées', *La Nouvelle Revue Française*, 231 (1932), 834–37.

² A cluster of related terms—"the real", "reality" and "realism"—figure prominently in this chapter and thus the relations and differences between them are worth dwelling on. Schaeffer, it seems to me, deploys 'réel' and 'réalité' more or less interchangeably, guided more by a francophone indisposition to repetition than by philosophical precision. For other thinkers discussed in this chapter there is a stronger sense of "reality" as that which is given to the senses, where "the real" might in contrast be transcendent or otherwise unavailable to experience, or something akin to the Lacanian Real that traumatically bursts through the interstices of the Symbolic.

³ Kaltenecker, 'L'après-guerre de Pierre Schaeffer et le champ d'émergence de la musique concrète', in Laurent Feneyrou and Alain Poirier (eds.), *De la Libération au Domaine Musical: Dix ans de musique en France (1944–1954)* (Paris: VRIN, 2018), 330–41 (p. 333) ; cf. Kaltenecker, 'Résonances théologiques de l'écoute chez Pierre Schaeffer'.

concrete. As such, a renewed, authentic and immediate encounter with the concrete (a term that at different points might indicate the French landscape, the nation and its traditions or the materiality of the signifier) is required to reground expression and communication. This conception was embedded in cultural and political polemics about modernity, liberal democracy, faith and the nation, a context from which Schaeffer's postwar musical endeavours, often thought to be without politics, or, by dint of a proverbial and spurious coupling of aesthetic experimentation with left-wing politics, politically progressive, cannot be separated. Schaeffer's desire to reach the authentic, concrete and meaningful substratum beneath an inauthentic, abstract, relativist crust corresponds with Timothy Bewes's account of the conservative critique of reification which 'implies a society in a state of degeneration, and prevailing sense of nostalgia for what has vanished: pathos, joy, immediacy, beauty—"the meaning of the world made visible"". This is not to suggest that musique concrète adopts wholesale the cultural politics of 1930s Catholic nonconformism. Rather, this chapter seeks to historicise the concepts with which musique concrète was formulated—such terms as "concrete", "experience", and so on are not valueless abstractions.

The philosophical debates that are the backdrop to the intellectual history plotted in this chapter were not necessarily apparent to the protagonists of that history—Schaeffer's engagement with intellectual debates within and between theology and existential phenomenology was certainly limited—but they provide a clear articulation of the oppositions that structure this field. While they were not primarily concerned with, say, the compatibility of the *Summa Theologica* with the writing of Edmund Husserl, the terms available to Schaeffer and his *Routier* comrades were often drawn from these debates. The relationship was not one of cause and effect, of course, and the significance or implications of these terms could be altered, not least as a result of the haphazard and partial engagement with the philosophy in question.

⁴ It is an assumption close to the second of these that shapes Jane Fulcher's account of Schaeffer's work in the 1940s, discussed in chapter 1.

⁵ Timothy Bewes, *Reification, or The Anxiety of Late Capitalism* (London: Verso, 2002), xiii.

The place of early twentieth-century phenomenology in my argument is a case in point: while, as I argue elsewhere, Schaeffer's explicit engagement with phenomenology postdates the period with which this thesis is concerned, the language and preoccupations of the 1930s and 1940s were shaped by the reception of phenomenology among French Catholics in the preceding decades. How these concepts were deployed and valorised in Schaeffer's milieu was inconsistent, poetic and frequently informed by a host of other influences. Schaeffer's suggestion in 1966 that 'for years, we ha[d] [...] been doing phenomenology without realizing it' may not have been intended to extend as far back as the 1930s, but there would nevertheless be some truth in such a speculative extension.⁷

New Realisms

The intellectual counterpart to the political and social renewal of Catholic practice in the 1930s was characterised by an attempt to reconcile Catholic philosophy, which generally meant the Thomist scholasticism of orthodox theology, with modern philosophy. Kant's Copernican turn, which placed the subject at the heart of philosophical enquiry, constituted a troubling abandonment of a realist attitude that sought to approach knowledge of the divine order through God's works, one that had set philosophy on its path to idealism and decadence.⁸ In fits and starts, Catholic philosophers sought a renewal of medieval realism by engaging with the phenomenology developing in German universities that seemed, not least in its clarion call of 'to the things themselves', to augur a reconciliation between realism and modern philosophy.⁹ After the disappointment of Edmund Husserl's perceived turn from realism to idealism from 1913, it was the thought

⁷ Schaeffer, *Treatise on Musical Objects*, 206. While not exactly the focus of this thesis, it is perhaps important to note that I am not attributing any kind of static or even progressive form to Schaeffer's engagement with phenomenology. Schaeffer's grappling with Husserl in the 1960s in many ways betrays his ignorance of the philosophical importance of the post-Husserlian phenomenology that is in the background of his own earlier thinking. For instance, the notion of the phenomenological subject as a concrete, situated and embodied one that, via, for example, Karl Jaspers, Gabriel Marcel and Jacques Maritain, informs the "personalism" of the 1930s is more or less absent from the *Traité*.

⁸ Edward Baring, Converts to the Real: Catholicism and the Making of Continental Philosophy (Cambridge: Harvard University Press, 2019), 28–39; cf. Étienne Gilson, Le Réalisme méthodique (Paris: Pierre Téqui, 1935), 2.

⁹ Baring, Converts to the Real, 39–84.

of Max Scheler and Karl Jaspers that would prove most influential on articulations of a modern and Catholic philosophy in the 1920s and 1930s.¹⁰

Idealism, then, proceeded from thought to things; this new realism would 'render to existence that metaphysical priority which idealism had denied it'. This was not a realism, however, that presumed the immediate intelligibility of reality. Unlike earlier Catholic thinkers, figures such as Gabriel Marcel, Étienne Gilson and Jacques Maritain conceived of being as opaque to a purely intellectual knowledge, but, unlike post-Cartesian philosophy, 'the unintelligibility of existence did not mean that the reality of the outside world was in doubt', as Edward Baring writes, '[i]t just meant that it was not given as an intellectual or cognitive certainty. We grasped existence in "feeling," in our bodily participation in reality'.12 This existential phenomenology placed signal importance on Scheler's conception of the experiencing subject as a "person", a 'concrete and essential unity' rather than a bloodless abstraction (the conception that informed the "personalism" discussed in chapter 1).13 That knowledge and experience were inseparable from the incarnated and situated knower did not result in a total relativisation of knowledge, but it did suggest a strong critique of objectifying, conceptual knowledge that echoed that of Jaspers. Knowledge of being would emerge instead through nonobjectifying relationships of faith, hope, and love.14

Though formulated with differing emphases, Marcel and Maritain placed the "mystery" at the centre of this reformulated realism. Mystery was 'what resisted the objectifying tendencies of thought', an 'ontological plenitude with which the intellect unites itself vitally and into which it inexhaustively plunges'. ¹⁵ Mystery reveals itself in sudden flashes, in the 'shock of the intellect against the real', an experience that, for Marcel, Jean Wahl

¹⁰ Ibid., 152. Baring recounts the problems caused for the early Catholic adoption of Edmund Husserl by his formulation of the 'transcendental subject' in the 1913 *Ideas*.

¹¹ Gabriel Marcel, Journal métaphysique (Paris: Gallimard, 1927), xi.

¹² Baring, Converts to the Real, 155.

¹³ Ibid., 120.

¹⁴ Ibid., 158.

¹⁵ Ibid.; Jacques Maritain, Sept leçons sur l'être (Paris: Pierre Tequi, 1934), 9-10.

and others was indebted to Jaspers's theorisation of the "limit situation". ¹⁶ It was through an affective epistemology that the transcendent could be accessed, and it was to this encounter with the concrete that philosophy should attend.

To approach an intuition of being, 'the intelligible substance of things', one must 'enter ever more deeply into existence through a sensitive (and aesthetic) perception'.¹⁷ 'This being is whispered in things and in all things', Maritain writes, but can only be heard 'when we have become open enough, vacant enough, to *hear* what all things whisper and to *listen*, instead of fabricating responses'. Thus prepared, having attained 'a certain level of intellectual spirituality', 'an active and attentive silence of the intellect', 'things emerge through the intermediary of the senses'.¹⁸

Such a programme, if it can be described as such, was joined in the ideological mixture on which the *Routiers* drew by a wide range of overlapping ideas. There was a generalised and diffuse vitalism, marked by the thought of Henri Bergson, particularly as mediated by figures like Charles Péguy and Jacques Maritain (the latter citing, while cautiously staking his distance from, Bergson's conception of intuition), as well by sources favoured by German youth movements, such as Scheler and Wilhelm Dilthey.¹⁹ These sources are themselves difficult to disentangle completely from one another, and the philosophical debates of Marcel, Maritain and Gilson were carried on in the pages of journals close to the world of Schaeffer and the *Routiers*, such as *La Revue des Jeunes* and *Esprit*, in the latter of which one could also find frequent direct reference to thinkers like Nietzsche, Scheler and Jaspers.

From this nebulous mixture of sources, a recurring logic, or ideologeme, can be abstracted: the concrete was the point of access to truth and the transcendent, which were to be glimpsed in moments of intense, affective and vital experience. Such experiences

¹⁶ Maritain, Sept leçons, 11; Baring, Converts to the Real, 159.

¹⁷ Maritain, Sept leçons, 30.

¹⁸ Ibid., 52 & 56-57.

¹⁹ On the significance of Bergson to Catholic philosophers in the early twentieth century, see Giuseppe Bianco, *Après Bergson. Portrait de groupe avec philosophe* (Paris: Presses Universitaires de France, 2015), 33–35.

had the capacity to shatter the ossified edifice of conventional, abstract thought, which artificially separated the embodied, experiencing subject from the real and blocked access to that real. Epistemological enquiry, then, was not a matter of cold intellectual reasoning; it called instead for an affective relation to the real, founded on faith and love, bearing a close family resemblance, at least, to aesthetic experience. Where one went from there was uncertain: it might lead to an irrationalist affirmation of vital forces, a mystical union with a national community or onwards from brute experience to a knowledge of the divine order that lay behind 'the variety and apparent contradictions of being', as it did for Maritain and Claudel.²⁰

Scouting

The "concrete" was something of a central ideologeme to the *Routiers* and associated groups, as well as to Jeune France, shaped as it was by the personnel and ideas of this milieu. Indeed, Jean Rivero, a *Routier* leader close to Schaeffer, would light-heartedly chastise himself and his circle for the 'immoderate usage' they made of the word.²¹ Their partisanship for the concrete made explicit a social or political content that was not always so apparent in the parallel philosophical writings. This was a revolt of the young against a decadent order, against 'that aging which is habit in the sense of establishment, of ossification' and against a bourgeois, urban and commercial culture.²² They expressed disgust for their formulaic, positivist education (a 'déformation polytechnicienne' or 'professionelle', as Schaeffer and his scouting comrade André Cruiziat phrased it) and the rationalised, monotonous employment that awaited them.²³ Theirs was the cause of the students who had 'received [their] intellectual training in books, literature, theory and

²⁰ Baring, Converts to the Real, 164.

²¹ Jean Rivero in *l'Étoile filante*, 28 (1937), 387.

²² M.D. Forestier, 'La Spiritualité des Scouts de France', La Vie Spirituelle, 239 (1939), 113-30 (p. 117).

²³ Schaeffer, *Clotaire Nicole* (Paris: Seuil, 1941 [1938]), 105; André Cruiziat, 'Mouvements de Jeunesse: La Route', *La Revue des Jeunes*, 24 (January 1933), 95–103 (p. 101).

abstraction'.²⁴ Intellectualism, as Paul-Louis Landsberg wrote in *Esprit*, was the 'shared adversary [...] of *all* the youth movements in Europe'.²⁵

The righteous disgust of the *Routiers* was directed at all manifestations of a leaden, rationalist culture, disseminated through 'lectures, concerts and the passive enjoyment of the arts and of nature'. 'Literature', Paul Doncœur argued, had had a deleterious effect on French Catholics, giving rise to illusion, mere appearance detached from authentic essence: a 'false courage', for example, a 'courage of words, of theatre' which 'has nothing to do with real courage'. Schaeffer similarly described a generation of young people 'without deep inspiration [...] [,] marked by so many years of naturalism, of washed-out theatre, of whatever cinema and whatever radio, their only folklore is the odd song born of the *café-concert*'. ²⁸

The *Routiers* desired to step 'outside of conformism, of old formulas, outside of the conventional'.²⁹ Instead of choosing 'the easy, cowardly, routine solution', they would take risks, re-establishing contact with the 'authentic self, which definitions and habits always mask'.³⁰ The denunciation of habit, 'the mortal sickness of the soul', and the "habituated" soul' recall Péguy's writing in earlier decades.³¹ For Bergson and Péguy, language and habit had intervened between us and 'things themselves', such that 'not only external objects, but even our own mental states, are screened from us in their inmost, in their personal aspect, in the original life they possess'.³² 'Our mind is, at every point, oppressed by

²⁴ l'Étoile filante, 15 (1935), 296-97.

²⁵ Paul-Louis Landsberg, 'Réflexions sur l'engagement personnel', *Esprit*, 6 (1937), 179–97 (p. 186). Landsberg was significant to the Catholic reception of Scheler's writing, first in Germany and subsequently in France.

²⁶ l'Étoile filante, 15 (1935), 294.

²⁷ Doncœur, 'La Reconstruction spirituelle du pays: L'Action des Catholiques – Hier et demain: II. La Discipline du Courage', *Études*, 188 (1926), 283–96 (p. 290).

²⁸ Schaeffer, 'Sur les chemins de folklore voici les Comédiens Routiers de Jeune France', *Patrie*, 3 (1941), 50–58 (p. 52).

²⁹ Schaeffer, Clotaire Nicole (Paris: Seuil, 1941 [1938]), 196.

³⁰ l'Étoile filante, 12 (1934), 583; l'Étoile filante: Cahiers mensuel des Routiers des Grandes écoles et Facultés, 5 (1934), 441.

³¹ Daniel-Rops, 'L'homme contre l'habitude', *La Revue des Jeunes*, 24 (March 1933), 337–53 (p. 349); Routiers de l'X, 'l'Étoile filante', *La Revue des Jeunes*, 24 (November 1933), 1456–77 (p. 1461).

³² Henri Bergson, *Laughter: An Essay on the Meaning of the Comic*, trans. by Cloudesley Brereton and Fred Rothwell (Gloucester: Dodo Press, 2017 [1900]), 68.

language', paraphrases Jean Paulhan, '[a]nd every man, if he wants to get to his authentic thought, must eventually break through a crust of words'.³³ In the words of Clotaire Nicole, a close friend of Schaeffer's and the subject of his first book, 'it is routine that encrusts our lives into habits and mediocrity'.³⁴

The illusion-shattering contact with reality could take several forms, but for Schaeffer and the *Routiers* the encounter with the concrete was approached through a cluster of privileged activities. For Doncœur, of an older generation and a veteran of the First World War for whom the mythology of Péguy and Ernest Psichari's battlefield deaths held great importance, the experience of battle was paradigmatic: 'war,' he wrote, 'like all hard contact with the real, gave us a great disgust for [...] literature'. War served as a 'rough bath of truth' to 'purify oneself of paper and literature'; the remedy to the ills of modernity was to extend its insights into the post-war world. For the *Routiers* of the 1930s, however, a 'field of beautifully real experiences' would be reached by participating in scout camps, hikes and dramatic performances, experiences that would bring them into contact with the true, the authentic and the concrete. For the authentic and the concrete.

Hiking, singing of French folk songs and putting on medieval-style plays were not diversions or ways of passing the time, but were situated within a political and cultural project. In part, this drew on the activities of German youth movements; in his admiring report on *Quickborn*, Doncœur articulated their significance: hiking was, for *Quickborn*, 'more than a physical exercise', it was a 'school of life simultaneously hard and joyful; a more intimate contact with the German land and people, which, ridding their spirits of formulas and conventions, would teach them the true beauty, the true value of men and

³³ Jean Paulhan, *The Flowers of Tarbes: or, Terror in Literature*, trans. by Michael Syrotinski (Urbana: University of Illinois Press, 2006 [1941]), 30.

³⁴ Schaeffer, Clotaire Nicole (Paris: Seuil, 1941 [1938]), 115.

³⁵ Doncœur, 'La Discipline du Courage', 293–94; Doncœur, 'La Reconstruction spirituelle du pays: Les Scouts de France'. This rhetoric overlaps to a great degree with the explicitly fascist thinking of Georges Valois, who spoke of the Great War as 'a prodigious school [...], a bath in the deep waters of our people', and typified the ideal French youth as '[s]wift, to the point, [and] disliking idle chatter'. See Samuel Kalman, 'Faisceau Visions of Physical and Moral Transformation and the Cult of Youth in Inter-war France', European History Quarterly, 33 (2003), 343–66.

³⁶ Schaeffer in *l'Étoile filante*, 12 (1934), 582.

of things'.³⁷ Informed by Péguy's formulation of a Bergsonian historical method in opposition to the positivist historicism of Hypollite Taine or Ernest Renan, the resurrection of France would proceed through a sort of intellectual sympathy or intuition, in which the historian placed himself within a living historical duration in an act of 'rememoration'.³⁸ Rather than 'an immutable object of scientific study', the past was a living presence.³⁹ The activities of the *Routiers* were thus embodied and sympathetic means of experiencing history, completely at odds with the cognitive knowledge of history one might gain from a book; to sing a folk song in the correct way—and in the correct setting, namely, rural France—was to establish a 'rigorous synchrony […] between the movements of the body and the cadence of the melody'.⁴⁰

While the resemblances between the ideologies of French and German youth movements do not necessarily indicate direct influence, the German theorisation of experience is illuminating. *Erlebnis*, Hans-Georg Gadamer argues, became a 'sacred clarion call' at the start of the twentieth century. This concept, denoting 'lived experience', was brought into common usage by a 'distress over the complicated workings of civilisation transformed by the Industrial Revolution'. Gadamer identifies its roots in the Romantic critique of Enlightenment rationalism, prior to its theoretical development in the vitalist philosophy of Wilhelm Dilthey. *Erlebnis* implies an immediate experience that 'cannot be exhausted by conceptual determination' and opposes 'life' to 'mere concept'. This sort of experience places one in an immediate relation to a whole, it 'lets life be felt as a whole' and has an enduring effect on the experiencing subject. Robbert-Jan Adriaansen, taking his cue from Gadamer, sets out how the concept of *Erlebnis* and the approaches to history that developed out of it manifested themselves in the German youth movement. The youth

³⁷ Doncœur, 'Aux écoutes de l'Allemagne qui vient: II. La nouvelle jeunesse catholique allemande', 677. For the influence of *Quickborn* on Doncœur's youth movement activities, see Laneyrie, *Les Scouts de France*, 135–36.

³⁸ Glenn H. Roe, *The Passion of Charles Péguy: Literature, Modernity, and the Crisis of Historicism* (Oxford: Oxford University Press, 2014), 122.

³⁹ Ibid., 125.

⁴⁰ Doncœur, 'Les Chansons populaires des provinces de France', 687–88.

⁴¹ Hans-Georg Gadamer, *Truth and Method: Second, Revised Edition*, trans. by Joel Weinsheimer and Donald G. Marshall (New York: Continuum, 1999), 63–65.

⁴² Ibid., 67–69.

movement, Adriaansen argues, was committed to a pre-rational, pre-conceptual experience of history, community and the nation in which all three were felt to be immediately alive. This was an experience 'of which it was argued time and again that it could not be conveyed in language'.⁴³ Like the Scouts de France, it was through hiking through Germany, singing folk songs around a fire and performing medieval (or faux-medieval) plays that these experiences were sought. The youth movement's hikes were sharply contrasted with the walks of Baedecker-reading bourgeois tourists: where the former sought a palpable and immediate experience of the nation's landscape and past, and of their fraternal community, the latter partook in a diverting leisure activity in which industrial modernity was already fully implicated, mediated by the positivist historicism of the guidebook.⁴⁴

'Promenade en France'

Schaeffer provides an extended account of the hike and its place in *Routier* ideology in 'Promenade en France', published in *Études* in 1938. Here, he argues that, in order to heal the wounds of modernity, young Frenchmen must set out from the city and reconnect with the French rural landscape and its traditions, experiencing its slow pace and its concrete reality. Philip Laneyrie outlines the *Routier* conception of the hike: theirs was not simply an extension of the pre-war movements that led expeditions out of the cities, but a 'return to nature, to old provincial traditions, in opposition to what is "unhealthy": 'the modern world, the excesses of industrial and urban civilisation and their "perversions" affecting as much the body as the soul'.45 Modernity, Schaeffer writes, has resulted in various forms of rupture: the 'rupture in the chain of fathers and son, this rupture in the way of life', resulting in 'contempt for a true culture'; the city that severs the relationship between a nation and its people ('Young people of the cities, where is your homeland?', he asks); and even the coming of rail travel, turning the French countryside into the backdrop of an enervating journey, disrupts the experience of the

⁴³ Robbert-Jan Adriaansen, *The Rhythm of Eternity: The German Youth Movement and the Experience of the Past, 1900–1933* (New York: Berghahn, 2015), 57.

⁴⁴ Ibid., 60-64.

⁴⁵ Laneyrie, Les Scouts de France, 133.

nation.⁴⁶ As in Péguy's writing, the urban is here another term in a series that includes language, the abstract and habit.

Schaeffer's article takes as its epigraph a quotation from the Portuguese clerico-fascist leader Salazar, a popular figure with the Scouts de France hierarchy, which describes nature as rebuffing the false pride of the 'consciousness of unlimited power that the city gives us, because it commands or manipulates the abstract idea'.⁴⁷ The city, with its abstractions, stands in the way of any commitment to the nation: '[w]hat attachment can those have, who know of France only a portion of a housing development lined with sickly trees, fences of planks, adorned with poster, a country marked out only by gas burners and sewers?', Schaeffer asks.⁴⁸

The solution to these ills, the necessary prelude to the quest to 'remake' France, is a form of experience that bears a striking resemblance to that articulated by Maritain, Marcel and others.⁴⁹ In an experience that is immediate, 'not the product of a personal aspiration, of more or less political convictions', France 'sweetly, irresistibly, imposes itself'.⁵⁰ On the hike, an escape from 'the ways of life of the twentieth century', one can experience 'the revelation of a true presence', 'the profound realities of the countryside, its slowness, its development from its origins'.⁵¹ Like Marcel or Bergson, Schaeffer is concerned to break through the conventional to discover reality itself, prizing intuition and action above all.

⁴⁶ Schaeffer, 'Promenade en France', 440, 437 & 433. While Schaeffer uses *patrie* in this instance, for the most part he uses *pays*, which could equally well be translated as "region" or "country", terms that do not carry such a nationalist resonance. Indeed, Schaeffer's nationalism was rarely enunciated in terms that, say, Charles Maurras or Pierre Drieu La Rochelle would have recognised; in other words, it would be easy to underplay the extent to which the various programmes of a third way between capitalism and communism, which might be grouped together as at least quasi-fascist, represented a rather broad church. Sternhell's assessment of Mounier as more or less complicit in the rise of French fascism is, and has been, contentious, to say the least. See Robert Wohl, 'French Fascism, Both Right and Left: Reflections on the Sternhell Controversy', *Journal of Modern History*, 63 (1991), 91–98.

⁴⁷ Nord, 'Pierre Schaeffer and Jeune France', 692; Schaeffer, 'Promenade en France', 433.

⁴⁸ Schaeffer, 'Promenade en France', 438.

⁴⁹ Ibid., 442.

⁵⁰ Ibid., 436.

⁵¹ Ibid., 436 & 442.

In terms that strongly recall those of Maritain, this experience is 'the first shock of the real, of a little piece of reality, against the abstractions contained in your skulls'.⁵²

The experience of the hike would shatter false abstractions—in the camp, 'all false values fall', and the 'simple life frees from all the servitudes and the discomforts of the "agreed"—but it was also the nourishing foundation of a renewed knowledge.⁵³ As Schaeffer wrote in the first issue of *l'Étoile filante*, 'we do not believe in "study circles" first of all. We believe first in life in common, the rain, the frost, the sun endured together, and then—thanks to that—by virtue of that community, we believe that then the words exchanged will mean something and will go deep'.⁵⁴ The object of this knowledge, then, includes the fraternal community of the elite *Routiers*, a 'true' or 'deep' France ('a certain French harmony') and the grandeur of creation; the proximity of these terms to one another is suggested by Schaeffer's claim that 'to go hiking in France is, for a Frenchman, a little like going to mass for a Christian'.⁵⁵

This 'experimental method' or 'concrete technique' was informed by a defined framework for geographical enquiry, one hinted at by Schaeffer's invocation of 'human geography'.
Through the thirties, the *Routiers* had borrowed from and collaborated with the Catholic geographer Pierre Deffontaines.
The Deffontaines published articles on human geography in *La Revue des Jeunes* and in the *Routier* journal *La Route*, and the *Routiers* in turn cited him and modelled their *promenade-enquêtes* ("hike-surveys") on his ideas, especially as set out in his *Petit guide du voyageur actif*.
In this pamphlet, published initially in 1935 and republished in 1941 with illustrations by Henri Sjöberg, founder of Éditions du Seuil, Deffontaines expounded his programme of human-geographical surveys, in which one

⁵² Ibid., 439.

⁵³ Cruiziat, 'Mouvements de Jeunesse: La Route', 99.

⁵⁴ Schaeffer in Routiers de l'X, 'l'Étoile filante', *La Revue des Jeunes*, 24 (November 1933), 1456–77 (p. 1464).

⁵⁵ Schaeffer, 'Promenade en France', 434 & 443.

⁵⁶ Cruiziat, 'Mouvements de Jeunesse: La Route', 97–100; Schaeffer, 'Promenade en France', 439.

⁵⁷ Laneyrie, Les Scouts de France, 137.

⁵⁸ Olivier Dumoulin, 'À l'aune de Vichy? La naissance de l'agrégation de géographie', in André Gueslin (ed.), Les Facs sous Vichy: Étudiants, universitaires et universités de France pendant la seconde guerre mondiale (Clermont-Ferrand: Institut d'Études du Massif Central, 1994), 23–38 (p. 24).

sets out to discover how a community relates to its natural surroundings, identifying linguistic, economic and cultural characteristics. Such an approach is manifest in Schaeffer's exaltation of the language of the countryside, its 'singing' accent embedded in a world, the place-names bearing witness to a long history and 'the work of the artisan who had escaped the invasion of the machine'.⁵⁹ But this was not a strictly objective accumulation of facts: Deffontaines placed great importance on the 'first discovery', on a fresh impression, 'still protected from all complication, from all deterioration'; 'it is then that nature speaks, teaches'.⁶⁰ Knowledge of a country was not to be an abstract intellectual knowledge but one founded on an 'attachment to a country'.⁶¹ Deffontaines denounces the touristic 'guide mentality', 'which lamentably associates the beautiful with the rare and leads the traveller only towards the recorded facts'.⁶²

In *l'Étoile filante*, a *Routier* clan gave an account of a "hike-survey" guided by Deffontaines, drawing out the sense of an affective, embodied and concrete epistemology that it promoted: 'to know a country: one can, of course, stay at home, open a geography book, read chapter after chapter [...]. It's a solution. It's not the best, perhaps'. To know a country more deeply, 'you have to leave your home, take the road, wed the hard climbs with the tiredness of your body, resonate with the colours of the landscape'. ⁶³ For Deffontaines, any latent nationalism remained in the background; rather, his goal was for the journey to become like a 'canticle and a prayer inspired by St. Francis, where our brothers and sisters of nature, seas, lands, winds and plants speak directly to us of God'. ⁶⁴

This mystical hermeneutics recalls the Thomist (and, less directly, Aristotelian) paradigm in which the divine comes to be known through its traces available to the senses, rather than through a pure, deductive reason or Platonic anamnesis. Such a conception had been

⁵⁹ Schaeffer, 'Promenade en France', 434–36.

⁶⁰ Pierre Deffontaines, *Petit guide du voyageur actif*: Comment connaître et comprendre un pays? (Paris: Sociale Française, 1941 [1935]), 25; Deffontaines, 'Voyages et Vacances', *La Revue des Jeunes*, 24 (July–August 1933), 881–88 (p. 884).

⁶¹ Deffontaines, Petit guide du voyageur actif, 29.

⁶² Deffontaines, 'Voyages et Vacances', 882.

⁶³ l'Étoile filante, 28 (1936), 840-41.

⁶⁴ Deffontaines, 'Voyages et Vacances', 887–88. The mention of St. Francis probably refers to his Canticle of Creation.

significant to the initial attempts to reconcile medieval and modern thought in the late nineteenth century, but it also informed the mystical Catholic poetics of writers like Claudel (who, it is worth noting, possessed a reasonable degree of familiarity with Aquinas and neo-Thomism).⁶⁵ In Claudel's thinking, the distinction between aesthetic and religious experience is more or less meaningless: French classical poetry, he writes, 'has its canons in the commandments of God and the Church and in village sayings on the temperature'.⁶⁶ Repositioning Symbolist aesthetics within a mystical Catholic frame, Claudel took inspiration from Rimbaud's return to the Church along with the enduring figure of the Book of Nature, in which material reality, all of God's creation, might be read as a holy text.⁶⁷ For Claudel, 'the object of poetry [...] is that sacred reality, given once and for all, at the centre of which we are placed'.⁶⁸ The role of poetry, and of the aesthetic, is to reveal the 'pure thing', whose significance lies in its being 'in the full sense a partial image of God, intelligible and delightful'.⁶⁹

Deffontaines continued to be an influential figure on the youth movement's inheritors under Vichy, contributing to a programme of talks at Uriage in 1941.⁷⁰ It was at Uriage that Paul-Henry Chombart de Lauwe developed Deffontaine's geographical project on explicitly Pétainist lines, in which 'resuming contact with France' was understood to be a necessary precondition of an effective National Revolution.⁷¹ Deffontaines's implicit politics, privileging the rural as the site of an authentic relationship between people and nature anchored in a community's affective relationship to a natural landscape and expressing alarm at the depopulation and uprooting of rural areas, were drawn out by

⁶⁵ Baring, Converts to the Real, 30.

⁶⁶ Claudel, Positions et Propositions (Paris: Gallimard, 1944 [1928]), I, 20.

⁶⁷ Claudel, Art Poétique (Paris: Gallimard, 1984 [1907]), 13.

⁶⁸ Claudel, Positions et Propositions, I, 165.

⁶⁹ Ibid., 99-100.

⁷⁰ Hellman, Knight-Monks of Vichy France, 85.

⁷¹ Dumoulin, 'À l'aune de Vichy?', 24; Comte, 'L'esprit d'Uriage: pédagogie civique et humanisme révolutionnaire' in Jean-Pierre Roux (ed.), *La Vie culturelle sous Vichy* (Brussels: Complexe, 1990), 179–202 (p. 195); Paul-Henry Chombart de Lauwe, *Pour retrouver la France: Enquêtes sociales en équipes* (Grenoble: École Nationale des Cadres d'Uriage, 1941), 6.

Chombart de Lauwe and aligned with Vichy's 'revenge of the rural'.⁷² For Chombart de Lauwe, the "hike-survey" served those youths who wanted to 'recover their country elsewhere than in books and in speeches', away from an education that 'in becoming more abstract, has become less attractive and has sometimes detached itself completely from reality', allowing them to 'reconstruct for themselves a living and more complete image of their country'.⁷³

The knowledge that resulted had to be lived: '[f]or those who have not been camping,' Schaeffer wrote, 'for those who have not experienced what the mountain requires [...], it seems difficult to discover the reality of things'; 'those who were there remember [...][;] [t]hose who were not there cannot know'.⁷⁴ In the 'total life of the camp', the *Routiers* sought to 'rediscover a forgotten freshness of impression', to 'intensely live the present instant' in a 'bath of spontaneity'.⁷⁵ In turn, any theoretical reflection must not lose touch with these experiences: the essential thing, Schaeffer wrote, 'is that what is written [in *l'Étoile filante*] is only a reflection of what is lived'.⁷⁶

The Mystery Play

The conception of an experience that is at once aesthetic, religious, historical and political was developed further in the theatrical practice of the *Routiers*. As described in chapter 1, under the influence of Copeau, Chancerel and, to a lesser extent, Gustave Cohen, the *Routiers* wrote and performed plays that reacted against the naturalism and commercialism of mainstream theatre and sought to revitalise dramatic art by returning to Greek theatre and medieval mystery plays.⁷⁷ Chancerel's account of the meaning of this

⁷² Jean-François Chanet, 'Les Géographes et la question de l'avenir des campagnes françaises (années 1930–1940)', in Gueslin (ed.), *Les Facs sous Vichy*, 9–22 (pp. 12–14).

⁷³ Chombart de Lauwe, *Pour retrouver la France*, 5–6. Surprisingly or not, Chombart de Lauwe was later an important influence on the more well-known affective geographers associated with the Situationist International. See Tom McDonough, 'Situationist Space', in Tom McDonough (ed.), *Guy Debord and the Situationist International: Texts and Documents* (Cambridge: MIT Press, 2002), 241–65 and Guy Debord, 'Theory of the Dérive' [1956], in Ken Knabb (ed. and trans.), *Situationist International Anthology* (Berkeley: Bureau of Public Secrets, 2006), 62–66.

⁷⁴ Routiers de l'X, 'l'Étoile filante', *La Revue des Jeunes*, 24 (November 1933), 1456–77 (pp. 1457 & 1472).

⁷⁵ Schaeffer in Ibid., 1460; *l'Étoile filante*, 10 (1934), 292–95.

⁷⁶ Schaeffer in Routiers de l'X, 'l'Étoile filante', *La Revue des Jeunes*, 24 (November 1933), 1456–77 (p. 1459).

⁷⁷ Romain, Léon Chancerel, 15.

practice drew on a familiar set of concerns: he speaks of remaking 'a culture, an authentic French dramatic life' and of escaping from 'our quotidian mediocrities, from our second nature and its trivialities'.⁷⁸

The setting of these performances and the mode of spectatorship they engendered situated them in closer proximity to the liturgy than to the passive consumption that characterised the bourgeois theatre: it was necessary to "enter into the play", the *Routiers* wrote, 'that is to say not to attend the show, in a bourgeois manner, but to feel compromised'. Performed either during a camp or in or immediately outside ecclesiastical buildings, often marking particular feast days, the anti-naturalist aesthetic assumed a quasi-sacramental aspect. In addition to these unconventional settings, the breach in the boundary between art, sacrament and life was opened through stylistic tropes such as direct address and self-conscious anachronism. Through their attention to the 'music of the body', to gesture and the concrete, the *Routiers* would place thought back in contact with action, reuniting words with reality in such a way that 'their natural, spontaneous, unexpected character' is preserved, avoiding 'linguistic code'. Romano Guardini's liturgical movement, hugely influential on German Catholic youth movements, provided a theological reference point for this attempt to restore the liturgy as a corporeal, emotional experience to the central role it had occupied in medieval life. Each of the central role it had occupied in medieval life.

As in the Péguyian anti-historicism that supported the hike and the singing of folk songs, this dramatic practice aimed at the resurrection or revivification of the French past through 'a contemplative and sensual' approach to medieval and biblical sources.⁸³ In her account of Gustave Cohen's Théophiliens, a group of Sorbonne students who revived medieval plays, and a project that a number of *Routiers* and Chancerel himself were

⁷⁸ Chancerel, 'Vers une renaissance théâtrale', 802.

⁷⁹ l'Étoile filante, 3 (1934), 128.

⁸⁰ Schaeffer, 'Mystère des Rois Mages', 1103-5; Romain, Léon Chancerel, 164.

⁸¹ Chancerel, 'Exercices', Bulletin des Comédiens Routiers d'Ile-de-France, 3 (1933), 38; Romain, Léon Chancerel, 170–72.

⁸² Baring, Converts to the Real, 117 & 133.

⁸³ Helen Solterer, 'The Waking of Medieval Theatricality: Paris 1935–1995', *New Literary History*, 27 (1996), 357–90 (p. 366).

involved in, Helen Solterer draws on Dilthey's concepts of Erlebnis and Verstehen to illuminate the historical hermeneutics of this movement.84 Cohen shared with Péguy an antipathy towards the secular positivism that had dominated the French academy for the preceding decades, exclaiming that university 'is not made to dissect corpses, but to resuscitate the dead'.85 Through a form of 'critical empathy' that echoed the Stanislavskian theories of Copeau (the latter a friend of Cohen's), the Théophiliens believed that they could place themselves in 'an immediate and authentic relation with the medieval personae they assumed', overcoming the Cartesian separation of subject and object.86 Édouard des Places, reviewing a play written by Schaeffer, situates the play within a revivalist tendency that is, for him, best exemplified by the Théophiliens, and argues that this tendency involves not a 'scholarly concern for archaism' but a 'profound exigency and spontaneous enthusiasm' for a 'dramatic and spiritual renovation'.87 History, then, was not to be rationally dissected but resurrected, lived and experienced. Like the hike and the camp, dramatic performance was conceived as an intense experience that would shape its participants and guide them in their wider life, instilling in them values of faith, chivalry, imagination and fraternal community.88

Over the course of the 1930s, a consistent conception of the "concrete" was formed, of its neglect by an established culture, of how it might be reached once more, and what that access might afford. Alexandre Marc and Arnaud Dandieu of *l'Ordre nouveau* borrowed from Marcel in opposing the "Cartesian" man' against the 'concrete man'.⁸⁹ For the *Ordre nouveau* group, the emphasis on the concrete entailed a similar conception of rootedness to that implicit in 'Promenade en France', expressed on occasion with reference to Charles

⁸⁴ Ibid.; Jean Dureau, 'Le miracle de Théophile en Sorbonne', *La Revue des Jeunes*, 24 (July-August 1933), 990-95 (p. 994); Romain, *Léon Chancerel*, 210.

⁸⁵ Quoted in Dureau, 'Le miracle de Théophile en Sorbonne', 995.

⁸⁶ Solterer, 'The Waking of Medieval Theatricality', 372.

⁸⁷ Édouard des Places, 'Le Jeu du Pain et du Vin, par Pierre Schaeffer', Études, 228 (1936), 783-87 (p. 783).

⁸⁸ Chancerel, 'Que doit être le Théâtre Scout?', *Bulletin des Comédiens Routiers d'Île-de-France*, 3 (1933), 39–45 (p. 39).

⁸⁹ Christian Roy, Alexandre Marc et la Jeune Europe (1904–1934): L'Ordre Nouveau aux origins du personnalisme (Nice: Presses d'Europe, 1998), 132.

Maurras, founder and intellectual figurehead of Action française.⁹⁰ Again and again, the difference between the "person" and its associated political form, the community, on the one hand, and the individual and liberal-democratic capitalism, on the other, was argued to lie in the attention of the former to the concrete character of the person, embedded in a tradition and a way of life.⁹¹

The disillusionment resulting from his fall from grace under Vichy ensured that the *Routier* 'taste-for-truth, sense-of-the-concrete' would no longer be yoked in Schaeffer's thought to a grand transformational project, and instead would take on more modest ambitions, though ones that often continued to be framed against a backdrop of 'decadence' and 'crisis'. This is not to say that Schaeffer retreated to an aestheticism without politics, and I return to some of the political meanings of Schaeffer's "concrete" in the 1950s in the excursus.

The wider significance of the object of intense experience, the larger system of meaning that makes sense of the "concrete", would also develop as Schaeffer moved from away from orthodox Catholicism and towards more esoteric interests. The antagonists of the "concrete" shift, too, though perhaps only through a metonymic substitution couched in a familiar anti-intellectualism: by the time *In Search of a Concrete Music* was published in 1952, the partisans of the abstract are no longer modern, urban intellectuals in general but specific figures like René Leibowitz and the proponents of serial composition—'the abstracts', as Schaeffer refers to them in 1953.⁹²

Machines for Perceiving

In the first entry in the journal that opens *In Search of a Concrete Music*, Schaeffer reflexively writes of his desire to leave writing behind for other, more intense modes of expression: '[t]o write is always to render explicit at the expense of other things. Mystery

⁹⁰ Ibid., 156-57.

⁹¹ See, for example, Denis de Rougemont, *Politique de la personne* (Paris: Je sers, 1946 [1934]), 156–70; cf. Emmanuelle Hériard Dubreuil, 'The personalism of Denis de Rougemont: Spirituality and politics in 1930s Europe' (unpublished PhD thesis, University of Cambridge, 2005).

⁹² Schaeffer, *In Search of a Concrete Music*, 126; Schaeffer, 'Vers une musique expérimentale', 19–20. It is probably not insignificant that Leibowitz would have been perceived in the 1940s and 1950s as not just an intellectual but a leftist intellectual.

is sacrificed, truth also, as a consequence, and the whole'. In its echoes of the opposition of "mystery" to the objectifying intellect in the thought of Marcel and Maritain, this would suggest that, whatever his claims to have 'shed quite some baggage of the lost war: general error of orientation, naïve belief in the possibility of changing the world', the distance from the 1930s to 1952 is perhaps not so great as it might at first seem. In his writing after 1941, when he turned his attention to the aesthetics of the radio, Schaeffer continued to prioritise the concrete and to advocate for particular methods of accessing the concrete in ways that were shaped by the worldview of the Catholic nonconformists of the 1930s. The "concrete" of *musique concrète*, then, is to a significant degree the same "concrete" that Schaeffer and the *Routiers* had earlier emphasised.

Schaeffer's writing on the radio between 1942 and 1953 leaps from personal accounts of techniques and aesthetics to cultural commentary and metaphysical speculation. *Propos sur la coquille*, Schaeffer's meditation on the radio and radiophonic aesthetics that accompanied the creation of *La Coquille à planètes*, opens with an impassioned defence of realism. The contemporary world, with its preoccupation with 'absolute proof', has abandoned the real and the mediums through which the real is accessible: 'these eyes that do not see, these ears that do not hear'. Instead, modern thought has retreated to 'the masturbation of the man-in-itself and the man-in-all'. For this 'lugubrious folly', 'we must finally substitute the deep pleasure of relation, affirm the possibility of textual exchange, of genuine dialogue'.95 The senses are the medium of this relation:

They are instruments installed inside us, in continuity with the physical universe. It is revealed that these instruments of flesh, irrigated by our blood, nurtured by the sweat of the brow, are capable, by their human palpitation, of a mystery of correspondence, of a symbolism of sensations, stranger than that of language; they place in communication our

93 Schaeffer, *In Search of a Concrete Music*, 3 (translation modified).

⁹⁴ Antebi, *Ave Lucifer*, 158. The entry that follows reveals a further telling preoccupation: '[p]eople today return to nature in bouts of ski tows, half-tracks, Kandahar ropes, super-light alloys. Thus, perfectly equipped, chrome-shod, asbestos-gloved, nylon-clad, they sample the immaculate mountain air. They are caught between two fires that burn and freeze them simultaneously'; 'that return them to their hearts and tear them away', he adds in an earlier version. Schaeffer, *In Search of a Concrete Music*, 4; Schaeffer, 'Introduction à la musique concrète', 31.

⁹⁵ Schaeffer, Propos sur la coquille, 41.

consciousness and the universe, perpetually and reciprocally translate the Inhuman into the Human. Has it been said enough of them that they are incapable of reaching the real?⁹⁶

As the Christian existentialists had insisted against post-Kantian philosophy, the real can indeed be grasped, but only through a fleshly body, a 'symbolism of sensations', terminology that recalls the appropriations of Hermann von Helmholtz by Claudel and earlier Symbolists. Fast the subject comes to know the world as a body, 'at the node of the objective and subjective worlds', the Cartesian subject-object distinction cannot be maintained. Fast of the control of the cartesian subject-object distinction cannot be

Technology is rather more ambivalent in Schaeffer's writing in this period. On the one hand, it continues be associated with rupture: in history, between time and space and within the self.⁹⁹ On the other, it prosthetically enhances human perception, supplanting the hike as the condition of an ever-closer encounter with the "concrete":

The age of machinery [...] is that of the most boundless human sensibility. It is no longer simply a question of machines for making, but of these machines for perceiving that render to modern man unflagging touch, ears, eyes, at once gigantic and infinitesimal. Man can expect these machines to render him to see, to hear, to touch that which his eyes have never shown him, his ears have never made audible, to touch that which his hands have never let him touch.¹⁰⁰

The changed status of technology is striking, and while Schaeffer does not by any means abandon the Romantic humanist account of technology as an intervening obstacle alienating man from himself and from being—what else, after all, is *Symphonie pour un homme seul* concerned with?—it is clear that the denunciations of the twentieth century

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⁹⁶ Ibid., 40-41.

⁹⁷ Baring, *Converts to the Real*, 156; Claudel, *Art poétique*, 100–104. Iain Campbell detects Merleau-Pontian resonances in Schaeffer's portrayal of the listening subject. I am unconvinced that the relation is particularly direct; Schaeffer's language is just as, if not more, reminiscent of Claudel; see his discussion of the brain in Claudel, *Connaissance de l'Est* (Paris: Larousse, 1920), 171–73. Nevertheless, Baring emphasizes Merleau-Ponty's emergence and departure from the field of Christian existentialism; Iain Campbell, 'Experimental Practices of Music and Philosophy in John Cage and Gilles Deleuze' (unpublished PhD thesis: Kingston University, 2015), 76; Baring, *Converts to the Real*, 309–19.

⁹⁸ Schaeffer, *Propos sur la coquille*, 39.

⁹⁹ Schaeffer, Essai sur la radio et le cinéma, 10; Schaeffer, Propos sur la coquille, 45.

¹⁰⁰ Schaeffer, *Propos sur la coquille*, 41–42.

of 'Promenade en France' have been tempered. Indeed, these technologies—radio is Schaeffer's primary object, though it is paired with cinema in Essai sur la radio et le cinéma—make an encounter with the concrete almost unavoidable: the essence of the radio is located in its concrete character.¹⁰¹ The 'rupture of the established order, breaking of habit and renewal, different perception of dissociated elements' that the radio occasions has a similar corrective effect to the Routier hike. 102 Just as Salazar's epigraph to 'Promenade en France' had derided the hubris of the urban and the abstract, so the insistent concreteness of reproduced sound rebuffs the radio professional's plans: 'the microphone has betrayed you, you say, but what naïvety to believe that [it is] your friend! [It is] not with you but against you, [it is] not on the side of man, but on the side of the world'. 'Man, with his language, does as he wants, he attacks the real. But the cinema or radio man is no longer, vis-à-vis the image or sound, in the same conditions. He is on the defensive'. In contrast to the Routier hike, modernity is not jettisoned through an escape to nature, the rural and the medieval (though the figure of "nature" does not disappear: on the radio, Schaeffer insists, 'it is nature who speaks'). 103 The task is to bend the gifts of modernity to new ends, away from distraction, commerce and a radio that is more akin to the use of tobacco, alcohol or detective novels than to 'the pleasures of an art'. 104 'On the radio', Schaeffer writes, 'it is no longer simply a matter of evading the fact that time drags. It is a question of constantly exciting, of keeping alert, of reviving an attention which is not only subject to the application of the intellect but to the limits—soon reached—of our capacities of sensation and perception'. The rupture that is modernity—the disassociation and recombination of the senses, the unsettling of habitual spatio-temporal logics—is both the poison and the remedy, containing the means for its

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¹⁰¹ Schaeffer, *Essai sur la radio et le cinéma*, 52. One explanation for this shift is that (like the technocratic wing of nonconformism) Schaeffer treats technology as neutral in itself, and thus able to serve a range of purposes. As noted in chapter 2, he remained critical of prevailing uses of radio technology.

¹⁰² Schaeffer, *Propos sur la coquille*, 55.

¹⁰³ Schaeffer, Essai sur la radio et le cinéma, 50-51.

¹⁰⁴ Schaeffer, *Propos sur la coquille*, 45,

¹⁰⁵ Ibid., 64.

own overcoming.¹⁰⁶ In the radio programme *Une Heure du monde* and in passing comments, as, for example, his account of 'concrete listening' at an international conference, Schaeffer gives a tentative suggestion of the wider political ramifications of his approach.¹⁰⁷

The radio, Schaeffer argues, has a privileged relation to the real. 108 Listening to a broadcast from an opera-house, he is drawn to 'this sonorous halo, this heavy silence intercut by parasitical noises, these scrapes, these coughs, all that which makes up a real in the nascent state, which the philosophers of existence should well take the trouble to consider'. 109 Echoing those philosophers of existence, Schaeffer suggests that radio and cinema's innovation is 'to encounter thought by way of things'. 110 The real appears in the margins and flaws of the radiophonic representation: 'These personalities who stammer, these extras who hesitate, these digressions off the topic, these incongruous inventions, this is reality, the true, that whose rhythm surprises us, which accelerates or slows down without obeying the turn of the crank. And here the radio reveals what no other means of expression dared yield: the rest'. 111 With typical hyperbole, Schaeffer suggests that listening to a repeating recording is 'the most astonishing metaphysical experience available to modern man': radio technology is an 'instrument of thought, provoking meditation'. 112 As an essentially 'realist' medium (as opposed to language, which is 'idealist'), the radio will only achieve its proper form or style 'as soon as the microphone, with subtlety, without trickery, is in communication with the real, there is the production of intelligible and

¹⁰⁶ This is perhaps only a more explicit instance of the logic that Sara Danius identifies in Marcel Proust's *In Search of Lost Time*, in which, she argues, the technological is the very precondition of an innocent perception that is ostensibly the antagonist of technology; Sara Danius, *The Senses of Modernism: Technology, Perception, and Aesthetics* (Ithaca: Cornell University Press, 2002), 91–146. Proust's novel is, of course, not far from Schaeffer's mind, even if it largely functions as a source of slightly banal formulas about sound reproduction and 'lost time'.

¹⁰⁷ Schaeffer, *In Search of a Concrete*, 21–22; Schaeffer, 'Pouvoirs de l'instrument', 136.

¹⁰⁸ In this regard, Schaeffer prefigures Friedrich Kittler's alignment of phonography with the (Lacanian) real; Friedrich A. Kittler, *Gramophone, Film, Typewriter*, trans. by Geoffrey Winthrop-Young and Michael Wutz (Stanford: Stanford University Press, 1999).

¹⁰⁹ Schaeffer, *Propos sur la coquille*, 46. Schaeffer provides scant indication of who these philosophers might be, though a figure such as Gabriel Marcel or Étienne Gilson seems a likely candidate.

¹¹⁰ Schaeffer, Essai sur la radio et le cinéma, 54.

¹¹¹ Schaeffer, *Propos sur la coquille*, 47.

¹¹² Schaeffer, 'Donner à entendre, donner à penser', 49–50.

poetic phenomena'; 'this almost nothing, this everything, this is the radiophonic style itself'.¹¹³

In the experiences that the radio affords, the concrete reveals itself to be infinitely more complex than human conceptions allowed.¹¹⁴ Radio takes one beyond the 'pleasant screen of literature', and 'another reality is revealed within the framework that you have imposed on it'.¹¹⁵ Concrete reality reveals the hubris of man's intellectualisations, the incapacity of his language. In the process of compiling a broadcast, 'the most beautiful ideas are shown to be unrealisable and instead an insignificant detail suddenly assumes importance'.¹¹⁶ Literature meets the same fate on the radio as it had in the *Routier* camp: '[t]his text, reputed solid, frays', '[t]hese words of the author, so brilliant, fall flat'.¹¹⁷ The material world appears anew: 'Here the cinema catches the shine of a glance, the play of a physiognomy, gives a surprising image to the object. Here this poet, whom we know only in print, makes his voice heard and his poetry is a wholly different revelation. The silences speak; the slightest noise, a crumpled sheet of paper, the slam of a door, and our ears seem to hear for the first time'.¹¹⁸

The experience of the concrete is one in which the intellect is subordinated to sensation: 'the richness, the novelty, the depth of the sonorous material', Schaeffer writes, 'ought to touch our ear before our intellect'. By analogy, listening must take precedence over writing when creating a radio programme: 'the fundamental attitude, at the start of all radiophonic conception, is thus to hear and not write, to construct with sound materials; and if we use words, to consider first of all the noise that they make, their matter, their weight of reality, and not their intellectual significance'. The project, then, is to develop

113 Schaeffer, Essai sur la radio et le cinéma, 55; Schaeffer, Propos sur la coquille, 59 & 47.

¹¹⁴ Schaeffer, 'Pouvoirs de l'instrument', 130.

¹¹⁵ Ibid., 125-27.

¹¹⁶ Schaeffer, Essai sur la radio et le cinéma, 50–52.

¹¹⁷ Schaeffer, *Propos sur la coquille*, 53.

¹¹⁸ Schaeffer, Essai sur la radio et le cinéma, 49.

¹¹⁹ Schaeffer, *Propos sur la coquille*, 73–74.

a radiophonic aesthetic that 'would use with intelligence these discoveries that an impertinent accident gives us as a gift'. 120

To develop an account of an aesthetic that would absorb the insights into the concrete that the radio provides and articulate them to intelligible forms, Schaeffer looks to the realm of poetry, and in particular to the Catholic poetic aesthetics of Claudel (Schaeffer's introduction of the "concrete" in *Essai sur la radio et le cinéma* is supported by a reference to Victor Poucel, a Jesuit theologian close to Claudel).¹²¹ Poetic language, as Claudel and Valéry conceive it, is an alternative to a utilitarian language; it is a language that, in calling on the materiality of the word, recalls or holds out the promise of a natural language, 'a Golden Age when words resembled things, when each term was named, each word was "accessible to all the senses": 'the poet's business', Valéry writes, 'is to give us the feeling that there exists the closest possible unity between word and spirit'. 122 The promised unity of matter and meaning that Valéry aligns with poetic language is presented more literally by Claudel, for whom the material world addresses us in a language that demands interpretation, a non-arbitrary language underwritten by the creating and naming God: '[t]hings are not the arbitrary veil of the meaning they cover', he writes, '[t]hey are really at least a part of that which they signify, or rather they become complete only when their meaning is complete'. The poetic exeges is of reality, set out above in relation to the Routier hike-survey, thus possesses a religious impetus, drawing out an 'intimate and natural convenience' between meaning and matter: Schaeffer's account of poetry in the early 1940s is shaped by the mystical conception of poetry and aesthetic experience of interwar Catholicism.123

Poetry's attunement to the concrete face of language serves as a model for how the radio might make use of its privileged access to the real. Unlike ordinary discourse, poetry treats

¹²⁰ Ibid., 47.

¹²¹ Schaeffer, Essai sur la radio et le cinéma, 50.

¹²² Claudel, *The Eye Listens*, trans. by Elsie Pell (Port Washington: Kenniket, 1969 [1946]), 232; Paulhan, *The Flowers of Tarbes*, 81; Valéry, 'Poetry and Abstract Thought', 227 [translation modified].

¹²³ Claudel, Positions et Propositions, I, 173.

words as 'material', as 'objects' in their 'concrete existence'.¹²⁴ Schaeffer's distinction between prose and poetry is informed by Claudel and Valéry's critical writing.¹²⁵ Prosaic language is a useful language 'whose only aim is to be understood', the material aspect of which is discarded once it has been emptied of discursive meaning, while poetic language keeps in play the 'long-drawn hesitation between sound and sense'.¹²⁶ Following an essay by Philippe Soupault, Schaeffer suggests that radio listening might be conceived of as a 'poetic experience'.¹²⁷ Schaeffer gives an anecdote to illustrate his claim: while listening to a rugby match in which he has neither expertise nor interest, he listens to the broadcast not for its informational content but as a poem.¹²⁸ It is such a practice that Soupault advocates, arguing not for the creation of new experimental works for the radio but for a certain poetic attitude: 'that which I call poetry is not a form,' he writes, 'but a state of mind'.¹²⁹

Unlike the conventional writer, whose attitude is 'an approach of abstraction', who reduces everything that he sees, hears and experiences to language, for the radiophonic author 'a growl, a sigh, a silence, a way of pronouncing, the grain of a voice' is 'much more important than the text'. The poetic attitude, then, is one that refuses to close down the indeterminacy of the material, an attitude that treats the sign as a sacred mystery, or as "suggestion" rather than "sign", in the terminology that Schaeffer borrows from Frédéric Paulhan. Words, disturbingly material for the rationalists and idealists, 'return to us, on the offensive, charged with unknown substance, accompanied by unknown waves, resonance, halo. This offensive return of words reminds of something: that of objects'. In listening to words as material objects, words escape from the degraded and abstract condition of contemporary language and reveal a depth that cannot be captured by the

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¹²⁴ Schaeffer, Essai sur la radio et le cinéma, 55-56.

¹²⁵ Schaeffer, *Propos sur la coquille*, 57–60.

Valéry, 'Poetry and Abstract Thought', 225; Schaeffer, Propos sur la coquille, 57; Valéry, 'Rhumbs'
 [1926], in Analects, trans. Stuart Gilbert (Princeton: Princeton University Press, 1970), 157–262 (p. 211).

¹²⁷ Schaeffer, Essai sur la radio et le cinéma, 55.

¹²⁸ Schaeffer, *Propos sur la coquille*, 59.

¹²⁹ Soupault, 'Vers une poésie du cinéma et de la radio', 175.

¹³⁰ Schaeffer, *Propos sur la coquille*, 73–74.

¹³¹ Schaeffer, Essai sur la radio et le cinéma, 48.

¹³² Ibid., 56.

intellect alone: '[t]hus there are words which mean nothing and which say more than the most precise words'.133

Modelling his writing on Valéry's account of the genesis of his long poem *Le Cimetière marin*, Schaeffer describes the development of *La Coquille à planètes*, the 'play of alternating incitements between sound and sense' that it shares with Valéry's poem. Just as Valéry's inspiration had preceded determinate ideas, from 'a need to translate what we feel', 'a certain rhythm', so Schaeffer's 'point of departure' for his radio play was 'the click of a machine'. By attending again to 'the familiar assemblages', he discovered 'the marvellous', 'the meaning of which was hidden from us'. Schaeffer notices that 'when recording the noise of the world, we can perceive, beyond sounds, the quotidian metaphors that they propose'.¹³⁴

This remark raises the question, raised earlier in relation to the *Routier* milieu, of the meaning of the concrete. The experience of the concrete in the writings of the early 1940s continues to yield a hidden knowledge, but one whose relation to religious orthodoxy is less certain. Schaeffer continues to describe the unity of 'the object and its representation', the 'Word which names and creates at the same time', in what are fairly strictly Thomist terms, as the 'back-and-forth of the Third Person' (that is, the Holy Spirit). Religious language is elsewhere more tentatively expressed: 'if we have faith', Schaeffer writes, 'we recognise the hand of God'. Generally—and this perhaps indicates the influence of Gurdjieff after the spiritual and political crisis of the years after 1941—familiar religious language has been displaced by a more diffuse conception of a divine order, a universe structured by micro- and macrocosms, an 'order of the world', a 'faith without credo, which trusts in a secret order'. At the close of *Propos sur la coquille*, Schaeffer gives a clearer sense of the mystical meaning of his concrete practice: 'We rediscover an ancient

¹³³ Ibid., 58.

¹³⁴ Schaeffer, *Propos sur la coquille*, 60–61.

¹³⁵ Ibid., 41. In my reading, at least, Schaeffer's phrasing recalls Aquinas's account of the relation between essence and existence.

¹³⁶ Ibid., 80.

¹³⁷ Schaeffer, 'De l'âge ingrat à l'âge de raison' [1952], in *Machines à communiquer: Genèse des simulacres*, 131–40 (p. 138).

theme. Debatable, it is possible, but among the hypotheses, the best is necessarily the most probable: that man and the universe have a common measure, and that through the lens [*l'objectif*] of the senses, aided by the most modern instruments, they are two conjoined mirrors, and that finally, of the same extraction, they each have some chance of recognising each other.¹³⁸

By the late 1940s, to experience the concrete, which was itself an intuition of being, it was necessary to quiet the intellect and develop an aesthetic and sensitive perception, as it had been for Maritain. Now, however, the boundary between the human and the technological was obscured to allow a prosthetic fungibility of perceptual means: if the senses are a 'lens', cameras and microphones are also unproblematic supplements to the sense organs. The mystical experience of and respect for the real or the concrete that the Catholic nonconformists had cherished had become the mystical realism, with sound reproduction technologies as its means, that would define Schaeffer's account of *musique concrète* in his most extended theorisation of the style: *In Search of a Concrete Music*.

In Search of a Concrete Music

In Schaeffer's provisional definition given early on in *In Search of a Concrete Music, musique concrète* names a 'commitment to compose with materials taken from the experimental sound datum [donné] in order to emphasise our dependence, no longer on preconceived sound abstractions, but on concretely existing sound fragments and that are considered as defined and complete sound objects, even if and above all when they elude the elementary definitions of the solfège'. Real, experienced sound, then, is opposed to 'abstractions' and the intellectual terminologies of music theory. Schaeffer's earlier dismissal of subject-centred philosophies is echoed in his repeated objections to 'anthropomorphism': concrete music seeks to 'escape from a solely anthropomorphic language'. What is called for, again, is a sort of object-centred realism. Concrete music, Schaeffer argues, represents a radical upending of the logic of 'habitual music', passing

¹³⁸ Schaeffer, *Propos sur la coquille*, 81.

¹³⁹ Schaeffer, *In Search of a Concrete Music*, 14 (translation modified).

¹⁴⁰ Ibid., 172; cf. 91, 135 & 154.

not from the abstract to the concrete, from mental schema and written notation to sound, but from particular sounds to larger structures. A diagram, echoing an earlier diagram included in *Essai sur la radio et le cinéma*, illustrates Schaeffer's argument, opposing the characteristics of the abstract and concrete approaches in adjacent columns.¹⁴¹ As he had argued of a future radiophonic art, a concrete music, Schaeffer suggests, will travel from things to thought.

The early chapters of *In Search of a Concrete Music*, in which Schaeffer presents a journal of his experiments, are filled with invocations of the insufficiency of abstract schemas when faced with real concrete sound. The recordings of trains made in preparation for *Étude aux chemins de fer*, for example, are 'resistant to any regular rhythm'.¹⁴² The concrete, '[s]onorous matter', Schaeffer asserts, 'contains in itself an inexhaustible fecundity' that abstract approaches necessarily misapprehend.¹⁴³ '[I]t would be easy to yield to the temptation of paper, which is contrary to the spirit and the method, and even the potential, of concrete music'; concrete music cannot hope to be rescued by ordinary musical notation.¹⁴⁴ An experiment in using notated music as a point of departure fails because, while they had 'wanted to impose order on everything, [...] the objects had resisted'. 'Gazelles die like this, behind bars', Schaeffer concludes.¹⁴⁵

Schaeffer's closed grooves 'eluded the language of music': '[i]nitially assembled to make phrases, they had escaped like the words from a dictionary', they 'resisted all syntax, expressed nothing' and 'land[ed] on the ear without preconceived ideas'. '46 Schaeffer expresses the desire to 'tear noise away from its dramatic context and, in the same way, musical sound from the prison of notes, of the words and phrases of musical language'. 'In a passage that is revealing of the place of a scientific realism in his thinking, Schaeffer compares the scientific representations of 'real sound' with its 'musical representation';

¹⁴¹ Ibid., 25 (translation modified); Schaeffer, Essai sur la radio et le cinéma, 53.

¹⁴² Schaeffer, In Search of a Concrete Music, 12.

¹⁴³ Ibid., 15 (translation modified).

¹⁴⁴ Ibid., 25.

¹⁴⁵ Ibid., 17.

¹⁴⁶ Ibid., 33 (translation modified).

¹⁴⁷ Ibid., 38.

'play [...] sounds that are artificial, not identifiable through habit: what confusion, then, not only of impressions but of vocabulary!'. Instead, '[i]f the object has something to say to us, it will not be through worn-out words, clapped-out symbols squeezed of all their savor. It will be like the stars or atoms whose whole poetry is in a new rigor in understanding.' In a new rigor in understanding.

Schaeffer argues for the development of a practice of listening in which a 'considerable experience of the sound world' leads to an 'extraordinary refinement of the ear'. 150 As it had done for the *Routiers*, experience occupies a privileged place in the theory of *musique* concrète, which operates with 'empiricism in construction, which essentially relies on the instinctive ear'. 151 Composers of musique concrète must 'abandon a priori thinking completely and return to experience'.152 The 'experimental method' for which Schaeffer advocates is precisely a method founded on experience (the translators note the possibility of translating expérience as either "experience" or "experiment"). 153 In terms that recall Soupault's essay—the inside cover of the first edition promises a volume entitled *La Radio* comme expérience poétique—Schaeffer suggests that an unedited recording of a train might be broadcast with the instruction that the audience 'only need[s] to know how to listen, [...] that the whole art is in hearing'. These recordings are 'extraordinary to listen to, provided you have reached that special state of mind that I'm now in' (poetry, as Soupault had insisted, is precisely a 'state of mind'). 154 To enter into musique concrète, it is necessary, as with 'any initiation', to start with 'a knowledge of the object' and a 'preparation of the subject'. 155

¹⁴⁸ Ibid., 45.

¹⁴⁹ Ibid., 156.

¹⁵⁰ Ibid., 105.

¹⁵¹ Ibid., 127; cf. Schaeffer, 'Vers une musique expérimentale', 18.

¹⁵² Schaeffer, In Search of a Concrete Music, 186.

¹⁵³ Ibid., 123 & xiii.

¹⁵⁴ Ibid., 12. Elsewhere, Schaeffer writes that 'if there is a radiophonic art, or more modestly an original radiophonic domain, [...] it is a function [...] of the Art of listening to the radio'; Schaeffer, 'Donner à entendre, donner à penser', 50.

¹⁵⁵ Schaeffer, *In Search of a Concrete Music*, 188 (translation modified).

This disciplined practice, reminiscent of Gurdjieff's meditative exercises, is aided by technology in ways that resemble contemporary accounts of cinematic realism, and in particular that of André Bazin. Malcolm Turvey describes the influential conception of cinema in which the camera is thought to bring an audience closer to the true nature of reality in a metaphorical extrapolation from scientific technologies like the telescope or the microscope, figures on which Schaeffer also draws.¹⁵⁶ Bazin, who emerged from a similar Catholic nonconformist milieu to Schaeffer, following Roger Leenhardt as film critic for Esprit, shared with Schaeffer a faith that the automatism of the cinematic or sound reproduction apparatus afforded the possibility of reaching the 'in-itself-ness of the sound [or visual] phenomenon'. 157 Bazin's influential account of the objectivity of the photographic image ('a mechanical reproduction in the making of which man plays no part'), in many ways the foundation of his theories of realism, ascribes great importance to automatism, as Stanley Cavell notes in The World Viewed. It is 'by automatism, by removing the human agent from the task of reproduction' that cinema professes to isolate the real from the subjective, escaping that everyday circumstance in which '[w]e do not so much look at the world as *out at* it, from behind the self'. The promise of automatism is that the viewer will be freed of 'automatisms that [they] can no longer acknowledge as [theirs]', what one might call, with Péguy among others in mind, habit. The object, in turn, is freed from the preconceptions and projections of the subject.¹⁵⁹ The automatism of the camera and the microphone, then, achieves something like the 'active and attentive silence of the intellect' that Maritain had argued was the precondition of an intuition of

¹⁵⁶ Malcolm Turvey, *Doubting Vision: Film and the Revelationist Tradition* (Oxford: Oxford University Press, 2008), 12.

¹⁵⁷ Dudley Andrew, *André Bazin* (Oxford: Oxford University Press, 2013), 59; Schaeffer, *In Search of a Concrete Music*, 13. In his introduction to the second volume of *What is Cinema*, Hugh Gray notes and affirms the frequent comparisons of Bazin with St Francis of Assisi, a comparison that recalls the importance of St. Francis to politics and aesthetics of 1930s personalism. Indeed, it could well be argued that the Catholic philosophy I have been describing here is an important source for Bazin's as well as Schaeffer's realism; André Bazin, *What is Cinema?*, trans. by Hugh Gray (Berkeley: University of California Press, 2005), II, 1–15 (p. 14).

¹⁵⁸ Bazin, 'The Ontology of the Photographic Image' in *What is Cinema?*, trans. by Hugh Gray (Berkeley: University of California Press, 2005), I, 9–16 (p. 12); Stanley Cavell, *The World Viewed: Reflections on the Ontology of Film* (Cambridge: Harvard University Press, 1979), 23 & 102.

¹⁵⁹ Cavell, The World Viewed, 107-108.

being; the 'impassive lens', Bazin claims, 'in stripping its object of all those ways of seeing it, those piled-up preconceptions, that spiritual dust and grime with which my eyes have covered it, is able to present it in all its virginal purity to my attention and consequently to my love'. 160

Schaeffer returns to the distinction between prose and poetry that had informed the arguments of the *Essai sur la radio et le cinéma* and *Propos sur la coquille*. Early on, Schaeffer notes developments in poetry that he sees as analogous to *musique concrète*: 'taken for themselves in their chance or artificial encounters, words had provided enough experimental material over some decades to make people take notice'. Poetry lurks in the background as Schaeffer sketches *Symphonie pour un homme seul*, a source of inspiration but also a stage of development to be surpassed. ¹⁶²

When he arrives at a fuller discussion of poetry and prose, Schaeffer is guided by the essay of Valéry's, 'Poésie et pensée abstraite', on which he had drawn in *Propos sur la coquille*. Citing in passing Étienne Souriau and Frédéric Paulhan, both cited in earlier texts, along with Brice Parain, Schaeffer describes two uses of language: one, 'used as sign and meaning', the other 'as signal or substance'. 'In effect, the former use takes from the substance of language the minimum necessary for its meaning to be transmitted; the other use involves the concrete aspect of language, i.e., all the psycho-sensorial elements contained in the phenomenon of language and all the potential for expression it contains'. '163 Schaeffer generalises this opposition to the field of music, arguing that ordinary music, in its abstraction of characteristics (a 'C on the trumpet', for example) from sound, is akin to prose: 'here man is no longer in direct contact with the concrete; the process of abstraction [...] immediately comes into play and wholly masks the object'. 'Thus 'the music of Lully is only discourse', 'Mozart talks too much', and

¹⁶⁰ Bazin, 'The Ontology of the Photographic Image', 15.

¹⁶¹ Schaeffer, In Search of a Concrete Music, 33.

¹⁶² Ibid., 48-51.

¹⁶³ Ibid., 149.

¹⁶⁴ Ibid., 150-51.

'Beethoven showed the way to everything that was to become, more and more, musical rhetoric'. 165

As opposed to this musical prose, with the 'concrete experiment', one arrives, 'doubtless for the first time', in the 'domain of musical poetry'. ¹⁶⁶ It is in these terms, after having charted the historical tendency in poetry to treat words as sound, that Schaeffer justifies his collaboration with poets: 'an uncharted territory is being opened in this place, but in any case we must say good-bye to any sign of intelligence, any resemblances, any known words, any notes, any conventional figures, and so to any form of language'. *Musique concrète* will assume the role of poetry: 'the musical object', he concludes, 'is getting ready to overtake the word at the end of this race for poetry'. ¹⁶⁷ Poetry and philosophy prefigure 'a sufficient language', giving intimations of the 'relationships between object and object, and between subject and object'. ¹⁶⁸

In the later reflective passages, a picture emerges of the intellectual schema that underwrites the book: a faith in the possibility of a mystical union of subject and object, an intense and vital knowledge of being that strongly recalls the opening of *Propos sur la coquille* and, by extension, the intellectual world of the *Routiers*. '[T]he miracle of concrete music', Schaeffer writes, 'is that, in the course of experimentation, things begin to speak by themselves, as if they were bringing a message from a world unknown to us and outside us'. ¹⁶⁹ There is 'mystery, connectedness, between subject and object', a connectedness that musical listening reveals, in which 'the subject attunes to the object'. ¹⁷⁰ *Musique concrète* offers a glimpse of a previously inaccessible world of meaning, revealing the 'secret correspondence between man and the world'. ¹⁷¹ Thus 'a new form of communication is found, a new aspect of the secret correspondence between the cosmos and man'. ¹⁷²

¹⁶⁵ Ibid., 152 & 154.

¹⁶⁶ Ibid., 151.

¹⁶⁷ Ibid., 153 (translation modified).

¹⁶⁸ Ibid., 156.

¹⁶⁹ Ibid., 91-92.

¹⁷⁰ Ibid., 93 & 160.

¹⁷¹ Ibid., 92.

¹⁷² Ibid., 117.

Schaeffer's dream, then, is of 'a harmony of the spheres, where man and God speak the same language'; concrete listening is thus figured as a form of mystical experience in which the subject dissolves into, 'communes' with, the object, affording an intuition of a transcendent order.¹⁷³

Schaeffer's characterisation of *musique concrète* as a sort of mystical hermeneutics recalls the Claudelian poetics of La Coquille à planètes. 'If I gather together fragments of noise, animal cries, the modulated sound of machines,' Schaeffer writes, 'I also am striving to articulate them like the words of a language, which I speak without even understanding it or ever having learned it; I am deciphering hieroglyphics'. 174 The figure of the hieroglyph, with its pre-Rosetta connotation of a sacred language in which sign and referent are unified, resonates through nineteenth- and early twentieth-century French literary culture. 175 In the wake of the mystical writings of Emanuel Swedenborg and others, writers including Honoré de Balzac, Charles Baudelaire and Stéphane Mallarmé aligned hieroglyphics with a lost natural language, deploying it as a figure for a commitment to read the traces of this lost language in material reality, and by extension to discover a 'hidden order of things' that 'compensates for the deficiencies of human language'. 176 The hieroglyph operates in a constellation of ideas about poetic language in the period, and its promise of a union of matter and meaning has an obvious correspondence with the arguments of Claudel and Valéry. Claudel, having worked as a diplomat in East Asia, made similar claims regarding the Chinese alphabet, in which the character 'is the whole thing that it signifies'. 177 Elsewhere, Claudel expands on this mystical hermeneutics, speaking of nature as a 'mute word to be interpreted', as a cluster of 'noisy utterances';

¹⁷³ Ibid., 186 & 158 (translation modified). Dack and North translate both *communiquer* and *communier* as "communicate", when Schaeffer's syntax suggests an opposition, thus completely flattening the distinction that Schaeffer is constructing between an abstract, linguistic relationship and a concrete, immediate one.

¹⁷⁴ Ibid., 92.

¹⁷⁵ Miranda Gill, 'Hieroglyphs of the Mind: Delirious Interpretation and the Psychology of Enigma, 1830–1910', in Nigel Harkness, Paul Rowe, Tim Unwin & Jennifer Yee (eds.), *Visions/Revision: Essays on Nineteenth-Century French Culture*, ed. by (Oxford: Peter Lang, 2003), 63–81 (p. 65).

¹⁷⁶ Lynn R. Wilkinson, *The Dream of an Absolute Language: Emanuel Swedenborg and French Literary Culture* (Albany: State University of New York Press, 1996), 201.

¹⁷⁷ Claudel, Connaissance de l'Est, 48.

'thanks to our patient investigation', the word of God might be discovered in 'the disorder of contingency'. This thematic cluster was often associated with a nostalgic, conservative vision of the world, in which such acts of interpretation are the means through which a fallen, fragmented and meaningless modern world might be redeemed. The interpretation are the means through which a fallen, fragmented and meaningless modern world might be redeemed.

Just as Marcel and the *Routiers* had insisted on the incarnated individual as the condition of any knowledge or experience, Schaeffer's conception of listening is an embodied one; as for the Catholic realists, the embodied character of listening was proof for Schaeffer of the hidden bond between subject and object. Schaeffer describes watching a bourgeois couple at a concert, who might condescendingly note the embodied musicking of 'those worthy negroes at their tom-tom' but are nevertheless 'assured of possessing the authentic elixir of an immaculate spirituality' (the characterisation of the "primitive" as a subject closer to a true human nature, less subject to the distortions of civilisation, is discussed in due course). '[M]eanwhile', he continues, 'innocent and uncontrolled, a little boot taps away, revealing all...'.' Similarly, the teenagers who dance to hot jazz reveal that there is 'more that is human, or more that is divine [...] in hot jazz than in the music of the Prix de Rome' that their parents enjoy; no 'rational rhythm' can account for the 'muscular states of mind' of those teenagers. Man's 'whole body is involved in the stimuli of his ear'; '[i]n the same way that there is an "inner melody," there may be an intimation in the human body of a concrete music in embryo'. As Schaeffer had suggested in the *Propos*

¹⁷⁸ Claudel, The Eye Listens, 230 & 233.

¹⁷⁹ Gill, 'Hieroglyphs of the Mind', 68–69. The figure of the hieroglyph was taken up in early writing about film, which conceived of film as 'the utopian other of an "abstract", "literary" culture', creating a concrete language in the image of the hieroglyph. The comparison with hieroglyphics was widespread: Jean Epstein, for example, invoked the enigmatic face of the hieroglyph in his first extended discussion of *photogénie*, a concept which accords to cinema a capacity for the revelation of previously hidden meanings; Miriam Hansen, *Babel and Babylon: Spectatorship in American Silent Film* (Cambridge: Harvard University Press, 1994), 189–91; Antonia Lant, 'The Curse of the Pharaoh, or How Cinema Contracted Egyptomania', *October*, 59 (1992), 86–112 (pp. 107–108); Jean Epstein, 'On Certain Characteristics of *Photogénie*' [1926], in Sarah Keller and Jason N. Paul (eds.), *Jean Epstein: Critical Essays and New Translations*, trans. by Tom Milne (Amsterdam: Amsterdam University Press, 2012), 292–96 (p. 293).

¹⁸⁰ Schaeffer, In Search of a Concrete Music, 158–59 (translation modified).

¹⁸¹ Ibid., 159 & 163.

¹⁸² Ibid., 159.

sur la coquille, the ear is the threshold between 'our being and the universe', the two poles mirroring each other.¹⁸³

A speculative metaphysics such is this is difficult to reconcile with the scientism of the 'Outline of a Concrete Solfège' that closes In Search of a Concrete Music, written in collaboration with Abraham Moles. Here, following the precedent of psychoacoustics, Schaeffer and Moles treat sounds as raw sensory stimuli, precisely measurable signals, operating with a construction that Jonathan Sterne refers to as 'hearing in itself', severed from any embodied or social contingency.¹⁸⁴ In this section, sound objects are quantified and categorised as physical-material geometric scientific objects.¹⁸⁵ Although Schaeffer would later distance himself from Moles's approach, a fairly naïve form of scientific realism can be detected at various points in the book, not solely in the co-authored section, and Schaeffer did appear to conceive of his activities as scientific research, and not simply by analogy.¹⁸⁶

At other points, however, Schaeffer's account of science is much more sceptical and thus more amenable to the quasi-existential philosophical positions that he takes. Schaeffer doubts the validity of theories of listening that objectify the subject or, as he puts it, 'treat man like a frog', and thus miss the relation *between* subject and object that Schaeffer believes to be the essential. Such biologists 'measure, like Pavlov's dog, [a subject's] output of saliva or the contraction of the muscles'; '[f]rom here to drawing up a list of sounds measured in psycho-galvanic megohms is but a short step'.¹⁸⁷ Instead, the concrete musician must 'turn over a new leaf and above all not ape scientific procedures where they do not apply'.¹⁸⁸ While Schaeffer's conception of science is not particularly developed,

¹⁸³ Schaeffer, *Propos sur la coquille*, 40.

¹⁸⁴ Jonathan Sterne, 'Hearing' in David Novak and Matt Sakakeeny (eds.), *Keywords in Sound* (Durham: Duke University Press, 2015), 65–77 (pp. 68–69).

 $^{^{185}}$ Schaeffer, In Search of a Concrete Music, 106–107 & 191–221.

¹⁸⁶ Schaeffer, Treatise on Musical Objects, 38; Schaeffer, In Search of a Concrete Music, 34, 105-106 & 168.

¹⁸⁷ Schaeffer, In Search of a Concrete Music, 158-60.

¹⁸⁸ Ibid., 129. Perhaps all this is, then, is further proof that, as I suggested in the introduction, it is a mistake to seek coherence and consistency in Schaeffer's writing.

his invocations of Denis de Rougemont's *Penser avec les mains* recall a nonconformist conception of the *engagé* and embodied scientist, of the engineer alert to his 'social role'.¹⁸⁹

There are, of course, more historically proximate sources for the philosophical outlook of *In Search of a Concrete Music*. Much of chapter 16, for example, is indebted to Boris de Schloezer's *Introduction à J.-S. Bach*, which draws on *Gestalt* psychology and the existential phenomenology of Sartre and Merleau-Ponty. Schaeffer even incorporates what appears to be a reference to the final chapter of Sartre's *Being and Nothingness*.¹⁹⁰ Similarly, Ernest Ansermet, whose work occupies Schaeffer for most of chapter 14, formulated his account of the relationship between music and man, 'acoustic vibration and musical apperception', in terms borrowed from Husserl.¹⁹¹

Nevertheless, Schaeffer's engagement with these strands of thought was not particularly deep, and the conception of an objective transcendent order marks his distance from some of the central premises of post-Heideggerian phenomenology. In an article from 1946 in which he attacks the jargon-filled discourse of French intellectuals, Schaeffer mocks phenomenology as a contemporary fashion: '[p]erched on the phenomenological tree, one thigh on the personalist branch, both feet in the split between Jaspers and Heidegger, I propose, while crying "cuckoo", to swallow the egg as well as anyone'. However Schaeffer's attitude to phenomenology may have shifted between 1946 and 1952, he evidently does not share with Sartre and Merleau-Ponty a Heideggerian conception of the meaning of Being as revealed through a network of entanglements from

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¹⁸⁹ Ibid., 91 & 175; Denis de Rougemont, *Penser avec les mains* (Paris: Albin Michel, 1936). Hubert Lyautey's 'Le rôle social de l'officier' (1891) had been hugely influential on the conservative youth movements of the 1930s, as evidenced in Georges Lamirand's *Le Rôle social de l'ingénieur* (Paris: Revue des Jeunes, 1937).

¹⁹⁰ Schaeffer, *In Search of a Concrete Music*, 117; cf. Jean-Paul Sartre, *L'être et le néant: essai d'ontologie phénoménologique* (Paris: Gallimard, 1966 [1943]), 695.

¹⁹¹ Valiquet, 'Hearing the Music of Others', 267–68.

¹⁹² Martin Kaltenecker characterises Schaeffer's relationship with philosophy thus: 'he was hardly an assiduous reader of philosophers: a predator seizing upon formulas and quotations that could support his thought, he often detached them from their context, like sound objects assembled [...] with a view to some concrete Étude'; Kaltenecker, 'L'écoute comme exercice collectif', in Kaltenecker and Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes*, 191–200 (p. 194).

¹⁹³ Schaeffer, 'Contribution à la présence d'esprit', 357. Schaeffer refers to these intellectuals, who endlessly cite a self-referential network of texts and concepts, as *coprophages*.

which reality cannot be abstracted. Indeed, Heidegger's account of 'hearkening' provides a suitably sonic case in point: Heidegger places hearkening, 'a hearing that understands', prior to 'what the psychologist "initially" defines as hearing, the sensing of tones and the perception of sounds'; "[i]nitially", he goes on, 'we never hear noises and complexes of sound, but the creaking wagon, the motorcycle'. Thus, for Heidegger, sensations and pure tones do not possess a primordial, pre-cultural mode of being but are instead the result of a 'very artificial and complicated attitude'. Similarly, Sartre's Bachelardian psychoanalysis of things, to which Schaeffer appears to refer (though whether this is a first-hand reference to *Being and Nothingness*, or to a newspaper item, a radio broadcast or a conversation, is unclear), examines a human reality of concerns and involvements rather than an extra-human metaphysical reality. The associations of the trumpet that, for Schaeffer, mask the object—'warriors, historic stories...'—would not be an extraneous accretion to cast off for Sartre, but a way into the meaningfulness of sound for *Dasein*. 195

Conclusion

In developing a theory of a music that would turn away from abstraction, intellectualism and language in favour of a concrete reality accessible through visceral, mystical experiences, Schaeffer's language and preoccupations were shaped by the philosophies of the concrete that emerged from the reception of phenomenology among French Catholics in the 1930s. A general turn 'towards the concrete', to quote the title of Jean Wahl's 1932 book which also serves as the title of this chapter, is detectable in French culture in the 1930s, a turn away from aestheticism to realism and engagement represented by the novels of André Malraux, Louis-Ferdinand Céline or François Mauriac, for example. The early reception of phenomenology in France was far from monolithic, either, including such thinkers as Sartre, Wahl and Emmanuel Levinas along with the Catholics who have been most significant to my argument (indeed, those Catholics are generally relegated to walk-on roles in accounts of phenomenology in France: as antagonists in Sartre's

¹⁹⁴ Martin Heidegger, *Being and Time*, trans. by Joan Stambaugh, revised by Dennis J. Schmidt (Albany: State University of New York Press, 2010 [1927]), 164.

¹⁹⁵ Schaeffer, In Search of a Concrete Music, 151.

Existentialism is a Humanism, for example). Nevertheless, the characteristics of Schaeffer's "concrete"—its entanglement with Catholic theology and its claims for an immediate experience of reality—mark the specificity of his frames of reference.

If the 'Outline of a Concrete Solfège' that closes In Search of a Concrete Music gives the impression that Schaeffer had abandoned a mystical, embodied mode of experiencing the concrete in favour of the scientific language of acoustics and information theory, this was far from the case. The philosophical outlook of interwar Catholicism continued to resonate through Schaeffer's thought: in his 1957 letter to Albert Richard which introduces the belated publication of the talks presented at the 1953 Première Décade Internationale de Musique Expérimentale, Schaeffer describes the principles of musique concrète with reference to Aquinas's peripatetic axiom: 'nihil in intellectu quod prior [sic] non fuerat [sic] in sensu' (nothing is in the intellect that was not first in the senses), a citation that rather aptly epitomises the distorted recollection of interwar Catholic realism that this chapter has argued informed musique concrète. Neither had Schaeffer reconciled himself to an uncomplicated scientific attitude: in an article from 1959, he denounces 'scientism' as 'the most serious evil of the musical era', confusing, as it does, the 'sensation' of acoustics with the 'perception' of aesthetics.

Elsewhere, in an unpublished essay from 1959 titled 'La musique expérimentale comme exercice spirituel', Schaeffer reprises the mystical account of musical experience that had appeared in *Propos sur la coquille* and *In Search of a Concrete Music*. 'Music', he writes, 'is that strange communication between the material universe and our internal world', revealing the 'unity of the world and [the] singularity of the perfectly indistinguishable duality of the matter-and-spirit pair'. The necessary attitude when beginning 'experimental work in music' is one which 'for lack of a better word, I will call spiritual,

¹⁹⁶ Sartre, *Existentialism is a Humanism*, trans. by Carol Macomber (New Haven: Yale University Press, 2007 [1946]).

¹⁹⁷ Schaeffer, 'Lettre à Albert Richard', xi.

¹⁹⁸ Schaeffer, 'Musique concrète et connaissance de l'objet musical', *Revue belge de Musicologie*, 13 (1959), 62–67 (p. 66).

¹⁹⁹ Schaeffer, 'La musique expérimentale comme exercice spirituel' (1959), IMEC, fonds Schaeffer, Box 99, Dossier 981, 1–2.

not to say religious'; 'it is necessary to remain faithful to some scarcely grasped order, unrecognised and most often denied by those very people who are part of the same progressive generation'.²⁰⁰ This 'field of experience' is one which 'engages man totally, body and soul, sense, intellect and sensibility joined as in a number of exercises which religions have kept alive where nothing is left vaguely to the soul, and where the gesture, the muscle, the heart are concerned without respite'.²⁰¹ As Kaltenecker has noted, this conception of listening as a mystical experience in which the subject communes with the object and thus discovers a transcendent order is in many ways that which underwrites what Kane refers to as Schaeffer's 'mature' theory in the *Traité*.²⁰²

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²⁰⁰ Ibid., 2.

²⁰¹ Ibid., 4.

²⁰² Kaltenecker, 'Résonances théologiques de l'écoute chez Pierre Schaeffer'.

Excursus: From the Totem to the Antenna

In the eighteen years separating Schaeffer's christening of *musique concrète* in 1948 and the publication of his theoretical magnum opus, the *Traité des objets musicaux* in 1966, the French colonial empire effectively came to an end, reduced to a handful of small island territories. The process of decolonisation was traumatic for the metropole as well as for the colonies, particularly in the cases of French Indochina (1946–1954) and Algeria (1954–1962), the latter precipitating significant violence in mainland France, including the massacre of Algerian demonstrators by French police in Paris in 1961 as well as the bombing campaign of the Organisation Armée Secrète from 1961 to 1962. Republican France, as Gary Wilder notes, 'was never not an imperial nation-state'. As such the end of empire engendered a crisis in French national identity, an identity to which a commitment to a politics and culture conceived of as universal had been integral since the Revolution.¹

This looming backdrop to the two decades following Liberation figures little if at all in most historical accounts of *musique concrète*, often characterised as one experimental moment in the post-war European musical avant-garde, hidebound and entirely determined by its technological means, and in any case quickly superseded by such later tape works as *Gesang der Jünglinge* (1956) or *Kontakte* (1959), both by Karlheinz Stockhausen, Henri Pousseur's *Scambi* (1957), or Luciano Berio's *Visage* (1961).² Not unrelatedly, there remains a persistent tendency to take at face value the autonomy of *musique concrète*, expressed in exemplary form in Schaeffer's concept of reduced

¹ Gary Wilder, *The French Imperial Nation-State: Negritude and Colonial Humanism between the Two World Wars* (Chicago: University of Chicago Press, 2005), 3; James D. Le Sueur, 'Decolonizing 'French universalism': reconsidering the impact of the Algerian war on French intellectuals', *Journal of North African Studies*, 6 (2001), 167, 86 (pp. 160, 70). On French universalism or 'the French page of

African Studies, 6 (2001), 167–86 (pp. 169–70). On French universalism, or 'the Frenchness of universalism', a politics 'grounded in the belief that human nature [...] was a universal impervious to cultural and historical differences', see Naomi Schor, 'The Crisis of French Universalism', *Yale French Studies*, 100 (2001), 43–64. Schor notes both this ideology's zenith during the Third Republic and its descent from the Christian universalism that gives the Catholic Church its name.

² See, for instance, Manning, *Electronic and Computer Music*, 19–38; Paul Griffiths, *Modern Music and After* (Oxford: Oxford University Press, 2010), 52–54.

listening, a listening that purports to listen only for the "intrinsic" features of sound. In assimilating *musique concrète* to a language of pure instrumental sound, some otherwise rather obvious characteristics of *musique concrète* are obscured, one of which is its rhetorical and musical engagement with non-Western music. This was, indeed, a consistent feature of Schaeffer's musical and music theoretical activities from the late 1940s to the late 1960s. In the *Traité des objets musicaux*, and his teaching at the Paris Conservatoire, from 1968 onwards, non-Western music, as Valiquet argues, functioned in some sense as a guarantor of the quasi-structuralist universality of Schaeffer's theory of listening, as proof of the successful identification of the universal structures of perception underlying all musical practices.³

At the turn of the 1950s, however, the relation to non-Western music is figured on different terms. Pieces such as *Étude aux casseroles*, *Maskerage* (1952), *Orphée 53* or *Simultané camerounais* (1959) seem to recall the avant-gardist invocation of the "primitive" found in Igor Stravinsky's *Rite of Spring* (1913) or Darius Milhaud's *La Création du monde* (1923), and perhaps most classically in Pablo Picasso's *Les Demoiselles d'Avignon* (1907), as an assault on "over-civilised" bourgeois *mores* and aesthetics. Early instances such as these developed a conceptual apparatus that was to shape French engagements with non-Western culture over the following decades, from Antonin Artaud's writings and performances in the 1930s and 1940s, which drew on indigenous Mexican and Balinese cultures, to the pages of lifestyle magazines in the 1960s, in which "exotic" artefacts were displayed as fashionable additions to a sleek modernist home. The

³ Patrick Valiquet, 'Hearing the Music of Others'.

⁴ Even earlier, Debussy had drawn inspiration from his encounter with Javanese musical performance at the 1889 Exposition Universelle, treating it similarly as a means of escaping the 'shopworn sonorities of late-nineteenth-century music'; Annegret Fauser, *Musical Encounters at the 1889 Paris World's Fair* (Rochester: University of Rochester Press, 2005),198–99. Stravinsky's recourse to the primeval and the "primitive" figures significantly in Theodor Adorno's critique in *Philosophy of New Music*; Theodor Adorno, *Philosophy of New Music*, trans. by Robert Hullot-Kentor (Minneapolis: University of Minnesota Press, 2006 [1949]), 111–13.

⁵ See Louis Arnorsson Sass, "The Catastrophes of Heaven": Modernism, Primitivism, and the Madness of Antonin Artaud', *Modernism/Modernity*, 3 (1996), 73–91 for an account of primitivism in Artaud, and Daniel J. Sherman, *French Primitivism and the Ends of Empire*, 1945–1975 (Chicago: University of Chicago Press, 2011), 78–83, for primitivist tropes in interior design.

trope of primitivism in twentieth-century French culture has been examined by Hal Foster, Carole Sweeney and Daniel J. Sherman and others, who in varying ways point to its articulation of the fraught material and ideological relationships between modernity, universality, and empire.⁶

In addition, Schaeffer's biography intersects with the history of France and its colonies at a number of points: in the early 1940s he encountered Léon-Gontran Damas, the poet and writer associated with the Negritude movement, the particular significance of which I will presently outline, at Radio Vichy, where the latter read Guyanese stories on the air (the apparently implausible situation of a broadly anticolonial black intellectual working for the national radio of an authoritarian racist state speaks to the ideological confusion of the regime's first year); after Liberation, Damas and Léopold Sédar Senghor, also associated with Negritude, worked at the Studio d'Essai on cultural broadcasts for the colonies. In the late 1940s, Schaeffer served as the representative of Morocco and Tunisia at international broadcasting conferences, and from 1953 to 1957 he was at the head of French overseas broadcasting, working primarily in French West Africa.⁷

Negritude serves as an important—if problematic—interlocutor to the primary questions occupying this excursus. Negritude had its origins among black French colonial subjects in interwar Paris, and principally Aimé Césaire, from Martinique, Senghor, from Senegal, and Damas, from Guiana.⁸ Drawing influence from French symbolism, the Harlem renaissance and indigenous African traditions, these writers asserted a positive vision of blackness and black aesthetics in their poetry and essays.⁹ Negritude was, as Achille Mbembe puts it, a 'declaration of identity' that defied the Western figuration of the black

⁶ Hal Foster, 'The "Primitive" Unconscious of Modern Art', October, 34 (1985), 45–70; Carole Sweeney, From Fetish to Subject: Race, Modernism, and Primitivism, 1919–1935 (Westport: Greenwood, 2004); Sherman, French Primitivism.

⁷ Palombini, 'Dans un bureau à Marseille, un jeune ingénieur rêve', 75; Daniel Racine, *Léon-Gontran Damas: l'homme et l'œuvre* (Paris: Présence africaine, 1983), 32–33; Schaeffer, *Les Antennes de Jéricho*, 158–62. Damas was later a technical adviser for French overseas radio, from 1958–1963. Racine, *Léon-Gontran Damas*, 40.

⁸ Wilder, *The French Imperial Nation-State*, 151.

⁹ Wilder, Freedom Time: Negritude, Decolonization, and the Future of the World (Durham: Duke University Press, 2015), 22; Aimé Césaire, 'Discours sur la Négritude' [1987], in Discours sur le colonialisme: suivi de Discours sur la négritude (Paris: Présence africaine, 2004), 77–92 (pp. 87–88).

man in terms of lack (of history, of civilisation, of reason).¹⁰ In an essay from 1939, Senghor outlines his conception of blackness and 'the black [*nègre*] soul', a sensibility shaped by emotion, rhythm, animism and community in opposition to European individualism, capitalism and Hellenic reason.¹¹

I am concerned for the most part with texts and pieces that precede the outbreak of the Algerian war and that pertain to French colonial territories in West Africa. The difference of this colonial context from that of either Algeria or Indochina is significant for my argument; the transition to independence was relatively smooth and peaceful in French West Africa, thanks in part to the presence of an African élite who were to varying degrees genuinely committed to republican ideals and wary of falling under the sphere of influence of either the United States or the Soviet Union. Indeed, unlike nationalists such as Kwame Nkrumah in Ghana or Gamel Abdel Nasser in Egypt, the intellectual élite in French West Africa for the most part envisaged a future involving the maintenance of a federal relationship with metropolitan France. While independence came sooner than either metropolitan or African political élites had hoped, it passed without significant

¹⁰ Achille Mbembe, *Critique of Black Reason*, trans. Laurent Dubois (Durham: Duke University Press, 2017), 28–30; cf. Frantz Fanon, *Black Skin, White Masks*, trans. Charles Lam Markmann (London: Pluto, 2008 [1952]), 21.

¹¹ Léopold Sédar Senghor, 'Ce que l'homme noir apporte' [1939], in *Liberté I: Négritude et Humanisme* (Paris: Seuil, 1964), 22–38; cf. Senghor, 'L'Esthétique négro-africaine' [1956], in *Liberté I*, 202–17. Schaeffer's own encounter with two of the three protagonists of Negritude, while not exactly the focus of my argument, is intriguing; Schaeffer shared several intellectual points of reference with Senghor as a consequence of their shared debt to the Catholic nonconformism of the 1930s. Indeed, much of Senghor's thought is articulated in terms borrowed from this milieu; his preference for the "person" and "community" rather than the "individual", his criticism of Western rationalism and his desire for a renewal of folk traditions all exhibit the influence of such writers as Maritain, Mounier and Pierre Teilhard de Chardin. Senghor regularly cited Maritain and Teilhard de Chardin, and Sylvie Dallet notes Schaeffer and Senghor's shared admiration for Mounier; Sylvie Dallet, 'Un acteur méconnu de la décolonisation: Pierre Schaeffer et la Sorafom', in Michèle de Bussierre, Cécile Méadel and Caroline Ulmann-Mauriat (eds.), *Radios et télévision au temps des « événements d'Algérie », 1954–1962* (Paris: Harmattan, 1999), 171–81 (p. 176).

¹² Senghor, 'L'avenir de la France dans l'Outre-Mer', *Politique étrangère*, 19 (1954), 419–26 (p. 422).

¹³ Wilder, *Freedom Time*, 133–66. Sékou Touré is the striking exception among francophone African leaders. For Nkrumah and Eric Williams's model of an anticolonial federalism, see Adom Getachew, *Worldmaking after Empire: The Rise and Fall of Self-Determination* (Princeton: Princeton University Press, 2019), 107–41.

unrest or bloodshed.¹⁴ As such, the underlying valuations that might be expected in such an argument—colonial and French imperialist/anticolonial and African nationalist—are difficult to maintain, and the rhetoric, aesthetics and politics that I discuss are profoundly ambivalent: Schaeffer's conceptions of the "primitive" and French universalism, and of the French presence in West Africa, are difficult to differentiate unambiguously or conclusively from those of, say, Senghor.¹⁵

This excursus situates *musique concrète* against the backdrop of the end of the French empire, Schaeffer's role in colonial radio serving as a mediating link between the two, in order to suggest that the seemingly ahistorical exploration of the "primitive" and the universal in *musique concrète* is in fact eminently historical, occurring as it does at precisely the period in which republican universalism is being so radically called into question. In doing so, I demonstrate the continuities between Schaeffer's various aesthetic and political or administrative projects, underwritten by a commitment to a universalism and a humanism inflected by radiophonic or concrete listening. This is a universalism clearly manifest in the title of a talk given in January 1954, 'From the totem to the antenna', in which Schaeffer suggests that the 'cloud hooks' of the Dogon people, tall ritual structures built on altars, represent a 'naïve intuition' of a 'universal character', 'rendered more objective' by the development of the radio antenna by the whites.¹⁷

As in chapter 3, the concrete is conceived as a means of getting beyond the abstract, the superficial or the inauthentic to the real, meaningful essence underneath, a structural

¹⁴ Tony Chafer, *The End of Empire in French West Africa: France's Successful Decolonization?* (Oxford: Berg, 2002), 11–21.

¹⁵ Nevertheless, as Homi Bhabha insists, 'the similitude of the *symbol* as it plays across cultural sites must not obscure the fact that repetition of the *sign* is, in each specific social practice, both different and differential'; Homi Bhabha, *The Location of Culture* (London: Routledge, 2007 [1994]), 234.

¹⁶ Schaeffer himself implies a connection when he notes that he 'was involved with the radio in Africa in the same period as [he] was doing concrète'; Tim Hodgkinson, 'An Interview with Pierre Schaeffer', *ReR Quarterly Magazine*, 2 (1987), reproduced at <www.timhodgkinson.co.uk/schaeffer.pdf> [accessed 5 November 2017].

¹⁷ Schaeffer, 'Du totem à l'antenne' [radio broadcast of talk given in January 1954] https://www.franceculture.fr/emissions/la-nuit-revee-de/les-grandes-conferences-du-totem-lantenne-lere-diffusion-12021954/ [accessed 18 July 2019]. That Schaeffer was familiar with Dogon belief systems at all is attributable to the interwar ethnographic work of Marcel Griaule, a paradigmatic representative of a colonial-ethnographic humanism concerned to record and preserve the Other in its difference.

model that also pits the culturally contingent against the universal. The changed conjuncture, governed by a post-war universalism that was to a significant extent informed by familiar Catholic thinkers like Maritain and Mounier, draws out different valences in the conception of the concrete.18 The impulse towards the universal in Schaeffer's theories of listening has been noted a number of times, in particular by Valiquet and Dack.¹⁹ Discussing Schaeffer's later writings, Valiquet suggests that the universality arrived at is a universality 'almost in spite of difference'; as he puts it, '[a]ll musics are equal for the acousmatic listener not because their differences are all valid on their own terms, but because their differences are secondary to human perceptual structures, which according to acousmatic theory must all be the same'. 20 A similar logic is operative in the early 1950s, though where the later writings attempt to identify a subjective, perceptual universality, the earlier writings seek an objective universality of sonorous forms. Concrete listening is for Schaeffer a privileged mode of listening that affords a glimpse of the universal, the concrete or acousmatic listener figured as what Donna Haraway calls a 'modest witness', a supposedly neutral observer who contributes nothing to the observed.²¹

Central to Schaeffer's theories of listening is a bracketing of the referent, most famously expressed in his concept of reduced listening, a mode of listening that is theorised in distinction from three other modes: *ouïr*, a sort of passive, background perception; *comprendre*, a listening for signifying units (be it linguistic or musical phrases); and

¹⁸ UNESCO and the intellectual current of European federalism are paradigmatic examples of this postwar universalism, both of which drew inspiration from figures like Maritain, Mounier and Marc; Samuel Moyn, *The Last Utopia: Human Rights in History* (Cambridge: Harvard University Press, 2010), 53–83; Paul Betts, 'Humanity's New Heritage: UNESCO and the Rewriting of World History', *Past and Present*, 228 (2015), 249–85; Hellman, *The Communitarian Third Way*, 8–16. In the late 1940s and 1950s, many of the broadcasts produced by Schaeffer, such as *Une Heure du monde* (1946) and 'L'Avenir de l'europe fédérée occidentale' (1948), reflected a commitment to this form of internationalism; Stalarow, 'Listening to a Liberated Paris', 84–121; Jocelyne Tournet-Lammer, *Sur les traces de Pierre Schaeffer: Archives 1942–1995* (Paris: INA, 2006), 33, 40 & 44. From the late 1940s onwards, Schaeffer regularly participated in conferences sponsored by UNESCO.

¹⁹ Valiquet, 'Hearing the Music of Others', 278–79; John Dack, 'Pierre Schaeffer and the (Recorded) Sound Source', in Steintrager and Chow (eds.), *Sound Objects*, 33–52 (p. 35).

²⁰ Valiquet, "All Sounds Are Created Equal", 125.

²¹ Donna J. Haraway, *Modest_Witness@Second_Millenium.FemaleMan©_Meets_OncoMouse™: Feminism and Technoscience* (New York: Routledge, 1997), 23–24.

écouter, or indexical listening. Reduced listening brackets social or cultural meaning and attends instead to a pre-cultural sound "in itself". In evacuating sound of any indexical or communicative meaning, reduced listening refers listening back to itself.²² While this conceptual apparatus is not fully developed in the early 1950s, *In Search of a Concrete Music* documents Schaeffer's sharp opposition between the musical and the dramatic or anecdotal, in which he explicitly seeks to expunge the latter in favour of the former, conceived in terms of 'pure' sound.²³ Schaeffer hopes to engender a non-indexical listening, 'where the train [that is, the train in Schaeffer's Étude aux chemins de fer] must be forgotten and only sequences of sound color, changes of time, and the secret life of percussion instruments are heard'.²⁴ As Kane has compellingly argued, this is to a large degree simply a rephrasing of the aesthetics of absolute music, an attempt to read a quasi-Hanslickian autonomy into sounds that have not, in the way that those of the orchestra have, been culturally coded to make their causes inconspicuous and to function without friction as bearers of formal information.²⁵

Not only is Schaeffer's figure of the listener contingent on a certain culturally and historically specific conception of musical aesthetics, however: the function of non-Western music in Schaeffer's theoretical system is one that, without meaning to, relies on the contingency of that listening position. Non-Western music offers an expedient solution to the problem noted above, the problem of hearing non-orchestral sounds in a

²² Such a resonant, autoaffective but autointerruptive listening, one that seems to admit of no outside yet is necessarily structured around a void, is teased out of the gap between Schaeffer and Jean-Luc Nancy by Kane; Kane, 'Jean-Luc Nancy and the Listening Subject', *Contemporary Music Review*, 31 (2012), 439–447.

²³ Schaeffer, *In Search of a Concrete Music*, 13, 56, and passim.

²⁴ Ibid., 14.

²⁵ Kane, *Sound Unseen*, 99. This is not to suggest that Schaeffer had any familiarity with Hanslick's writings, or, indeed, with German debates in the aesthetics of music, but more to point to what was by the early twentieth century one available mode of conceptualising autonomy and musical meaning. In France, this is perhaps most apparent in the rhetoric of objectivity associated with neoclassicism: a reaction against Romanticism and in particular the perceived decadence of the late nineteenth-century emphasis on self-expression. Writers such as Boris de Schloezer, with whom Schaeffer was to work after World War II, and Nadia Boulanger, with whom Schaeffer studied in the 1930s, spoke of a geometric, pure and impersonal music. In *Essai sur la radio et le cinéma*, Schaeffer writes that music 'has no object to present, [...] no material as a medium but only sounds to be shaped and [...] is for aesthetics exactly what mathematics is for science'; Schaeffer, *Essai sur la radio et le cinéma*, 47–48. See Messing, *Neoclassicism in Music*; Mark Evan Bonds, *Absolute Music: The History of an Idea* (Oxford: Oxford University Press, 2014), 262–68.

framework normally restricted to orchestral sounds. Schaeffer's desire for a mode of listening that brackets social or cultural meaning and attends instead to sound "in itself" finds its answer in music for which the social or cultural meaning is radically alien to the listener. Non-Western music is in this sense a music that arrives ready-bracketed, but *only for a certain sort of listener*, that is, a Western listener. What this listening reveals, then, is neither universal subjective structures of perception nor 'a[n] [objective] shared universe of sound' but the necessary particularity of Schaeffer's reduced listening.²⁶

This partiality or particularity that presents itself as universal resonates with critiques of whiteness found in the writings of Césaire and Frantz Fanon among others.²⁷ For the generations of Senghor, Césaire and Fanon, the normative alignment of whiteness with reason and universality was felt and experienced viscerally: their capacity to speak from a position of universality was dependent on their adopting the language of the 'white world (that is to say, the real world)'.²⁸ Césaire later referred to this as 'European reductionism': 'the system of thought or even the instinctual tendency of an eminent and prestigious civilisation to take advantage of its prestige by creating a vacuum around it that abusively reduces the notion of the universal [...] to its own dimensions, that is, to think the universal only on the basis of its own postulations and through its own categories'.²⁹

Especially for Fanon, the critique of whiteness is articulated in phenomenological terms, that is, as a question of experience, appearance and perception. This line of argument has been taken up in recent years by writers such as Sara Ahmed, who, explicitly drawing on Fanon, theorises a 'phenomenology of whiteness' as an experienced 'world'.³⁰ Attending to the context of sound and listening, Marie Thompson diagnoses a 'white aurality' present in the ontological turn in sound studies, a 'racialized perceptual standpoint that

²⁶ Schaeffer, *Treatise on Musical Objects*, 502; Romuald Vandelle, 'Musique exotique et musique expérimentale', *La Revue Musicale*, 244 (1959), 34–37 (p. 35).

²⁷ Césaire, 'Letter to Maurice Thorez' [1956], trans. Chike Jeffers, *Social Text*, 28 (2010), 145–52; Fanon, *Black Skin, White Masks*.

²⁸ Fanon, *Black Skin, White Masks*, 24; Césaire, *Discourse on Colonialism*, trans. Joan Pinkham (New York: Monthly Review, 2000 [1955]), 69.

²⁹ Césaire, 'Discours sur la Négritude', 84–85.

³⁰ Sara Ahmed, 'A Phenomenology of whiteness', Feminist Theory, 8 (2007), 149–68.

is both situated and universalizing'.³¹ This 'white aurality', of which Thompson takes the writing of Christoph Cox to be representative, purports to get beyond the cultural, the linguistic or the particular, so as to see, or rather, hear 'from everywhere and nowhere, having liberated itself from (which is to say, obscured its indebtedness to) perspective'.³² In disavowing the partiality and historicity of a white, masculinist and Eurocentric perspective, the advocates of the ontological turn naturalise this standpoint as a universal ground.³³ In other words, categories and concepts—ontology, sound in itself, matter—are employed as if they are neutral and without history, denying their imbrication with, as Thompson lists, 'Eurological histories, practices, ontologies, epistemologies and technologies of sound, music and audition'.³⁴ Jennifer Lynn Stoever sets out a similar set of arguments about listening, race and universality in relation to radio broadcasting in the United States, where the radio was theorised in terms of a post-racial or 'color-blind' listening that presents an ideology of universality and neutrality that disavows its (white) partiality, aligned with a post-World War II iteration of liberal democracy.³⁵

Like Schaeffer, Cox is committed to a strong binary opposition between nature and culture, and advocates for sonic practices that capture or reveal 'the nature of the sonic'. While Schaeffer and Cox diverge on a number of points, they share an underlying desire to get 'beyond representation and signification', as Cox puts it, or beyond the conventional and the linguistic, in Schaeffer's terms, and to reach a sonic real underneath. As Thompson argues, this is a nature, a materiality or an ontology of sound that is constituted by a 'white aurality' that obscures 'its own, active presence'. What is taken to be natural or cultural, essential or accidental in sound is not given, but a sorting carried out by a white aurality. The "sound in itself" of *musique concrète* is, as I have

³¹ Thompson, 'Whiteness and the Ontological Turn in Sound Studies', 266.

³² Ibid., 273.

³³ Ibid., 268.

³⁴ Ibid., 274.

³⁵ Stoever, *The Sonic Color Line*.

³⁶ Christoph Cox, 'Beyond Representation and Signification: Toward a Sonic Materialism', *Journal of Visual Culture*, 10 (2011), 145–61; Schaeffer, *In Search of a Concrete Music*, 38; Schaeffer, *Propos sur la coquille*, 59.

³⁷ Thompson, 'Whiteness and the Ontological Turn in Sound Studies', 278.

already suggested, itself in many ways a product of the nineteenth-century ideology of absolute music and its commitment to music as a natural and universal language, but it is also constituted by the new technologies of the Second Industrial Revolution which afford the reproduction of sound and the splitting of the senses.³⁸ In the case of *musique concrète*, a whole host of mediations—from the ideology of absolute music and sound reproduction technologies to colonial anthropology—are obscured. As a subspecies of Thompson's 'white aurality', Schaeffer's listening for the universal cannot acknowledge the extent to which its universals are constituted in the act of listening. In what follows, I first trace the universalist politics underlying Schaeffer's administration of colonial radio before turning to the universalising logic operative in works of *musique concrète* and Schaeffer's associated writings, drawing on an analysis of Schaeffer's *Étude aux tourniquets* (1948). Finally, I suggest how Schaeffer's conception of a universal listener and a listening for the universal might be problematised by contemporaneous anticolonial thought, in particular Frantz Fanon's account of radio listening during the Algerian war.

Schaeffer and the Radio d'Outre-Mer

Schaeffer's role in colonial radio administration is, despite its absence from the canonical history of *musique concrète*, difficult to disentangle from his more well-known radio and musical experiments. Both are guided by an emphatic commitment to the universal potential of technologically reproduced sound. A broadcast from 1946, for example, titled 'Radio Babel', proposes, in the form of an aesthetic radio work, a model of radiophonic universalism that prefigures a passage in *In Search of a Concrete Music*, in which a personal exercise in concrete listening at an international conference allows him to hear all the more clearly the truth behind the various delegates' words.³⁹ The Studio-École, founded by Schaeffer in 1955 to train radio professionals for a future 'overseas network', bears more than a passing resemblance to earlier initiatives such as the Studio d'Essai and the GRMC in its aim to give a broad training to an elite cadre of young professionals

³⁸ See Bonds, *Absolute Music*, particularly 112–26; Kane, *Sound Unseen*, 39. Kane traces the supplementary relationship between *technè* and *physis* in musical listening practices in Chapter 4 of *Sound Unseen*

³⁹ Stalarow, 'Listening to a Liberated Paris, 115–21; Schaeffer, *In Search of a Concrete Music*, 21–22.

conversant in both the art and technology of radio.⁴⁰ In addition, a table of contents for a prospective work entitled 'Le phénomène radiophonique', much of which was eventually published as *Essai sur la radio et le cinéma* and *Propos sur la coquille*, proposes a section on overseas radio alongside chapters on the Studio d'Essai and radio aesthetics.⁴¹ There is thus good reason for drawing this period of Schaeffer's work into an account of *musique concrète*, a move that can provide a concrete historical context to the otherwise abstract invocations of the "primitive" and the universal found there.

From 1950, the Ministry of Overseas France was concerned by the state of French colonial radio, with only a handful of weak transmitters in sub-Saharan Africa oriented largely towards the small white French population. 42 In 1954, a decree by the new government of Pierre Mendès France founded a new service, the Société de la Radiodiffusion de la France d'outre-mer (Sorafom), unifying responsibilities that had previously been dispersed between the Ministry for Overseas France and Radiotélévision Française, under the auspices of the Ministry for Overseas France and the Société financière de radiodiffusion, a public-private initiative. 43 The decree placed Schaeffer at the head of this organisation, which sought to develop an 'overseas network' that would serve the 'native' [autochtone] population.⁴⁴ This entailed developing radio equipment that was appropriate for the climate of French West Africa and French Equatorial Africa, a task delegated to Jacques Poullin, who had also been responsible for the technical innovations of the GRMC.⁴⁵ In 1955, Sorafom established the Studio-École in Paris for the training of radio professionals for the new overseas network. 46 In collaboration with André Clavé, with whom Schaeffer had worked at Jeune France, the students participated in conferences that sought to theorise new models of radio broadcasting adapted politically, aesthetically and technically to the needs of overseas France and developed programmes for the Studio-

⁴⁰ Robert, *Pierre Schaeffer: d'Orphée à Mac Luhan*, 34; Damone, 'Vers un réseau d'outre-mer', 166.

⁴¹ Schaeffer, 'Le phénomène radiophonique', 9 March 1953, IMEC, fonds Schaeffer, Box 91, Dossier 861.

⁴² Damone, 'Vers un réseau d'outre-mer', 165-66.

⁴³ Ibid., 166.

⁴⁴ Schaeffer, 'Du totem à l'antenne'.

⁴⁵ Schaeffer, Les Antennes de Jéricho, 162-63.

⁴⁶ Dallet, 'Un acteur méconnu de la décolonisation', 179; Robert, *Pierre Schaeffer: d'Orphée à Mac Luhan*, 135–36.

École's own broadcasts.⁴⁷ The material achievements of the project were impressive: nine new transmitters were built between 1953 and 1957, and the total duration of yearly broadcasts increased significantly, from 35,800 hours in 1956 to 53,300 hours in 1961.⁴⁸ Sorafom was also significant in making, collecting, and publishing recordings of African music, a role eventually institutionalised in the form of Ocora, the in-house record label of Sorafom's postcolonial succesor.⁴⁹

Schaeffer's vision of French overseas broadcasting was animated by his commitment to the radio's capacity to 'abolish distance, vanquish time [...] [and] establish links between men of all races and of all lands [pays]', what I have termed above a radiophonic universalism.⁵⁰ As such, this new radio would combine the best of 'white' and 'black' culture, drawing together 'French genius' and 'autochthonous folklore'.⁵¹ In practice, the broadcasts developed sought to combine educational content and public health information alongside broadcasts concerning French and indigenous culture, including recordings of traditional music and literary programmes presenting both African writers and the classics of French literature.⁵²

While this programme has been described as a 'decolonisation of the radio', and Schaeffer as 'a little-known actor of decolonisation', it is more apt to consider it under the rubric of 'association', the colonial ideology that sought to replace the failed policy of assimilation

⁴⁷ Damone, 'Vers un réseau d'outre-mer', 166–72; cf. Tournet-Lammer, *Sur les traces de Pierre Schaeffer*, 66–68.

⁴⁸ Dallet, 'Un acteur méconnu de la décolonisation', 175-79.

⁴⁹ Robert, *Pierre Schaeffer: d'Orphée à Mac Luhan*, 41–42; André Videau and Charles Duvelle, 'Rencontre avec Charles Duvelle', *Hommes et Migrations*, 1220 (1999), 110–13. The only recording published while Schaeffer was in charge was, fittingly, of the Dogon funeral ceremony for a certain Marcel Griaule, made by François Di Dio; cf. note 17.

⁵⁰ Schaeffer, 'La radio instrument de culture' [talk given in 1954], IMEC, fonds Schaeffer, Box 55, Dossier 471.1, 1. For earlier articulations of a radiophonic universalism in the context of French colonialism, see Edwin C. Hill Jr., *Black Soundscapes White Stages: The Meaning of Francophone Sound in the Black Atlantic* (Baltimore: Johns Hopkins University Press, 2013), 123–30.

⁵¹ Schaeffer, 'La radio instrument de culture', 8 and 'Annexe B'.

⁵² See, for example, 'Annexe A' to Schaeffer, 'La radio instrument de culture'. These programmes, such as those of Yves le Gall, were undertaken more with an interest in preserving and disseminating folklore than with any strictly scientific ethnographic project. In 1958, Schaeffer adapted one of the earliest francophone African novels, Camara Laye's *L'Enfant Noir* (1953), for French radio.

by acknowledging and respecting the difference of the colonial Other.⁵³ 'Association' was the watchword of interwar colonial humanists, reformers who desired a form of colonial government that would preserve elements of African political and social structures, while gradually implementing a state-led developmentalist economic programme.⁵⁴ The universalism of the assimilationist fantasy, in which "primitives" slowly become French (or evolve, as the term for the educated class of colonial subjects, "évolués", implies), is replaced by another universalist fantasy of the French empire as a neutral ground for the preservation and reconciliation of different, autonomous cultures.⁵⁵

Indeed, Schaeffer's own conception of the French colonial project was rather conservative, criticising those who called for the 'premature liberation' of the colonies, and suggesting, even, that the granting of universal citizenship to colonial subjects in 1946 was 'a little hasty'. 56 This follows closely the logic of colonial humanism as described by Wilder, in which the colonised are no longer conceived as biologically inferior in racial terms but merely as politically immature, requiring the paternal oversight of the French, who support self-determination in principle while infinitely deferring it in practice. 57 That this was a project concerned with buttressing the French colonial presence in sub-Saharan Africa can be surmised from Sylvie Dallet's suggestion that the significance of the station at Fort Lamy, now N'Djamena in Chad, lay in its role as an 'intellectual vehicle for French culture' to 'counter the Arab propaganda of Radio Cairo', a reference to anticolonial broadcasts sponsored by Gamal Abdel Nasser's government, keen to establish a broad front among colonised peoples. 58 Charles Duvelle, who from 1960 directed the Ocora

⁵³ Robert, *Pierre Schaeffer: d'Orphée à Mac Luhan*, 34; Dallet, 'Un acteur méconnu de la décolonisation', 171–81.

⁵⁴ Chafer, The End of Empire in French West Africa, 29; Wilder, The French Imperial Nation-State, 50.

⁵⁵ Sherman, French Primitivism, 85-86.

⁵⁶ Schaeffer, 'Du totem à l'antenne'.

⁵⁷ Wilder, *The French Imperial Nation-State*, 143. Cf. Bhabha's discussion of that 'syntax of deferral' that is a 'specific *colonial* temporality and textuality of that space between enunciation and address'; Bhabha, *The Location of Culture*, 135. As I suggest below, this also captures something about the 'syntax' or structure of the radio apparatus.

⁵⁸ Dallet, 'Un acteur méconnu de la décolonisation', 181. For an overview of the role of Radio Cairo, sponsored by Gamal Abdel Nasser's government, in promulgating anticolonial politics in East and Central Africa, see James R. Brennan, 'Radio Cairo and the Decolonization of East Africa, 1953–64', in

record label, confirms this suspicion, situating Sorafom emphatically in the context of the decline of the French and British empires and the emergence of the Cold War struggle between Soviet and US interests in the African continent.⁵⁹

Sorafom was not without its contemporary critics; as Sylvie Dallet reports, Senghor was suspicious of any attempt at the 'emancipation' of Africans not lead by Africans, while Wilfred Ekué, director of Radio Dakar, was indignant that the Studio-École was based in Paris rather than in regions it was supposedly serving.⁶⁰ Schaeffer later recounted that while he had expected resistance from conservatives and from the administration, he had not expected the distrust and hostility of progressive African milieux. 61 Nevertheless, this is not to suggest that Schaeffer's conception of the role of French culture and administration in West Africa diverged significantly from that of Senghor, who even after Senegalese independence remained committed to the dissemination of French language and culture as means to improve social mobility.⁶² This says as much about Senghor as it does about Schaeffer, and there are several points at which Negritude appears to converge with a reformist colonial humanism; in Wilder's critical assessment, it was 'a politically moderate project to reform French colonialism [...] [whose] writers never called explicitly for the political independence of colonized peoples' and 'deliberately collaborated with colonial humanism, sometimes challenged it, and unwittingly reproduced many of its problematic positions'.63

Christopher J. Lee (ed.), *Making a World after Empire: The Bandung Moment and its Political Afterlives* (Athens: Ohio University Press, 2010), 173–95.

⁵⁹ Videau and Duvelle, 'Rencontre', 111. Duvelle also claims that it was Jacques Soustelle—anthropologist, last Governor-General of French Algeria and fierce opponent of Algerian independence—who urged Schaeffer's development of French colonial radio, though this may be the result of confusion on Duvelle's part; between 1945 and 1946 Soustelle briefly served as Minister for Information and then as Minister for the Colonies, but at the time of Sorafom's development he held neither post.

⁶⁰ Dallet, 'Un acteur méconnu de la décolonisation', 176-77.

⁶¹ Pierret, Entretiens, 147-48.

⁶² Frank Gerits, 'The Ideological Scramble for Africa: The US, Ghanaian, French and British Competition for Africa's Future, 1953–1963' (unpublished PhD thesis, European University Institute, 2014), 226. Gerits suggests that from the mid-1950s Negritude was adopted as the face of French public diplomacy in West Africa; Ibid., 93–95. Senghor remained committed to French as 'a language with a universal vocation'; Senghor, 'Comme les lamantins vont boire à la source' [1956], in *Liberté I*, 218–227 (p. 225). ⁶³ Wilder, *The French Imperial Nation-State*, 253. Mbembe gives equally if not more damning appraisals, see *Critique of Black Reason*, 41–43 and 'France-Afrique: ces sottises qui divisent', *Africultures*, 8 August

The terms under which Schaeffer's overseas radio project were carried out were thus those of colonial humanism: the Other's difference and its sameness, its human essence, were both affirmed. The Other's cultural difference was to be preserved as something authentic and organic, and subsumed under a synchronic, universalising ethnographic framework. The radio, for Schaeffer, would be the site of 'association'—a trope to which I shall return in due course—or reconciliation of French and indigenous cultures, the 'fusion of currents of thought of the north and south', underwritten by the radio's universalising capacity.⁶⁴

Musique Concrète and the "Primitive"

Musique concrète's invocation of a form of aesthetic primitivism has gone largely unremarked. Timothy D. Taylor is among the few writers to have suggested that the figure of the "primitive" is central to musique concrète from 1948 to 1953, aligning Schaeffer's project with a humanism represented by the Musée de l'Homme and Claude Lévi-Strauss. While this alignment seems reasonable, the progressive character of this humanism is accepted at face value by Taylor, and the relation between Schaeffer's work on colonial radio and musique concrète is discussed only in passing. Attending in more detail to musique concrète's primitivism allows for a logic related to that which underwrites Schaeffer's conception of colonial radio to be traced, a logic in which the "primitive" functions as a signifier of musique concrète's return to origins and fundamentals.

The primitivism found in *musique concrète* takes different forms; in *Étude aux casseroles*, for instance, one of the records that Schaeffer manipulates, alongside recordings of a harmonica, barges and the voice of Sacha Guitry, is an ethnographic recording from Bali. Here, the non-Western element is one, seemingly insignificant, among others. Listening

^{2007.} See Vijay Prashad, *The Darker Nations* (New York: New Press, 2007), 82–83 for contemporary criticisms of Negritude from Fanon and Amilcar Cabral. In a more recent book, Wilder offers a sympathetic account of post-war Negritude as an attempt to negotiate the postcolonial order outside of a binary of neo-colonialism and anticolonial nationalism; see Wilder, *Freedom Time*, 62–63.

⁶⁴ Schaeffer, 'Du totem à l'antenne'. This programme of conservation, strengthening of links between a people and its culture and between different cultures within 'Greater France' is set out most explicitly in 'La radio instrument de culture'.

⁶⁵ Timothy D. Taylor, Strange Sounds: Music, Technology & Culture (New York: Routledge, 2001), 55-60.

to Étude aux tourniquets, another of Cinq études de bruits, with this fact in mind, however, suggests that this piece, too, is calling on a primitivist set of references. The piece, according to Schaeffer, uses as source material original recordings of tuned (though not equally tempered) and untuned instruments, including xylophones (perhaps balafon) and a zanza, a West African lamellophone, by Gaston Litaize, material that recalls West African music.66 This, too, is a fairly incidental link to the sort of manoeuvre found in Picasso's use of African art, in which the "African" serves to invoke a magical, animist relation between subject and object, in part as an avant-gardist critique of art as institution.⁶⁷ However, Max de Haas's short film, *Maskerage*, with a soundtrack composed by Schaeffer, spells out the implicit rhetoric of affinity between *musique concrète* and the "primitive". Set to a percussive, looping score that draws on various ethnographic recordings, in particular from Bali and Mexico, and percussion with primitivist connotations ('the "tam-tam" or another primitive music [mélodie]', Haas suggests), the film takes an eerie, starkly-lit journey around the National Museum of Ethnology in Amsterdam, dominated by expressionistic shots of masks from around the world, explicitly drawing together the formal and thematic tropes of the avant-garde with non-Western artefacts. 68 Orphée 53 and Simultané camerounais continue to call on an affinity between musique concrète and the "primitive", the former depicting an invocation of "Manitou", a reference to the belief systems of Algonquian peoples of North America, in the style of "Negro [nègre] song", while the latter seeks to recreate a performance heard

⁶⁶ Schaeffer, *In Search of a Concrete Music*, 16. Indeed, once one begins to consider *musique concrète* with this conjuncture in mind, examples appear everywhere, including the Mexican flute of *Variations sur une flute mexicaine* (1949), as well as the theme of *Étude noire* (1948), derived 'almost imperceptibly from the folklore of Asia Minor'; *Présentation d'œuvre: Études de Bruits*, IMEC, fonds Schaeffer, Box 117 Dossier 887.

⁶⁷ Françoise Gilot and Carlton Lake, *Life with Picasso* (New York: McGraw-Hill, 1964), 266. Yve-Alain Bois gives a more detailed reading of the lessons Picasso took from African art, distinguishing a 'morphological' imitation of appearance from a 'structural' understanding of the arbitrariness of the signifier; Bois, 'Kahnweiler's Lesson', trans. Katharine Streip, *Representations*, 18 (1987), 33–68. ⁶⁸ Schaeffer's notes, and a letter from Haas to Schaeffer, 19 November 1951, in IMEC, fonds Schaeffer, Box 106, Dossier 1055.

by Schaeffer in northern Cameroon using the techniques of *musique concrète*, 'to render Negro [*nègre*] music [...] for current consumption'.⁶⁹

In 1952, in a footnote in *In Search of a Concrete Music*, Schaeffer spelt out his conception of this affinity between *musique concrète* and "primitive" music:

personally I attach great importance to the strange encounter between concrete music and so-called primitive musics. This is a good moment to recognize that extremes meet, and to explain why. On the one hand, the latest fashion in Western technique leads us to find sound objects that undeniably have more in common with exotic musics than any Western music. On the other, the aesthetic and psychological impressions produced by concrete music inevitably make us think about the role music plays in other civilizations. Finally, the concrete experiment in music allows us to approach the problems of exotic or primitive musics in a quite different spirit from Western musicologists.⁷⁰

Schaeffer, while acknowledging difference ('other civilizations'), ultimately disavows it, constructing the Other as essentially the same. Foster, drawing on Homi Bhabha, aligns this logic with the Freudian account of fetishism, a logic that Bhabha identifies as the characteristic manoeuvre of colonial discourse, 'an apparatus that turns on the recognition and disavowal of racial/cultural/historical differences', producing 'the colonized as a social reality which is at once an 'other' and yet entirely knowable and visible'. Here, Schaeffer can be seen to accord the Other a difference that is assimilable to an original wholeness or similarity, assuming a position that transcends the difference between Western and primitive. 72

The affinity consists, it seems, in the fact that these musics share surface similarities: as Romuald Vandelle puts it in a volume of *La Revue Musicale* co-edited by Schaeffer and titled 'Musical experiences: concrete, electronic, exotic musics', 'if, from a judicious choice of recordings, an uninformed audience is played works of exotic music and works of

⁶⁹ Schaeffer, *Livret d'Orphée 53*, *version française complète*, 12, reproduced in Delhaye, '*Orphée*'; Schaeffer, 'Simultané camerounais', *La Revue Musicale*, 244 (1959), 62.

⁷⁰ Schaeffer, In Search of a Concrete Music, 182.

⁷¹ Foster, 'The "Primitive" Unconscious of Modern Art', 60; Bhabha, *The Location of Culture*, 100–101.

⁷² Bhabha, *The Location of Culture*, 107.

experimental music, they could come to confuse them'.73 Neither Schaeffer nor Vandelle are particularly specific about the supposed similarities, other than a reference to the abandonment of the diatonic system, but it is possible to surmise a few, such as non-equal tempered tunings, a greater focus on rhythm than on harmony, and the extensive use of repetition. These are, of course, purely formal similarities and as such they presuppose the abstraction of the music in question from all contextual meaning, an approach that is not at all given or natural but is rather the imposition of a formalist reading onto non-Western musical practices. The deeper meaning to which these surface similarities are understood to attest is something like the universal role of music in different civilisations.

Foster identifies and criticises a similar logic undergirding the curation of a 1984 exhibition on the theme of primitivism and modernism at the Museum of Modern Art. There, works of sculpture by Picasso, Max Ernst and others were juxtaposed with 'knowingly selected' works of "primitive" sculpture so as to draw out formal and, by implicit extension, spiritual kinships in terms of universal human essences or characteristics. As Foster puts it, 'the show abstracted and separated the modern and the tribal into two sets of objects that could then only be "affined." Thus reduced to form, it is no wonder they came to reflect one another in the glass of the vitrines'.74 The object of Foster's critique is the pretention to universality of a formalist modernism, in particular in its institutional American reception, which calcifies into what he terms 'MOMAism'.75 This is, I would suggest, exactly the operation that supports the suggestion of an affinity between musique concrète and "primitive" music. While the abstraction of purely formal elements is perhaps less immediately striking in the context of music, the formal autonomy of which is often taken as given, it is necessary for both musique concrète and non-Western music to be thought of in such abstract terms for these parallels to be drawn.⁷⁶ For Foster, 'coincidental affinities seemed to be derived in equal part from the

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⁷³ Vandelle, 'Musique exotique et musique expérimentale', 34.

⁷⁴ Foster, 'The "Primitive" Unconscious of Modern Art', 47.

⁷⁵ Ibid., 54–58.

⁷⁶ Indeed, for early proponents of sound recording as a tool of comparative musicology, the acousmatic reduction of the sound recording was part of the technique's appeal: '[w]ith the phonograph', write Otto Abraham and Erich M. von Hornbostel, 'one can record a piece of music and study it at leisure in the

formalist reception of the "primitive" read back into the tribal work and from the radical abstraction performed on both sets of objects'.⁷⁷ At the same time, the very real mechanisms by which these objects came to be abstracted are elided, that is, various forms of imperialist plunder.⁷⁸ The referent—all the contextual meaning of musical practices as embedded in a socius—has been bracketed so as to reveal a set of abstract, formal universals.

The particular historical situation to which this iteration of primitivism responds—or rather, the tension or contradiction it seeks phantastically to reconcile—is the undoing of French imperial universalism. Sherman takes up the figure of 'association', introduced above, as an 'ideological keyword' more than a practical policy, which allowed France to conceive of its empire in terms of coexistence and respect for difference rather than assimilation.⁷⁹ Sherman examines the rhetoric of 'association' in interior design magazines in the 1960s, arguing that 'association style', the tasteful 'juxtaposition of objects from different cultures, usually with the added element of contemporary works of art and furniture', 'offered a means not only of obscuring the colonial past of the objects it enshrined, but of molding an acceptable future'.⁸⁰ This style of argument can be found in contemporaneous writing on art: Sherman quotes a 1953 survey of art history, in which Germain Bazin argues that 'the principles of the birth and development of forms are the

study, where attention is not so much distracted visually as it is at performances by exotic peoples'. The acousmatic reduction separates, or rather constitutes, "the music itself", apart from its accidental contextual meanings. Otto Abraham and E. M. von Hornbostel, 'On the Significance of the Phonograph for Comparative Musicology' [1904], trans. Ray Giles, in Klaus P. Wachsmann, Dieter Christensen and Hans-Peter Reinecke (eds.), *Hornbostel Opera Omnia* (The Hague: Nijhoff, 1975), I, 183–202 (p. 195).
77 Foster, 'The "Primitive" Unconscious of Modern Art', 50.

 $^{^{78}}$ Michel Leiris documents the looting characteristic of Marcel Griaule's interwar ethnographic work among the Dogon in *Phantom Africa*, trans. Brent Hayes Edwards (Calcutta: Seagull, 2017 [1934]).

⁷⁹ Sherman, French Primitivism, 62–63.

⁸⁰ Ibid., 78 & 83. Ousmane Sembène's *La Noire de...* (1966), a film set between Senghor's Senegal and the French Riviera, employs a mask not unlike some of those in *Maskerage* in a critique of the abstractive logic of association style. The protagonist presents a mask to her white employer, who later displays it in her minimally decorated white-walled apartment. After the protagonist's suicide, the employer's husband attempts to return the mask to her family in a refused reconciliation, but a young boy takes it and follows (chases?—the scene is ambiguous) him out of the township wearing the mask. The mask is here neither a representative of an authentic, holistic 'folk' culture—the *retour aux sources* fails—nor is it smoothly accepted into the neutral, white interior of the metropolitan home. Primitivism as a European aesthetic trope returns against the neo-colonial Frenchman.

same whatever the region of the world', though one might just as easily refer to Malraux's humanist survey of world art, *The Voices of Silence* (1951), whose glossy photographic reproductions of artworks from around the world serve to illustrate his claim that these artefacts express elements of a universal human character.⁸¹ As in the Museum of Modern Art exhibition, formal homologies are identified, reducing 'actual conflict [Sherman has the Algerian war in mind] to the harmless clash of objects, easily reconcilable to a perceptive eye, and provid[ing] a concise narrative of harmony, reconciliation, and shared humanity'.⁸²

The primitivism of *musique concrète* thus attempts to rescue a beleaguered colonial ideology, offering a reformist vision of France's colonial future, no longer articulated in the language of biological racism or the *mission civilisatrice* but in terms of a shared humanity. French West Africa is central to this vision; in the French colonial imaginary, the West African is the "primitive" par excellence, and in that capacity functions as a representative of a logical and historical origin, 'a "zero degree" with reference to which one [can] outline the structure, the growth, and above all the degradation of our society and our culture'.⁸³ The "primitive" acts as a redeeming supplement to the modern, which in turn affects a neutral view of the whole. This much is implicit in Schaeffer's suggestion that 'attending to the distant past can meet with preoccupations of the future: some so-called primitive musics suddenly appear much less crude, much bolder than certain

⁸¹ Germain Bazin, quoted in Sherman, *French Primitivism*, 69; André Malraux, *The Voices of Silence*, trans. Stuart Gilbert (London: Secker & Warburg, 1954 [1951]), 630–42, in particular.

⁸² Sherman, French Primitivism, 85–86. It is this ahistorical curatorial humanism at which Roland Barthes takes aim in an essay from the mid-1950s titled 'The Great Family of Man', a 'classic humanism' 'which always consists in placing Nature at the bottom of History'; Roland Barthes, 'The Great Family of Man', in Mythologies (London: Granada, 1982 [1957]), 100–102 (p. 101). Fred Turner offers a more sympathetic appraisal of the exhibition that is the subject of Barthes's essay, reading it as 'an effort to make visible a new, more diverse, and more tolerant vision of both the United States and the globe' (209). Nevertheless, it is difficult not to read its rhetoric of individual freedom, liberal democracy and opposition to totalitarianism, particularly in the exhibition's tour outside the US, as of a piece with a universalism that, though well-intentioned, is just as problematic as its French counterpart; Fred Turner, The Democratic Surround: Multimedia & American Liberalism from World War II to the Psychedelic Sixties (Chicago: University of Chicago Press, 2013), 181–212.

⁸³ See, for example, Fanon's references to French stereotypes of the Senegalese in *Black Skin, White Masks*; Patricia Leighten, 'The White Peril and *l'art nègre*: Picasso, Primitivism and Anticolonialism', *The Art Bulletin*, 72 (1990), 609–30 (pp. 610–13); Jacques Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak (Baltimore: Johns Hopkins University Press, 1997 [1967]), 115.

modernist experiments' (a proposition that also speaks to the difficulty in clearly delineating between relativist or pluralist and evolutionist models of cultural difference).84 French West Africa's exemplary status as counterpart to the disastrous decolonisation of Algeria and Indochina makes it an especially convenient touchstone for an affirmation of a colonial humanism, of a shared humanity under the framework of the French empire. The radio, the work of musique concrète, and the French empire ('Greater France') all function, then, as a neutral space where extremes meet.

Étude aux tourniquets and Maskerage

If, for Schaeffer, the totem or the 'cloud-hook' and the antenna register the same universal impulse, an analogous musical formal pairing, one "primitive" and the other modern and technological, might be made between "primitive" repetitions and those of the closed groove, the central formal and technical device of the early years of musique concrète, in which a record is cut such that, rather than spiralling inwards, short fragments of recordings are repeated.85 In other words, the ideological presuppositions I have traced above can be shown to be at work at the level of the musical detail. To speak of "primitive" repetitions is, of course, as much to cite a conventional mode of conceptualising "African music" as it is to point to actual characteristics of that music.86

Étude aux tourniquet employs both forms of repetition, pitting passages organised around the repetitions of short recorded fragments against passages that appear to be relatively unedited recordings of Litaize's sketches for xylophone, bells, zanza, and whirligigs. The latter draws on several rhythmic features of West African music, including a timeline-like

⁸⁴ Schaeffer, 'Situation actuelle de la musique expérimentale', *La Revue Musicale*, 244 (1959), 10–17 (p. 17). That is, either the alignment of the Other with an archaic past from which Europe has evolved, or a model of cultural difference as contemporary with each other; cf. Bhabha, The Location of Culture, 185; Claude Lévi-Strauss, Race and History (Paris: Unesco, 1952), 13; Johannes Fabian, Time and the Other: How Anthropology Makes Its Object (New York: Columbia University Press, 1983).

⁸⁵ Schaeffer, In Search of a Concrete Music, 81.

⁸⁶ Paulla A. Ebron, Performing Africa (Princeton: Princeton University Press, 2002), 33-45; Simha Arom, African Polyphony & Polyrhythm: Musical Structure and Methodology, trans. Martin Thom, Barbara Tuckett and Raymond Boyd (Cambridge: Cambridge University Press, 2004 [1985]), 17-18. Arom collaborated with Schaeffer and the GRM in the 1960s and 1970s, including speaking at the GRM's seminar course in 1969-70; Michel Chion, 'Reflections on the Sound Object and Reduced Listening', in Steintrager and Chow (eds.), Sound Objects, 23-32 (pp. 28-29).

pattern, hemiola, and dialogic interplay. The contrasting passages—rhythmically articulated montages in which the seams are audible and Litaize's pastiche of African music—are unified not only by their timbral palette but by their use of repetition. In positing itself as a unity, the piece stages and makes a claim for the essential affinity between the two repetitions, implying that, like the 'cloud-hook' and the antenna, they are underwritten by what Schaeffer elsewhere refers to as 'an intuition that, though naïve, heralds a universal character'.⁸⁷ Something similar occurs in Schaeffer's *Simultané camerounais*, in which recordings from Cameroon are montaged and superimposed; as in the passage from 1'02" to 1'11" of *Étude aux tourniquets*, the repetitive techniques of *musique concrète* are applied to "primitive" material.⁸⁸

Of course, what is actually "affined", to use Foster's quasi-neologism, with *musique concrète* is thoroughly abstracted and mediated: the "primitive" music of the piece is confected by Litaize, an organist who had studied with Marcel Dupré and Louis Vierne, and there is nothing to suggest that he had any expertise in non-Western music, or in writing for non-Western instruments. Schaeffer writes of his closed grooves, too, as radically outside the flow of time and history, rather than as a historically contingent technological affordance: they arise 'from a symbolic difference' between the spiral and the circle. The closed groove 'has neither beginning nor end', it is 'a sliver of sound isolated from any temporal context, [...] made of time that now belongs to no time'.89 The timelessness of the closed groove's circle, as opposed to the spiral of a record's regular mechanism, described suggestively as a 'magic circle', implies a homologous relation to the distinction between premodern, mythic cyclical time and a modern, linear (or, for Schaeffer, spiral) time. Schaeffer suggests that the closed groove is not, or not merely, a historically specific technique, but a means of access to, or an automated reiteration of, primal and universal origins.90 These two repetitions, then, are abstracted from their two

⁸⁷ Schaeffer, 'Du totem à l'antenne'.

⁸⁸ Rudolf Frisius, 'Unsichtbare Klänge: Musik über Musik – Musik zweiten Grades' [2008],

http://www.frisius.de/rudolf/texte/MuM.pdf> [accessed 18 July 2019].

⁸⁹ Schaeffer, In Search of a Concrete Music, 31-32.

⁹⁰ Christophe Levaux, with explicit reference to Schaeffer's closed grooves, traces a *longue durée* history of 'repetitive audio technologies' 'back at least as far as the middle of the ninth century'. Like most *longue*

contexts, one a signifier for the "primitive", the other a technological device, so as to reveal—or rather, constitute—ahistorical essential characteristics of human musical activity.

Maskerage employs different but aligned techniques for "affining" the "primitive" and the modern. Composed as the GRMC moved from working with shellac discs to composing with magnetic tape, the piece relies to a much lesser extent on the repetition of short units than does Étude aux tourniquets. For much of the film, the sound of the prepared piano—by 1952 a central element in the sound-world of musique concrète—acts as a timbral mediator between other sounds: tuned percussion, drums, and a clock striking twelve. Punctuating this timbral flux are bursts of a recording of a kecak chorus, an aestheticised ritual from Bali that was developed in the 1930s for Western audiences as an ersatz signifier of authentic primitive culture, thus already, as Michael B. Bakan notes, 'a floating sonic signifier enmeshed in schizophonic processes' rather than a self-present origin.⁹¹

The soundtrack self-consciously toys with the thresholds between sound effect and music, such as the bell tones that are interwoven with the gong-like sounds of the prepared piano, or the falsetto voice that accompanies the appearance of a skittish cat. What Schaeffer had theorised in other contexts as the slippage between sound effect, music, and speech afforded by attention to the concrete here takes on a particular political valence: the abstraction of the concrete, so to speak, the autonomy of the recorded surface, allows for the smooth transition between different cultures. As in Schaeffer's conception of colonial radio, the recorded surface becomes the site of this reconciliation and recognition

durée histories, Levaux emphasises long-term stability at the expense of short-term change; Levaux, 'The Forgotten History of Repetitive Audio Technologies', Organised Sound, 22 (2017), 187–94 (p. 188).

⁹¹ Michael B. Bakan, 'The Abduction of the Signifying Monkey Chant: Schizophonic Transmogrifications of Balinese *Kecak* in Fellini's *Satyricon* and the Coen Brothers' *Blood Simple*', *Ethnomusicology Forum*, 18 (2009), 83–106 (pp. 87–92). I owe the identification of this recording to Michael Tenzer. Towards the end of the film, short repeated fragments of jazz emerge, recalling an earlier primitivist association of US jazz with authentic African origins (of which Milhaud's previously mentioned *La création du monde* is a paradigmatic musical example).

⁹² Schaeffer, 'L'élément non visuel au cinéma (I) – Analyse de la "bande son"; Schaeffer, 'L'élément non visuel au cinéma (III) – Psychologie du rapport vision-audition', *La Revue du Cinéma*, 3 (1946), 51–54; Schaeffer, 'Concrete Music' [1954], in James Eugene Wierzbicki (ed.), *The Routledge Film Music Sourcebook* (New York: Routledge, 2012), 150–53; Schaeffer, *Propos sur la coquille*, 50.

of difference, a difference that is, in Bhabha's formulation, 'almost the same, but not quite'.93

An acousmatic listening for 'pure sound' reduces the distinctions between different sounds, producing a form of equivalence between sound effects and music, "traditional" Balinese and avant-garde Parisian.94 The difficulty in discerning a prepared piano from a gamelan in the acousmatic situation is a dynamic internal to the functioning of the piece; if the piece makes a claim for the universality of concrete listening, this claim rests on the underdetermination of the acousmatic situation. As such, as early comparative musicologists like Otto Abraham and Erich von Hornbostel attested, recorded sound lends itself to this sort of comparative exercise, constituting different sonic cultures as comparable by removing visual information.95 This manoeuvre shares a structuring principle with the ethnographic museum that is the film's setting, offering a "neutral" frame in which artefacts can be read comparatively. 96 Far from being neutral, however, the acousmatic veil functions as a crutch for Thompson's 'white aurality', or what Stoever refers to as a "color-blind" aurality, keeping real material relations and historical conditions hidden from view.⁹⁷ By turning from Schaeffer to his anticolonial contemporaries, what follows attempts to articulate an alternative model of acousmatic listening that engages head on with these historical conditions.

Fanon and the Decolonisation of Listening

While Schaeffer was developing a universal theory of listening buttressed by the exotic sounds of colonial subjects, colonial subjects, and francophone ones in particular, were grappling with the relationship between anticolonial politics and the universal. In the

⁹⁵ Abraham and Hornbostel, 'On the Significance of the Phonograph for Comparative Musicology', 195.

⁹³ Bhabha, The Location of Culture, 122.

⁹⁴ Ibid., 147.

⁹⁶ Jann Pasler points to the parallel roles of Universal Exhibitions and transcriptions of non-Western music into Western notation in constituting musical universals, lending ideological support to French imperial universalism; Jann Pasler, *Composing the Citizen: Music as Public Utility in Third Republic France* (Berkeley: University of Berkeley Press, 2009), 426–32 & 572–82; Pasler, 'Sonic Anthropology in 1900: The Challenge of Transcribing Non-Western Music and Language', *Twentieth-Century Music*, 11 (2014), 7–36; cf. Alexander Rehding, 'Wax Cylinder Revolutions', *The Musical Quarterly*, 88 (2005), 123–60 (pp. 146–48).

⁹⁷ Stoever, The Sonic Color Line, 233-43.

1930s, in fact, the poetry of Senghor, Damas, and Aimé Césaire had deployed the "primitivist" iconography of 'African sensuality and harmony with nature' to ends similar to those of the rest of the avant-garde, as a means to critique Western reason and valorise the contribution of the "primitive" to world culture.⁹⁸ Césaire and Fanon would later criticise the essentialism of what Jean-Paul Sartre describes as Senghor's 'objective' Negritude, Fanon being particularly critical of Senghor's reliance on white ethnographers and colonial officials like Leo Frobenius, Maurice Delafosse and Hubert Lyautey.⁹⁹ 'The black soul', Fanon insists, 'is a white man's artifact', 'woven […] out of a thousand details, anecdotes, stories'.¹⁰⁰ Nevertheless, the generation of anticolonial thinkers of the 1940s and 1950s, shaped as they were by Hegelianism, mediated by Marxism as well as the writings of Alexandre Kojève and Sartre, and by their French education, remained committed at some level to a form of universalism.¹⁰¹

Where Schaeffer's universalism is predicated on the givenness of certain essences—human creativity, the human condition etc.—Senghor, Césaire, and Fanon (with significant differences) insist on a dialectical humanism, in which, as Senghor puts it, 'one can grasp man's permanent features only through his historical, geographical, and ethnic background'. Fanon and Césaire's critique is stronger yet: that which Europe has termed humanism is not really a humanism at all. '[T]he West', Césaire writes, 'has never been further from being able to live a true humanism—a humanism made to the measure of the world'. Fanon, often construed as a more Manichean thinker than either Césaire or Senghor, concludes *The Wretched of the Earth* by invoking a new humanism, drawing

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⁹⁸ Sherman, *French Primitivism*, 9; see 'Ce que l'homme noir apporte' for Senghor's exposition of this aesthetic, which draws explicitly on the work of Leo Frobenius.

⁹⁹ Fanon, *Black Skin, White Masks*, 2 & 99. A quotation from Lyautey, a reformist governor of Morocco, serves as an epigraph to Senghor's essay 'Vues sur l'Afrique noire, ou assimiler, non être assimilés' [1945], in *Liberté I*, 39–69, and other colonial governors come in for praise in a number of Senghor's essays from the 1930s and 1940s. See, for example, 'Le problème culturel en A.O.F.' [1937], in *Liberté I*, 11–21.

¹⁰⁰ Fanon, Black Skin, White Masks, 7 & 84; cf. Mbembe, Critique of Black Reason, 43.

¹⁰¹ Jean-Paul Sartre, 'Black Orpheus' [1948], in *The Aftermath of War*, trans. Chris Turner (London: Seagull, 2017), 259–329 (p. 287). Senghor describes the humanist values of the 'French genius' instilled in him and Césaire at the Lycée Louis-le-Grand in 'Lycée Louis-le-Grand: haut lieu de culture française' [1963], in *Liberté I*, 403–406 (pp. 403–404).

¹⁰² Senghor, On African Socialism, trans. Mercer Cook (London: Praeger, 1964 [1961]), 78.

¹⁰³ Césaire, Discourse on Colonialism, 73.

inspiration from while critical of European thought: 'All the elements of a solution to the great problems of humanity have, at different times, existed in European thought. But Europeans have not carried out in practice the mission which fell to them'; the task, according to Fanon, is to 'work out new concepts, and try to set afoot a new man'. 104 What they argue for is, indeed, a universal, but a universal that is yet to be achieved, that 'can be articulated', as Mbembe puts it, 'only in the language of what-is-to-come'. This entails an open-ended conception of the universal as one that 'will always escape repetition because of its radical difference', as in Césaire's vision of 'a universal enriched by all that is particular, a universal enriched by every particular: the deepening and coexistence of all particulars'. 106 It is a project such as this that Judith Butler, whose critique of Western humanism is informed by that of postcolonial thinkers such as Césaire and Fanon, seeks to advance in her work. 'The task', she argues, 'is to compel the terms of modernity to embrace those they have traditionally excluded, where the embrace does not work to domesticate and neutralise the newly avowed term; such terms should remain problematic for the existing notion of the polity, should expose the limits of its claim to universality, and compel a radical rethinking of its parameters'. 107 In calling existing universalism into question, these writers give an intimation of a universalism without recourse to essence, oriented, that is, not to origins but to the future. 108

'This is the Voice of Algeria', an essay of Fanon's from 1959, gives an account of what Stoever describes under the rubric of a 'decolonization of listening', an account that

Stoever describes under the rubric of a 'decolonization of listening', an account that

¹⁰⁴ Fanon, The Wretched of the Earth, trans. Constance Farrington (London: Penguin, 2001 [1961]), 253–

¹⁰⁵ Mbembe, *Critique of Black Reason*, 160.

¹⁰⁶ Ibid.; Césaire, 'Letter to Maurice Thorez', 152.

¹⁰⁷ Judith Butler, *Undoing Gender* (Abingdon: Routledge, 2004), 180. Jane Hiddleston explicitly aligns Butler's humanism with that of Césaire; Jane Hiddleston, 'Aimé Césaire and Postcolonial Humanism', *The Modern Language Review*, 105 (2010), 87–102 (p. 102).

¹⁰⁸ It is in part as a consequence of rejecting the colonial characterizations of African music in terms of essential and ahistorical origins that anticolonial writers like Fanon were wary or dismissive of invoking African musics. For a rich account of this 'missed encounter' between ethnomusicology and the theory and literature of anticolonialism, see Brent Hayes Edwards, 'The Sound of Anticolonialism', in Ronald Radano and Tejumola Olaniyan (eds.), *Audible Empire: Music, Global Politics, Critique* (Durham: Duke University Press, 2016), 269–91; for a more positive appraisal of the place of jazz in Senghor's thought and in his cultural policy, see Tstitsi Ella Jaji, *Africa in Stereo: Modernism, Music, and Pan-African Solidarity* (Oxford: Oxford University Press, 2014), 66–110.

suggests how a dialectical, anticolonial logic might be brought to bear on Schaeffer's radiophonic universalism.¹⁰⁹ The essay chronicles changing Algerian attitudes towards the radio, a transvaluation of the radio from a tool of the oppressor and a threat to traditional morals and modes of sociability to a central ideological apparatus of the revolutionary struggle.¹¹⁰ Rather than taking radio to be a neutral container for the meeting of "primitive" and modern, African and European-essences that remain untroubled in the course of broadcast and reception-Fanon emphasises the transformative character of the appropriation of radiophonic technology by the Algerian nationalist movement. The radio, for Fanon, as an apparatus (understood not simply as a piece of machinery but as a set of relations between individuals and between individuals and technologies) that is constitutive of revolutionary Algerian consciousness, undoes the 'strict, almost feudal type of patrilineal hierarchy [...] that characterize the Algerian family': 'traditional resistances broke down and one could see in a douar groups of families in which fathers, mothers, daughters, elbow to elbow, would scrutinize the radio dial waiting for the Voice of Algeria'. The engagement with radio gives rise to a 'radical transformation of the means of perception, of the very world of perception'. 112

As John Mowitt argues, Fanon's reading of 'the voice of Algeria' deconstructs any neat distinction between production and reception: as a result of the cat-and-mouse 'war of the radio-waves', in which the French jam nationalist broadcasts and nationalists attempt to evade jamming, the voice of Algeria arrives scrambled: '[t]he obstreperous clash of resistances, in spacing out the voice, in separating the voice from itself, produces a reception context composed of a collective charged with the urgent labor of filling in the tears in the voice'. Here, listening refutes its traditional passivity vis-à-vis vision; it is, rather, an active practice, a supplementary 'bad reception [...] that produces [...] a resistance about which the subjects must lie in order to secure the truth of the revolution

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¹⁰⁹ Stoever, *The Sonic Color Line*.

¹¹⁰ Fanon, 'This is the Voice of Algeria', in *A Dying Colonialism*, trans. Haakon Chevalier (New York: Monthly Review, 1965 [1959]), 69–97.

¹¹¹ Ibid., 70 & 83.

¹¹² Ibid., 96.

¹¹³ Mowitt, Radio: Essays in Bad Reception (Berkeley: University of California Press, 2011), 94.

and of themselves'.114 The radio is no longer simply a communication device, and radiophonic listening an unveiling of timeless truths and origins, nor is it the site of a reconciliation between colonised and coloniser that leaves intact the colonial apparatus. Instead, radiophonic listening is a technique for engendering a subject and an Algeria that is yet to be constructed—Mowitt emphasises the performative character of Fanon's title ("Ici, la voix d'Algérie"), calling a liberated Algeria into existence. 115 This takes place not through a collapsing of distance, but precisely in the 'space between enunciation and address' that for Bhabha characterises the colonial context, in the décalage—the gap or lag in time and space—that structures diasporic relations. 116 Such a listening might, after all, be an underexplored potential of reduced listening as a listening that, in attending to gaps, shuttles between subject and object, from position to position and, as Mowitt suggests, listens 'from two places at once'.117

The difference between this model of radio listening and Schaeffer's can be articulated as two responses to the underdetermination of the acousmatic. The spacing of the source and cause from the sounding effect leads Schaeffer, in the context of musique concrète, to autonomise the effect, to demand 'that the listener hear the sonic effects as self-generated,

¹¹⁴ Ibid., 95.

¹¹⁵ Ibid., 88.

¹¹⁶ Bhabha, The Location of Culture, 135; Brent Hayes Edwards, The Practice of Diaspora: Literature, Translation, and the Rise of Black Internationalism (Cambridge: Harvard University Press, 2003), 13–15. Edwards borrows the term from Senghor. Edwin C. Hill Jr. deploys Edwards's theorization of diaspora as a figure of anticolonial radio listening, arguing that the colonial radio's universalizing ideology is undone in Césaire's poetry, where the latter 'exploits and widens the gap' that colonial radio seeks to cover over; Hill Jr., Black Soundscapes White Stages, 136-45. See also Jaji, Africa in Stereo, which develops the figure of a stereo listening structured by the gaps and relations of diaspora.

¹¹⁷ Mowitt, 'Avuncular Listening: The Unsuspected', Recherches sémiotiques / Semiotic Inquiry, 29 (2009), 81-97 (p. 85). In this context, that Schaeffer's 1948 experiments were preceded by those of Halim El-Dabh, four years earlier, provides an intriguing counterpoint. El-Dabh's The Expression of Zaar (1944), in its title and its music, suggests a quasi-ethnographic character, purporting to document an exorcism ritual, though one that is distorted and troubled in its technological mediation; its spacing is rendered palpable through layers of artificial reverberation (to which I return in the final chapter). Though there is no evidence that Schaeffer was aware of El-Dabh's work at this or any juncture, the latter's sounding of radio, folklore and space at the moment of decolonisation suggests a resonant if contrasting parallel with Schaeffer's musique concrète as it appears here. For further information on El-Dabh, see Holmes, Electronic and Experimental Music, 156–57.

as autonomous sound objects bracketed from worldly connection', thus attempting to rescue reproduced sound from the condition of writing.¹¹⁸

Fanon's 'bad reception', by contrast, takes up the differential spacing of the acousmatic situation as a means to deprivilege what Bhabha calls 'the *topos* of enunciation', adopting the 'signifying position of the minority that resists totalization—the repetition [or reception] that will not return as the same'. Fanon's 'new man' is mediated by the metonymic series voice-radio-revolution: rather than something that was always there, waiting to be discovered, the human is always yet to fully emerge (as Fanon's friend Sartre puts it, 'human universality exists, but it is not a given; it is in perpetual construction'). By extension, the same can be said of listening: it is itself under perpetual construction, 'a dynamic historical and cultural practice', without a pre-cultural, natural essence.

Conclusion

While Schaeffer's later writings and activities have appeared only briefly here, a great deal remains to be written regarding the figure of the "primitive" and the non-Western in relation to Schaeffer's universalist project. The *Traité des objets musicaux* continues to call on such familiar primitivist stock figures as "*l'Indien*" (referring to indigenous peoples of the Americas), "*le tam-tam nègre*", and "*les Hindous*", with the not-unrelated addition of the "Neanderthal", in support of Schaeffer's universal theory of listening. ¹²² Indeed, in an essay from 1982, entitled 'The Primitive Ear', Schaeffer opposes 'the so-called refined, cultural, musical listening, of the "*do-re-mi-fa-sol*" to another listening, which 'resemble[s] the primitive listening of the Indian [*l'Indien*, i.e. Native American]', 'for

¹¹⁸ Kane, *Sound Unseen*, 150. Schaeffer's claim in the context of colonial radio administration that radio abolishes distance and vanquishes time implies another attempt to affirm the immediacy and self-presence—the speech-like character—of reproduced sound, and deny the radio's spacing of source and effect, of enunciation and reception, centre and periphery.

¹¹⁹ Bhabha, The Location of Culture, 232.

¹²⁰ Sartre, Existentialism is a Humanism, 43.

¹²¹ Stoever, The Sonic Color Line, 232.

¹²² 'Translators' Introduction' in Schaeffer, *Treatise on Musical Objects*, xxi-xxvii (p. xxii).

sound in itself; the "primitive", 'the index to a hidden good Nature', is again invoked to condemn the over-civilised West.¹²³

Valiquet has forcefully argued that, while the *Traité des objets musicaux* may attempt to hear the music of others, it cannot account for 'the *hearing* of others'. Valiquet gives a suggestive reading of Schaeffer's project and the form of universalism entailed by its engagement with structuralist thought. Indeed, Schaeffer quotes from Lévi-Strauss's *Anthropologie structurale* (1958) in the preface to the *Traité des objets musicaux*, invoking a passage that accords with the humanism examined here: '[p]erhaps one day we shall discover that the same logic is at work in mythical and scientific thought, and that man has always thought in the same way. Progress—if indeed the word still applies—would not have had consciousness as its domain, but the world, where a humanity endowed with unchanging faculties would, in the course of its long history, have been continuously grappling with new objects'. ¹²⁴ In an interview from 1969, Schaeffer explicitly aligns his theory of listening with Lévi-Strauss's critique of ethnocentrism, declaring his aim, in an echo of the Lévi-Strauss passage cited above, 'to find, through their diversity, shared mechanisms' in musics from different cultures. ¹²⁵

Schaeffer's theory thus opens itself to the critique of Lévi-Strauss put forward by Jacques Derrida in *Of Grammatology*, published in 1967, one year after the *Traité*, and in particular to Derrida's accusation that 'the critique of ethnocentrism [...] has most often the sole function of constituting the other as a model of original and natural goodness, of accusing and humiliating oneself, of exhibiting its being-unacceptable in an anti-ethnocentric mirror'. ¹²⁶ In this light, Lévi-Strauss's critique of ethnocentrism replays the familiar trope of the innocent, uncontaminated "primitive" from which the Westerner

¹²³ Schaeffer, 'L'oreille primitive', in *L'oreille oubliée* (Paris: Centre Georges Pompidou, 1982), 14–15 (p. 14); Derrida, *Of Grammatology*, 114.

¹²⁴ Claude Lévi-Strauss, quoted in Schaeffer, Treatise on Musical Objects, xxxviii.

¹²⁵ Pierret, *Entretiens*, 47–55. Lévi-Strauss appears to have attended a performance of *Orphée 51* in 1951 and corresponded with Schaeffer after the publication of *In Search of a Concrete Music*. He later wrote a withering appraisal of *musique concrète* in *Le Cru et le cuit* (Paris: Plon, 1964), 31. Schaeffer, *In Search of a Concrete Music*, 101; Kaltenecker and Le Bail, 'Jalons', 40–42.

¹²⁶ Derrida, Of Grammatology, 114.

might learn, imposing an ethnocentric dichotomy between speech and writing on peoples 'without writing'.¹²⁷

As I have argued in this chapter, *musique concrète* bears the mark of a pivotal moment in the contestation of figures of universality that were and remain central to the modern political imaginary.¹²⁸ *Musique concrète* was not merely an index of its context, but also a site in which political commitments and visions were tested and worked over. As will be further developed in my conclusion, similar claims for sound (in itself) continue to made in recent writing on experimental electronic music; the historical argument set out here should caution against the too hasty transplantation of its associated rhetoric of universality and emancipation to the present. If, as this excursus has claimed, *musique concrète*'s autonomy simultaneously occludes the music's claims and is the condition of those claims, setting them aside opens *musique concrète* up to novel readings; it is with such a reading that the final chapter is occupied.

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¹²⁷ Ibid., 121.

¹²⁸ By this I mean in particular a liberalism of formal equality—that of rights—and social harmony that obscures and legitimates material and structural inequalities. Karl Marx's assessment in 'Critique of the Gotha Programme' is perhaps the most famous articulation of this argument; Karl Marx, 'Critique of the Gotha Programme', trans. Joris de Bres, in *Political Writings: The First International and After* (Middlesex: Penguin, 1974), 339–59. See also Jacques Rancière, *Hatred of Democracy*, trans. Steve Corcoran (London: Verso, 2006); Domenico Losurdo, *Liberalism: A Counter-History*, trans. Gregory Elliott (London: Verso, 2011); David Theo Goldberg, *Are We All Postracial Yet*? (Cambridge: Polity, 2015).

4. Radio Atmospheres

While much writing on *musique concrète* has tidily assimilated the experiments of the late 1940s and early 1950s into a historical stream of avant-garde concert music that stretches from Varèse through Cage to figures such as Stockhausen and Helmut Lachenmann, few accounts have taken seriously the idea that for these pieces it was Schaeffer's radio practice that was the determinative context. In pursuing this line of argument, the present chapter seeks to provide an account of the early works of musique concrète with greater explanatory power than those that look for commonalities with avant-garde precursors and contemporaries such as Russolo, Varèse or Cage, or those that draw on later analytical languages developed by François Delalande or Denis Smalley, which combine the formalist semiotics of Jean-Jacques Nattiez with the music-theoretical language of Schaeffer's *Traité des objets musicaux*, discussed in the introduction.² As his biography, set out in chapter 1, should make clear, Schaeffer's interest in, let alone commitment to, the musical avant-garde was a passing one. Nor, as has often been remarked, was Schaeffer a composer by training. Instead, his interests and expertise in the 1940s lay in the radio and radiophonic aesthetics. Interpreting early musique concrète in language borrowed from the musical avant-garde is therefore difficult to justify on historical grounds.

Aside from these historical reasons, the reading presented in this chapter also provides a fuller account of the aesthetic of the characteristic works of *musique concrète* than those

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¹ Exceptions include John Dack, 'Pierre Schaeffer and the Significance of Radiophonic Art', Contemporary Music Review, 10 (1994), 3–11. Passing but suggestive comments on the importance of radio to the aesthetics of musique concrète include: Gayou, GRM, 17–34; Fulcher, 'From "the Voice of the Maréchal" to Musique Concrète'; Michel Chion and Guy Reibel, Les Musiques Électroacoustiques (Aix-en-Provence: Edisud, 1976), 25; Philippe Langlois, 'Pierre Schaeffer's Legacy and the Atelier de Création Radiophonique', in Gayou (ed.), Pierre Schaeffer: Polychrome Portraits, 37–40 (p. 39); Gianfranco Vinay, 'La "recherche" de François Bayle: Portrait de l'artiste', in Gayou (ed.), François Bayle: Portraits polychromes (Paris: INA, 2007), 7–12 (p. 8); Schaeffer, La Musique Concrète, 18; François Bayle, Musique Acousmatique: Propositions—Positions (Paris: INA, 1993), 143.

² See, for example, Gayou, *GRM*, 48; Battier, 'What the GRM Brought to Music', 190; Florian Gourio, 'Symphonie pour un homme seul de Pierre Schaeffer et Pierre Henry: Analyse de quatre mouvements avec une méthode expérimentale (unpublished Masters *Mémoire*, Université de Nice, 2006).

that attempt to explain them with reference to typomorphologies of sound objects.³ Hearing the debts of *musique concrète* to the radio play—its manipulation of mood and space, the structural centrality of the voice and so on—makes sense of otherwise inscrutable characteristics. In turn, this can illuminate later electroacoustic music that is contemporary with the typomorphologies of the *Traité des objets musicaux* but that nevertheless resists interpretation in those terms. The pieces discussed in this chapter—*Étude aux chemins de fer, Symphonie pour un homme seul* and *Le Voile d'Orphée*—are ones that can reasonably be taken to exemplify *musique concrète* as a musical, aesthetic project, as a critic such as Antoine Goléa conceives it.⁴ As much as a "reduced" listening to a pure sonorous matter has been taken to be a defining methodological and aesthetic characteristic of *musique concrète*, a far more flexible and, in a sense, literary use of sound than such a characterisation allows appears to define these pieces.⁵

The terms on which *musique concrète* has been or might be drawn into the aesthetic world of the mid-century European and North American musical avant-garde are not, I argue, ones that can account for the style of the pieces in question. Put succinctly, this frames *musique concrète* as a stage in a tendential expansion of sonic and technical resources, and often implicitly as a sort of primitive precursor to the work of the Cologne studio.⁶ This is the case in the formalist accounts of Delalande and Smalley; *musique concrète* may introduce new material, and perhaps even new ways of combining materials, but those materials are fundamentally conceived after the model of instrumental sound. For Boulez and Stockhausen, this was indeed the promise that drew them to the studio in 1951: the

³ Examples of this sort of work can be found in the *Online Repository for Electroacoustic Music Analysis* http://www.orema.dmu.ac.uk/ [accessed 7 December 2020].

⁴ Antoine Goléa, 'Tendances de la Musique concrète', *La Revue Musicale*, 236 (1957), 36–44; cf. Goléa, *La Musique*: *de la nuit des temps aux aurores nouvelles*, 2 vols (Paris: Alphonse Leduc & Cie, 1977), II, 771–79.

⁵ Joanna Demers, Ambrose Field, Brandon LaBelle and others all take "reduced listening" as the foundational practice of *musique concrète* conceived as an opening up of music to all sound; Demers, *Listening through the Noise*, 26–29; Ambrose Field, 'Simulation and Reality: the New Sonic Objects', in Simon Emmerson (ed.), *Music, Electronic Media and Culture* (Aldershot: Ashgate, 2000), 36–55 (pp. 36–41); LaBelle, *Background Noise*, 26–29.

⁶ It is in this form that *musique concrète* appears in Peter Manning's account; Manning, *Electronic and Computer Music*, 37–38.

technical means would afford the ever more precise application of serial procedures and the decomposition of sound into fundamental atomic particles. Boulez's *Études sur un seul son* (1951) and Stockhausen's *Konkrete Etüde* (1952) represent the results of this endeavour; both pieces—needless to say, perhaps—were regarded as failures by their respective composers and withdrawn.

Whatever Schaeffer's grand vision for a musique concrète that would up-end the norms of Western art music, for many of the visitors the attraction to the Paris studio was no more complicated than it being the only studio dedicated to experiments with electronic music in Europe until the founding of the Cologne Studio für elektronische Musik in 1951.8 As such, musique concrète was in many ways institutionally and personally embedded in the European New Music scene, but, despite allusions to Cage, neoclassicism and serialism in pieces by Schaeffer and Henry, this does little to explain the way in which these pieces make sense. In any case, Schaeffer's was a fractious relationship with the avant-garde, and by 1952 a significant number of composers including Cage, Boulez and Stockhausen had formed unfavourable attitudes towards Schaeffer's theories and personality, opinions that would only be hardened by the events of 1953. The teleological narrative of the emancipation of dissonance and the opening up of music to an ever-greater range of timbres cannot account for much in *musique concrète*: the emphasis on the speaking voice and the suggestion of narrative, for example, contribute to the impression that the coherence of a piece frequently relies on it being understood in less than pure terms and situate musique concrète, I argue, in a different aesthetic context.

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⁷ Grant, *Serial Music*, *Serial Aesthetics*, 55–56; Pascal Decroupet and Elena Ungeheuer, 'Through the Sensory Looking-Glass: The Aesthetic and Serial Foundations of *Gesang der Jünglinge*', trans. by Jerome Kohl, *Perspectives of New Music*, 36 (1998), 97–142 (p. 98). Robert Beyer, among the founders of the Cologne studio, shared a similar understanding of electronic music as the logical next step from the early twentieth-century emancipation of dissonance; Iverson, *Electronic Inspirations*, 26.

⁸ In 1952, Stockhausen made his disdain for Schaeffer and his ideas clear in correspondence with Herbert Eimert, and even intimated that Boulez and Jean Barraqué were plotting to overthrow Schaeffer at the GRMC; Iverson, *Electronic Inspirations*, 38.

To state this argument in terms a little more forceful than those of "influence", this chapter claims that pieces such as *Étude aux chemins de fer*, *Symphonie pour un homme seul* and *Orphée 53* are themselves radio dramas, albeit rather unusual ones. This is to place greater emphasis on the distance between the period of 1948 to 1953 and the period after 1958, when Schaeffer reorganised the Groupe de recherche de la musique concrète as the Groupe de recherches musicales and began in earnest the theoretical writing that would culminate in the *Traité des objets musicaux*, published in 1966, reducing his compositional activities to, at best, a supplementary role in his research. That a piece like *Symphonie pour un homme seul* works in a different way from the 1958 *Étude aux objets* is, I think, readily audible. Indeed, the division of labour that developed in the creation of *Symphonie pour un homme seul* and *Orphée 51* and *53*, Schaeffer providing a premise, Henry or Maurice Jarre contributing musical material, recalls that of the radio play: Schaeffer's role frequently seems far more akin to a "metteur en ondes" (a radio producer, a term coined by analogy with the metteur en scène of cinema) than to a composer.

But perhaps more significantly, *musique concrète* is figured here rather differently than in its most influential characterisation, namely Schaeffer's own in *In Search of a Concrete Music*. What Jacques Rancière describes as 'de-figuration', a process in which criticism and artistic practice construct a novel perception of an existing work, dissociating its elements from their earlier significance and pointing to 'as yet unrealized possibilities' in the work, provides a useful rubric for theorising this conjuncture. Rancière's examples include Jean Epstein's extraction of a pure cinema of situations from a silent melodrama and the Goncourt brothers' elaboration of a 'materialist' painting from Chardin's still lives. Schaeffer, in the works of *musique concrète* but above all in *In Search of a Concrete Music*, undertakes such a de-figuration of radiophonic art: he 'undoes the arrangements of fiction [...], and draws our attention instead to [...] the adventures of matter lurking beneath the subject of figuration'. This is not to suggest that either one ('matter' or

⁹ Jacques Rancière, *The Future of the Image*, trans. by Gregory Elliott (London: Verso, 2007), 83.

¹⁰ Rancière, *Film Fables*, trans. by Emiliano Battista (Oxford: Berg, 2006), 1–19; Rancière, *The Future of the Image*, 79–83.

¹¹ Rancière, Film Fables, 8.

'figuration') is more true than the other, nor that the de-figuration does not express a truth about the music. *Musique concrète* is extracted from the radio play and re-figured as a play of rhythms and sonorities. Where the latter figuration has dominated the reception of *musique concrète*, not least as a consequence of later writers' reliance on *In Search of a Concrete Music* for their understanding of *musique concrète*, here I want to emphasise the way in which the not-*musique concrète* from which *musique concrète* is cast remains in the early works. If these works are in Rancière's vocabulary a 'surface of conversion', the present chapter argues that reckoning with what it is that *musique concrète* retrospectively de-figures affords a clearer view of the *musique concrète* that followed.¹²

This demands something of an imaginative leap, hearing these pieces not, as they appear in Kane's *Sound Unseen*, as the upbeat to a theory of acousmatic listening inflected by phenomenology, structuralist linguistics and information theory, or, as they are often figured, as forebears of a style of composition practised by François Bayle or Francis Dhomont.¹³ Listening, then, not for embryonic forms and emergent tendencies but for the contemporaneous borrowings from the techniques and aesthetics of radio can help to make sense of characteristics of these pieces that many accounts pass over, such as their preoccupation with the voice, their hints of narrative and their manipulation of space. Indeed, once this position—that these works are a sort of radio drama—is adopted it makes sense of them in ways that the interpretative strategies of autonomous concert music cannot.

Musique Concrète and Sound in Itself

Guiding this account of historical aesthetics is a theoretical argument against claims for an immediate encounter with sound in itself, purified of all culture. Indeed, this theoretical position is the corollary of the historical one: specifying the particular, historically and culturally determined practices of creating, manipulating and hearing

¹² Rancière, *The Future of the Image*, 75–76 & 83.

¹³ As, for example, in Joel Chabade, *Electric Sound: The Past and Promise of Electronic Music* (Upper Saddle River: Prentice Hall, 1997) and Adrian Moore, *Sonic Art: An Introduction to Electroacoustic Music Composition* (New York: Routledge, 2016).

sound entails that the sound in question is necessarily the artifact of a host of mediations. These sorts of claims for immediacy appear frequently in writing on experimental electronic music in recent decades, claims that draw on the overlapping ideologies of absolute music, medium-specificity and reduced listening.¹⁴

In Schaeffer's theorisation of sound and music, as Kane argues, it is the listening practices associated with Western art music that are the principal source for Schaeffer's conception of sound and (or as) music.¹⁵ Running through Schaeffer's writing in *In Search of a Concrete Music* is a sharp and unquestioned distinction between "music" and "anecdote" or "sign".¹⁶ For Schaeffer, music is a language of pure sound, phrased in quasi-Pythagorean terms of mathematics, geometry and the harmony of the spheres.¹⁷ It is this sort of conception of music that underwrites an explanation of *musique concrète* with reference to a teleological expansion of musical resources on the model of Schoenberg's emancipation of dissonance.¹⁸ Herbert Eimert and Robert Beyer, founders of the Cologne studio, would frame their development of electronic music in precisely these terms, the former describing Cage's music in terms of an 'emancipation of noise-colour'; indeed, not long after his studies with Schoenberg, Cage similarly called for the 'emancipation' of sound and rhythm.¹⁹ Schaeffer's understanding of a piece such as *Étude aux chemins de*

¹⁴ G. Douglas Barrett offers one way of theorising this overlap by suggesting that the shared artistic modernism of musical modernism and Greenbergian painterly modernism lies in the fact that 'the birth of absolute music [...] was also the birth of [an aestheticist] artistic modernism'. See G. Douglas Barrett, *After Sound: Toward a Critical Music* (New York: Bloomsbury, 2016), 2. The writing of Christoph Cox is representative of this tendency and has served as something of a lightning conductor for critical accounts of "sound-in-itself"; see, for example, Cox, 'Beyond Representation and Signification'. Recent critical appraisals of Cox include: Kane, 'Sound Studies Without Auditory Culture'; Thompson, 'Whiteness and the Ontological Turn in Sound Studies'; Annie Goh, 'Sounding Situated Knowledges: Echo in Archaeoacoustics', *Parallax*, 23 (2017), 283–304; Iain Campbell, 'Sound's Matter: 'Deleuzian Sound Studies' and the Problems of Sonic Materialism', *Contemporary Music Review*, 39 (2020), 618–37. These recent debates are discussed in more detail in the conclusion.

¹⁵ Kane, Sound Unseen, 119.

¹⁶ Schaeffer, In Search of a Concrete Music, 12, 92 & 149-52; Kane, Sound Unseen, 28.

¹⁷ Schaeffer, In Search of a Concrete Music, 92 & 186; Schaeffer, Essai sur la radio et le cinéma, 47-48.

¹⁸ Arnold Schoenberg, 'Opinion or Insight?' [1926], in Leonard Stein (ed.), *Style and Ideas: Selected Writings of Arnold Schoenberg*, trans. by Leo Black (New York: St. Martins Press, 1975), 258–64.

¹⁹ Herbert Eimert, *Grundlagen der musikalischen Reihentechnik* (Vienna: Universal Edition, 1964), 14; Cage, 'Goal: New Music, New Dance' [1939], in *Silence: Lectures and Writings by John Cage* (Hanover: Wesleyan University Press, 1973), 87–88 (p. 87).

fer recalls this discourse: as a 'symphony of noises', it introduces new rhythms and new timbres. Other passages appear similarly amenable to a narrative of expanded sonic resources along lines set out by Varèse or Schaeffer's own invocation of *Klangfarbenmelodie*, adding 'sound-masses' and 'shifting planes' to the forms and materials available to the composer ('[e]lectronics is an additive, not a destructive factor in the art and science of music', Varèse insists).²⁰

There are passages in works of *musique concrète* that seem legible along these lines: the first half of *Le Voile d'Orphée*, for example, develops a language in which recordings of an organ, voices and metallic clangs are melded together through the careful use of reverberation, echoes and the *phonogène à coulisse* or "slide phonogene", a device invented by Jacques Poullin that allowed smooth speed (and hence pitch) modulations. The piece makes much less use of the short loops that characterise *Symphonie pour un homme seul*, instead using longer loops to generate rich homogeneous masses rather than discrete units or "sound objects". Its material is also often more conventionally musical than that of *Étude aux chemins de fer* or *Symphonie pour un homme seul*, and thus has more in common with a piece like *Suite pour quatorze instruments* (1949), reflecting, on Schaeffer's part at least, something of a conservative retreat. The timbral transformations and slow shifts in pitch centre and percussive interjections that mark structural divisions suggest a language consistent with a Varèsian programme of "organised sound".

A conception of a music of pure and unmediated sound or sensation has been the object of various critiques. As argued in the excursus, one line of critique suggests that the appeal to sound in itself and the concomitant adoption of a certain listening attitude constitutes its object by disavowing the partiality and historicity of its perspective. In the Derridean terms in which Seth Kim-Cohen unpicks sound in itself, perception is always already structured by difference. There is, as Derrida forcefully argues in *Speech and Phenomena*,

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²⁰ Edgard Varèse, 'The Liberation of Sound', *Perspectives of New Music*, 5 (1966), 11–19; Schaeffer, *In Search of a Concrete Music*, 119. Schaeffer himself resists this sort of narrativization, suggesting that, while this may aptly describe the innovations of *elektronische Musik*, *musique concrète* was always more ambitious in scope; Schaeffer, *In Search of a Concrete Music*, 115.

no easy opposition between the nonsignifying fullness of presence and the differential—that is, mediate—mechanisms of retention, memory and signification.²¹

This post-phenomenological argument can be reformulated in more historicist terms: where, for Schaeffer, sound in itself is a given, Jonathan Sterne and Benjamin Steege trace its relatively recent historical genesis in the development of acoustic science in the nineteenth century and an emergent modernist valorisation of immediate sensation. Sound *qua* sound, they argue, was constituted as a scientific and aesthetic object through an empiricist practice of 'virtuoso attentiveness', and paradigmatically that of Hermann von Helmholtz, allowing 'people to hear the familiar anew, as if for the first time'. Sterne contends that sound 'in general' was a novel conceptual development of the nineteenth century; where previously sound had been considered 'through a particular, idealized instance such as speech or music', '[t]he emergence of the tympanic function [...] coincided with the inversion of the general and the specific in philosophies of sound. Sound itself became the general category'. The move from attempts to reproduce sound by replicating the function of the mouth to those modelled on the ear indexes this transformation: sound was now thought of as an effect or sensory impression regardless of source.

Such a conception of sound and sensation is evident in French music criticism in the early twentieth century, particularly that which sought to interpret the music of Claude Debussy.²⁵ Alexandra Kieffer traces the enthusiastic dissemination of Helmholtz's work in popular-scientific publications in France in the late nineteenth century and its

²¹ Seth Kim-Cohen, *In the Blink of an Ear: Toward a Non-Cochlear Sonic Art* (New York: Continuum, 2009), 13–14 and passim; Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham: Duke University Press, 2003), 11; Derrida, *Speech and Phenomena*, trans. by David B. Allison (Evanston: Northwestern University Press, 1973), 103.

²² Benjamin Steege, *Helmholtz and the Modern Listener* (Cambridge: Cambridge University Press, 2012), 79 & 98.

²³ Sterne, *The Audible Past*, 23.

²⁴ Ibid., 33 & 71; Steege, Helmholtz and the Modern Listener, 235.

²⁵ Alexandra Kieffer, 'The Debussyist Ear: Listening, Representation and French Musical Modernism', 19th-Century Music, 39 (2015), 56–79; Steege, Helmholtz and the Modern Listener, 219; Kelly, Music and Ultra-Modernism in France, 95–119.

subsequent appropriation in music criticism.²⁶ Debussy's music was figured as a music of sensation, enacting 'a radical revaluation of the nature of listening [...] in order to interrogate the raw material of auditory sensation'.²⁷ This combined a Helmholtzian practice of the autonomisation of the senses with a Symbolist aesthetic that, like Impressionism in painting, attended to sensation in isolation from the 'codified objects of experience that produce them'.²⁸ Rather than a valueless return to immediacy, then, Schaeffer's commitment to immediate sensation and sound in itself appears as only the latest example of a thoroughly historical conception of sensation (a history that intersects with that set out in chapter 3).

Regardless of the ability of Schaeffer's conception of *musique concrète* to withstand this sort of scrutiny, it was far from given that *musique concrète* was heard in this way. As much as the contexts in which *musique concrète* was presented, which from 1950 included concert halls in Paris and beyond alongside broadcasts such as Henry's *Microphone bien tempéré*, reflected a desire for it to be heard as a music of autonomous works rather than sound effects, the effectiveness of this framing seems to have been limited, and the contemporary response was muted. Respondents to one survey were, for the most part, unconvinced that these experiments constituted music, a sentiment shared by William Rime and Pierre Drouin in *Le Monde*, who poured scorn on the idea that Schaeffer and Henry's works were of interest beyond potential applications on the radio, in cinema or in theatre.²⁹

²⁶ Kieffer, 'The Debussyist Ear', 66.

²⁷ Ibid., 62.

²⁸ Ibid., 69; cf. Jonathan Crary, *Techniques of the Observer* (Cambridge: MIT Press, 1990), 66.

²⁹ Schaeffer, 'Présentation de musique concrète à Marly', 25 September 1951, reproduced in Delhaye, 'Orphée', 642–43; William Rime, "De la musique avant toute chose…": La "musique concrète", *Le Monde*, 27 July 1951, reproduced in Delhaye, 'Orphée', 557; Pierre Drouin, 'Où va la "musique concrète", *Le Monde*, 15 September 1951, reproduced in Delhaye, 'Orphée', 558. Later negative assessments of *musique concrète* by Boulez and Hodeir, for example, though informed by personal rivalries and animosities, would follow a similar argument; Pierre Boulez, 'Concrete (Music)' [1958], in Paule Thévenin (ed.), *Notes of an Apprenticeship*, trans. by Herbert Weinstock (New York: Alfred A. Knopf, 1968), 289–91; André Hodeir, *Since Debussy: A View of Contemporary Music*, trans. by Noel Burch (New York: Grove, 1961), 140–41.

Indeed, from the foundation of the Groupe de recherche de la musique concrète in 1951, much of Henry's time was occupied with precisely these sorts of applications. This included creating a library of sounds, some relatively naturalistic, others more fantastical and atmospheric, for use on the radio. In addition, Henry fulfilled commissions for radio programmes and films, as well as, from 1955, for the theatre.³⁰ Much to Schaeffer's consternation, these sorts of applications continued to figure prominently in the output of the studio; even after the foundation of the Groupe de recherches musicales in 1958, 'applied' music or sound made up the majority of the studio's work until 1974.³¹ For Schaeffer, these activities were merely an alibi to justify the studio's focus on research. For Henry, however, there was no sharp distinction between his compositions and his applied sound, and he freely made use of sounds generated for specific applications in his most highly regarded works.³²

Schaeffer himself was less than certain that the works under discussion in this chapter were musical works in any conventional sense. His justification for these pieces was frequently articulated in terms of research independent of questions of aesthetic value; in 1951, for example, he wrote of the need for a new 'phase of less attractive research, not directed immediately towards artistic expression in premature works', a proposal echoed in the 1953 essay 'Vers une musique expérimentale'.³³ Similarly, in the aftermath of the presentation of *Orphée 53* at Donaueschingen, Schaeffer would claim that critics had mistaken a piece of research for a work with aesthetic ambitions.³⁴

In what follows, this reception of *musique concrète* in terms of sound effects and radio aesthetics is understood as neither a symptom of reactionary philistinism nor a failure on the part of the music but as a recognition of the language—the cultural, conventional

³⁰ Delhaye, 'Orphée', 138-40; Davies, International Electronic Music Catalog, 69-70.

³¹ Gayou, GRM, 427; Schaeffer, La Musique Concrète, 74.

³² Delhaye, 'Orphée', 140.

³³ Schaeffer, 'La musique concrète' [1951], 101; Schaeffer, 'Vers une musique expérimentale'.

³⁴ Schaeffer, 'Le Malentendu de Donaueschingen, lettre ouverte à la presse allemande' (1953), reproduced in Delhaye, '*Orphée*', 776–78; Schaeffer would later question whether *musique concrète* ever really constituted music; Schaeffer, *Machines à communiquer: Genèse des simulacres*, 152; Hodgkinson, 'An Interview with Pierre Schaeffer'. The confusion was, of course, as much Schaeffer's as it was anyone else's: in its early years Schaeffer had absolutely posited *musique concrète* as music.

meanings of sound on the radio—that *musique concrète* speaks. Rancière's description of cinema as a 'compromise between divergent poetics, a complex interlacing of visual presentation, oral expression and narrative sequencing' is suggestive of how *musique concrète* might be understood.³⁵ Just as Rancière is sceptical of theories of cinema that see in it a rarefied language of pure images, this account unterhers *musique concrète* from the notion of sound in itself, pure music or immediate sensation and hears it as an inconsistent, impure and contingent project.

As such, this chapter does not exactly contradict Kane's historicisation of the acousmatic as theorised by Schaeffer, which identifies the listening practices associated with art music as the principal source for the latter's conception of reduced listening. However, in reaffirming the centrality of the radio to *musique concrète*, this chapter rests on an implicit claim not only that Schaeffer's thought and practice in the 1960s are distinct in significant ways from *musique concrète* in the late 1940s and early 1950s, but also that *musique concrète* as represented by the musical products of this period is not identical with *musique concrète* as it appears in a text like *In Search of a Concrete Music*. Thus, Kane's assessment of *musique concrète*—that, while it 'may capitalize on the spacing of source and cause afforded by radio and sound reproduction, [...] it diminishes the unsettling aspects of such spacing by demanding that the listener hear the sonic effects as self-generated, as autonomous sound objects bracketed from worldly connection'—speaks much more to *musique concrète* as a retrospective theoretical construction than to the pieces of *musique concrète* under discussion here.³⁶

The starting point for these pieces—*Étude aux chemins de fer*, *Symphonie pour un homme seul* and *Orphée 53*—is a radio style that engages with the medium of radio in a reflexive, slightly arch manner. Schaeffer's *La Coquille à planètes*, described in general terms in the second chapter, gives a sense of the techniques and aesthetics of the French radio play in the mid-1940s and the sort of tone that Schaeffer's works adopt. This is a tone simultaneously wry and earnest, gently silly though without any actual jokes, with a

³⁵ Rancière, The Intervals of Cinema, trans. John Howe (London: Verso, 2014), 66.

³⁶ Kane, Sound Unseen, 150.

pervasive reflexivity more *Goon Show* than *Ideologiekritik*. The works of *musique concrète* share this tone to a significant degree; Peter Manning's characterisation of *Symphonie pour un homme seul* as 'light and humorous' is apt.³⁷ While it sought to extend the technical and aesthetic resources of the radio play, *La Coquille à planètes* was far from unusual in its fantastical style, and the radio play, with its ability to suggest sudden shifts in location and fantastical characters with minimal means, was frequently conceptualised as particularly suited to these sorts of flights of imagination.³⁸ Particularly at the Club d'Essai, there was little affinity for an aesthetic of naturalism or realism, informed, as they were, by the theatrical aesthetics of the interwar period: 'we were all', recounts Robert Prot, 'more or less consciously disciples of Jacques Copeau'.³⁹

Tone

Approaching these pieces from a slightly different angle can illuminate this historical enquiry. In his discussion of the novelty of a piece like Schaeffer's Étude aux allures, from 1958, Kane distinguishes the sort of coherence possessed by this piece from that of Étude aux chemins de fer. As Kane notes, the titles of the pieces signal a pivotal change: where the earlier piece is 'organized around a single type of sound source—trains—that produces multiple qualititatively distinct auditory effects', Étude aux allures groups sounds on the basis of a 'typo-morphological feature of internal beating, vibrato or pulsing'. However, neither Symphonie pour un homme seul nor Le Voile d'Orphée is guided by such a strategy—though Schaeffer's early sketches for the former piece, in which 'the lone man' finds 'his symphony within himself', suggests a logic not all that distant from that of Étude aux chemins de fer. Instead, these pieces hang together through

³⁷ Manning, Electronic and Computer Music, 24.

³⁸ Jean Tardieu, 'Littérature et Radio' [1956], in Tardieu and Chérif Khaznadar, *Grandeurs et faiblesses de la radio: Essai sur l'évolution, le rôle créateur et la portée culturelle de l'art radiophonique dans la société contemporaine* (Paris: Unesco, 1969), 50–53 (p. 50).

³⁹ Robert Prot, 'Le Sillage des ondes', *Cahiers d'Histoire de la Radiodiffusion*, 48 (1996), 119–20 (p. 119). This raises a broader question, beyond the scope of this study, about the relationship between the aesthetics of the radio play and of the theatre in the 1940s. Certainly, as Stalarow suggests, *La Coquille à planètes* seems to be informed by Jean-Louis Barrault's 1943 production of Claudel's *Le soulier de satin*, and Claudel's *Le Livre de Christophe Colomb* was adapted for the radio at the Club d'Essai in 1947. As chapter 1 makes clear, theatre played a large part in Schaeffer's aesthetic formation in the 1930s.

⁴⁰ Kane, Sound Unseen, 120-22.

the creation and manipulation of a shared tone, drawing on the atmospheric means of the radio play in ways that will go on to characterise much of the *musique concrète* that followed.

Musique concrète's engagement with questions of tone, atmosphere or mood, and the manner of its engagement, is a striking and consistent characteristic—indeed, one that is perhaps so obvious as to have avoided serious consideration—and one that simultaneously marks its practical distance from questions of sound in itself and its situatedness within the ambit of the radio play. As Sianne Ngai theorises it, tone describes an 'organizing affective quality', or 'the formal aspect of a literary work that makes it possible for critics to describe a text as, say, "euphoric" or "melancholic," and, what is much more important, the category that makes these affective values meaningful with regard to how one understands the text as a totality within an equally holistic matrix of social relations'. 41 It is something like tone as a supervenient property of a combination of forms, techniques and materials that allows many of these works to be understood as wholes: these 'emotive or affective qualities' are critically productive 'as compressed assessments of complex "situations". 42 In other words, this is to suggest that a judgment of *Orphée 53* as "spooky", for example, might, despite appearances, be a rather useful way of characterising the way its narrative, its text and its sounds cohere without being reducible to any one of these components.

This is suitably sonic terminology, and it is in terms such as these that sound's role in film and radio was frequently conceptualised. As Schaeffer wrote in 1946, '[1]ike the spotlights on a theatre set', music 'bathes everything, changing not the volumes but the relationships of objects'. Neil Verma's account of American radio plays in the mid-twentieth century is similarly alert to the careful construction of moods or affects through sound: these plays are understood to possess 'political affects' in their figuration of space and spatial relations or to express a paranoia that is neither the property of a character nor an effect on a

⁴¹ Sianne Ngai, *Ugly Feelings* (Cambridge: Harvard University Press, 2005), 51 & 28.

⁴² Ibid., 42.

⁴³ Pierre Schaeffer, 'L'élément non visuel au cinéma (II) – Conception de la musique', *La Revue du Cinéma*, 2 (1946), 62–65 (p. 62).

listener.⁴⁴ Tone, in this sense, as Ngai is quick to argue, 'cannot be reduced to representations of feeling within the artwork, or to the emotional responses the artwork solicits from viewers'.⁴⁵ As in the moody stylisation of the film noir genre, on the radio music, narrative representation, techniques such as reverberation and, yes, tone of voice combine and give rise to an ambient mood, that, as Ngai quotes Susanne Langer, 'surround[s] and permeate[s] this whole structure in fluid omnipresence'.⁴⁶

Mood's 'fluid omnipresence' suggests an analogy with the airy omnipresence of the radio. From the metaphorics of air and ether, through the Heideggerian language of *Stimmung*, to the careful crafting of jovial or intimate tones, radio is rich in atmospheric resonance.⁴⁷ Indeed, one might argue that radio is by definition atmospheric, subsisting in an articulation through the air of spatial relations. The lesson of early radio was that this invisible medium was anything but transparent, and that its communicative function always relied on the constitution of atmosphere: the concern for 'tone' in the writings of Rudolf Arnheim, for example, which John Durham Peters characterises as a 'hunt for communicative prostheses' that supplement radio's lack of personal presence, speaks to the importance of the 'communicative context'.⁴⁸ As Peters notes, that very transparency, neutrality or tonelessness might itself hinder radio's communication. Radio sound, Tom McEnaney argues, resonated and constructed social space, whether it wanted to or not. The aesthetics of the radio acknowledged this: Arnheim suggests, for example, that 'atmosphere' (he uses the word *Stimmung*) must be the initial concern of the radio play

⁴⁴ Neil Verma, *Theater of the Mind: Imagination, Aesthetics and American Radio Drama* (Chicago: University of Chicago Press, 2015), 69–71 & 181–202.

⁴⁵ Ngai, *Ugly Feelings*, 28. This is to be expected: Ngai's is an argument that follows in the wake of writing by Brian Massumi, Eve Kosofsky Sedgwick and others that insists on the pre-personal, pre-cognitive character of affect. See, for example, Brian Massumi, 'The Autonomy of Affect', *Cultural Critique*, 31 (1995), 83–109; Eve Kosofsky Sedgwick and Adam Frank, 'Shame in the Cybernetic Fold: Reading Silvan Tomkins', *Critical Inquiry*, 21 (1995), 496–522. Nevertheless, Eugenie Brinkema avers that Ngai fails to escape from a subject-centred account of affect, one that describes affects from their effects on a reader or spectator; Eugenie Brinkema, *The Forms of the Affects* (Durham: Duke University Press, 2014), 34–36. ⁴⁶ Ngai, *Ugly Feelings*, 45, quotation from Susanne Langer, *Feeling and Form* (New York: Scribner, 1953),

⁴⁷ See, for example, Joe Milutis, *Ether: The Nothing That Connects Everything* (Minneapolis: University of Minnesota Press, 2006).

⁴⁸ John Durham Peters, *Speaking into the Air: A History of the Idea of Communication* (Chicago: University of Chicago Press, 1999), 214–16.

author, while Schaeffer describes the conventional function of noises on the radio as 'recreat[ing] an atmosphere'.⁴⁹ Among the practical lessons of the radio, then, was a sort of riposte to the rhetoric of sound in itself and pure matter that Schaeffer would later adopt.

A group of pieces that are often curiously absent from accounts of early musique concrète can render this characteristic and its historical and cultural determinants more concrete. These are the pieces composed by Henry, independently of Schaeffer, between 1950 and 1952. It might be their resistance to assimilation with a musique concrète figured as a music of sound in itself that has led to their conspicuous absence. A piece such as 'Fantasia' from Le Microphone bien temperé (1950-52) evokes an eery atmosphere in which ghostly voices emerge from rolling thunder and shrieks burst through ominous drones. This sense of an ambient mood is particularly detectable in the recordings gathered together as Musique sans titre (1950). There are eminently practical reasons for this, but reasons that are nonetheless pertinent to the aesthetic of the piece: it collects recordings composed to fulfil a commission for incidental radio and film sound.⁵⁰ In In Search of a Concrete Music, Schaeffer mentions compositions of Henry's with titles including "panic" or "mad roundabout", while movements from Musique sans titre bear such titles as 'La guerre', 'Les étoiles' and 'Les vacances'.51 Where, above, I invoked such applications of musique concrète in support of a critique of the language of sound in itself, the applications of musique concrète are deployed here as a way into a 'reading for mood', a reading alert to the historical character of its atmospheres.⁵²

"Atmosphere", one term in Ngai's self-consciously loose constellation, describes the combinatory logic of sound on the radio that is inherited by *musique concrète* and emphasises its spatial dimensions: tone, here, might be extended to include a literal or

⁴⁹ Rudolf Arnheim, *Radio*, trans. by Margaret Ludwig and Herbert Read (London: Faber and Faber, 1936 [1933]), 75. Whether or not this is a reference to Heidegger is unclear; I am inclined to read the parallel as serendipitous; Schaeffer, 'Présentation du Concert de bruits', 95.

⁵⁰ Chion, Pierre Henry (Paris: Fayard/SACEM, 1980), 29-30.

⁵¹ Schaeffer, In Search of a Concrete Music, 70.

⁵² cf. Jonathan Flatley, 'Reading for Mood', Representations, 140 (2017), 137–58.

figurative "room tone", a shared space or spatial logic that colours a piece.⁵³ This is to say that, because *musique concrète* descends primarily from radiophonic aesthetics rather than, for example, the musical aesthetics of René Leibowitz, Olivier Messiaen or Darius Milhaud, its consistencies are located not in a serial organisation of pitches or a consistent set of instrumental means, but in the sort of atmospheric constructions that were the concern of the radio.⁵⁴

Musique concrète rarely operates with anything so determinate as a plot, a narrative sequence of events. As the titles of Henry's movements indicate, these pieces evoke not 'events' but 'environments'. Indeed, the "scene" from which Le Voile d'Orphée is derived is rather like a tableau vivant. Meaning is diffuse, in the air (the French verb for 'broadcast'—diffuser—generates a satisfying resonance): it envelops the piece. As Arnheim had argued was the case with the radio play, atmosphere precedes and generates narrative. Several pieces of musique concrète operate at, and derive their unity from, this

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obvious way, following in the wake of the thinking of Gaston Bachelard and Henri Lefebvre among others. Joanna Demers and Gascia Ouzounian both cite Bachelard and Lefebvre in relation to experimental electronic music; Demers, *Listening through the Noise*, 119; Gascia Ouzounian, *Stereophonica: Sound and Space in Science, Technology, and the Arts* (Cambridge: MIT Press, 2020), 118. The relationship between sound, space and atmosphere is the subject of an ever-growing field of scholarship, from Emily Thompson's *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900–1933* (Cambridge: MIT Press, 2002) and Georgina Born's edited volume *Music, Sound and Space: Transformations of Public and Private Experience* (Cambridge: Cambridge University Press, 2013) to Malcolm James's *Sonic Intimacy* (London: Bloomsbury, 2020) and Dhanveer Singh Brar's *Teklife, Ghettoville, Eski: The Sonic Ecologies of Black Music in the Early 21st Century* (London: Goldsmiths Press, 2021), to name only a handful of examples.

⁵⁴ Attention to the early products of the WDR Studio für elektronische Musik, such as Eimert and Bayer's *Klang im unbegrenzten Raum* (1952), which, as Iverson notes, draws on materials, if not necessarily the formal procedures, of radio drama, blunts this opposition a little; Iverson, *Electronic Inspirations*, 40–48. M. J. Grant compares this piece to 'soundtracks to bad B-movies'; Grant, *Serial Music, Serial Aesthetics*, 77.

This is an opposition sketched by Lauren Berlant; Lauren Berlant, *Cruel Optimism* (Durham: Duke University Press, 2011), 100–101. As Anna Jones Abramson notes, a renunciation of plot in favour of, say, situations and sensations, is in many ways characteristic of modernist forms of representation; Anna Jones Abramson, 'The Age of Atmosphere: Air, Affect, and Technology in Modernist Literature' (unpublished doctoral dissertation, University of California, 2016), 8; cf. Rancière, *Film Fables*, 1–19 and Rancière, 'Why Emma Bovary Had to Be Killed', *Critical Inquiry*, 34 (2008), 233–48 as well as Jameson's opposition between affect and narrative in the realist novel; Fredric Jameson, *The Antinomies of Realism* (London: Verso, 2013).

⁵⁶ Abramson, 'Joseph Conrad's Atmospheric Modernism: Enveloping Fog, Narrative Frames, and Affective Attunement', *Studies in the Novel*, 50 (2018), 336–58 (p. 342).

threshold between atmosphere and narrative. The first piece of *musique concrète*, *Étude aux chemins de fer*, is, famously, composed from recordings of trains. As Schaeffer describes the piece in *In Search of a Concrete Music*, the purely "musical" play of differently coloured rhythms generates the self-sufficient meaning of the piece, a sense deriving from the internal relations between parts and elaborating a musical potential inhering in the material.⁵⁷

Notwithstanding Schaeffer's intellectual rationalisations in *In Search of a Concrete Music*, the premise that affords the play of sonorities and rhythms is a quasi-narrative one: *Étude aux chemins de fer* makes sense because the sounds refer to a train, not because of any inherent "musical" commonality between, say, a whistle and the clatter of a train's wheels. First, the whistle signals the train's departure, and the train accelerates away from the station. Later, the train slows down, the whistle blows again, and the train appears to pass the listener before picking up speed again. The train is then heard from different perspectives in a sort of accelerating montage akin to the techniques of the cinema—from the cab, perhaps, or from the end of a tunnel, or suddenly close to the wheels. Whatever modifications in attitude the listener might undergo, this is the hearing most readily available to contemporary listeners, as Schaeffer acknowledges.⁵⁸

Ngai's theorisation of tone affords a more extended consideration of the rather obvious tonal preoccupation of *Symphonie pour un homme seul* with a sort of paranoid anxiety. In part, this is present in the dramatic premise that undergirds the piece: 'man descending into himself', 'solitude with someone else' or 'in the crowd', as Schaeffer explains, depicting a lone man reflecting on himself and his relation to others, a quasi-existentialist investigation of the self (in 1978 Schaeffer hears echoes of the period of Occupation in the piece: the knocks are now those of the Gestapo, the cries those of warring armies). ⁵⁹ The series of loud, reverberating raps that open the piece, familiar to French theatregoers, recall, as Schaeffer notes, 'the three introductory blows of the wooden staff in the

⁵⁷ Schaeffer, In Search of a Concrete Music, 13.

⁵⁸ Ibid., 12–13.

⁵⁹ Ibid., 50 & 80; Schaeffer, Les Antennes de Jéricho, 222.

theater'. These knocks constitute a framing device or atmosphere, a knowing nod towards theatrical conventions; what follows, they imply, is "radiophonic theatre". At times, a representative kernel comes into precise focus, such as when 'Prosopopée I' appears to depict a man walking through a space, alternately murmuring and whistling as he walks. Much of the time, however, it remains an indeterminate, ambient unity: in 'Eroïca', reversed fragments of 'Sentimental Journey' and Wordsworth's 'I wandered lonely as a cloud', in combination with the movement's title, suggest the figure of a Romantic hero, the titular lone man.

This is not simply a question of "themes", however: the anxious oscillation between internal and external that is implicit in the glimpses of narrative is present, too, in what I have been terming the atmosphere of *Symphonie pour un homme seul*. Here, an uncertainty about the internal or external origins of voices, sounds and affects is inextricable from its existentialist reflection on sound reproduction technologies, and by extension acousmatic listening. This is a situation to which, as Kane's reading of Franz Kafka's *The Burrow* makes clear, a certain paranoiac tendency is immanent. As Ngai notes, 'the question of whether one's paranoia is subjective or objective is internal to paranoia', a destabilisation of subjective and objective that is figured by the opening knocks of 'Prosopopée I', appearing at first as a framing device, an element of the telling, that quickly becomes indistinguishable from that which is told. Similarly, the 'ahoy' that follows marks a shift or ambivalence between subjective and objective, transforming the voice of a narrator into a voice that is within the representation.

The anxiety of *Symphonie pour un homme seul* is one about sources, origins and the knowability or authenticity of those sources or origins. The pairing in 'Erotica' of a popular song with a cooing, amorous female voice exhibits a concern that these expressions of affects cannot be trusted: as socially and technologically mediated, they are alarmingly external; as acousmatic, they cannot be satisfactorily thought to "belong" to a

⁶⁰ Schaeffer, *In Search of a Concrete Music*, 54–55; Jacques Baillon, *Théâtre et Sciences: Le double fondateur* (Paris: L'Harmattan, 1998), 7.

⁶¹ Kafka's mole is 'frantic', while Italo Calvino's listening king is 'paranoid'; Kane, Sound Unseen, 134-61.

subject. The alienation of the piece is at once formal and thematic; as such a sort of affective indeterminacy, in which voices, affects and sounds are almost illegible, their communicative function suspended, is a part of this matrix. Recent theoretical accounts of free indirect discourse in the modernist novel can be fruitfully engaged here: Rey Chow and Julie Beth Napolin draw this formal technique, the fundamental structure of which prompts the question: 'Who is speaking?', into relation with the contemporaneous developments of modern sound reproduction technologies. Mikhail Bakhtin's theory of the novel is, Chow suggests, 'a de facto theory of acousmatic listening'; the instability and fragmentation of the narrative voice theorised by Bakhtin in terms of heteroglossia troubles a logic of individuated and authoritative subjects in ways that parallel the mechanisms of acousmatic sound. 22 Rather than a 'transparent mind', as Dorrit Cohn's account of free indirect style has it, this is to conceptualise voices as indistinct and prepersonal; Anna Jones Abramson argues that in Virginia Woolf's free indirect style '[n]arrative voice is "in the air", atmospheric rather than psychological. 33

Le Voile d'Orphée began life as the finale of Schaeffer and Henry's Orphée 53, a dramatic quasi-opera with a libretto drawing on a myth that had served as the source for some prestigious operatic precursors.⁶⁴ (In its humorous tone, its self-conscious use of anachronism and its quasi-parodic treatment of the operatic canon, the work owes something to Jacques Offenbach's Orphée aux enfers.) It is in this 15-minute form,

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⁶² Rey Chow, 'Listening after "Acousmaticity": Notes on a Transdisciplinary Problematic', in Steintrager and Chow (eds.), *Sound Objects*, 113–29 (p. 125); Julie Beth Napolin, *The Fact of Resonance: Modernist Acoustics and Narrative Form* (New York: Fordham University Press, 2020), 46–50. Similar links between social space, tone, voice and radio are described by Tom McEnaney; Tom McEnaney, *Acoustic Properties: Radio, Narrative, and the New Neighborhood of the Americas* (Evanston: Northwestern University Press, 2017).

⁶³ Dorrit Cohn, *Transparent Minds: Narrative Modes for Presenting Consciousness in Fiction* (Princeton: Princeton University Press, 1978); Abramson, 'Beyond Modernist Shock: Virginia Woolf's Absorbing Atmosphere', *Journal of Modern Literature*, 38 (2015), 39–56 (p. 47).

⁶⁴ As Cyrille Delhaye has discovered, there are six potential candidates for the "fixed", i.e. tape, elements of *Orphée 53*, none of which represent anything like the piece in its entirety. Delhaye's reconstruction draws on two different versions from Henry's archives and a recording published to commemorate 75 years of the Donaueschingen Festival. Due in part to the piece's negative, or simply bemused, critical reception, the piece did not last long in this form, and Schaeffer and Henry quickly set about reworking it; Delhaye, 'Orphée 53 de Pierre Schaeffer et Pierre Henry, aux origins du scandale de Donaueschingen', *Revue de Musicologie*, 98 (2012), 171–91 (p. 174–75); Delhaye, '*Orphée*', 189–230.

composed by Henry, that the work would have been best known, 'chosen by Pierre Schaeffer as one of the ambassadorial works of musique concrète', programmed in international concerts and broadcast on radio stations in France, Luxembourg and Monte Carlo through the 1950s and issued in 1956 on the Premier Panorama de musique concrète.65 Le Voile d'Orphée closes the narrative of Orphée 53, which borrows from the libretto of Christoph Gluck's Orfeo ed Euridice, supplemented by the telling of the Orpheus myth found in Ovid. In this scene, Orpheus has been dismembered by the Bacchantes, who (represented by two of the musicians) tear at a veil, revealing three masks of Orpheus's face. The myth that, having been decapitated, Orpheus's head continued to sing as it floated down the Hebrus here initiates a play with the fragmentation and dialogue of live and recorded voices. Indeed, the narrative and dramatic characteristics of the work are so dominant as to preclude any serious claims about a purely material sound. The dramatic sounds that open the piece were to be aligned with the tearing of the veil in the Donaueschingen performance, while the Orphic hymn to Zeus (the text of which appears in the libretto for *Orphée 53*, in a movement titled 'Liturgie') that dominates the piece's second half is intimately connected to the piece's dramatic origins, as are the plucked strings of the harpsichord, certainly intended to evoke Orpheus's lyre, rather than having been employed on the basis of pure sonority.66 Other sounds, though, cannot be identified so easily with specific narrative elements but are nevertheless assimilable to a more generally conceived tone: eery metallic rattles and ominous drones, for example, both interpret and are interpreted by the specificity of the narrative premise.

The manner in which these pieces make sense, then, has frequent recourse to some sort of tone or atmosphere, not necessarily because of any affinity with existing musical forms such as opera or the tone poem, but because of *musique concrète*'s debt to the atmospheric functions of sound on radio that orient both the composition and contemporary reception of *musique concrète*. This atmospheric tendency, which will underwrite much

65 Delhaye, 'Orphée', 225–26; Premier Panorama de musique concrète (Ducretet Thomson, 320C100, 1956).

⁶⁶ Schaeffer, *Livret d'Orphée 53*, *version française complète*, 22, reproduced as Appendix 69 in Delhaye, '*Orphée'*, 703–33.

of the rest of this chapter, is inseparable, both in terms of its aesthetic and technical coordinates and, in the case of Henry's work, its practical applications, from the meanings of sound in the radio play.

Sound Effects

The relationship between sound and narrative events that is implicit in the preceding account of the narrative and atmospheric underpinnings of *musique concrète* can be given greater specificity with reference to recent scholarship on film and radio sound, which offers a way of framing the articulation of sounds that are neither speech nor music to narrative structures in their historical and theoretical exposition of the sound effect.

Debates about referentiality in musique concrète and the French electroacoustic music tradition recur again and again in its history, from Schaeffer's disavowal of the 'anecdotal' and Luc Ferrari's subsequent embrace of it to more recent theoretical articulations in the writing of Joanne Demers and Michel Chion.⁶⁷ These debates often involve hearing fully articulated theoretical positions in the early works of musique concrète where, perhaps, there are none. Instead, in light of the guiding argument of this chapter—that these pieces are articulated in the language of the radio play—it seems apt to consider the question of reference in relation to the characteristic use of referential sound on the radio, namely the sound effect. Certainly, in the case of Étude aux chemins de fer, this is true in a straightforward sense: many of the recordings of trains used are drawn from the radio's sound effect library.⁶⁸ As suggested above, it is difficult to conceive how these recordings might have been heard by contemporary listeners other than as indicative of a train. Along with its source material, the piece uses procedures drawn from the armoury of techniques closely associated with the creation of sound effects. How "non-musical" sounds were created, modified and heard in *musique concrète* was shaped by these existing practices. As such, what these techniques—loops, modifications in speed, reverberation—do or

⁶⁷ Jacqueline Caux, *Almost Nothing with Luc Ferrari*, trans. by Jérôme Hansen (Berlin: Errant Bodies, 2013); Demers, *Listening through the Noise*, 21–42; Michel Chion, *L'Art des sons fixes*, *ou la musique concrètement* (Fontaine: Metamkine/Nota Bene/Sono-Concept, 1991).

⁶⁸ Schaeffer, In Search of a Concrete Music, 11.

mean cannot be understood purely in terms of abstract form or a musical vocabulary of rallentandi and ostinato.

The significance of these manipulations presupposes a sort of separability of sound from source that can be elaborated with reference to shifts in sound production for French cinema that took place at the turn of the 1940s, the period to which Schaeffer's theoretical reflection on film and radio sound refers. Charles O'Brien locates a shift in French film sound between 1939 and 1941 away from direct sound, recorded simultaneously on set, to the post-synchronisation of ambient sound and sound effects. This involved a modification of the relationship between sound and source such that sound is determined by narrative rather than the material contingencies of the recording situation, a shift indebted to the techniques and aesthetics of the radio. As O'Brien writes, '[t]he unprecedented prominence of synthetic sound effects in the French cinema of the 1940s marked a fundamental shift in the semiotics of film sound. In effect, French filmmakers had begun to abandon the phonographic imperative that a recording reproduce an original sound event in favour of the radio-derived norm emphasizing the production of effects of narrative or spectacle regardless of the production method'.69 This development is an important context to Schaeffer's 1946 theorisation of film sound with reference to Jean Grémillon's Le ciel est à vous (1944), which O'Brien cites, in which the different components of the soundtrack—speech, sound effects and music—are considered as isolable elements. The influence of the radio can be detected in the use of particular techniques, such as the adoption in 1941 of artificial reverberation technologies that had been in use in radio studios since the mid-1930s.70

The distinction between a phonographic and a radiophonic conception of sound is outlined more fully by Michael Chanan: on the radio, he argues, 'the sound at source has no independent integrity and everything is malleable. From here it is only a short step to the notion of radio as a form of aural theatre'; 'this is enough to explain the disregard of

 $^{^{69}}$ Charles O'Brien, 'Stylistic Description as Historical Method: French Films of the German Occupation', $\it Style, 32 \ (1998), 427-48 \ (p. 441).$

⁷⁰ Cécile Méadel, 'Les images sonores: Naissance du théâtre radiophonique', *Techniques et culture*, 16 (1990), 135–60.

numerous radio engineers for the niceties of faithfulness to some unattainable naturalism [in any case, as I have suggested, not a particular aesthetic concern for French radio plays], and their readiness, on the contrary, to shape a sound which is not intended to be heard other than through a loudspeaker'.71 This is a distinction echoed by James Lastra's opposition between a phonographic and a telephonic understanding of sound in terms of 'fidelity' and 'intelligibility'; the intertwined history of the social functions of the radio and the telephone (including point-to-point communication and systems of telephone broadcasting such as the Théâtrophone) confirm on which side of the division radio falls.⁷² In Lastra's account, sound effects are handled much the same as recorded speech, prioritising intelligibility, recognisability and identifiability. Such theorists of film as Christian Metz are not, Lastra argues, simply insufficiently skilled listeners when they claim that 'auditory aspects, provided that the recording is well done, undergo no appreciable loss in relation to the corresponding sound in the real world'. Metz is not deceived by the high fidelity of the recording apparatus, but instead considers sound 'in a functional or narrative sense'; '[i]n other words, Metz understands sound events to be inherently legible, or recognizable, across a series of different contexts as relatively stable signifying units. Against the definition of sound as an essentially unrepeatable event, Metz describes sound as an eminently repeatable and intelligible structure'.73

On the radio, then, sound effects function not on the basis of fidelity to an original but in terms of a quasi-linguistic efficacy. Once the question of sources is set to one side as in most cases more or less redundant, the distinction between an original and an intervening distortion loses significance. Often, this entails that what might be thought of as distortions under the paradigm of fidelity are in this context the preconditions of a sound effect's function. Artificial reverberation proved a particularly fertile distorting technology for generating sound effects: '[t]echnicians experimented with creating

⁷¹ Michael Chanan, Repeated Takes: A Short History of Recording and Its Effects on Music (London: Verso, 1995), 60.

⁷² James Lastra, *Sound Technology and the American Cinema: Perception, Representation, Modernity* (New York: Columbia University Press, 2000), 138–43.

⁷³ Ibid., 126.

massive explosive sounds by placing a live microphone on a table's surface, tapping a pencil, and then adding a massive dosage of artificial reverberation'. The knocks that open *Symphonie pour un homme seul* are exemplary in this regard: whatever impulse served to activate the reverberation matters little to its meaning in the piece.

These distortions and manipulations are deployed to ambivalent ends in Étude aux chemins de fer. For Schaeffer, the repetition which is the work's primary formal device achieves two things at once: it erases or overwrites the representative character of the sound, dissolving semantics into form, while at the same time it leads the listener towards hearing the musicality of non-musical sound through the repetitive cells that organise the rhythmic patterns of the train recording. But the closed groove is not a purely formal device: the reiterations denote the train-ness that Schaeffer hopes to avoid hearing. In other words, that the sounds are repetitive entails that they sound like a train (the spinning record is then iconically related to the wheel of the train), which in turn allows additional percussion sounds to be smoothly assimilated with the train sounds.75 That it is the repetitive rhythmic patterns of the steam engine that serve as the piece's point of departure entails that repetition cannot be easily separated from the representation of and reflection on mechanical repetition: the purifying mechanical procedure that reduces sound to pure form and trains the listener's focus also introduces an echo of locomotion, rendering that sound a sign. Indeed, Étude aux chemins de fer is in many ways a piece both about and founded on mechanical repetition, a device which as a consequence wavers between a special effect and an autonomous formal device.

Repetition, then, is implicated in the ambivalent process of de-figuration that the piece undertakes: a series of short alternating loops (0'20" to 0'53") which at first appears to continue the depiction of a train leaving a station veer away from straightforward reference through their excessive repetition.⁷⁶ The repetitions demand that the listener rehears the sound of the train as musical rhythm, as music rather than narrative. Yet the

⁷⁴ O'Brien, 'Stylistic Description as Historical Method', 441.

⁷⁵ Stalarow, 'Listening to a Liberated Paris', 132.

⁷⁶ Timings refer to the digitisation on Pierre Schaeffer, *L'Œuvre Musicale* (INA-GRM, Ina G 1006/8, 1998).

insistent repetitions of the second passage exceed their function of establishing a quasimetrical continuity against which difference—the marginal difference between the two loops of 0'20" to 0'44"—can be marked. The supplement to the insufficiently musical loop overshoots, and the classical symmetry of four-bar phrases (0'20" to 0'33") is followed by a stunted echo: three consecutive instances, followed by a final statement of each loop (AAABBBAB, from 0'33" to 0'44"). In this insufficiently justified excessive repetition, the classical, composed balance gives way to the merely mechanical.

Manipulations in speed represent another ambivalent distortion in which the devices deployed for creating a music of noises are the same devices used elsewhere to generate recognisable sound effects. Just as sound engineers in US radio studios had slowed down a recording of a waterfall to render the sound of an atom bomb, Schaeffer's slowed train recording is perhaps more likely to conjure images of a roaring furnace than to elicit meditations on pure matter.⁷⁷ A deceleration in the recording resulting in a steady decline in pitch recurs as a motif in the piece's second half. A decelerating loop at 1'15" suggests the Doppler effect of a sound source passing the listener, a figure subsequently echoed by a faint descending whistle at 1'32". From 1'51" to 2'04" a short loop of the whistle is gradually slowed, the evidently looped character of the whistle as it decreases in pitch and amplitude entailing that this device is heard as a device, or as a formal manipulation, rather than as a naturalistic depiction of a passing object. When the motif reappears again from 2'28" to 2'44", the ambivalence between musical loop and the figuration of a passing train is reasserted. As with the piece's use of repetition, the processes through which the Doppler effect is created are separated out from any integral "sound event", splitting apart the sound effect, a split that is only possible because of the confected nature of the radio sound effect.

The footsteps that appear in the first movement of *Symphonie pour un homme seul*, 'Prosopopée I', are the prototypical sound effects of the language of radio drama, frequently deployed to give the appearance of blocking and generated, perhaps, by an

⁷⁷ Verma, *Theater of the Mind*, 46.

actor walking, or stationary steps on a hard surface, then treated with artificial reverberation.78 The sequence in question portrays a man—the titular homme seul strolling past, whistling as he walks. Through the manipulation of reverberation and amplitude, the figure seems to walk through space, passing the listener. In turn, the narratively determined sound effects establish an atmosphere that inflects how other sounds are heard: a sing-song murmuring, a loop of a single key being struck on the prepared piano and a passage of spiky prepared piano, all organised around a consistent andante pulse, are enveloped by and drawn into the constitution of this atmosphere sense. These sounds begin to assume the function of a sound effect in a process not dissimilar to that described by Holly Rogers as "sonic elongation".79 As is the case with the opening knocks, it is the sound effect's indifference to questions of indexicality that affords the sort of re-figuration, the transformation of noises into music, that Schaeffer undertakes.

In its initial stages, 'Prosopopée I' was to have been a march, a stylistic citation that can still be discerned in its completed form.80 Schaeffer refers to a march or walking theme (thème de la marche), which appears at 0'47" and 2'11" (see Figure 1).81 This march theme, with its regular pulse and step motif, might be thought of as a topic or a *leitmotif*, a use of music hardly unusual in radio dramas, in which snippets of music frequently served as conventional bearers of meaning.82 In its non-indexical relation to a referent, the motif is not entirely dissimilar to a sound effect, or at least sufficiently similar for it to occupy a transitional position in musique concrète's transformation of sound effects into music. The particular functions of sound in radio plays thus afford a slippery interplay between supposedly distinct categories. The proximity of sound effect to certain sorts of music in this schema, neither existing in a necessarily "truer" relationship to a referent, is played

⁷⁸ Ibid., 29.

⁷⁹ Holly Rogers, 'Sonic Elongation: Creative Audition in Documentary Film', *JCMS: Journal of Cinema* and Media Studies, 59 (2020), 88-113.

⁸⁰ Schaeffer, In Search of a Concrete Music, 56.

⁸¹ Ibid., 56; Schaeffer, À la recherche d'une musique concrète (Paris: Seuil, 1952), 64. Timings refer to the digitisation by the Bibliothèque nationale de France of Deuxième Panorama de Musique Concrète (Ducretet Thomson, 320 C 102, 1957).

⁸² Verma, Theater of the Mind, 33.

out in the movement's second half, in which the plodding prepared piano accompanies absent-minded vocalisations from 1'21", reverberation figuring a shared space or scene.



Figure 1 "Thème de la marche", Schaeffer, In Search of a Concrete Music, 55.

'Prosopopée II' presents an even more ambivalent example of this proximity between sound effect and motif, its rhythmic thudding suggesting a heartbeat, a sound that is, of course, consistent with the piece's narrative frame, but also a sound that is impossible to categorise exclusively as either a sound effect or a motif.⁸³ Counterintuitively, and against any number of accounts of *musique concrète* aesthetics, it is the sound's referentiality, its "abstract" character, as Schaeffer would have it, that allows its transfiguration into music. Here, then, it is the character of the radio sound effect—the indifference to origins and the concomitant levelling effect between musical topoi, sound effects and faithful recordings, in other words, the very fact that it is not pure sound—that enables *musique concrète* to undertake its transformations.

Radio Voices

One characteristic of *musique concrète* that any account invested in sound in itself or a sort of post-spectromorphological formalism will struggle to explain is the predominance of the voice in the works of 1948 to 1953. The argument advanced in this chapter—that the language of *musique concrète* is developed from that of the radio play—provides a ready answer. This is a connection others have made before: it is with reference to the

⁸³ Such a use of music on the radio aligns with Adorno's analysis of radio reproduction as a mediation that reproduces music as a catalogue of themes and quotations: the radio voice (that is, the voice *of* the radio rather than a human voice *on* the radio) speaks in quotation: 'by radio everything becomes "theme"; Adorno, 'The Radio Symphony: An Experiment in Theory' [1941], in Adorno, *Essays on Music*, ed. by Richard Leppert, trans. by Susan H. Gillespie (Berkeley: University of California Press, 2002), 251–70 (p. 264); cf. his comments in the leitmotiv in relation to cinema in Adorno, *In Search of Wagner*, trans. by Rodney Livingstone (London: Verso, 2005 [1952]), 36.

radio as the 'crucible' of *musique concrète* that Chion explains the style's preoccupation with the voice. By pursuing this connection in greater detail, the conceptualisation and associated aesthetics of the radiophonic voice—its functions, its technical norms and so on—can begin to make sense not just of the fact that voices are so prevalent in *musique concrète*, but how and what they mean there.

As Schaeffer's writing on radio and his experiments with the Studio d'Essai indicate, the voice occupies a central position in his understanding of radiophonic aesthetics. La *Coquille à planètes*, a work which is in a sense a summation of the initial research activities of the Studio d'Essai, bears this out. 85 In La Coquille à planètes, voices have two principal functions: narration and diegetic speech. The function, position and source of a voice are often figured through the use of reverberation and proximity to the microphone. The voice of Léonard, the narrator protagonist, for example, is not treated to any reverberation in narrating passages, and his asides are recorded close to the microphone. The insertion of room sound swiftly situates the voice in the scene, as in the 'Opéra de minuit' chapter described by Stalarow.86 This is, of course, fairly conventional and might be true of any number of radio dramas with diverse geographical and cultural origins. More specifically, though, La Coquille à planètes treats the voice in ways that are indicative of some of concerns that will be explored in musique concrète: Léonard conducts a split dialogue in which his words are spoken by different voices; massed voices intone magical incantations; in chapter seven Vobiscum the magician offers the first fragment of a word which Léonard tries and fails to complete correctly, performing a sort of supplementing reception that goes astray; elsewhere, the personification of Sagittarius vacillates between a whinny and speech. Whether through murmurs or excessive room sound, the voice is frequently obscure and unstable.

The piece's treatment of the voice emerges from a reflection on the radiophonic voice: its liability to mishearing, the tenuousness of its relation to a subject as well as the

⁸⁴ Chion, Pierre Henry, 20.

⁸⁵ Stalarow, 'Listening to a Liberated Paris', 59.

⁸⁶ Ibid., 65.

impersonality of a certain sort of radiophonic vocal style and the subtle effects of diction engendered by the requirements and affordances of broadcast. From this perspective, the magical chants explore the mysterious power accorded to the acousmatic voice, as well as expressing a more general contemporary association of the radio with the occult and malign psychic influences, albeit rather laconically by this period. Voices, then, rather than being the index of a psychological subject, are marked by their uncanny separability from a character; they float unmoored—free and indirect—through the air and transform without shifting character, pass between different characters or are the emanations of speaking machines. The radio is figured as a machine for tuning in to a discordant polyphony of 'partial, interferential, and internally split' voices.⁸⁷

Perhaps the defining characteristic of the radiophonic voice on which this aesthetic reflects is what would come to be termed its acousmatic character. Denoting a sound heard without its source being visible, this term has been influentially and extensively treated by Michel Chion in his writing on film sound.88 Borrowing concepts from Schaeffer, Chion analyses the cinematic uses made of the acousmatic voice, of the pull of disacousmatisation that lends its motive forces to films like Fritz Lang's M and Alfred Hitchcock's Psycho.89 In these films, the presence of a voice in the absence of its source generates a tension or enigma towards the resolution of which the plot drives. The acousmêtre derives its 'powers' from the gap between source and sounding effect.90 Where Chion's account is concerned with the cinema, the spacing of causal source and effect that Kane identifies as the defining structure of Chion's acousmêtre is at the root of the uncanny experiments with the radiophonic voice in these works.91 This aesthetic flirts with the possibility, anathema to dominant conceptions of the voice, that these voices are voices without subjects, or worse, voices of machinic subjects.22

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⁸⁷ Chow, 'Listening after "Acousmaticity', 124.

⁸⁸ Chion, The Voice in Cinema, trans. by Claudia Gorbman (New York: Columbia University Press, 1999).

⁸⁹ Ibid., 17-29.

⁹⁰ Ibid., 23.

⁹¹ Kane, Sound Unseen, 149.

⁹² Ibid., 182-86; Pardo, *La Poésie hors du livre*, 120-21.

The voice in *musique concrète* is operating in similar terms: it is not one neutral sonic material among others, but a sound marked by its uncanny spacing of voice from subject, akin to the sorts of experiments undertaken in, for example, Jean Lescure's *Naissance du langage* (1947) and Jean Tardieu's *Une voix sans personne* (1950). The relationship between a voice and a character, as suggested by the murmurings in 'Prosopopée I', is a problematic one, haunted by the unknowability of its origins. Elsewhere, the radiophonic voice exerts a mysterious effect on textual meaning, recalling the experiments with diction and studio effects undertaken in poetic broadcasts produced by the Club d'Essai. Stutters, murmurs and sighs express a preoccupation with the live radio voice, aestheticising its moments of obscurity and ambiguity and its breakdowns in communication.

The occult or supernatural connotations of the radiophonic voice are exploited extensively in *Le Voile d'Orphée*, one of the piece's several echoes of Cocteau's *Orphée* which similarly aligns the technological with the supernatural. The ghostly disembodied voices in *Le Voile d'Orphée* are looped, filtered and gradually sped up, their unnatural timbre emphasising the sense of voices of the underworld. The narrative's concern for the boundary between life and death, looking and not looking and the magical effects of voices initiates a fantasy of unseen, undead voices of uncertain origin, animated not by a living soul but by technology. These themes, 'the commonplaces of radiophonic fiction', as Pierre-Marie Héron has it, recall works such as Paul Gilson's *Les Voix en peine* (1938), in which a radio man is addressed by a phantom voice as he works alone in the recording studio, casting a figure not unlike that of Schaeffer's lone man.⁹³

The radiophonic, that is, technologically and spatially mediated, character of the voice is frequently engaged through reflexive gestures towards the mediating technologies. The opening of 'Prosopopée I' is an intriguing case in point. After the introductory knocks, there is a fragmented salutation, a mutilated 'ahoy'. Borrowed from Norman Corwin's radio drama for CBS, *On a Note of Triumph* (1945), portraying the Allied victory in

⁹³ Pierre-Marie Héron, 'Fictions hybride à la radio', *Le Temps des médias*, 14 (2010), 85–97 (pp. 86–87). A similar premise serves Peter Strickland's *Berberian Sound Studio* (2012), in which a Foley artist gradually loses his grip on reality while working on the soundtrack to a *giallo* film.

Europe, the shout is that of a narrator as he descends into the engine room of a destroyer ship and greets the engineer: 'Ahoy there, engineer!'. This voice, then, is one involved in the sorts of spatial dislocations that characterise the radio voice: the narrator guides the listener through a 'kaleidosonic' narrative, a term coined by Verma in relation to Corwin to describe a radiophonic style that leaps through time and space in a sort of analogy with the imaginative journeys undertaken at the turn of the tuning dial. 95

Although the recording's origin does not determine entirely its function in 'Prosopopée I', this recontextualised radio voice, an avatar of the radio's articulation of and experimentation with spatial relations, draws into focus the nature of the radio voice as deployed in *Symphonie pour un homme seul*. In 'Prosopopée I', the recording is almost immediately looped back on itself: the riff on a radiophonic aesthetic characterised by direct address and a jovial pact between the narrator and the audience is ruptured by the reproductive technology. Translated across the Atlantic (though linguistically untranslated), the long-distance call is a scrambled shout demanding an always approximating hearing. Instead of a transparent, intimate and unidirectional communication, this is a failed hail, a misinterpellation.⁹⁶ The character of the radiophonic voice is emphasised; as John Mowitt writes, it requires 'the active supplementation of reception, it cannot ground itself, nor can it be grounded. It is delocalized and cannot be unified'.⁹⁷

This reflexive thematisation of communication, space and distance situates *Symphonie* pour un homme seul firmly in the context of the engagement with spatial relations on the

 94 The work, with a characteristic score by Bernard Herrmann, can be found on YouTube.

https://www.youtube.com/watch?v=4y2EaDA_W7U [accessed 12 June 2020]; this shout appears at 44'05".

⁹⁵ Verma, Theater of the Mind, 58-72.

⁹⁶ On interpellation, see Louis Althusser, 'Ideology and Ideological State Apparatuses' [1970], in *Lenin and Philosophy and other essays*, trans. by Ben Brewster (New York: Monthly Review, 2001), 85–126; on its failure, see Judith Butler, *The Psychic Life of Power: Theories in Subjection* (Stanford: Stanford University Press, 1997), 95–96. For Butler, misinterpellation is bound up with mishearing: 'The name is called, and I am sure it is my name, but it isn't. The name is called, and I am sure it is a name being called, my name, but it is in fact someone's incomprehensible speech, or worse, it is someone coughing, or worse, a radiator which for a moment approximates a human voice'.

⁹⁷ Mowitt, Radio: Essays in Bad Reception, 94.

radio. For mid-century radio professionals, radio was distinguished perhaps above all by its articulation of space and spatial relations. As Daniel Fisher writes, '[r]adio itself is a spatial metaphor'. Space and distance, then, were the conditions *par excellence* of the radio, perhaps more so than other sound reproduction technologies, such as the phonograph, which have generally tended to elicit greater reflection on temporal than spatial disjuncture. Spatial gimmicks, Verma argues, emerged as the foremost site of experimentation in American radio drama because 'the medium itself was broadly conceptualized as a cultural form destined to overcome traditional forms of distance'. From this perspective, radio appeared as a transparent mediator, allowing, for example, the American nation to commune at Roosevelt's hearth or, as suggested by Schaeffer's *Une Heure du monde*, a post-war liberal technocratic peace to be forged. From other perspectives, the uncanny topography of radio broadcasting expressed or reinforced an atomised, solipsistic world of miscommunication, isolation and anxiety.

These questions of space and distance were ones with which radiophonic aesthetics consistently grappled. The aesthetics of radio in the 1940s and 1950s came to privilege a certain sound, one in which radio's traversal of great distances was complemented by another conquering of space that suppressed reverberation in the creation of a sonic rhetoric of intimacy, proximity and clarity. In this aesthetic, traced in its US iteration by Emily Thompson and Jason Loviglio among others, technical norms were closely entwined with aesthetic and political values. ¹⁰⁰ In eliminating space, radio elided 'the social distance and difference of specific positions of power into an intimate context[,] [...] thus mimicking the erasure of space generated at the engineering level through material insulation, higher fidelity microphones, loudspeaker placement, and more precise volume control'. ¹⁰¹

⁹⁸ Daniel Fisher, 'Radio', in Novak and Sakakeeny (eds.), Keywords in Sound, 151-64 (p. 153).

⁹⁹ Verma, *Theater of the Mind*, 25.

¹⁰⁰ Thompson, *The Soundscape of Modernity*, 229–93; Jason Loviglio, *Radio's Intimate Public: Network Broadcasting and Mass-Mediated Democracy* (Minneapolis: University of Minnesota Press, 2005).

¹⁰¹ McEnaney, Acoustic Properties, 38–39.

As such, space became a site of experimentation—Verma characterises the US radio plays of the 1930s as 'dramas of space and time' that sought both to exploit and make sense of the spatial relationships of a new media age.¹⁰² Rather than simply dampening space, the teams of writers, engineers and producers manipulated space as a plastic element of the drama, positioning characters and listeners within the scene. Space, though, was not a straightforwardly physical factor, but an affective, atmospheric one. The management of amplitude and reverberation in a broadcast by Roosevelt, for example, creates an atmosphere of homeliness, of intimacy, conceptions of space that are not captured by physical descriptions of dimensions.¹⁰³ The careful choreography of space was in turn a part of an overarching thematisation of the conditions of radio broadcasting.

The communications utopia was haunted by doubts that through the course of the 1940s, in both France and the USA, were ever more frequently expressed in radiophonic art. In the US, Verma aligns this shift with fears about the susceptibility of radio listeners to propaganda in the Second World War and the early Cold War, citing Richard J. Hofstadter's diagnosis of 'The Paranoid Style in American Politics'. ¹⁰⁴ In France, radio works such as Lescure's *Naissance du langage* (1947), produced at the Club d'Essai, thematised a communication gone awry, placing 'en abyme the conditions of speech and of listening specific to the radio itself', a 'communication at a distance that always runs the risk of speech's inaudibility (mishearing, oversight, incomprehension...)'. Pardo notes such concerns as 'the paradox of non-communication and of solitude in the middle of a crowd', technology, in this case a telephone, standing in for the voices of supernatural beings. ¹⁰⁵

Technologies of reproduction are figured in other ways, too, as in 'Eroïca', which consists for the most part in a mixture of reversed quotations and various orally produced sounds—pops, vocalisations and whistles. This sort of playful montage and juxtaposition recalls passages in *La Coquille à planètes* such as Vobiscum's 'backwards clock', which,

¹⁰² Verma, *Theater of the Mind*, 17–31.

¹⁰³ Peters, Speaking into the Air, 214; McEnaney, Acoustic Properties, 37–41.

¹⁰⁴ Verma, *Theater of the Mind*, 192–93.

¹⁰⁵ Pardo, La Poésie hors du livre, 177-78.

radio-like, scans through time and space catching snippets of representative sounds and quotations, as well as similar moments in *Une Heure du monde*. This montage appears to echo, if only distantly, the sorts of montage afforded by the premise of the scrambled and interfering acousmatic voices of the radio.

A strange duality of intimacy and distance comes into view at various moments in Symphonie pour un homme seul, as in the looped fragments of voices in 'Valse' and 'Scherzo', or the "chopped" voices in 'Valse', interventions or interferences that suggest unmoored voices in the ether, or voices of machines. 'Erotica' does something similar, interspersing closed grooves of a popular song (referred to as a 'Tahitian record' in In Search of a Concrete Music) with intimate sighs and giggles, the proximity between microphone and mouth suggesting a proximity of mouth to ear.¹⁰⁶ Intimacy, marked not least by the absence of artificial reverberation, is figured only to be disrupted by the radio technology. The closed groove is a device which Schaeffer had deployed in La Coquille à planètes, where it sounds as a flaw in the reproduction of a popular song. 107 That their meaning in *Symphonie pour un homme seul* might owe something to this precedent is not often considered; how these loops operate has generally been understood instead in line with Schaeffer's description in In Search of a Concrete Music, where they serve as the initial stage in the creation of sound objects. For contemporary listeners, however, these devices would have been reflexive gestures towards the mediating technologies—indeed, it is on these terms that Schaeffer introduces the technique to the reader of *In Search of a* Concrete Music, citing Edith Piaf's imitation of a skipping disk in 'Le disque usé'. 108

The experiments with diction in *musique concrète* draw on the theories and aesthetics developed on the French radio, and at the Studio d'Essai and then the Club d'Essai in particular.¹⁰⁹ Jean Tardieu, for example, in his role at the head of the Club d'Essai from

¹⁰⁶ cf. Allan F. Moore, Patricia Schmidt and Ruth Dockwray, 'A Hermeneutics of Spatialization for Recorded Song', *Twentieth-Century Music*, 6 (2009), 83–114 (pp. 98–101). See also Danielle Shlomit Sofer, 'Making Sex Sound: Erotic Currents in Electronic Music' (unpublished doctoral dissertation, University of Music and Performing Arts Graz, 2016), 43–47.

¹⁰⁷ Stalarow, 'Listening to a Liberated Paris', 60.

¹⁰⁸ Ibid., 132; Schaeffer, In Search of a Concrete Music, 31.

¹⁰⁹ Pardo, La Poésie hors du livre, 90.

1946 sought to explore the possibilities and limits of the radio for poetic readings, deploying reverberation and the careful control of microphone distance to elaborate the speaking voice. For some, such as Marina Scriabine, novel styles of diction were necessary on the radio to compensate for the medium's lack of visual information, while for others the radio provided an opportunity for an original meeting of words and music. Developing an aesthetic of poetry on the radio entailed accounting for the variability in sense created by delicate modifications in sound: Tardieu, Scriabine and Schaeffer were united in their belief that broadcast poetry elicited a renewed attention to the sound of words. *Symphonie pour un homme seul* reflects many of these preoccupations and techniques: the multiple voices in 'Valse' and 'Scherzo' recalling the choral speech of earlier dramatic and radio works.

'Valse', 'Scherzo' and 'Erotica' take up a project of particular interest to Tardieu, the musicalisation of speech.¹¹¹ In their antiphonal structure that pits the voice against recorded music and prepared piano improvisations, they attempt to close the gap between poetry and music.¹¹² In 'Scherzo', the opposition between voice and piano is initially starkly stated: for the first minute the piano functions as a contrapuntal interlocutor to the voice as well as an accompaniment, with an ostinato figure accompanying an accumulation of voices. From around 1'00", this opposition begins to be transformed into something like affinity, as a sped-up voice almost blurs with a piano tremolo. A series of rhythmic exchanges between closed grooves and repeated cells on the piano, in which the piano imitates the pitch contours of the voice, cements this affinity. As much as it cites the category of "music", it reflects and is enabled by an interest in the musicalisation of the poetic voice specific to the poets and "radio men" of post-war French radio, rather

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¹¹⁰ Ibid., 90–95; Claude Séjourné, 'Le facture musicale de l'œuvre dramatique de Jean Tardieu', in Jean-Yves Debreuille (ed.), *Jean Tardieu: Des livres et des voix* (Lyon: ENS, 2010), 77–85.

¹¹¹ Pardo, *La Poésie hors du livre*, 93.

¹¹² Robert Prot, 'Jean Tardieu et le théâtre à la radio', in Debreuille (ed.), *Jean Tardieu: Des livres et des voix*, 87–97 (p. 91).

than to contemporary musical aesthetics, a concern that Héron attributes to the long influence of Symbolist poetic aesthetics.¹¹³

Indeed, this is indicative of the status of music in these pieces, in which music frequently appears to be an element among others, an atmospheric addition to the diegesis rather than the fabric of which they are made, just as, in radio plays, music served to establish a new scene or to orient the listener—a fragment of the *Marseillaise*, as Verma notes, would situate an American listener in France.¹¹⁴ Much of the time, relatively conventional musical material, such as the prepared piano in 'Prosopopée I' or the harpsichord in *Le Voile d'Orphée*, functions as a musical accompaniment. The exchanges between prepared piano or recorded music on the one hand and speaking voices on the other in 'Valse', 'Erotica' and 'Scherzo', for example, rely to some extent on the former being determined as music against the not (or not yet) music of the latter. In 'Valse', the rhythmic continuity between the voice and the waltz material dramatises the alchemical transformation of speech into music, creating a sort of exchange between elements that are initially distinct.

'Apostrophe' is, as the title suggests, a movement particularly concerned with poetic diction. Indeed, Jonathan Culler suggests that apostrophe is the poetic mode *par excellence*, self-referentially designating its voice as a poetic one.¹¹⁵ As an address to an absent or inanimate interlocutor, it might also be thought of as the characteristic mode of the radio, a form of address which presupposes the possibility of the other's reply, or a speech into the void.¹¹⁶ The majority of the movement is comprised of experimentation with the word "*absolument*", prompted, in Schaeffer's telling, by the recollection of a conversation with Claudel in which Schaeffer suggests that 'French has no inbuilt stress': 'Claudel sniggered: "No stress? It has as much as you want. You can say *Absolument*, or

¹¹³ Héron, 'Fictions hybride à la radio', 91. A collaboration between Henry and Tardieu, titled *Paroles dans l'espace*, was among the works played at a concert in May 1952; Delhaye, '*Orphée'*, 134.

¹¹⁴ Verma, *Theater of the Mind*, 33.

¹¹⁵ Jonathan Culler, 'Apostrophe', in *The Pursuit of Signs: Semiotics, literature, deconstruction* (London: Routledge, 2001 [1981]), 149–71.

¹¹⁶ cf. de Man, 'Autobiography as De-Facement'.

absÓlument or even absolumÈNt".¹¹⁷ The movement begins with a reversed sing-song voice, then a reversed declamation. Gradually, through a quasi-canonic device and an accumulation of phonemes, the word "absolument" emerges. At 1'48", the word is simultaneously declaimed with diverging accents.

This sort of choral declamation reappears extensively in *Le Voile d'Orphée*: the Orphic hymn to Zeus which dominates the piece's half is intoned in different styles by male and female voices, sometimes shouted, other times whispered. The hymn is treated to a variety of electronic manipulations, including reverberation, reversal, tape delay and speed manipulations. The different styles, voices and treatments enable the same text to adopt different moods, from the initial pious intonation to the desperate cries that close the piece. This experiment with the effects of diction and studio manipulations is made possible by the aesthetic of the poetic broadcasts of the Club d'Essai, the experiments of the Centre d'études radiophoniques and the associated theoretical reflection on the radio voice.

The onomatopoeic babble, sighs, stutters and other non-semantic vocal sound that feature so prominently in *Symphonie pour un homme seul* also reflect an understanding of the voice shared with contemporary radio aesthetics, and in particular with the valorisation by Schaeffer, Tardieu, Scriabine and others of the quirks of individual voices. In his writings on radio aesthetics, discussed in chapter two, Schaeffer had celebrated these faults in the voice as supplementary marks of authenticity, possessing a function analogous to the meaningless signs that for Roland Barthes generate the 'reality effect' in literature. Similarly, Tardieu described 'an effect of presence which, on the radio, somehow compensates for the fact that the sight is prohibited to us'. The absence of the speaker's body is compensated for by sounds that call attention to the speaker as a material

¹¹⁷ Schaeffer, *In Search of a Concrete Music*, 58. The anecdote recalls an interview between Schaeffer, Claudel and Jacques Madaule, in which the word in question is in fact "*impossible*"; Paul Claudel, *Une visite à Brangues*, 102.

¹¹⁸ Roland Barthes, 'The Reality Effect', in *The Rustle of Language*, trans. by Richard Howard (Berkeley: University of California Press, 1989), 141–48.

¹¹⁹ Jean Tardieu, 'Sortilèges de la mise en ondes', *Cahiers d'études de radiotélévision*, 1 (1954), reproduced in Tardieu and Khaznadar, *Grandeurs et faiblesses de la radio*, 76–79.

body; Schaeffer's desire to create a symphony from the sounds of the human body follows this precedent, finding in these sounds a deeper truth about the 'lone man' than that found in words. ¹²⁰ Such sounds might, in fact, be assimilated to what Peters terms 'communicative prostheses'; they emerge, then, from a meditation on tone that is entirely characteristic of the radio. ¹²¹ The preoccupation with the voice, and the way the voice is treated, in *musique concrète* makes apparent the style's relation to radiophonic aesthetics.

Relinquishing the frame of an absolute music of non-signifying sound allows *musique concrète* to be interpreted in terms that not only make no claim to transcend history and culture, but that also, in articulating the historical and cultural field from which it emerged, opens up *musique concrète* to novel, richer interpretations. The early works of *musique concrète* appear in this account as densely textured pieces the materials and techniques of which are both drawn from and concerned with cultures of sound reproduction.

After Musique Concrète

Despite Schaeffer's increasingly ascetic conception of the sort of works that might result from the research of the GRM, and the model provided by *Étude aux objets*, the music produced at the studios would frequently operate with a language akin, sometimes self-consciously, to that of pieces like *Symphonie pour un homme seul* and *Le Voile d'Orphée*.¹²² The characteristics of *musique concrète* outlined above become, if anything, clearer in later works: from the sorts of phenomenological interrogations of space found in François Bayle's *Espaces inhabitables* (1967) and Luc Ferrari's *Presque rien Nº2* (1977), concerned with space as lived (both Bayle and Parmegiani cite Gaston Bachelard in relation to their compositions) to the experiments with narration in Bayle and Parmegiani's *Divine comédie* (1972) or Michel Chion's *Requiem* (1973).¹²³ What is striking, then, is the relative paucity of compositions that seem amenable to description in what have come to be

¹²⁰ Schaeffer, In Search of a Concrete Music, 47.

¹²¹ Cf. McEnaney's extensive engagement with questions of vocal tone in *Acoustic Properties*.

¹²² Caux, *Almost Nothing with Luc Ferrari*, 34.

¹²³ See liner notes to François Bayle, *50 Ans d'acousmatique* (Ina GRM, 6033/6047, 2012); liner notes to Bernard Parmegiani, *L'Œuvre Musicale* (Ina GRM, 6000/11, 2020). Cf. Edith Alonso, 'The Listener in François Bayle's Works: A resonant subject in a living space', *Organised Sound*, 20 (2015), 308–315.

understood as strict Schaefferian terms.¹²⁴ While acknowledging that Schaeffer's leadership of the GRM was rarely as prescriptive as has often been suggested, this is to say that the aesthetics of actually existing electroacoustic music at the GRM do not match the expectations one might have from those accounts that place "sound in itself" and "reduced listening" at the centre of *musique concrète*.¹²⁵

Instead, these pieces work with what I have been terming "atmospheres", sounds combined through the sense of shared spatial mood that is both the product of the parts and inflects the parts in turn. This is most apparent in the various works that bear an obvious stylistic relation to radiophonic work, works that have a loose, pre-narrative premise, a field of yet to be articulated signs and intensities in which images and narratives are materials among others. Thus the relation of other sounds to the narrating voice, a prevalent feature of the *Divine comédie*, Chion's *Requiem* and a host of other GRM pieces, including Francis Dhomont's *Sous le regard d'un soleil noir* (1981), Chion's *La Tentation de Saint-Antoine* (1984) and Chion's collaboration with Lionel Marchetti and Jérôme Noetinger, *Les 120 jours* (1998), is not merely illustrative or ancillary but atmospheric, a term that Ferrari deploys in relation to his *Hörspiel* work.¹²⁶

Bayle and Parmegiani's adaptation of Dante's *Divine Comedy* is a case in point: this dramatic oratorio evokes an oppressive, otherworldly atmosphere using drones and distorted, unplaceable sound effects. The dramatic manipulation of reverberation and delays gives the impression of being assailed by spectres that constantly evade location; as in *Orphée 53*, the uncanny spaces of a world beyond the living are figured in part through the deliberate refusal of consistent spatial coordinates.¹²⁷ The structuring device of the

¹²⁴ Évelyne Gayou notes the (exceptional) character of the *Triptyque Électroacoustique* (1973–74) by Guy Reibel, which absorbs the conceptions of morphology and so on as developed in the *Traité*, on which Reibel had been a close collaborator of Schaeffer's; Gayou, *GRM*, 152. In a perhaps telling irony, the material for the piece was largely generated with synthesizers.

¹²⁵ Valiquet, 'Hearing the Music of Others'.

¹²⁶ Caux, Almost Nothing with Luc Ferrari, 102.

¹²⁷ Indeed, there is something of a minor canon of French electroacoustic works about the afterlife, including *Orphée 53*, Henry's *Le Voyage* (1962), Parmegiani's *Enfer*, from the *Divine Comédie*, Chion's *Requiem* and Éliane Radigue's *Trilogie de la mort* (1988–93), as well as more recent works such as Lionel Marchetti and Olivier Capparos's *Livre des morts* (2008).

piece is the narrating voice, solemnly intoning passages from Dante's poem; in this sense it follows the precedent of pieces like *Orphée 53* and Henry's *L'Apocalypse de Jean* (1968). As in the earlier pieces, something like a scene, a charged space, organises the movements, from the unnerving discomfort of *Enfer* to the serene stillness of the final movements of *Purgatoire*. Within these atmospheres, the narrating voice is folded into the surface of the piece, treated with reverberation, delay and filters.

In Chion's *Requiem*, voices are similarly manipulated, the announcer's voice treated to reverberation to mimic the acoustics of a church (indeed, a Requiem mass might be thought of as the "scene" of the piece), the text of the Requiem mass tentatively intoned by a child simultaneous and doubled with a slowed down recording of the same text. A short fragment of a radio being tuned between stations serves as a recurring leitmotif through the piece; as in *Symphonie pour un homme seul*, the spatial dislocations of the radio invoke boundaries between spaces of the living and the dead, as well as the listening practices of the radio—tuning and changing between stations—metonymically echoing the montage procedures of *musique concrète*.¹²⁸ Technological mediation also figures in the filtering of voices, which renders the distorting effect of a telephone or public address system: at one point a voice repeats *'Christe eleison'*, and at the piece's conclusion a barely audible voice, filtered and distorted, reverberates through an imaginary space.¹²⁹

Conclusion

To recall Rancière's formulation set out at the beginning of the chapter, these pieces are sites of translation, of de- and re-figuration. While it takes the aesthetic of the radio play as its starting point, *musique concrète* frequently deploys its techniques to ends that diverge from those of the radio. As Schaeffer's redrafting of *Symphonie pour un homme seul* makes clear, narrative is tendentially obscured or treated as a crutch for extended

¹²⁸ The fragmented shards of Jimi Hendrix in 'Journal', a movement in Bayle's *L'Expérience acoustique* (1969–72), suggests a similarly self-conscious correlation of radio listening with electroacoustic composition.

¹²⁹ Tellingly, Chion is a composer interested in a certain loyalty to the early years of *musique concrète*; for this reason he avoids the more current term *musique acousmatique*; Chion, 'Construire le temps alors même qu'il se fissure: entretien avec Évelyne Gayou', in Daniel Teruggi (ed.), *Michel Chion: Portraits polychromes* (Paris: INA, 2005), 19–52 (p. 36).

experiments, as in the abstraction of *Le Voile d'Orphée* from *Orphée 53.*¹³⁰ When compared with the adaptations of novels and plays that were the stock-in-trade of state broadcasters like RTF and the BBC, *musique concrète's* innovation lies in its deemphasising of linear plot in favour of the atmospheres and tones that had served as the background to those plots. In this sense, the jettisoning of literature that Schaeffer had called for merely echoes the sorts of substitutions of 'environments' for 'events', the rejection of plot-driven narrative, noted above, that characterised modernist aesthetic forms like the novel. What I have sought to emphasise, then, is the mixedness of *musique concrète*, the way it calls on, extends and elaborates divergent languages and logics, each profoundly shaped by their histories; rather than being founded on an immediate experience of sound, the language of *musique concrète* is a thoroughly mediated one.

Reading these pieces for atmosphere allows such manipulations and formal devices to be understood for the way they transform a straightforwardly indexical interpretation of recordings in electronic music. Accounts of reference or anecdote in musique concrète frequently exhibit a positivistic tendency to seek the meanings of individual sounds in isolation, often by identifying a "real-world" source, as though such material remains untransformed by its inclusion in a work. One such approach to interpreting electroacoustic music can be found in Joanna Demers's Listening through the Noise. Here, Demers gives a reading of the vicissitudes of musical meaning in electroacoustic music that posits a dichotomy in which sound can be 'mimetic and representational or abstract and obscure'. 131 This either/or choice, by her own admission, is analogous to or modelled on the nineteenth-century division between programmatic and absolute musical aesthetics. Reasonably enough, Demers rejects Schaeffer's absolutist commitment to sound as nonreferential materiality, but her response does little more than affirm sound as a quasi-word-like sign, the meaning of which is untouched by any consideration of the workings of the aesthetic. 'This referential relationship', she writes, 'supersedes the presumption inherent in preelectronic music that musical structure and form are central

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¹³⁰ Schaeffer, In Search of a Concrete Music, 48-52.

¹³¹ Demers, *Listening through the Noise*, 23.

to musical meaning'. 132 In other words: form is an element of the artwork that has happily been made redundant by electronic music, allowing sound to function straightforwardly as a sign; external reference supersedes internal reference, semantics supersedes semiotics.¹³³ By contrast, to listen for atmosphere, tone or mood is to hear the meanings of individual sounds as inextricable from the relations, forms and techniques that compose a piece.

As much as Kane's careful unpicking of Schaeffer's thought is useful here, the picture of musique concrète developed in this chapter diverges from the one that is implicit in Kane's writing. Indeed, though he makes frequent use of the term, his intended referent is a little unclear. This is due in part to a longstanding and conventional tendency to use musique concrète as a descriptor for the entire tradition of electroacoustic music associated with the GRM and its alumni, a usage that was sufficiently widespread by 1967 for Schaeffer to use it as the title for a book, despite having officially abandoned the term a decade earlier, or to describe any music on tape that makes extensive use of recorded—as opposed to synthesised—sounds.¹³⁴ Nevertheless, it is telling that Kane's discussion of specific examples of musique concrète passes directly from Étude aux chemins de fer to Étude aux objets. In doing so, he misses much of the work I have taken to be representative of the style and picks up the trail at the point at which Schaeffer emphatically reorients the aims of the studio away from composition towards 'research'.

One could be led to believe by Kane's account that musique concrète adheres to an aesthetic broadly indistinguishable from that of the late nineteenth-century Germanic symphonic tradition, a music that seeks to occlude its conditions of production in favour of a language of transcendent forms.¹³⁵ As the foregoing reading shows, however, the

¹³² Ibid., 25-26.

¹³³ See Lawrence Kramer's description of and attempt to resolve the dichotomy between 'hermeneutic' and 'formalist' analyses of Western art music; Lawrence Kramer, Music as Cultural Practice, 1800-1900 (Berkeley: University of California Press, 1990); Kramer, Musical Meaning: Toward a Critical History (Berkeley: University of California Press, 2002).

¹³⁴ Schaeffer, *La Musique Concrète*. Already in the 1950s, the term was enthusiastically adopted around the world, by Josef Anton Riedl in West Germany, Jan Boerman in the Netherlands and Toshiro Mayuzumi in Japan among others.

¹³⁵ Kane, Sound Unseen, 119.

engagement with the acousmatic situation found in *musique concrète* is frequently at odds with this approach, and is rather emphatically concerned with the technological and historical specificity of its conditions, namely the culture of the radio. Though there is much that Kane would query in these works, not least their commitment to phonocentrism, there is also much that explores a similar terrain to Chion and Kane, one of uncanny, unlocatable voices and ambiguous noises. This only serves to emphasise the extent to which the pieces in question operate on terms that diverge from those set out in Schaeffer's writing.

It is the characterisations of *musique concrète* by its critics, including Schaeffer after 1953, that frequently have the ring of truth: it is an inconsistent combination of languages, its materials cannot be separated from familiar uses of sound in radio and cinema, and so on.¹³⁶ This chapter has sought to defend *musique concrète* against its devotees, as it were: it did not derive its meanings from a technological, scientific determination of objective qualities of sound, or a total subordination of material to technique, as serialism might be described, but with such vague and literary frameworks as mood, tone and atmosphere, frameworks indebted to the roles of sound and music in mass media.¹³⁷ It is characteristics such as these, resulting in a perceived "expressionism" that was identified by Goléa among others, that Schaeffer would deride and renounce upon his return to the GRMC in 1957, adopting the attitude of renewed asceticism that would characterise his work for the next decade.¹³⁸

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¹³⁶ Douglas Kahn collects a number of such criticisms by Stockhausen, Boulez, Dmitri Shostakovich and others; Kahn, *Noise*, *Water*, *Meat*, 110–13.

¹³⁷ This raises complex questions which are beyond the scope of this thesis: as much as post-war New Music subscribes to a doctrine of absolute music, there are few pieces that maintain a pure affectlessness, even if it is only a mood of serene contemplation as an everyday analogue to a Schopenhauerian extinguishment of the desiring self. This is, perhaps, merely another sense in which the Hanslickian 'pure, absolute art of tones' was never really pure; cf. Sanna Pederson, 'Defining the Term 'Absolute Music' Historically', *Music & Letters*, 90 (2009), 240–62; Aakanksha Virkar-Yates, 'Absolute Music and the Death of Desire: Beethoven, Schopenhauer, Wagner and Eliot's *Four Quartets*', *Journal of Modern Literature*, 40 (2017), 79–93. Mark Evan Bonds's *Absolute Music* is alert to this tension between concept and practice.

¹³⁸ Goléa, 'Tendances de la Musique concrète', 37–38; Schaeffer, 'Vers une musique expérimentale'; Schaeffer, 'Historique des recherches de musique concrète'; Schaeffer, *La Musique Concrète*, 23; Chion, *La Musique électroacoustique* (Paris: Presses Universitaires de France, 1982), 80.

Conclusion

In the early days of the uprisings of May 1968, a group of filmmakers led by Jean-Luc Godard burst into Schaeffer's office at the research department of the state broadcaster and demanded the use of the department's cameras ("the people's cameras", they said'). Threatened with the prospect of an occupation by the students massed outside, Schaeffer handed the cameras over to the young filmmakers, who departed and, from the back of a Lancia convertible, filmed the demonstrations, adding a commentary from the political writings of the Marquis de Sade. Two decades after musique concrète was first presented to the Parisian public, Schaeffer appears not as a representative of the avant-garde or a zany outsider but as an administrator, a bureaucrat or, worse, a boss.2 Rather than an about-turn or a familiar trajectory from the avant-garde to the establishment, this is consistent with Schaeffer's attitude towards the avant-garde throughout his life—as evidenced, for example, by his bewildered response to figures like Antonin Artaud, Jean Dubuffet and Arman.³ Indeed, one of the things that can be gleaned from the preceding chapters is that if Schaeffer had a period of exuberant avant-gardism it was not in the 1950s but in the 1930s project to remake France. By the 1950s, then, Schaeffer was well on the way to being the public figure who would, for example, debate the merits of the mass media opposite Marshall McLuhan on French television.

Though Schaeffer's place in the history of experimental music and theories of sound may seem clear today—his concepts ("acousmatic", "sound object") possessing a certain currency in the interdisciplinary humanities, his music and writing anthologised in popularising compilations—the route to that state of affairs has not been a direct or easy one.⁴ Schaeffer's studio was quickly overshadowed, first by the Studio für elektronische

¹ Schaeffer, Les Antennes de Jéricho, 203–206; Richard Brody, Everything is Cinema: The Working Life of Jean-Luc Godard (New York: Holt, 2008), 329–30.

² The latter a term Henry also employs in describing his break from Schaeffer; Henry, *Le Son, La Nuit: Entretiens avec Franck Mallet* (Paris: La Rue musicale, 2017), 47.

³ Schaeffer, In Search of a Concrete Music, 90; Schaeffer, Les Antennes de Jéricho, 294.

⁴ For the adoption of Schaeffer's terminology, see, for example, Kaja Silverman, *The Acoustic Mirror: The Female Voice in Psychoanalysis and Cinema* (Bloomington: Indiana University Press, 1988); Mladen

Musik in Cologne in 1951, and perhaps more finally by Boulez's Institut de Recherche et Coordination Acoustique/Musique in 1977.⁵ Nor was the *Traité des objets musicaux*, described by Valiquet as 'the culmination of Pierre Schaeffer's thinking on the nature of music and sound', met with great enthusiasm, even from GRM insiders.⁶ The contemporary characterisation of *musique concrète* as the point of departure for a range of later theories and practices of music and sound art is one that, as I suggested in the introduction, only began to coalesce in the 1990s.

Recent decades have given rise to a proliferation of theories of sound—a 'sonic materialism', an 'ontology of noise' or an 'ontology of vibrational force'—many of which enlist *musique concrète* to their accounts of sound's radical priority to culture, language and signification.⁷ Informed by diverse theoretical currents including Deleuzian affect theory, new materialism and speculative realism, these writers converge in their rejection of the 'linguistic turn'.⁸ Seeking to develop a theory of sound or noise as a radical outside, a reinvigorating resource for thought and aesthetics, they inveigh against 'anthropocentrism' and 'humanism', a dominant mode in which 'the materiality of the object' is 'subordinated to thought', which 'does [...] not reach the material, but only its

Dolar, A Voice and Nothing More (Cambridge, Massachusetts: MIT Press, 2006); Slavoj Žižek, Looking Awry: An Introduction to Jacques Lacan through Popular Culture (Cambridge, Massachusetts: MIT Press, 1991), 124–30; Steintrager and Chow, Sound Objects (Durham: Duke University Press, 2019); Napolin, The Fact of Resonance. Anthologies including Schaeffer's work include An Anthology of Noise & Electronic Music: First A-Chronology (Sub Rosa, SR190, 2002); Christoph Cox and Daniel Warner (eds.), Audio Culture: Readings in Modern Music (London: Continuum, 2004).

⁵ Kaltenecker and Le Bail, 'Jalons', 56.

⁶ Valiquet, 'Hearing the Music of Others', 255 & 276–77.

⁷ Cox, 'Beyond Representation and Signification'; Voegelin, *Sonic Possible Worlds*; Hainge, *Noise Matters*; Steve Goodman, *Sonic Warfare: Sound, Affect, and the Ecology of Fear* (Cambridge: MIT Press, 2009); cf. Sean Higgins, 'A Deleuzian Noise/Excavating the Body of Abstract Sound', in Brian Hulse and Nick Nesbitt (eds.), *Sounding the Virtual: Gilles Deleuze and the Theory and Philosophy of Music* (Farnham: Ashgate, 2010), 51–76. In seeking to explain this 'turn', Kane suggests an 'exhaustion with the so-called "linguistic turn". In addition, the impetus for some of this sort of writing seems to come from the institutionalisation of practices such as sound art and experimental electronic music, necessitating the development of a critical language (for written commentary, funding applications and so on) distinct from that of musicology.

⁸ Kane, 'Sound studies without auditory culture'. This is not to suggest that these accounts of sound necessarily flow from the philosophy on which they draw; rather the philosophy seems to me to justify and extend existing improvised theoretical positions. Samuel Wilson notes the affinity between sonic practices from the 1960s onwards and recent writing on materiality; Samuel Wilson, 'Notes on Adorno's 'Musical Material' During the New Materialisms', *Music & Letters*, 99 (2018), 260–75 (p. 274).

own reflection', 'evading the body and the invisible in favor of a cerebral understanding of the seen'. Salomé Voegelin, Christoph Cox and Greg Hainge, to take three representative examples, prize *musique concrète* for its 'suspension of habits and beliefs', for having 'relinquished the traditional apparatus of musical culture', 'allow[ing] us to apprehend sound [...] as if it possessed [...] an opaque materiality which enabled the listener to consider it in itself as a being-in-itself [...], divorced from the relational world of language and consciousness'. Open the salour of language and consciousness'.

The history outlined in this study makes apparent the striking resonance between this writing on sound and Schaeffer's writing half a century earlier. As in the rhetoric of the "concrete" described in chapter 3, Voegelin, Hainge and Cox find in sound the possibility of transcending post-Cartesian philosophy's positioning of the subject at the centre of epistemology, advocating for an affective, ethical and aesthetic relation with material existence which privileges the 'experienced' and the 'lived' over 'an abstract and hierarchical system of truth and meaning'. In ignoring history and the socially constituted character of their categories, these writers are ill-equipped to grapple with this resonance, finding in it merely another instance of an eternal impulse; when history appears, it is in the form of a teleological unfolding of the nature of sound.

If, as I have argued, Schaeffer's commitment to the concrete is implicated in a denunciation of a decadent, over-civilised age and the characteristically modern urge to return to an imagined past, the enthrallment of recent writing with sound and listening exhibits a similar forlorn and Romantic anti-capitalism.¹² Apprehending capitalism as an imposition of the abstract and nonsensory on the concrete, thingly natural world, it

⁹ Voegelin, *Sonic Possible Worlds*, 86. On Voegelin, see Will Schrimshaw, 'Exit immersion', *Sound Studies*, 1 (2015), 155–70.

¹⁰ Voegelin, *Sonic Possible Worlds*, 39; Cox, 'Beyond Representation and Signification', 155; Hainge, *Noise Matters*, 162–63.

¹¹ Voegelin, Sonic Possible Worlds, 36.

¹² Robert Sayre and Michael Löwy, 'Figures of Romantic Anti-Capitalism', *New German Critique*, 32 (1984), 42–92. That this sort of thinking, disavowing human agency in favour of, say, the agency of petrol, is an impediment to meaningful attempts to think and act about anthropogenic climate change is argued by Andreas Malm in *The Progress of this Storm: Nature and Society in a Warming World* (London: Verso, 2020).

misses that each pole is internal to and constituted by capitalist social relations: as Moishe Postone has it, '[t]he form of materialized social relations specific to capitalism appears [...] as the opposition between money, as abstract, as the "root of all evil," and "thingly" nature'. Thus, the disjuncture between mind and matter, the head and the hand or concrete labour and abstract value, is understood as an epistemological error rather than a really existing dualism resulting from the social and material effects of capitalist social relations. As such, remedying the situation involves not political action but a modification in attitude. As a such, remedying the situation involves not political action but a modification in attitude.

The historical imaginary of this materialism, invoking a *terra nullius* that is both origin and future, has led Jordana Rosenberg and Rosalind C. Morris to characterise it as a sort of primitivism. The fantasy of the primitive as 'a realm [...] that exists in the present, but in parallax to historical time' gives a sense of the subterranean correspondences between the figure of the "concrete" in chapter 3 and that of the "primitive" in the excursus: both are positioned outside the distorting accretions of culture and history, tasked with saving an over-civilised culture from itself. In historicising the "concrete" and, by extension, the theories of sound taken to be foundational to what is now undeniably a discipline, this thesis has sought to afford renewed critical interrogation of the claims of sound studies. This is not to suggest that this resonance is either the cause or the symptom of a shared politics between, say, the anti-urban communitarianism of the Société de Saint-Louis and the vaguely libertarian sensibilities of Christoph Cox. What they do share, however, is a

¹³ Moishe Postone, 'Anti-Semitism and National Socialism: Notes on the German Reaction to "Holocaust", *New German Critique*, 19 (1980), 97–115 (p. 109).

¹⁴ Paul Rekret, 'The Head, the Hand, and Matter: New Materialism and the Politics of Knowledge', *Theory, Culture & Society*, 35 (2018), 49–72. Such an account of the 'head' and the 'hand' recalls that of Denis de Rougemont's *Penser avec les mains*, discussed briefly in chapter 3; cf. John Mowitt, 'On the One Hand, and the Other', *College Literature*, 42 (2015), 311–36.

¹⁵ Jordana Rosenberg, 'The Molecularization of Sexuality: On Some Primitivisms of the Present', *Theory & Event*, 17 (2014) <muse.jhu.edu/article/546470>; Rosalind C. Morris, *The Returns of Fetishism: Charles de Brosses and the Afterlives of an Idea* (Chicago: University of Chicago Press, 2017).

¹⁶ Rosenberg, 'The Molecularization of Sexuality'. Fred Moten's alignment of Husserl's *epoche*, an attempt to think oneself outside history, with the figure of Blackness, outside history, implies another resonance between the "concrete" and the "primitive"; in Moten's pithy phrase: 'Blackness is situated precisely at the site of the condition of possibility and impossibility of phenomenology'; Fred Moten, *In the Break: The Aesthetics of the Black Radical Tradition* (Minneapolis: University of Minnesota Press, 2003), 203.

more nebulous pretention to go beyond the merely political or social to the real on which those categories subsist, thinking themselves above old commitments to the left (the "old" against which the "new" materialism implicitly positions itself) or right.

As noted in the excursus and in chapter 4, this tendency within sound studies has been subject to comprehensive critiques by Kane, Thompson, Iain Campbell and Annie Goh. Beyond providing historical ballast to these critiques (which, it should be noted, offer diverse responses to their antagonists; Kane, for example, is fundamentally sceptical of claims for ontology in a way that Thompson and Campbell are not), the arguments of this thesis suggest that there is scope for a significantly more complex account of the various conceptions of realism in play. This would involve distinguishing rhetorical invocations of a scientific realism from an approach that shares with science its procedures for validating or disputing hypotheses, for example. While Schaeffer, taken in this instance as an example rather than an exception, calls on scientific models, his realism is structured by philosophical arguments critical of the sorts of knowledge produced by normal science. One way into a more detailed working through of these questions might be to compare the logic of 'self-invisibilisation' that Thompson and Benjamin Piekut associate with post-Cagean rhetorics with the quieting of the intellect that Maritain preached, in which rather different attitudes towards embodiment, and thus to the status of objectivity, are discernible, for example.¹⁷

In turn, the reading of *musique concrète* as a language of radiophonic atmospheres can clarify the ways in which Schaeffer fails to live up to the hopes placed on him by these sound theorists. For Hainge, Paul Hegarty and Sean Higgins, for example, though Schaeffer is initially placed in a lineage of explorations of "noise" that stretches from

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¹⁷ Thompson, 'Whiteness and the Ontological Turn', 271–72; Benjamin Piekut, 'Sound's Modest Witness: Notes on Cage and Modernism', *Contemporary Music Review*, 31 (2012), 3–18; Piekut, 'Chance and Certainty: John Cage's Politics of Nature', *Cultural Critique*, 84 (2013), 134–63; Kahn, 'John Cage: Silence and Silencing', *The Musical Quarterly*, 81 (1997), 556–98. Equally, as Campbell notes, Cox's recourse to scientific realist claims in his response to Thompson and Goh's critiques are difficult to reconcile with the post-Nietzschean frame he adopts elsewhere; Campbell, 'Sound's Matter', 625. The way in which phenomenology's account of embodiment and lived experience was taken up by Fanon and others suggests that the problems with Schaeffer's account of listening identified in this study could be worked through without entirely abandoning his frame.

Russolo and Cage through Alvin Lucier to the Noise music of Merzbow and others, he ultimately effects a 'noise reduction', reducing a pure virtual flux to proto-musical sound objects. Attending to the cluster of ideas and practices from which *musique concrète* emerged, however, would suggest that the 'noises' of *Cinq études de bruits* does not describe frequency characteristics of sounds or a Futurist valorisation of the industrial city but a particular functional category of recording for use on the radio, as in "*bruitage*". The particular conception of "noise" with which *musique concrète* operates is one drawn from the social and material practices of radio production; taking this into account gives a far richer reading than one that goes searching for a raw, concrete but ultimately banal materiality.

Perhaps counterintuitively, all particularity is lost in the claims that *musique concrète* reveals the nature of sound, of noise or of listening: such a reading is incapable of accounting for how one piece of *musique concrète* differs from another. To develop differentiated accounts of electronic music, specificity is required, considering different categories of sounds, different forms of sound. 'Otherwise', as Eugenie Brinkema writes of "affect", 'that thing so celebrated for its resistance to systematicity […] becomes not only what does not resist, but in fact what confirms every time the same model of vague shuddering intensity'.¹⁹

At the same time, the readings of the early works of *musique concrète* carried out here speak to the habitual modes of interpreting works of electroacoustic music which have tended to locate musical meaning in pure and autonomous structural relations. Concomitant with the historicisation of aesthetic categories in relation to the radio is the necessarily historically and culturally contingent character of the presumption that musical meaning has as its primary locus a pure syntax of instrumental sound. As noted

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¹⁸ Hainge, *Noise Matters*, 162–66; Hegarty, *Noise/Music*, 32–36; Higgins, 'A Deleuzian Noise', 68–71. There is, admittedly more nuance to Hainge's argument, which seeks to complicate any neat dualism of music and noise.

¹⁹ Brinkema, *The Forms of the Affects*, xv; cf. Kane, 'Musicophobia, or Sound Art and the Demands of Art Theory', *Nonsite*, 8 (2013) https://nonsite.org/musicophobia-or-sound-art-and-the-demands-of-art-theory/> [accessed 20 May 2021].

in the introduction, early attempts to develop an analytical language for electroacoustic music combined Schaeffer's typological classifications with a semiotic formalism borrowed from Jean-Jacques Nattiez.²⁰ This approach has remained the prevailing framework in academic readings of electroacoustic music, as a glance at the pages of journal such as *Organised Sound* or the edited volume *Analytical Methods of Electroacoustic Music* confirms.²¹ Whatever its rhetorical disavowals of nineteenth-century music aesthetics, such readings are predicated on a continued identification of music with structure, or 'tonally moving forms', in Eduard Hanslick's phrase, rather than seeking to grasp, in Kane's words, the 'indissolubility of the sonic and the social, the perceptual and the conceptual'.²² This is not to adopt a naysaying, censorious critical posture, but to suggest that there are more interesting things to be found in this music than a series of pure objects, shapes or gestures.

This thesis has provided a historical account of the milieu within which Schaeffer moved in the decades before *musique concrète*. The early chapters trace his progression from the *Routier* scouts' vitalist rebellion manifested in arduous hikes and ritualistic performances, through a wider Catholic nonconformist milieu in the later 1930s, whose 'worship of disquiet' began to be articulated as a more determinate political programme, to the plans for a cultural revolution under Vichy with Jeune France and the experiments in radiophonic aesthetics in the years either side of Liberation. Emphasising the imbrication of *musique concrète* within this field of radiophonic experiments, these chapters situate the texts and recordings that form the exemplary corpus of *musique concrète* among Schaeffer's earlier writing on the radio and cinema.

²⁰ Delalande, 'L'analyse des musiques électroacoustiques'.

²¹ Mary Simoni (ed.), *Analytical Methods of Electroacoustic Music* (New York: Routledge, 2006). I have suggested elsewhere that the formal procedures developed in French electroacoustic music in the late 1960s by Bayle, Parmegiani and others, procedures which have since been theorised by Denis Smalley in terms of 'gestural surrogacy', are shaped by the investigations into audiovisual relations that figure so prominently in the activities of the GRM in the 1960s; Sam Ridout, 'The aesthetics of animated sound: François Bayle, Bernard Parmegiani and the Service de la recherche de l'ORTF', *The Journal of Popular Television*, 9 (2021), 93–104.

²² Kane, 'Musicophobia'; cf. Peter Osborne, *Anywhere Or Not at All: Philosophy of Contemporary Art* (London: Verso, 2013), 48; G. Douglas Barrett, 'Contemporary Art and the Problem of Music: Towards a Musical Contemporary Art', *Twentieth-Century Music*, (2021), 1–26.

A simple gesture, suspending the assumption that *musique concrète* is best explained by being situated within a lineage of specifically musical developments, affords a novel perspective on the style. In putting to one side the figures and events that might seem the obvious musical precursors—Varèse, Honegger or Cage, for example—other determinants to come into view. Such a move alleviates the necessity of speculating on Schaeffer's possible exposure to Futurist manifestos and critical texts published when he was a child.²³

Framed by the historical material presented in chapter 1, chapter 3 argued for the importance to the "concrete" of *musique concrète* of a philosophical realism shaped by the conjuncture that produced Catholic nonconformism, an attempt by Catholic intellectuals to grapple with, rather than denounce, modern philosophy. The realism inherited by Schaeffer, articulated by philosophers such as Jacques Maritain, Gabriel Marcel and Étienne Gilson, was one that placed the concrete, known through mystical, aesthetic and embodied rather than intellectual experiences, against the abstract. The elevation of the concrete had corollaries that were at once political, religious and epistemological, finding expression in commitments to the person embedded in their community, the grandeur of God's creation and the knowability of that creation through privileged activities. That Schaeffer's thinking is underwritten by a form of realism is plain, but specifying the contours of that realism illuminates the form that the theory of musique concrète took. Schaeffer's opposition to the ratiocination of abstract composers is justified within this frame, which aligns serialism with a historical tendency towards the artificial and the abstract. In its place, he advocates for an embodied and respectful contemplation of the concrete, an activity that provides glimpses of a transcendent order structuring existence.

This conception of the "concrete", situated within a different conjuncture, reappears in the excursus, where it is shown to serve rhetorically as a universal stratum affording a universalist, technocratic political vision underwritten by and accessible through sound reproduction technology. In drawing together Schaeffer's administration of colonial radio

²³ Gayou, *GRM*, 50–51.

networks in French West Africa and the primitivist aesthetics of *musique concrète*, the latter is shown to intervene in a historically determined problematic in which post-war "modernisation" sutures the widening contradiction between Republican universalism and the demands of decolonisation. That Schaeffer's project of a technologically-aided universal music, where the primitive and civilised can find their common ground, coincides with a period in which new anticolonial and postcolonial political formations were being imagined and forged is no coincidence: how universality, human essence and "primitive" culture were understood, and how the relations between these ideas were worked out in *musique concrète*, is inseparable from this historical moment.

The account of *musique concrète* as a practice takes a similar approach to the arguments that precede it: rather than emerging ex nihilo, or even being modified from existing compositional procedures such as serialist parametrisation, the compositional logic of musique concrète takes the aesthetics of the radio as its point of departure. Given Schaeffer's professional background and, by the late 1940s, longstanding interest in developing an aesthetic specific to the radio, this is hardly surprising; nevertheless, tracing the radio retentions in detail allows history to function analytically as more than a static background, a "context", but instead illuminates the formal procedures of the early works of musique concrète. Thus, for example, attending to the aesthetics of radio, which frequently self-consciously articulated the spatial relations that structure the apparatus, allows the sense of affectively charged space or atmosphere to be elaborated as a defining characteristic of early musique concrète. Through history and particularity (that is, through a different concreteness), rather than through ahistorical claims for pure sound matter, musique concrète appears as an interweaving of sonic rhetorics that are dense with meaning. Just as the "concrete" is a category that requires historicising, so sound is here not general and pure but differentiated in ways that render the music comprehensible.

This speaks to a wider methodological question that this thesis has sought to address. Writing on music history has a tendency to fall into two camps: on the one hand, there is fine-grained historical work that collates a wealth of material from archival sources, establishing in microscopic detail the events, actors and locations of a particular history;

on the other, there is ambitious theoretical writing that generates exciting readings calling on the resources of critical theory and continental philosophy. Remaining, in general, at the level of the empirical, the former does not develop this material in a way that applies pressure to the categories and concepts through which the music is read. The latter, in contrast, possesses little sense of historical specificity, such that the accounts, which may be impressive, are nonetheless speculative and untethered from all but the most abstract historical determinants. As such, the preceding chapters have been guided by the conviction that any account of musical aesthetics demands attention to the mutual determination of the historically contingent concepts and practices that shape those aesthetics.

Musique concrète has similarly been theorised in this study without attributing causal agency to technology: neither the sightless listening of the radio nor the repetitions of the closed groove necessarily give rise to a close attention to sound as asignifying materiality, a fact to which the history of the dominant forms on the radio attests. Musique concrète was not an always-existing potential of technology or sound, requiring only that it be discovered or that the barriers preventing its emergence be dismantled. Instead, this thesis has sought to explain musique concrète by accounting for preconditions that are cultural and ideological.

The intellectual histories presented in chapters 1 and 3, in situating *musique concrète* alongside earlier cultural political projects and polemics, suggest a reading that places it within a set of transformative debates about the meaning of culture. The idea of a national culture, and the question of its relation to elite, popular or mass cultures was a central concern of Jeune France, which sought to put the French people back in touch with a reinvigorated French popular culture and to tear them away from the mercenary cultural products of urban capitalism such as the *café-concert*, boulevard theatre and commercial radio. As the Jeune France manifesto, *Jeune France: Principes, Direction, Esprit*, makes clear, they conceived of culture, rather than politics, as the terrain of social transformation. As Fumaroli provocatively suggests, Jeune France and other Vichy projects provided a model for state cultural policy in the post-war period, and, in a

modified form, it is such a programme of cultural consolidation that guided Schaeffer's development of colonial radio networks.²⁴ *Musique concrète* seems to share, if in a scarcely articulated form, a hope that a top-down dissemination of cultural practices would lead to social change, sidestepping the need for "politics". After *musique concrète*, Schaeffer continued his role as a cultural administrator and casual theorist of the mass media, and maintained a pessimistic assessment of the general effects of mass media, whether in the hands of the state or commercial interests.²⁵

The nonconformist diagnosis of cultural decline—the loss of the past, of traditional values and their replacement by a uniform mass culture—situates these currents within a broader discourse of *Kulturkritik* represented by, for example, F. R. Leavis, the young Thomas Mann and José Ortega y Gasset.²⁶ As modernisation, decolonisation and Americanisation accelerated in 1950s France, the sense of a crisis did not abate, but its terms changed, as in the project of cultural democratisation undertaken by Malraux's Ministry of Culture from the end of the 1950s.²⁷ A comparison with parallel changes in the United Kingdom is illuminating: Richard Hoggart's *The Uses of Literacy* (1957) can, as Stuart Hall suggests, be taken as something of a hinge between the "culture" of F. R. and Q. D. Leavis and T. S. Eliot, for example, a patrimony to be preserved and defended, and the "ordinary culture" of Raymond Williams, Hall and, later, the Greater London Council and New Labour.²⁸ Hoggart's repeated citation of Denis de Rougemont's diagnosis of mass culture provides one way into the theorisation of a parallel in French

²⁴ Fumaroli, *L'État culturel*.

²⁵ Bram Ieven, 'Médias et pouvoir à l'ère moderne', in Kaltenecker and Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes*, 202–12.

²⁶ Francis Mulhern, *Culture/Metaculture* (London: Routledge, 2000).

²⁷ Such language disguised the fact that, at least until the late 1960s, this was in practice an Arnoldian dissemination of high culture. This had been a component of the Catholic youth movements in the 1930s, too, with their projects to bring both Christ and culture to the *banlieues*. One example of the intersection of Schaefferian ideas with post-68 cultural policy is Luc Ferrari's programme of amateur 'poor man's *musique concrète*', described by Eric Drott; Eric Drott, *Music and the Elusive Revolution: Cultural Politics and Political Culture in France*, 1968–1981 (Berkeley: University of California Press, 2011), 222–29.
²⁸ Richard Hoggart, *The Uses of Literacy: Aspects of Working-Class Life* (London: Penguin, 2009 [1957]); Stuart Hall, 'Richard Hoggart, *The Uses of Literacy*, and the Cultural Turn' [2007], in David Morley (ed.), *Stuart Hall: Essential Essays Vol. 1: Foundations of Cultural Studies* (Durham: Duke University Press, 2019), 27–46; Franco Bianchini, 'GLC R.I.P.: Cultural Policies in London, 1981–1986', *New Formations*, 1 (1987), 103–17.

conceptions of culture, a turn—in which Schaeffer participated—from the great masterpieces of a national tradition to everyday practices of sense-making. Schaeffer's hopes for *musique concrète* and for the radio more generally were implicated in this moment, envisaging the radio as 'a means, not only of social contact, but of collective knowledge[,] [...] placed at one of the most important intersections of contemporary thought and experience'.²⁹ By extension, Schaeffer's work in the 1960s and 1970s at the Service de la recherche in the Office de Radiodiffusion-Télévision Française might thus be figured as a minor counterpart to the work on television carried out at the Centre for Contemporary Cultural Studies in the same period.³⁰

Above all, this study has been animated by the conviction that *musique concrète* is significantly more interesting than its characterisation as a reified landmark on a historic route allows. Neither as rigorously scientistic nor as purely musical as critics and advocates alike suggest, *musique concrète* established a site on which disparate aesthetics, practices and ideas could be articulated to and transform one another in unexpected ways.

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²⁹ Schaeffer, 'De l'âge ingrat à l'âge de raison', 138–39.

³⁰ cf. Valiquet, 'Hearing the Music of Others'; Valiquet, 'Scoring the Listener: Notation and Representation in Acousmatic Music'; Hall, 'Encoding and Decoding in the Television Discourse' [1973], in Morley (ed.), *Stuart Hall: Essential Essays Vol. 1*, 257–76; Raymond Williams, *Television: Technology and Cultural Form* (London: Routledge, 2003 [1974]).

Bibliography

Archives

Fonds Schaeffer, Institut Mémoires de l'édition contemporaine (IMEC), Caen

Published Sources

- Abel, Richard (ed.), French Film Theory and Criticism: A History/Anthology, 1907–1939, 2 vols (Princeton, New Jersey: Princeton University Press, 1988).
- Abraham, Otto, and E. M. von Hornbostel, 'On the Significance of the Phonograph for Comparative Musicology' [1904], trans. Ray Giles, in Klaus P. Wachsmann, Dieter Christensen and Hans-Peter Reinecke (eds.), *Hornbostel Opera Omnia* (The Hague: Nijhoff, 1975), I, 183–202.
- Abramson, Anna Jones, 'Beyond Modernist Shock: Virginia Woolf's Absorbing Atmosphere', *Journal of Modern Literature*, 38 (2015), 39–56.
- —— 'The Age of Atmosphere: Air, Affect, and Technology in Modernist Literature' (unpublished doctoral dissertation, University of California, 2016).
- ——— 'Joseph Conrad's Atmospheric Modernism: Enveloping Fog, Narrative Frames, and Affective Attunement', *Studies in the Novel*, 50 (2018), 336–58.
- Adkins, Monty, Richard Scott and Pierre Alexandre Tremblay, 'Post-Acousmatic Practice: Re-evaluating Schaeffer's heritage', *Organised Sound*, 21 (2016), 106–16.
- Adorno, Theodor, 'The Radio Symphony: An Experiment in Theory' [1941], in Adorno, *Essays on Music*, ed. by Richard Leppert, trans. by Susan H. Gillespie (Berkeley: University of California Press, 2002), 251–70.
- ——— *In Search of Wagner*, trans. by Rodney Livingstone (London: Verso, 2005 [1952]).
- ——— *Philosophy of New Music*, trans. by Robert Hullot-Kentor (Minneapolis: University of Minnesota Press, 2006 [1949]).
- Adriaansen, Robbert-Jan, *The Rhythm of Eternity: The German Youth Movement and the Experience of the Past, 1900–1933* (New York: Berghahn, 2015).
- Ahmed, Sara, 'A Phenomenology of whiteness', Feminist Theory, 8 (2007), 149-68.
- Alonso, Edith, 'The Listener in François Bayle's Works: A resonant subject in a living space', *Organised Sound*, 20 (2015), 308–315.
- Althusser, Louis, 'Ideology and Ideological State Apparatuses' [1970], in *Lenin and Philosophy and other essays*, trans. by Ben Brewster (New York: Monthly Review, 2001), 85–126.
- Anderson, Laura, 'Musique concrète, French New Wave Cinema, and Jean Cocteau's le Testament d'Orphée (1960)', Twentieth-Century Music, 12 (2015), 197–224.
- Andrew, Dudley, 'A Film Aesthetic to Discover', Cinémas, 17 (2007), 47–71.
- ——— 'Malraux, Benjamin, Bazin: A Triangle of Hope for Cinema' in *Film, Art, New Media: Museum Without Walls?*, ed. by Angela Dalle Vacche (Basingstoke: Palgrave Macmillan, 2012), 115–140.

- ——— André Bazin (Oxford: Oxford University Press, 2013).
- Andrew, Dudley, and Steven Ungar, *Popular Front Paris and the Poetics of Culture* (Cambridge, MA: Belknap, 2005).
- Andriessen, Louis, and Elmer Schönberger, *The Apollonian Clockwork: On Stravinsky* (Amsterdam: Amsterdam University Press, 2006).
- Antebi, Élisabeth, Ave Lucifer (Paris: Calmann-Lévy, 1970).
- Arnheim, Rudolf, *Radio*, trans. by Margaret Ludwig and Herbert Read (London: Faber and Faber, 1936 [1933]).
- Arom, Simha, *African Polyphony & Polyrhythm: Musical Structure and Methodology*, trans. Martin Thom, Barbara Tuckett and Raymond Boyd (Cambridge: Cambridge University Press, 2004 [1985]).
- Aron, Robert, 'Questions posées', La Nouvelle Revue Française, 231 (1932), 834–37.
- Artaud, Antonin, *Pour en finir avec le jugement de dieu*, ed. by Évelyne Grossman (Paris: Gallimard, 2003).
- Arthuys, Philippe, 'Pour commencer', La Revue Musicale, 236 (1957), 8–10.
- Aspley, Keith, 'The Avant-Garde, Neo-Avant-Garde and Radio: Robert Desnos and Philippe Soupault', in David Hopkins (ed.), *Neo-Avant-Garde* (Amsterdam: Rodopi, 2006), 223–42.
- Baillon, Jacques, *Théâtre et Sciences: Le double fondateur* (Paris: L'Harmattan, 1998).
- Bakan, Michael B., 'The Abduction of the Signifying Monkey Chant: Schizophonic Transmogrifications of Balinese *Kecak* in Fellini's *Satyricon* and the Coen Brothers' *Blood Simple*', *Ethnomusicology Forum*, 18 (2009), 83–106.
- Baring, Edward, Converts to the Real: Catholicism and the Making of Continental *Philosophy* (Cambridge: Harvard University Press, 2019).
- Barrett, G. Douglas, *After Sound: Toward a Critical Music* (New York: Bloomsbury, 2016).
- ——— 'Contemporary Art and the Problem of Music: Towards a Musical Contemporary Art', *Twentieth-Century Music*, (2021), 1–26.
- Barthes, Roland, 'The Great Family of Man', in *Mythologies* (London: Granada, 1982 [1957]), 100–102.
- ——— 'The Reality Effect', *The Rustle of Language*, trans. by Richard Howard (Berkeley: University of California Press, 1989), 141–48.
- 'Basic House: Government', *Boomkat*, 1 May 2019 https://boomkat.com/products/government-0a42cacd-9fc4-47d7-9cc8-f8be9c4abda0> [accessed 10 May 2021].
- Battier, Marc, 'What the GRM Brought to Music: From *Musique Concrète* to Acousmatic Music', *Organised Sound*, 12 (2007), 189–202.
- Bayle, François, Musique Acousmatique: Propositions—Positions (Paris: INA, 1993).
- Bazin, André, *What is Cinema?*, trans. by Hugh Gray, 2 vols (Berkeley: University of California Press, 2005).
- —— 'Long Live Radio! Down with the 8th Art', in *André Bazin's New Media*, ed. and trans. by Dudley Andrew (Oakland, CA: University of California Press, 2014), 74–78.

- Beauvoir, Simone de, *Memoirs of a Dutiful Daughter*, trans. by James Kirkup (London: Penguin, 1987 [1958]).
- Bergès, Michel, *Vichy contre Mounier: Les non-conformistes face aux années 40* (Paris: Economica, 1997).
- Bergson, Henri, *Laughter: An Essay on the Meaning of the Comic*, trans. by Cloudesley Brereton and Fred Rothwell (Gloucester: Dodo Press, 2017 [1900]).
- Berlant, Lauren, Cruel Optimism (Durham: Duke University Press, 2011).
- Bernanos, George, *Diary of a Country Priest*, trans. Howard Curtis (London: Penguin Classics, 2019 [1936]).
- Betts, Paul, 'Humanity's New Heritage: UNESCO and the Rewriting of World History', *Past and Present*, 228 (2015), 249–85.
- Bewes, Timothy, Reification, or The Anxiety of Late Capitalism (London: Verso, 2002).
- Bhabha, Homi, *The Location of Culture* (London: Routledge, 2007 [1994]).
- Bianchini, Franco, 'GLC R.I.P.: Cultural Policies in London, 1981–1986', *New Formations*, 1 (1987), 103–17.
- Bianco, Giuseppe, *Après Bergson. Portrait de groupe avec philosophe* (Paris: Presses Universitaires de France, 2015).
- Blackburn, Manuella, 'The Visual Sound-Shapes of Spectromorphology: an illustrative guide to composition', *Organised Sound*, 16 (2011), 5–13.
- Bloch, Marc, *Strange Defeat: A Statement of Evidence Written in 1940*, trans. by Gerard Hopkins (New York: W. W. Norton, 1968 [1946]).
- Bois, Yve-Alain, 'Kahnweiler's Lesson', trans. Katharine Streip, *Representations*, 18 (1987), 33–68.
- Bonds, Mark Evan, *Absolute Music: The History of an Idea* (Oxford: Oxford University Press, 2014).
- Born, Georgina, *Rationalizing Culture: IRCAM, Boulez, and the Institutionalization of the Musical Avant-Garde* (Berkeley: University of California Press, 1995).
- Born, Georgina (ed.), *Music, Sound and Space: Transformations of Public and Private Experience* (Cambridge: Cambridge University Press, 2013).
- Boulez, Pierre, 'Concrete (Music)' (1958), in Paule Thévenin (ed.), *Notes of an Apprenticeship*, trans. by Herbert Weinstock (New York: Alfred A. Knopf, 1968), 289–91.
- Brar, Dhanveer Singh, *Teklife, Ghettoville, Eski: The Sonic Ecologies of Black Music in the Early 21st Century* (London: Goldsmiths Press, 2021).
- Brecy, René, 'Les Arts populaire et l'effort de "Jeune France", *L'Action française*, 16 March 1941, pp. 3–4.
- Brelet, Gisèle, *Le temps musical: essai d'une esthétique nouvelle de la musique*, 2 vols (Paris: Presses Universitaires de France, 1949).
- Brennan, James R., 'Radio Cairo and the Decolonization of East Africa, 1953–64', in Christopher J. Lee (ed.), *Making a World after Empire: The Bandung Moment and its Political Afterlives* (Athens: Ohio University Press, 2010), 173–95.
- Brinkema, Eugenie, *The Forms of the Affects* (Durham: Duke University Press, 2014).

- Brochand, Christian, 'Du Studio d'Essai au Club d'Essai', *Cahiers d'Histoire de la Radiodiffusion*, 48 (1996), 29–33.
- Brody, Everything is Cinema: The Working Life of Jean-Luc Godard (New York: Holt, 2008).
- Buch, Esteban, 'La Scène concrète', in Martin Kaltenecker and Karine Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes* (Paris: CNRS, 2012), 153–63.
- Burnett, Colin, *The Invention of Robert Bresson: The Auteur and his Market* (Bloomington, Indiana: Indiana University Press, 2017).
- Burton, Richard D. E., *Olivier Messiaen: Texts, Contexts, and Intertexts (1937–1948)*, ed. by Roger Nichols (Oxford: Oxford University Press, 2016).
- Butler, Judith, *The Psychic Life of Power: Theories in Subjection* (Stanford: Stanford University Press, 1997).
- —— *Undoing Gender* (Abingdon: Routledge, 2004).
- Cage, John, 'Goal: New Music, New Dance' (1939), in *Silence: Lectures and Writings by John Cage* (Hanover: Wesleyan University Press, 1973), 87–88.
- Campbell, Edward, *Boulez, Music and Philosophy* (Cambridge: Cambridge University Press, 2010).
- Campbell, Iain, 'Experimental Practices of Music and Philosophy in John Cage and Gilles Deleuze' (unpublished PhD thesis: Kingston University, 2015).
- ——— 'Sound's Matter: 'Deleuzian Sound Studies' and the Problems of Sonic Materialism', *Contemporary Music Review*, 39 (2020), 618–37.
- ——— "Things begin to speak by themselves": Pierre Schaeffer's myth of the seashell and the epistemology of sound', *Sound Studies*, 7 (2021), 100–18.
- Carroll, David, French Literary Fascism: Nationalism, Anti-Semitism, and the Ideology of Culture (Princeton: Princeton University Press, 1995).
- Carroll, Mark, *Music and Ideology in Cold War Europe* (Cambridge: Cambridge University Press, 2003).
- Caux, Jacqueline, *Almost Nothing with Luc Ferrari*, trans. by Jérôme Hansen (Berlin: Errant Bodies, 2013).
- Cavell, Stanley, *The World Viewed: Reflections on the Ontology of Film* (Cambridge: Harvard University Press, 1979).
- Cazeneuve, Maurice, 'La mise en ondes', La Chambre d'écho: Cahiers du Club d'Essai de la Radiodiffusion Française, 1 (1947), 49–51.
- Césaire, Aimé, *Discourse on Colonialism*, trans. Joan Pinkham (New York: Monthly Review, 2000 [1955]).
- —— 'Discours sur la Négritude' [1987], in *Discours sur le colonialisme*: *suivi de Discours sur la négritude* (Paris: Présence africaine, 2004), 77–92.
- ——— 'Letter to Maurice Thorez' [1956], trans. Chike Jeffers, *Social Text*, 28 (2010), 145–52.
- Chabade, Joel, *Electric Sound: The Past and Promise of Electronic Music* (Upper Saddle River: Prentice Hall, 1997).
- Chabrol, Véronique, 'L'ambition de "Jeune France", in Jean-Pierre Roux (ed.), *La Vie culturelle sous Vichy* (Brussels: Complexe, 1990), 161–178.

- Chafer, Tony, The End of Empire in French West Africa: France's Successful Decolonization? (Oxford: Berg, 2002).
- Chanan, Michael, Repeated Takes: A Short History of Recording and Its Effects on Music (London: Verso, 1995).
- Chancerel, Léon, 'Exercices', Bulletin des Comédiens Routiers d'Île-de-France, 3 (1933), 38.
- —— 'Que doit être le Théâtre Scout?', *Bulletin des Comédiens Routiers d'Ile-de-France*, 3 (1933), 39–45.
- ——— 'Vers une renaissance théâtrale', *Études*, 220 (1934), 795–806.
- Chanet, Jean-François 'Les Géographes et la question de l'avenir des campagnes françaises (années 1930–1940)', in André Gueslin (ed.), *Les Facs sous Vichy:* Étudiants, universitaires et universités de France pendant la seconde guerre mondiale (Clermont-Ferrand: Institut d'Études du Massif Central, 1994), 9–22.
- Chinn, Lisa, 'The aporia of the veil: the influence of Walter Benjamin's aura in contemporary sound studies', *Sound Studies*, 6 (2020), 2–13.
- Chion, Pierre Henry (Paris: Fayard/SACEM, 1980).
- —— La Musique électroacoustique (Paris: Presses Universitaires de France, 1982).
- ——— La Voix au cinéma (Paris: l'Étoile, 1982).
- ——— *L'Art des sons fixes, ou la musique concrètement* (Fontaine: Metamkine/Nota Bene/Sono-Concept, 1991).
- —— *The Voice in Cinema*, trans. by Claudia Gorbman (New York: Columbia University Press, 1999).
- —— 'Construire le temps alors même qu'il se fissure: entretien avec Évelyne Gayou', in Daniel Teruggi (ed.), *Michel Chion: Portraits polychromes* (Paris: INA, 2005), 19–52.
- —— 'Reflections on the Sound Object and Reduced Listening', in James A. Steintrager and Rey Chow (eds.), *Sound Objects* (Durham: Duke University Press, 2019), 23–32.
- Chion, Michel, and Guy Reibel, *Les Musiques Électroacoustiques* (Aix-en-Provence: Edisud, 1976).
- Chombart de Lauwe, Paul-Henry, *Pour retrouver la France: Enquêtes sociales en équipes* (Grenoble: École Nationale des Cadres d'Uriage, 1941).
- Chow, Rey, 'Listening after "Acousmaticity": Notes on a Transdisciplinary Problematic', in James A. Steintrager and Rey Chow (eds.), *Sound Objects* (Durham: Duke University Press, 2019), 113–29.
- Claudel, Paul, Connaissance de l'Est (Paris: Larousse, 1920).
- ——— Positions et Propositions, 2 vols (Paris: Gallimard, 1944 [1928]).
- ——— The Eye Listens, trans. by Elsie Pell (Port Washington: Kenniket, 1969 [1946]).
- ——— Art Poétique (Paris: Gallimard, 1984 [1907]).
- —— Une visite à Brangues: Conversation entre Paul Claudel, Jacques Madaule et Pierre Schaeffer. Brangues, dimanche 27 février 1944 (Paris: Gallimard, 2005).
- Cobussen, Marcel, Vincent Meelberg and Barry Truax (eds.), *The Routledge Companion to Sound Art* (New York: Routledge, 2017).

- Cocteau, Jean, 'Le Club d'Essai', La Chambre d'écho, 1 (1947), 13-16.
- Cohen, Andrea, Les compositeurs et l'art radiophonique (Paris: L'Harmattan, 2015).
- Cohn, Dorrit, *Transparent Minds: Narrative Modes for Presenting Consciousness in Fiction* (Princeton: Princeton University Press, 1978).
- Comte, Bernarde, 'L'esprit d'Uriage: pédagogie civique et humanisme révolutionnaire' in Jean-Pierre Roux (ed.), *La Vie culturelle sous Vichy* (Brussels: Complexe, 1990), 179–202.
- —— Une Utopie combattante: L'École des cadres d'Uriage 1940–1942 (Paris: Fayard, 1991).
- Constantinou, Stace, 'Étude Aux Chemins De Fer Analysis' (2011), Online Repository for Electroacoustic Music Analysis http://www.orema.dmu.ac.uk/analyses/stace-constantious-%C3%A9tude-aux-chemins-de-fer-analysis [accessed 3 February 2021].
- Copeau, Jacques, 'Écrit en 1943', in *Dix Ans d'Essais Radiophoniques*: Du Studio au Club d'Essai, 1942–1952 (Arles: Phonurgia Nova, 1989), 79–81.
- —— Journal, 1901–1948: Deuxième partie: 1916–1948 (Paris: Seghers, 1991).
- Couprie, Pierre, 'Three analysis models for *L'oiseau moqueur*, one of the *Trois rêves d'oiseau* by François Bayle', trans. by Claire Parker, *Organised Sound*, 4 (1999), 3–14.
- Cox, Christoph, 'Abstract Concrete: Francisco López and the Ontology of Sound', *Cabinet*, 2 (2001), 42–45.
- —— 'Beyond Representation and Signification: Toward a Sonic Materialism', *Journal of Visual Culture*, 10 (2011), 145–61.
- ——— 'A Brief History of Sound Art' (2017)

 https://www.youtube.com/watch?v=hh_5_CAySXY> [accessed 20 May 2021].
- Cox, Christoph, and Daniel Warner (eds.), *Audio Culture: Readings in Modern Music* (London: Continuum, 2004).
- Cruiziat, André, 'Mouvements de Jeunesse: La Route', *La Revue des Jeunes*, 24 (January 1933), 95–103.
- Culler, Jonathan, 'Apostrophe', in *The Pursuit of Signs: Semiotics, literature, deconstruction* (London: Routledge, 2001 [1981]), 149–71.
- Dack, John, 'Pierre Schaeffer and the Significance of Radiophonic Art', *Contemporary Music Review*, 10 (1994), 3–11.
- —— 'Pierre Schaeffer and the (Recorded) Sound Source', in James A. Steintrager and Rey Chow (eds.), *Sound Objects* (Durham: Duke University Press, 2019), 33–52.
- Dallet, Sylvie, 'Un acteur méconnu de la décolonisation: Pierre Schaeffer et la Sorafom', in Michèle de Bussierre, Cécile Méadel and Caroline Ulmann-Mauriat (eds.), Radios et télévision au temps des « événements d'Algérie », 1954–1962 (Paris: Harmattan, 1999), 171–81.
- Dallet, Sylvie, and Sophie Brunet, *Pierre Schaeffer: Itinéraires d'un chercheur* (Montreuil: CERPS, 1996).

- Damone, Étienne L., 'Vers un reseau d'outre-mer', in Martin Kaltenecker and Karine Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes* (Paris: CNRS, 2012), 165–77.
- Daniel-Rops, 'L'homme contre l'habitude', *La Revue des Jeunes*, 24 (March 1933), 337–53.
- Danius, Sara, *The Senses of Modernism: Technology, Perception, and Aesthetics* (Ithaca: Cornell University Press, 2002).
- Davies, Hugh, *International Electronic Music Catalog* (Cambridge, MA: MIT Press, 1967).
- de Man, Paul, 'Autobiography as De-Facement', in *The Rhetoric of Romanticism* (New York: Columbia University Press, 1984), 67–81.
- Debord, 'Theory of the Dérive' [1956], in Ken Knabb (ed. and trans.), *Situationist International Anthology* (Berkeley: Bureau of Public Secrets, 2006), 62–66.
- Decroupet, Pascal, and Elena Ungeheuer, 'Through the Sensory Looking-Glass: The Aesthetic and Serial Foundations of *Gesang der Jünglinge*', trans. by Jerome Kohl, *Perspectives of New Music*, 36 (1998), 97–142.
- Deffontaines, Pierre, 'Voyages et Vacances', *La Revue des Jeunes*, 24 (July-August 1933), 881-88.
- ——— Petit guide du voyageur actif: Comment connaître et comprendre un pays? (Paris: Sociale Française, 1941 [1935]).
- Delaere, Mark, 'Olivier Messiaen's Analysis Seminar and the Development of Post-War Serial Music', trans. by Richard Evans, *Music Analysis*, 21 (2002), 35–51.
- Delalande, François, 'L'analyse des musiques électroacoustiques', *Musique en Jeu*, 8 (1972), 50–56.
- Delbreil, Jean-Claude, 'Christian Democracy and Centrism: The Popular Democratic Party in France', in Wolfram Kaiser and Helmut Wohnout (eds.), *Political Catholicism in Europe 1918–45* (London: Routledge, 2004), 95–110.
- Delhaye, Cyrille, '*Orphée* de Pierre Henry et Pierre Schaeffer: 1951–2005, de palimpseste en palimpseste' (unpublished doctoral thesis: Université de Rouen, 2010).
- —— 'Orphée 53 de Pierre Schaeffer et Pierre Henry, aux origins du scandale de Donaueschingen', *Revue de Musicologie*, 98 (2012), 171–91.
- Demers, Joanna, *Listening through the Noise: The Aesthetics of Experimental Electronic Music* (Oxford: Oxford University Press, 2010).
- Départ, 3 (1939).
- Derrida, Jacques, *Speech and Phenomena*, trans. by David B. Allison (Evanston: Northwestern University Press, 1973).
- ——— *Of Grammatology*, trans. Gayatri Chakravorty Spivak (Baltimore: Johns Hopkins University Press, 1997 [1967]).
- Dhomont, Francis, 'Is there a Québec sound?', trans. by Ned Bouhalassa, *Organised Sound*, 1 (1996), 23–28.
- Diliberto, John, 'Pierre Schaeffer & Pierre Henry: Pioneers in Sampling', *Electronic Musician*, December 1986, reproduced at http://www.emusician.com/artists/1333/pierre-schaeffer--pierre-henry-

- pioneers-in-sampling/35127> and subsequently archived at https://www.emusician.com/artists/1333/pierre-schaeffer--pierre-henry-pioneers-in-sampling/35127 [accessed 3 December 2020].
- Dolar, Mladen, *A Voice and Nothing More* (Cambridge, Massachusetts: MIT Press, 2006).
- Doncœur, Paul, 'Aux écoutes de l'Allemagne qui vient: II La nouvelle Jeunesse Catholique Allemande', *Études*, 173 (1922), 662–83.
- —— 'Les Chansons populaires des provinces de France: Une résurrection des vieilles traditions du pays', *Études*, 188 (1926), 680–88.
- ——— 'La Reconstruction spirituelle du pays: Les Scouts de France', *Études*, 186 (1926), 527–48.
- —— 'La Reconstruction spirituelle du pays: L'Action des Catholiques Hier et demain: II. La Discipline du Courage', *Études*, 188 (1926), 283–96.
- Drott, Eric, *Music and the Elusive Revolution: Cultural Politics and Political Culture in France*, 1968–1981 (Berkeley: University of California Press, 2011).
- Drouin, Pierre, 'Où va la "musique concrète"?', Le Monde, 15 September 1951.
- Dubreuil, Emmanuelle Hériard, 'The personalism of Denis de Rougemont: Spirituality and politics in 1930s Europe' (unpublished PhD thesis, University of Cambridge, 2005).
- Dumoulin, Olivier, 'À l'aune de Vichy? La naissance de l'agrégation de géographie', in André Gueslin (ed.), *Les Facs sous Vichy: Étudiants, universitaires et universités de France pendant la seconde guerre mondiale* (Clermont-Ferrand: Institut d'Études du Massif Central, 1994), 23–38.
- Dureau, Jean, 'Le miracle de Théophile en Sorbonne', *La Revue des Jeunes*, 24 (July–August 1933), 990–95.
- Ebron, Paulla A., *Performing Africa* (Princeton: Princeton University Press, 2002).
- Eck, Hélène, 'À la recherche d'un art radiophonique', in Jean-Pierre Roux (ed.), *La Vie culturelle sous Vichy* (Brussels: Complexe, 1990), 269–92.
- Edwards, Brent Hayes, *The Practice of Diaspora: Literature, Translation, and the Rise of Black Internationalism* (Cambridge: Harvard University Press, 2003).
- —— 'The Sound of Anticolonialism', in Ronald Radano and Tejumola Olaniyan (eds.), *Audible Empire: Music, Global Politics, Critique* (Durham: Duke University Press, 2016), 269–91.
- Eidsheim, Nina Sun, *The Race of Sound: Listening, Timbre, and Vocality in African American Music* (Durham: Duke University Press, 2019).
- Eimert, Herbert, *Grundlagen der musikalischen Reihentechnik* (Vienna: Universal Edition, 1964).
- Epstein, Jean, 'On Certain Characteristics of *Photogénie*' [1926], in Sarah Keller and Jason N. Paul (eds.), *Jean Epstein: Critical Essays and New Translations*, trans. by Tom Milne (Amsterdam: Amsterdam University Press, 2012), 292–96.

- 'Equiknoxx: Bird Sound Power', *Bleep*, 12 August 2016 https://bleep.com/release/75081-equiknoxx-bird-sound-power [accessed 10 May 2021].
- Emmerson, Simon, 'Pentes: A Conversation with Denis Smalley', *Electroacoustic Music*, 4 (1989), 15–25.
- l'Étoile filante: Cahiers mensuel des Routiers des Grandes écoles et Facultés, 5 (1934).

l'Étoile filante, 12 (1934).

l'Étoile filante, 13 (1934).

l'Étoile filante, 14 (1935).

l'Étoile filante, 15 (1935).

l'Étoile filante, 28 (1937).

- Fabian, Johannes, *Time and the Other: How Anthropology Makes Its Object* (New York: Columbia University Press, 1983).
- Fanon, Frantz, 'This is the Voice of Algeria', in *A Dying Colonialism*, trans. Haakon Chevalier (New York: Monthly Review, 1965 [1959]), 69–97.
- ——— *The Wretched of the Earth*, trans. Constance Farrington (London: Penguin, 2001 [1961]).
- ——— *Black Skin, White Masks*, trans. Charles Lam Markmann (London: Pluto, 2008 [1952]).
- Fauser, Annegret, *Musical Encounters at the 1889 Paris World's Fair* (Rochester: University of Rochester Press, 2005).
- Field, Ambrose, 'Simulation and Reality: the New Sonic Objects', in Simon Emmerson (ed.), *Music, Electronic Media and Culture* (Aldershot: Ashgate, 2000), 36–55.
- Fischman, Rajmil, 'Analysis of *Crosstalk*, a work by Michael Vaughan', *Organised Sound*, 2 (1997), 225–51.
- Fisher, Daniel, 'Radio', in David Novak and Matt Sakakeeny (eds.), *Keywords in Sound* (Durham: Duke University Press, 2015), 151–64.
- Flamand, Paul, 'Le Portugal et la guerre: Paroles d'un chrétien', *Temps présent*, 10 November 1939.
- Flatley, Jonathan, 'Reading for Mood', Representations, 140 (2017), 137-58.
- Forestier, M. D., 'La Spiritualité des Scouts de France', *La Vie Spirituelle*, 239 (1939), 113–30.
- Foster, Hal, 'The "Primitive" Unconscious of Modern Art', October, 34 (1985), 45–70.
- Frech, Kurt, 'Die Verbreitung völkischen Gedankenguts durch den historischen Roman', in Uwe Puschner, Walter Schmitz and Justus H. Ulbricht (eds.), *Handbuch zur "Völkischen Bewegung"*, 1871–1918 (Munich: K.G. Saur, 1999), 685–98.
- Frisius, Rudolf, 'Unsichtbare Klänge: Musik über Musik Musik zweiten Grades' [2008], http://www.frisius.de/rudolf/texte/MuM.pdf> [accessed 18 July 2019].
- Fulcher, Jane F., 'From "the Voice of the Maréchal" to *Musique Concrète*: Pierre Schaeffer and the Case for Cultural History', in *The Oxford Handbook of the New Cultural History of Music*, ed. by Jane F. Fulcher (Oxford: Oxford University Press, 2011), 381–402.

- ——— Renegotiating French Identity: Musical Culture and Creativity in France during Vichy and the German Occupation (Oxford: Oxford University Press, 2019).
- Fumaroli, Marc, L'État culturel: Essai sur une religion moderne (Paris: Fallois, 1991).
- Gadamer, Hans-Georg, *Truth and Method: Second, Revised Edition*, trans. by Joel Weinsheimer and Donald G. Marshall (New York: Continuum, 1999).
- Gautier, Ana María Ochoa, *Aurality: Listening & Knowledge in Nineteenth-Century Colombia* (Durham: Duke University Press, 2014).
- Gayou, Évelyne, GRM, Le Groupe de Recherches Musicales: Cinquante ans d'histoire (Paris: Fayard, 2007).
- ——— 'The GRM: landmarks on a historic route', Organised Sound, 12 (2007), 203–11.
- Gerits, Frank, 'The Ideological Scramble for Africa: The US, Ghanaian, French and British Competition for Africa's Future, 1953–1963' (unpublished PhD thesis, European University Institute, 2014).
- Getachew, Adom, *Worldmaking after Empire: The Rise and Fall of Self-Determination* (Princeton: Princeton University Press, 2019).
- Gill, Miranda, 'Hieroglyphs of the Mind: Delirious Interpretation and the Psychology of Enigma, 1830–1910', in Nigel Harkness, Paul Rowe, Tim Unwin & Jennifer Yee (eds.), Visions/Revision: Essays on Nineteenth-Century French Culture, ed. by (Oxford: Peter Lang, 2003), 63–81.
- Gilot, François, and Carlton Lake, *Life with Picasso* (New York: McGraw-Hill, 1964). Gilson, Étienne, *Le Réalisme méthodique* (Paris: Pierre Téqui, 1935).
- Goh, Annie, 'Sounding Situated Knowledges: Echo in Archaeoacoustics', *Parallax*, 23 (2017), 283–304.
- Goldberg, David Theo, Are We All Postracial Yet? (Cambridge: Polity, 2015).
- Goléa, Antoine, 'Tendances de la Musique concrète', *La Revue Musicale*, 236 (1957), 36–44.
- ——— La Musique: de la nuit des temps aux aurores nouvelles, 2 vols (Paris: Alphonse Leduc & Cie, 1977).
- Goodman, Steve, *Sonic Warfare: Sound, Affect, and the Ecology of Fear* (Cambridge: MIT Press, 2009).
- Gourio, Florian, '*Symphonie pour un homme seul* de Pierre Schaeffer et Pierre Henry: Analyse de quatre mouvements avec une méthode expérimentale (unpublished Masters *Mémoire*, Université de Nice, 2006).
- Grant, M. J., Serial Music, Serial Aesthetics: Compositional Theory in Post-War Europe (Cambridge: Cambridge University Press, 2005).
- Greene, Jayson, 'Death Grips', *Pitchfork*, 25 April 2012 https://pitchfork.com/features/interview/8815-death-grips/ [accessed 10 May 2021].
- Grémillon, Jean, 'Le réalisme français', in Henri Agel (ed.), *Jean Grémillon* (Paris: Editions Seghers, 1969), 169–170.
- Griffiths, Paul, Modern Music and After (Oxford: Oxford University Press, 2010).
- Guido, Laurent, "The supremacy of the Mathematical Poem": Jean Epstein's Conceptions of Rhythm', in Sarah Keller and Jason N. Paul (eds.), *Jean Epstein*:

- *Critical Essays and New Translations* (Amsterdam: Amsterdam University Press, 2012), 143–60.
- Haedens, Kléber, 'Une œuvre à mettre au point', L'Action française, 10 March 1942, p. 3.
- ——— 'À propos de Jeune France', *L'Action française*, 26 March 1942, pp. 3–4.
- Hainge, Greg, *Noise Matters: Towards an Ontology of Noise* (London: Bloomsbury, 2013).
- Hall, Stuart, 'Encoding and Decoding in the Television Discourse' [1973], in David Morley (ed.), *Stuart Hall: Essential Essays Vol. 1: Foundations of Cultural Studies* (Durham: Duke University Press, 2019), 257–76.
- —— 'Richard Hoggart, *The Uses of Literacy*, and the Cultural Turn' [2007], in David Morley (ed.), *Stuart Hall: Essential Essays Vol. 1: Foundations of Cultural Studies* (Durham: Duke University Press, 2019), 27–46.
- Hansen, Miriam, *Babel and Babylon: Spectatorship in American Silent Film* (Cambridge: Harvard University Press, 1994).
- Haraway, Donna J.,
 - Modest_Witness@Second_Millenium.FemaleMan©_Meets_OncoMouse™: Feminism and Technoscience (New York: Routledge, 1997).
- Harrison, Jonty, 'Denis Smalley, EMAS and (electro-acoustic) music', *The Musical Times*, 130 (1989), 528–31.
- Hegarty, Paul, Noise/Music: A History (New York: Continuum, 2007).
- Heidegger, Martin, *Being and Time*, trans. by Joan Stambaugh, revised by Dennis J. Schmidt (Albany: State University of New York Press, 2010 [1927]).
- Hellman, John, *Emmanuel Mounier and the New Catholic Left*, 1930–1950 (Toronto: University of Toronto Press, 1981).
- —— The Knight-Monks of Vichy France: Uriage, 1940–45 (Montreal: McGill-Queen's University Press, 1997).
- —— The Communitarian Third Way: Alexandre Marc's Ordre Nouveau, 1930–2000 (Montreal: McGill-Queen's University Press, 2002).
- Henry, Pierre, Journal de mes sons (Arles: Actes Sud, 2004).
- —— Le Son, La Nuit: Entretiens avec Franck Mallet (Paris: La Rue musicale, 2017).
- Héron, Pierre-Marie, 'Fictions hybride à la radio', *Le Temps des médias*, 14 (2010), 85–97.
- Hiddleston, Jane, 'Aimé Césaire and Postcolonial Humanism', *The Modern Language Review*, 105 (2010), 87–102.
- Higgins, Sean, 'A Deleuzian Noise/Excavating the Body of Abstract Sound', in Brian Hulse and Nick Nesbitt (eds.), *Sounding the Virtual: Gilles Deleuze and the Theory and Philosophy of Music* (Farnham: Ashgate, 2010), 51–76.
- Hill Jr., Edwin C., *Black Soundscapes White Stages: The Meaning of Francophone Sound in the Black Atlantic* (Baltimore: Johns Hopkins University Press, 2013).
- Hilmes, Michele, 'Is There a Field Called Sound Culture Studies? And Does It Matter?', *American Quarterly*, 57 (2005), 249–59.
- Hodeir, André, *Since Debussy: A View of Contemporary Music*, trans. by Noel Burch (New York: Grove, 1961).

- Hodgkinson, Tim, 'An Interview with Pierre Schaeffer', *ReR Quarterly Magazine*, 2 (1987), reproduced at <www.timhodgkinson.co.uk/schaeffer.pdf> [accessed 5 November 2017].
- Hoggart, Richard, *The Uses of Literacy: Aspects of Working-Class Life* (London: Penguin, 2009 [1957]).
- Holmes, Thom, *Electronic and Experimental Music: Technology, Music and Culture* (New York: Routledge, 2008).
- Iddon, Martin, *New Music at Darmstadt: Nono, Stockhausen, Cage, and Boulez* (Cambridge: Cambridge University Press, 2013).
- Ieven, Bram, 'Médias et pouvoir à l'ère moderne', in Martin Kaltenecker and Karine Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes* (Paris: CNRS, 2012), 202–12.
- Iverson, Jennifer, *Electronic Inspirations: Technologies of the Cold War Musical Avant-Garde* (Oxford: Oxford University Press, 2019).
- Jackson, Julian, *The Popular Front in France: Defending democracy, 1934–38* (Cambridge: Cambridge University Press, 1988).
- Jaji, Tsitsi Ella, *Africa in Stereo: Modernism, Music, and Pan-African Solidarity* (Oxford: Oxford University Press, 2014).
- James, Malcolm, Sonic Intimacy (London: Bloomsbury, 2020).
- Jameson, Fredric, *The Antinomies of Realism* (London: Verso, 2013).
- Jeune France: Principes, Directions, Esprit (Lyon: Audin, 1941).
- Johnson, Christopher, "French' Cybernetics', French Studies, 69 (2014), 60-78.
- Jubard, Philippe, *André Almuró: Du sensationnisme au dual-art* (Sampzon: Delatour France, 2015).
- Kahn, Douglas, 'John Cage: Silence and Silencing', *The Musical Quarterly*, 81 (1997), 556–98.
- ——— Noise, Water, Meat: A History of Sound in the Arts (Cambridge: MIT Press, 1999).
- Kahn, Douglas, and Gregory Whitehead (eds.), *Wireless Imagination: Sound, Radio and the Avant-Garde* (Cambridge: MIT Press, 1992).
- Kalman, Samuel, 'Faisceau Visions of Physical and Moral Transformation and the Cult of Youth in Inter-war France', European History Quarterly, 33 (2003), 343–66.
- Kaltenecker, Martin, 'Résonances théologiques de l'écoute chez Pierre Schaeffer', *Droits de cités*, 4 (2010), http://droitdecites.org/2010/10/15/kaltenecker/ [accessed 5 November 2017].
- ——— 'L'écoute comme exercice collectif', in Martin Kaltenecker and Karine Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes* (Paris: CNRS, 2012), 191–200.
- —— 'L'après-guerre de Pierre Schaeffer et le champ d'émergence de la musique concrète', in Laurent Feneyrou and Alain Poirier (eds.), *De la Libération au Domaine Musical: Dix ans de musique en France (1944–1954)* (Paris: VRIN, 2018), 330–41.

- Kaltenecker and Karine Le Bail, 'Jalons', in *Pierre Schaeffer: Les Constructions impatientes* (Paris: CNRS, 2012), 9–65.
- Kane, Brian, 'Jean-Luc Nancy and the Listening Subject', *Contemporary Music Review*, 31 (2012), 439–447.
- ——— 'Musicophobia, or Sound Art and the Demands of Art Theory', *Nonsite*, 8 (2013) https://nonsite.org/musicophobia-or-sound-art-and-the-demands-of-art-theory/> [accessed 20 May 2021].
- ——— Sound Unseen: Acousmatic Sound in Theory and Practice (Oxford: Oxford University Press, 2014).
- ——— 'Sound studies without auditory culture: a critique of the ontological turn', *Sound Studies*, 1 (2015), 2–21.
- ——— 'Relays: Audiotape, Material Affordances, and Cultural Practices', *Twentieth-Century Music*, 14 (2017), 65–75.
- —— 'The Fluctuating Sound Object', in James A. Steintrager and Rey Chow (eds.), *Sound Objects* (Durham: Duke University Press, 2019), 53–70.
- Kayas, Lucie, and Christopher Brent Murray, 'Portique pour une fille de France', in Martin Kaltecker and Karine Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes* (Paris: CNRS, 2012), 99–115.
- —— 'Olivier Messiaen and *Portique pour une fille de France*', in Christopher Dingle and Robert Fallon (eds.), *Messiaen Perspectives 1: Sources and Influences* (London: Routledge, 2016), 45–67.
- Kelly, Barbara L., *Music and Ultra-Modernism in France: A Fragile Consensus*, 1913–1939 (Woodbridge: Boydell, 2013).
- Kieffer, Alexandra, 'The Debussyist Ear: Listening, Representation and French Musical Modernism', 19th-Century Music, 39 (2015), 56–79.
- Kim-Cohen, Seth, *In the Blink of an Ear: Toward a Non-Cochlear Sonic Art* (New York: Continuum, 2009).
- Kittler, Friedrich A., *Gramophone, Film, Typewriter*, trans. by Geoffrey Winthrop-Young and Michael Wutz (Stanford: Stanford University Press, 1999).
- Kramer, Lawrence, *Music as Cultural Practice*, 1800–1900 (Berkeley: University of California Press, 1990).
- ——— *Musical Meaning: Toward a Critical History* (Berkeley: University of California Press, 2002).
- LaBelle, Brandon, *Background Noise: Perspectives on Sound Art* (New York: Continuum, 2006).
- Lamirand, Georges, Le Rôle social de l'ingénieur (Paris: Revue des Jeunes, 1937).
- Landsberg, Paul-Louis, 'Réflexions sur l'engagement personnel', *Esprit*, 6 (1937), 179–97.
- Laneyrie, Philippe, Les Scouts de France: L'évolution du mouvement des origines aux années 80 (Paris: CERF, 1985).
- Lange, Art, 'The Primer: Musique Concrète', The Wire, 174 (August 1998), 50–55.

- Langlois, Philippe, 'Pierre Schaeffer's Legacy and the Atelier de Création Radiophonique', in Évelyne Gayou (ed.), *Pierre Schaeffer: Polychrome Portraits* (Paris: INA, 2009), 37–40.
- Lant, Antonia, 'The Curse of the Pharaoh, or How Cinema Contracted Egyptomania', *October*, 59 (1992), 86–112.
- Lastra, James, Sound Technology and the American Cinema: Perception, Representation, Modernity (New York: Columbia University Press, 2000).
- Laurent, Jeanne, La République et les Beaux-Arts (Paris: Julliard, 1955).
- Le Bail, Karine, 'Émissions de Minuit', in Martin Kaltenecker and Karine Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes* (Paris: CNRS, 2012), 117–27.
- Le Sueur, James D., 'Decolonizing 'French universalism': reconsidering the impact of the Algerian war on French intellectuals', *Journal of North African Studies*, 6 (2001), 167–86.
- Lee, Daniel, *Pétain's Jewish Children: French Jewish Youth and the Vichy Regime* (Oxford: Oxford University Press, 2014).
- Leenhardt, Roger, 'Petite école du spectateur: Le rythme cinématographique', *Esprit*, 40 (1936), 627–32.
- ——— Les Yeux ouverts: Entretiens avec Jean Lacouture (Paris: Seuil, 1979).
- Leighten, Patricia, 'The White Peril and *l'art nègre*: Picasso, Primitivism and Anticolonialism', *The Art Bulletin*, 72 (1990), 609–30.
- Leiris, Michel, *Phantom Africa*, trans. Brent Hayes Edwards (Calcutta: Seagull, 2017 [1934]).
- 'Les Revues: Jeune France', L'Action française, 24 November 1941, p. 3.
- Lescure, Jean, Poésie et Liberté: Histoire du Messages, 1939-1946 (Paris: IMEC, 1998).
- Levaux, Christophe, 'The Forgotten History of Repetitive Audio Technologies', *Organised Sound*, 22 (2017), 187–94.
- Lévi-Strauss, Claude, Race and History (Paris: Unesco, 1952).
- ——— Le Cru et le cuit (Paris: Plon, 1964).
- Levitz, Tamara, *Modernist Mysteries*: <u>Perséphone</u> (Oxford: Oxford University Press, 2012).
- Levitz, Tamara (ed.), *Stravinsky and His World* (Princeton: Princeton University Press, 2013).
- Lhande, Pierre, *Le Christ dans la banlieue: enquête sur la vie religieuse dans les milieux ouvriers de la banlieue de Paris* (Paris: Plon, 1927).
- Losurdo, Domenico, *Liberalism: A Counter-History*, trans. Gregory Elliott (London: Verso, 2011).
- Loubet del Bayle, Jean-Louis, *Les non-conformistes des années 30: une tentative de renouvellement de la pensée politique française* (Paris: Seuil, 1969).
- Loviglio, Jason, *Radio's Intimate Public: Network Broadcasting and Mass-Mediated Democracy* (Minneapolis: University of Minnesota Press, 2005).
- Lula, Chloe, 'AGF & Various, Arachnesound', The Wire, 445 (March 2021), 46.
- Malm, Andreas, *The Progress of this Storm: Nature and Society in a Warming World* (London: Verso, 2020).

- Malraux, André, *The Voices of Silence*, trans. Stuart Gilbert (London: Secker & Warburg, 1954 [1951]).
- —— 'Esquisse d'une Psychologie du Cinéma' [1940], in Œuvres complètes, IV: Écrits sur l'art (Paris: Gallimard, 2009), 1–16.
- Manning, Peter, *Electronic and Computer Music* (Oxford: Oxford University Press, 2004).
- Marcel, Gabriel, Journal métaphysique (Paris: Gallimard, 1927).
- Maritain, Jacques, Sept leçons sur l'être (Paris: Pierre Tequi, 1934).
- ——— Art and Scholasticism, with other essays, trans. by J. F. Scanlan (London: Sheed & Ward, 1943 [1920]).
- Marx, Karl, 'Critique of the Gotha Programme', trans. Joris de Bres, in *Political Writings: The First International and After* (Middlesex: Penguin, 1974), 339–59.
- Massumi, Brian, 'The Autonomy of Affect', Cultural Critique, 31 (1995), 83–109.
- Mbembe, Achille, 'France-Afrique: ces sottises qui divisent', Africultures, 8 August 2007.
- ——— *Critique of Black Reason*, trans. Laurent Dubois (Durham: Duke University Press, 2017).
- McBrayer, Benjamin M., 'Mapping Mystery: Brelet, Jankélévitch, and Phenomenologies of Music in Post-World War II France' (unpublished doctoral dissertation, University of Pittsburgh, 2017).
- McDonough, Tom, 'Situationist Space', in Tom McDonough (ed.), *Guy Debord and the Situationist International: Texts and Documents* (Cambridge: MIT Press, 2002), 241–65.
- McEnaney, Tom, *Acoustic Properties: Radio, Narrative, and the New Neighborhood of the Americas* (Evanston: Northwestern University Press, 2017).
- Méadel, Cécile, 'Les images sonores: Naissance du théâtre radiophonique', *Techniques et culture*, 16 (1990), 135–60.
- Messing, Scott, Neoclassicism in Music: From the Genesis of the Concept through the Schoenberg/Stravinsky Polemic (Rochester: University of Rochester Press, 1996).
- Meyer-Plantureux, Chantal, 'Le Théâtre de Pierre Schaeffer dans l'entre-deux-guerres', in Martin Kaltenecker and Karine Le Bail (eds.), *Pierre Schaeffer: Les Constructions impatientes* (Paris: CNRS, 2012), 69–75.
- Milutis, Joe, *Ether: The Nothing That Connects Everything* (Minneapolis: University of Minnesota Press, 2006).
- Mion, Philippe, Jean-Jacques Nattiez and Jean-Christophe Thomas, *L'Envers d'une œuvre*: <u>De Natura Sonorum</u> de Bernard Parmegiani (Paris: Buchet/Chastel, 1982).
- Mitry, Jean, *Esthétique et psychologie du cinéma: 1 Les structures* (Paris: Editions universitaires, 1963).
- Moby, 'The Evolution of Techno According to Moby', Vibe, March 1994, 67.
- Modiano, Patrick, *The Night Watch* [1969], trans. by Patricia Wolf, in *The Occupation Trilogy* (London: Bloomsbury, 2015).
- Mollier, Jean-Yves, Édition, presse et pouvoir en France au XX^e siècle (Paris: Fayard, 2008).

- Monelle, Raymond, *The Sense of Music: Semiotic Essays* (Princeton: Princeton University Press, 2000).
- Moore, Adrian, *Sonic Art: An Introduction to Electroacoustic Music Composition* (New York: Routledge, 2016).
- Moore, Allan F., Patricia Schmidt and Ruth Dockwray, 'A Hermeneutics of Spatialization for Recorded Song', *Twentieth-Century Music*, 6 (2009), 83–114.
- Morris, Rosalind C., *The Returns of Fetishism: Charles de Brosses and the Afterlives of an Idea* (Chicago: University of Chicago Press, 2017).
- Moten, Fred, *In the Break: The Aesthetics of the Black Radical Tradition* (Minneapolis: University of Minnesota Press, 2003).
- Mounier, Emmanuel, 'Refaire la renaissance', Esprit, 1 (1932), 5–51.
- Mowitt, John, *Text: The Genealogy of an Antidisciplinary Object* (Durham: Duke University Press, 1992).
- —— 'Avuncular Listening: *The Unsuspected*', *Recherches sémiotiques / Semiotic Inquiry*, 29 (2009), 81–97.
- —— Radio: Essays in Bad Reception (Berkeley: University of California Press, 2011).
- —— 'On the One Hand, and the Other', College Literature, 42 (2015), 311–36.
- —— 'On Trying: André Hodeir and the Music Essay', *Amodern*, 6 (2016) https://amodern.net/article/on-trying/> (accessed 11 October 2021).
- Moyn, Samuel, *The Last Utopia: Human Rights in History* (Cambridge: Harvard University Press, 2010).
- Mulhern, Francis, Culture/Metaculture (London: Routledge, 2000).
- Murray, Christopher, 'A History of *Timbres-durées*: Understanding Olivier Messiaen's role in Pierre Schaeffer's studio', *Revue de Musicologie*, 96 (2010), 117–29.
- Myatt, Tony, 'New aesthetics and practice in experimental electronic music', *Organised Sound*, 13 (2008), 1–3.
- Napolin, Julie Beth, *The Fact of Resonance: Modernist Acoustics and Narrative Form* (New York: Fordham University Press, 2020).
- Nattiez, Jean-Jacques, *Music and Discourse: Toward a Semiology of Music*, trans. by Carolyn Abbate (Princeton: Princeton University Press, 1990).
- ——— *The Boulez-Cage Correspondence*, trans. by Robert Samuels (Cambridge: Cambridge University Press, 1993).
- Ngai, Sianne, Ugly Feelings (Cambridge: Harvard University Press, 2005).
- Niebur, Louis, *Special Sound: The Creation and Legacy of the BBC Radiophonic Workshop* (Oxford: Oxford University Press, 2010).
- Nord, Philip, 'Pierre Schaeffer and Jeune France: Cultural Politics in the Vichy Years', *French Historical Studies*, 30 (2007), 685–709.
- ——— France's New Deal: From the Thirties to the Postwar Era (Princeton: Princeton University Press, 2010).
- O'Brien, Charles, 'Stylistic Description as Historical Method: French Films of the German Occupation', *Style*, 32 (1998), 427–48.
- Osborne, Peter, *Anywhere Or Not at All: Philosophy of Contemporary Art* (London: Verso, 2013).

- Ouzounian, Gascia, Stereophonica: Sound and Space in Science, Technology, and the Arts (Cambridge: MIT Press, 2020).
- Palombini, Carlos, 'Machine Songs V: Pierre Schaeffer: From Research into Noises to Experimental Music', *Computer Music Journal*, 17 (1993), 14–19.
- —— 'Pierre Schaeffer, 1953: Towards an Experimental Music', *Music & Letters*, 74 (1993), 542–57.
- —— 'Technology and Pierre Schaeffer: Pierre Schaeffer's *Arts-Relais*, Walter Benjamin's *technische Reproduzierbarkeit* and Martin Heidegger's *Ge-stell*', *Organised Sound*, 3 (1998), 35–43.
- —— 'Dans un bureau à Marseille, un jeune ingénieur rêve', in Schaeffer, *Essai sur la radio et le cinéma: Esthétique et technique des arts-relais 1941–1942*, ed. by Sophie Brunet and Carlos Palombini (Paris: Allia, 2010), 63–111.
- Pardo, Céline, *La Poésie hors du livre (1945–1965): Le poème à l'ère de la radio et du disque* (Paris: Presses de l'université Paris-Sorbonne, 2015).
- Pasler, Jann, *Composing the Citizen: Music as Public Utility in Third Republic France* (Berkeley: University of Berkeley Press, 2009).
- —— 'Sonic Anthropology in 1900: The Challenge of Transcribing Non-Western Music and Language', *Twentieth-Century Music*, 11 (2014), 7–36.
- Patrick, Jonathan, 'A guide to Pierre Schaeffer, the godfather of sampling', *Fact*, 23 February 2016 https://www.factmag.com/2016/02/23/pierre-schaeffer-guide/ [accessed 3 December 2020].
- Paulhan, Jean, *The Flowers of Tarbes: or, Terror in Literature*, trans. by Michael Syrotinski (Urbana: University of Illinois Press, 2006 [1941]).
- Paxton, Robert O., *Vichy France: Old Guard and New Order 1940–1944* (New York: Columbia University Press, 2001).
- Pederson, Sanna, 'Defining the Term 'Absolute Music' Historically', *Music & Letters*, 90 (2009), 240–62.
- Peters, John Durham, *Speaking into the Air: A History of the Idea of Communication* (Chicago: University of Chicago Press, 1999).
- Piekut, Benjamin, 'Sound's Modest Witness: Notes on Cage and Modernism', *Contemporary Music Review*, 31 (2012), 3–18.
- —— 'Chance and Certainty: John Cage's Politics of Nature', *Cultural Critique*, 84 (2013), 134–63.
- Pierret, Marc, Entretiens avec Pierre Schaeffer (Paris: Pierre Belfond, 1969).
- Places, Édouard des, 'Le Jeu du Pain et du Vin, par Pierre Schaeffer', *Études*, 228 (1936), 783–87.
- Postone, Moishe, 'Anti-Semitism and National Socialism: Notes on the German Reaction to "Holocaust", *New German Critique*, 19 (1980), 97–115.
- Pourvali, Bamchade, 'Jeunesses de Chris Marker', Vertigo, 46 (2013), 7-14.
- Pradalié, Roger, 'Club d'Essai, Centre d'études, Modulation de fréquence: le triptyque radiophonique de Jean Tardieu', *Cahiers d'Histoire de la Radiodiffusion*, 48 (1996), 9–28.
- Prashad, Vijay, The Darker Nations (New York: New Press, 2007).

- Primard, Eugène, 'La Chronique ouverte: Une mise au point', *Sept*, 4 September 1936, p. 20.
- Prot, Robert, 'Le Sillage des ondes', *Cahiers d'Histoire de la Radiodiffusion*, 48 (1996), 119–20.
- —— 'Jean Tardieu et le théâtre à la radio', in Jean-Yves Debreuille (ed.), *Jean Tardieu: Des livres et des voix* (Lyon: ENS, 2010), 87–97.
- Racine, Daniel, *Léon-Gontran Damas: l'homme et l'œuvre* (Paris: Présence africaine, 1983).
- Radano, Ronald, and Tejumola Olaniyan (eds.), *Audible Empire: Music, Global Politics, Critique* (Durham: Duke University Press, 2016).
- Radio Jeunesse, Réponse des Jeunes au message du maréchal (Paris: Sequana, 1940).
- Rancière, Jacques, Film Fables, trans. by Emiliano Battista (Oxford: Berg, 2006).
- ——— *Hatred of Democracy*, trans. Steve Corcoran (London: Verso, 2006).
- ——— *The Future of the Image*, trans. by Gregory Elliott (London: Verso, 2007).
- ——— 'Why Emma Bovary Had to Be Killed', *Critical Inquiry*, 34 (2008), 233–48.
- —— The Intervals of Cinema, trans. John Howe (London: Verso, 2014).
- Rehding, Alexander, 'Wax Cylinder Revolutions', *The Musical Quarterly*, 88 (2005), 123–60.
- Rekret, Paul, 'The Head, the Hand, and Matter: New Materialism and the Politics of Knowledge', *Theory, Culture & Society*, 35 (2018), 49–72.
- Reynolds, Simon, *Generation Ecstasy: Into the World of Techno and Rave Culture* (New York: Routledge, 1999).
- Richard, Albert, 'Quatre ans après', La Revue Musicale, 236 (1957), 1–2.
- Ridout, Sam, 'The aesthetics of animated sound: François Bayle, Bernard Parmegiani and the Service de la recherche de l'ORTF', *The Journal of Popular Television*, 9 (2021), 93–104.
- Robert, Martial, Pierre Schaeffer: des Transmissions à Orphée: Communication et Musique en France entre 1936 et 1986 (Paris: L'Harmattan, 1999).
- ——— Pierre Schaeffer: de Mac Luhan au fantôme de Gutenberg (Paris: L'Harmattan, 2002).
- Robinson, Dylan, *Hungry Listening: Resonant Theory for Indigenous Sound Studies* (Minneapolis: University of Minnesota Press, 2020).
- Roe, Glenn H., *The Passion of Charles Péguy: Literature, Modernity, and the Crisis of Historicism* (Oxford: Oxford University Press, 2014).
- Rogers, Holly, 'Sonic Elongation: Creative Audition in Documentary Film', *JCMS: Journal of Cinema and Media Studies*, 59 (2020), 88–113.
- Roland-Manuel, Claude, 'Rythme cinématographoque et musical', *Cinéma: Cours et conferences de l'institut des hautes études cinématographiques*, 2 (1945).
- Romain, Maryline, *Léon Chancerel: Un réformateur du théâtre français* (Lausanne: L'Âge d'homme, 2005).
- Rosenberg, Jordana, 'The Molecularization of Sexuality: On Some Primitivisms of the Present', *Theory & Event*, 17 (2014) <muse.jhu.edu/article/546470>.
- Rougemont, Denis de, Penser avec les mains (Paris: Albin Michel, 1936).

——— Politique de la personne (Paris: Je sers, 1946 [1934]).
Routiers de l'X, 'L'Étoile filante', La Revue des Jeunes, 24 (1933), 1456-77.
Roy, Christian, Alexandre Marc et la Jeune Europe (1904-1934): L'Ordre Nouveau aux
origins du personnalisme (Nice: Presses d'Europe, 1998).
Roy, Claude, 'Suite Française', L'Action française, 15 April 1943, p. 3.
—— Moi je (Paris: Gallimard, 1969).
Roy, Stéphane, 'Form and referential citation in a work by Francis Dhomont', trans. by
Ned Bouhalassa, Organised Sound, 1 (1996), 29-41.
——— L'analyse des musiques électroacoustiques: Modèles et propositions (Paris:
L'Harmattan, 2003).
Samuels, Robert, Mahler's Sixth Symphony: A Study in Musical Semiotics (Cambridge:
Cambridge University Press, 1995).
Sartre, Jean-Paul, L'être et le néant: essai d'ontologie phénoménologique (Paris:
Gallimard, 1966 [1943]).
——— Existentialism is a Humanism, trans. by Carol Macomber (New Haven: Yale
University Press, 2007 [1946]).
—— 'Black Orpheus' [1948], in <i>The Aftermath of War</i> , trans. Chris Turner (London
Seagull, 2017), 259–329.
Sass, Louis Arnorsson, "The Catastrophes of Heaven": Modernism, Primitivism, and
the Madness of Antonin Artaud', <i>Modernism/Modernity</i> , 3 (1996), 73–91.
Sayre, Robert, and Michael Löwy, 'Figures of Romantic Anti-Capitalism', New German
Critique, 32 (1984), 42–92.
'Schaeffer, Pierre', Esprit, https://esprit.presse.fr/ressources/portraits/schaeffer-pierre
298> [accessed 7 May 2018].
Schaeffer, Pierre, 'Mystère des Rois Mages', La Revue des Jeunes, 24 (1933), 1103-1141.
—— 'Lagny', La Revue des Jeunes, 25 (1934), 3-11.
—— 'Des ondes ou des chansons?', La Revue des Jeunes, 25 (1934), 861-65.
——— 'La Belle est au jardin d'Amour', La Revue des Jeunes, 26 (1935), 393-400.
——— 1914–1936: Commémoration de Charles Péguy (Paris: La Revue des Jeunes,
1936).
——— 'Jeu du Pain et du Vin', <i>l'Étoile filante</i> , 25 (1936), 264–84.
——— 'Appel', La Revue des Jeunes, 28 (1937), 211-15.
—— 'Promenade en France', Études, 235 (1938), 433–50.
——— 'Notes sur les Allemands', Départ, 7 (1939).
——— Tobie, d'après la Bible (Paris: Seuil, 1939).
——— Clotaire Nicole (Paris: Seuil, 1941 [1938]).
——— 'Jeune France', Confluences, 1 (1941), 127–29.
—— 'Sur les chemins de folklore voici les Comédiens Routiers de Jeune France',
Patrie, 3 (1941), 50–58.
—— 'La Radio cherche des voix, la radio attend des œuvres', <i>Comœdia</i> , 55 (11 July
1942), pp. 1 & 6.
——— Clotaire Nicole (Paris: Seuil, 1946 [revision of 1938 edition]).
—— 'Contribution à la presence d'esprit', Esprit, 126 (1946), 349-65.



- ——— 'Un consolateur assez sévère', in Bruno de Panafieu (ed.), Georges Ivanovitch Gurdjieff (Paris: L'Âge d'homme, 1992), 71–78. ——— Essai sur la radio et le cinéma: Esthétique et technique des arts-relais 1941–1942, ed. by Sophie Brunet and Carlos Palombini (Paris: Allia, 2010). ——— *In Search of a Concrete Music*, trans. by Christine North and John Dack (Berkeley, CA: University of California Press, 2012). —— Treatise on Musical Objects: An Essay across Disciplines, trans. Christine North and John Dack (Oakland: University of California Press, 2017). Schloezer, Boris de, 'Musique concrète, musique abstraite, musique ...', La Nouvelle revue française, 5 (1953), 920-23. —— 'La pensée et l'instrument', La Revue Musicale, 236 (1957), 128–34. Schoenberg, Arnold, 'Opinion or Insight?' [1926], in Leonard Stein (ed.), Style and Ideas: Selected Writings of Arnold Schoenberg, trans. by Leo Black (New York: St. Martins Press, 1975), 258-64. Schor, Naomi, 'The Crisis of French Universalism', Yale French Studies, 100 (2001), 43-64. Schrimshaw, Will, 'Exit immersion', Sound Studies, 1 (2015), 155–70. Sedgwick, Eve Kosofsky, and Adam Frank, 'Shame in the Cybernetic Fold: Reading Silvan Tomkins', Critical Inquiry, 21 (1995), 496-522. Sedgwick, Mark, 'European Neo-Sufi Movements in the Inter-war Period', in Nathalie Clayer and Eric Germain (eds.), Islam in Inter-war Europe (London: Hurst, 2008), 183-215. Séjourné, Claude, 'Le facture musicale de l'œuvre dramatique de Jean Tardieu', in Jean-Yves Debreuille (ed.), Jean Tardieu: Des livres et des voix (Lyon: ENS, 2010), 77-85. Senghor, Léopold Sédar, 'L'avenir de la France dans l'Outre-Mer', Politique étrangère, 19 (1954), 419-26.——— Liberté I: Négritude et Humanisme (Paris: Seuil, 1964). —— On African Socialism, trans. Mercer Cook (London: Praeger, 1964 [1961]). Serry, Hervé, Les Éditions du Seuil: 70 ans d'histoires (Paris: Seuil/IMEC, 2008). ——— "Une Vie Nouvelle" dans une France laïque? Pierre Schaeffer et les Éditions du Seuil', in Martin Kaltenecker and Karine Le Bail (eds.), Pierre Schaeffer: Les Constructions impatientes (Paris: CNRS, 2012), 77–85. --- "Refaire une France chrétienne": l'abbé Jean Plaquevent, aux origins d'une maison d'édition laïque', in Annette Becker, Frédéric Gugelot and Denis Pelletier
- Sherman, Daniel J., *French Primitivism and the Ends of Empire*, 1945–1975 (Chicago: University of Chicago Press, 2011).

(eds.), Écrire l'histoire du christianisme contemporain: autour de l'œuvre

- Silverman, Kaja, *The Acoustic Mirror: The Female Voice in Psychoanalysis and Cinema* (Bloomington: Indiana University Press, 1988).
- Simon, Samy, 'Le Documentaire', La Chambre d'écho, 1 (1947), 54–56.

d'Étienne Fouilloux (Paris: Karthala, 2013), 227-38.

- Simoni, Mary (ed.), *Analytical Methods of Electroacoustic Music* (New York: Routledge, 2006).
- Smalley, Denis, 'Spectro-morphology and Structuring Processes', in Simon Emmerson (ed.), *The Language of Electroacoustic Music* (Basingstoke: Macmillan, 1986), 61–93.
- —— 'Spectromorphology: explaining sound-shapes', *Organised Sound*, 2 (1997), 107–26.
- Sofer, Danielle Shlomit, 'Making Sex Sound: Erotic Currents in Electronic Music' (unpublished doctoral dissertation, University of Music and Performing Arts Graz, 2016).
- Solomis, Makis, 'Schaeffer phénoménologue', in *Ouïr, entendre, écouter, comprendre après Schaeffer* (Paris: Buchet/Chastel, 1999), 53–67.
- Solterer, Helen, 'The Waking of Medieval Theatricality: Paris 1935–1995', *New Literary History*, 27 (1996), 357–90.
- Soupault, Philippe, 'Vers une poésie du cinéma et de la radio', *Fontaine*, 16 (1941), 172–75.
- Stalarow, Alexander, 'Listening to a Liberated Paris: Pierre Schaeffer Experiments with Radio' (unpublished doctoral dissertation, University of California, 2017).
- Steege, Benjamin, *Helmholtz and the Modern Listener* (Cambridge: Cambridge University Press, 2012).
- Steintrager, James A., 'Introduction: Closed Grooves, Open Ears', in Michel Chion, Sound: An Acoulogical Treatise, trans. by James A. Steintrager (Durham: Duke University Press, 2016), vii–xxvi.
- Sterne, Jonathan, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham: Duke University Press, 2003).
- —— 'Hearing' in David Novak and Matt Sakakeeny (eds.), *Keywords in Sound* (Durham: Duke University Press, 2015), 65–77.
- Sternhell, Zeev, *Neither Right Nor Left: Fascist Ideology in France*, trans. by David Maisel (Princeton: Princeton University Press, 1986).
- Stoever, Jennifer Lynn, *The Sonic Color Line: Race and the Cultural Politics of Listening* (New York: New York University Press, 2016).
- Sweeney, Carole, From Fetish to Subject: Race, Modernism, and Primitivism, 1919–1935 (Westport: Greenwood, 2004).
- Tardieu, Jean, 'Littérature et Radio' [1956], in Tardieu and Chérif Khaznadar, Grandeurs et faiblesses de la radio: Essai sur l'évolution, le rôle créateur et la portée culturelle de l'art radiophonique dans la société contemporaine (Paris: Unesco, 1969), 50–53.
- —— 'Sortilèges de la mise en ondes' [1954], in Tardieu and Chérif Khaznadar, Grandeurs et faiblesses de la radio: Essai sur l'évolution, le rôle créateur et la portée culturelle de l'art radiophonique dans la société contemporaine (Paris: Unesco, 1969), 76–79.
- Taruskin, Richard, *The Oxford History of Western Music: Music in the Late Twentieth Century* (Oxford: Oxford University press, 2005).

- Taylor, Timothy D., *Strange Sounds: Music, Technology & Culture* (New York: Routledge, 2001).
- Thompson, Emily, *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America*, 1900–1933 (Cambridge: MIT Press, 2002).
- Thompson, Marie, 'Whiteness and the Ontological Turn in Sound Studies', *Parallax*, 23 (2017), 266–82.
- Till, Nicholas, 'The operatic work: texts, performances, receptions and repertoires', in Nicholas Till (ed.), *The Cambridge Companion to Opera Studies* (Cambridge: Cambridge University Press, 2012), 225–53.
- Toop, David, Ocean of Sound: Aether Talk, Ambient Sound and Imaginary Worlds (London: Serpent's Tail, 1995).
- Tournet-Lammer, Jocelyne, *Sur les traces de Pierre Schaeffer: Archives 1942–1995* (Paris: INA, 2006).
- —— 'Plural and Singular', in Évelyne Gayou (ed.), *Pierre Schaeffer: Polychrome Portraits* (Paris: INA, 2009), 155–65.
- Tournier, Pascale, *Le vieux monde est de retour: Enquête sur les nouveaux conservateurs* (Paris: Stock, 2018).
- Turner, Fred, *The Democratic Surround: Multimedia & American Liberalism from World War II to the Psychedelic Sixties* (Chicago: University of Chicago Press, 2013).
- Turvey, Malcolm, *Doubting Vision: Film and the Revelationist Tradition* (Oxford: Oxford University Press, 2008).
- Valéry, Paul, 'Poésie et pensée abstraite', in *Variété V* (Paris: Gallimard, 1944), 129–60.
- —— 'Poetry and Abstract Thought', trans. by Charles Guenther, *The Kenyon Review*, 16 (1954), 208–33.
- —— 'Rhumbs' [1926], in *Analects*, trans. Stuart Gilbert (Princeton: Princeton University Press, 1970), 157–262.
- —— 'The Crisis of the Mind' [1919], in *The Outlook for Intelligence*, trans. by Denise Folliot and Jackson Mathews (Princeton: Princeton University Press, 1989), 23–36.
- Valiquet, Patrick, 'Review: Pierre Schaeffer, *In Search of a Concrete Music*, trans. Christine North and John Dack; Brian Kane, *Sound Unseen: Acousmatic Sound in Theory and Practice*', *Twentieth-Century Music*, 12 (2015), 285–90.
- —— 'Animating the Object: Marcelle Deschênes and acousmatic education in Quebec', *Organised Sound*, 22 (2017), 385–93.
- —— 'Hearing the Music of Others: Pierre Schaeffer's Humanist Interdiscipline', *Music and Letters*, 98 (2017), 255–80.
- ——— "All Sounds Are Created Equal": Mediating Democracy in Acousmatic Education', in Eliot Bates and Samantha Bennett (eds.), *Critical Perspectives on the Production of Music and Sound* (New York: Bloomsbury, 2018), 123–37.
- ——— 'Review: Pierre Schaeffer, *Treatise on Musical Objects: An Essay Across Disciplines*, trans. by Christine North and John Dack', *SoundEffects*, 8 (2019), 158–64.

- —— 'Scoring the Listener: Notation and Representation in Acousmatic Music', in Emily Payne and Floris Schuiling (eds.), *Material Cultures of Music Notation* (New York: Routledge, forthcoming).
- Vandelle, Romuald, 'Musique exotique et musique expérimentale', *La Revue Musicale*, 244 (1959), 34–37.
- Varèse, Edgard, 'The Liberation of Sound', Perspectives of New Music, 5 (1966), 11-19.
- Verma, Neil, *Theater of the Mind: Imagination, Aesthetics and American Radio Drama* (Chicago: University of Chicago Press, 2015).
- Videau, André, and Charles Duvelle, 'Rencontre avec Charles Duvelle', *Hommes et Migrations*, 1220 (1999), 110–13.
- Vinay, Gianfranco, 'La "recherche" de François Bayle: Portrait de l'artiste', in Gayou (ed.), *François Bayle: Portraits polychromes* (Paris: INA, 2007), 7–12.
- Virkar-Yates, Aakanksha, 'Absolute Music and the Death of Desire: Beethoven, Schopenhauer, Wagner and Eliot's *Four Quartets*', *Journal of Modern Literature*, 40 (2017), 79–93.
- Voegelin, Salomé, *Sonic Possible Worlds: Hearing the Continuum of Sound* (London: Bloomsbury, 2014).
- Warner, Daniel, Live Wires: A History of Electronic Music (London: Reaktion, 2017).
- Whitney, Susan B., *Mobilizing Youth: Communists and Catholics in Interwar France* (Durham, NC: Duke University Press, 2009).
- Wilder, Gary, *The French Imperial Nation-State: Negritude and Colonial Humanism between the Two World Wars* (Chicago: University of Chicago Press, 2005).
- ——— Freedom Time: Negritude, Decolonization, and the Future of the World (Durham: Duke University Press, 2015).
- Wilkinson, Lynn R., *The Dream of an Absolute Language: Emanuel Swedenborg and French Literary Culture* (Albany: State University of New York Press, 1996).
- Williams, Raymond, *Television: Technology and Cultural Form* (London: Routledge, 2003 [1974]).
- Wilson, Samuel, 'Notes on Adorno's 'Musical Material' During the New Materialisms', *Music & Letters*, 99 (2018), 260–75.
- Wohl, Robert, 'French Fascism, Both Right and Left: Reflections on the Sternhell Controversy', *Journal of Modern History*, 63 (1991), 91–98.
- Young, Rob, 'Roll Tape: Pioneers in *Musique Concrète*', in Peter Shapiro (ed.), *Modulations—A History of Electronic Music: Throbbing Words on Sound* (New York: Caipirinha, 2000), 11–20.
- Žižek, Slavoj, Looking Awry: An Introduction to Jacques Lacan through Popular Culture (Cambridge, Massachusetts: MIT Press, 1991).

Discography

An Anthology of Noise & Electronic Music: First A-Chronology (Sub Rosa, SR190, 2002). Bayle, François, 50 Ans d'acousmatique (Ina GRM, 6033/6047, 2012). Deuxième Panorama de Musique Concrète (Ducretet Thomson, 320 C 102, 1957). Parmegiani, Bernard, L'Œuvre Musicale (Ina GRM, 6000/11, 2020).

Premier Panorama de musique concrète (Ducretet Thomson, 320C100, 1956). Schaeffer, Pierre, *L'Œuvre Musicale* (INA-GRM, Ina G 1006/8, 1998). ——— *L'Œuvre* Musicale (INA-GRM, 6027/6029, 2010).