Sound Hunting:
The Tape Recorder and The Sonic Practices of Sound Recording Hobbyists in France and Britain, 1948-1978

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HISTORY

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Author's declaration

I, Jean-Baptiste Masson, declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for a degree or other qualification at this University or elsewhere. All sources are acknowledged as references.

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ABSTRACT

This thesis studies the history of the practice of sound recording as a hobby, in France and Britain. Only a few scholars have hitherto explored this domain, with studies of sound hunting in the Netherlands, Japan, United States. This thesis adds France and Britain to scholarly knowledge and follows sound recording hobbyists in their clubs, radio programmes, specialised magazines, national and international contests, and via their oral histories. It investigates the sound technologies used by amateurs – most notably the tape recorders; the social ties they developed; how a knowledge about sound recording and listening was formed and passed on; and the aesthetics that these so-called sound hunters developed in their works.

The main focus is the rise of sound hobbyist practices around the tape recorder, between 1948 and 1978, but the work begins with an investigation of what sound hobbyists practices were with previous technologies used to record sound. Through documented examples, I show that sound recording as a hobby was practiced since the advent of sound recording technologies in the nineteenth century. However, the practice did not develop on a large scale until the tape recorder, and I show that this was due to a convergence of factors. The second chapter traces the technological factors, focusing on the affordances of sound recorders, from cylinder phonographs to tape recorders. The third chapter investigates the social factors through the ties that developed around the tape recorder. The fourth chapter provides an analytical view on how the audile culture of sound hunting developed and was passed on. The fifth chapter examines the recordings and works produced by these sound hobbyists, their influences and relationships with radio, *musique concrète*, experimental music, and acoustic ecology.

Through these chapters, I document the advent of a new sonic sensitivity, the diffusion of new listening practices. Nowadays, there is a vivid practice of field recording undertaken by both professionals and amateurs. This thesis shows that the rise of professional sound recording was paralleled by the rise of a culture of private recording and private experimentation, with similar ideas developed independently. It also shows that the sound recording field was undergoing its structuration, normalisation, and professionalization until the 1960s, and that amateurs were part of these processes. The categories of amateur and professional were porous within that context, with amateurs and professionals co-creating disciplinarity.

The thesis makes a new contribution to understanding an audile culture in Britain and France, using approaches derived from the history of technology, the social history of the media, and cultural history of the senses.

Keywords: sound recording, listening, tape recorder, amateur, sonic sensitivity, sound studies

List of abbreviations

ADAES: *Association Des Amateurs de l'Enregistrement Sonore*. Sound Recording Amateur Association

AFDERS: *Association Française pour le Développement de l'Enregistrement Sonore*. French Association for the Development of Sound Recording

CISCS: *Centre International Scolaire de Correspondance Sonore*. International Centre of School Correspondence.

CIMES: *Concours International du Meilleur Enregistrement Sonore*. The French name of the IARC.

FICS: *Fédération Internationale des Chasseurs de Son*. International Federation of Sound Hunters.

IARC: International Amateur Recording Contest.

ICEM: *Institut Coopératif de l'École Moderne*. Cooperative Institute of Modern School.

Archives JT et CdS: Archives Jean Thévenot et Chasseurs de Son, Archives Nationales, Pierrefitte-sur-Seine.

BBC WAC: BBC Written Archive Centre, Reading.

SUMMARY

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1. INTRODUCTION

1.1. Scope of the work and methodology

In 1963, a book was published in Britain under the title *Use Your Ears! A Book About Sounds and Noises*. The author enjoined his readers to be aware of their sound environment and guided them in the listening of the human voice speaking and singing, of solo instruments, chamber and orchestral music, but also in "unusual musical instruments," music boxes, bell-ringing, and "the sounds of the countryside."[1] This book was authored by Guy R. Williams, who specialised in writing hobby books. *Use Your Ears!* is part of a series dedicated to crafts and hobbies (*Use Your Hands!*), leisure (*Use Your Leisure!*), and outdoor activities (*Use Your Legs!*), to cite only a few. The target audience of these books were young people, to encourage them to be creative, "and not just passive observers," but the book about listening was tailored toward adults as well. The aim of *Use Your Ears!* was "to increase our perceptiveness, and with our perceptiveness, our enjoyment of life and all that it has to offer."[2]

In a way, such a book can sound strange. An author working through a publisher perceived that people were lacking a listening competency, that instructions were therefore necessary, and that people would be interested enough to buy the book. In all the injunctions to listen that Williams made, a number suggested to the listener to detach sound from its meaning, to focus only the tone, notably when one was listening to foreign languages. As a form of training, he suggested listeners could practice what was named, a few years later, sound walks: "Think for a moment of what might happen if you went for a walk 'with your ears open.' You might (…) direct your attention to an ingenious piece of detective work." Williams invited his readers to be aware and curious toward what is happening sonically in the everyday life, to all that is "being enacted around us, unseen and unnoticed, almost all the time." And in a final call, he enjoined his readers to develop their senses "to the utmost of which they are capable," in order to enjoy the daily sonic milieu and not "miss a lot of the pleasure of life, and a lot of its meaning."[3]

Thus, at a time when Pierre Schaeffer was theorising *musique concrète*, when R. Murray Schafer was theorising acoustic ecology, a book was published to stimulate a 'conscious listening' and listening as a hobby. Two years afterwards, the musician and artist Max Neuhaus produced *LISTEN*, a work that takes the form of a sound walk to bring a new perspective of everyday sounds. It was, to quote Alan Lomax, the renowned folk song collector, "the period of the phonograph or the age of the golden ear, when, for a time, a passionate aural curiosity overshadowed the ability to create

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[1] Guy R. Williams, *Use Your Ears! A Book About Sounds and Noises* (London: Chapman & Hall, 1963), Contents.

[2] *Ibid*., jackets notes.

[3] *Ibid*., 17.

music."[4] Williams was not alone in this call to listen and to develop one's sonic skills. His book was part of a larger movement in which ordinary people got interested in listening-related activities.[5] Notably, at the same time, other hobbyists were active, also interested in sound, and more particularly in the possibilities of sound recording. As one of them put in 1967:

> "Owning a tape recorder and using one, as any tapist knows, are two different aspects of one world. (...) Using a tape recorder is an initiation to a *way of life*. A tapist begins to listen to sounds in a way that he has never listened before, until he comes to the point when his critical faculties are so well developed that he can set himself up as an audioanalyst."[6]

These "tapists" gathered themselves in clubs to exchange sounds, taught themselves new techniques, tested tape recorders and microphones. Each year, they organised contests, within their clubs and at national and international levels. They also edited a range of magazines dedicated to their sonic practices, and produced radio programmes, on which the recordings and creations of their colleagues were broadcast. At the time of the publication of Williams' book, the sound recording hobby was blooming. In Britain alone, there were more than 140 tape recording clubs, and the international competition was in its twelfth year. Two years before, in 1961, an anthology of French amateurs' sound recording won the documentary prize at the prestigious Prix Italia, the international competition celebrating and encouraging the creativity of radio and television programmes. These tapists named their practice of sound recording, 'sound hunting.'

1.1.1. Main research questions, definitions, and contributions

1.1.1.1. Main research questions

This thesis aims to answer a number of core questions related to this sound recording hobby, this "way of life." Where did sound hunting come from? How was the pursuit organised? Did sound hobbyists generate a specific culture of listening and sound recording? Did sound hunters develop a peculiar aesthetic?

The thesis is divided in four chapters. The first one is concerned with the materialities of amateur sound recording – where did sound hunting come from? The questions that I will investigate are: to what extent was sound hunting practiced before the advent of the tape recorder? Did the advent

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[4] Ronald D. Cohen, ed., *Alan Lomax: Selected Writings, 1934-1997* (London: Routledge, 2003).

[5] As I will detail in the third chapter, such a book was also part of a 'hobby trend' that was fuelled by societal changes with an increasing amount of free time, better wages, and by economic factors such as a falling cost of paper and print that able these kinds of publications.

[6] Graham Harris, "Tape is a way of life," *Amateur Tape Recording*, January 1967, 8-10: 8. Stress in original.

of the tape recorder impact the practice? To what extent were sound hobbyists connected to the broader field of sound recording?

The third chapter is concerned with the socialities of amateur sound recording, the history of the sound hunting communities – how was the pursuit organised? The questions I will explore are: how was this sound hunting community built? What are the histories of its different components, that is, the radio programmes, magazines, contests, clubs? Was the situation different in France and Britain? Who were the sound hunters? What is the history of the international federation of sound hunting?

The fourth chapter is concerned with the formation and dissemination of sound hunting audile culture – did sound hunting generate a peculiar culture of listening and sound recording? In this context, I will examine the following questions: how did people get enrolled? What were the knowledge transmission mechanisms? Did sound hunting represent a specific audile culture? Was sound hunting a unified audile culture? Can we speak of a disciplinarity of sound hunting?

The fifth chapter is concerned with the aesthetics of amateur sound recording – did sound hunting develop a peculiar aesthetic? The series of questions I will study are: what were the influences of sound hunters? What do the recordings that sound hunters created reveal about their sensitivity toward sound, and about the evolution of this sensitivity? Can a frame be established to approach their listening and sound recording practice? What were their views on their own work?

To answer these questions, I rely on a variety of material: magazines and books written by sound hunters, recordings, oral histories of former sound hunters, archives of tape recording clubs, archives of radio programmes. The diversity of this material suggests a real practice that was not only a curiosity of some sort. The main primary source is the collection of a particular character, Jean Thévenot (1916 – 1983). A radio and television producer, he initiated on French radio waves a programme entirely dedicated to sound hunting on the 9th of February 1948. To produce it, he released a call for proposals on radio, and received so many submissions that what should have been a one-shot programme became an adventure of 54 years. The fact that, already at the end of the 1940s, Thévenot received enough material to start a programme series, and the fact that he continued to receive enough to keep his programme running in the following years and decades, show that sound recording was a real practice, and not an isolated phenomenon performed by a few originals.

The aim of this work is to produce an investigation of the origin, technological and social conditions, evolution, and aesthetics of this practice. I focus mainly on Britain and France, and also study the international dimension that was developed by sound hobbyists. France, because the Thévenot's collection brings a lot of information on the origin and development of sound hunting in this country. Britain, because rich documentation about the phenomenon can be found there, mainly based on periodicals, but also a radio programme that will give the opportunity to highlight

the differences of approach to sound hobbyists by the BBC and French Radio.[7] Still, more than the differences, it will be the similarities that I will bring forward. I will argue that nothing distinguishes sound hunting in Britain and in France, and that on the contrary, sound hunting was a transnational culture. There were subtle differences in how the two national networks were constituted, but the practice in itself was common. This will notably be demonstrated through the International Amateur Recording Contest (IARC) and the *Fédération Internationale des Chasseurs de Son* (FICS) [International Federation of Sound Hunters], which are documented by the Thévenot's collection.

The boundary dates of this work are 1948 – 1978. 1948 because it was then that Jean Thévenot started his radio programme. 1978 because it is then that Brian Eno released *Music for Airports*, which contains his manifesto for the development of *Ambient Music*. The year before, 1977, Raymond Murray Schafer was publishing *The Tuning of the World*, forging the term soundscape and promoting a conscious listening of the environment.[8] My work is concerned with how ordinary people got interested in sound and started to record, or in other words, how a technical object impacted the way people interacted with sound; it is therefore a history of listening and of listening-through-technology (or mediated listening). The two events mentioned above in 1977 and 1978, represent nodes in this history: an awareness toward the sonic milieu (Schafer), a new way to conceive the relation between recorded music and the sonic milieu within which it is played (Eno). These nodes are crystallisations of ideas and works that were practiced and produced across sound practitioners (notably sound hobbyists as I will demonstrate) during the years before. The boundary date of 1978 is also a question of technology. In this work, I am interested in the use of the reel-to-reel tape recorder by sound hobbyists. To answer one of my core research questions – namely, where did sound hunting come from – I will investigate the use of previous sound recording technologies, but I will then stop at the tape recorder. Subsequent technologies, such as the cassette recorders, will not be studied here. Between the 1950s and the 1970s, a range of reel-to-reel tape recorders were available for domestic use. By the end of the 1970s and the 1980s, these domestic recorders were replaced by cassette recorders while reel-to-reel moved to semi-professional and professional environments. This is therefore where I stop. This being said, these temporal limits are not binding. Notably, the second chapter will explore the work of sound hobbyists experimenting and recording

[7] French Radio changed names several times between 1945 and 1975, date when it stabilises with 'Radio France.' The chronology between RDF, RTF, ORTF and Radio France will be detailed in the third chapter (table 2). For this introduction where I move within that chronology, I will only use 'French radio' to simplify the discourse.

[8] Additionally, the year after, 1979, Sony commercialised its Walkman, bringing a new form of listening habit, mobile, strictly personal, and silent for everyone else but its user. However, the Walkman is not part of the present study and represents a different story to the one I am writing here. I will therefore not explore its history and impact. For a story of the Walkman, see Paul Du Gay and al., *Doing Cultural Studies: The Story of the Sony Walkman* (Los Angeles, CA; London: SAGE, 2013).

with cylinder phonographs and disc-cutters, and I will go back until the end of the nineteenth century for that. The chapters thereafter abide more strictly by these dates.

1.1.1.2. Sound hunting

But what is exactly sound hunting? Sound hunting was the practice of recording sounds, outdoor or indoor, human-made or not. Nowadays, the practice is known as field recording. The sound hunter practiced as a hobbyist, that is to say sound recording was not his paid occupation. He could be a professional, but he had to use his personal equipment and operate outside of professional facilities. In the words of René Monnat, also known as Jean-Maurice Dubois at the beginning of the 1950s and one of the main figures of sound hunting in Switzerland and on the international level:

> "To practice this hunt is to have the curiosity to discover if fishes emit sounds, to patiently keep an ear out at night for the sound of worms gnawing wood, to walk through forests with a parabolic dish to tape the song of a bird, to be sensitive to the beauty of a voice, to perceive the poetry of an old barrel organ, to have the intuition of words that will stand the test of time and that everyone will want to hear again, to be tactless enough to cut into pieces the serious speeches in order to turn them into jokes, it is, finally, to move through the unchained world of noises and sounds like a cineaste within the world of images."[9]

Therefore, the practice had a wide range and was unified by an attitude toward sound: a curiosity toward everyday sonic environment, and an imagination to try and test ideas. Thus, the expression is an umbrella term that groups different practices: wildlife recording, music recording, train recording, interviews, documentary, sonic letters, technical experiments, family recordings, to name a few. Sound hunters did not necessarily perform all of them, and the majority had a specialisation. In the same way as Benjamin Piekut studying experimentalism, I would say that sound hunting was a grouping rather than a group, and that, as a grouping, it was performed.[10] Sound hunting as a grouping was re-enacted every week in Thévenot's radio programme, that brought together all the different practices named above. Contests, national and international, were other moments when the grouping of sound hunting was enacted and when a consensus was tried to be reached about the purpose and aims of this grouping. The difference with the experimentalism as described by Piekut, is that sound hunting, as I describe it, had an ethos that unified it. More than *what* was

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[9] Jean-Maurice Dubois, "Le IVème Concours International du Meilleur Enregistrement Sonore, CIMES 1955," *Radio – Je vois tout*, 1 September 1955. Soon after the mid-1950s, Jean-Maurice Dubois changed his name to René Monnat.

[10] Benjamin Piekut, *Experimentalism Otherwise: The New York Avant-Garde and Its Limits* (Berkeley: University of California Press, 2011), 6.

recorded, it is *how* it was recorded that was important: sound hunting defined an attitude, an ethos, towards listening and sound "recording."

That attitude was present in the name: 'sound hunter.' To hunt sound, to track and catch sound. To lie in wait, to be on the 'ear-out,' senses in alert, constantly aware of the sonic ambience, ready to draw the microphone and fire the recorder. There is an analogy with the hunter and their relation to the milieu: a capacity to read sonic traces, to interpret the sensory information that are constantly received, to track specific sounds, to go in the field for a location scouting before the actual recording.[11] It should be noted that Thévenot, one the main promoter of the practice, always used the singular: *chasseur de son* [hunter of sound], and not the plural, *chasseur de sons* [hunter of sounds]. The difference is lost in 'sound hunter,' and can seem trivial, but nonetheless remains of a significance. Especially because other sound hunters used preferentially the plural and/or moved between singular and plural, Thévenot stood apart in his consistency of using only the singular. This linguistic choice reveals that Thévenot's approach was different, dealing with the concept of sound, an uncountable quality; while the use of the plural highlights the diversity of sound, on specific and separated entities. Thévenot's focus was different, it focused on the essence, on the sonic that lies behind every sound.

The term '*chasseur de son*,' 'sound hunter,' seems to appear in the French press for the first time in the 1930s. One of the first occurrences appeared in the newspaper *L'Ouest-Éclair* on the 3rd March 1939, with an article entitled "A sound effects library: How the wind, the rain, the sea waves and all nature sounds are created at the TSF."[12] The author, Maggie Guiral, was a pioneer of radio editing and author of radiophonic novels. In the article, she mentions that the majority of sound effect discs came from New York City, where a group "of sound hunters" was formed. "Every day, carrying a suitcase and a microphone, they comb the countryside, spy on human sounds, pick them, make discs of them." The suitcase was most probably a disc-cutter (such as the one on figure 10 in the second chapter). Notably, concerning nature sounds, Guiral said that "the microphone fails sound, by giving it another quality."[13] She did not elaborate, but I will develop that point: that is, the likening of technology to a translator, in the fourth chapter. Guiral subsequently described various method of foley to recreate specific sounds. Her explanations were very close, if not the same, to the ones present in the sound effect manuals of the 1960s and 1970s.

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[11] Baptiste Morizot, *Sur la piste animale* (Arles: Actes Sud, 2018).

[12] Maggie Guiral, "Une discothèque de bruits : Comment on crée le vent, la pluie, les vagues de la mer et tous les bruits de la nature à la T.S.F.," *L'Ouest-Éclair*, 3 March 1939, 6. The article is available on Gallica: https://gallica.bnf.fr/ark:/12148/bpt6k661548w/f6.item.zoom.

[13] *Ibid*.

The reference to the New York team scouting the countryside to record sounds recalls the 'sound-canners' described in the US press in the late 1920s and 1930s.[14] This was the name given to sound recordists working for the cinema industry and specialised in the recording of sound effects. With the advent of the talkies, there was a wish to have 'real sounds' rather than foley effects for the soundtrack. These recordings were made on sound film, which were stored in a metal can, hence the nickname 'sound canners,' was born: they were those who were 'canning sounds' – that is, putting them in boxes. At the same period, also in the United States, the ornithologists Arthur A. Allen, Albert A. Brand and Peter P. Kellogg, of Cornell University, gave a paper entitled "Sound Hunting with a Sound Truck" at the Semi-Centennial Meeting of the American Ornithologists' Union, in November 1933.[15]

That being said, the reference to hunting was sometimes very direct in the presentation of the equipment. Take for instance what René Monnat said:

> "Weapons… The sound hunter has several of them: microphones, sound recorders, scissors and adhesive tape being his panoply. (…) Finally, what will matter for him more than the equipment, will be the taste, the perseverance, the originality, and luck… We shall not forget to add a bit of boldness."[16]

And still nowadays, some the equipment of the sound recordist has kept up the hunting analogy. Thus, one uses 'sound traps,' that is, a recorder with one or several microphones that is left unattended for usually a long period of time, to record the sonic ambience without the recordist being present to avoid any interference with the milieu. There is also the 'shotgun' microphone, which designates a microphone with a very narrow directivity that allows the recordist to focus on a very narrow point without picking up the surroundings. It should be noted that a similar analogy exists in photography and cinema: to shoot a film, to shoot a picture, and the alter-ego of the sound hunter, the 'image hunter.' The analogy was sometimes more than direct, with the rifle and the camera being shot together, as the historian Gregg Mitman has showed for the early American

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[14] See for instance Andrew R. Boone, "Canning Nature's Noises for the Talkies," *Popular Science Monthly*, November 1931, 54-5, 138-9.

[15] Though, there is an uncertainty on the actual title. In the written report of T. S. Palmer, it is written as "Sound Hunting with a Sound Truck," while in the programme at the end of the report, it is listed as "Song Hunting with a Sound Truck." T. S. Palmer, "The Semi-Centennial Meeting of the American Ornithologists' Union November 13-16, 1933," *The Auk* 51, no. 1 (1934): 52-66.

[16] Scissors and adhesive tape are the necessary tool to edit the tape by cutting and paste. Jean-Maurice Dubois, 'Le IVème Concours International du Meilleur Enregistrement Sonore, CIMES 1955,' *Radio – Je vois tout*, 1 September 1955. As already mentioned, Jean-Maurice Dubois was the alias of René Monnat. He stopped using it during the second half of the 1950s.

wildlife documentaries.[17] For sound hunting, the link between sound and hunting remained abstract, and on the contrary, the creative aspect was emphasized. As Jean Thévenot, the main promoter of sound hunting, wrote: “The hunt is opened! The only one that creates instead of destroying: the sound hunt.”[18]

Finally, the practice of recording sound was not an isolated activity. It was indeed often practiced in relation to amateur cinema, and therefore sound in itself was not the aim, but rather a part of a film or a diorama that was the final aim. Often cited by sound hunters as another hobby they practiced, the organisation to structure amateur cinema on an international level predates the one in sound recording by twenty years: the *Union International du Cinéma Amateur*, UNICA [International Union for Amateur Cinema] appeared in Switzerland in 1931 and is still active to this day.[19] As I will show for sound hunting in the third chapter, such an organisation is built on an existing basis and its existence reveals a practice already established – and established in several countries in the case of an international organisation.[20] A sign of the proximity between the two practices, Jean Borel (1906-1994), was one of the main sound hunters in Switzerland and a constant support for Thévenot, besides being an early member of UNICA, and its past General Secretary. A literature teacher, he wrote an history of UNICA,[21] and was one of the founding members of the Cinémathèque Suisse de Lausanne in 1948.[22]

1.1.1.3. Other definitions

My choice of using the expression 'audile culture' instead of 'sound culture', sonic culture or aural culture, is linked to the ethos of sound hunting.' I want to emphasise the idea that sound

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[17] Gregg Mitman, *Reel Nature: America's Romance with Wildlife on Film* (Seattle: University of Washington Press, 2009 [1999]), 5-25.

[18] Jean Thévenot, press release for the *Chasseurs de Son 1972* contest for *Informations Radio* 22, 27 May to 2 June 1972. Archives Jean Thévenot et Chasseurs de Son, Archives Nationales, Pierrefitte-sur-Seine (hereafter, Archives JT et CdS), 19910681/28, folder Concours Chasseurs de Son 1972, sub folder Chasseurs de Son 72, Communiqués de presse radio, tv, presse publiée.

[19] UNICA organises the Nations Film Competition, whose 82nd edition will occur in August 2022: https://www.cinemakers-ticino.ch/ (accessed 25/10/2021).

[20] Amateur cinema is still a young field. For a study of the situation in the United States, see Patricia Rodden Zimmermann, *Reel Families: A Social History of Amateur Film* (Bloomington: Indiana University Press, 1995; Karen L. Ishizuka and Patricia Rodden Zimmermann, eds., *Mining the Home Movie: Excavations in Histories and Memories* (Berkeley: University of California Press, 2008). For Britain, see Ian Craven, *Movies on Home Ground. Explorations in Amateur Cinema* (Newcastle-Upon-Tyne: Cambridge Scholars Publishing, 2009).

[21] Jean Borel, *Histoire de l'UNICA* (Neuchâtel, 1951 [1950]).

[22] Roland Cossandey, “1950-1970, Une filmographie neuchâteloise, ou les motifs dans le tapis,” in *Cinéma et Télévision. Petit traité de filmographie cantonale : Neuchâtel (1900-1970)*, ed. Aude Joseph, Roland Cossandey, Christine Rodeschini (Hauterive: Éditions Gilles Attinger, 2008).

hunters were more concerned with listening than with sound *per se* – sound conceived and conceptualised as an exterior element. Listening has a holistic and relational quality and is concerned with 'betweenness.'[23] That relational quality is not a mere detail as a number of sound hunters' work was not only centred on sound but also on words and stories beyond any sonic interest. They lent an ear to sounds, voices, words, and stories around them, and to lend an ear is to give a voice. For these sound hunters interested in producing interviews and documentaries, sound recording was a tool of meeting and a vector of human relationship. My choice of 'audile' has also been influenced by Jonathan Sterne, who unearthed the word and uses it for its connotations. As he wrote, "an audile is a person in whom auditory knowing is privileged over knowing through sight."[24] As I will demonstrate throughout the thesis, audile is the optimal way to define a sound hunter: that is, "a fully trained sound scout" and "a professional listener."[25]

Linked to the relational and holistic quality that I identify in listening, I use the word 'sonic' instead of 'sound,' and 'milieu' instead of 'environment.' I follow here the work of Danièle Dubois and Matt Coler, who have discussed the conceptual and methodological consequences of the choice of words to study ambiances.[26] The anthropologist Catherine Guillebaud has elaborated on the work of these authors in the introduction of her volume about ambient sounds, by describing how the choice of words – most notably 'soundscape' in comparison with 'ambience' and 'milieu' – can imply a frontal perception instead of an immersion, a visual analogy rather than a multimodal one, a 2-D imagination rather than a 3-D one.[27] Tim Ingold has also signalled the pitfalls of the use of the word 'soundscape.'[28]

A final element of definition, related to the different words I will use to qualify sound hunters. They were practicing sound recording as a hobby when they could dedicate time to it. As such, I will call them 'sound hobbyists.' Thévenot, whose collection formed the basis of this work, often used the word "amateurs." That one is not value-neutral, as it works in dialectic with 'professional.' Indeed, most of the sound hunters were amateurs, that is to say that sound or sound recording was not their main job. However, the word amateur can have a negative connotation, to define "a person

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[23] See Lisbeth Lipari, "Listening, Thinking, Being," *Communication Theory* 20, no. 3 (July 2010): 348–62.; Georgina Born, "On Musical Mediation: Ontology, Technology and Creativity," *Twentieth-Century Music* 2, no. 1 (March 2005): 7–36.

[24] Jonathan Sterne, "Headset Culture, Audile, Technique, and Sound Space as Private Space," *TMG Journal for Media History* 6, no. 2 (September 2014): 57-82, 61-2.

[25] Graham Harris, "A Touch of Old Safari," *Amateur Tape Recording*, August 1967, 12-3, 23, 13.

[26] Danièle Dubois and Matt Coler, "Sounds, Languages and Meaning: Ontologies or Umwelten?" *MILSON Conference: Le son pris aux mots*, 20-21 November 2014.

[27] Christine Guillebaud, "Introduction: Multiple Listenings: Anthropology of Sound Worlds," in *Toward an Anthropology of Ambient Sound*, ed. Catherine Guillebaud (London and New York: Routledge, 2017), 1-18, 4.

[28] Tim Ingold, "Four objections to the concept of soundscape," in *Being Alive*, Tim Ingold (Abingdon: Routledge, 2011), 136-9.

who lacks skill or expertise."[29] I will show that sound hunters struggled between the two senses of the word. The fourth chapter will show that some of them were aware of their technical knowledge and of the value of their work, a vision that will be contrasted in the fifth chapter where I will describe how, on the aesthetical level, sound hunters found it difficult to appraise their work positively. The problem of the word "amateur" is that it is also mainly used in opposition with professional and professionalism, that is to say with a certain kind of paid labour, to which formal standards of conduct and performance are attached. As put by Julia Bryan-Wilson and Benjamin Piekut in their recently edited issue of *Third Text* dedicated to amateurism, that "a historically distant activity such as prehistoric rock painting is not usually considered 'amateur' illustrates how amateurism could be understood as a function of modern divisions of labour; when there is no employment (or non-love, drudgery, obligation) to act as its antonym, the category loses meaning."[30] An unresolved tension runs through sound hunting around that qualification, because advocates of sound hunting such Thévenot promoted the freedom of amateur in opposition to the professional, re-enacting the duality highlight by Bryan-Wilson and Piekut. But at the same time, I will show that this one was used by the BBC and French radio to object to the presence of sound hunters on the waves.

Ruth Finnegan has shown in her study of amateur musicians in Milton Keynes, that people, notably in music, often move between amateurism and professionalism, and from professionalism to amateurism through their life.[31] It is clearly the case for sound hunters, notably because they evolved within a field – sound and its related activities such as training, recording services, sound system management, rental of equipment – that was a business in its infancy in the 1950s and 1960s, as I will describe in the first and fourth chapters. That is to say that a professionalisation of sound and its related activities was happening in tandem with the development of clubs for tape recordists. The contact between the so-called 'professionals' and the so-called 'amateurs' was porous, and tape clubs could be springboards for making a living through sound activities. Hence, Keith Upton, who I interviewed, joined the Brighton Tape Recording Club aged 16 before starting a business to record weddings and sell blank tapes, and finally established an audio-visual company that still exists to this day.[32] Swiss sound hunters were often recruited by Swiss radio,[33] and a club like the Cardiff Tape Recording Club worked for the Cardiff City Council and other clients from the 1960s to the beginning of the 1990s.[34] Hence, clubs were identified as specialised groups where the knowledge,

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[29] *Oxford English Dictionary*, third edition, 2021.

[30] Julia Bryan-Wilson and Benjamin Piekut, "Amateurism," *Third Text* 34, no. 1 (January 2020): 1–21, 13.

[31] Ruth H. Finnegan, *The Hidden Musicians: Music-Making in an English Town*, 1st Wesleyan ed (Middletown, CT: Wesleyan University Press, 2007).

[32] Interview with Keith Upton, 2 April 2021.

[33] Jean Thévenot, "Amateurs et professionnels : conflit ou coopération ?" *Hif-Fi Stéréo*, May 1977.

[34] Interview with Ken Geen, 28 September 2020.

the people, and the equipment for sound-related activities were present. Their members, and the non-affiliated sound recording amateurs, appeared in the grey zone between professionals and amateurs, filling spots where businesses were only burgeoning or non-existing.[35] At the same time, sound hobbyists were keen to offer their services for free, and "many creative workers in the clubs, seeking satisfaction from their efforts and a sense of purpose and achievement, are turning to the production of tapes for use in hospitals, at old people's homes, and by the blind."[36] These tapes were sound journals, audio books, plays, music; an example of this is Radio Cherwell, the hospital radio in Oxford, which has been operative since 1967.[37]

Moreover, in the 1940s and 1950s, the sound recording field and sound hobbyism developed in parallel and I will show that there was no firm separation between the two. 'Amateurs' and 'professionals' were not relevant categories and people moved freely within the field of sound recording. Hence, sound hobbyists partook in the elaboration of battery-powered portable tape recorder and in the normalisation of tape recording. Susan Schmidt Horning has showed a similar process in the United States during the same period.[38]

To navigate within these words of 'amateur,' 'hobbyist,' – in other words, to consider the social definition of sound hunters – and to better approach them and their clubs, in which all the members did not have the same investment, the sociologist Robert A. Stebbins has developed a framework on which I will come back in the first and fourth chapter. He defines different types of amateurs, based on their level of investment, or "seriousness," in their hobby: from 'dabbler' to 'participant' to 'devotee.'[39] This distinction will prove useful in the conceptualisation of the formation of sound hunting audile culture and in the circulation of its knowledge of listening and sound recording.

1.1.1.4. Contributions

As a whole, this work informs sound studies, the history of listening and the history of media. Its perspective is original, as I am interested in the vernacular, the everyday life of ordinary people

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[35] For more on this, see Robert A. Stebbins, *Between Work & Leisure: The Common Ground of Two Separate Worlds* (New Brunswick, N.J: Transaction Publishers, 2004).

[36] *Amateur Tape Recording*, September 1960, 26.

[37] https://radiocherwell.com/ (accessed 28/07/2020). Many thanks to Peta Simmons for the documents and pictures on the history of Radio Cherwell.

[38] Susan Schmidt Horning, *Chasing Sound: Technology, Culture, and the Art of Studio Recording from Edison to the LP* (Baltimore, MD: Johns Hopkins university press, 2013).

[39] Robert A. Stebbins, *Amateurs, Professionals, and Serious Leisure* (Montreal London: McGill-Queen's University Press, 1992).46.

recording ordinary things and creating sound works according to their sensitivity. The thesis collects sources and traces of people who, usually, have not yet formed an archive for historians to use to reconstruct social practices. Through the residue they left however, I investigate how ideas about sound percolated through society, and the inscription of sound on a tactile medium that offered possibilities of manipulation. In that way, I work here on a transition, the apprenticeship of a new technology – the sound recorder –, a new medium – sound recording –, and the new possibilities of expressing one's sensibility and imagination through them. This history of sound hunting through the recordings and testimonies I bring to light, help us to understand how a culture learnt to be interested in sound, its recording, its collection, its manipulation. In that, I contribute to the scholarship developed in the recently edited volume by Jens Gerrit Papenburg and Holger Schulze, *Sound as Popular Culture*, a volume that looks at the "cultural practices concerning sound not merely as semiotic or signifying processes but as material, physical, perceptual, and sensory processes that integrate a multitude of cultural traditions and forms of knowledge."[40] This work is also a study of the reception of the mediated listening allowed by microphones and sound recording, and I show that the rise of music industry was paralleled by the rise of a culture of private recording.

Moreover, this work contributes to musicology. I will show that some sound hunters were interested in technical experiments and *musique concrète*. The usual narrative of *musique concrète* is concerned with the state-funded studios, most prominently the Groupe de Recherche Musicale of Pierre Schaeffer. However, at the exact same time, sound hobbyists were practicing with the same tools, and generating consequently similar results. If their words were different, if the conceptualisation of what they were doing was not as precise as the one developed by Schaeffer, they were nonetheless present and producing non-random works. Which means that the practice of *musique concrète* was not limited to professional composers and that an avant-garde aesthetic was shared beyond these state-funded studios: sound hobbyists participated in the domestication of vanguard music, through their own practice.

More specifically, the thesis brings together a number of original contributions. In the second chapter, I argue that there were sound hobbyists since the advent of sound recording technologies, and that they experimented since the very beginning with uses that were not foreseen by recorder manufacturers. I also show that sound hobbyists developed a rich practice with disc-cutters, finding solutions to bring them to places such as a speleological expedition, a football match, a Paris-Tokyo raid on a motorcycle, to bring back recordings. They also managed to perform complex editing with discs. The structuring of sound hunting in the 1950s around the tape recorder therefore built on an already rich foundation. All this is supported by documented evidence coming from France, Brit-

[40]Jens Gerrit Papenburg and Holger Schulze, eds., *Sound as Popular Culture: A Research Companion* (Cambridge, MA; London: MIT Press, 2016), 9.

ain, Switzerland, Egypt, United States. I also put in evidence that tinkering was part of sound hunting since cylinder phonographs, and that it forms a tradition that continued with tape recorders. This is something that was noted by Trevor Pinch and Karin Bijsterveld: "tinkering, repairing, and do-it-yourself practices in research and art seem to be sociologically related to the tendency to adapt audification, sonification, and careful listening, to – in other words – some sort of sensory sophistication and sensory flexibility."[41]

The literature on sound hunting has been hitherto limited to national studies.[42] The third chapter brings a detailed transnational history of sound hunting in France and Britain (with substantial elements on Switzerland). I will show that sound hunting communities were structured differently in Britain and in France. The support from official institutions was important in France and nearly absent in Britain. I also detail the building of the international sound hunting community (mainly centred on Western Europe), and the attempt to connect sound hunting with international institutions such as UNESCO.

The fourth chapter details the formation of sound hunting audile culture. I adopt a mediological analysis (see that word in the next section on methodology) to elaborate on how the sound hunting community was formed and sustained. I detail the formation of a knowledge about listening and sound recording and the establishment of a disciplinarity. Despite the subtle differences across the sound hunting networks in Britain and France, I argue that the disciplinarity of sound hunting was similar in the two countries; that sound hunting was a unified audile culture. I also bring forward that sound hunting and the professionalisation of the field of sound recording evolved in parallel, that the limit between the two were porous, and that sound hobbyists participated in the professionalisation of sound recording.

The fifth chapter brings to light a number of works produced or composed by sound hunters. The influences acting upon sound hunters are described. It is also the history of the use of sound, the tension between what differentiate a sound effect from a sound piece that is brought to light, and how radio professionals in France and Britain negotiated this question, notably through the concept of radiogeny. I will argue that through their work, sound hunters brought to ether a new sonic sensitivity based only on sound, without speech or music (instrumental or electronic or *concrète*), and that new sensitivity took time to be accepted by radio professionals. I will develop a framework to approach the aesthetics of sound hunting: creative listening. Through the presentation of pieces by sound hobbyists, I will also show that avant-garde composers and sound artists were not isolated, as their ideas about sound were practiced in parallel by amateurs. However, I will

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[41] Trevor Pinch and Karin Bijsterveld, "New Keys to the World of Sound," in *The Oxford Handbook of Sound Studies*, ed. Trevor Pinch and Karin Bijsterveld (New York: Oxford University Press, 2012), 3-38, 16.
[42] This literature will be described in a coming section.

show that despite the quality of their work, a majority of sound hunters found it difficult to consider themselves as artists.

1.1.2. Methodology

I have chosen to divide my study of sound hunting into four parts, each dedicated on a specific aspect of sound hunting: the technology, the communities, the production of a knowledge, the aesthetics. This division allows a detailed analysis of how the sociomaterial processes that were to be called 'sound hunting' unfolded. This splitting can be conceptualised as the medium of sound hunting (the sound recorder), the milieu of sound hunting (the radio programmes, the magazines, the clubs, the contests), the mediations of sound hunting (the processes of transmission, material and immaterial), the message of sound hunting (the recordings and their content).[43]

One has to remember that these aspects were co-constitutive, inter-related, and evolved simultaneously. For instance, to study how these people gathered and collectivised their practice of listening and sound recording (third chapter), is the first step for studying the knowledge they produced and disseminated (fourth chapter). In the same way, to study the possibilities and limitations of the sound recording technologies used by sound hunters (second chapter) is a necessary step to contextualise the works and recordings they produced (fifth chapter). Because of this approach, I combine different methodological perspectives from different disciplines.

In the second chapter, to approach how sound recording technologies were used and adapted to the needs of hobbyists – to follow the co-construction of hardware and social groups – my approach will be user-centred and will rely on the insights from Social Construction Of Technology.[44] This will help us to understand better why uses that were foreseen by Thomas A. Edison for his phonograph only appeared decades later with the tape recorder. Of use for this will be the concept of "spectrum of affordances" developed by musicologist James Mooney.[45] Each technology offered a range of more or less accessible possibilities. For instance, the possibilities of sound manipulations operated directly on the recorder are more diverse and straightforward on a tape recorder than on a cylinder phonograph. Hence, if these kinds of manipulations are documented on the latter (as I will show), they did not generalise on a large scale, while they were routinely practiced by sound

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[43] Régis Debray, "Histoire des Quatre M," *Cahiers de médiologie* 6 (1998): 7-26.

[44] Nelly Oudshoorn and Trevor J. Pinch, eds., *How Users Matter: The Co-Construction of Users and Technology* (Cambridge, MA, London: MIT Press, 2003); Wiebe E. Bijker, Thomas P. Hughes, and Trevor Pinch, eds., *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge, MA: MIT Press, 2012).

[45] James Mooney, "Frameworks and Affordances: Understanding the Tools of Music-Making," *Journal of Music, Technology and Education* 3, no. 2 (April 2011): 141–54.

hunters on tape recorders. Through the evolution of the spectrum of affordances of sound recorders, I will uncover a history of 'user-friendly possibilities.' That history involves the design of these machines, and how the different functions are represented and made accessible: the choice of functions by manufacturers, the choice of icons to represent them, their progressive normalisation. I will also identify in the different sound technologies 'sites of affordances,' or 'sites of mediation.' Through these, I define specific sites, spots, on and in the recorders, where a manipulation is possible, opening a use that was not foreseen by the manufacturers. For example, on cylinder phonograph, the lever to set the rotation speed, that is possible to manipulate while reading the cylinder, thus modifying the recording or reading speed which impact the pitch. Or, on a tape recorder, the reels are directly accessible. It is therefore possible to press them while they rotate. To do this on the feeding reel (the one that is unwinding), to either record or read, affects the speed, and thus the pitch. These sites are far from trivial as they are a way to think differently about the equipment and its sonic possibilities: sites of mediations expand the sonic horizon of users able to access them. Thus, they also offer a possibility – which can be accepted or refused – to expand the sonic sensitivity of the user. Sites of mediations are privileged sites for tinkering (but tinkering is not limited to sites of mediation). Sites of mediations are also where the users can modify the "script" of the equipment, directly or through tinkering. Madeleine Akrich defined script as the predetermination of actors and uses that innovators and manufacturers inscribe in their piece of technology.[46] Site of affordances are 'gaps' in that inscription that users can exploit, allowing equipment to be used in unexpected ways. As Akrich has noted, new forms of knowledge can be formed through that process, and as I will develop in the third and fifth chapters, that new knowledge is linked to a new sensitivity (a sonic sensitivity in our case) and a new sonic imaginary.[47]

The third chapter will be the most descriptive, documenting the primary sources represented by the Thévenot collection, the BBC written archives dedicated to the sound hunting programme aired by the BBC, and a collection of sound hunting papers held at UNESCO. Where the second chapter seeks to detail the material conditions of sound hunting, this chapter will explore its social conditions.

In the fourth chapter, to analyse the process of how the specific audile culture of sound hunting was formed, disseminated, and how it evolved, I will mainly use the mediological tools developed by Régis Debray. Mediology is the study of transmission. It is "the discipline that treats of the higher

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[46] Madeleine Akrich, "The De-Scription of Technical Objects," in *Shaping Technologies / Building Society. Studies in Sociotechnical Change*, ed. Wiebe E. Bijker and John Law (Cambridge, MA and London: MIT Press, 1992), 205-24, 208.

[47] I will define that sonic imaginary in a few paragraphs.

social functions in their relations with the technical structures of transmission."[48] It analyses "at which material and social conditions is a heritage possible,"[49] how the collective personality of a community stands the test of time and the role of memory, of archives in that process. The investigation of processes of transmission are at the heart of mediology, notably through the concepts of 'organised matter' and 'materialised organisation' that describe the collective elaborations of a community and of a memory. The organised matter covers the technical aspects of transmission while the materialised organisation covers its socio-political aspects. Thus material organisations aims to gather, to settle, and to last; to produce memorable [*du memorable*] and memorists [*des mémorants*]. The former socialises and transindividualises the individual memory by objectifying it.[50] This framework and concepts developed by Debray allows an in-depth analysis of how the community of sound hunters was organised, with its strengths and weaknesses, and why it evolved the way it did. In other words, to depict "the union of gestures, knowledge, beliefs, that found a way of cultural consumption."[51] That cultural consumption was achieved through technological objects that allowed a mediated listening. My approach of mediated listening stems from the definition of mediators given by Bruno Latour: "Mediators transform, translate, distort, and modify the meaning or the elements they are supposed to carry."[52] This non-neutral aspect of translation will be at the heart of the idea of *technology as a translator* that I develop in this fourth chapter, and it is through it that I will understand the mediated listening operated by sound recording technologies.

In the fifth chapter, my approach to the aesthetics of sound hunting – conceived as a practice performed by ordinary people – has also been influenced by Michel de Certeau's work on everyday life.[53] De Certeau identified in the face of a rationalised, expansionistic, centralised production, another kind of production, called consumption, characterised not by proper products but by an art of using those which are imposed on a group of people.[54] De Certeau underlying assumption was that "the presence of a representation (…) does not reveal in any way what it is for its users."[55] For De Certeau, "the consumer cannot be identified or qualified by the journalistic or commercial products that one assimilates: between one (who used them) and these products (clues of an imposed 'order'), there is the space, more or less great, of the use that one performs."[56] It is within that space

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[48] Régis Debray, *Media Manifestos: On the Technological Transmission of Cultural Forms* (London, New York: Verso, 1996), 11.

[49] Régis Debray, *Introduction à la médiologie* (Paris: Presses Universitaire de France, 2000), 21.

[50] Régis Debray, *Transmettre* (Paris: Odile Jacob, 1997), 28-40 ; *Introduction à la médiologie*, 23-32.

[51] R. Debray, *Introduction à la médiologie*, 156.

[52] Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2007), 39.

[53] Michel de Certeau and Luce Giard, *L'invention du quotidien. Vol.1: Arts de faire* (Paris: Gallimard, 2010).

[54] *Ibid*., 53.

[55] *Ibid*., xxxviii.

[56] *Ibid*., 55.

this people use what he calls 'tactics' to navigate through mass consumption and use it to their advantage. Besides de Certeau, to study the sonic sensitivity in the making that was developing with sound hunters, and to establish it in front of other aesthetics of sound – *musique concrète* – I will rely on the work of Simon Emmerson who has developed a clear framework to approach the use of sound in music as element of discourse and / or element of syntax.[57] The peculiarity of a number of sound hunters will thus be highlighted. To further analyse this distinctiveness, I will develop the concept of "creative listening." I will articulate creative listening around the notions of everydayness, curiosity, and imagination. I borrow the concept of everydayness from Henri Lefebvre, who defined it as the peculiar within the common, the beauty in the banal.[58]

To unite the chapters detailing salient points of sound hunting, three other frameworks of analysis will be used to cover the whole phenomenon: the notion of acoustemology, the notion of listening habitus, and the notion of sonic imaginary. The thesis details the history of sound hunting acoustemology, of sound hunting listening habitus, of sound hunting sonic imaginary.

I already mentioned my choice of the word 'audile' to describe sound hunters. This choice was also motivated by the conceptual level that it invokes. Because of its definition, knowing-through-listening, 'audile' is close to the concept of acoustemology developed by Steven Feld, that is, his stress on "to theorise sound as a way of knowing."[59] As a way of meaning making, acoustemology is culturally dependent, and so there are as many acoustemologies as there are cultures. The literature on the historical acoustemologies of European cultures remains limited. Studies have focused on specialised listening linked to science, medicine, music.[60] But ordinary people in their ordinary life have attracted less interest. Alain Corbin has pioneered a sensory approach based on listening with his study of bells in French countryside.[61] The work of Raymond Murray Schafer can also be

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[57] Simon Emmerson, "The Relation of Language to Materials," in *The Language of Electroacoustic Music*, ed. Simon Emmerson (Basingstoke and London: The Macmillan Press, 1986), 17-40.

[58] Henri Lefebvre, "Everyday and everydayness," *Yale French Studies* 73 (1987): 7-11.

[59] Steven Feld, "Acoustemology," in David Novak & Matt Sakakeeny (eds.), *Keywords in Sound* (Durham, NC, Duke University Press, 2015), 12-21, 12.

[60] Trevor J. Pinch and Karin Bijsterveld, *The Oxford Handbook of Sound Studies* (New York: Oxford University Press, 2012); Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham: Duke University Press, 2003); Emily Ann Thompson, *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900 - 1933* (Cambridge, Mass.: MIT Press, 2008); Tia DeNora, *Music in Everyday Life* (Cambridge ; New York: Cambridge University Press, 2000); Tom Rice, *Hearing and the Hospital: Sound, Listening, Knowledge and Experience* (Canon Pyon: Sean Kingston Publishing, 2013); Alexandra Hui, *The Psychophysical Ear: Musical Experiments, Experimental Sounds, 1840-1910* (Cambridge, Mass: MIT Press, 2013); Greg Milner, *Perfecting Sound Forever: An Aural History of Recorded Music* (New York: Faber and Faber, 2009).

[61] Alain Corbin, *Les cloches de la terre : paysage sonore et culture sensible dans les campagnes au XIXe siècle* (Paris: Albin Michel, 1994).

seen that way, notably his *Five Village Soundscapes*, in which the sonic milieu of five European villages were studied and their inhabitants interviewed to elaborate on how they perceived and interacted with their sonic milieu.[62] However, a few years after Schafer's visit, the fishermen from Lesconil, one of the five villages visited, were invited at a colloquium organised by Radio France for the European Broadcasting Union under the theme of 'Mankind in the Sonic Society Today.' Lesconilois were quite surprised about Schafer's conclusion that they knew how to 'read' the sound of wind, of boat motors. In a way, this is rather logical. People are accustomed to their everyday milieu and have a direct comprehension of it. In relation to this ability, Williams' book which I cited at the beginning of the introduction sounds strange. Did people lose the ability to listen and understand their sonic milieu? Or maybe it is that Williams' book was tailored to people living in urban settings, in which the sonic milieu was less varied, fuller of "signals" – sounds that indicate warning or position –, sounds with a limited epistemology in Feld's acoustemology – rather than "signs" – sounds with enriched meaning –, to use the vocabulary of Pierre Schaeffer.[63] That interpretation would enlighten the presence of a chapter dedicated to "the sounds of the countryside" in Williams' opus. That impoverishment of the urban sonic milieu and the rise of noise within it has been demonstrated in England by James Mansell;[64] as previously noted, by Schafer;[65] and by Bernie Krause, who has documented and demonstrated, through his sound recordings, the impoverishment of the sonic milieu and the impact of anthropisation during the second half of the twentieth century.[66]

Going back to historical acoustemologies in relation to everyday life, Karin Bijsterveld, Eefje Cleophas, Stefan Krebs and Gijs Mom have recently studied the relationship between the history of cars and listening.[67] All this represents sonic skills routinely used in everyday work and activities. To approach the formation of these abilities and their use, I follow the insight of Pierre Bourdieu, which forms my second over-arching theoretical framework. For the French sociologist, people use a more or less conscious system of perceptual and appraisal schemes and these schemes are cultural. The way we use our senses follows a cognitive heritage, a cultural competence, a cultural capital.[68] As such, acoustemology can be conceived as a cultural sonic skill or as a distinctive 'listening habitus.' A derivation of the habitus of Pierre Bourdieu applied to listening, the expression "listening

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[62] R. Murray Schafer, ed., *Five Village Soundscapes* (Vancouver, B.C: A.R.C. Publications, 1977).

[63] Pierre Schaeffer, *Solfège de l'objet sonore*, INA-GRM INA C 2010-2012, 1998 [1967].

[64] James G. Mansell, *The Age of Noise in Britain: Hearing Modernity* (Urbana: University of Illinois Press, 2017).

[65] R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester, VT: Destiny Books, 1993).

[66] Bernie Krause, *The Great Animal Orchestra* (London: Profile Books Ltd., 2012).

[67] Karin Bijsterveld et al., *Sound and Safe: A History of Listening behind the Wheel* (Oxford ; New York: Oxford University Press, 2014).

[68] Pierre Bourdieu, *Le Sens Pratique* (Paris: Les Éditions de Minuit, 1980).

habitus" has been coined by Judith Becker. She defines it as such: "habitus is an embodied pattern of action and reaction, in which we are not fully conscious of why we do what we do; not totally determined but a *tendency* to behave in a certain way."[69] This notion, complementary to 'audile' and 'acoustemology,' will be used to approach the way sound hunters interact with their sonic surroundings – that is, how they developed a specific audile culture and what their originality and importance were. The ethnomusicologist Thomas Porcello has built on the notion of acoustemology, to link it with a specific mediated listening through sound technologies. Porcello calls it "techoustemology."[70] Sound hunters, because they relied on microphones, sound recorders, cables and speakers, used a specific techoustemology.

The third over-arching concept that I will use is the one of sonic imaginary recently developed by James Mooney and Trevor Pinch and their conceptualisation of it provides a framework through which the history of sound hunting can be framed. Mooney and Pinch defines sonic imaginary as "a way of imagining and bringing forth a shared sonic world or experience grounded in technology, institutions, and networks. In a sonic imaginary, sound itself has sociomaterial agency and makes a crucial difference in how worlds are enacted."[71] The thesis focused on the development of sound hunting, from the origins of sound recording technologies, to the end of the 1970s. By then, I will argue, conceptual ideas about sound and listening percolated beyond the circles of sound hunters, avant-garde composers and sound artists to touch many other parts of the society. To follow that diffusion of sonic ideas, Mooney and Pinch has developed three different phases within their concept of sonic imaginary. The first one, incipiency, is the beginnings, through inspiration and exposure to problems that seem to demand solution. Then, there is a labile phase, which corresponds to the development and materialisation of imaginary. Several possibilities are tested in this phase. Finally, a stabilisation phase that tallies to the mature formulation of the imaginary, sometimes evidenced by post hoc rationalisations or articulations. This framework is relevant for sound hunting, because it constitutes "a way of imagining and bringing forth a shared sonic world or experience grounded in technology, institutions, and networks."[72] This will be the perspective I develop in my analysis of sound hunting in this thesis. The second chapter will be concerned with the possibilities of a piece of technology acting as a translator through its mediation, and the sonic practices that

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[69] Judith Becker, "Exploring the Habitus of Listening. Anthropological Perspectives," in *Handbook of Music and Emotion: Theory, Research, Applications*, ed. Patrick N. Juslin and John Sloboda (Oxford: Oxford University Press, 2010), 84-107. Stressing in original text. The concept of *habitus* used by J. Becker is taken from Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge University Press, 1977), 72.

[70] Thomas Porcello, "Afterword," in *Wired for Sound: Engineering and Technology in Sonic Cultures*, ed. Paul. D. Greene and Thomas Porcello (Middletown, CT: Wesleyan University Press, 2004), 269-81.

[71] James Mooney and Trevor Pinch, "Sonic Imaginaries: How Hugh Davies and David Van Koevering Performed Electronic Music's Future," in *Rethinking Music Through Science and Technology Studies*, ed. Antoine Hennion and Christophe Levaux (London: Routledge, 2021), 113-49, 114.

[72] *Ibid*., 115.

emerged through it. The third chapter will follow the sound hobbyists and present the sociabilities that developed around that piece of technology. This will lead to a fourth chapter that will analyse how an audile culture about listening and sound recording was formed and passed on. The works that I will then present in this fifth chapter were the results of these "sociomaterial agencies,"[73] and a number of them emerged because of the tape recorder (most notably the technical experiments I will present, in which the core idea of the works came from the equipment used, making clear in that case that imagination "as an emergent phenomenon from the material world."[74]). What the main characters of the history of sound hunting that I will develop – Jean Thévenot, René Monnat, Marguerite Cutforth, Frederick Charles Judd, Pierre Guérin – built was a sociomaterial framework able to support the development of a peculiar creative practice able to spark off curiosity and imagination. The whole process represents the progressive constitution of a cultural capital paralleled by an auditory capital, that is, the establishment of an audile culture, or, in the words of Mooney and Pinch, the stabilisation of sound hunting sonic cultural practice.

1.1.3. The existing literature on sound hunting

The existing literature on sound hunting has focused on different countries. To start the drawing of a geography of sound hunting, that I will continue in the conclusion, I will present them country by country. All this literature is recent, dating from the last twenty years.

1.1.3.1. Sound hunting in the Netherlands

Karin Bijsterveld has pioneered the study of sound hunting and has written the most on the subject. She has described the history of Dutch sound hunters in detail.[75] The Dutch Society of Sound Hunters (*Nederlandse Vereniging van Geluidsjagers*) was organised in 1956 to make "'the wonderful qualities of modern tape recording devices' more known to the public."[76] After a description of the activities undertaken with the recorder – similar to those given by Thévenot at the beginning of the introduction – Bijsterveld points to the fact that tape recording was a creative practice that required time and effort, and as such, needed practice and a technique to turn the machine into a

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[73] *Ibid.*, 114.

[74] *Ibid.*, 114.

[75] Karin Bijsterveld, "'What Do I Do with My Tape Recorder …?': Sound Hunting and the Sounds of Everyday Dutch Life in the 1950s and 1960s," *Historical Journal of Film, Radio and Television* 24, no. 4 (October 2004): 613–34.

[76] Bijsterveld, "What do I do with my tape recorder," 614, citing a publication of the Society: *De Geluidsjager. Publikatie voor iederen die belang stelt in tape recording*, 1968, 1.

musical instrument.[77] As it was not the objective of Bijsterveld in that particular article, this last point of turning the tape recorder into a 'musical instrument' is not investigated. Parts of the second chapter will be dedicated to this and to unveiling what the technicity of tape recording consisted of. There was indeed a learning curve that clubs, as places to discuss and learn, could help soften. Probably fostered by the technicity, the sportive dimension of tape recording was appreciated among sound hunters, and "[t]he harder it was to catch a particular sound, the more highly its merit."[78] The recording of everyday sound was praised, even more if an "everyday quality" was present, that required an "exploratory listening."[79] That posture is clearly in line with the practice of field recording nowadays, with artists like Toshiya Tsunoda, and with the developing practice of sound map and soundwalk[80]: a curious ear, able to be interested in everydayness, to unearth what lies in it. I will describe in-depth this everyday quality in the fifth chapter. Bijsterveld also notes that in their work, Dutch sound hunters were expected not to copy professional radio. As I will detail, that point was similar in France and Britain, with calls to originality at each contest, and a constant push from Thévenot through his radio programme to turn amateurs from being copycats of professional radio. Nonetheless, as I will show in the fifth chapter that, for French and British sound hunters, radio stayed an important influence.[81]

In 1969, the Dutch Society of Sound Hunters had more than 1500 members, but it was already declining. For Bijsterveld, the reason is an unclear positioning: sound hunters were unable to serve as intermediaries between professional practices and the mass of consumers. Dutch radio discontinued their collaboration with the Society in the mid-1960s, while at the same time Dutch sound hunters were unable to establish long-term contact with the emerging sound art scene.[82] Bijsterveld concludes that "nostalgic, critical, creative and exploratory listening did not survive within the context of tape recording as a hobby."[83] Working on French and British sound recording amateurs, my conclusion will differ. To be sure, clubs did attract less people and progressively went under the radar from the mid-1970s. However, I will argue that clubs represented only a part of the amateur sound recording community, and that there was a lot of isolated individuals that practiced on their own. That the French programme was able to maintain its presence for more than fifty years while relying only on material submitted by amateurs confirms my argument. Therefore, I will argue that

[77] Bijsterveld, 'What do I do with my tape recorder,' 620.

[78] *Ibid*., 624.

[79] *Ibid*., 623-5.

[80] Toshiya Tsunoda, *O Respirar Da Paisagem*, Sirr, sirr2012, 2003; Ian Rawes and the London Sound Survey (https://www.soundsurvey.org.uk/index.php/survey/soundmaps (consulted 26/06/2021)); the Walking Festival of Sound (http://wfos.net/ (consulted 26/06/2021)).

[81] Bijsterveld, "What do I do with my tape recorder," 625.

[82] *Ibid*., 630-1.

[83] Bijsterveld, "What do I do with my tape recorder," 631.

the decline of clubs was not the decline of the practice. In the same way, the end of the French programme did not mean that the practice was slowing down. On this, there is a bias due to available sources, but the absence of trace is not the proof of the absence. I will investigate the demise of sound hunting in the conclusion. I will argue that, more than a disappearance, the practice transformed, because the whole field of sound recording evolved and professionalised (this will be shown in the first and fourth chapters).

With technology and culture scholar Annelies Jacobs, Bijsterveld has also produced a study about Dutch tape recorder users that were not sound hunters, looking at how tape recorders were advertised (mainly through Philips documentation), and domesticated.[84] They use the concept of domestication developed by Roger Silverstone, to describe how "new technologies have to be transformed from "unfamiliar, exciting, and possible threatening things" into familiar objects embedded in the culture of society and the practices and routines of everyday life."[85] Bijsterveld and Jacobs describe a "multi-sited domestication of the tape recorder,"[86] as the equipment never found a clear emplacement in the house, contrary to other piece of technology such as the two-way radio and video camera.[87] Jacobs interviewed ten users that had a tape recorder in 1960s and 1970s. It appears that the tape recorder was mainly used by men, and "reflect conflicts about what domestic space should be used for."[88] Indeed, there was a need for space, as recording was only a part of the practice. Back home, one needed to listen (which implies a need for an amplifier and speakers if one did not want to use the internal speaker of their tape recorder or if their recorder was devoid of such speaker, plus the cables) and to edit (which required at least a small table to set down the recorder and the tape). Different levels of investment are at stake here toward the use of the recorder, and the negotiation of this level with partners or family members. Using the classification of Stebbins that I presented earlier, we could say that the regular users described by Bijsterveld and Jacobs in this article probably fall in the 'dabbler' category: people who were interested but who only seldom practiced, and therefore did not need a dedicated space and did not need to negotiate this space. While those described in Bijsterveld's other article,[89] could be described as 'devotees:' people invested in their practice, with time invested in it, and space dedicated to it. As Stebbins describes, this high level of dedication could mean tensions within the household that hobbyists were ready to embrace.[90]

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[84] Karin Bijsterveld and Annelies Jacobs, "Storing Sound-Souvenirs: The Multi-Sited Domestication of the Tape Recorder," in *Sound Souvenirs. Audio Technologies, Memory and Cultural Practices*, ed. Karin Bijsterveld and José van Dijck (Amsterdam: Amsterdam University Press, 2013), 25-42.

[85] Nelly Oudshoorn and Trevor Pinch, "Introduction. How Users and Non-Users Matter," in *How Users Matter. The Co-Construction of Users and Technologies*, ed. Nelly Oudshoorn and Trevor Pinch (Cambridge, MA and London: MIT Press, 2003), 1-25, 14.

[86] Bijsterveld and Jacobs, "Storing Sound-Souvenirs," 36.

[87] *Ibid*., 40.

[88] *Ibid*., 36.

[89] Bijsterveld, "What do I do with my tape recorder."

[90] Stebbins, *Amateurs, Professionals, and Serious Leisure*, 14.

1.1.3.2. Sound hunting in Czechoslovakia

Bijsterveld has also investigated the presence of sound hunters in Czechoslovakia within the context of Cold War, in an article that also deals with the international dimension of sound hunting. She highlights the double nature of the tape recorder – as an instrument of exchange, and as an instrument of surveillance.[91] For this, she focuses on the 21st edition of the International Amateur Recording Contest (IARC) that was held in Prague in October 1972 and was the first to be organised behind the Iron Curtain.

Bijsterveld focuses in this article on the sound hunting programme *Halali*, that started on the Czechoslovakian Socialist Republic Radio (CSSR) in 1965. *Halali* aimed to "inform its listeners on both the technologies and the art of recording." Using a similar formula as Thévenot, the programme sought to enter in contact with Czechoslovakian sound hunters for collaboration, "since they knew that many amateurs had very good recordings."[92] A club was formed in 1966, the *Český Fonoklub*, and established contact with the *Fédération Internationale des Chasseurs de Son* (FICS) [International Federation of Sound Hunters]. However, it was only three years later that the club received the governmental authorisation that instituted it officially. The *Český Fonoklub* immediately joined the FICS.[93] It was through *Halali*, the radio programme, that six Czechoslovakian participated in 1968 (before, then, the official authorisation of the *Český Fonoklub*) to the second edition of the international rally '*Sur la route de Dijon*' [En route to Dijon], an automotive / sound recording competition organised by Thévenot within the *Fêtes de la Vigne* [Vine Celebrations], a major international folkloric music event happening in Dijon.[94] One of them was a main figure of the *Český Fonoklub*, Milan Haering, and two of them were undercover employees of the Ministry of Interior. The Thévenot's collection brings further details to the memories of Haering collected by Bijsterveld. Thus, there were two cars leaving Czechoslovakia. One of them was directed by Haering, accompanied by Bruno Breyl (from Hodonín) and František Pokony (from Prague). The second one was directed by Jiri Zelenka, accompanied by Ivan Stepan (from Prague) and Milos Haase (from Hradec Králové).[95] As mentioned in the application form, all six were members of the *Český Fonoklub,* that

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[91] Karin Bijsterveld, "Eavesdropping on Europe: The Tape Recorder and East-West Relations Among European Recording Amateurs in the Cold War Era," in *Airy Curtains in the European Ether. Broadcasting and the Cold War*, ed. Alexander Badenoch, Andreas Fickers, Christian Heinrich-Franke (Nomos, 2013), 99-122.

[92] *Ibid*., 116.

[93] *Ibid*., 116-7.

[94] The principle was to several trials to overcome while on the road to Dijon, where the final happened. I will come back on this rally in the third chapter, and in the conclusion.

[95] Rallye "Sur la route de Dijon" de 1968. Liste des équipes inscrites auprès de l'Association Suisse des Chasseurs de Son. Archives JT et CdS, 19910681/13, folder 2ème Rallye International 1968 "Sur la route de Dijon", 1967-1968, sub folder Listes des équipes recrutées par la FFCS et par la ASCS, fiches d'inscription et courrier. It remains unclear who were the undercover agents mentioned by Haering to Bijsterveld.

was therefore infiltrated by the Ministry – which demonstrates the dual nature of the tape recorder: tool of exchange and friendship, and tool of surveillance and oppression. Their participation was in part due to Jaroslav Pour, the Programme director of the OUC channel, for whom the participation to an NGO affiliated to UNESCO was the only way to establish exchanges and travel outside the country.[96] René Monnat arranged a transit through Switzerland in advance and that all six Czechoslovakian sound hunters would be welcomed by Swiss sound hunters. Monnat also arranged an official invitation from the *Fêtes de la Vigne*, a necessary step for them to exit Czechoslovakia.[97] Still, the coming of the Czechoslovakian sound hunters remained uncertain until the last moment ("from the news, there is no longer hope to see the Czechoslovakian, unless they go into exile…"[98]). As part of the rally, each team had to make two recordings from their area of departure: one about a typical music or drink, the other being a message to Burgundy. However, these recordings were confiscated by Soviet authorities at the border.[99] The year after, in 1969, a Czechoslovakian team was again part of the 3rd *Rallye International des Chasseurs de Son* "Sur la route de Dijon." František Pokorny, Milos Haase and Jiri Zelenka, who were part of the 1968 Rally, made a second trip, joined this time by Otto Klimes, from Prague, also a member of the *Český Fonoklub*, and who led the expedition. Milan Haering was registered as substitute. Like in 1968, the sound hunters made a stop in Switzerland where they were welcomed by their Swiss fellows.[100]

Worried by some of his words during his Dijon trip of 1968, Milan Hearing fled the year after with his family to Switzerland, where they were helped by Swiss sound hunters.[101] I will come back in more details on Czechoslovakian sound hunters and their relationship with the FICS in the third chapter, and in the conclusion I will draw on Milan Haering story, that is linked to the story of a French Father who was also a seasoned sound hunter: Father Garnier.

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[96] Letter from Jean Thévenot to René Monnat, 8 October 1967. Archives JT et CdS, 19910681/13, folder 2ème Rallye International 1968 "Sur la route de Dijon", 1967-1968, sub folder Organisation générale et divers (1967-1968).

[97] Letter from René Monnat to Robert Levavasseur, President of the Comité Bourgogne, 4 July 1968. Archives JT et CdS, 19910681/13, folder 2ème Rallye International 1968 "Sur la route de Dijon", 1967-1968, sub folder Organisation générale et divers (1967-1968).

[98] Letter from Monnat to Thévenot, 30 August 1968. Archives JT et CdS, 19910681/13, folder 2ème Rallye International 1968 "Sur la route de Dijon", 1967-1968, sub folder Organisation générale et divers (1967-1968).

[99] Cahier de contrôle des équipes rallye "Sur la route de Dijon", 1968. Archives JT et CdS, 19910681/13, folder 2ème Rallye International 1968 "Sur la route de Dijon," 1967-1968.

[100] Letter from Monnat to Robert Levavasseur, 17 June 1969. Archives JT et CdS, 19910681/13, folder 3ème Rallye International des Chasseurs de Son 1969 "Sur la route de Dijon," 1968-1969, sub folder Courriers, notes et documents concernant la constitution et l'inscription des équipes, sub sub folder Renseignements concernant France, la Belgique, Tchécoslovaquie.

[101] K. Bijsterveld, "Eavesdropping on Europe," 119. The initial contact with Swiss sound hunters made through Monnat probably played a role in his choice of Switzerland.

Other sound hunting clubs were present in Czechoslovakia. They are mentioned in the Thévenot collection a "Group of Bratislava," who participated in the 1970 IARC with a musical recording,[102] and the "Hi-Fi Club of the Park of Culture and Rest in Presow [Prešov]," who were part of the 1971 IARC, also with a musical recording.[103] *Halali*, the sound hunting radio programme, had, at least in 1966, two hours every week, and recordings from Czechoslovakian sound hunters were broadcast. A national contest also existed, with a sound hunting congress attached to it, and to which German sound hunters participated as jury during the second half of the 1960s. But because of the Iron Curtain, Czechoslovakian sound hunters had difficulties meeting their European counterparts. They knew about the sound hunting activities, but as summed up in 1966 by the Doctor Miroslav Štěpáneck, president of the *Český Fonoklub*: "We have difficulties not with the organisation [of a congress of the International Federation of Sound Hunters] but with the cooperation with foreign friends."[104] I will come back in the third chapter about the links between sound hunters across the Iron Curtain, and the role that the International Amateur Recording Contest had. I will bring then additional information to Bijsterveld's article.

Finally, let's add that, following Bijsterveld, Czechoslovakian sound hobbyists also had a tradition of tinkering, but that it was linked to the cheapness and lack of equipment.[105] As I will show, that did not prevent Czechoslovakian to win several awards, including Grand Prix, at the end of the 1960s. Bijsterveld pointed out that their aesthetic was influenced by the political context and the presence of censorship – in which the double nature of the tape recorder and of the recording medium shows through.[106] Hence, spoken words were avoided, in favour of discourses based only on sounds and music, which, as Bijsterveld writes, "probably unwillingly – significantly contributed to the art of making sound collages."[107]

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[102] Classement général du CIMES 1970. Archives JT et CdS, 19910681/27, folder 21ème CIMES – 1970, Genève, sub folder Classement général. The recording was the *Tower Concerto*, which placed 13th of its category.
[103] CIMES 1971, Mons, classement général. Archives JT et CdS, 19910681/27, folder 22ème CIMES – 1971, Mons, sub folder Classement général. The recording was the *A Folk Song from Central Slovakia*, which placed 7th of its category.
[104] Congrès la FICS, séance du matin, 22.10.66, par Pierre Guérin. Archives JT et CdS, 19910681/25, folder 15ème CIMES – 1966, Amsterdam, sub folder Documents préparatoires, compte-rendu du Congrès de la FICS.
[105] *Ibid.*, 118.
[106] Especially considering that the Ministry of Interior had agents within the club.
[107] *Ibid.*, 118.

1.1.3.3. Sound hunting in Switzerland

On Swiss sound hunters, Bruno Spoerri had a look into the Swiss *tonjäger*, and their link with early Swiss *musique concrète*.[108] Through documented examples, he unearths that Swiss sound hobbyists had a practice of *musique concrète* comparable to the one of institutional centres. This practice was notably stimulated by the contests organised by tape manufacturers. Agfa thus had 'The Zurich Golden Tape' competition between 1962 and at least 1968, whose annual themes were incentives to musical experimentations: "Compose music exclusively with the noises of a machining factory floor," or "The sound bodies employed can only be made of glass," or "The time signal of the national Swiss broadcaster Beromünster at 12h30 has to be turned into a sonic editing of a duration of maximum 3 minutes, through manipulation of the tape speed."[109] My work is complementary to Spoerri's, as he highlights people that do not appear in the sources I worked on.

Patricia Jäggi also succinctly studied Swiss sound hunters, in relation to the Swiss radio and sound effects.[110] She approaches them through the idea of *bruitages* as cultural heritage.[111] Initially, and largely, a professional practice to build sound libraries for cinema and radio, the recording of ambiances and the composition of sound libraries was also practiced by amateurs. For Jäggi, because they are traces of an interaction with the environment, and traces of a specific media practice through the recorder and the medium on which the sound was recorded, these *bruitages* collections represents "practices of imagination and of cultural identification with a certain place," that go beyond documentary.[112] Recordings made by amateurs are therefore signs of their presence and represent a kind of immaterial heritage. Jäggi does not foray into sensory studies, but her direction is close to mine, as this thesis propose a perspective on the history of listening through the tape recorder. She notably develops the concept of "media-referential sound," sound or sounds that carry a sense of the media they inscribe on (like the static on radio or the surface noises of a vinyl disc), that I will use in the fifth chapter.[113]

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[108] Bruno Spoerri, "Unsung Heroes: Tonjäger, Techniker, Gerätehersteller und Konstrukteure," in *Music aus dem Nichts: Die Geschichte der elektroakustischen Musik in der Schweiz*, ed. Bruno Spoerri (Chronos Verlag, 2010), 81-92.

[109] *Ibid*., 82-3.

[110] Patricia Jäggi, *Im Rauschen der Schweizer Alpen: Eine auditive Ethnographie zu Klang und Kulturpolitik des internationalen Radios* (Bielefeld: Transcript Verlag, 2020), chapitre 4; Patricia Jäggi, "Sonic Ambiances – 'Bruitage'-Recordings of the Swiss International Radio in the Context of Media Practices and Cultural Heritage," *Ambiances, Tomorrow. Proceedings of the 3rd International Congress on Ambiances, September 2016, Volos, Greece, 2016*, 903–8.

[111] To translate *bruitage* with 'sound effect' does not fully cover the meaning of the French word, as *bruitage* can also be recordings of ambiences or specific objects.

[112] Jäggi, "Sonic Ambiances," 907-8.

[113] Jäggi, *Im Rauschen der Schweizer Alpen*, 166.

1.1.3.4. Sound hunting in the United States

In the United States, David Morton has briefly gazed into the amateurs in the context of a broader study on the uses of the tape recorder.[114] The principal use of the tape recorder at home was the duplication of commercial music recording.[115] For the editors of the American edition of *Tape Recording*, that was a source of disappointment. In the June 1960 issue they noted the difference with Britain, and praised the British clubs and their activities, and the diversity of what British tapists were producing. For the American journalists, radio was the logical partner of tape recording, as the "art form" of tape recording is sound, and radio's "sole product is sound."[116] However, after three years, nothing seemed to have happened on radio waves, and they lamented a "lack of creative effort:"

> "An awful lot of tape recording equipment has been sold in this country and, every year, continues to be sold yet the hard-core hobbyists in the field are relatively few in number (…). In England, for instance, there are three magazines devoted to the subject of tape recording. In this nation, with three times the population there is only one. Others have been started but have not met with much success – Why? (…) In England, there are any number of active face-to-face tape clubs who conduct regular meetings, have guest speakers, put on contests and make tapes. Over here a few such clubs have been tried but for some reason have not succeeded – Why?"[117]

The editors remarked that the situation is identical with camera, while the markets in both sound and image offered affordable and qualitative portable outlets. A similar observation was made by Émile Garin, Secretary General of the Union Mondiale des Voix Françaises [World Union of French Voices] based at Pittsburgh University, in the February 1963 issue of *La Revue du Son*: despite 6 million of tape recorders in the US, he estimates the number of sound hunters to be less than one thousand. Tapespondence was, however, a more common practice, with around 50 000 practitioners. For Garin, tape recorders were only bought as a mode.[118] Morton hypothesizes that the US hobbyists did not take off because "they discovered that sound recording demands more creativity that they were willing to invest."[119] Another reason he gives is that adults could not bear hearing their own voice, to the point that salesmen were instructed to not record customers' voices.[120]

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[114] David Morton, *Off the Record: The Technology and Culture of Sound Recording in America* (New Brunswick, N.J: Rutgers University Press, 2000): chapter 5.

[115] Morton, *Off the Record*, 136.

[116] Mark Mooney, JR & Jean Cover, "Cross Talks," *Tape Recording*, June 1960, 10.

[117] *Ibid*.

[118] Émile Garin, "Le magnétophone aux États-Unis," *La Revue du Son*, February 1963.

[119] Morton, *Off the Record*, 169.

[120] Morton, *Off the Record*, 141.

However, in the July 1963 issue of the British magazine *Amateur Tape Recording*, Walter Gillings, its editor, gave other reasons. First, the vast catalogue of pre-recorded tapes was an invitation to sit back and listen, and its variety covered almost any need, from sleep-learning, to self-hypnosis, to travelogues. Second, there was a thrilling traffic in correspondence tapes, with at least a dozen tapespondence clubs. That last activity was not as developed in Britain, while the catalogue of pre-recorded tapes was poor in comparison, and almost exclusively musical. Therefore, for Gillings, the British environment pushed to be creative and to "the realisation that the tape recorder is a box of tricks especially designed to encourage the exercise of individual ingenuity and industry."[121] Paul Robert, president of the Fédération Française des Chasseurs de Sons (Federation of French Sound Hunters) and regular contributor to Thévenot's programme, gave another reason for the apparent absence of sound hunters in United States: the lack of organisation. There were people, but they were not able to maintain a working group.[122] This lack of organisation led also to a lack of visibility. How the sound hunting community went to be organised in France and Britain, and within the international federation, will be the subject of the second and fourth chapters.

An organisation that had visibility, on the contrary, was the World Tape Pals, an association dedicated to tapesponding. Tapespondence is the principle of sending sound letters, on tape. The idea was not new: just in France, several specific recorders, such as the Pathépost in 1908, and companies, like Phonopostal, founded in 1906, were created at the beginning of the twentieth century to carry sound letter. The biggest tapespondence club, the World Tape Pals, was born in Dallas in 1952, formed by Harry and Marjorie Matthews, who, after sending a voice message to their son fighting in Korea, had the idea to send sound letters to unknown people throughout the world. They then sent 300 sound letters to foreign journals and newspapers and received answers: the World Tape Pals was born. They also published a journal, *Tape Topics*, that claimed 10,000 readers in 1955, while, in 1957, the tapespondence club had 3000 members around the globe.[123] I will come back on tapespondence in the third chapter.

Besides tapespondence and despite the lack of visibility, there were individuals and groups of individuals that were creative with their tape recorders, as studied by media scholar Pascal Massinon. Adopting a counter-culture perspective, Massinon presents an original perspective, with groups and individuals who developed a creative use of sound recording and a political view on listening. He hence studies Tony Schwartz, the World Soundscape Project, the Tape-Beatles, and

[121] Walter Gillings, "15 hours to Doomsday," *Amateur Tape Recording*, July 1963, 3.

[122] *Aux Quatre Vents*, 13 December 1969.

[123] World Tape Pals Inc., answer to the January 1958 questionary of the CIMES, Archives JT et CdS, 19910681/1, folder FICS, Associations, Généralités, sub folder World Tape Pals.

Plagiarism®.[124] Massinon presents the practice of these groups as counterculture in front of mass consumption, users of tape recorders being described as 'active listeners' against the 'passive' ones that only listen to cultural products made by mass consumption organisations. My approach differs from Massinon, as I do not delve into discussions about mass consumption and counterculture, nor do I establish a dialectic between "active" and "passive" listeners (who, following De Certeau, are not passive). I stick to the practice of sound hunters.

The character of Tony Schwartz has been at the centre of two other studies. Schwartz worked in the business of advertising, designing sound for radio and TV commercials, as well as for political campaign.[125] Alongside his work, he spent a lot of time recording the sonic ambience and the people of his Manhattan neighbourhood. He considered this work as a hobby and was also an active tapespondent.[126] He nonetheless won the Prix Italia in 1956, a competition usually reserved to radio professionals .[127] The first study is by Jennifer Stoever-Ackerman.[128] If Bijsterveld highlighted the double nature of the tape recorder, Stoever-Ackerman highlights the relations of power and the social entanglements between the recordist and the recorded, between the listener and the sonic milieu, to investigate what is listened, how it is listened to, but also - on the other hand - what is rejected and silenced. Stoever-Ackerman argues that the archive of Schwartz, because of their size (more than thirty thousand recordings) and their location (most of them done in Schwartz neighbourhood in Manhattan) are a great source to reconstruct the changing life of Manhattan, notably the mutation of its population. The second study on Schwartz is by Tomotaro Kaneko.[129] Building on Schwartz's own description of his work as folklore, Kaneko views Schwartz's activity as part of the folk revival of the 1940s and 1950s and describes Schwartz's mode of listening as a techoustemology. Kaneko links the documentary practice of Schwartz to his work in advertising and shows how the two mutually influenced each other.

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[124] Pascal Massinon, 'Active Listening: The Cultural Politics of Magnetic Recording Technologies in North America, 1945-1993' (PhD diss., University of Michigan, 2016).

[125] Richard Kostelanetz, "Interview with Tony Schwartz, American hörspielmacher," *Perspectives of New Music* 34, no. 1 (1996): 56-64.

[126] Tomotaro Kaneko, "Listening to Sound Patterns: Tony Schwartz's Documentary Recordings," *Aesthetics* 21 (2018): 138-48, 139.

[127] Richard Kostelanetz, "Interview with Tony Schwartz," 56.

[128] Jennifer Stoever-Ackerman, "Splicing the Sonic Colour-Line: Tony Schwartz remixes postwar *Nueva York*," *Social Text* 102, 28, no. 1 (2010): 59-85.

[129] Tomotaro Kaneko, "Listening to Sound Patterns: Tony Schwartz's Documentary Recordings," *Aesthetics* 21 (2018): 138-48.

1.1.3.5. Sound hunting in Japan

In Japan, Tomotaro Kaneko has pioneered the study of the *Namaroku* culture, an equivalent of sound hunting which started in the 1970s using cassette recorders.[130] *Namaroku*, which translates into 'live recording,' was concerned only with the recording of actual sounds, "liberated from music and speech" as defined by Kaneko. As such, this practice displays some differences from European sound hunting. The translation of 'sound hunting' is *rokuhan*. Kaneko shows that the organisation of Japanese sound hunters was very close to the one of their European counterparts: they were structured in associations with a national federation, they edited specialised magazines, they organised contests, they produced radio programmes.

The movement developed from the 1970s but had roots in the preceding decades. Notably, in the beginning of the 1950s, a popular satirical comic called 'Sound Sniper' was published in newspaper. Its main character, Densuke, was a journalist interviewing people with a portable tape recorder. Because of the popularity of this character, Tokyo Tsushin Kogyou [Tokyo Telecommunications Engineering Corporation] – the future Sony – nicknamed their tape Recorder Type-G released in 1950, 'Densuke.' And during the *Namaroku* boom, Sony released another Densuke recorder, this time a cassette one, the TC-2850SD.[131] The price tag was still high, close to the average monthly salary of a new employee, which, for Kaneko, aimed it at single individual rather than families.[132] In the 1960s, *Musen to Jikken*, a magazine dedicated to technology organised yearly contests supported by an association of sound hunters, the Tape Recorder Kenkyukai [Society for Tape Recorder Research]. The first contest was organised in 1962. On their side, tape recorder manufacturers organised concerts where sound hobbyists were invited to bring their recorder to tape the concert.[133] Kaneko traces the boom of *Namaroku* partly to a popular book published in 1971 by Jun Okada, who described the recording of sound effects, birds, and other on-location sounds. This was a novelty, as previous books focused on the recording of music or speech. This publication launched a series of similar written works. The popularisation of stereo high-fidelity – with its emphasis on listening – was another factor that stimulate *Namaroku*, as was the release of affordable cassette recorders. Contests were popular, for instance, the *Sony Zen Nihon Namaroku Contest* [Sony All

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[130] Tomotaro Kaneko, "*Namaroku* Culture in 1970s Japan: The Techniques and Joy of Sound Recording," *Kallista, Association for Aesthetic and Art Theory*, 23 (2016): 84-107. The English translation of this article has recently been published: Tomotaro Kaneko, "*Namaroku* Culture in 1970s Japan: The Techniques and Joy of Sound Recording," *Aesthetics* 23-24 (2021): 60-75.

[131] T. Kaneko, "*Namaroku* Culture in 1970s Japan," 64.

[132] *Ibid*., 69.

[133] *Ibid*., 65. The picture used by Kaneko of a recording concert in 1976 is impressive, with the first ranks of a concert hall replaced by tables with dozens of people with their reel-to-reel tape recorders. Nearly all the recordists visible have a main-powered desk recorder, not a portable battery-powered one.

Japan *Namaroku* Contest] attracted 1147 entries in 1976.[134] Japanese sound hobbyists gathered themselves in multiple clubs throughout the country, that were unified under the Federation of All Japan Amateur Recording Association, which, according to Kaneko, joined the Fédération Internationale des Chasseurs de Son [International Federation of Sound Hunters] in 1976.[135] The Thévenot collection gives another date for this event, thirteen years before: 1963, at the 7th Congress of the FICS in Liège, when the 'Nippon Soundhunter's Club,' represented by Mrs. Nishioka Kazuko, from Kobe, was admitted.[136] This association is also mentioned in the papers related to the International Amateur Recording Contest of the following year, 1964.[137] More than a contradiction, this shows that, indeed, *Namaroku* emerged, as mentioned by Kaneko, from an existing substrate. And it shows that a trans-continental sound hunting network existed in the 1960s (I will show in the third chapter that URSS and China also participated in the IARC in the first years of the 1960s).

In a similar fashion to their European counterparts, articles in the Japanese sound hunting magazines went in great details to describe and teach how a good recording should be made. A remarkable emphasis was put on conceptualising sounds within space and on how to perfect stereophonic recordings. Highlighted was also the necessary awareness of the sonic scene, in order to isolate what one wanted to record from the other sounds, and microphones' arrangements were made with great care.[138] Because of the equipment used, cassette recorders, *Namaroku* magazines focused on the recording of sounds and rarely dwelt on editing, as the practice was not rendered easy by the cassette format (another consequence of this was that articles about *musique concrète* were nearly absent of these magazines).[139] Besides this, what I will describe in the fourth chapter is very close to what Kaneko describes of the *Namaroku* magazines and books. This suggests a global acoustemology of sound hunting.

The *Namaroku* boom slowed down at the end of the 1970s, and its major publication, *Rokuhan*, stopped in 1979. That same year, *Sony Namaroku Jockey*, the dedicated radio programme on which recordings of Japanese sound hunters were broadcast since 1976, also came to an end.[140] However, in a similar fashion to what I will describe in the conclusion concerning sound hunting in Britain and France, it was more a mutation than a disappearance. Kaneko describes a shift toward electronic

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[134] *Ibid.*, 66.
[135] *Ibid.*, 66.
[136] Procès-verbal du 7ème Congrès annuel de la FICS, Liège, Palais des Congrès, 26 octobre 1963. Archives JT et CdS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 7ème Congrès de la FICS, Liège 1963.
[137] Règlement du CIMES 1964. Archives JT et CdS, 19910681/24, folder 13ème CIMES – 1964, Lausanne, sub folder Établissement du règlement et diffusion.
[138] T. Kaneko, "*Namaroku* Culture in 1970s Japan," 70-4.
[139] *Ibid.*, 64.
[140] *Ibid.*, 66.

sounds and toward a practice that relied more on editings to compose plays and dramas. Thus, two years before it ceased publication, *Rokuhan* changed its subtitle from *Namaroku Adventure* to *Sound Creator Magazine*.[141] For Kaneko, the practice also faced fierce competition from video cameras for the documentation of everyday life and from synthesizers for electronic music.[142] In 1982, it was the Japanese Association of DX-ers, based in Tokyo, that appears as member of the FICS.[143]

Kaneko shows that the questions at the heart of *Namaroku* were remarkably close to the ones discussed by French and British sound hunters. Hence, Makoto Fujioka wrote in 1975, "The heart of sound recording is what you might call epistemology, a question of how we can understand sounds."[144] That posture is remarkably close to the concept of acoustemology I described earlier. It shows that, in Japan as in Europe, sound hobbyists had a reflexive look on their practice (I will continue exploring this in the fourth chapter).

Besides Kaneko, the scholar Martyn David Smith has recently studied *Namaroku*.[145] Smith links the rise of *Namaroku* to the rise of consumer culture and popular mass media. The "mediascape" emphasised individualism, mobility and experimentation, which were also the values of *Namaroku*, and this helped to fashion sound and listening practices as commodities.[146] Smith notes that tape recorders were expensive equipment until the early 1960s, comparatively more than in Europe: this prevented the rise a sound hobbyism practice. Smith writes that 60% of the production of tape recorders was exported.[147] The mediascape that Smith describes is notably embodied by two publications, *Heibon Punch*, a man lifestyle magazine, arguably the first of its kind to be published in Japan from 1964, and *Playboy*, which started to be published in Japan the year after. In these magazines, sound recording, and high-fidelity equipment was regularly featured alongside naked women, fashion and celebrities, "as a supplement to the increasingly individuated, adventurous, and creative lifestyles on offer."[148] Thus, the "mediatic ambience" was aligned with "meanings, symbols, images, and discourses already familiar to the target audience." Through this, Smith argues, "sound itself was an object of consumption that necessitated a mode of listening based on creativity, individualism, and mobility."[149] Exemplary of this was the 'Discover Japan' advertisement

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[141] *Ibid*., 66.
[142] *Ibid*., 70.
[143] 'Organisations membres de la FICS, Janvier 1982.' UNESCO Archives, Paris, FR PUNES AG 8-SEC-ERC-ONG.1-211.3. The name "DX-ers" is clearly radio amateur oriented (DX is the code for long-distance contacts).
[144] Cited by T. Kaneko, "*Namaroku* Culture in 1970s Japan," 62.
[145] Martyn David Smith, "Sound hunting in postwar Japan: recording technology, aurality, mobility, and consumerism," *Sound Studies* 7, no. 1 (2021): 64-82.
[146] *Ibid*., 66.
[147] *Ibid*., 68.
[148] *Ibid*., 69-70.
[149] *Ibid*., 79.

campaign organised by Japanese National Railways in the 1970s. The massively deployed campaign enjoined Japanese sound hobbyists to go out and explore their country through images and sounds. Smith argues that a generation gap also favoured *Namaroku*, which he describes as a hobby practiced by urban young people that were raised in urban surroundings, contrary to the previous generation which came to town from the countryside, attracted by the economic boom of the 1960s. With increasing incomes, the younger generation had more interest in consumption, and more and more aspect of everyday life became commodified. The *Namaroku* boom was part of that movement and commodified sound. Indeed, Smith notes, a magazine like *Rokuhan* "made clear [that] it was first and foremost about the consumption of equipment, and, through that, the increasing commodification of the Japanese soundscape."[150] If present, such a commodification of sound and listening did not appear as a much developed feature in French and British sound hunting.

For Smith, the demise of *Namaroku* was linked to societal changes and to a different consumerism related to a neo-liberal listener who "take[s] control over the soundscape and determine[s] what and when to hear certain sounds." That changing relationship with the sonic milieu was embodied by the release of the Walkman in 1979.[151] However, again, more than a demise, it was rather a mutation, indicated by the transformation of *Rokuhan* into *Sound Creator* in 1979.[152] Smith notes that this transformation brought back sound hobbyism indoors, a major shift in comparison with the mobility and adventures that were praised in the 1970s.[153] I will show that a similar shift happened with European sound hunting, and that this shift was paralleled by the development of private sound recording studios. This happened from the end of the 1960s in France and Britain, and in the 1980s in Japan. Subsequent studies are needed to investigate to what extent the situation was similar in Japan with home studios.

Taking the work of Kaneko and Smith together, their conclusions about the practice of sound hunting are remarkably close to Bijsterveld's and mine. Differences point in the social conditions between sound hunting in Europe and *Namaroku*, but the core of the practice was very similar. This proximity argues for a global acoustemology shared by sound hunters whatever their origin. In a way, this is not surprising, as the number of possible attitudes to sound, and of possible conceptions of the sound recorder, is finite: as a tool of documentation (of events, of people, of wildlife, of personal life), as a tool for imagination (creative listening, *musique concrète*, electronic music, plays), as a tinkering object (the building and modification of tape recorders), as a tool of exchange

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[150] *Ibid*., 72-4. Quote on 73-4.
[151] *Ibid*., 80.
[152] There is here an uncertainty: Kaneko, as we have seen, indicates *Sound Creator* as the new subtitle of *Rohukan* in 1977, with the magazine ceasing publication in 1979. Smith makes *Sound Creator* the new name starting 1979, indicating that the magazine continued post 1979.
[153] M. D. Smith, 'Sound hunting in postwar Japan,' 80.

(tapespondence). The ambivalent nature of the sound recorder highlighted by Bijsterveld and Stoever-Ackerman is possible within each of these attitudes.

In Japan also, the hunting analogy was direct. Smith describes the first cover of *Rokuhan* that enjoined readers to "point your microphone at your prey," while the second one exhibited a scuba diver pointing his microphone at a stingray. Nature and its sounds were an important theme, but roaring motors were also. Sound hunting was pictured as an exploration of the world and a call to adventures, and *Rokuhan* regularly featured what should be the perfect sound hunter panoply, divided into three categories depending on the equipment, accessories, and clothing (from "light class" to "heavy class").[154] All this is comparable to the situation in Europe. As I will show in the second and fourth chapters, covers of specialised magazines were a privileged site for the staging of sound hunting. For Smith "the listening practices at the core of *Namaroku* went beyond the perception and recording of a sound to incorporate an understanding of the act of recording as creation."[155] Here again, this is remarkably close to what I will describe of sound hunting in Britain and France in the fifth chapter, where I will explore the notion of 'creative listening.'

The literature reviewed so far has focussed on the practice and social impact of sound hunting, and other aspects are lacking, namely its material culture, its origins, its aesthetics, and its sensory aspect. The objective of this thesis is to cover these missing points: to start from the objects 'tape recorder' and 'tape', to detail and follow the formation of a sound hunting sonic culture, and to reflect on its meaning. Moreover, I focus on France, Britain, and on the FICS elements that are not documented at the moment.[156] A constant is that these authors present sound recording as a hobby which appeared in the 1950s, and argue that this apparition is linked to the commercial availability of the tape recorder, notably the battery-powered portable ones. They also argue that it was a global movement through Western Europe, the United States, and Japan. I will however nuance the view that sound hunting appeared with the tape recorder. The second chapter will show that this practice had a strong basis already, with sound hobbyists recording with wire recorders, disc-cutters, and cylinders. I will argue that the affordances of the tape recorder allowed the practice of sound hunting to reach a new scale.

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[154] *Ibid*., 74-5.

[155] *Ibid*., 78.

[156] For an introduction to sound hunting in Britain, see my paper: "Hunting Sounds: The Development of Sound Recording Hobbyist Culture in Britain in the 1950s and 1960s," *Unlikely, Journal for Creative Arts* 6 (2020): https://unlikely.net.au/issue-06/hunting-sounds

1.2. To hunt sounds

1.2.1. Sources, or amateurs and the challenge of finding sources

One of the challenges of working on amateurs is the scarcity of sources, testimonies, artifacts, recordings. Private individuals don't necessarily keep an archive of their work, especially when it is a hobby, an activity that can change through time. Moreover, sound technologies have considerably changed through the twentieth century. During the period that forms the main part of this thesis, people used disc-cutters, wire recorders, tape recorders, and cassette. But the main change occurred later, with the digitalisation of sound technologies. It is not so much the fact that decades have passed, but the fact that the technology has completely changed. To readapt all the material to the medium of the day demands time and, most of the time, the buying of other pieces of equipment (a sound card, specific cables, for example). And the original equipment needs to be still present and in working order to read the material. Yet, with the size, weight and bulkiness of disc-cutters and tape recorders, and the space required to store tapes (which take much more space than thin flat discs), people are inclined to get rid of them when they stop using them. For the same reasons pertaining to size and non-working equipment, material might also have been disposed of by the heirs of the original recordist when this one died. All these reasons explain that the available audio material is limited. In her study of Dutch sound hunters, Karin Bijsterveld was hence not able to rely on them.[157] If the equipment and/or a collection of tapes is preserved, the conditions of preservation were and are rarely perfect, exposing the equipment and tapes to corrosion, mould, fungus, rodents and insects, as many factors that impact the possibility of retrieving them. And a final obstacle can alter audio material when this one has survived: a non-informed manipulation and cleaning with the use of products that will damage the medium. Depending on the brand and type of magnetic tape, the ageing can have devastating effects.[158]

In the case of clubs, the problem also exists. Because it is a collective, what happens with its archives when it closes? And what happens to this archive when the closure happened decades ago, and when it concerned a hobby, something that could be seen as a trivial occupation, therefore with a material of little interest, recorded on an outdated medium? Some archives, like the Brighton Tape Recording Club one, were kept by long-term members, who intend to give it to the British Library or to local archives. But others were discarded at car boot sales, like the Derby Tape Recording

[157] K. Bijsterveld, "What Do I Do With My Tape Recorder," 615.

[158] The Indiana University Bloomington Media Digitization and Preservation Initiative has written several blog post on the challenges of tape preservation. Notably: https://blogs.iu.edu/mdpi/2017/11/14/where-the-wild-things-are-audio-oddities-at-iu-part-1-tapes/comment-page-1/#comment-29, and : https://blogs.iu.edu/mdpi/2017/09/21/where-do-you-belong-challenges-in-sorting-open-reel-audio-tapes-part-one/ (accessed 20/06/2022).

Club.[159] And probably, a majority has been thrown away, or still sleeps in an attic or a basement. Thus, despite the 145 clubs that existed in Britain in the 1960s, only a handful of club archives are accessible nowadays.

In the light of this, the collection of oral histories is necessary. For this project, for Britain, I have interviewed several former sound hunters of the clubs of Cardiff and Brighton, and of Radio Cherwell. For France, I have interviewed former members of the AFDERS, and members of Sonatura. For Switzerland, I have interviewed the former President of the Swiss Sound Hunters. For the international aspect of sound hunting, I have interviewed the former General Secretary of the *Fédération Internationale des Chasseurs de Son*.

Traditional scholarly approaches often fail to grasp the significance and history of the amateurs, and of the more experimental genre that has flourished through music technology. One has to look outside academia, as pointed by Benjamin Piekut:

> "Taking shape between popular music studies long concerned with musical consumption and a historical musicology devoted to the great works, these innovative post-war musics have fallen between the cracks of scholarly discourse. Our colleagues in music curation have put us to shame in their support and understanding of this field, which has flourished under the direction of concert presenters such as Blank Forms (NYC), Issue Project Room (NYC), Tectonics (various sites), Roulette (NYC), Café Oto (London), The London Contemporary Festival, Other Minds (San Francisco), la Sala Rosa (Montréal), and the wulf (Los Angeles), as well as record labels such as Die Schachtel, Unseen Worlds, Touch, Sublime Frequencies, Sub Rosa, and Important Records, many of which are performing the archival projects that musicology would usually contribute to. And there's a rich lineage of critical discourse too in journals such as *Bells, Microphone, Musics, Impetus, Atem, Collusion, Ear, The Improvisor, ReR Quarterly, The Wire, Resonance, Rubberneck, Signal to Noise, Opprobium, Improvised Music from Japan, Audion, the Bull Tongue Review*."[160]

The same applies for hobbies, whose history are often made from the inside by hobbyists themselves and rarely share outside their circles, magazines and internet forums. Thus, the most precise history to date on British tape recorders has been written and auto-edited by the collector and local historian, Barry M. Jones, who has also compiled with first-hand material the history of the Brenell and Truvox companies.[161] Similarly, the most detailed history of the Ferrograph company and its recorders has been written by Terry Martini.[162] On the sound artists themselves, including some

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[159] Part of this archive has been saved and digitised by the sound artist Mark Vernon, who bought it at this car-boot sale. See http://meagreresource.com/other-projects/tape-recording-clubs/ (accessed 29/06/2022).

[160] Benjamin Piekut, "Post-War Music and Sound," *Twentieth-Century Music* 14, no. 3 (2018): 439-442, 442.

[161] Barry M. Jones, *A Guide to British Tape Recorders* (Beckley: Barry M. Jones, 2016 [2005]); *Brenell. True to Life Performance. The histories of Brenell and Soundcraft Magnetics* (Beckley: Barry M. Jones, 2016 [2004]); *A Truvox Product. From paper disc to hard disc, the story of Truvox and Thermionic Products* (Beckley: Barry M. Jones, 2016 [2006]).

[162] Terry Martini, *Built Like a Battleship! A History of the Ferrograph Company* (Sandy, UT: Aardvark Global Publishing, 2008).

sound hunters, Ian Helliwell has written a precious volume.[163] Concerning the sonic aspect, here again, the most informed ones are specialised labels and sound artists. Recently, the *Institut for Dansk Lydarkaeologi* has released a disc with recordings made by Danish sound hunters,[164] Trunk Records has recently published a remarkable collection of works produced at school,[165] while the sound artist Mark Vernon has digitised part of the archives from different English tape recording clubs that he recovered in a car-boot sale.[166]

To interview practitioners, to produce oral history, is therefore mandatory. In this work, I have approached sound hobbyists from Britain, France, and Switzerland to gather first-hand material, notably sonic. Periodicals are another source of information. They were an essential relay to publicise the activities of sound hunters and tape recording clubs. Magazines told the stories of clubs and their members, shared information. I will show in the second and fourth chapters that readers were part of the community through them, that they developed a narrative and worked to establish of a collective personality. Periodicals, both in France and Britain, are the principal source of information on all the clubs that existed.

The aesthetical analysis is similarly rendered difficult by the fact that few original recordings are accessible – if they have survived, as I mentioned. Indeed, despite the fact that Thévenot's programme is archived, most of the time, as I will explore in the third and fifth chapter, the recordings that he broadcast were edited: due to this, only extracts from these recordings have been saved and are accessible. Conclusions on how the complete pieces sounded, how the recordists worked and composed their recordings and editing, are thus sensitive.

1.2.2. The Thévenot collection

The Thévenot collection is a remarkable ensemble. As already mentioned, the character of Jean Thévenot (1916-1983) will appear throughout this work. He kept almost everything that was related to sound hunting, most probably because, as I will analyse in the fourth chapter, he wanted to build an archive of amateurs' sound recording and establish the character of the amateur sound recordist – as there are amateur musicians. Because of his involvement in this pursuit, his archives hold a central place in this thesis. Relying that much on an archive coming from a single person necessarily brings the possibility of bias. This will also be analysed in the fourth chapter, but for now it is worth bearing in mind that the centrality of Thévenot's figure means that the collection became scarce as

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[163] Ian Helliwell, *Tape Leaders: A Compendium of Early British Electronic Music Composers* (Chislehurst: Velocity Press, 2021 [2016]).

[164] Institut for Dansk Lydarkaeologi, *Danske Bandamatorer / Danish Tape Amateurs, 1959-1976* (IDL05, 2018).

[165] *Classroom Projects. Incredible Music Made by Children in Schools*, Trunk Records JBH049CD/LP, 2013.

[166] http://meagreresource.com/other-projects/tape-recording-clubs/ (consulted 18/07/2019).

soon as his involvement dropped. The best example is the International Amateur Recording Contest, IARC, that I will analyse in the third chapter. Following quarrels with the *Fédération Internationale des Chasseurs de Sons*, FICS [International Federation of Sound Hunters[167]], Thévenot drastically reduced his contribution to the organisation of the IARC, which impacted the number of papers and documents he collected concerning the contest. While the editions of the 1950s are very precisely documented in his papers, the level of information radically declines for the editions that occurred at the end of the 1960s, and the editions of the 1970s and 1980s (Thévenot died in 1983) are nearly not documented.

The Thévenot collection is stored at the Archives Nationales, site of Pierrefitte-sur-Seine. It is composed of papers. The audio recording of the majority of his programme dedicated to sound hunting has been preserved by Radio France and is available at the Institut National de l'Audiovisuel at the Bibliothèque Nationale de France (Inathèque). A comprehensive look at both these archives allows us to build a detailed picture of the origins and development of French sound hunting, and of the birth of an international sound hunting network.

Concerning the AN archives, they are divided in five collections. They cover a period from 1939 until his death in 1983, under the numbers 19910681, 19910682, 19930510, 19940737 and 19970331. They are comprised of standardised DIMAB boxes (40x31x28 cm), each containing several folders, each folder containing several sub folders.

The collection 19910681 is the most important, its thirty five boxes covering a period from 1947 to 1986. It is entirely dedicated to sound hunting. Presents are preparation notes and flat plans of the programmes, radio sheets describing the content and timing of the shows – especially for the first years –, internal reports, correspondences with sound hunters, press cuttings. Also present are documents related to the different sound hunting associations and contests, national and international, that Thévenot organised or was part of: preparation documents, status, internal reports, correspondence, and notation sheets. Internal reports and correspondences with the direction of French Radio are also part of the collection. The majority of these documents are typed or roneotyped, a few are hand-written. Given the quantity and consistency throughout the years, it looks like Thévenot kept almost everything related to his sound hunting activity. The collection goes until 1986, three years after Thévenot's death. These three years have papers (in much less important quantity) from Dominique Calace de Ferluc and Paul Robert, who took over the programme.

The collection 19970331 is composed of two boxes and holds the oldest documents, covering the period 1940-1947, that is to say the work of Thévenot for French Radio during the War and just after. Inside are the radiophonic theatre adaptations of various tales, notably from Hans Christian

[167] More on this in the third chapter also.

Andersen, which Thévenot wrote and that were broadcast within the Club d'Essai and press documents used to prepare different programmes. The letters, internal reports, and notes dating from the War, which document his radio activities and troubles during the Occupation, are also of interest.

The collection 19940737 is composed of archival material collected from France Culture and a number of its producers. It has ten boxes dedicated to Jean Thévenot under the references 19940737/49-59. The archive also holds materials collected by Paul Robert and Dominique Calace de Ferluc, his collaborators and successors. The content is similar to the 19910681 collection and mainly covers the last ten years of his life. It also covers the few years following his death, allowing to study how the programme evolved after his disappearance.

The last two collections are composed of audio items. The collection 19930510/1-8 is composed of the eight cassettes *Chasseurs de son* compiled by the teacher and sound hunter Pierre Guérin through his teaching activities and work with the *Institut Coopératif de l'École Moderne* [Modern School Cooperative Institute] (more on this in the third chapter). The collection 19910682/1 is composed of one 45rpm vinyl edited for the International Amateur Recording Contest of 1973 (held in Paris between the 26th and 29th October) in memory of René Monnat (a major figure for sound hunting, as I will explain in the third chapter) who passed away earlier that year.

The main collection, the reference 19910681, was collected from Radio France in 1991, 8 years after Thévenot's death. At that time, it was stored in a warehouse rented by Radio France in the north of Paris.[168] The folders and sub folders were partly classified by Thévenot himself, as his writing is present on some of the material to describe the content. The rest was classified by the AN. The second main collection, reference 19940737, was collected directly from France Culture following a demand from the Archives Nationales to preserve its archive. The collection reference 19970331, has a different story, as it was found in a storage room in the Maison de la Radio in 1995.[169] Here again, the material is partly described by Thévenot on the folders and sub folders. The coherence and absence of gaps within these three collections allow us to think that they were intact when retrieved.

The radio programmes that Thévenot produced and presented are preserved by the INA at the Bibliothèque National de France (BNF) in Paris. Part of them have been digitised and are accessible

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[168] Gilles Marchandou, *Culture ; Radio France (1947-1986), Répertoire (19910681/1 – 19910681/35)* (Pierrefitte-sur-Seine: Archives Nationales, 1991), 6.

[169] 5 boxes were found in the storage room of the former Iconothèque [Picture Library] de Radio France, at the 8th floor of the Maison de la Radio, on the 5th of November 1995. Gilles Marchandou, *Culture ; Radio France (1939-1958), Répertoire (19970331/1 – 19970331/2)* (Pierrefitte-sur-Seine: Archives Nationales, 1997), 3.

at the Inathèque, though only on site. If the first year, 1948, has been digitised, there's then a fourteen-year gap where it is unclear if the material has disappeared, which seems to be the case for the years 1949, 1950, 1959 and 1960, or if it has not yet been digitised, as metadata exists for the years 1952 or 1955 for example, with sometimes a description of the support, disc or tape. Still, almost none of the shows are accessible until 1962. From then on, all the programmes are present and accessible until 1988, where there's again a gap until 1995. Concerning the preservation support, the archiving was first done on disc (flexi disc 78 rpm, 30 cm), then from 1951 to 1954 on disc or tape (quarter inch, 38cm/s), and then only on tape until 1995, where the programme began being preserved on cd.

Strangely, despite the number of different programmes that Thévenot produced, for both radio and television, everything that is preserved at the AN is about sound hunting and, to my knowledge, only one other public collection from Thévenot seems to exist, located in Toulouse, at the Cinémathèque de Toulouse under the reference F23. It covers his work on film directors, actors, and variety artists, for both radio and television, and contains notes, drafts of programmes and interviews, and correspondences linked to these specific programmes on cinema.

Some elements could explain why these collections were retrieved only years after Thévenot's disappearance, why this is the only found collection of Thévenot (besides the one at the Cinémathèque de Toulouse), and therefore why sound hunters have such a place in what is left from Thévenot. Thévenot's death was sudden, a heart-attack on the 15th of July 1983, and since 1968 his sound hunting programme was the only activity he maintained. As he was still working on it, it could be hypothesised that he kept all his archive at the radio, while as he stopped his other radio and television activities, he removed the corresponding archives.

Be that as it may, due to the consistency and precision which characterised Thévenot's archiving efforts until the beginning of the 1960s, the collection represents possibly the most important source for, for both the knowledge of the organisation of French sound hunters, and for the international organisations of sound hunting.

2. MATERIAL CULTURE OF SOUND HUNTING

This chapter is concerned with the materialities of amateur sound recording. At the forefront is an analysis of the objects that sound hobbyists used to capture sound. This is a necessary step to answer the following questions: was sound hunting practiced before the advent of the tape recorder? Did the advent of the tape recorder impact the practice? To what extent were sound hobbyists connected to the broader field of sound recording?

This chapter, therefore, studies the history of sound hunting before tape recorders and analyses the material qualities of a range of technologies for recording sound such as cylinders phonograph, disc-cutters, sound-on-film recorders, and wire recorders. It is to be expected that the practices of recording sound as developed using these technologies, influenced later practices which evolved together with the tape recorder. But, as shall be argued, the social practices around sound recording that I will describe in the next chapter only appeared with the tape recorder – that is, more than fifty years after the birth of sound recording.

Indeed, the culture of sound hunting – as detailed in the following chapters –, did not develop on a large scale until the 1950s. My claim is that this was, in part, due to the affordances of sound recorders. That is, the attributes allowing an interaction between recorders and their users,[1] what was allowed and how, and what was not allowed or easily possible. This requires looking closely to how recorders operated, their mechanisms to capture sounds and the possibilities they allowed for its storage and manipulation. As explained in the introduction, finding sources concerning amateurs is always challenging, and becomes even more so when one goes back far. Therefore, the examples of use that I will present in this chapter will not be limited to Britain and France, the two countries on which that thesis focuses. They will come in majority from there, but as the aim is to document practices that sound hobbyists had, I will also pick examples from Egypt, and the United States. The aim is to show that, at least in Western countries, people had sound recorders at home, and they were using them in all kinds of situations. And they did that far before tape recorders: they recorded on wire, they cut discs, they cut cylinders.

A constant will appear through the chapter: tinkering was an integral part of sound hobbyists' practice since the commercialisation of the first recorders. Aware of the limitations of their equipment, people modified their sound recorders, upgraded them, and hand-built them. By attending to the ways in which hobbyists modified their equipment, it is possible to make inferences about hobbyists' listening experiences – since many modifications would have been made in response to perceived, audible imperfections. As I will show, on many occasions, they stated themselves what these imperfections were: limited dynamic, lack of sensitivity, reduced bandwidth, for instance.

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[1] William W. Gaver, "Technology Affordances," in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems Reaching through Technology - CHI '91* (the SIGCHI conference, New Orleans, Louisiana, United States: ACM Press, 1991): 79–84.

The concept of spectrum of affordances, developed by musicologist James Mooney helps to understand the technicity of the usage of each recorder.[2] Each technology of recorder – the phonograph cylinder, the disc-cutter, the wire recorder, the tape recorder – can be considered as a "framework" that more or less easily allows a number of actions, or affordances. As Mooney does, these can be sorted along a scale from easy to do to impossible to do, drawing a spectrum of affordances.[3] The tinkering of sound hobbyists which my thesis focuses on, intended to bring more affordances toward the 'easily doable' end of that scale. This conception will be useful to put the affordances of each recorder in a temporal perspective and for introducing the socialities that developed specifically around the tape recorder (and not around the previous sound recording technologies) and which will be studied in the following chapter.

[2] James Mooney, "Frameworks and Affordances: Understanding the Tools of Music-Making," *Journal of Music, Technology and Education* 3, no. 2 (April 2011): 141–54.
[3] *Ibid*., 145-6.

2.1. Sound hunting before tape recorders

2.1.1. The use of cylinders by amateurs

Jean Thévenot started his radio programme in 1948 and quickly organised the conditions of a network of sound hunting (this will be detailed in the second and fourth chapter). To achieve this, one of his objectives was to foster the practice of sound recording. To do so, he mainly focused on the current activity of sound hobbyists, on recent recordings. However, notably in the beginning of the show, Thévenot also produced several programmes that were dedicated to recordings made in the past decades and went as far as the end of the nineteenth century. Hence, the oldest recording that he broadcast was from 1891, a cylinder cut by Gustave Eiffel, with the phonograph that Thomas Edison himself gave him in 1889. On it, one can hear the architect speaking directly to the phonograph, as it was a person: "You will repeat to these people not to forget to come for a cup of tea on the 9th of February. You will repeat that, won't you? All the more so as these recorded words will serve as a recollection for today's reception."[4]. This recording exemplifies the novelty that sound recording had, and the surprise and amusement that people felt when hearing their own recorded voices. This amusement is clearly audible in the joyful tone of Eiffel as he was recording himself, and the whole recording was part of a humorous moment shared between him and his guests. At the end of his recording, Eiffel added, as a sonic signature, the date of the party he organised, "4 February 1891, this cylinder will be kept preciously." That practice of 'signing' the recording was a common feature of such private recordings. As with the tape recorder decades later, people played with the machine, recording anything and everything during 'phonograph parties.' Mostly voices and music are preserved of these social events organised around the talking machine. Indeed, as its name implied, the game was to make the machine talk. On another cylinder, Eiffel made his friend record their thoughts.[5] A similar practice is attested in Britain, as showed by Simon Heighs. People talked to their phonograph, confiding memories to it. They also made numerous 'home recordings' of music (instrumental, vocal, songs).[6] However, most of the recordings that have survived are musical recordings.[7]

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[4] *On grave à domicile*, 19 mars 1948.

[5] *Ibid*.

[6] Simon Heighs, "Scratch and sniff: the unsung pioneers of 'home' recording," *Interpreting early recordings: critical and contextual perspectives*, econference, 6 January 2022, University of Glasgow. The talk, as well as the conference, is available online: https://www.youtube.com/watch?v=l99iCS99bzw (accessed 02/02/2022).

[7] See the Phonobase, which lists and makes available 281 recordings made by amateurs (on a total, to this day, of 6129 cylinders): https://www.phonobase.org (accessed 24/07/2022).

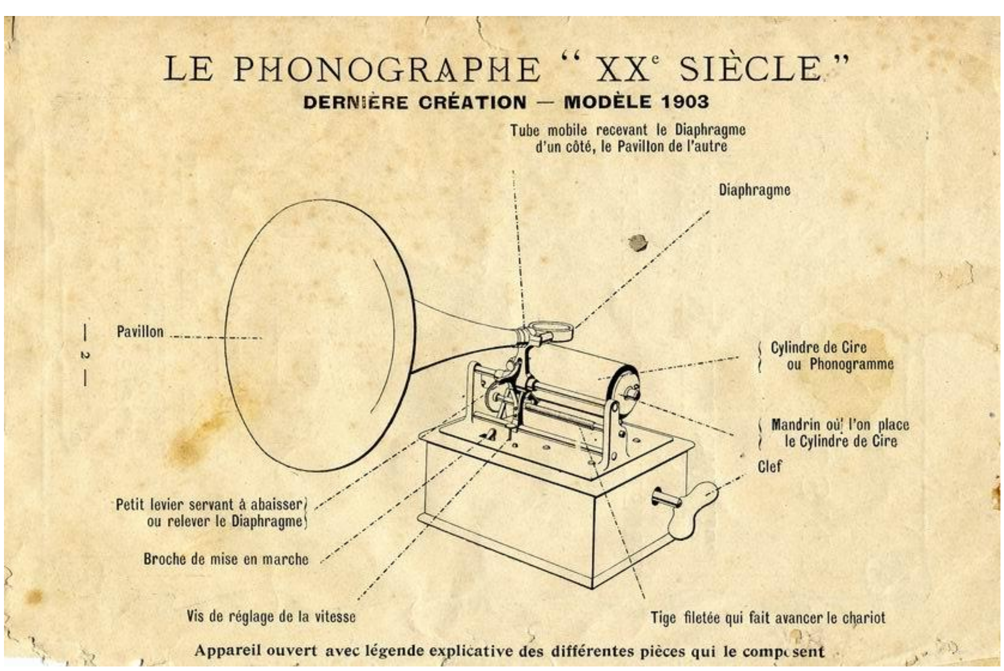

Figure 1: A typical phonograph. The diaphragm can either a recording one, or a reproduction one. *Instructions pour se servir du phonographe XXème siècle* (Paris: J. Girard & Co., 1903), 2.

To approach the user experience of sound recording with a phonograph, it is useful to describe the different pieces and operations of a typical cylinder recorder. Another important reason for this is that most of this can be directly transposed to the disc-cutter, whose functioning is nearly identical. The main evolution would appear with the electrification of recording, which occurred in the 1920s.

The same phonograph served both to record and read cylinders. A typical one is presented in figure 1. Phonographs were sold at prices ranging from cheap and accessible for the majority of purses, to expensive models with decorated wood, sophisticated sound boxes and massive horns.[8] The centre piece was a diaphragm that was set within an enclosure called a 'sound box' (*Diaphragme* in figure 1). To receive and transmit sound waves efficiently, the diaphragm needed to be able to vibrate as much in low than in high frequencies to record and reproduce voice and instruments, needed to have a low inertia so as not to add parasitic frequencies, and needed to be robust in order to last through time without deformation and deterioration. Different materials were used for the diaphragm: copper, aluminium, zinc, glass, paper, silk, wood, mica. Ultimately, mainly mica and metal were used.[9] On one side, this sound box was plugged into a small tube (*Tube mobile recevant le Diaphragme d'un côté, le Pavillon de l'autre* in figure 1) which linked with the horn (*Pavillon* in

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[8] Horace Hurm, *La passionnante histoire du phonographe, suivie de la première méthode pour en jouer avec art* (Paris: Les Publications Techniques, 1943), 36, 56.

[9] Pierre Hémardinquer, *Le phonographe et ses merveilleux progrès* (Paris: Masson, 1930), chapter four.

figure 1). This way, both the sound box and the horn could easily be replaced. On the other side of the sound box, a stylus was attached to read or cut the cylinder. The transmission of sound waves from the diaphragm to the stylus (or from the stylus to the diaphragm) was made through a thin metal piece that linked the centre of the diaphragm to the base in which the stylus was screwed. Most sound boxes used a one leg stylus-to-diaphragm piece, but other brands, like Bettini, developed 'spiders' with four or more legs, with a benefit in the bandwidth and frequency response of the diaphragm[10] (figure 2). The sound box was lowered on the cylinder and lifted from it with the help of a lever (*Petit levier servant à abaisser ou relever le Diaphragme* in figure 1).

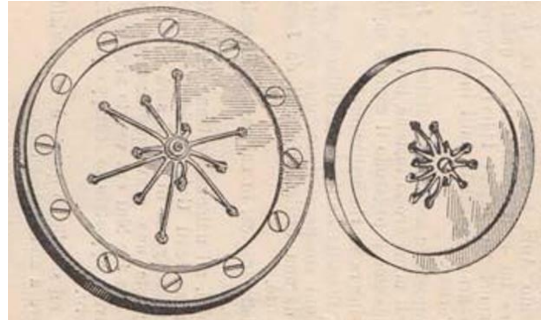

Figure 2: Left image: An American Talking Machine sound box. On the front and side view, note the leg attached to the centre of the diaphragm; the spot for the stylus is also clearly visible, with the screw to maintain it. On the side and rear view, note the plug for the arm. *Talking Machine World*, May 1905, 4.
Right image: A Bettini sound box, characterised by its 'spider' stylus legs. The left sound box is a reproduction one, the right one is a recording one. *Illustrazione Italiana*, 3 April 1892.

The first phonograph motors were electrical, but their precision in maintaining a given rotation speed to the cylinder were approximative. They were quickly then replaced by clockwork-driven motors.[11] Those were wound up with a key (*Clef* on figure 1). The start-up of the cylinder's rotation was not instantaneous. When recording, one therefore had to wait a few seconds for the cylinder to reach its nominal speed before playing or singing or speaking. This was not always respected by amateurs, and Heighs has unearthed several examples where people started to play and sing directly, while the cylinder was still accelerating to its nominal speed. When played, this causes a wow effect (changes in the pitch of sound).[12] In relation to the setting of pitch, an important feature of phonographs was a screw to set the rotation speed of the cylinder (*Vis de réglage de la vitesse* on figure 1). Indeed, the speed of commercial cylinders were not all identical. For instance, the speed of Edison pre-recorded cylinders varied through the years. It started at 100 rpm in 1888, changed to 125 rpm

[10] Oliver Read and Walter L. Welch, *From Tin Foil to Stereo. Evolution of the Phonograph* (Indianapolis, IN: Howard W. Sams & Co. Inc., 1976 [1959]), 71-2.
[11] P. Hémardinquer, *Le phonographe et ses merveilleux progrès*, chapter four.
[12] S. Heighs, "Scratch and sniff: the unsung pioneers of 'home' recording."

from 1892 to 1899, to 160 rpm with moulded cylinders from June 1900, a speed kept in further models from 1902.[13] The earliest Pathé cylinders ran at speed ranging from 180 to 200 rpm before slowing down to 160 rpm, and other brands used different speeds.[14] Fine-tuning of the playback speed could therefore be necessary. This fine-tuning needed to be done by ear as no visual mechanism was present to guide the user. However, commercials were optimistic: "Setting the speed is very easy and even the less skilled ear will manage to find the perfect setting at first try without any difficulty."[15] Through these last two features, the phonograph offered users the possibility to alter, or rather to expand, the regular conditions of sound recording and sound reproduction. In other words, the phonograph had affordances to go beyond the sole recording and reproduction of sound, and it had attributes which allowed an interaction between it and the user.[16] This interaction opened a new space between the sound source and the listener. It was an intermediary stage that received sound, and within which the user had the possibility to tweak this sound in real time (either in the recording phase or in the reproduction one). To conceptualise this, it is useful to consider this intermediary stage as a link within the operational chain of sound recorders. Later, the ability to monitor the incoming signal would add a link to this chain, and the ability to amplify the signal would add another. It is in these links, whose number progressively grew with technological changes, that the sound engineer and sound tinkerer could appear. Each link of this chain could be described as a 'site of affordance,' or a 'site of mediation.' I will continue to develop this aspect of phonographs and sound recorders in the last part of this chapter. For now, note that that mediation space was present since the beginning of sound recorders, directly accessible, and that its possibilities were offered to the mistakes of users, and to exploratory minds. If, to my knowledge, no sound examples have survived of such experimentations, several have been reported as "remarkable sound effects," as *Talking Machine World* titled one of his articles in 1908.[17] Not content with these direct access to the cylinder speed, people were directly tweaking the inner mechanism of the recorders, and "it was soon found that by reversing the machinery while working the most remarkable sound effects could be produced."[18] Experiments of playing sounds in reverse were made by unnamed individuals on voice, but also on music, which "open[ed] a new field for composers."[19]

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[13] John C. Fesler, "160 rpm. Accurate Speed Adjustment for the Edison Cylinder Phonograph," *Hillandale News*, April 1982, 21-3, 21.

[14] Peter Copeland, *Manual of Analogue Sound Restoration Techniques* (London: British Library, 2008), 88.

[15] Instructions pour se servir du phonographe XXème siècle (Paris: J. Girard & Co., 1903), 5.

[16] W. W. Gaver, "Technology Affordances," 79-80.

[17] "Remarkable Sound Effects," *Talking Machine World*, March 1908, 9.

[18] Francis Arthur Jones, *Thomas Alva Edison. Sixty Years of an Inventor's Life* (New York: Thomas Y. Crowell & Co., 1908), 152.

[19] *Ibid*., 152-3. Here Edgard Varèse comes to mind. Musicological analyses of his work have put in evidence that he wrote 'inverted sounds,' that is, notes and chords with inverted envelopes: the resonance is heard first

These experiments were narrated to a greater audience in the March 1908 edition of *Talking Machine World*.[20]

Other involuntary examples of warped voices are known, in the form of the Edison dolls. Marketed in April 1890, the 22 inches tall wooden and porcelain dolls had a miniaturized phonograph in their torso, with a horn pointed toward perforations in their chest. A series of special miniaturized cylinders with 20 seconds of popular tunes was available for the dolls. As with regular phonograph, the mini ones were wound up with a crank placed on the doll's back. However, according to the press of the time, the sound was poor and the approximative quality of the system often played the recordings at abnormal speeds, rendering the voices unrecognisable and threatening. Moreover, in a blunt contradiction, the recordings were made by adults while the doll looked like a young child. The dolls were withdrawn from market after a few weeks.[21]

Going back to the mechanism of the phonograph, the diaphragm transduced the sound between the stylus and the horn. There were two different kinds of sound boxes: the first was a recording one, which was meant to transduce the sound waves coming from the horn into movements of the stylus. This sound box cut through the wax of the cylinder and engraved the soundwaves. The second type was a reproduction one, which transduced the movement of the stylus onto the cylinder into sound waves, passing them to the horn (figure 3).[22] When purchasing a phonograph, the reproduction sound box was always included, while the recording one was either also offered or coming as an option (figure 4). The switching from a reproduction sound box to a recording one was an easy operation: one just had to unplug / plug the desired sound box. These operations were simple enough to be performed by a child, as the famous example of Ludwig Koch shows. As the future pioneering bird song recordist recalled, his father presented him with a phonograph at the

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pianissimo, there's a crescendo until a fortissimo ending abruptly to simulate the attack of the sound (see for instance Philippe Lalitte, "L'architecture du timbre chez Varèse: la médiation de l'acoustique pour produire du son organisé," *Analyse musicale* 47 (2003): 34-43). However, these studies have, to my knowledge, always ignored his relationship with sound recording technologies while it is a known fact that when he arrived to the US, Varèse worked as a sound advisor for recording companies. He also worked within the cinema industry (even being an actor in several films) and most probably attended to editing operations, to the cutting and pasting of images on film. See Odile Vivier, *Varèse* (Paris: Seuil, 1973).

[20] 'Remarkable Sound Effects,' 9.

[21] Victoria Dawson, "The Epic Failure of Thomas Edison's Talking Dolls," *Smithsonian Magazine*, https://www.smithsonianmag.com/smithsonian-institution/epic-failure-thomas-edisons-talking-doll-180955442/ (accessed 27/02/2022); Patrick Feaster, "A Cultural History of the Edison Talking Doll Record," *Thomas Edison National Historical Park Magazine*, https://www.nps.gov/edis/learn/photosmultimedia/a-cultural-history-of-the-edison-talking-doll-record.htm (accessed 27/02/2022).

[22] For a detailed operation, see the reproduction of Edison's British patent n°1644 of the 24th of April 1878 in O. Read and W. L. Welch, *From Tin Foil to Stereo*, 28A to 28U.

age of 8, that he had bought at the Leipzig Fair with a box of blank cylinders. The Kochs had different pets, and an exotic bird from India that they kept in a cage, a white rumped shama (*Kittacincla malabarica*). Young Ludwig Koch recorded this very bird in 1889, and that cylinder, which has survived, is now preserved at the British Library.[23] Koch would often play with his phonograph, recording the pets and visitors of the house. That is how the young Koch recorded Otto von Bismarck one day,[24] in a kind of 'oral autograph' close to what Eiffel was doing.

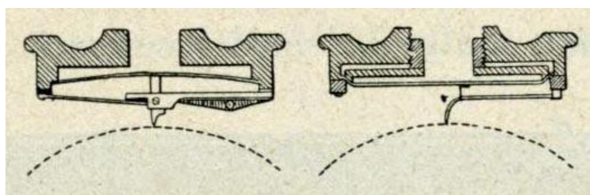

Figure 3: A recording sound box (left), and a reproduction one (right). Note the difference of size and form between the two styli.
Pierre Hémardinquer, Le phonographe et ses merveilleux progrès (Paris: Masson, 1930).

Figure 4: The 'Boîte aux secrets' [Box of Secrets] phonograph made by the Maison de la Bonne Presse. The recording sound box is proposed as an option ("SUPPLÉMENT POUR DIAPHRAGME ENREGISTREUR").
Maison de la Bonne Presse, Machines Parlantes 'Boîtes aux secrets', *Instructions pour reproduire et enregistrer soi-même, répertoire des cylindres enregistrés* (Paris: Maison de la Bonne Presse, 1901), 5.

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[23] https://www.bl.uk/collection-items/first-recording-of-a-bird-1889 (accessed 8 March 2022).

[24] John Burton, "Ludwig Koch, Master of Nature's Music," *Wildlife Sound*, Autumn 1974.

Blank cylinders were rewritable. To erase them, a planer (also called shaver) was installed in place of the sound-box, and the phonograph was wound up as if to play the cylinder. The planer removed a fine layer of wax, in real-time (that means that, as a standard cylinder was two minutes thirty seconds long, this was the time it took to erase it.) A cylinder could typically be erased and re-recorded 60 times.[25] This erasing operation was more technical. The planer (as the sound-box) was pushed onto the cylinder through a spring, whose strength could be adjusted. An insufficient strength meant that the previous engraving was not totally removed, and therefore that the previous recording stayed audible in the background of the new one. This effect is called ghosting.[26] An excessively high strength would result in the removal of a bigger layer of wax, reducing the number of possible rewritings.

The advertisements of the end of the nineteenth century and of the beginning of the twentieth give details on what the listening and recording experience with phonographs were. For the promotion of a particular brand or model, the flaws of the general phonograph were often highlighted. Hence, we learn that the mechanic driving the cylinder was not very silent and that the quality of cylinders, both blank and recorded, was not always good, the Edison ones being the most constant in their condition.[27] Amateurs also spoke of the influence of mixing different brands between cylinders, sound boxes, and horns. Adjustments were necessary. Hence, in the September 1904 issue of *Talking Machine News*, Mr. Boulay, from Sarthes, in France, gave advice to people wanting to use a Bettini sound box on their Edison cylinders:

> "The counterbalance weight in front of the universal joint, as Mr. Bettini supplies them, leaves the weight of the sapphire on the wax of about 35 to 40 grammes (a little more than an ounce). Unscrew this counterbalance weight so as to neutralise entirely the weight of the sapphire, you will then reach the front end of the bracket or threaded rod, and keep only half-an-inch screwed into the weight. That is to say, the back of this weight will then be one and seven-eighths of an inch distant from the universal joint. Now place in the hard rubber circular cup of the diaphragm a lead or brass weight (for instance, in the form of a horseshoe) of about 43 grammes (exactly one and a half ounces), and play on. Thus you may use nearly all records with advantage, and will find a very great improvement in the Bettini records themselves, especially the concert size."[28]

I gave the explanation in full to convey what the process was like for adjusting sound boxes in order to avoid a high amount of pressure that would damage the cylinder, or a pressure too light, which would in turn impair playing with a low volume and missing information (the stylus needed

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[25] H. Hurm, *La passionnante histoire du phonographe*, 36.

[26] Simon Heighs gives examples in his talk 'Scratch and sniff: the unsung pioneers of 'home' recording.'

[27] Maison de la Bonne Presse, *Machines Parlantes 'Boîtes aux secrets', Instructions pour reproduire et enregistrer soi-même, répertoire des cylindres enregistrés* (Paris: Maison de la Bonne Presse, 1901), 10.

[28] "Reproducers For Each Make," *Talking Machine News*, Thursday 1 September 1904, 23, 25.

a certain pressure to go to the bottom of the groove). The level of precision and the use of an additional weight also speaks for a result that was obtained by trial and error after numerous attempts. Surely, not everyone was interested in setting counterweights, a feature that was not present on every phonograph and sound box. Nonetheless, it shows that people were aware of the limitations and imperfections of their equipment, and that they tinkered with it very early to improve it. As I will show later in this chapter, this practice of tinkering with audio equipment was to become a constant within the sound hobbyist community and was to be developed with wire recorders and tape recorders.

The fact that people were tinkering with their phonograph also indicates that phonographs were not considered perfect, and that their imperfections were audible. Low and high frequencies were not recorded correctly, nor were faint sounds. Early folk music collectors such Frances Densmore quickly realised that a number of musical instruments were not recorded correctly, and that some did not record at all,[29] and recordists working with music labels were also very conscious of the necessary adjustments that should be done in regards to instruments, but also with scores.[30] Also, the use of metallic horn generated parasitic resonances, and the use of certain diaphragms engendered "undesired vibrations, shrilling and metallic."[31] To minimise these resonance frequencies, specific recording horns were sold. These were straight, and made either of cardboard or metal. In contrast, reproduction horns often displayed special forms to reinforce the visual aesthetic quality of the phonograph. Decades later, when experimenting with metallic parabolic dishes to record bird songs, Jean-Claude Roché would experience the same problem of metallic resonances sparked by birds singing on and near the resonance frequency of his parabolic dish, causing bell-like tones to surface.[32] However, despite its flaws, the phonograph remained portable and usable in a wide range of situations. The historian Susan Schmidt Horning has described with a profusion of details how music recordists used it in studio,[33] the ethnomusicologist Erika Brady offered a rich presentation of its use in the field by ethnomusicologists,[34] and a biographer of Edison related uncommon uses.[35] If those were unusual for the time, they look very close to what sound hunters would do

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[29] Judith A. Gray et al. *The Federal Cylinder Project: A Guide to Field Cylinder Collections in Federal Agencies* (Washington, D.C.: Library of Congress, 1985), ix, cited by David Morton, *Off the Record. Technology and Culture of Sound Recording in America* (New Brunswick, NJ, London: Rutgers University Press, 2000), 146.

[30] Susan Schmidt Horning, *Chasing Sound. Technology, Culture, and the Art of Sound Recording from Edison to the LP* (Baltimore, MD: John Hopkins University Press, 2013), 16-8, 21.

[31] Maison de la Bonne Presse, *Machines Parlantes 'Boîtes aux secrets',* 8.

[32] Jean-Claude Roché interviewed by Bernard Fort, *Jean-Claude Roché, Audio-naturaliste. Dialogues avec Bernard Fort et les oiseaux*, Frémeaux et Associés FA5757, 2020.

[33] S. Schmidt Horning, *Chasing Sound*.

[34] Erika Brady, *A Spiral Way: How the Phonograph Changed Ethnography* (Jackson: University Press of Mississippi, 1999).

[35] F. A. Jones, *Thomas Alva Edison*.

decades later. Hence, Francis Arthur Jones talks about an "American professor" (without ever mentioning his name) who, intrigued by curious sounds emitted by cats in his backyard, started recording them. The cats were active at night, and the professor spent many a night waiting in the cold to catch their calls and cries. But they always started after he went back inside, freezing for having stood several hours motionless at night. And of course, when he rushed back outside, they ran away. The professor's lack of success was due to his presence with the phonograph that interfered with the scene he wanted to record. Because of the lack of sensitivity of the phonograph – it recorded acoustically, it was the very power of the sound waves that pushed the stylus to cut through the wax, therefore the sound waves needed to have a minimum power –, the phonograph needed to be installed close enough to the cats. If inside when these ones started to yell, he needed time to go out, set the recorder and crank it up, all things that again disturbed the environment and situation he wanted to record. The professor thus devised a way to start the recording from a distance, with an electric wire directly plugged to the motor. This way, he would set the phonograph near the cat perch, at a spot unreachable in the presence of the feline, crank it, and start it by a push of a button while being comfortably inside without interfering.[36] This installation is close to the method used later by the pioneering bird song recordist Ludwig Koch,[37] the radio recordists Carl Weismann and Sture Palmér in Denmark and Sweden, or the Cornell Laboratory of Ornithology, all described by historian of science Joeri Bruyninckx.[38] The professor, in the end, was able to secure "records of cats purring, cats in pain (a wounded or sick cat emits a peculiarly mournful sound quite different from its ordinary voice), cats spitting, and so forth. (…) All together [he had] secured twenty-five cat records, which repeat twenty-five different cries."[39] Thanks to the phonograph, he was able to identify the different emotions of the cat, and he even experimented his recordings with his own cat, "a quite respectable parlor animal," who responded immediately with a variety of reactions depending on the recording played.[40]

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[36] *Ibid*., 159-60.

[37] E. Max Nicholson and Ludwig Koch, *More Songs of Wild Birds* (London: H. F. & G. Witherby, 1937), 4.

[38]Joeri Bruyninckx, *Listening in the Field: Recording and the Science of Birdsong*, Inside Technology (Cambridge, MA: The MIT Press, 2018), 74-6. A similar method is still used nowadays by some field recordists, amongst them Chris Watson, a sound recordist famous for his work on Sir David Attenborough's natural history documentaries and for being a founding member of the experimental music bands Cabaret Voltaire and the Hafler Trio. Because Watson mainly works for television and cinema, his timing is most of the time constrained and he can't use 'sound traps' (microphones and recorders that are left in the field for an extended period of time, usually a whole day, a whole night, or more). He then relies on a precise setting of the microphone near the scene that needs to be recorded, and run cables, sometimes for a hundred of meters, to monitor and record without interfering too much with the environment. Chris Watson interviewed by Tom Flint, 'Chris Watson: The Art of Location Recording,' *Sound On Sound*, December 2018. https://www.soundonsound.com/techniques/chris-watson-art-location-recording (accessed 31/03/2022).

[39] The unidentified professor interviewed by Francis Arthur Jones. F. A. Jones, *Thomas Alva Edison*, 161.

[40] F. A. Jones, *Thomas Alva Edison*, 161-2.

If the recording of animals is not one the functions that Edison envisioned for his invention, the use of phonograph for educational purposes was one of his aims.[41] This practice, which take advantage of the rewriting possibility offered by cylinders, is documented since the end of the nineteenth century. In France, Horace Hurm (1880-1958), future inventor of high-fidelity phonographs, exemplifies this early use.[42] While studying oboe in 1896, Hurm started to record himself on his Graphophone Columbia in order to hear himself and correct his playing. Immediately convinced by the usefulness of the machine for learning, he experimented with the phonograph together with his students a few years later. And when two of them moved to Germany, he established a distant learning technique for the oboe. Each of his pupils left with a phonograph, and a series of cylinders. The three available sizes of cylinders were used: scales and exercises were engraved on the small one, studies on the medium, and soli and more developed pieces were engraved on the *stentor*, the bigger cylinder. The students recorded their versions and sent them through the post. Hurm noted the needed corrections, erased the cylinders, recorded either the corrections or new exercises, and sent them back. In the account of Hurm, the quality of the reproduction was far from perfect, but it was enough to identify the mistakes and bring appropriate corrections. Notably, Hurm was able, through the recordings, to correct the posture of his pupils, thanks to the changes of tone during the recordings. That was in 1899.[43]

For Hurm, the advent of disc recording technology had a huge impact, not necessarily positive, on private recording. Following James Mooney's "spectrum of affordances" concept, Hurm perceived the spectrum of affordances of discs as more limited.[44] Cylinders were easy to use for both recording and reading, and it was just as easy to switch between a recording and a reproduction sound box. With disc, things changed.[45]

2.1.2. Disc-cutters and amateur's recordings

Indeed, the first discs were commercialised by Emile Berliner in 1895. The two key differences between cylinders and discs were that it was no longer possible to record and listen directly, and it was no longer possible to erase and re-record a disc. Some companies, aiming notably the business

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[41] Roland Gelatt, *The Fabulous Phonograph, 1877-1977* (New York: Macmillan, 1977), 29.

[42] For details on Horace Hurm and his inventions that ranged from toys to portable radio equipment, see Bruno Ruiz, *Horace Hurm (1880-1958) : le kaléidoscope de sa vie* (La Voulte-sur-Rhône: Bruno Ruiz, 2010). The book is based on the unpublished autobiography of Hurm. It was printed at only 100 copies, but one is available at the Bibliothèque Nationale de France, and most of the book is accessible online: http://www.horace-hurm.com/fr/livre/telechargement (accessed 14/02/2022).

[43] H. Hurm, *La passionnante histoire du phonographe*, 44-6.

[44] J. Mooney, "Frameworks and Affordances."

[45] H. Hurm, *La passionnante histoire du phonographe*, 43.

of language learning, commercialised thick wax discs that were rewritable up to 200 times, but they were the exception.[46] In the beginning, discs were recorded with a zinc-etching process, and after a short processing time, it was possible to listen to the recording. However, once processed, it was no longer possible to erase and re-record on the same disc. The Victor sound scoot Fred Gaisberg remembered what the recording process was:

> "The recording process was to employ a thin flat zinc disc with a highly polished smooth surface. This would be coated with a protective film of fat and placed on a turntable. A stylus attached to a diaphragm would trace a spiral groove through the fat when the turntable revolved. The diaphragm terminated in a horn, down which the artist sang, causing the stylus to vibrate from side to side. Lateral vibrations, Emile Berliner called them in his patent specification. (…) The artist having performed, the zinc disc was immersed for ten minutes in an acid bath. The result was a thin shallow groove of even depth etched into the zinc."[47]

When operating outside the studio, the recordist therefore had to carry a vat of acid with them. This was not always without problems, especially when travelling the world. Gaisberg recalled an adventure he had while on a recording trip in Russia:

> "One cold night [in 1900] a big earthen vat containing the etching-acid burst. The bright red fluid dripped through the ceiling on to a sleeping guest; when his body began to smart he aroused the hotel. At two in the morning there were furious hammerings at our door, and we were confronted by an angry crowd who wanted our blood. We were summarily kicked out of the hotel and before our baggage was surrendered we had to pay a thousand rubles in damages."[48]

The stress of carrying a vat of acid disappeared after a few years, when wax discs replaced zinc-etching ones. In the words of Gaisberg,

> "[it] marked an almost magic expansion in the gramophone record business. It also sounded the death-knell of the phonograph cylinder as a musical instrument. Now we could give our ambition freer scope. The wax recording meant a cleaner cut, less surface noise and the music more faithfully registered. Wax also benefited the routine of matrix making."[49]

However, wax disc also signified that it was no longer possible to playback the recorded disc immediately. Rather, it needed to undergo a long process through electroplating to obtain a negative of the disc, and the production of several generations of intermediary discs to finally have a listenable item. All this could not be done on the road, nor at home.

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[46] *Ibid.*, 48-9. A planer tool was included with the machine.

[47] Fred W. Gaisberg, *The Music Goes Round* (New York: MacMillan, 1942), 41.

[48] F. Gaisberg, *The Music Goes Round*, 32.

[49] F. Gaisberg, *The Music Goes Round*, 44.

The sound quality of discs, both for recording and reproduction, was initially not as good as with cylinders. They produced more surface noise and had a less accurate reproduction.[50] This was notably because of the change of plane. While the linear speed is constant on a cylinder, it is not the case for a disc, which has a higher velocity near the edge, and a slower one near the centre. On a 30 cm 78rpm disc, on the outer groove, the needle travels 118.11 cm in one second, while it only travels 41.275 cm in the same time on the inner groove.[51] Which means that, on the inner groove, the same quantity of information will be packed in a space three times smaller than on the outer groove. The information is therefore three times less compressed on the outer groove, allowing the cutting of more details, and allowing the reproducing needle to better follow every nuance of the cut. The quality is thus better on the outer grooves than on the inner ones. This was one of the reasons why Edison continued to develop cylinders. But during the recording, the fact that the cutter, on the outer side, had to travel a longer distance for the same amount of time, meant that the drag was greater than at the inside edge. The effect was that the master-record tended to speed up as the cutter moved toward the inner side. As the change was progressive, it was not always hearable, but a skip toward the middle or the end could reveal a pitch change.[52] Furthermore, while the movements of a sound box upon a cylinder was guided by a cart, this one disappeared on disc phonographs. The sound box was fixed on a pivoting arm and guided only by the groove. There was therefore a constant centrifugal force applied on the needle.[53] These elements were a source of surface noises and a precise alignment of the sound box on the disc was thus necessary. Edison, in a probable commercial gibe to his competitors who had abandoned cylinders in profit of discs, claimed that "forty per cent of the sound that come from an ordinary disc phonograph do not belong in the music. I have invented a new kind of a disc machine which, with a clean record, absolutely eliminates all these unnecessary noises." In the same article, Edison points to a point that related to the handling and storage of discs: cleanness. "It is marvellous how slight need be the undulations upon a record to produce great noise. Take a piece of clean glass cut the shape of a record and 'play' it on the machine and there is no sound. But breathe on this glass a dozen times, put it away half an hour until the moisture can harden, and then play the glass again and you will hear a jumble of the most unearthly noises."[54]

This being, cylinders were more fragile, and the standard size had a more limited recording time, 2 minutes and 30 seconds for the standard size, versus around 4 minutes for a disc. The price of standard size cylinders was comparable with that of discs, but to have a similar storing capacity, one

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[50] O. Read and W. L. Welch, *From Tin Foil to Stereo*, 153.

[51] H. W. Dawes, "Slow-Speed Discs. Hints on Recording at 33 1/3 r.p.m.," *Wireless World*, July 1938, 13.

[52] P. Copeland, *Manual of Analogue Sound Restoration Techniques*, 93

[53] P. Hémardinquer, *Le phonographe et ses merveilleux progrès*, chapter 3.

[54] Thomas A. Edison, "Music of to-day in a backward state, says Edison," *Talking Machine World*, October 1913, 31.

had to go for concert size cylinders that were much more expensive. This was notably because the moulding method was never truly successful and that consequently, each cylinder was an original recording.[55]

Zinc-etching and wax discs were soon replaced by another material, shellac. It was in fact a mixture of shellac, barium sulphate, cotton, and lamp black.[56] Shellac is a resin secreted by the female lac bug, an insect native from Asia.[57] The number varies, but there is an estimation that 300,000 insects are needed to produce just one kilogram of shellac.[58] Shellac's grain is thin enough to allow a precise engraving of sound, and it is hard enough to be durable. To further increase its durability, an abrasive material was added to the mixture. The aim was to erode the needle rather than the disc. That was the role of the sulphate of barium. Other materials were also used, such as slate, powdered brick, or metal powder. The distinctive brown colour of the Pathé Needle disc thus came from grinded brick.[59] The cotton was used to hold the mixture together, while the lamp black provided a uniform colour.[60] Finally, the mixture was put on the two sides of cardboard or aluminium disc.

Due to the material of the medium, to record on disc was more complex than on cylinder. Discs had to be softened by being placed into an oven before a recording was possible, and a warm temperature had to be kept during the recording to avoid any change of texture that could impair the cutting. The disc recorder had to be perfectly horizontal to avoid juddering, which could also be caused by an inappropriate pressure of the needle. Finally, it was not possible to listen to the recording directly afterwards. First, the shellac had to cool down and the disc needed to be processed to produce a master. The whole temporality of the recording was therefore stretched. With cylinders, test recordings could be easily made to test different configurations in the preparation of a recording.[61] That was no longer possible with shellac.

But the major change occurring during the 1920s was the electrification of recording. Until now, all the recordings described were acoustic ones – that is, the recordings related only the strength of the acoustic waves: : these waves powered a diaphragm which activated a needle, which in turn cut on a cylinder or disc. That prevented the recording of soft sounds, because the acoustic waves were not powerful enough to sufficiently move the diaphragm and activate the needle. This aspect of acoustical recording impacted what could be recorded, notably music. Musicians had to grouped

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[55] O. Read and W.L. Welch, *From Tin Foil to Stereo*, 151-4.

[56] Xavier Sené, "L'impression du son," *Revue de la BNF* 33, no. 3 (2009): 20-9, 27.

[57] As a side note, one can therefore see that for cylinders and discs, the very material of the medium on which sound was inscribed was imported.

[58] X. Sené, 'L'impression du son,' 27.

[59] *Ibid.*

[60] *Ibid.*

[61] S. Schmidt Horning, *Chasing Sound*, 21-2, 28.

around the horn, with quiet instruments just in front. These arrangements, together with the limited bandwidth and the impossibility of accurately reproducing *pianissimi* impacted how the music was played.[62] Things changed with electrification. The technology came from radio, where microphone and amplifiers were already in use. The triode was invented by Lee De Forest in 1906 and was able to amplify weak electrical signal, while microphones existed since the end of the nineteenth century. The challenge was to record the electrified signal on cylinder or disc. To be exact, a crude electrical recording technology existed since the end of the nineteenth century, but it was only used for the recording of telephone conversations due to its limitations and lack of amplification.[63] It was Western Electric who, in 1925, under the guidance of Joseph P. Maxfield and Henry C. Harrison, revolutionised sound recording with a new cutterhead.[64] The technological change that allowed the recording of faint sounds through amplification generated a musical change: crooners and 'microphone whisperers' appeared, but also new kinds of orchestration.[65] That new technology also brought change within the control room of the studio, as noted by Schmidt Horning, "the new electrical recording chain reconfigured the studio and recording room and gave the recordist (…) increased control."[66] This new control can be described as a new site of affordance.

However, despite electrification and amplification, the monitoring of recording sessions often stayed acoustic: thus, Carlo Brulin, head of recording department at Pathé-Marconi, recalled that "the auditory control of the disc was only possible when this one was processed, that is to say a fortnight after the recording took place." Brulin continued, "all that was possible to do during the recording was to wear headphones that roughly reproduced what the microphones caught. But in 1928 when I arrived, we just opened wide the door looking out onto the studio, so we could follow the session directly." Brulin acknowledged that this was not the best practice, and that sound engineers developed another way to have a direct control after the recording:

> "Another control, very strange and efficient, totally lost now, was the *visual* control of the wax. The true and rare recordists of that heroic era knew how to read the recorded wax, by making it sparkle under an electrical lamp. (…) They 'saw' if there was too much bass or too little, too many or few little high frequencies, and corrected the placement accordingly."[67]

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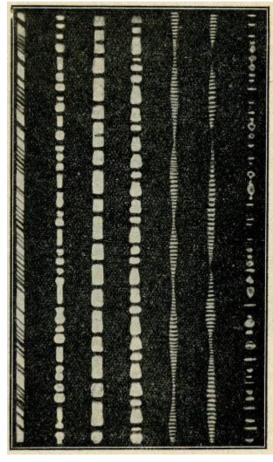
[62] Inja Stanović, "(Re)constructing Early Recordings: a guide for historically-informed performance," in *Proceedings of Research Hands on Piano: International Conference on Music Performance* (Aveiro: University of Aveiro Publications, 2019), 63-9.
[63] O. Read and W. L. Welch, *From Tin-Foil to Stereo*, 241.
[64] O. Read and W. L. Welch, *From Tin-Foil to Stereo*, 240-54; P. Copeland, *Manual of Analogue Sound Restoration Techniques*, 111-8.
[65] S. Schmidt Horning, *Chasing Sound*, 45.
[66] *Ibid*., 36.
[67] Carlo Brulin, "Du cylindre parlant au disque microsillon," *Arts et Techniques Sonores*, April 1954, 4-5, 4. Stress

That visual method, born out of constraint of the very material, was very important, as the entire recording session could be lost if the eventual problems were not detected and corrected before sending the disc for processing. A similar method was used in other studios, as described by the historian Susan Schmidt Horning in the United States.[68] To better understand that method, a look at a freshly cut disc will bring information. The figure 5 presents a close-up of a sapphire disc, with ill-and-dale engraving, and one of a needle disc, with a lateral engraving.



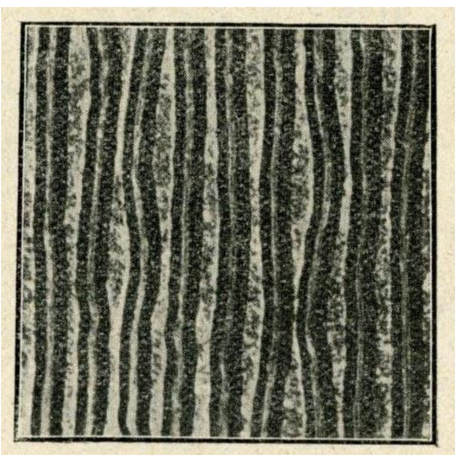


Figure 5: Left: close-up of a sapphire disc or hill-and-dale disc. The engraving is made by hill-and-dale.
Right: close-up of a needle disc or lateral disc. Engraving is lateral.
Pierre Hémardinquer, *Le phonographe et ses merveilleux progrès* (Paris: Masson, 1930), fig. 38 and 40.

On hill-and-dale discs, the lower the frequency of the sound and the higher its volume, the deeper and larger will be the cut. For example, the three grooves on the left of figure 5 (the first band with diagonal lines is the border of the disc). On lateral discs, the lower the frequency of the sound, the longer and wider the curve, as seen in the third groove from the right in the right picture of figure 5. A closer look at this particular groove reveals a limit of the lateral cut. In the lower part, this third groove is very close to the fourth one. Such a proximity is the source of a pre-delay effect, when the content of the next groove (the fourth one on this example) is read at a very low volume at the same time as the current groove when the needle comes near it.

Studios were often equipped with a magnifying glass or microscope to control the grooves (figure 6). Through this control, test discs could be recorded, before starting the proper recording, to check the placement of musicians and the dynamics of their playing.

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in original. In French, the use of the word *cire* (wax) stayed in the common language to designate *gomme-lacque* (shellac), hence the use of the word by Brulin.

[68] S. Schmidt Horning, *Chasing Sound*, 25.

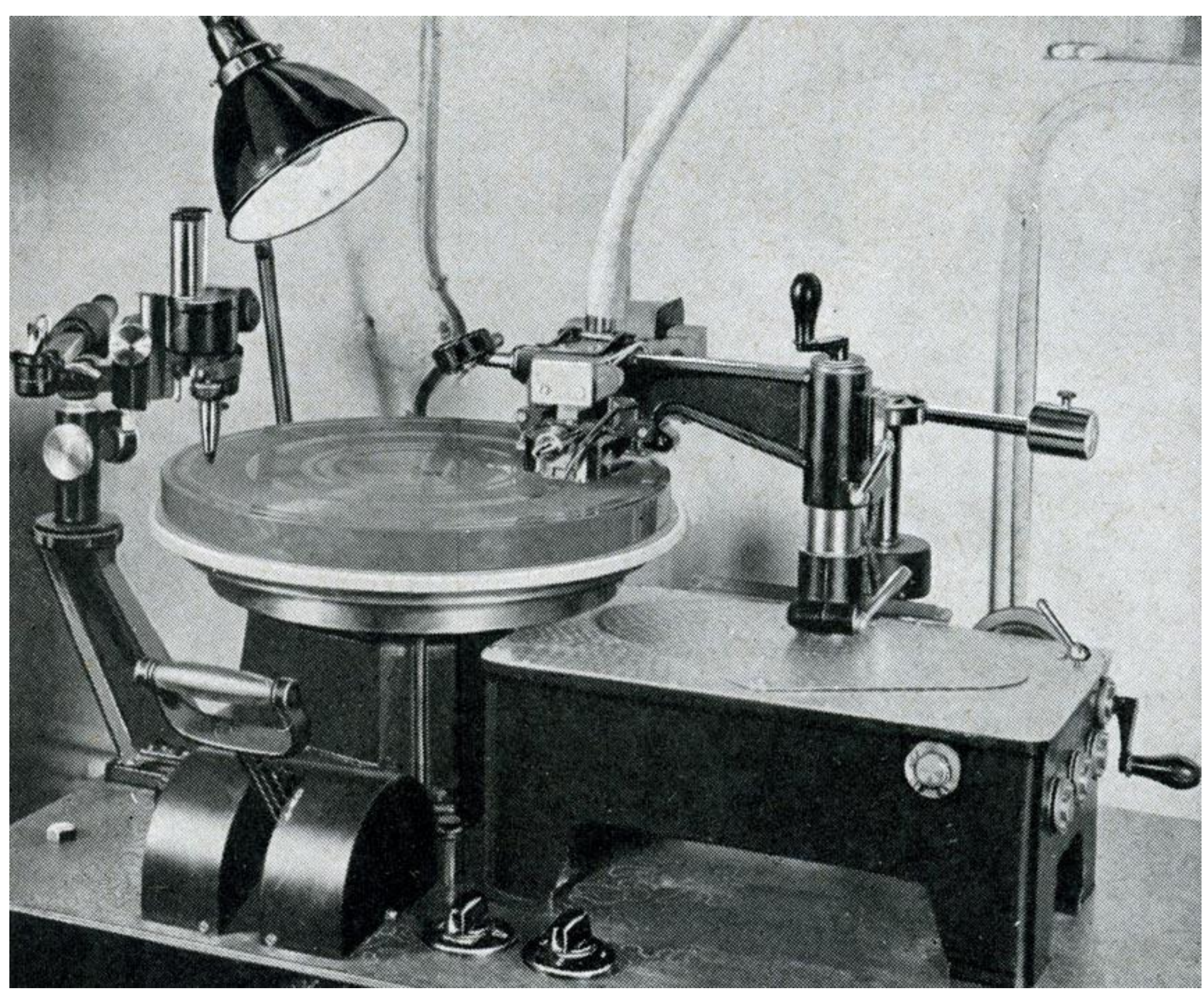

Figure 6: A disc-cutter in the Tobis studio in Épinay-sur-Seine. Note the microscope on the left and the lamp. Note also the sturdiness of the frame to prevent the transmission of any vibration to the cutting head and to the disc. The white tube going up is a vacuum-cleaner to remove any shaft coming from the cut.
Eugène H. Weiss, *Phonographe et musique mécanique* (Paris: Hachette, 1930), pl.6.

All these changes impacted the use of phonographs by amateurs. The 'talking machine' vanished with the disc. As illustrated by Sophie Maisonneuve, phonograph parties evolved into listening events with commercial discs.[69] The 'sonic games,' in which the recording capacity of phonographs were used at large, are no longer reported. Admittedly, these were a consequence of the surprise that arose from the discovery of sound recording, and even Edison was keen on tricking his friends

[69] Sophie Maisonneuve, "La constitution d'une culture et d'une écoute musicale nouvelles : Le disque et ses sociabilités comme agents de changement culturel dans les années 1920 et 1930 en Grande-Bretagne, " *Revue de musicologie* 88, no. 1 (2002): 43-66.

and visitors with mysterious voices coming from nowhere.[70] But such use, with an identical organisation, would come back with the tape recorder. The tape recorder has a short temporality between recording and playing in common with cylinder phonograph. In the case of the tape recorder, it is almost instantaneous – the time to wind back the tape. The hypothesis is therefore that it was the short temporality, almost immediate, between recording and playing that was at play and that allowed and generated these uses. As we have seen, disc recorders did not allow an immediate listening: one could say that this use was not in the 'script' of the disc recorder, a script that was much more oriented toward listening rather than recording.[71]

The turn toward listening-only equipment is also visible in advertisements. While both the reproduction and recording capacities of the cylinder phonograph were advertised together, the recording aspect disappeared in disc phonographs. This is paralleled by a lack of sources in recordings made on disc by amateurs in the first quarter of the twentieth century. One must wait for the electrification of recording and the apparition of direct-to-disc recorders to find examples in bigger numbers,[72] which raises the question of why this lull occurred. It is very likely that part of it is due to the disappearance or inaccessibility of primary sources for scholars: this, especially in the past, has represented a challenge for those who engage with the work of amateurs. But the number of private cylinders that have been unearthed,[73] and the number of recordings made when direct-to-disc equipment became available,[74] point to a reason linked to the medium itself and its turn toward a listening device. If recording was allowed, and even encouraged with/by cylinders, disc phonographs switched to a play-only function. In any case, the ones that were most distributed were the ones allowing primarily reading, and not recording. The hobbyist literature of the time also mentioned this fading of the practice of home recording.[75] The orientation toward a 'listening script' is paralleled by, and even inscribed into, the evolution of the form of domestic phonographs, In which these objects were increasingly turning into pieces of furniture.[76] For a better integration within households, hornless machines were hence developed, in which sound was transmitted to a sound chamber inside the furniture (figure 7). That sound chamber was equipped with doors to adjust the

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[70] F. A. Jones, *Thomas Alva Edison*, 151-2.

[71] On script, see Madeleine Akrich, "The De-Scription of Technical Objects," in *Shaping Technologies / Building Society. Studies in Sociotechnical Change*, ed. Wiebe E. Bijker and John Law (Cambridge, MA and London: MIT Press, 1992), 205-24.

[72] "bigger" is probably not the right word, as few examples have survived. But there are still more numerous than during the first quarter of the century.

[73] See the already mentioned Phonobase and the collection of Simon Heighs.

[74] See Thomas Levin's collection for instance.

[75] For instance, Bernard Brown, *Amateur Talking Pictures and Recording* (London: Sir Isaac Pitman & Sons Ltd., 1933), 12-3.

[76] Kyle S. Barnett, "Furniture Music: The Phonograph as Furniture, 1900-1930," *Journal of Popular Music Studies* 18, no. 3 (2006): 301-24.

sound level. Cabinets took all kind of forms, and even table ones were made.[77] The aim was to have a piece of equipment that could be integrated seamlessly within a domestic space. Cabinet phonographs were more expensive than regular phonographs, but it was possible to find simple ones for an accessible price. Cabinets such as the one in the upper left of figure 7 could be bought for $7.75.[78] Larger cabinets, and decorated ones, were restricted to higher classes, as prices were much higher. Cabinets also had the function of storing discs, as seen in figure 7. Such a transition toward a furniture equipment would be paralleled fifty years later with the tape recorder and its domestication. I will detail this point later in this chapter.

Figure 7: Different cabinet models for Victrola phonographs.
Talking Machine World, September 1911, 46.

It seems thus, that, for a time, sound recording was more geared toward music studios and researchers in linguistics and folklore. Only in specific circumstances did recording remain practiced – on cylinders – by amateurs who employed them as dictating machines.[79]

[77] For example, the Columbia Phonograph Grafonola 'Regent,' *Talking Machine World*, March 1910, 30-1.
[78] *Talking Machine World*, September 1911, 35. According to measuringworth.com, $7.75 equals to $250 today.
[79] B. Brown, *Amateur Talking Pictures and Recording*, 13. This is confirmed by several testimonies, notably the one of Marcel Allain and Pierre Souvestre, the authors of the successful French series *Fantômas*. Between 1911

2.1.3. Instantaneous discs

The situation changed in the early 1930s, when three companies – the Société des Vernis Pyrolac in France, Marguerite Sound Studios in the UK, and Presto Recording Corporation in the US –, released instantaneous discs; Marguerite Sound Studios and Presto Recording Corp. also commercialised a dedicated recorder, but Pyrolac only produced discs.[80] Instantaneous discs were named so because of the possibility to directly record and directly playback the disc after the recording. The three companies used the same method: a disc with an aluminium core framed on its two sides by nitrocellulose lacquer.[81] Despite being highly inflammable, the cellulose nitrate had the right texture to cut at ambient temperature and was solid enough to allow multiple playbacks directly after the recording.[82] It was also possible to use gelatine in replacement of the nitrocellulose, a solution that was within the reach of amateurs, who then started to manufacture their own discs. Instead of aluminium, they also used glass or cardboard, which were cheaper materials. They used spent X-ray

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and 1913, rushed by their editors to write one novel per month, Allain and Souvestre relied on their respective phonographs to dictate the novels, that were then typed during the night by their typists. Interviewed in 1963, Allain told that he used an Ediphone and that it was he who convinced Souvestre to use a dictaphone to write *Fantômas*. Because of the rhythm, the structure of the novels was very precise and always the same, with 16 chapters of 18 pages. "On a correctly set phono," explained Allain, "five pages could be recorded." A chapter then needed four cylinders. But that was not always exact. The Ediphone had an electric motor working from mains to drive the recorder, which rendered it sensible to the variation of power delivered by the grid. At peak time, the voltage delivered was inferior, which impacted the functioning of the recorder by reducing the duration of recording by one or two pages. At the time of the interview, Allain was writing, or more precisely, dictating, his 597th novel. All were made thanks to the Ediphone, which he was still using 53 years after buying it. To find new cylinders, he scouted auctions, where he was able to buy some regularly. Moreover, with his experience of shelving, Allain was also able to re-use a cylinder 70 to 80 times (to compare to the 60 shelves of the regular user mentioned by Hurm previously). He also cannibalised his own pre-recorded cylinders of cabaret music when in need. Marcel Allain interviewed by Jean Thévenot, *Magie et vérité des sons*, France Culture, 31 July 1964.

[80] George Brock-Nannestad, "The Lacquer Disc for Immediate Playback: Professional Recording and Home Recording from the 1920s to the 1950s," in *The Art of Record Production. An Introductory Reader for a New Academic Field*, ed. Simon Frith and Simon Zagorski-Thomas (Farnham: Ashgate, 2012), 13-28, 22-4. Since the publishing of the book, a website with recollections of the Presto history by the sons of George Saliba, founder of Presto, has emerged. If Presto licenced Pyrolac discs for North America from 1934, they had before that developed their own technology of blank disc. Saliba also wrote a book for sound hobbyists, *Home Recording and All About It* published by Gernsback Publications in 1932. See http://www.prestohistory.com/ (accessed 23/02/2022).

[81] For details about the chemistry behind cellulose nitrate discs, see Mark Davidson, "A Brief History of Instantaneous Nitrocellulose Discs, A Study of Their Physical and Chemical Composition, and an Investigation into Storage and Preservation Techniques," Audio Preservation and Reformatting seminar, University of Texas, 14 November 2012.

[82] John Case, "Instantaneous Recordings," in *Encyclopedia of Recorded Sound*, ed. Frank Hoffmann (New York, London: Routledge, 2005), 519-20, 519.

films as well.[83] In that latter case, the X-ray film had the role of maintaining the gelatine under a uniform surface. Each surface required the choice of a specific needle, to cut through the material without reaching the core of the disc by going too deep. The setting of the weight of the cutting head was therefore paramount, as were the weight of the playback head and the choice of needle. Instantaneous discs were not as durable as standard lacquer and vinyl discs. A head too heavy and a needle too hard could definitely damage the disc, precluding subsequent playback. That point was even more sensible with artisanal disc, as the gelatine was less durable than nitrocellulose lacquer.

There was therefore a time during which sound hobbyists were able to build both their recorders from parts, and the very medium on which sound would be recorded. It is from that time that a real activity from sound hobbyists can be traced again, as it expanded into new domains. Indeed, instantaneous discs appeared a few years after the electrification of recording, and the combination of the two opened new possibilities: the spectrum of affordances of sound recording became richer and more accessible. A shared activity amongst disc-cutters was recording radio: "retrospectively, one realises that such or such recording that was made as a hobby became real historical moments. One finds extinct voices, echoes of forgotten events, multiple vestiges of the past. With the disc, History stays alive."[84] Thus, it is through this activity that historical moments broadcast by Radio (but not, necessarily, preserved by it), were saved by sound recording hobbyists. In a series of programmes dedicated to these historical recordings, Thévenot broadcast different extracts from the collection of Horace Hurm. One could hear the abdication of Edward VIII the 10th of December 1936, the first broadcast relay between US and French radios on the 27th of November 1935, the last transmission of the Théâtrophone on the 30th of November 1936.[85] Beyond radio, more private recordings were also made by scanning short wave radio frequencies, picking up exchanges between fishing boats in the Channel and the Swiss police chasing a bicycle thief. Some hobbyists also recorded telephone conversations.[86]

Another use that bloomed with instantaneous discs was the sending of audio letters recorded on disc. From the 1930s, booths were installed in train and bus stations, airports, fairs, tourist attractions, in North America, in South America, in Europe. People entered the booth, and for 50p they could record a message for a few minutes. The Phono-Post disc was delivered in an envelope directly after. The historian of media Thomas Y. Levin has been able to retrieve more than 2000 of these discs.[87] The interest of exchanging audio messages was that a national postage fee was negotiated

[83] G. Brock-Nannestad, "The Lacquer Disc for Immediate Playback," 22.
[84] *On grave à domicile*, 25 April 1949.
[85] *Ibid*.
[86] *On grave à domicile*, 20 June 1949.
[87] Levin has organised a website where it is possible to explore and listen part of this collection: www.phono-post.org (accessed 18/03/2022).

for these discs. Thus, it cost the same price to send a disc next town, or to the neighbour state, or to the other side of the country. This was especially interesting because of the cost of telephone, that was indexed on the distance, the farthest, the most expensive. By studying the content of these discs, the message recorded, Levin found that they are very similar to the kind of message left on voicemail. The use of Phono-Post discs also prevented paying a huge telephone fee to just leave a message on a voicemail in the case of an absent conversation partner. In his estimation, the number of Phono-Post discs exchanged between the 1930s and the 1960s probably reaches several hundred thousands.[88] A similar, yet quite different in its concept, use would exist a few decades later with the tape recorder, and the exchange of audio letters recorded on tape. But if Phono-Post discs were exchanged between people who knew each other, were voicemail messages sent through post, 'tapespondence' – the exchange of tape by post – as it was called, was oriented toward exchanges with unknown people, toward the creation of links between unknown people. Through magazines, directories, and associations, people were reaching to each other on national and international levels. Specific audio round-robins were organised, where people exchanged the same tape, and, by taking advantage of the longer recording duration allowed by it, put their message one after the other. Through the travel of the tape, an international multi-lingual message was built, with the possible addition of music and other sounds. I will describe this in more detail in the following chapter. We can note for now that similar negotiations on postage were tried, notably to waive custom duties on international tape exchanges.

Thanks to the electrification of recording and the ease of use of instantaneous discs, home studios appeared in amateurs' accommodations. In her study of sound recording in the US, historian Susan Schmidt Horning has shown that amateurs took advantage of instantaneous discs to develop the recording of radio broadcast (a practice known as 'transcription discs'). The phenomenon does not seem to have existed on a similar scale in the UK and France, which are the focus for this study. But home studios did appear. A young Belgian living in Paris, Jan Mees – who would later become a key figure in the future international federation of sound hunters[89] – cut more than 3000 discs during the War. He started to record at 14 and built a home studio in his parents' private Parisian mansion. There, he wired all the rooms to perform and record plays. Of the 3000 discs that he engraved (as of 1948), a number were technical tests and radiophonic experiments. He also cut numerous chronicles of war events.[90] Twenty years afterwards, Guy Tavernier and Claude Crosnier,

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[88] Thomas Y. Levin, "N'écrivez pas, parlez ! Vers une archéologie de la messagerie téléphonique," conference at the Centre Pompidou, Paris, 4 November 2015. The title is in French, but the talk was in English, and is available here: https://www.centrepompidou.fr/fr/programme/agenda/evenement/cdyd8pX (accessed 18/03/2022).

[89] More on this in the third chapter.

[90] *Aux Quatre Vents*, September 1950. No technical test nor radiophonic experiment were broadcast, and no details are present in the archives, so I unfortunately cannot offer any detail on them.

who were regular collaborators of Mees in his home studio, and on Thévenot's programme, recalled the difficulty of producing their plays. Mees was in the attic, where the studio was, while the play happened on another level of the house. They communicated thanks to an interior telephone, and the signal to record was given to Mees through a light triggered from the room where the recording took place. Mees' equipment was notably sensible to temperature, humidity, and vibration. The temperature of the disc needed to be precise, the disc-cutter needed to be precisely horizontal, and the ensemble was very sensible to vibration. Nevertheless, Jan Mees and Guy Tavernier were able to produce in that home studio a piece that won the 'editing' category of the first International Amateur Recording Contest in 1952. Their piece, *À la poursuite de M. Sprunk, ou, Vous avez le bonjour d'Alfred* [Chasing Mr. Sprunk, or, You Have the Regards of Alfred] was recorded and edited on six discs.[91] A typical home studio, probably similar to the one used by Jan Mees, is presented on figure 8. It shows the workbench of Vincent Freddy, from Tarbes. Freddy was a member of the ADAES (the logo is visible on the wall), which was the *Association Des Amateurs de l'Enregistrement Sonore* [Sound Recording Amateur Association], an association established in 1949 by Jean Thévenot to gather sound hunters (I will develop this point in the third chapter). Not every amateur had such a recording facility. In the classification of hobbyists established by Stebbins, people such as Jan Mees and Freddy were 'devotees,' hobbyists whose involvement in the practice of sound recording was important.[92] Indeed, for Freddy, this is visible through his workbench, his equipment, and the banners for the ADAES and with his name. His phone is even present on his banner (slightly visible in the bottom right-hand corner, better visible on figure 9), a sign that he promoted his recording activity publicly, and that he worked publicly. He was also the regional referee of the ADAES for the South-West region. I will develop on these theoretical and practical elements of the organisation of the sound hobby in the fourth chapter. For now, one can consider that Freddy, as Mees, had a dedicated room – a home studio – in which to practice. Figure 9 shows Freddy cutting a disc in his home studio. He holds a brush in his right hand to keep the surface of the disc clean by removing any potential swarf coming from the cut. Turntables turn clockwise, note then that he is holding the brush behind the cutting head to avoid that shaft meeting the needle. A lamp is on just above the cutting arm. Its function is double: to keep the disc warm to allow a better cut by softening the lacquer, and to light the surface in order to monitor the cut of the groove.

[91] *Du laboratoire au violon d'Ingres*, France Culture, 5 December 1970.

[92] R. A. Stebbins, *Amateurs, Professionals, and Serious Leisure*, 46. More on this in the fourth chapter.

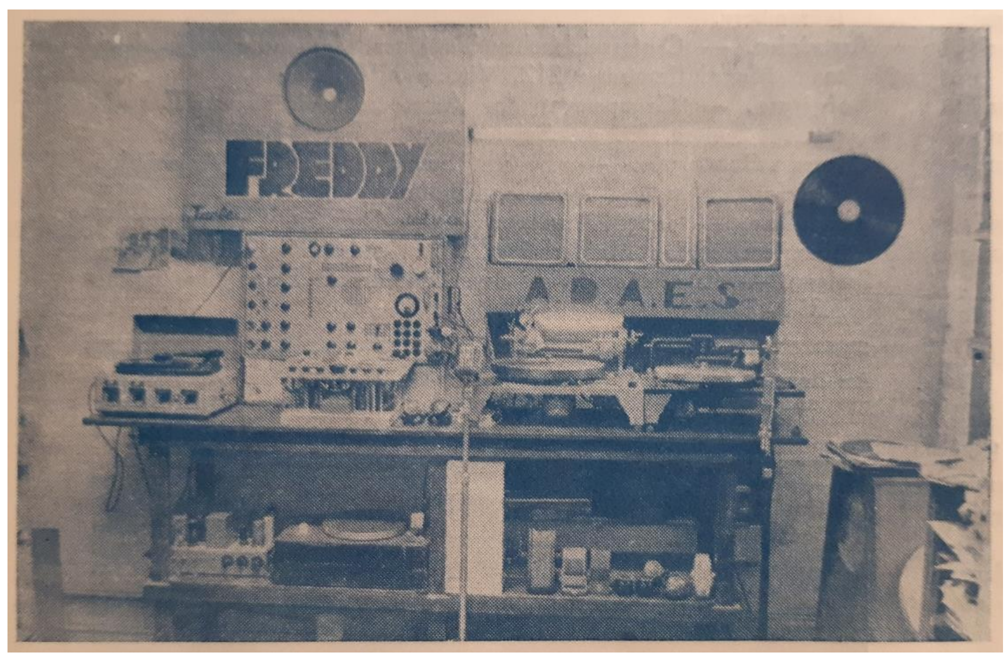

Figure 8: The home studio of the sound hunter Vincent Freddy, from Tarbes. On the right of the workbench, two disc-cutters are visible, one with a light on above it. Note the peculiar form of disc-cutters' frames in front of a traditional turntable meant to only play disc, such as the one on the left of the workbench. The big element on the right of this latter turntable is probably a handmade mixer / amplifier. In front of it lies a tape recorder being built, with its frame opened. On the left of the lower shelf are a tube amplifier and another turntable. On the right of the lower shelf are different microphones. In front of the workbench in the middle is a stand with a microphone (several of these elements are better visible in the next figure).
Arts et Techniques Sonores, July-August 1954, 8.

Figure 9: Vincent Freddy at work recording on disc in his home studio in Tarbes. Note the lamps to keep the shellac at temperature during the recording, and the use of a brush (right hand). The frame of the disc-cutter is better visible. As are, on the left, the tape recorder, the mixer / amplifier, and the microphone. The squares with a white line above the ADAES banner are probably speakers.
Arts et Techniques Sonores, July-August 1954, 8.

Thanks to their home studios, the recordings produced by amateurs could be very technical, with the use of editing. For this, one needed at least two decks, or a number of decks equal to the number of elements one wanted to put together, plus one to record the mixing of all these elements – and, in order to work more precisely one also needed a mixer. The mixing was done live in real time without the possibility of correction, and very precise timing was thus paramount, as erasing was not possible. But it was feasible, and Freddy's home studio (figure 8 and 9), with its two cutters, two turntables, and mixer, allowed such manipulations (it even allowed a mix between different medium with the tape recorder). Editing even became a 'genre,' as implied by the name of the category in the amateurs' recording contests, most notably the international ones. It covered the creative practice of sound recording and the creative use of recorder (sound effects, *musique concrète*), plays, radiophonic pieces. Despite the fact that these pieces were not meant to be broadcast – except if selected by Thévenot for his programme, or if they won a prize in the national or international contests – radio was a major source of influence for amateurs, hence my use of 'radiophonic' (I will develop this point in the fifth chapter). Asserting this, in the 1970s, the name of this category would be changed to "Radiophonic games or radio drama." Be that as it may, the official institution of an 'editing' category since the very beginning of amateur recording competitions in 1951 also shows that, despite its technicity and its need of equipment, editing with disc-cutters was routinely practiced by many amateurs.

Several programmes of Thévenot's are a testimony to these works. One of them, *La guerre des ondes* [War of the Waves], composed by Daniel et Henri Madelaine, was seen as "the best editing of historical documents that was broadcast in France."[93] The Madelaine brothers often lent their equipment to the Radio Club de la Maison des Lettres to record radiophonic plays, in effect directing several creations of the Club d'Essai. Thanks to their presence, editing became possible, and the plays that were before played live started to be pre-recorded, which allowed more complex compositions.[94] This flow of people between Radio and hobbyists – the blurred line between amateurs and professionals – will be discussed in the fourth chapter. For now, these editings often mimicked real radio programmes, as for instance the productions of the Amicale Club Cinématographique [Cinematographic Club] invited for the first of *On grave à domicile* on the 5th of March 1948. They produced spoofs of famous programmes, often humoristic, and false radio days. Their productions, technically very well made and realistic, were seen as "of great quality" by Thévenot.[95] Thévenot's own programme was also spoofed, since its first year. Thus, Robert Mercier, an insurance broker, produced a satirical version of the show, punned *On bave à domicile* instead of *On grave à domicile*

[93] Script from *Aux Quatre Vents*, 6 October 1949. *La guerre des ondes* was broadcast in *On grave à domicile* on the 23rd of May 1949. It is uncertain if a recording has survived.
[94] *On grave à domicile*, 15 October 1948.
[95] *On grave à domicile*, 5 March 1948.

[*Home Drooled* instead of *Home Engraving*, the pun plays on the proximity of sonority between *graver* and *baver*].

Disc-cutters were mainly for indoor use, but soon their transport started to become possible by the appearance of versions that could be transported in suitcases (figure 10). Amateurs then took the opportunity to make outdoor recordings. Fine examples of outdoor uses are given by Maurice Guibbert, a radio-electrician from Saint-Chély-d'Apcher. On the 23rd of May 1948, "with a Melodium microphone, a Philips amplifier, and a Dual disc-cutter," Guibbert recorded the football match between two local clubs. The first face of the disc was dedicated to the match, with extracts being recorded, while on the second one Guibbert interviewed the captain and the president of the winning club, Mende.[96] The figure 10 presents a recorder similar to the one he used. This example is valuable, as it shows that amateur sound recordists were also present in the countryside. Saint-Chély-d'Apcher was a small town of 3205 inhabitants in 1946, away from any major urban centre, in what was already the less populated department in France.[97] The same Guibbert also brought his disc-cutter to make a report of an expedition he did with a team of speleologists 200 meters underground.[98] His activity as a sound recordist was known locally, as he was asked by the local barracks to record the regulatory trumpet-calls when the decision was made to stop playing them live and use a recording instead.[99] will further explore the sound hobbyists' presence throughout the territory, including remote places like Saint-Chély-d'Apcher, in the third chapter.

Despite their weight and the need to carry blank discs, such disc-cutters enclosed in suitcases could be carried a long way. The French sound hunter Tartarin brought one for his motorcycle road

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[96] *On grave à domicile*, 11 April 1949. That match was the final of the Lozère Cup and was between Saint-Chély-d'Apcher and Mende (Union Sportive de Saint-Chély-d'Apcher vs L'Éveil Mendois). Mende won 1-0, with a goal at the 24th minute. 1500 people attended the match, a number to be compared to the population of Saint-Chély-d'Apcher, 3205 inhabitants at that time.

[97] Ldh/EHESS/Cassini, http://cassini.ehess.fr/cassini/fr/html/fiche.php?select_resultat=30862 (accessed 3 January 2020)).

[98] Script from *On grave à domicile*, 11 April 1949. It is unclear if a recording of this programme has been preserved. It is therefore unclear what his equipment was, besides the disc-cutter. He maybe took advantage of the electrification of recording to record through a telephone line that linked a microphone in the cave underground to the disc-cutter that stayed on the surface. A similar setup was used by the hobbyist Jean Evenou for his recording of an abandoned gold mine. He stayed out with the recorder while his colleague Christian Bodin went underground with a microphone linked thanks to a telephone line to the tape recorder. Pictures of the setup of Jean Evenou are visible in *Arts et Techniques Sonores*, July-August 1954, 8; and on figure 13 in this thesis.

[99] *Arts et Techniques Sonores*, July-August 1952, 8.

trip from Paris to Tokyo in 1954. With it, he recorded a number of monologues and "discs of atmospheres."[100] That trip was contemporaneous to the one made from Geneva to India by Nicolas Bouvier and Thierry Vernet in a Fiat Topolino, with an early model of Nagra tape recorder.[101]

Figure 10: A Dual Carobronze disc-cutter meant to record Pyral disc. Guibbert used a similar model for his outdoor recordings. The arm carrying the cutter head is at the back, while the arm with the reading head is on the forefront. A blank Pyral disc is also visible. *Toute la radio*, January 1955, 29.

With the advent of microgroove discs, turning at 33 1/3 rpm, disc-cutters such as the one presented in figure 10, were equipped to cut at either 78 rpm, or at 33 1/3 rpm. The rapid generalisation of microgroove discs prompted amateurs to modify their disc-cutters themselves into this new format. In the March 1953 issue of *Arts et Techniques Sonores*, Father Prêcheur, a sound hobbyist from Sennones, Burgundy, gave advice to turn a disc-cutter meant for regular disc into one able to cut microgroove discs, a procedure that required the user to change the motor, the pulley and the belt. The transformation was quite technical, and Prêcheur advised that one should build their own belt and should reduce the voltage of the motor to prevent any undesirable vibration due to the new

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[100] Tartarin, *Mon raid Paris-Tokyo en cyclomoteur*. Archives JT et CdS, 19910681/18, folder 3ème CIMES – 1954, siège : Bruxelles, sub folder Notations et observations. Unfortunately, it seems that these recordings have not been saved. From the observations of Thévenot, it seems that the monologues were not very interesting and "pompous." Nothing is said about the discs of atmospheres.

[101] Bouvier wrote a travel writing of their trip: Nicolas Bouvier, *L'Usage du monde* (Genève: Librairie Droz, 1963).

motor being more powerful. Finally, Prêcheur mentioned that he used "two lighting lamps of 40 watt,"[102] which allowed him to work whatever the weather at the temperature of 20°C. A conversion like this confirms that the sound hobbyist community had a habit of tinkering, and this habit, as I have shown, developed in tandem with sound recording from its inception.

Sound hunters continued to use disc-cutters throughout the 1950s, and even after. They were cheaper than tape recorders, and even when prices of tape recorders dropped, disc-cutters continued to be used in relation to tape recorders. Recordings were made on tape, and then transferred to disc for distribution to contacts and those who were interested.[103] Turntables meant only for playback were indeed much more accessible, financially speaking, than tape recorders, and their use had become commonplace. Outside home studios, Phono-Post booth continued to be present and used throughout the 1960s. And in the *Encyclopedia of Recorded Sound*, Howard Ferstler mentioned that direct-to-disc came back briefly in business during the 1970s with companies like Sheffield.[104]

2.1.4. The use of sound-on-film and wire recorders by sound hobbyists

Another technology was available to record sound which was closely linked to the cinema industry: sound-on-film. It used dedicated cameras that recorded sound on the same film as picture. The majority of the surface was devoted to image, sound being recorded on a narrow band on the side. In 1947, Desmond O'C. Roe, from the British Sound Recording Association, listed only two of these cameras accessible outside professional environment: one sold by RCA (at £130), and one sold by Berndt (at £160).[105] Despite their high prices, these models were far from recent, as they dated back respectively from 1934 and 1939. Moreover, as Roe explained, the technology had a number of drawbacks. During the shooting, the exposure had to be strictly controlled to avoid any volume variations, the film itself was expensive, and it needed complex processing.[106] Editing was tricky too: images were recorded at 25 frames per second, but sound was recorded continuously. To edit with tape required to cut it, remove the unwanted part, and stick the tape together again. Yet, on the sonic level, to be noiseless, tape needed to be sliced diagonally to avoid a brutal jump between the two waveforms of the two parts of the tape that were going to be pasted together. On the image level, that technique would result in a fade-out / fade-in between two images, which was not always

[102] Abbé Prêcheur, "Transformation d'un graveur prévu pour disque standard en microsillon," *Arts et Techniques Sonores*, March 1953, 7-8.

[103] That was the method notably used by the sound hunter Father Raymond Garnier, whom I will mention in the conclusion.

[104] Howard Ferstler, "Direct to Disc," in *Encyclopedia of Recorded Sound*, ed. Frank Hoffmann (New York, London: Routledge, 2005), 296.

[105] Should add a comparison to these prices (15/12/2022).

[106] Desmond O'C. Roe, "Sound-on-film and the amateur," *Sound Recording*, Summer 1947, 5-7.

desirable. Moreover, the sound being printed on a very narrow track only 1/32 inch wide (0.79375 mm), the operation was problematic. Edits were therefore made in regard to image much more than to sound, and noisy edits remained a problem, as highlighted by Roe in his article. In France, at least concerning the amateurs that went in touch with Thévenot and for whom consequently traces subsist, sound-on-film was a known solution but a too expensive one. To add a soundtrack to their films, amateurs preferred to use post-synchronisation devices. Images and sound were recorded on two different recording media and synchronised afterwards. That solution was illustrated by the already mentioned Amicale Club Cinématographique who was invited on *On grave à domicile*. They shot the images on a 9.5 mm film, while sound was recorded and edited on discs. They then used a Chronophone Gaumont to synchronise sound and image.[107] The solution of post-synchronisation would remain in use with tape recorders. Amateurs were effectively producing films, and they were producing the soundtracks for them with the technology available at that time.[108]

A cheaper technology, and the last medium used by sound hobbyists before the advent of the tape recorder, was the wire recorder. The development of wire recorders goes back to the nineteenth century, with Valdemar Poulsen (1869-1942), who achieved in 1898 the Telegraphone, a magnetic wire recorder. The principle was to have a magnetisable wire moving in front of an electromagnet (the 'head') that transduced the electric signal into a magnetic one. The wire was then magnetised according to the intensity and polarity of the signal. To read, the same head was used, without feeding an electrical signal into it. The electromagnet reacted to the variable magnetic field present in the wire, transducing it into an electric current. It is the exact same principle that was used in tape recorders.

The Telegraphone performed well, with thirty minutes of record time and a lower distortion compared with cylinders and discs. The wire could also be reused indefinitely. The target market was dictating machines, telephone recorders, and other applications where the erase function could be important. However, electronic amplifiers had yet to be developed, and the playback level was therefore low. The machine was also more complicated to use than cylinders and was in the end a commercial failure.[109] It resurfaced in the 1920s but was still limited to dictating machine and telephone recorder roles. Only in the 1930s, when Ludwig Blattner obtained the rights to manufacture magnetic recording equipment did the wire recorder start to be used in broadcasting and the cinema industry.[110] After the War, domestic recorders such as the one shown in Figure 11, were advertised as being ideal for home recording (recording music and sport events from radio, recording of

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[107] *On grave à domicile*, 5 March 1948.

[108] As mentioned in the introduction, an international federation and contest of amateur cinema exited since 1931, the UNICA.

[109] Semi Joseph Begun, *Magnetic Recording* (New York: Technical Division Murray Hill Books, 1949), 5-6.

[110] *Ibid.*, 7-8. It was the Blattnerphone, used with more success in much more broadcasting than in cinema.

children and family events), for the practice of sound recording as a hobby (to produce sound effects, to do candid recordings, to make reports, to record weddings), and for professional uses (church, dictating machine for business, medical and legal).[111] The manual gave instructions on what to do if the wire accidently got tangled (due to misuse or malfunction), and even gave information on the knot to use in case of a wire break.[112] In the manual, the frequency range of the recorder was notated on musical staves, from a low G (put on a rarely used baritone clef) to a upper E on a G clef. That corresponds, with A = 440 Hz, to a bandwidth comprised between 98 Hz and 1318,5 Hz. If the lower range is consistent with the performance of sound equipment of the 1940s, the upper range seems very limited, which is contradictory to the "expanded tonal range" and "life-like tonal quality" announced.[113] But as this ambitus corresponds to the lowest notes of a barytone and to the upper range of soprano, the idea was probably to associate the recorder with musical qualities and its ability to cover nearly all the human voice. This is confirmed on the pages dedicated to "Microphone Techniques," that are intended to guide the beginner in the manipulation and use of the included microphone, that reached 7000 Hz, a more coherent value to the "expanded tonal range" advertised.[114]

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[111] Webster-Chicago, *Instructions for operating Webster-Chicago Model 180 Electronic Memory Wire Recorder* (Chicago, IL.: Webster-Chicago, 1949), 12-5.

[112] *Ibid.*, 18.

[113] *Ibid.*, 4.

[114] *Ibid.*, 11.

Figure 11: A Webster-Chicago model 180-1 wire recorder, built in 1949. The supplied microphone is visible on the recorder. The wire spool is the one on the left, with the inscription 'Webster Chicago' on it. The take-up drum can be removed on this model, which is not always the case. However, to be played, the wire will have to be rewind on the spool. The machine is operated by the switch on the front just under the cable of the microphone. On the left, it is the record mode, on the right, it is the listen mode. The motor is started by the switch on the upper part just under the microphone. The middle position is 'stop,' the left is to start the motor, the right to rewind. The black element between the two spools is the head that serves to both record and play. To ensure a correct coiling on the wire on the take-up drum (or on the wire spool during rewind), the head moves from top to bottom. Note the elapsed time indicator (below the take-up drum) that goes to 60 minutes. The monitoring of the input level was minimal, done with the light on the façade above the two switches on the right.
Made in Chicago Museum.

Wire recorders were manufactured in North and South America, Europe, Japan.[115] They became available for domestic use during the Second World War, and as soon as 1940, instructions on how to build a wire recorder appeared in the periodical press. Hence, during two issues, the British magazine *Electronics and Television & Short-Wave World*, which was apparently also the first television journal to be published in the world, offered guidelines on how to build a wire recorder.[116] The

[115] Ragnhild Brovig-Hanssen, "The Magnetic Tape Recorder: Recording Aesthetics in the Age of Schizophonia," in *Material Culture and Electronic Sound*, ed. Frode Weium, Tim Boon (Washington, D.C., Smithsonian Institution Scholarly Press, 2016), 131-58, 135.

[116] Ronald L. Mansi, "Construction of Apparatus for Recording Sound on Steel Wire," *Electronics and Television & Short-Wave World*, January 1940, 4-10; 'Recording Sound on Steel Wire,' *Electronics and Television & Short-Wave World*, March 1940: 142-4. Despite what is announced in the January and March issues, the February one does not contain any wire recorder article.

tinkering habit of sound hobbyists was fostered after the Second World War by the existence of vast military surplus where it was easily possible to find cheap equipment and parts. According to G. R. Judge, who wrote the Bernards Radio Manual on wire recorder, magnetised wire was a reliable and durable medium. He mentioned a test, without mentioning a source nor a date, where a wire recording was played 17,000 times before the volume fell off by about 4 dB, and then remained stable for another 180,000 playings.[117] A similar durability test was made, with tape, in 1954 by a French sound hobbyist who went as far as 500,000 playings of the same recording on the same tape. There was a slight reduction of the bandwidth and a raising of the noise floor.[118]

When tape recorders appeared, prices of wire recorders dropped, and they became a solution for penniless recordists, especially those sold in kit forms. This was reported in the April 1953 issue of *Arts et Techniques Sonores*, in which the sound hunter Jacques Chenard took the defence of wire recorders, by explaining how he built a report recorder with a turntable deck. With a few tweaks, he managed to correct the typical "umbrella frequency response" of wire recorders and had a flat frequency response between 100 and 8000 Hz. Flutter was equivalent of a 19cm/s tape, and he had a stronger output level than that of a typical domestic tape recorder. Moreover, five valves were enough to power it.[119] And on the subject of edits, he explained that with a little practice, one should be able to perform an inaudible knot in 20 seconds. Chenard built his recorder for 35,000 Fr, while the typical price of a tape recorder was nearly twice as much, at 60,000 Fr.[120] And as wires were cheaper than tapes, he was able to take down the cost price to 2500 Fr for 1 hour of recording at 61 cm/s.[121]

Even if wire recorders were quickly replaced by tape recorders after the War, they nevertheless opened the world of sound recording and sound manipulations to numerous individuals. It was indeed with a wire recorder that the young Halim El-Dabh (1921 - 2017) started to experiment. Now viewed as a pioneer of *musique concrète*,[122] El-Dabh first practiced music and composition as

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[117] G. R. Judge, *Wire Recorder Manual* (London: Bernards Publishers Ltd., 1949), 13.

[118] Joseph-Maurice Bourot, *Mille ? Dix Mille ? Cent Mille ?* I will come back on this piece and Bourot's work later in this chapter, and in the fifth chapter.

[119] Tape recorders usually had more. For instance, the Nagra II C1 had a similar size but used 6 tubes. The more tubes, the more electrical consumption, the bigger the batteries.

[120] *La Revue du Son*, June 1953, inside front cover. The Oliver Baby was sold 60,000 Fr. The Senior model was offered at 85,000 Fr. It was possible to buy these two recorders in kit form for cheaper. They were available in kit, so they were quite basic, and thus comparable to the wire recorder built by Chenard. 35,000 Francs has a today relative inflated worth of £ 839 (https://www.measuringworth.com/dollarvaluetoday/). The 60,000 Francs of the Oliver Baby correspond to £ 1438, while the Senior Model would be today at £ 2038.

[121] Jacques Chenard, "Un amateur prend la défense de l'enregistrement sur fil," *Arts et Techniques Sonores*, April 1953, 8-9.

[122] Thom Holmes, *Electronic and Experimental Music: Technology, Music, and Culture* (New York, NY ; Abingdon: Routledge, 2016).

an amateur, while he was pursuing a career in the agriculture administration of Egypt in the 1940s. And it was through the innovative methods that were used by the Egyptian administration that he came into contact with wire recorders. Indeed, following a period of food shortage due to the War, El-Dabh experimented in creating "a sound-based beetle repellent."[123] In parallel with sonic experiments, El-Dabh took advantage of the wire recorder, lent by the Egyptian Radio, to record folkloric music. And it is one of these recordings that he used in 1944 to compose *Wire Recorder Piece*,[124] through manipulation of the recording and the use of "reverberation, echo chamber, voltage controls and a re-recording room" in a studio of Egyptian Radio.[125] In France, Francis Dhomont, future composer of acousmatic music, was also experimenting with sound and wire recorders. He recalled that, between 1946 and 1948, while he was between 20 and 22 years old, his first contact with a sound recorder came through a Webster wire recorder owned by a friend's uncle. The Webster, probably a model similar to the one showed in figure 11, was in his words more a dictaphone that anything else, but Dhomont soon started to experiment with it, recording all kind of noises and organising them into pieces with a friend – something that would be called later *musique concrète*.[126] Examples of amateurs collecting folkloric music with wire recorders (such as El-Dabh in Egypt) also exist in France, for instance Jean-Michel Guilcher, employee in a publishing house, who scouted Brittany to collect folkloric songs with his Webster-Chicago since 1945.[127]

To sum-up, sound-on-film was rarely used by sound hobbyists. Disc-cutters and wire recorders were used jointly until the middle of the fifties, before being quickly replaced by tape recorders. Disc-cutters remained in use afterwards only to circulate recordings made on tape. This is demonstrated by the statistics of the International Amateur Recording Contest (I will develop on the history and significance of this contest in the third chapter) shown in table 1 below.

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[123] Brigid Cohen, "Sounds of the Cold War Acropolis: Halim El-Dabh at the Columbia-Princeton Electronic Music Centre," *Contemporary Music Review* 39, no. 6 (2020): 684-707, 690-1. Cohen's article is based on interviews she made with El-Dabh.

[124] The piece is also known under the name of *Ta'abir al-Zaar* [The Elements of Zaar].

[125] B. Cohen, "Sounds of the Cold War Acropolis," 692.

[126] Francis Dhomont interviewed by Rosemary Mountain, "From Wire to Computer: Francis Dhomont at 80," *Computer Music Journal* 30, no. 3 (2006): 10-21, 10-1.

[127] Application form of Jean-Michel Guilcher. Archives JT et CdS, 19910681/18, folder 1er CIMES – 1952, siège : Paris, sub folder Émission spéciale.

	Recordings on disc	Recordings on wire	Recordings on tape
1950[128]	29	10	3
1952[129]	27	13	18
1956[130]	1	0	111

Table 1: Evolution of the use of disc-cutters, wire recorders and tape recorders, during the French national contest.

The replacement of older sound recording technologies by the tape recorder was not limited to France. In 1956, the Belgium national contest had 35 proposals, 1 on disc, 4 on wire, 30 on tape. And that same year, the Swiss national contest had 46 submissions, all on tape.[131]

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[128] Évolution du nombre de participants entre le 1er concours en 1950 et le 2ème en 1951. Archives JT et CdS, 19910681/18, folder 1er CIMES – 1952, siège : Berne, sub folder Document concernant le 2ème concours national d'enregistrements d'amateurs (1951). [there is a mistake on the folder, the contest was held in Lausanne.]

[129] Lettre de Thévenot à René Monnat, 13 May 1952. Archives JT et CdS, 19910681/18, folder 1er CIMES – 1952, sub folder Palmarès, moyenne, statistiques.

[130] 'Statistiques CIMES 56.' Archives JT et CdS, 19910681/19, Folder 5ème CIMES – 1956, sub folder Palmarès, statistiques.

[131] 'Statistiques CIMES 56.' Archives JT et CdS, 19910681/19, Folder 5ème CIMES – 1956, sub folder Palmarès, statistiques.

2.2. Sound hunting with tape recorders

2.2.1. Tape recorders and their use by sound hobbyists

Tape recorders began to be used in Germany by the end of the 1930s, with the AEG Magnetophon. AEG (Allgemeine Elektricitäts-Gesellschaft) manufactured models for both studio and field uses.[132] The technology of recording sound on tape was independently developed in the United States during the 1940s by several companies, notably Brush Development Company who commercialised the Soundmirror in 1947.[133] That one was released under licence in Britain in 1948 by Thermionic. Two other brands manufactured tape recorders at that time in the UK: Scophony and Electric and Musical Industries Ltd. (EMI).[134] However, Scophony equipment was aimed at scientific use, and EMI built their recorders for broadcast and record production, the BBC being their main client. The EMI recorders were copies of the AEG Magnetophon.[135] In the US, the Ampex 200A (1948) was also based on the Magnetophon and targeted to broadcast.[136] Faced with these models, the Soundmirror was the only one designed for domestic use. It was joined in 1949 by Wright and Weaire who released the first Ferrograph (and took the name The British Ferrograph Recorder Company soon after).[137] The market really took off from there, and by 1950 there were no fewer than seventeen companies that manufactured tape recorders in Britain. On the other side of the channel, the French tape recording industry is strangely sparsely documented. Still, the technology was known, as a company like Eugène Ducretet manufactured amplifiers for AEG tape recorders

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[132] For details about the development of the Magnetophon and its different models, see Roland Schellin, *Magntophon: AEG-Universalgerät für Tonaufnahme und -wiedergabe* (Dessau: Funk Verlag Bernhard Hein e.K., 2016) and Friedrich Engel, Gerhard Kuper, Frank Bell, *Zeitschichten: Magnetbandtechnik als Kulturträger. Erfinder-Biographien und Erfindungen* (Postdam: Polzer, 2010).

[133] David L. Morton, "The History of Magnetic Recording in the United States, 1888-1978," (PhD diss., Georgia Institute of Technology, 1995), 294, 300. An early prototype of the Soundmirror was presented in the May 1939 issue of *Radio Craft*, with an interview of Semi J. Begun presenting the machine: R.D. Washburne, "Sound-on-Wire Tape!" *Radio Craft*, May 1939, 645-5, 684-5.

[134] B. M. Jones, *A Guide to British Tape Recorders*, 35.

[135] Friedrich Engel, Gerhard Kuper, Frank Bell, *Zeitschichten: Magnetbandtechnik als Kulturträger. Erfinder-Biographien und Erfindungen* (Postdam: Polzer, 2010), 232.

[136] Engel, Kuper and Bell provide an account on how John T. Mullin brought back two Magnetophon K4 and tapes to the US and adapted them. Because the power grid was different (110V / 60Hz instead of 220V / 50Hz), the motors had to be changed. It was through Mullin's choice to adapt the machines to the power grid and to the US supply chain that the different tape speeds now known (30 inches per second, 15 in/s, 7,5 in/s, 3,75 in/s and 1,375 in/s) were established. F. Engel, G. Kuper, F. Bell, *Zeitschichten: Magnetbandtechnik als Kulturträger*, 235-6. See also the story of Mullin in John "Jack" T. Mullin, "Creating the Craft of Tape Recording," *High Fidelity*, April 1976, 62-7.

[137] B. M. Jones, *A Guide to British Tape Recorders*, 35.

during the War.[138] Moreover, the statistics of the IARC shows that a number of French companies existed, and that their recorders were used by amateurs. For instance, in 1962 alone, tape recorders from the firms Gaillard, Sareg, Magnetic France, Polydine and Belin were used.[139] However it seems that no existing literature documents them.[140]

As for wire recorders, DIY models sold in kit form appeared soon after the release of these first tape recorders to the general public. As prices were high, they offered a cheaper solution. One of the first DIY manuals to build a tape recorder was published in 1951. It offered the "realisation of a remarkable recorder, in the sense that it only requires a very small down payment, and only a very general knowledge of mechanics and electronics."[141] Magazines also offered series of articles to guide readers in the building of a tape recorder.[142] Another makeshift was to acquire the *possibilities* of a tape recorder (the use of tape to record and playback), without acquiring one *per se*. The company Gramdeck offered a system to turn a gramophone into a tape recorder through an adaptable deck that used the motor of the turntable and adapted its speed (figure 12). Such a move can be conceptualised as an attempt to access a part of the spectrum of affordances of tape recorders with a turntable.

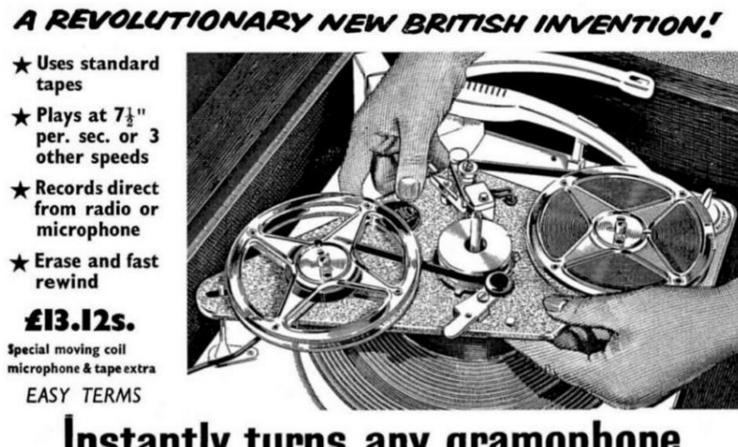

Figure 12: The Gramdeck, to turn a gramophone into a tape recorder.
Amateur Tape Recording, February 1960, 2.

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[138] F. Engel, G. Kuper, F. Bell, *Zeitschichten: Magnetbandtechnik als Kulturträger*, 232.

[139] Statistiques françaises du CIMES 1962. Archives JT et CdS, 19910681/22, folder 11ème CIMES – 1962, Strasbourg, sub folder Programme, liste des jurés, récapitulatif du voyage à Strasbourg, etc.

[140] The best source of information are collectors and specialised internet forums, such as www.radiomuseum.org (accessed 03/05/2022).

[141] William D. Groover, *Construisez votre magnétophone* (Paris: Éditions Gead, 1951), 5.

[142] Howard G. McEntee, "How I Built a Portable Tape Recorder," *Popular Science Monthly*, March 1953, 232-6.

As table 1 shows above, tape recorders quickly replaced the other technologies of sound recording. There are reasons for this. Differently from disc, tape provided the possibility to edit; it was rewritable; it was no longer necessary to maintain the recorder perfectly horizontal and it was less sensible to vibration; the dynamic, signal-to-noise ratio and bandwidth were better; recordings could be replayed indefinitely; thanks to the internal amplifier it was no longer necessary to carry an external one; and with portable hand-held recorders (battery-powered or clockwork-driven) it became very easy to operate in the field away from mains. Differently from wire recorders, tape ones were more reliable; the pain of untying knots disappeared ("horrible memories!"[143]); editing was far easier; and dynamic and bandwidth rapidly outgrew wire ones. The spectrum of affordances of tape recorders was greater and more accessible than the one of previous recording technologies. In the 1950s, there was also a range of manufacturers that sold their recorders in parts, making them accessible. Even so, while tape recorders did bring sound recording to a new range of people, they had their own complexity. As the rest of this section will describe, amateurs did struggle to use them correctly in the first years, and spent the 1950s getting familiar with this new technology.

At the beginning, tape recorders which were accessible to amateurs were divided in two categories. The first was meant to be used in controlled environments (in a home studio, for instance). It worked on mains, and was usually large and heavy. The second type of recorder was meant to be used in the field, working either on battery or, in the early days of tape recorders, through a clockwork-drive winded up thanks to a crank. These machines were small and lightweight.

Portable battery-powered tape recorders appeared at the end of the 1940s. In 1948, in the United States, Stancil-Hoffman Corporation released their Minitape M5A, the first portable tape recorder with an electric motor developed after the Second World War.[144] It was that model that would inspire the Japanese recorders released by Totsuko in 1951 the PT-1 and M1. In Britain, also in 1951, EMI released the L1,[145] while in Germany, Maihak launched the MMK1 (*Maihak Magnetton Koffer* [Maihak Magnetic Sound Case] a year before, in 1950. In the EMI and the Maihak, the battery served only to power the magnetic head, the motor was clockwork-driven and winded up with a crank.[146]

Clockwork-driven tape recorders and mains-operated ones had another fundamental difference. The first used turntable motors, and turntables turn clockwise; therefore, on these machines, the

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[143] Communiqué de presse pour le CIMES, *Musica*, 26 November 1964. Archives JT et CdS, 19910681/24, folder 13ème CIMES – 1964, Lausanne, sub folder Presse publiée.

[144] Roland Schellin, *Federwerk-Tonbandgeräte. History of Clockwork-Driven Tape Recorders* (Dessau: Funk Verlag Bernhard Hein e.K., 2009), 251.

[145] Barry M. Jones, *A Guide to British Tape Recorders* (Beckley: Barry M. Jones, 2016), 285.

[146] For a detailed history of clockwork-driven tape recorders, see Roland Schellin, *Federwerk-Tonbandgeräte. History of Clockwork-Driven Tape Recorders* (Dessau: Funk Verlag Bernhard Hein e.K., 2009).

feeding reel was the right one, and it was turning clockwise.[147] And the second used an electric motor, which turned the other way round, anti-clockwise, which means that the feeding reel was on the left. Therefore, reels recorded on a recorder from one category were not readable on a recorder of the other category, as the direction and side were inverted. Copies had to be made beforehand.[148]

Such a different architecture commended different practices. The bigger ones relying on mains to be powered were more dedicated to domestic use, like listening to pre-recorded tapes or to record events occurring or organised at home (record from radio, record music played at home, or record family events for example). The portable ones were meant to be carried outside, and their format were an invitation to hunt sounds. That difference was clearly showed by Karin Bijsterveld. In her article with Annelies Jacobs, the amateurs they studied, dubbed 'regular' by the two authors, had recorders of the first category, meant to be used at home.[149] On the other hand in her study of Dutch sound hunters, Bijsterveld shows that this other type of users privileged portable recorders to perform recording where they wanted to.[150] In the fifth chapter, I will come back on these different users and a possible typology to approach them. This being said, notably for price reason,[151] keen amateurs did not hesitate to take their bulky domestic recorder in the field, together with truck batteries for power supply. Figure 13 thus shows the sound hunter Jean Evenou and his team in such a situation, recording in an abandoned gold mine in Brittany with a Philips EL 3540, a recorder weighting nearly 18 kilograms, to which one needs to add the weight of the truck battery. Because of this size and weight, the recorder stayed at the entrance of the mine, the link with the exploration team being made thanks to a telephone line plugged into the recorder.

[147] Only a few models had their feeding reel on the left.

[148] That was easily made by linking through their output / input a recorder of each type, but one needed to have a recorder of each type.

[149] Karin Bijsterveld, and Annelies Jacobs, "Storing Sound-Souvenirs: The Multi-Sited Domestication of the Tape Recorder," in *Sound Souvenirs. Audio Technologies, Memory and Cultural Practices*, ed. Karin Bijsterveld and José van Dijck (Amsterdam: Amsterdam University Press, 2013), 25-42, 34-5.

[150] Karin Bijsterveld, "'What do I do with my tape recorder…?': Sound hunting and the sounds of everyday Dutch life in the 1950s and 1960s," *Historical Journal of Film, Radio and Television* 24, no. 4 (2004): 613-34.

[151] Battery-powered recorders cost much more than regular domestic recorders, and, in their early days, were less widely distributed.

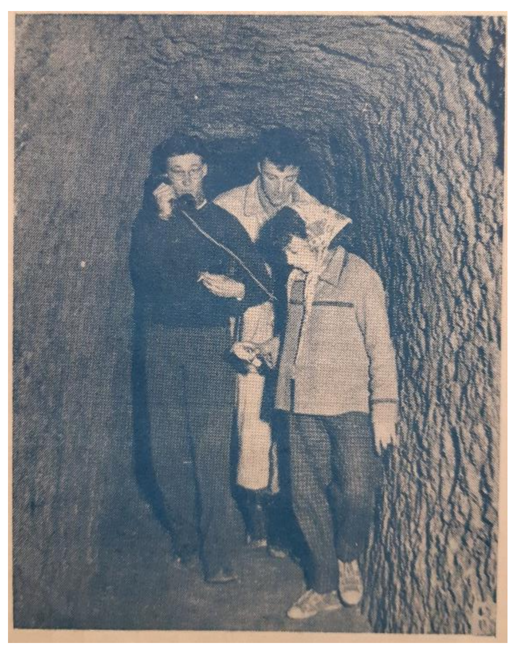

Figure 13: Left: Jean Evenou preparing a recording at the entrance of an abandoned gold mine in Brittany. His tape recorder is a Philips EL 3540. Note the truck battery in the forefront on the right, with the crocodile clips to link the battery to the recorder. Right: Christian Bodin, Georges Lequellec and Yanette Evenou in the gold mine recording and commenting their expedition. Because the recorder was static at the entrance of the mine, and because the mine was huge, they relied on a telephone line to record their exploration. The telephone is clearly visible, held by Bodin.
Arts et Techniques Sonores, July-August 1954, 8.

However, in the beginning, the ease of operation was not evident. The first element to overcome was the management of the different tape speeds. There were five of them. The fastest, 38 in/s, was absent from domestic equipment and only present in studio ones. The slowest, 1.375 in/s was usually only present on dictating recorders. The three others (15 in/s, 7.5 in/s, 3.75 in/s) were found on recorders accessible to amateurs, the most common being 7.5 and 3.75 in/s. However, a deck that offered the three speeds was more the exception than the rule. Only one or two speeds were present most of the time, especially in the first half of the 1950s when tape recorders spread. But if a tape recorded at one speed was readable at a different one, the frequencies were either doubled and thus pitched up (if read at a higher speed, a 7.5 in/s recording read at 15 for instance) or divided by two and thus pitched down (if read at a lower speed, a 15 in/s recording read at 7.5 for instance). The difference was even greater if the difference between the recording tape speed and the playback on was of a factor 4 (a 3.75 in/s recording read at 15 for instance). If that effect quickly became a well-trodden trick used by sound hobbyists in their pieces (more on this in the fifth chapter), it was also a problem for many in the beginning as tapes were not playable on all machines depending on the recording speed.

Understanding the type of magnetic head was another, less evident problem. I have explained the principle of magnetic head in the previous section on wire recorders. It was identical with tape.

But to take advantage of the width of the tape, different types of head quickly appeared. They are summarised in figure 14.[152] The first tape recorders, for instance the Magnetophon, the Ampex and the Soundmirror, were equipped with full-track heads (D). Half-track heads (E, F) appeared in 1954, while quarter-track heads (G) appeared in 1958.

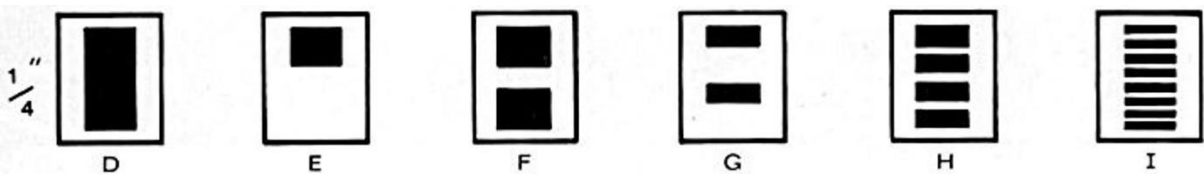

Figure 14: The different types of quarter inch tape heads, for recording and playback. The black squares are the surfaces of the electro-magnets, that is to say, the surface on which the recording (or playback) will occur.
D is full-track mono, E is half-track mono, F is half-track stereo, G is quarter-track stereo, H is four-track, I is eight-track.
Home & Studio Recording, July 1984.

On the types E and G, we can see that the surface of the electromagnet is reduced in comparison with the others. This is to allow tape to be flipped, so that both of its sides can be used, doubling its recording capacity. On type E, half-track mono, on side one, the upper half of the tape will be recorded, leaving the lower half blank (hence the name, half-track). If one flips the reel to use side two, the lower half will be in the upper position, allowing one to record on it. The principle is identical with type G, which is the stereo version. Because two channels are recorded (left and right), a quarter of the tape is dedicated for each (one in the upper half, one in the lower half), hence the name, 'quarter-track.' One can wonder why the two channels are not grouped on the same half. This is to minimise another undesirable effect that amateurs often faced with cheap recorders: cross-talk. It occurs during playback, when the signal of one channel is picked-up by another channel, disturbing it. To avoid this, a space is maintained on tape to separate tracks. This also explains why standard stereo tracks are numbered 1-3 and 2-4. Despite this, the average accuracy of cheap tape recorders, together with an approximative knowledge of the functioning of the recorder, were often a source of cross-talk, a flaw that was regularly criticised during contests.[153] For better precision, more expensive tape recorders soon featured dedicated heads for recording, playback, and erasing. This allowed each head to be precisely engineered for a specific function.[154] On head types D, F, H, and I, it was not possible to flip the reel, as the magnetisation occurs directly on all the width of the

[152] That figure only shows the quarter inch tape type, hence the letters starting from D. I have omitted the cassette, half inch tape, and one inch tape, which are not relevant for the discussion here.
[153] It appears especially on the recordings that did not pass the selection. See the notation sheets of different IARC.
[154] It was necessary as the space separating tracks on four-track and eight-track head begins to be very small, as it can be seen on figure 14.

tape. Only one side could thus be used. Finally, one can also easily see that a tape recorded with a specific head will not be read entirely or correctly with another type of head, again a source of compatibility problems met most notably during the first years of national and international contests.

2.2.2. Amateurs and the standardisation of sound recording equipment

The number of different formats received by the International Amateur Recording Contest and the number of errors reported are a testimony to the complexity that novices faced. At the first edition, submissions were received on three supports, in nine different speeds, and, for tape, in different formats (single and multitrack). Even with the technical equipment of Radio Lausanne, where the contest happened, several submissions had to be rejected due to format problems.[155]

That multiplicity of different formats was problematic because it met the democratisation of sound recording which was brought by tape recorders. A lot of newcomers who bought recorders were lost, and it is probably not a coincidence that a number of manuals and handbooks that were published in the 1950s insisted on the necessity to persevere. The arrival of the stereo format on domestic equipment during the 1950s added a new parameter to deal with. Satisfactory results were not immediate, and one needed to practice, to learn how to use their equipment. Manufacturers themselves offered courses to learn how to use their machines,[156] while tape recording clubs delivered monthly lessons, and even organised national courses.[157] In France, aware of the problems that the absence of standardisation posed, the ADAES, the first association that gathered sound hobbyists, and its successor the AFDERS,[158] participated in meetings to push for and establish standards. They were in position to do this because of their proximity with the *Syndicat National des Industries Radioélectriques*, SNIR [Radioelectric Industries National Syndicate] which gathered a number of sound recorder manufacturers. The Syndicate was a founding member of the International Amateur Recording Contest and pushed for its creation by financing it.[159] And it was following its first edition in 1952 – with all the problems mentioned above – that the ADAES took contact with the AFNOR, the *Association Française de NORmalisation* [French Association of Standardisation]. At that

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[155] Jacques Bureau, "La nécessaire normalisation de l'enregistrement," *Arts et Techniques Sonores*, April 1953, 4-5, 4.
[156] Craig Fleming, "Memory Lane," *The Blackpool Gazette*, 17 March 2007, 8.
[157] The history of these clubs will be at the centre of the third chapter. I will detail the transmission of knowledge that occurred in these clubs in the fourth chapter.
[158] I will develop the history of these associations in the next chapter.
[159] Note from Thévenot, "La RTF et le Concours du Meilleurs Enregistrement Sonore," 10 March 1953. Archives JT et CdS, 19910681/18, folder 2ème CIMES – 1953, Siège : Paris, sub folder Organisation du CIMES, documents préparatoires. I will detail the history of the creation of this contest in the third chapter.

time, the AFNOR answered that no standardisation protocol concerning sound recording was on the agenda. Still, following the problems that occurred at the IARC, an internal committee was organised within the SNIR in April 1953.[160]

This push for standardisation was not restricted to France. In Britain, the British Sound Recording Association (BSRA) was formed in 1936 "by a group of electro-acoustic engineers and amateur technicians with the purpose of uniting in one body all persons (…) whether professionals or amateurs, engaged or interested in the art and science of sound recording." Between 1936 and 1939, the activities of the BSRA were mainly limited to the London area, but contacts existed across the country and overseas thanks to the quarterly journal of the association.[161] The War put the activity to a stop. The BSRA reconvened in January 1946, with the same objective, to gather "the growing number of enthusiasts who, as amateurs and professionals, made sound recording and reproduction a major interest."[162] As I will detail in the fifth chapter, one of the aims was to collect and share a technical knowledge about sound and sound recording amongst its members. The other main objective of the association was "to represent the interest of those engaged in making or using records."[163] The calls made since the end of the 1940s for the reaching of an international standard for disc recording and reproduction were part of that common interest, as were the calls for a similar one for magnetic recording and reproduction. Indeed, in addition to the already mentioned difficulties with tape, problems already existed with discs. Groove shape and size varied, some manufacturers of instantaneous disc cutters still employed inside-out start (the recording started from the centre of the disc) and vertical cut, and with the advent of microgroove discs, two speeds coexisted (78 rpm and 33 1/3 rpm). No consensus existed at the end of the year 1948, but a committee was formed around these questions within the British Standards Institution. The Vice-President of the British Sound Recording Association, J. L. Pulling, was the chairman of this committee, who worked in contact with the American Institute of Standards.[164]

Indeed, the field was undergoing a similar situation in the US at the time, with the establishment of sound recording as a profession and the creation of a professional association able to gather resources for its members and to push for standardisation.[165] Therefore, the advent of the tape recorder

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[160] *Arts et Techniques Sonores*, April 1953, 4-5.
[161] "Summary of the BSRA Proceedings, History 1936-1946," *Sound Recording. The Official Journal of the British Sound Recording Association* 3, no. 1 (Summer 1947): 8-9, 8-9.
[162] L. E. C. Hughes, *Sound Recording. The Official Journal of the British Sound Recording Association* 3, no. 1 (Summer 1947): 1.
[163] "Editorial," *Sound Recording and Reproduction* 3, no. 12 (1952): 1. This journal is the successor of *Sound Recording*. '*Reproduction*' was added in 1951, with the eighth edition of the third volume, to include – and reflect – what was a large proportion of the members.
[164] "Editorial," *Sound Recording, The Official Journal of the British Sound Recording Association* 3, no. 4 (1948): 1.
[165] S. Schmidt Horning, *Chasing Sound*, 67-76.

after the Second World War was synchronous with the establishment of a standardisation of sound recording, a standardisation that was paralleled by a professionalisation of sound recording (I will bring further details on the links between amateurs and professionals in the fourth chapter). The development of the sound recording hobby on a new scale was contiguous to these evolutions and participated in them.

The definitive push for standardisation would come from broadcasting. Indeed, radios, in Europe, the United States, but also Japan, were amongst the first clients of tape recorders. AEG built its Magnetophon for the different German radio organisms, the first client of Ampex was America Broadcasting Corporation (ABC), the first tape recorders built by EMI were for the BBC.[166] In view of the different formats that I presented above, a framework to regulate the characteristics of tape recorders and tapes was necessary to ensure that radios could use and navigate between the different formats.[167] This move came from the National Association of Broadcaster, the US association of commercial broadcasters. A Recording and Reproducing Standards Committee existed since 1941 to regulate disc recorders, and in 1949 this committee produced a new standard for tape and tape recorders. This standard was adopted by British in 1953 and became the international one in 1954.[168]

The structuring of the sound recording field and its progressive standardisation is visible in the design of the recorders themselves. The design of the icons to launch the machine, to record, play, or rewind were not stabilised. The triangles, squares and circles pictograms were not yet invented when tape recorders appeared, and each manufacturer had its own way to indicate these functions.[169] The pictograms they invented were sometimes cryptic: some manufacturers colour coded these functions, while others made the safer choice of simply writing the function on the button (figure 15). The result was that the purpose of the buttons was not always intuitive and that it was not always possible to extrapolate the use of a recorder to another one.

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[166] B. M. Jones, *A Guide to British Tape Recorders*, 284.

[167] This included the spools as containers of tape. In the beginning, their size and fastening on the recorder were not standard, with the consequence that some spools were not usable on some recorders. B. M. Jones, *A Guide to British Tape Recorders*, 38-9.

[168] B. M. Jones, *A Guide to British Tape Recorders*, 38.

[169] To my knowledge, there is no proper study on how and why media transport icons evolved and were chosen. They were normalised as we know it today in the IEC 60417 norm of 1973, that now bears the reference ISO/IEC 18035:2003. In the IEC 60417 norm of 1973, the 'pause' button (IEC 60417 – 5111A) had a different symbol. Many thanks to Stephanie Tissieres Tinao from the International Electrotechnical Commission for her research on that subject.

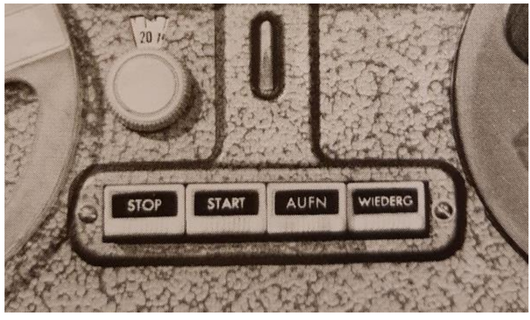

Figure 15: Operation buttons on, from left to right, first line: a Geloso G255 (1955). a Truvox R1 (1956).
Second line: a Butoba TS6 (1957), a Revox F36 (1962). Without the manual, it was not evident to intuitively understand what the function of the buttons were.
For the Geloso: red button: record; black button: pause; green button: listening; white button: rewind. The knob on the lower left is the volume, for both record and listening.
For the Truvox, from top to bottom: pause; play/record; fast rewind; fast forward; stop.
For the Butoba TS6, from left to right: stop; start; record; play (to record you have to depress the start and record buttons; to listen, the start and play buttons). The knob on the upper left is to set the counter. In the middle above the button is the 'magic eye' to monitor the signal.
For the Revox G36, from left to right: fast rewind, fast forward, play, stop, record.
www.reel-reel.com.

In the same way, the first tape recorders did not have any level meter to measure and monitor the input signal coming from the microphone visually (like the EMI L2 used by the BBC for instance). A 'magic-eye' (figure 16) then appeared and became a widespread function, before modulometers brought a comprehensive and precise way to monitor the level visually.

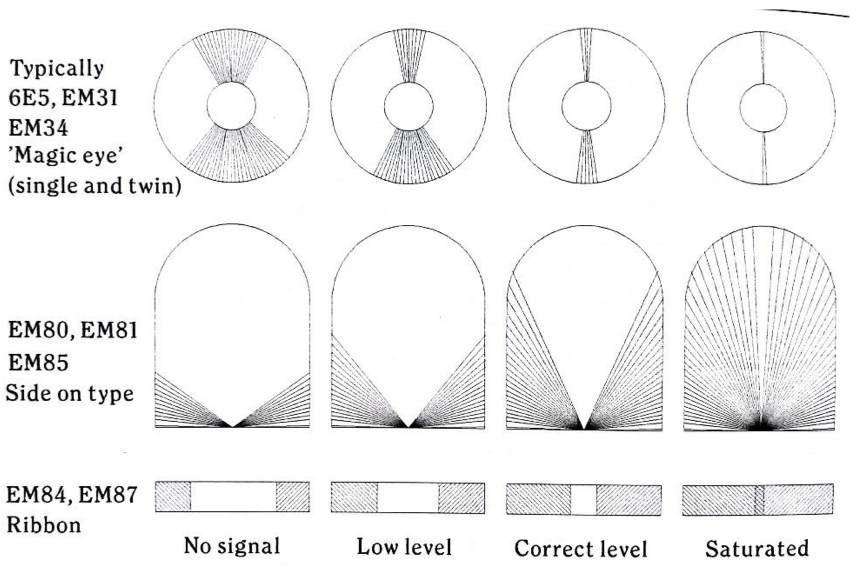

Figure 16: The different types of magic eyes and their evolution.
Barry M. Jones, *A Guide to British Tape Recorders* (Beckley: Barry M. Jones, 2016), 132.

The maturation of the sound recording field brought a wealth of ideas on how sound recording could be used, and on how to tinker with the technology. Hence, Francis Dhomont, who was already experimenting with wire recorders, pursued his practice with tape recorders. Until his departure to Canada in 1978, his source of income came from his work as a woodcarver. That would prove useful when he decided to modify his tape recorder. As he was annoyed that he only had three tape speeds on his Revox G36, he sculpted a small wood piece to replace the gears so that he had a system allowing a continuous change between different speeds instead of a selection of fixed ones (this system is called a varispeed). He further modified the machine to convert it to two-track instead of four-track.[170] Tinkering was popular enough that a member of the ADAES, Mr. Rebillard, from Bressuire, told his fellow members that he could build their tape recorders at wholesale price.[171] If, in comparison with instantaneous disc, the manufacture of tape was beyond the reach of amateurs, some of them nevertheless found unconventional techniques to restore crinkled tape, by ironing it.[172]

Things changed in the 1960s, with the 'transistorisation' of recorders. With this also came a miniaturisation, and, since then, tape recording technology started to stabilise. Tinkering became less necessary, and much more technical, with a passage from electric to electronics that required a different range of skills. It was still possible to replace parts or components that have failed but tinkering to improve or adapt the machine to a specific use became much more technical. It also became

[170] Mountain, "Francis Dhomont at 80," 12.
[171] *Arts et Techniques Sonores*, March 1953, 4.
[172] *Arts et Techniques Sonores*, January 1954, 3.

less necessary given that performances were improving. As the same time, DIY methods and tutorials to build a tape recorder progressively disappeared during that decade. The device was stabilised enough and sufficiently introduced within society. This evolution affected the amateurs' practice. Following the 22nd IARC of 1973, Thévenot wondered about their work: "The technical quality has continued to improve. But thanks to the equipment's progress more than to the one of the users. And concerning the ideas (and here, it relies only on the very sound hunters), they are declining." Thévenot blamed the "leisure civilisation" for this decline, claiming that it left people passive. With the technical evolution, "everything comes together to distract the amateur from his initial curiosity, from the spirit of research and creation."[173] The year after, reflecting again on the evolution of sound hunting, Thévenot wondered where the spirit of sound hunting had gone. For him, there was a golden era of sound hunting at the end of disc-cutters and during the first years of tape recorders. It was a time where tinkering and experimentation were integral part of the pursuit of sound hunting. Because of the very limits of the equipment – limits that were in part due to the lack of standardisation –, people had to be creative with their recorder and with their recording technique to achieve good and original results. But now, "the technique has become, in a way, too simple. One presses a button and thinks there is nothing else to do."[174]

Thévenot was nostalgic about the sonic shock provoked by Stefan Kudelski's portable recorder, that allowed to be free from mains,[175] and of the experimentations that were regularly featured in

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[173] Jean Thévenot, "Le 22ème CIMES, Paris, 26-29 Octobre 1973," *La Revue du Son*, December 1973, 127-8, 128.

[174] Jean Thévenot, "Les chasseurs de son et le 22ème CIMES," *Micro et Caméra* 52, 1973-74, 30-1, 31.

[175] At the IARC of 1952, Kudelski presented four recordings made on a prototype of his Nagra I, a portable battery-powered tape recorder, which, in comparison to the models already existing (such as the EMI L1 or the Maihak MMK1) was either much lighter (the MMK1 weighted 12kg while the Nagra was 4,5kg) or more performant (the bandwidth and dynamic of the Nagra were greater than those of the L1). Due to limitations, I do not have the space to fully develop on Kudelski and the beginning of Nagra, but the IARC played a major role in the first years of his business. Initially, Kudelski planned to build tape recorders to store instructions for machine-tools. The sound recorders started as a step in that direction, as a kind of experimentation in the manipulation of tape. With a friend, André Viazemski, he then built the Nagra. Viazemski took care of the mechanical elements, Kudelski of the electronic. This work was financed by them and undertaken in their spare-time from Lausanne Polytechnique. And because they did not have any money, they directly designed a recorder that they could sell. Kudelski's participation to the IARC was therefore a strategic move as he knew that his recordings would be listened by personalities from French and Swiss Radios, and by the general representative of the French National Syndicate of Radioelectric Industries (who was a funding and founding member of the contest, as I will explain in the next chapter). To maximise the demonstration of the potentials of his recorder, he sent four recordings to the contests: one from a visit at the top of the towers of Notre-Dame-de-Paris (*Les cloches de Notre-Dame*), one from a candid recording in the streets of Montmartre at night (*Comment on s'adresse aux femmes*), one of the noises in the streets of Paris (*Circulation à Paris*), and an editing of songs and poems from Saint-Germain-des-Prés (*Bagatelles*). Each recording was made to enhance the portability, autonomy, and versality of the recorder, able to record voices, music, and ambient sounds. The aim

the 1950s, with people like Joseph-Maurice Bourot, who brought to the ear never-heard-before sounds of a coquelet inside its egg and of a woodpile, and organised a 10-day experience on a self-built recorder to test how many times a tape could be read (he stopped at 500,000 times).[176] The amelioration of technical specifications, notably of the amount of time it was possible to record, also impacted the practice. With a 10 minute limit, you do not perform in the same way than when you are free to record for one or even two hours. A process of selection is mandatory when time is limited, which brings a peculiar focus. The possibility of mistakes is also much less tolerable due to the limited time. On the contrary, when time is not a problem, the selection of what will be recorded can be much looser, and this requires a different discipline *after* the recording to navigate inside a larger quantity of data.[177] As the way of working was different, the results were also different.

In the 1970s, video was also seen to put pressure on the amateur practice of sound recording. As put by Fredy Weber, who was for numerous years president of the *Fédération Internationale des Chasseurs de Son*, FICS, [International Federation of Sound Hunters], "sound is finished. Now, it's time for video."[178] That pessimistic tone is similar to the one that Karin Bijsterveld described in her study of Dutch sound hunters. From the 1970s, sound hunting clubs seemed to decline, the hunt for

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was to enthral the jury with recordings nearly impossible to do with the regular equipment that was then in use by radio professionals. The aim was met: Kudelski's works clearly stood out, and he won a first prize (*Les cloches de Notre-Dame*), a second prize (*Comment on s'adresse aux femmes*), and a fifth prize (*Bagatelles*). Viazemski also participated in the contest, winning the second prize of the 'Editing' category, with a piece named *Die Stimme seines Herrn* [His Master's Voice]. Thévenot immediately bought a Nagra I and put it to the test for a wildlife sound recording campaign for Radio Luxembourg. Radio Luxembourg was so impressed by the recorder and the recordings presented by Thévenot that this prominent radio station ordered six of them. With this free promotion from Thévenot and the cash prizes earned with his recordings, the IARC was a transformative moment for Kudelski: "I played God, you know… At that age, when you have success, you go with the flow. And in a great part, it was this contest that was the source of this aspiration." It was only in 1957 that it became clear that the initial goal of producing tape recorders for the automatization of machine tools would not be reached. As his sound recorders were meeting an unexpected success, Kudelski decided then to focus on sound recorders and started the development of the Nagra III (Stefan Kudelski interviewed by Jean Thévenot, *Du laboratoire au violon d'Ingres*, France Culture, 5 December 1970. See also Yann Paranthoën, *On Nagra*, Radio France – INA – SCAM, K1689, 1993.).

[176] These recordings of Bourot were presented, and won prizes, at the IARC 1954 and 1955. I will come back to Bourot's work in the fifth chapter. The tape was still perfectly readable after the 500,000th passage in front of the reader head. The bandwidth was reduced a little in the high and low frequencies, the noise floor grew slightly, and the tape took a mirror like visual aspect. For the experiment, the tape recorder ran for nearly 10 days for 200 hours, night and day. The motor turned 20 million turns, and the reading head saw 150 km of tape go by, despite the loop being only 30 cm long. The loop was made with ordinary scotch, which endure the experiment without any problem. Archives JT et CdS, 19910681/18, folder 3ème CIMES – 1954, siège : Bruxelles, sub folder CIMES 54, fiches et textes.

[177] I will come back to this aspect of discipline in the fifth chapter.

[178] Jean Thévenot, "Le 22ème CIMES," 128. I will develop on the FICS in the following chapter.

sound slowed down, the contact with everyday sounds changed.[179] It was also at that time that the British and French specialised magazines evolved.[180] However, I will show in the following chapters that sound hobbyists were still practicing, and that a number of tape recording clubs had their golden age during the 1970s and 1980s.

[179] K. Bijsterveld, "What do I do with my tape recorder," 630.

[180] The specialised press will be described and discussed in the following chapter.

2.3. Conclusion

This chapter has posited that, since the availability of sound recorders in the end of the nineteenth century, sound hobbyists were ever present. The focus of the chapter was the use of the different sound recorders by these sound hobbyists. I have shown that their range of activities was diverse, from recording wildlife, music, and events, to interview, distant learning, correspondence, and use of recorders as a dictating tool. All these activities were similar to the uses of the tape recorders in the second half of the twentieth century.

The tape recorder did have an impact on the practice. I presented in the introduction of this chapter the concept of spectrum of affordances, developed by musicologist James Mooney.[181] I have argued that with tape recorders, all operations have the tendency to move toward the 'easily doable' end of the spectrum of affordances – for most able-bodied, non-hearing-impaired users. This framework allows us to observe the consequence that the level of interaction with the machine grew (the sites of mediation became more numerous), and with the consequence that the range of possibilities easily accessible to users also grew. With this last point, the practice became more open and accessible to newcomers, which fostered a rise in private initiative based on sound recording. However, as I showed, that new level of interaction came with a certain complexity that was accentuated by the fact that the technology was still in the making and improving.

I then detailed how sound hobbyists were closely related to the broader field of sound recording, notably for the normalisation of sound recording. I showed that this connection between hobbyists and a sound recording field in the process of professionalisation existed on the same level in France and in Britain. Susan Schmidt Horning demonstrated that this was also the case in the United States at the same period.[182]

This chapter has made a contribution to the history of sonic practices by highlighting that sound recording was routinely practiced by amateurs before tape recorders. I also demonstrated that sound hobbyists were regularly performing complex editing with disc-cutters. In addition, I contributed to the history of sound recording by showing how amateurs and professionals worked together to normalise sound recording technologies and the field of sound recording.

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[181] J. Mooney, "Frameworks and Affordances."

[182] S. Schmidt Horning, *Chasing Sound*.

3. Radio programmes, clubs, magazines, and contests: National and transnational networks of sound hunting

In this chapter, I will explore the social relations at stake within the practices of sound recording and their impact on the development of the movement in France, Britain, the international contest, and the international federation. How was the community of sound hunters built? What are the histories of its different components, that is, the radio programmes, magazines, contests, clubs? Was the situation different in France and Britain? Who were the sound hunters? What is the history of the international federation of sound hunting? These are the main research questions explored in this chapter.

My central claim in this chapter is that sound hunting was indeed a locus for the generation of social relations, and that these took different forms: clubs, magazines, radio programmes, contests. Each of these contexts presents a different organisation and gives rise to different forms of relation with and between sound hobbyists. Studying how these people gathered and collectivised their practice of listening and sound recording, is the first step for studying the knowledge they produced and disseminated – this, too, will be analysed in the next chapter. I will rely on oral histories collected from former sound hunters, on the Thévenot collection that I have introduced in the introduction of this thesis, on the specialised press that existed from the end of the 1950s to the 1970s, and on collections from the BBC Written Archive Centre and the British Library. For the sake of clarity in their historical developments, I will describe these different forms of socialities separately. However, one should keep in mind that the people involved in one were most of the time also involved in the others.

The main challenge to be faced when studying these clubs is the scarcity of the material available. Most of them have existed until the 1990s, some until the 2000s. But from the 1980s, despite their liveliness, most of the clubs had difficulties attracting young members, notably to take part in the organisation. Moreover, sound hunting was a hobby, a changing activity by nature. This means that clubs' archives have not always been passed on because the pattern of interest and involvement with the hobby has been inconsistent. Accessing this material in the 2020s is also not simple just because of the age of former club members: a number of them have passed away. The rapid evolution of sound technology, which has been described in the previous chapter, also played a role. As the equipment necessary to read the recordings became obsolete or was no longer maintained, a number of collections had simply been thrown away. However, some have been saved because core members are still alive and have kept them, this is the case for the Brighton Tape Recording Club for instance, or because they have been given to the British Library, such as the Federation of British Tape Recording Club, or to local archives, like in the case of the Cotswold Tape Recording Society.

Although we are facing these difficulties, the clubs' activities can be reconstructed from the specialised press. As I will describe, a vivid press activity existed around sound recording for more than ten years. In this thesis, I will focus on the magazines dedicated to the practice of sound recording. Other magazines existed, like *La Revue du Son* in France, or *Audio* in Britain, but these were more

general, covering the whole spectrum of sound and sound recording and their applications in a variety of domains. The tone was often technical, and amateurs' activities only seldom appeared. As for the sound hobbyist magazines, they had all pages dedicated to the clubs and at least one magazine was the official voice of the national British federation. In both Britain and France, key information about the clubs, their members and activities are therefore available. Even when it is not possible to track the evolution of a specific club or member through the magazines, it is nonetheless possible to reconstruct the global activity and life of the clubs, and who their members were. That frequent mention of clubs within magazines explains why a number of my references concerning them are taken from the trade press.

3.1. Amateurs on air : the French and British radio programmes

3.1.1. Radio clubs, the Club d'Essai, and amateur sound recordists in France

> *This last Monday, February 9, 1948, a Disc Day* [Journée du Disque] *called 'Journey Around My Phono' was broadcast on the Parisian channel. Having a few friends who, without being professional sound recordists, spend their spare time in recording on disc, the idea came to my mind that their fellow home recordists were maybe far more numerous than we think, and that it could be interesting to meet them for this Day. A call was then broadcast as soon as January. I thought it necessary to drum up in advance, and with insistence. But after three or four days, I had to ask for the call to be withdrawn. The proposals we immediately received were so many and so diverse that they already exceeded the possibility of the unique programme planned for February 9 under the title* Place aux particuliers [Now, to the Individuals]. *And despite the call's stop, proposals continued to arrive. That's why tonight, under the new title of* On grave à domicile [Home Engraving], *you will hear the first programme of a series that will be exclusively dedicated to private recordings. And this is the ultimate proof: many French people are recording at home, for themselves of course, but as these documents exist, why not make them beneficial for the public? Recording activities are diverse: radio, family, chronicles of important events, documentaries, artistic practice, editing, secret recordings, soundtrack for amateur cine. A lot of things that radio does not do. Why 'private'? Because they are amateurs or professionals, but their equipment is personal (home built or bought). This should not be mistaken with recordings made by amateurs in commercial studios.*[1]

With these words, the radio producer Jean Thévenot introduced the first programme of a series that would prove to be not only successful, but also one of the longest-lasting on French waves. Under different names (*On grave à domicile*, *Aux Quatre Vents*, *Chasseurs de son*, *Sonographies*, *Résonances*), this programme initiated in 1948 would last 54 years[2], and its aims would remain constant: to broadcast recordings made by amateurs and interview them so that they could explain and showcase their practices. To his surprise, Thévenot found out that the practice of sound recording was already varied and performed by many. The list run through by Thévenot is very close to the one

[1] Jean Thévenot, programme sheet for *On grave à domicile* n°1, broadcast on March 5, 1948. Archives JT et CdS, 19910681/4, folder Émissions particulières, sub folder Place aux particuliers – Journée du disque 09/02/48), documents (dont textes manuscrits préparatoires).

[2] In 1999, under the name *Sonographies*, the programme was reduced to only 5 minutes. Keeping the same short format and still consisting of amateurs' recordings, the programme then survived until 2002 under the name *Résonances* (2000-2002). The table 1 below summarises the evolution of the programme, together with the evolution of French Radio.

foreseen by Thomas Alva Edison for his phonograph seventy years before.[3] These uses, and the ones listed by Edison in 1878, can be organised in three categories: the recorder as a tool to document and preserve (radio, family and historical events, documentaries), the recorder as a tool that triggers creativity and entertainment (soundtracks for amateur movies, sound editing, plays (later with tape recorders, *musique concrète*)), the recorder as a tool to communicate (distant learning, language learning (later with tape recorders, tapesponding[4])). All this happened before the availability of tape recorders to ordinary people. The possibility of such a programme was in direct link with the specific ecosystem Thévenot was part of at that time, the Club d'Essai.

Founded on the 7th of April 1946, the Club d'Essai was the successor of the Studio d'Essai. The Studio d'Essai, created by Pierre Schaeffer and inaugurated on 12 November 1942, was "both a laboratory of radiophonic art and a vocational training centre."[5] It was a place for research, "away from daily production, without the need of immediate productivity, but with the constant thought that the work done will eventually benefit the whole Radiodiffusion Nationale." The radio "could find its laboratory in the Studio d'essai."[6] The Studio closed its doors on 5 May 1945 after Schaeffer was sent abroad due to his desire to reorganise the Radio. It was therefore without him that the Club d'Essai was founded in March 1946, under the direction of the poet Jean Tardieu, with the equipment and the staff of the Studio d'Essai, and more budget.[7] The Club d'Essai had two missions: "to open the doors of radio to young talents (…), and to use the signified of sound to its maximum, reserved until now almost exclusively to music. The Club d'Essai is meant to be a meeting place for

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[3] In an article for the November 1878 issue of *North American Review*, Edison listed ten applications for his newly invented sound recorder: 1) letter writing and all kinds of dictation without the aid of a stenographer; 2) phonographic books, which will speak to blind people without effort on their part; 3) the teaching of elocution; 4) reproduction of music; 5) the 'family record', a registry of sayings, reminiscences, etc., by members of a family in their own voices, and of the last words of dying persons; 6) music boxes and toys; 7) clocks that should announce in articulate speech the time for going home, going to meals, etc.; 8) the preservation of languages by exact reproduction of the manner of pronouncing; 9) educational purposes, such as preserving the explanations made by a teacher, so that the pupil can refer to them at any moment, and spelling or other lessons placed upon the phonograph for convenience in committing to memory; 10) connection with the telephone, so as to make that instrument an auxiliary in the transmission of permanent and invaluable records, instead of being the recipient of momentary and fleeting communication. Roland Gelatt, *The Fabulous Phonograph, 1877-1977* (New York: Macmillan, 1977), 29.

[4] Neologism between tape and correspondence on which I will come back later).

[5] Évelyne Gayou, "The GRM: landmarks on a historic route," *Organised Sound* 12, no. 3 (2007): 203-11, 205. Karine Le Bail gives the date of 1st January 1943: Karine Le Bail, "Émissions de minuit," in *Pierre Schaeffer, Les constructions impatientes*, ed. Martin Kaltenecker and Karine Le Bail (Paris: CNRS Éditions, 2012), 116-127, 118.

[6] Pierre Schaeffer report on the Studio d'essai, 12 July 1943, cited by Karine Le Bail, 'Émissions de minuit,' 119-20.

[7] Martin Kaltenecker and Karine Le Bail, "Jalons," in *Pierre Schaeffer, Les constructions impatientes*, ed. Martin Kaltenecker and Karine Le Bail (Paris: CNRS Éditions, 2012), 8-67, 32.

everybody who, in arts and sciences, is interested in the progress of Radio."[8] This also meant to initiate a movement towards the amateurs who were practicing radio within radio clubs. Two kinds of activities were housed within these clubs. First, radio amateurism, where one works to establish radio communication with other people locally or internationally. This activity was rather independent from Radio. Second, activities that were directly linked to this Radio and its programmes, such as critical listening[9] and such as the creation of original productions, often humoristic, that mimicked famous programmes and characters.[10] While most of these radio clubs were not equipped to broadcast these creations in their early days,[11] some were equipped to record them on disc-cutters. Sound recording was therefore practiced at some of these clubs,.

The link between the Club d'Essai and with these radio clubs came through Bernard Blin, who produced radiophonic adaptations himself as a hobby. Blin came to the radio through Schaeffer, after meeting him in a student chalet in Combloux after the War. There, as a pastime, Blin adapted Ernest Hemingway *For Whom the Bell Tolls* for the chalet's radio, and Schaeffer, impressed by his voice, invited him to join him at the Radiodiffusion, which Blin did during the summer 1946.[12] If Schaeffer was ousted from his post of Chief of the Artistic Services of the Service of Experimental Television soon after because of a conflict with the syndicates,[13] Blin was recruited by Tardieu inside the Club d'Essai. His design – getting closer to the radio clubs – resonated with Tardieu's own concerns, as he was a fervent adept of amateur radio clubs and had promoted the creation of many of them.[14] Thus, Blin initiated on the 1st of August 1947 the creation of the *Fédération des Radio Clubs de France* [Radio Clubs Federation of France][15], under the aegis of the Club d'Essai, and became its president. The Federation was conceived "as an intermediary between the public and the producers. Through it, the producers and directors initiate the public to the possibilities of radio, while the public introduces his tastes, needs, preoccupations, activities, traditions."[16] There was the

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[8] Jean Tardieu, cited by Robert Prot, *Jean Tardieu et La Nouvelle Radio* (Paris, France: Harmattan, 2006), 56-7.

[9] Tardieu encouraged radio clubs to practice listening commentary, and the *Fédération Française des Radio-Clubs* [French Federation of Radio Clubs] was created within the Association de la Critique Radiophonique.

[10] See *On grave à domicile*, 05/03/1948 and 26/03/1948 for examples and interviews.

[11] R. Prot, *Jean Tardieu et la nouvelle radio*, 106.

[12] Bernard Blin interviewed by Thomas Baumgartner, *Le Club d'essai, une radio libre en 1946*, Arte Radio, 2004. https://www.arteradio.com/son/3555/le_club_d_essai (accessed 02/09/2021).

[13] M. Kaltenecker and K. Le Bail, 'Jalons,' 32.

[14] Pierre Boeswillwald interviewed by Julien Sanchez Galvan, 'Pionnier,' *L'Atelier de la Création*, France Culture, 30/10/2012. https://www.franceculture.fr/emissions/latelier-de-la-creation-14-15/pionnier (accessed 15/11/2019).

[15] Despite the proximity of names, this was a different organisation from the *Fédération Française des Radios Clubs*. The two were in competition.

[16] Document of presentation of the Fédération, cited by R. Prot, *Jean Tardieu et la nouvelle radio*, 103.

wish for a popular radio that could be the true reflection of the population and of its activities.[17] Broadcasting the work of these amateurs was then a logical step forward, and one that was made in 1948, when Blin produced the programme *Les apprentis du micro* [The apprentices of the microphone] dedicated to the work of the radio clubs. It was a popular success, and, in the words of Tardieu, "[Blin] wanted to give a meaning, a coherence, a profound cultural significance to these groups of young minds passionate by radio, by giving to them the possibility, not only to inform themselves on the possibilities of this art, but to use it themselves as means of expression for their own aspirations."[18]

This line of thought is very close to the one followed by Thévenot for amateur sound recording: to share snapshots of their life that Radio was not able to capture, to collaborate with sound recording hobbyists to propose works that cannot exist without them.[19] Thévenot wanted to fill the gaps of Radio – for example with recordings made by amateurs of this very Radio that were not archived by it during its first decades but that have acquired an historical significance: for instance, the first link between France and United States radios on 27 November 1935, the last broadcast of the Théâtrophone on the 30 September 1936, or the abdication of Edward VIII on the 10 December 1936.[20] Thévenot also wanted to create novel contents that were undoable by professional on radio due to the need of productivity and daily productions – such as snapshots in the life of fellow citizens, the use of sound recorders in classrooms, or technical experimentations. Moreover, where the content of the programme was offered to amateur sound recordists, its microphone was also offered, so that they could explain directly who they were and what they did. In the first years, the programme often had one guest per episode. All this started the same year as Blin's programme, in 1948. And to establish further links between the two men and programmes, a number of works presented in the first years by Thévenot came from these very radio clubs, notably for the very first show of *On grave à domicile* on the 3rd March 1948.[21]

There was therefore a communal understanding between Tardieu, Blin and Thévenot, who found themselves gathered together within the Club d'Essai. They shared a will to experiment, and a context of reflexivity, to question radio by and through radio and its users/listeners: its meaning, its powers, its duty, but also its future in the face of the burgeoning television[22]. These elements set

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[17] Bernard Blin, bulletin of the Fédération des Radio Clubs de France, cited by R. Prot, *Jean Tardieu et la nouvelle radio*, 104.

[18] R. Prot, *Jean Tardieu et la nouvelle radio*, 105-7.

[19] Jean Thévenot, Note préparatoire pour la saison 50/51, Archives JT et CdS, 19910681/4, folder Aux Quatre Vents, diffusion de octobre 49 à Novembre 51 sur la Chaîne Parisienne, textes et documents préparatoires.

[20] These recordings made by amateurs were presented in *On grave à domicile*, 25/04/1949.

[21] The Amicale Club Cinématographique was invited to present its activities and different works.

[22] Thévenot wrote about the impact of television on radio : Jean Thévenot, *L'Âge de la télévision et l'avenir de la radio* (Paris: Les Éditions Ouvrières, 1946).

a propitious context to reflect and experiment on the practice of radio: this resulted in programmes by Blin and Thévenot which were co-production between radio producers and creative amateurs. As such, the traditional roles of the producer and the receiver were blurred: radio, for at least these two particular programmes, was made by listeners, and therefore relied on the creativity of the public. This last point was important as it meant that recordings were broadcast which were not always perfect – and often with technical faults –, and contents were proposed that were not always that interesting. This point was acknowledged by Thévenot:

> These last times, several of our trusted friends have expressed some doubts about the content of our programme. Too many singers, musicians, orchestra, they say, like in other programmes. This is also my view. I am the first to lament that amateurs don't explore the field that belongs to them more. But if singers, musicians, and orchestra fill so much time, it is for the lack of anything else. We can only broadcast what we receive, and my dearest wish is to receive only typical recordings, or good amateurism that is not redundant with the work of professionals: snapshots, realist documentary, original essays, etc.[23]

Such programmes, with their inherent risks, thus needed a suitable environment that Tardieu and the Club d'Essai were able to offer. Even if due to budget restrictions, Tardieu would not be able to offer Thévenot a slot for a third year,[24] the decisive impulse had been given. The programme continued under the name *Aux Quatre Vents* [To the Four Winds] on the Programme Parisien channel. This was also the opportunity to reach more people. Following the War, French broadcasting infrastructure was indeed severely damaged, and the coverage of the programmes of the Club d'Essai, which included *On grave à domicile*, was nearly limited to Paris and its surroundings. The Programme Parisien, besides Paris, allowed a coverage in Lyon, Toulouse, Limoges, and Marseille.[25] Even if all of French territory was not yet covered, Thévenot saw this as an opportunity for sound hunters unknown to the programme to get in touch, and to expand the sound recording competition to all French territory and neighbouring countries.[26] Indeed, his programme was followed in Switzerland and Belgium as soon as 1950.[27] Thévenot, and the directors of the channels he worked with, saw the richness that the programme could bring to Radio and to the public, a richness that was also an opportunity to lay an almost anthropological eye on his fellow citizen: "to capture the truth of the inner world of things and people."[28] Thévenot would carry this vision until his death

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[23] Jean Thévenot, *Arts et Techniques Sonores*, January 1953, 12.

[24] Jean Thévenot, *30 ans d'antenne : Ma radio et ma télé des années cinquante* (Paris: Harmattan, 2009), 100.

[25] R.Prot, *Jean Tardieu et la nouvelle radio*, 96-7; René Duval, *Histoire de la radio en France* (Paris: Éditions Alain Moreau, 1979), 362. Marseille was covered with a transmitter of only 500W.

[26] Press release from Jean Thévenot, 'Pierre Brive et Jean Thévenot récoltent « Aux Quatre Vents »', *Radio 49*, 6 October 1949. Archives JT et CdS, 19910681/4, folder 'Aux Quatre Vents, octobre 49 – novembre 51.'

[27] *Aux Quatre Vents*, 27 February 1950. The show of the 19th of June 1950 was entirely dedicated to Belgian sound hunters.

[28] J. Thévenot, *30 ans d'antenne*, 107.

in 1983, and the work would be continued by his collaborators Dominique Calace de Ferluc and Paul Robert for a further nineteen years.

There is not much information available about how positively the direction of French Radio regarded the programme. As I will show below in the section about the International Amateur Recording Contest, Thévenot had good relations with his different channel directors, but relations with Chief Executive Officers were sometimes tense. Nonetheless, he was able to run his programme until his death in 1983 and his successors kept it alive until 2002: this is a testament to the recognition and respect that the programme elicited. Table 2 provides an overview of the evolution of the programme, with its different names and airing times, together with the evolution of French Radio. It is remarkable that Thévenot was able to keep his airing time so stable: fifteen years on the same Saturday afternoon slot, and only three changes between 1948 and 1983, the year of Thévenot's passing. Moreover, for nineteen years, between 1964 and 1983, Thévenot was able to secure two slots, on two different channels. These two programmes were different, as the France Musique one was in stereo. This means that one hour, and, from 1975, 50 minutes, of amateurs' sound recording was broadcast every week, each season. Additionally, throughout the history of the programme until Thévenot's death, special programmes of longer duration (one-hour) were produced each year after the International Amateur Recording Contest and for the Sound Hunters International Days. Series dedicated to the use of the tape recorder in school were also produced, in collaboration with the *Centre International de Correspondance Scolaire* [School Correspondence International Centre] and the *Union Mondiale des Voix Françaises* [French Voices Worldwide Union].[29] It is a sign of Thévenot's influence that, after his passing, the France Musique's slot disappeared, and the France Culture's one was reduced by 7 minutes. From 50 minutes of sound hunting programmes, the airing time immediately went down to 13 minutes. Special programmes also ceased. Still, Calace de Ferluc and Robert maintained their slot without any modifications for sixteen years. In 1999, Christian Rosset took over the programme (with some episodes produced by Calace de Ferluc) under the name *Sonographies*, still on France Culture. For the first time in more than fifty years, the programme left its weekend slot for a daily ten-minute one, Monday to Friday. After two months, it was renamed *Résonances*, reduced to 5 minutes, and produced again by Calace de Ferluc. And on the 27th of July 2002, the last episode of a 54-year adventure was broadcast.[30]

The programme survived four administrative transformations of French Radio, sixteen different directors and even more channel directors. This reveals a programme that was accepted in both its content and concept. Moreover, such a long lifespan, and the broadcasting on prime time slot on Saturday afternoon show its recognition by both the audience and the direction of Radio, as it is highly unlikely that an unpopular programme would have stayed stable for such a long time on a

[29] I will continue exploring on these in a coming section.
[30] Table 2 summarises the evolution of the programme, alongside that of French Radio.

prized slot. Prime times obviously gave it more visibility and allowed more people to follow the programme, an important element to support and sustain the sound hunting movement during an extended period of time.

Only very few audience reports are present in the Thévenot collection, but the ones that are praised the programme. An analysis of the press' response is more illuminating. Indeed, using the Press Service of Radio, Thévenot was able to attract a lot of visibility for his programme, especially around the national and international contests. Newspapers, locals and nationals, and magazines, especially those catered to high fidelity and sound recording, dealt with sound hunters several times a year. Thévenot's programme was highly regarded:

> "One hears astonishing things, as the amateurs who send their discs and tapes display not only 'technicity' but also taste and skill. (…) There was a remarkable document: memories from a poacher. The man was rightly chosen: he was funny and phonogenic. And the recording was nicely made. (…) Wouldn't it be possible to make the border between amateurs and professionals more porous? (…) We continue to believe that amateurs should not be confined to their Saturday special programme."[31]

The success of *Aux Quatre Vents* inspired at least six other radio programmes in various part of France. In the south there was *Magnétophones* [Tape Recorders] in Montpellier (on air the first Saturday of the month from 15h to 15h30) and Toulouse (on air the third Monday of the month, from 22h to 22h30). These two programmes were produced by Guy Serin, founder of the *Union Mondiale des Voix Françaises* and regular collaborator of Thévenot. Serin produced these two programmes between 1959 and, at least, 1974.[32] In the south-west, there was *Chasseurs de son* [Sound Hunters] on Radio Bordeaux, presented by Pierre Cazenave. In Brittany, in the end of the 1950s, Jean Evenou and Josette Lalin produced *Micro en ballade* [Strolling Microphone], a fifty two minutes programme broadcast on RTF Bretagne every other Wednesday. In the north, a programme entitled *Chasseurs de son* also existed in Lille, broadcast every Monday from 22h25 to 22h35. Its producer was Robert Lefebvre. And in the east, in Nancy, Jacques Chenard, who appeared in the second chapter in defence of wire recorders, started a programme in 1954. It was broadcast every fortnight for 15 minutes. Chenard tried to "focus on local recordings to create links between sound hunters from the region."[33]

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[31] Press review, *Arts et Techniques Sonores*, April 1953, 11-2. The initial quotation was from the journal *Mon Programme*, but no precise reference is given in the press release. The fourth chapter will study this amateur / professional relationship.

[32] The programme appears in Marianne Lamour, *Georges Savy, chasseur de sons*, a documentary broadcast on France 3 on the 18th of July 1974. I will come back on this documentary in the last chapter.

[33] *Arts et Techniques Sonores*, March 1954, 7. By 1961, the programme had disappeared, it is not present in the January 1961 issue of *La Revue du Son* where French sound hunting programmes are listed.

Aux Quatre Vents was also broadcast beyond France. Thanks to his position at French Radio, Thévenot was able to use its international network and infrastructure to promote sound hunting by sending tapes and documentation through its channels. Hence, at least one complete season of *Aux Quatre Vents* was broadcast in Vietnam, and recordings broadcast in *Aux Quatre Vents* were sent to China, Czechoslovakia, Denmark, Morocco, Poland, Spain, Sweden, Turkey, Uruguay.[34]

[34] Archives JT et CS, 19910681/3, folder Échanges de courriers avec chasseurs de sons étrangers, 1956-1966. Except for Morocco in 1954, Sweden in 1959 and Vietnam in 1964, it is unclear to what extent the tapes sent were actually broadcast.

Table 2: Chronology of Thévenot's programme and of French Radio.
Thévenot died in 1983, the programme was pursued by Paul Robert and Dominique Calace de Ferluc.

<table>
<tr><th>Date</th><th>Programme</th><th colspan="2">French Radio</th><th colspan="2">Channel</th><th>Airing Time</th></tr>
<tr><td>1948-1949</td><td>On grave à domicile</td><td colspan="2">RDF, RadioDiffusion Française</td><td colspan="2">Programme National</td><td>Friday, 22h35, 30’</td></tr>
<tr><td rowspan="4">1949-1975</td><td rowspan="4">Aux Quatre Vents</td><td rowspan="2">1949-1964</td><td rowspan="2">RTF
Radiodiffusion-Télévision Française</td><td>1949-1957</td><td>Programme Parisien</td><td rowspan="2">Saturday, 16h05, 20’</td></tr>
<tr><td>1958-1964</td><td>France II Régionale</td></tr>
<tr><td rowspan="2">1964-1975</td><td rowspan="2">ORTF
Office de Radiodiffusion-Télé-vision Française</td><td rowspan="2">1964-1975</td><td>Inter-Variété</td><td>Saturday, 22h15, 30’</td></tr>
<tr><td>France Musique</td><td>Saturday, 10h, 30’</td></tr>
<tr><td rowspan="3">1975-1999</td><td rowspan="3">Chasseurs de son</td><td rowspan="3">1975-now</td><td rowspan="3">Radio France</td><td rowspan="2">1975-1983</td><td>France Musique</td><td>Saturday, 13h30, 30’</td></tr>
<tr><td>France Culture</td><td>Sunday, 7h40, 20’</td></tr>
<tr><td>1983-1999</td><td>France Culture</td><td>Sunday, 7h, 13’</td></tr>
<tr><td>1999</td><td>Sonographies</td><td colspan="2">Radio France</td><td colspan="2">France Culture</td><td>Monday to Friday, 11h20, 10’</td></tr>
<tr><td>2000-2002</td><td>Résonances</td><td colspan="2">Radio France</td><td colspan="2">France Culture</td><td>Monday to Friday, 11h25, 5’</td></tr>
</table>

3.1.2. *Sound*, the BBC, and the controlled promotion of sound hunting

The history of *Sound*, the BBC programme dedicated to sound recording and broadcast between 1959 and 1964, is closely related to the evolution of the BBC after the war, with the organisation of the Third Programme, its transformation into Network Three and the evolution of the cultural policy of the BBC. *Sound* is born from the junction between a general scheme at the BBC toward hobbies through the birth of Network Three,[35] and producers that were aware of the wide spreading of tape recorders.[36] To get closer to leisure was in the works since the end of the 1940s,[37] but the difficult birth of Network Three explains that if the first embers of this programme appeared in February 1956, it only started to be broadcast in January 1959.

One of the first mentions of a programme dedicated to amateur tape recording appeared following the fifth edition of the International Amateur Recording Contest organised in Lausanne in 1955. The Paris correspondent of the BBC, Madeau Stewart, heard the winning entries of the contest on Thévenot's programme.[38] Seduced by these, she subsequently made an internal note to suggest the broadcasting of these winning entries, which she also sent to the British Sound Recording Association. One of the recipients of this note was Timothy Eckersley – who would be instrumental in the support of sound hunting within the BBC – and who was very enthusiastic:

> It seems to me that this is an exceptionally interesting suggestion – not only from the point of view of the actual programme put forward, but also because of its potential. With the spread of amateur tape recording I know a lot of experimental work is being done and such a programme would stimulate a great deal more. (…) As Miss Stewart so rightly points out, a programme such as this might well catch the imagination of many interested in the potentialities of sound recording and might contribute towards the stimulation of renewed interest in the medium of pure sound radio. If the suggestion were accepted it might even be extended to include the sponsorship of a competition for British entrants.[39]

However, from the start, the Corporation showed both an interest in the possibilities of amateurs' recordings, but also a reluctance to give any form of involvement. In his answer to Stewart

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[35] Humphrey Carpenter and Jennifer R. Doctor, *The Envy of the World: Fifty Years of the BBC Third Programme and Radio 3, 1946-1996* (London: Phoenix Giant, 1997), 169-71 and 181-3 notably.

[36] Note from Timothy Eckersley, Assistant Head of Central Programme Operations (Recording) to C.P.P.(S.), 28 August 1957, BBC Written Archive Centre (hereafter, BBC WAC) R46/956. "A large, growing and enthusiastic audience exists that is deeply interested in sound recording and reproduction as such."

[37] In the words of R.J.T. Griffin, Director of the BBC European Intelligence Department: "At the moment where Britain finds itself diminished because of War, it finds an unprecedented wealth of spirit, accessible to everybody. For its part, Radio starts to solve this underlying problem: the use of leisure." ("Le troisième programme de la BBC," *La chambre d'écho, Cahiers du Club d'Essai de la Radiodiffusion Française* (Paris: RadioDiffusion Française, 1947): 24-6, 26.

[38] Note from Madeau Stewart, Music Selection Assistant (Central Programme Operations) to Library Organiser BBC, H.J. Houlgate, British Sound Recording Association, and Cecilia Reeves, BBC Paris, 20 February 1956. BBC WAC R46/684/1.

[39] Note from Timothy Eckersley, R.P. Permanent Library Organiser to H.C.P. Ops., and Mrs. Stewart," 23 February 1956, BBC WAC, R46/684/1.

and Eckersley, the Head of Central Programme, R.V.A. George, made clear that if the BBC was "considering" the suggestion, it was "exceedingly dubious about the BBC getting itself involved in the work of handling of recorded entries in the competition."[40] Two years would then pass, during which the BBC followed the subject of sound recording and tape recorders. They were aware of the good selling of tape recorders and of periodicals such *Hi-Fi News* and *Tape Recording* magazine,[41] but also of the success of Thévenot's programme in France.[42] They were also receiving letters from sound hobbyists asking for such a dedicated programme,[43] and the Head of Central Programme even met the editor of *Tape Recording* magazine, Ian Arnison, to discuss the possibility of organising the International Amateur Recording Contest in London. The results were not entirely positive. If the BBC would encourage such a competition, it "could not in any way sponsor a project of this kind," nor could it give the assurance to provide studio and playback facilities, nor could it assure that promotion would be made on air. The BBC would still "be prepared to consider the winning entries with a view to possible use in broadcast programme."[44] At that date, progress had been made to produce a dedicated programme. The name was chosen, *Sound, a magazine for radio and recording enthusiasts*,[45] and it had been decided that this one would be a combined operation between three departments at the BBC – Talks, Central Programme Operations, the Engineering Division – and would be supervised by an editorial panel composed of one person of each of these departments.[46] This added a certain administrative weight that slowed down the beginnings of the programme.[47] In comparison, Thévenot enjoyed a lighter organisation. He always was in direct contact with his channel directors and with the direction to defend and promote his ideas, and was autonomous to in managing his budget (which allowed him to offer a small fee to sound hunters who were broadcast during the first years of his programme).

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[40] Note from Timothy Eckersley to Mrs Stewart, 15 March 1956. BBC WAC, R46/684/1.

[41] Note from Timothy Eckersley, Assistant Head of Central Programme Operation (Recording) to C.P.P.(S.), 28 August 1957. BBC WAC R46/956.

[42] Note from J.A. Camacho, Acting Head of Planning, Home Service, 18 February 1958. BBC WAC R51/981/1.

[43] Note from Bernard Lyons to Head of Programme Central S, 25 February 1958. BBC WAC R46/956.

[44] Letter from R.V.A. George, Head of Central Programme, to Ian L. Arnison, 11 December 1958. BBC WAC, R46/684/1.

[45] The initial subtitle was "*a programme for the enthusiast in radio, recording, and their allied subjects*," already changed at the time of the dummy programme in December 1958. For the first subtitle, see the minutes of the meeting to set up *Sound* with Head Central Programme Operations (chair), Assistant Head Central Programme Operations (Recording), Chief Assistant Talks (M. Newby), Chief Assistant Talks (Miss Quigley), AHEID, ASESB Studios, Org. Studio Ops., Mr. Maurice Brown, Mrs Cutforth (Talks), 28 October 1958. BBC WAC R51/981/1. For the dummy programme, see the note from Marguerite Cutforth to J.C. Thornton, ACT, 17 December 1958, dummy programme for *Sound*. BBC WAC R51/981/1.

[46] Minutes of the meeting to set up *Sound*, with Head Central Programme Operations (chair), Assistant Head Central Programme Operations (Recording), Chief Assistant Talks (M. Newby), Chief Assistant Talks (Miss Quigley), AHEID, ASESB Studios, Org. Studio Ops., Mr. Maurice Brown, Mrs Cutforth (Talks), 28 October 1958. BBC WAC R51/981/1.

[47] The call for the meeting to set up *Sound* (previous note) was called in February, the meeting happened 8 months later (note from J.A. Camacho, Acting Head of Planning, Home Service, 18 February 1958. BBC WAC R51/981/1).

Three central figures should be mentioned for their pivotal role in the organisation of *Sound*, but also for the picture they draw through their network, of both the field of tape recorders and experimental music in post-War Britain. It also shows that even if the programme was short-lived compared to the French one – 5 years – it was nevertheless part of a global interest toward sound and its aesthetic possibilities. The first person to mention is Timothy Eckersley (figure 17). After its first job at the Library department of the BBC, he worked as Assistant Head of Central Programme and then served as Head of Recording Service. Prior to his investment in *Sound*, he helped Alec Nesbitt in 1956 assemble the report that would later give birth to the BBC Radiophonic Workshop.[48] He visited French and German radios several times and was well aware of their investment in *musique concrète* and electronic music.[49] Throughout his time at the BBC, even after the demise of *Sound*, Eckersley remained a constant support within the Corporation to the amateur tape recordists community: "My view (…) is that tape recording as a creative spare-time activity should be encouraged so that it can stand on an equal foot with, say, amateur photography."[50] The second important person is Douglas Brown. He was behind the creation of *Tape Recording and Reproduction Magazine*, in 1957, and was called to be the main compere of *Sound*. He was also the political correspondent of *The News Chronicle* and later the Managing Director of the Anglia Echo Newspaper Ltd., an editing house who also published *Tape: International Review of Tape Equipment and Tape Programmes*.[51] He also organised the first Britain based International Amateur Recording Contest in London in 1959. Brown, because of his outspoken promotion of tape recording and the development of a sound hobby, can be seen as the British alter-ego of Jean Thévenot. His presence ensured a proximity between the programme and the sound hunting community. Finally, the third instrumental character of *Sound* was Marguerite Cutforth (figure 17). She was the producer of the programme, pushing for its creation. She joined the BBC in 1941 as the first female technical assistant in the Engineering Division. Her husband, René Cutforth (1909-1984), was a famous BBC reporter who travelled across the world. As such, he was a great user of portable tape recorders but had a negative bias towards the use of sound in documentaries, preferring speech. In opposition to the 'Pure Sound School,' who tend to reduce speech in favour of sound to bring an atmosphere, René Cutforth supported that it was through speech that images appeared in the mind of the listener, much more than through sound alone, which should only be present to colour the scene. I will come back on his critics in the fourth chapter.

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[48]Louis Niebur, *Special Sound: The Creation and Legacy of the BBC Radiophonic Workshop* (New York: Oxford University Press, 2010), 35-36. I will come back later in this chapter, and in the fourth chapter, on the links between *Sound* and the BBC Radiophonic Workshop.

[49] Note from Timothy Eckersley, R.P. Permanent Liberty Organiser to Head Central Programme (Operations) and Madeau Stewart, Music Selection Assistant (Central Programme Operations), 23 February 1956. BBC WAC R46/681/1.

[50] Note from Timothy Eckersley, Assistant Head of Central Programme Operations (Recording), to Director Sound Broadcasting, 9 February 1965. BBC WAC R46/88/1.

[51] Douglas Brown, "Editor's note," *Tape Recording*, March 1971, 86.

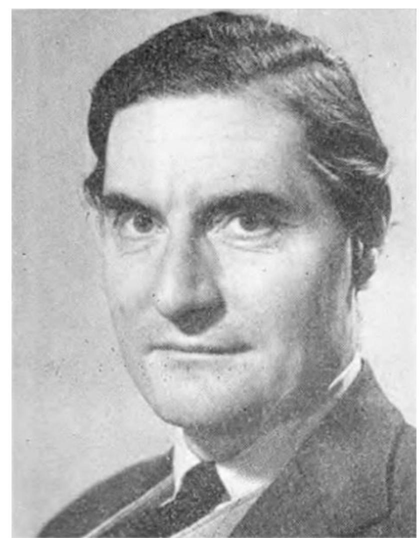

Figure 17: left: Marguerite Cutforth, one of the main architects of *Sound*. She started as a theatre designer before joining the BBC in 1941. She was an early user of tape recorders.
Right: Timothy Eckersley, a supporter of *Sound* and sound hobbyists within the BBC. He was the nephew of Captain Peter Pendleton Eckersley, a pioneer of British broadcasting and the first Chief Engineer of the BBC.
Tape Recording, 30th of December 1959, 15.

For now, *Sound, a programme for the enthusiast in radio, recording, and their allied subjects*, was an immediate success, "it had a tremendous welcome from listeners, from the BBC engineers and technical staff and also from a number of BBC drama producers."[52] "Many letters were received from listeners; in fact, five times as many came in one week than any other programme usually gets in four weeks."[53] Actually, letters were received even before the programme aired, following the announcement in *Radio Times*.[54] Such enthusiasm shows that a show like this was answering a real demand. Like in France, the programme revealed that there were already amateurs practicing sound recording and experimenting with it.

The programme had a duration of thirty minutes and was aimed at the "knowledgeable enthusiast in radio, recording and their allied subjects."[55] It was a mix of talks, technical presentation and recording or service tips, with only a few contributions from the amateurs, mostly after the national and international contests. In fact, before the beginning of the show, the word 'amateur' was removed from the subtitle and communication of the programme, on Cutforth's suggestion.[56] Unfortunately, the programme has not been preserved by the BBC, and only a handful of episodes, of

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[52] Report on *Sound* from Marguerite Cutforth to Janet Quingley, Assistant Head of Talks, 31 July 1962. BBC WAC R51/981/1.
[53] Douglas Walters, "OK for *Sound*," *Radio Times*, 30 January 1959. BBC WAC, R51/981/1.
[54] Report from Marguerite Cutforth on the first three months of *Sound*, 6 April 1959. BBC WAC R51/981/1.
[55] Minutes of the meeting to set up *Sound* with Head of Central Programme (Operations), Assistant Head of Central Programme (Recording), Chief Assistant Talks, AHEID, ASESB Studios, Organiser of Studio Operations, Mr. Maurice Brown, Mrs Marguerite Cutforth (Talks), 28 October 1958. BBC WAC R51/981/1.
[56] *Ibid*.

which some are poorly made recordings of the broadcast, are accessible at the British Library. Nevertheless, *Sound* was able to gather around it the community of amateur tape recordists, and Cutforth was happy to observe that "*Sound* turned out to be a club. Tape letters from the blind (who are avid tape recordists) and invalids arrive every week, plus a steady correspondence from professionals and amateur enthusiasts. (...) Correspondents write of *Sound* as "our programme"." In that same report, Cutforth noted that "the famous International Federation of Chasseurs de son" (sic) sent a warm welcome to the show, together with a series of discs to include in coming episodes.[57] However, sources at the BBC WAC do not show any evidence that the communication was two sided with the sound hobbyist community. On the contrary, the BBC stressed that they "could not undertake the answer correspondence or listen to tapes in this connection [to *Sound*]."[58] The idea that *Sound* was a 'club' should come with a caveat. The programme brought visibility to the community and promoted it, especially around contests, and support the community of sound hobbyists by offering like-minded talks, and advice. But it relied more on lectures given by experts rather than the kind of exchanges one could find in a club. Although "many listeners with 'unusual recordings' offered to participate in future programmes,"[59] only a few of them made it on the air. On the other hand, *On grave à domicile / Aux Quatre Vents / Chasseurs de son* relied entirely on the submissions of listeners, of which several were regularly invited to speak about their work, and Thévenot had a constant correspondence with the community, all elements that created a direct and strong link with the community of sound hunters.

Maybe because of format focused on experts' lectures, after five series, Cutforth was wondering about renewing the programme, feeling the programme was becoming stagnant. In a report, she wrote that "too much familiarity with routine ways of "making a feature", "writing a talk", would mean no more "Sarah's."[60] *Sarah* was a programme spontaneously submitted to *Sound* by a "non-technical woman" who worked alone to produce it, and which was, in the words of the Assistant Head of Sound Recording, "one of the best things we ever broadcast."[61] Strangely, to support her position, she included in her report a note from Brown. He noticed that "the development of clubs, of tape recording activity in the schools and of creative recording in general has not gone forward in the last two years as rapidly or as widely as might have been wished." However, he also called in his note for a more ambitious co-operative campaign to promote tape recording, as "[n]ot enough

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[57] Report from Marguerite Cutforth on the first three months of *Sound*, a half-hour programme for radio and recording enthusiasts, Monday, Network III, 6 April 1959. BBC WAC R51/981/1.

[58] Minutes of the meeting to set up *Sound*, with Head Central Programme Ops (chair), Assistant Head Central Programme Operations (Recording), Chief Asst. Talks (M. Newby), Chief Asst Talks (Miss Quigley), AHEID, ASESB Studios, Org. Studio Ops., Mr. Maurice Brown, Mrs Cutforth (Talks), 28 October 1958. BBC WAC R51/981/1.

[59] D. Walters, "OK for *Sound*."

[60] Report on *Sound* from Marguerite Cutforth to Janet Quingley, Assistant Head of Talks, 31 July 1962. BBC WAC R51/981/1.

[61] Note from R.D. Marriott, Assistant Head of Sound Broadcasting, to H.N.R.P., 23 March 1967. BBC WAC R46/887/1, folder Tape Recording Competitions. Unfortunately, this programme, as virtually the entirety of *Sound*, has not been preserved.

is being done yet."[62] It sounds odd therefore to call for ending the programme while joining at the same time documents that push to grant the movement more promotion. Indeed, the Head of Home Service would reply "I do find hard to believe that the field for exploitation is anywhere near exhaustion."[63]

However, in parallel, there was the general sentiment at the BBC that Network Three was a failure: the channel never found its audience and even met resistance within the BBC.[64] *Sound* stopped for a few months at the beginning of 1963 before being resurrected for one more year with the producer Richard Keen. The last show was broadcast on the 2nd of August 1964. The Corporation would nevertheless continue to show support to the sound hunting community through the organisation of contests and workshops, notably under the push of Eckersley. During its existence, *Sound* shared strong links with the press through Brown, who was the editor of *Tape Recording*. The disappearance of the programme created a breach that was recognised several years after. But despite admitting that "amateur tape recording is something we ought to encourage and that it is capable of producing good programmes,"[65] the BBC was still very demanding concerning the technical and imaginative quality of amateurs' submissions, asking for programmes that could serve a larger audience and not just a specialist community. These submissions should therefore be "attractive."[66] At the same time, the BBC also acknowledged that to call for amateurs allowed "interesting material" and, because submissions were freely submitted, was "a fairly inexpensive form of programme."[67] In the end, except for specific subjects, like bird song, the meeting between the BBC and sound hobbyists' work seems to have been a missed opportunity, with a constant disillusionment on the BBC side. Brown and Eckersley knew the situation on the continent well, as well as Thévenot's programme, and they were shocked that so few proposals of quality emerged from the British Isles, this even before the existence of the beginning of *Sound*:

> "Since my visit to Germany and France last year the lack of interest in experimental recording in Britain was most forcibly impressed upon me."[68]

The music historian Louis Niebur has traced this lack of interest, which at times turned to a frank hostility toward electronic music and *musique concrète*. Niebur locates the roots of this hostil-

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[62] Report on *Sound* from Marguerite Cutforth to Janet Quingley, Assistant Head of Talks, 31 July 1962. BBC WAC R51/981/1.

[63] Note from Head of Home Service to Janet Quigley, Assistant Head of Talk [who passed down the report of Cutforth concerning *Sound*], 27 August 1962. BBC WAC R51/981/1.

[64] H. Carpenter, *The Envy of the World*, 222-224.

[65] Note from R.D. Marriott, Assistant Head of Sound Broadcasting, to H.N.R.P., 23 March 1967. BBC WAC R46/887/1.

[66] Note from G.E.H. Mansell, Controller, Home Service & Music Programme, to A.D.S.B., 20 March 1967. BBC WAC R46/684/1.

[67] Note from R.D. Marriott to H.C.P. Ops, 10 June 1965. BBC WAC R46/887/1.

[68] Note from Timothy Eckersley, R.P. Permanent Liberty Organiser to Head Central Programme (Operations) and Madeau Stewart, Music Selection Assistant (Central Programme Operations), 23 February 1956. BBC WAC R46/681/1.

ity in the reactions towards contemporary music that were present since the beginning of the century.[69] Notwithstanding, Brown and Eckersley did keep pushing to organise contests and show support to the tape recordists' community, and reach what, for them, a questionable result. In 1965, judging the annual British Amateur Tape Recording Contest, Eckersley wrote:

> With one or two exceptions, the 'artistic' standard of entries for the competition still remains disappointing (…). On the other hand, I am convinced that the Contest is not attracting the standard of entry it should. This may partly be due to the lack of publicity and official support. It was significant that the standard of entry in the recent BBC Wildlife Recording Contest (which I also judged) was far higher than that of the British Amateur Tape Contest.[70]

Indeed, as shown by Joeri Bruyninckx, the BBC was interested in sound hunters that were chasing bird songs and wildlife sounds, and supported their activities through contests, workshops, and through buying their recordings.[71] This interest was motivated by the opportunity of increasing the BBC sound library.[72] For creative recordings, the level of support was not as high, maybe preventing the discovery of other pieces like *Sarah*. On that aspect, the approach of Thévenot, who entirely relied on submissions by sound hunters – 10,000 hours of recording received between 1948 and 1976 –, probably allowed more of them to get in touch and be revealed. This framework for sure called for a different level of organisation, which Thévenot was able to implement thanks to his autonomy. Cutforth, in contrast, had more interlocutors involved in the production of her show, and did not seem to be in direct contact with the listeners. As a result, following a contest organised by the BBC in North regions of Britain, Eckersley was sceptical about the level of achievement:

> The standard of entries for the North Region tape contest was disappointing (…). It is a great disappointment to me that the tape amateurs have not responded to the stimulus of a BBC contest to produce more imaginative work.[73]

The direction agreed to that opinion:

> Yes, the 1967 entries were very disappointing. There is, of course, a good case to be made for giving such support as we can to amateur activities of this kind, in the form of broadcasts of the

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[69] Louis Niebur, "'There Is Music in It, But It Is Not Music': A Reception History of *Musique Concrète* in Britain" *Twentieth-Century Music* 15, no. 2 (June 2018): 211–30. See also Nicola Anne Candlish, "The Development of Resources for Electronic Music in the UK, with Particular Reference to the Bids to Establish a National Studio," (PhD diss., Durham University, 2012), 19-20.

[70] Note from Timothy Eckersley, Assistant Head of Central Programme Operations (Recording), to Director Sound Broadcasting, 9 February 1965. BBC WAC R46/888/1.

[71] Thus, a friend of Roger Wilmut, former BBC studio manager, went to Australia on holiday to record and sell his recordings afterwards to the BBC to pay his trip. Interview with Roger Wilmut, 31 January 2021.

[72] Joeri Bruyninckx, 'For Science, Broadcasting, and Conservation: Wildlife Recording, the BBC, and the Consolidation of a British Library of Wildlife Sounds,' *Technology and Culture* 60, no. 2S (2019): S188–215.

[73] Note from Timothy Eckersley, Assistant Head Central Programme, to Head of Programmes, North, 1 March 1968. Eckersley speaks about the BBC North Region Tape Recording Competition of 1967. BBC WAC R46/887/1, folder BBC North Region 1967 Amateur Tape Recording Competition.

best that is produced, but the general public does not think much of the result, and I would be quite ready to accept your advice that we should give it a miss this year and think again in 1969.[74]

Still, *Sound* was deemed a success by the BBC, reaching five seasons while it was originally scheduled for a trial of three months.[75] And if some people at the BBC were disappointed by sound hobbyists' works, others, like the composer and electronic music promoter Frederick Charles Judd – whose pieces also appeared in the magazines *Tape Recording* and *Amateur Tape Recording* – were much more enthusiastic about the level of quality reached by amateurs' work:

> The creative ability of the British tape recording enthusiast sometimes even surpasses that of the professional. This is indeed a good sign, especially with the likelihood of local broadcasting in this country, for here the keen amateur may well find an outlet for his talents.[76]

If this suggests a very different consideration of what represents a good recording or a good piece, Eckersley also knew that the BBC's capacity to support the programme was inferior to RTF's capacity to support Thévenot's endeavours . With the consequence that more interesting proposals from amateurs could surface if the BBC started to act as a real relay:

> In judging the British Contest I have, on the whole, found the standard of entry disappointing and I have done a great deal both in writing and in lecturing to encourage higher standards. I am convinced however, that there must be a good deal of untapped material that does not find its way to the surface of the amateur Tape Contest, which might well be produced if the BBC were to transit a regular amateur tape programme, organising 'on-the-air' contest, etc. I have always felt strongly that of all the minority group it is above all the tape recordists who are working in the same medium as we are in radio that must merit our encouragement.[77]

Though, the Chief of Home Service and Music Programme, G.E.H. Mansell, thought the other way round: "we should be satisfied that there will be a sufficient supply of interesting recordings of a high standard before we finally commit ourselves."[78] In retrospect, that guideline – with its inherent distrust toward amateurs – was present even before the beginning of *Sound*, and outlived the programme itself. This, and the bureaucratic heaviness of the administrative organisation behind *Sound*, prevented the programme from developing the impact and influence that *Aux Quatre Vents* had.

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[74] Note from G.E.H. Mansell to H.P.N., 5 March 1968. BBC WAC R/887/1, folder On the British Tape Recording Contest.

[75] Note from Marguerite Cutforth to H.S.C Gundry, H.T. Crestorex (?), T.H. Bokeraley (?), 21 December 1962. BBC WAC R51/981/1. The last two names are barely readable on the note.

[76] "F. C. Judd, "F. C. Judd, editor of *Amateur Tape Recording* about the British Amateur Tape Recording Contest of 1966," *Amateur Tape Recording*, January 1967, 3. I will come back on Judd in the fifth chapter.

[77] Note from Timothy Eckersley, Assistant Head of Central Programme Operations (Recording), to Chief Head of Home Service and Music Programme, 16 June 1965. BBC WAC, R46/684/1.

[78] Note from G.E.H. Mansell, Chief Head of Home Service and Music Programme, to Timothy Eckersley, Assistant Head of Central Programme Operations (Recording), 18 June 1965. BBC WAC, R46/684/1.

3.2. Clubs and the tape recording periodicals

3.2.1. 1949: *Association des Amateurs de l'Enregistrement Sonore*

In the face of *On grave à domicile*'s success, Thévenot decided to organise an association to gather sound recording hobbyists into a common movement. The *Association Des Amateurs de l'Enregistrement Sonore*, ADAES [Sound Recording Amateurs' Association], was formed on the 18th June 1949, during a session of the *Fédération Française des Radio Clubs* [French Federation of Radio Clubs] – a further example of the link that existed between radio clubs and sound recording.[79] Thévenot was honorary president of this new association, while Jean Tardieu and Bernard Blin were made honorary members, alongside personalities from the radio, senior officials, and René Marty, the General Representative of the *Syndicat National des Industries Radioélectriques*, [National Syndicate of Radioelectric Industries], who would soon be instrumental in the establishment of the national and international amateurs recording contests. The ADAES was housed by the Phonothèque Nationale.[80]

Thévenot's decision of forming an association was motivated by the strong feeling that the sound hunting community should be organised beyond his radio programme. There was a need for an independent structure to ensure the development of amateur sound recording: "individual actions cannot replace involvement in collective actions."[81] This move can be described as a collectivisation, a necessary step to do group. People gathered around Thévenot because he constantly asked for new recordings, but their relation remained postal for the most part except for those who were invited to the show. The association was thus meant to act as a meeting point for sound hunters besides and beyond the radio programme, to develop other forms of sociality through meetings, training in the use of the equipment, listening sessions, visits from and to companies from the industry of sound recording. To establish the association, it was important for Thévenot to have it recognised beyond the hobbyists' circle, and to find subside for its organisation and activities. Steps were thus made to obtain a certification from the Ministry. It was obtained on the 30th of July 1951, when the ADAES get certified as "Popular Education Organisation" by the *Direction Générale de la Jeunesse et*

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[79] Thévenot, *30 ans d'antenne*, 132.

[80] The Phonothèque Nationale was previously named Musée de la Parole et du Geste [Museum of Speech and Gesture], and previously Archives de la Parole [Archives of Speech]. The link with voice and folklore would prove important, and I will come back to this in the fifth chapter.

[81] Thévenot, *30 ans d'antenne*, 75.

des Sports [Directorate General of Youth and Sports] of the *Ministère de l'Éducation Nationale* [National Education Ministry]. As such, it started to be subsidised.[82] In 1952, the ADAES had 112 members, with only 7 women (I will come back on the place of women within sound hunting in a coming section). Lina Margy, the famous French singer of the popular successes *Ah! Le petit vin blanc* and *Voulez-vous danser grand-mère*, was a member of the association.[83] Two benefactor companies were associated with the ADAES, Pyral (the instantaneous disc and disc-cutter manufacturer that I have mentioned in the second chapter) and Tokalon.[84]

As Thévenot did not want to have too central a position and was already very busy with his radio and television activities, he refused to be acting president. He remained nonetheless very present, notably through a number of proposals to gather the community of amateur sound recordists and promote their work in a way not possible through radio. A central idea was to build a directory of private recording, so that members of the association could freely exchange their recordings. An extension of this idea was to build a common sound library. This library could notably be made available for other communities, such as the blind and ornithologists.[85] However, a problem soon emerged: the association was active almost only in Paris while sound hunters were more numerous in regions. Moreover, very soon the activities were less and less oriented toward sound recording and more and more toward sound reproduction and high-fidelity, with the result that member numbers started to falter.[86] It was decided to welcome high-fidelity hobbyists, with the hope that it would attract new members.[87] That was done in 1954, when the ADAES was transformed into the AFDERS, *Association Française pour le Développement de l'Enregistrement Sonore* [French Association for the Development of Sound Recording]: two sections co-existed, the *Amis de la Haute-Fidélité Sonore* [Friends of Sound High-Fidelity], and the *Chasseurs de Son* [Sound Hunters]. To Thévenot's dismay, the word 'amateur' was removed from its statutes and communication. This is because the AFDERS acting president, Jean-Marie Marcel, thought the word would prove detrimental to the financial development of the organisation with the industry. Indeed, personalities from the industry

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[82] Jean Borel, *Historique de l'enregistrement sonore d'amateur*. This 8-page typed document is part of the FICS collection held at UNESCO archives. UNESCO Archives, Paris, FR PUNES AG 8-SEC-ERC-ONG.1-211.3.

[83] More than one million discs of *Ah ! Le petit vin blanc* were sold. Lina Margy (1909-1973) later toured the world singing French repertoire, introducing notably Jacques Brel and Georges Brassens to international audiences.

[84] *Arts et Techniques Sonores*, April 1952, 12-16. I haven't been able to trace the Tokalon company at the moment. In these years a cosmetic company with the same name existed, and a music label is identified with that name in the sixties.

[85] Jean Thévenot, *Arts et Techniques Sonores*, July-August 1952.

[86] I will continue exploring the changing nature of hobbies in the fourth chapter.

[87] Minutes from the General Assembly of the ADAES, 26 June 1954. Archives JT et CdS, 19910681/2, folder Dossier concernant l'Association Des Amateurs de l'Enregistrement Sonore puis à partir de 1954 Association pour le Développement de l'Enregistrement et de la Reproduction Sonore.

were identified as founding members of the high-fidelity section: the technical director for Europe of the Metro-Goldwin-Meyer, and representatives from Pathé-Marconi, Thomson-Houston, and Melodium, among others. Marty, General Representative of the *Fédération des Syndicats des Industries Radioélectriques et Electroniques*, who was already a member of the ADAES, was also present in that section. That was the beginning of a simmering conflict between Thévenot and the AFDERS, with two recurring problems. First, the absence of a link between the association, based in Paris, and the sound hunters who lived in regions and that we have seen were more numerous. Second, due to the national exposure and impact of *Aux Quatre Vents*, Thévenot's voice remained central and held in high regard, notably by all the amateurs who could not attend the activities organised in Paris by the association, which often created tensions with the acting president of the association. After a year, the sound hunting section was stalling, as all the events focused on high-fidelity.[88] Moreover, even before the AFDERS, Thévenot's ideas, centrally the design of building a general library of amateurs' sound recordings, went unheeded, to his disappointment: "appalling the number of useless calls."[89]

Eight years after, Thévenot bitterly observed that the General Assembly of the AFDERS attracted less people than the funding one of the ADAES in 1949, that nothing was done to create a link with sound hunters in region, and that the pages within *La Revue du Son* dedicated to the life of the association had disappeared, while they were, and could have continued to be, a forum able to create a sense of identity within the community of sound hobbyists.[90] It was with the foundation of a new association, the *Association Française des Chasseurs de Son* (AFCS) [Sound Hunters French Association] in 1963, that Thévenot would work on these problems. Using his contacts made through *Aux Quatre Vents*, the association adopted the Swiss model: lively local sections strong enough to organise events by themselves, united by a national board (figure 18). In parallel, the AFDERS continued to exist, and still exists to this day.[91] Its activity was, and still is, focused on high-fidelity equipment, musical sound recording, and technical discussions. The AFDERS pursued the DIY spirit of sound

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[88] Undated note from Thévenot attached to the minutes of the General Assembly of the AFDERS of the 25 June 1955. Archives JT et CdS, 19910681/2, folder AFDERS, Réunions de bureau (60-63), Assemblées Générales (25/6/55, 21/6/58).

[89] Undated note from Thévenot. Archives JT et CdS, 19910681/2, folder Dossier concernant l'Association Des Amateurs de l'Enregistrement Sonore puis à partir de 1954 Association pour le Développement de l'Enregistrement et de la Reproduction Sonore. The note is within documents gathered for the General Assembly of 1953.

[90] Correspondence between Jean Thévenot and Jean-Marie Marcel, General President of the AFDERS, 17-26 June 1962. Archives JT et CdS, 19910681/2, folder Dossier concernant l'Association Des Amateurs de l'Enregistrement Sonore puis à partir de 1954 Association pour le Développement de l'Enregistrement et de la Reproduction Sonore, sub folder Correspondance de Jean-Marie Marcel et de Jean Thévenot.

[91] www.afders.org (accessed 20/10/2021). However, the COVID pandemic seriously impacted its activity, and the last programme of meetings and activities dates from the 2018-2019 season.

hobbyist, with members like Jacques Chaponnay, who, since the 1980s, has developed a three dimensional sound system, named “holophony:” a four-speaker sound system with which the vertical plan – absent from the left-right of stereophony – becomes present.[92]

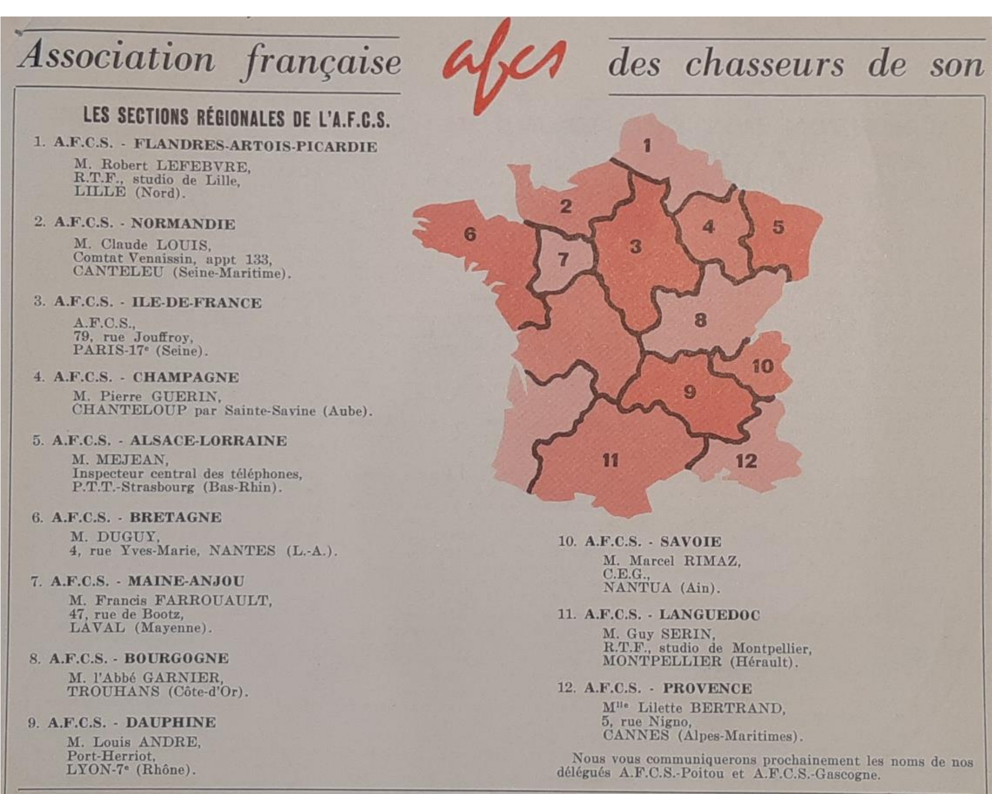

Figure 18: Map of French sound hunting clubs affiliated to the AFCS. Two regions are without number because they didn’t have any affiliated club at that time.
Diapason, April 1964.

By the middle of the 1960s, the estimated number of sound hunters in France was low, a few thousands, while the estimated number of people with a tape recorder was around one million.[93] Sound hunting appears therefore as a niche occupation. A similar situation is described by Karin Bijsterveld in the Netherlands: she states that the Dutch Sound Hunters’ Association claimed a membership of 1,650 in 1966.[94] However, as I will show in a coming section, the readership of the specialised sound hobbyist periodicals was much higher, as some magazines printed at more than 60,000 copies. This suggests that a majority of sound hunters was not being affiliated to a particular club, and therefore gestures to the fact that this silent majority that was not visible. But before I turn to this, what was the situation in Britain?

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[92] Jacques Chaponnay, document sent to author.
[93] Jean Thévenot, Brouillon de l’annonce du concours ‘Évocation sonore,’ 28 November 1963. Archives JT et CdS, 19910681/32, folder Concours : Évocation Sonore, 1963-1964, sub folder Notes et courriers divers.
[94] *Tape Recording*, vol.3 n°16, 30 December, 444. Bijsterveld, “What do I do with my tape recorder…?”

3.2.2. Britain: from tapespondence to tape recording clubs

In the United Kingdom, the history of these clubs of enthusiasts can be traced to before the Second World War, with the informal grouping of amateurs and professionals with an interest in sound, recording and reproduction. If the War put this plan to a stop, the idea was resurfaced soon after and the British Sound Recording Association was formed in 1946. The objective was, in the words of its president L. E. C. Hughes, to gather "the growing number of enthusiasts who, as amateurs and professionals, made sound recording and reproduction a major interest."[95] After the War, the association picked up its work, and inaugurated its printed journal, *Sound Recording*, in Summer 1947. Before that date, only bulletins were made. One of the main aims of the journal was to record and pass on the technical matter on which the members of the association worked. The two central aims of the association were teaching amateurs and establish relationships with enthusiasts. For the inauguration of the journal, the Managing Director of Electric and Musical Industries (EMI), Sir Ernest Fisk, was invited to write a part of the first editorial. The link with the sound enthusiast was at the core of his words. "I offer a special welcome to that object of the Association which is the encouragement of amateur enthusiasts, for we must never forget the contributions that amateurs have made to all branches of science."

Besides this association which gathered professionals and amateurs, the first hobbyist club to appear was the Amateur Tape Recording Society, in 1955. It was mainly a 'tapespondence' club, a neologism built on 'tape' and 'correspondence.' In these clubs, members were corresponding by sending sound letters recorded on tape. The idea of exchanging sound letters was not new. In the beginning of the twentieth century, several companies and equipment existed, like Pathépost or the Société Anonyme des Phonocartes [Phonocard Company Ltd.]. These tries were short-lived and were part of a fascination toward the new possibilities offered by sound recording and the possibility of engraving sound on a distributable medium.[96] With the advent of instantaneous discs in the 1930s, the idea reappeared under the name Phono-Post, with much more success, as I have shown in the second chapter through the work of the media historian Thomas Y. Levin. The interest of Phono-Post was that specific postage fees were negotiated, with the result that it was cheaper to send a Phono-Post disc than to call with the telephone. For tape, and therefore tapespondence, things were different. In Britain, the Post Office established strict rules during the 1950s. If the tape consisted of "a verbal communication," it had to be charged at letter rate, but if it contained music, it could be sent at small packet rate. The difference was important, as to air-mailed a tape to the US, the letter rate was at 7s. 6d., while for a small packet, the rate was 3s. For New Zealand, letter rate

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[95] L. E. C. Hughes, *Sound Recording. The Official Journal of the British Sound Recording Association* 3, no. 1 (Summer 1947): 1.

[96] For a look into the failure of one of this equipment, see Peppe Cavallari, "Le Phonopostale et les sonorines : un échec riche d'idées," *Cahiers Louis Lumière* 10 (2016): 77-86.

was 9s., while small packet rate was 3s. 6d.[97] French correspondents were facing a similar problem, and several sound hunters complained about the situation.[98] Tapes sent overseas were taxed, but so were those sent to neighbouring countries such as Switzerland. In 1958, Thévenot wrote to the Ministère des Finances [Treasury Department], to ask to what extent the postage agreement negotiated by UNESCO for tapes could be extended to exchanges between private individuals. The answer was clear: "No legal measure authorises tax exemption on the importation of magnetic tapes and wires exchanged between private individuals."[99] A solution was found after several years. A tape marked as "Magnetic tape without commercial value" opened up a tax exemption.[100] Nonetheless, these costs, when they existed, did not restrain enthusiasts. In comparison with Phono-Post discs, a more collective form of 'tapespondence' appeared with tape, named 'round robin' (*tour-au-ruban* in French, after a Quebec word). Here, the tape circulated between several correspondents, each one adding their messages, before returning to the original sender. Thus, in 1967, one tape travelled more than 19,000 km in 47 days.[101]

The Amateur Tape Recording Society, which was the first club to appear in Britain, was renamed the British Amateur Tape Recording Society in 1956 and remained the only club until September 1957 when three other clubs were established in Edinburgh, Middlesbrough, and London. In 1959, the British Tape Recording Club came into being, and claimed 5500 members by the end of that year, after the British Tape Recording Society joined it in September 1959.[102] From the late 1950s, the number of clubs rapidly grew to 145 (figure 19). Clubs had 10 to 100 members, the average being 25.[103] The number of clubs was thus far more important than in France, and the comparison between the two maps of figures 19 and 20 is illuminating. The number of clubs would remain stable during the sixties, according to data in the trade press dedicated to tape recording. It becomes much more difficult to follow them after the end of the 1960s. As I will describe in a coming section,

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[97] Ian L. Arnison and Richard Brown, "The Editors' View," *Tape Recording*, December 1957, 11. According to the UK Retail Price Index, a pint of milk costed 8d in 1957.

[98] For instance, Pierre Guérin, who had to pay 1088 Francs to retrieve a tape sent from the US. His complaint to the PTT [the Post Office] was without effect. (Letter from Pierre Guérin to Jean-Marie Marcel, 10 April 1957. Archives JT et CdS, 19910681/1, folder Relations de la FICS avec l'UNESCO, 1956-1965, sub folder UNESCO, documentation générale (1956-1965). Seven years after, Thévenot had to pay 20 Francs to retrieve a tape sent from Switzerland (Letter from Thévenot to Rudolf Bachmann, 21 May 1964. Archives JT et CdS, 19910681/5, folder Émissions *Aux Quatre Vents stéréo*, 1961-1966.)

[99] Letter from the Ministère des Finances to Thévenot, 17 December 1958. Archives JT et CdS, 19910681/1, folder Relation de la FICS avec l'UNESCO, 1956-1965, sub folder Document et courrier concernant l'importation d'objets à caractère éducatif, scientifique ou culturel, 1958.

[100] Letter from Thévenot to Rudolf Bachmann, 21 May 1964. Archives JT et CdS, 19910681/5, folder Émissions *Aux Quatre Vents stéréo*, 1961-1966.

[101] *Le Magnétophone*, December 1967, 36.

[102] "Editorial," *Amateur Tape Recording*, February 1960, 3.

[103] Terry Nurse, "This Tape Club Giant," *Tape Recording*, January 1962, 17-9, 17.

there were three different magazines dedicated to tape recording, and clubs were showcased in them each month. However, by the beginning of the 1970s, these magazines disappeared and one of the major sources of knowledge on clubs and club members also disappeared with them.[104]

The main reason for the difference of clubs' situation in France and Britain is probably the impact of Thévenot's programme, which acted as a central rallying point beyond the clubs. The absence of such a gravity centre in Britain possibly encouraged a more distributed network of clubs, which were organised at a city or district level. In contrast, in France, only regional sections existed, covering widespread areas. Another reason for the development of such a network is historical. As studied by Sophie Maisonneuve, Britain was in the 1920s and 1930s the place of a vibrant development of gramophone clubs and dedicated gramophone hobbyist magazines.[105] Such a development was more limited on the continent.[106] Except for the recording of sound, the activities of these gramophone clubs were close to the ones practiced thirty years later in the tape recording ones: discussions about the equipment and discs, listening sessions of commercial recordings, training in the use of gramophones, maintenance of the equipment, technical discussions, contests. Representatives of the industry were also present to show novelties. Around 50 of these gramophone clubs existed in the 1920s, and in 1936, when a national federation was created to unite them, there were approximatively 1500 members, with a mean membership of 30 per club.[107] These numbers are remarkably close to the ones observed later in tape recording. And furthermore, in Maisonneuve's account, these gramophone clubs shared a lot with their future tape recording counterparts: the clubs helped build a relation to a new medium; they taught listeners new listening dispositions; they organised the sharing of a common knowledge. The analysis is similar for the specialised press that acted as a relay between amateurs, and between amateurs and clubs. A similar importance was given to the letters to the editor to promote ideas exchange,[108] and to 'listening tutorial' articles promoting "the art of intelligent listening."[109] I will continue to explore these aspects in the next chapter as this is part of what the clubs and the magazines were trying to teach to their members and readers, in both Britain and France.

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[104] The press will be described in the following section. For now, in the UK, there were three magazines dedicated to sound recording: *Tape Recording*, *Tape Recorder*, *Amateur Tape Recording*. The 'News Club' page disappeared from *Tape Recording* in October 1966, and *Amateur Tape Recording* would transform into *Hifi Sound* in October 1967.

[105] Sophie Maisonneuve, "La constitution d'une culture et d'une écoute musicale nouvelles : Le disque et ses sociabilités comme agents de changement culturel dans les années 1920 et 1930 en Grande-Bretagne," *Revue de musicologie* 88, no. 1 (2002): 43-66. *Gramophone*, one of the nowadays leading classical music magazines, was formed in 1923 "by amateurs for amateurs."

[106] S. Maisonneuve, "La constitution d'une culture et d'une écoute musicale nouvelles," 48.

[107] *Ibid*., 45.

[108] *Ibid*., 50-1.

[109] *Ibid*., 62.

Two activities were characteristics of British tape recording clubs: ‘tape for the blind’ and ‘tape for hospitals.’ These were programmes offered on a fortnightly or monthly basis to hospitals and blind welfare associations. Their contents were similar, with local news and actuality reports, plus sometimes some music. Looking at the magazines, the majority of British clubs were involved in them. These two activities, despite calls from Thévenot, only seldom appear both in the sources concerning French clubs, and in French magazines. A similar situation existed in the Netherlands or Switzerland. Even if we cannot be sure that these activities were totally absent from other contexts, it seems that the 'tape for the blind' and the 'tape for hospitals' were much more established in Britain than on the continent.

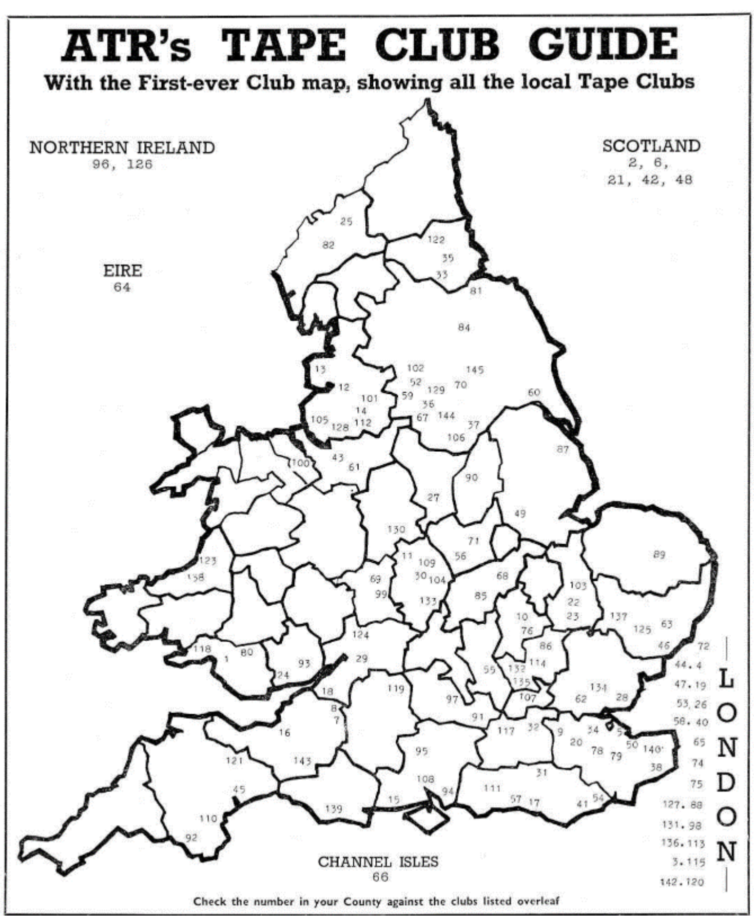

Figure 19: Map of the 145 British tape recording clubs in 1962,
Amateur Tape Recording, January 1962, 23.

3.2.3. The sound hobbyist trade press periodicals in France and Britain

In France, to federate the members of the newly formed ADAES beyond the meetings, where everybody, especially those not living in Paris, could not be every time, the association started in

1951 to edit a bulletin, *Arts et Techniques Sonores* [Sound Art and Technique]. First composed of a few roneotyped pages, it expanded through the years. Its aim was to federate sound recording hobbyists by offering a place for exchange beyond club meetings, as every member could send messages or questions. It was also a space to pass on calls and information related to sound recording. When the bulletin started to have more pages, new sections were added: technical explanations, reviews of discs (popular and classic music), reviews of equipment.

As soon as 1952, the bulletin reviewed the burgeoning business of sound effects discs, following the demand of several ADAES members.[110] As I have explained earlier, the practice of sound recording was often associated with amateur cinema, and people were therefore in need of sound effects. It was also the reason of Thévenot's proposal to build a sound library of amateurs' recordings, in order to offer sound material for diorama and amateur cinema for members. Coincidentally, in that same September-October issue, a call from Radio Luxembourg was relayed: they wanted to buy original sound effects to expand their sound library.[111] *Arts et Techniques Sonores* gained better visibility when it started to be published within the newly formed magazine *La Revue du Son* between October 1953 and April 1956.[112] The *Revue du Son* appeared in January 1953 and its subtitle was "the first French magazine dedicated to electroacoustic." Electroacoustic was understood on a technical level: the magazine was dedicated to electroacoustic sound devices, microphones, recorders, amplifiers, speakers. At that time, the *Arts et Techniques Sonores* preferred to focus on the sound techniques to the detriments of the sound arts.[113] Thanks to the inclusion of their bulletin within *La Revue du Son*, the ADAES became more prominent but did not attract new members. brought a better prominence to the ADAES, but did not attract new memberships, and in May 1956, the bulletin was absorbed by that magazine and disappeared. If *La Revue du Son* offered quality and in-depth articles on technical subjects related to sound, alongside reviews of equipment and reports on sound events that happened in France, its scope was mainly technical and high-fidelity oriented. In 1956, the pages dedicated to the life of the ADAES had already disappeared, alongside any sound hunting oriented subject.

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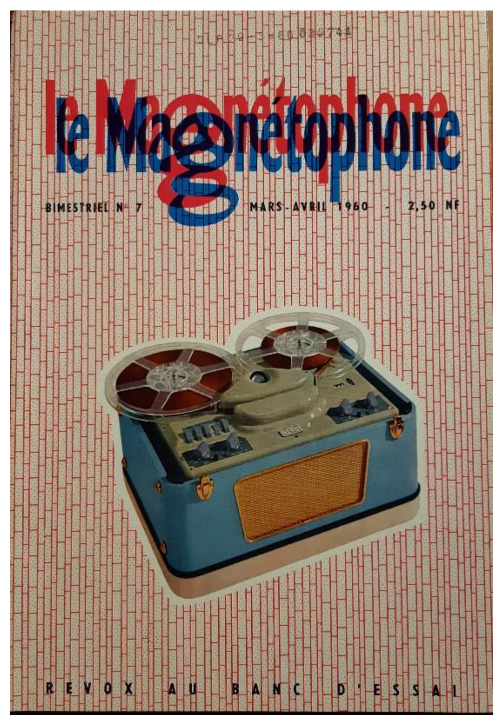
[110] *Arts et Techniques Sonores*, September-October 1952, 7-8. These two discs were from the company Lumen and reviewed by Thévenot. They were bell sounds ("good sound takes. To be noted that one can hear a street ambience in the distance, which authenticates these sound elements.") and crowds ("the orator is not detached enough from the crowd, whose bursts seems to come less from the heart than from the editing or the potentiometer.").

[111] Radio Luxembourg offered 1000 to 1500 Fr for a two-face disc. Looking at the advertisements of the time, a turn-table costed 15 000 Fr, and a tape recorder 30 000 Fr.

[112] *La Revue du Son* appeared in January 1953 and its subtitle was "The first French magazine dedicated to electroacoustic."

[113] *Arts et Techniques Sonores*, August-September 1953, 3-6.

French sound hunters would have to wait several years to have a new printed magazine that could establish a link between them. That magazine was *Le Magnétophone* (figure 20), published from March 1959 to May 1970. 10,000 copies of it were initially published on a bi-monthly basis, until the magazine became a monthly publication by the mid-sixties.[114] It disappeared suddenly in the middle of 1970, without any notice or forerunner. The choice was to have a luxurious looking magazine, with a glossy cover and high quality paper, while keeping the price affordable by using a smaller format (both in size and number of pages, in comparison with the other periodicals that I present here.)[115] Besides *Magnétophone*, the AFCS also had pages within the music oriented magazine *Diapason*.



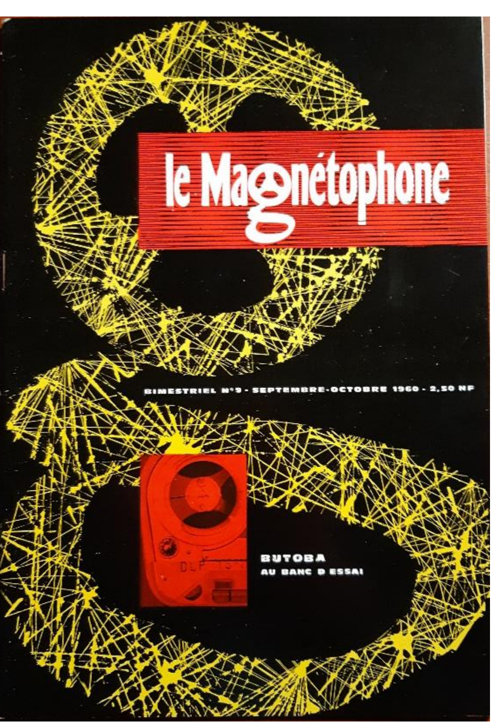


Figure 20: *Le Magnétophone*, covers of the March-April and September-October 1960 issues.

In Britain, it was also at the end of the fifties that, stimulated by the burgeoning sound hunting movement, a specialised press appeared. *Tape Recording and Reproduction Magazine* was the first to

[114] "Editorial," *Le Magnétophone*, March-April 1959.
[115] "Editorial," *Le Magnétophone*, July-August 1959. The magazine will keep these qualities until the end. It was close to a A5 format, while the other magazines that I present here had a A4 one with, indeed, a rawer type of paper. In hand, the difference is immediate.

materialise in 1957, followed two years after by *The Tape Recorder*. *Amateur Tape Recording*, the official magazine of the British Tape Recording Club,[116] followed a few months after in August 1959 (figure 21). These three magazines were similar in scope. One of their important functions was to create a link between their readerships and the clubs. Special pages were devoted to these each month, with descriptions of the activities, pictures, information about membership and spotlight on specific members. Another aim was to serve as link between the users and the manufacturers, with visit reports of factories and detailed tests. As for French magazines, a DIY spirit was often present, with tutorials to build amplifiers and other sound equipment. Sound hunting publications were not alone in promoting this DIY spirit. Around the same time, specialised DIY publications existed – such as *Practical Electronics* or *The Radio Constructor* – which also proposed tutorials centred on audio equipment.

These publications catered to a niche market and were part of the burgeoning hobbyist press that appeared at the end of the 1950s and developed during the 1960s. To give an idea of the popularity of magazine culture, in 1958, when tape recording magazines appeared, there were no less than 31 different publications dedicated to women.[117] Several reasons explain this abundance of magazines:

> Falling costs for paper, printing, typesetting, page composition, and colour reproduction combined with a decline in the power of the craft unions to lower the barriers of entry to accommodate new or short-run magazines. (…) As in the USA, the increasing emphasis on individual identity and subcultural tribalisation (pace Marshall McLuhan's statement that 'our new electric culture provides our lives again with a tribal base' (McLuhan & Zingrone, 1995: 127) combined with an increase in specialist consumption and technological changes to the material conditions of production to create a fruitful time for magazine publishers both large and small.[118]

Sales numbers were sometimes given within these magazines, which gives an idea of the size of their readership. The first print run of *Tape Recorder* was 10,000, which sold in five days.[119] In 1962, the aggregate readership with his sister magazine *Hifi News* was 52,000.[120] Concerning *Amateur Tape Recording*, its print-run rose in its first year from 25,000 copies to 60,000 copies.[121] These numbers

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[116] The British Tape Recording Club appeared in January 1959 and rapidly expanded, absorbing the British Tape Recording Society in September of that year.

[117] Note from Joyce Row, Sound Publicity Officer to Miss Pamela Ridz, 29 January 1958. BBC WAC, R44/942/1. The note is about publicising the retirement and achievements of Florence Milnes after 33 years at the BBC. She joined in 1925, to do programme research and went to build and organise the References Library, who had 46 employees (44 women) when she retired.

[118] Tim Holmes and Liz Nice, *Magazine Journalism* (Los Angeles, CA: SAGE Publications, 2012),16-7. The McLuhan note is from Frank Zingrone and Eric McLuhan (eds.), *Essential McLuhan* (New York: Basic Books, 1995).

[119] Mike Henslow, "Editorial," *Tape Recorder*, March 1959, 51.

[120] Mike Henslow, "Editorial," *Tape Recorder*, May 1962, 151.

[121] C.A. Lane, "Our First Birthday," *Amateur Tape Recording*, February 1960, 3-5.

are comparable with the electronic music press of the 1980s and 1990s.[122] These readership numbers are therefore much greater than the number of memberships in clubs, accounting for a diverse audience and probably for a number of isolated individuals practicing for themselves without being affiliated to a particular club. For instance, Ray Stanton King, winner of the International Amateur Recording Contest of 1964, was a reader of *Tape Recording* without being affiliated to a club (I will come back to King in the last chapter by analysing his winning tape). This latter point was especially true for wildlife recorders, as noted by Bruyninckx.[123] These numbers also help balance out the membership numbers that I have presented in the previous section and tend to show that many sound hobbyists were not affiliated with a specific club.

Amateur Tape Recording would be the first magazine to disappear when it merged with *Hifi Sound* in October 1967, while *Tape Recorder* would transform into *Studio Sound* in January 1970. *Tape Recording* would be the only magazine to just cease in August 1970. The transformation of *Amateur Tape Recording* and *Tape Recorder* highlights the evolution of sound hobbyists' practice. The demise of sound hunting will be analysed in the conclusion of the thesis, but the transformation of *Amateur Tape Recording* into a high fidelity magazine and of *Tape Recorder* into a magazine catered to pro-audio already point to the fact that sound hunting was torn between its identity as a sonic practice based on recording (sound hunting) and one based on listening (high fidelity).[124] I have already presented how the French association, the AFDERS, progressively favoured high fidelity.

I will study the content of these magazines in the next chapter, but for now, across the body of articles as a whole, all aspects of sound recording were covered: from creating sound effects to mastering recording with a parabolic dish to microphone placement when recording a play, or special tips when chasing birdsongs. They were also a site to share individual experience – as the examples of the second chapter showed (such as the instructions of Father Prêcheur to transform a 78rpm disc-cutter into a microgroove one) –, and through this sharing, a site to build and pass on a collective experience. This collective experience was also modelled by the articles, remarks and pictures of these periodicals. Models of use of the sound recorder were presented and promoted, and sound recorders were staged in the pictures. Magazines also appear as an essential relay for the publicization of clubs' activities.

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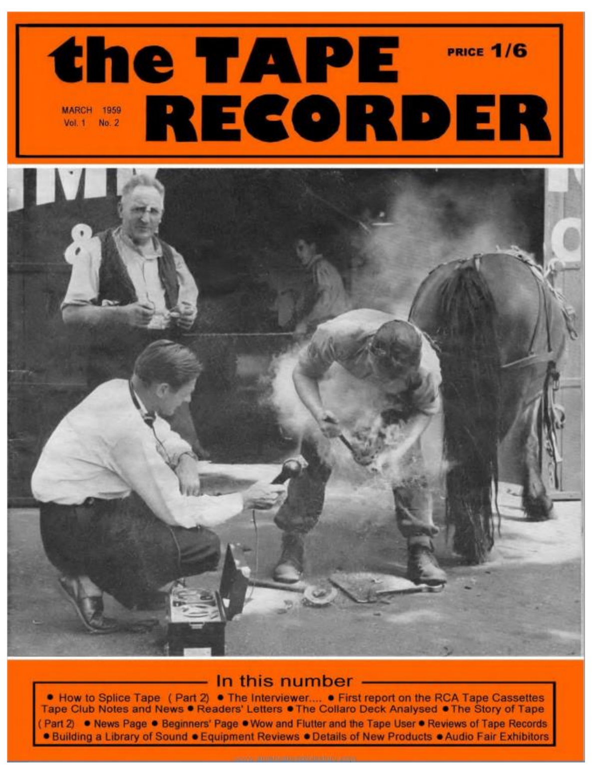
[122] With titles such *Music Technology* (50,000); *Recording* (50,000); *Music, Computer & Software* (56,000). Paul Théberge, *Any Sound You Can Imagine: Making Music/Consuming Technology* (Middleton, CN: Wesleyan University Press: 1997), 115.

[123] J. Bruyninckx, "For Science, Broadcasting, and Conservation," S205.

[124] I will come back on the relevance of this morphing of sound hunting into high-fidelity on the one hand, and into pro-audio on the other hand, in the next chapter.



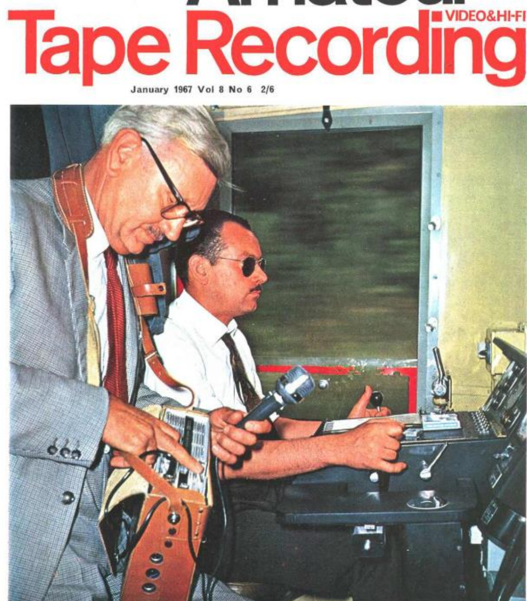


Figure 21: Covers of *Tape Recorder*, March 1959; and *Amateur Tape Recording*, January 1967.

Another important function of the magazines was to review new equipment, ranging from tape recorders to microphone and headphones. Series like "Electronics Without Tears" were proposed by *Amateur Tape Recording*, to explain the inner workings of a tape recorder. Magazines also regularly offered more in-depth series of articles intended for tinkerers. These provided information on building an amplifier or a microphone from scratch or turning a tape recorder into a radio receiver.[125] Less specialised advice on the maintenance of the equipment were also a regular feature. Finally, the magazines were places for manufacturers to showcase their products: between a third and a half of the content were advertisements for tape recorders and tape makers, and the manufacturers used pictures of contest winners to promote their equipment.[126]

[125] For example, how to turn a tape recorder into a radio receiver, *Tape Recording*, vol.3 n°14, 2 December 1959; how to build a high-fidelity power amplifier, *Amateur Tape Recording*, February 1963; or a capacitor microphone, *Tape Recorder*, November 1969. [between November 1959 and December 1961, *Tape Recording* was published fortnightly, hence the additional precision]

[126] For example, Brenell used a picture and a comment of Robert Margoschis, documentary section winner of the British Amateur Tape Recording Contest, and runner-up of the International Tape Recording Contest in the same category (*Tape Recording*, vol.3 n°15, 15 December 1959).

3.3. The sociality and leisure of sound recording

3.3.1. Sound hunters and their social backgrounds

Who were the listeners of *On Grave à domicile / Aux Quatre Vents / Chasseurs de son* and *Sound* ? And who were the readers of the different magazines, and what was the background of the clubs' members? Before the launching of *Sound*, while the tape recorder was entering more and more households, the BBC conducted a survey to gather information about the use of tape recorders and about what kind of radio programme would be interesting for owners. The survey found that its main use was to record the radio (67 answers), followed by recording music (41) and then taping outdoor sounds (29). To produce family album in sounds comes in fourth position (15) followed by amateur dramatics, tape correspondence, and tape club activities (8, 8 and 7). Electronic music and *musique concrète* are ranked lower, between language learning and teaching physics of sound (2 answers). Sound effects (6 answers) is a category on its own. It designates foley, the imitation and re-creation of sounds through artificial means, for film soundtrack and for diorama. A specific literature already existed to explain how to re-create the sound of rain, screech of tyres, or footsteps in the snow.[127] A significant point of the survey, pointing again to the DIY spirit associated to sound hunting, is that of the 94 people who replied, a quarter (24) had built most of their equipment, and a third (33) had customised commercially available equipment. Another conclusion of the survey was that there were as many respondents who displayed an interest in high fidelity as in tape recording.[128] These utilisations and their ranking are consistent with the situation described in the Netherlands by Bijsterveld and Jacobs.[129] A few years after, in 1960, another inquiry was conducted, to learn more about the employment of *Sound*'s listeners. Engineering – electrical and electronics – was the dominant answer (one third of the respondents), far ahead the second and third categories of "architects, accountants, surveyors, engineers (others)" and civil servant and army (ten percent each). After this came were teachers (7 percent).[130] These responses are coherent with the idea developed in the second chapter, that in the beginning, sound hunters were often tinkerers, designing their own equipment or upgrading manufactured ones. Following the launch of *Sound*, *Radio Times* also received letters, that showed

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[127] See Alan Edward Beeby, *Sound Effects* (London: Print & Press Services, 1966) for example.

[128] Programme suggestions from questionnaire, undated. BBC WAC R51/981/1. Despite being undated, this document dates most probably from the end of the fifties, as it is amongst papers from 1957 and 1958.

[129] Karin Bijsterveld and Annelies Jacobs, 'Storing Sound-Souvenirs: The Multi-Sited Domestication of the Tape Recorder" in *Sound Souvenirs. Audio Technologies, Memory and Cultural Practices*, ed. Karin Bijsterveld and José van Dijck (Amsterdam: Amsterdam University Press, 2013): 25-42.

[130] 'Sound? Break-down by occupation of sample of 103 listeners,' undated (but within documents of May 1960). BBC WAC R51/981/1.

> "that people in many walks of life are interested in sound, for the writers included a farmer, a doctor, a teacher, a high-level professional recording engineer, and even a schoolboy. (…) *Sound* fans include both experts and raw recruits but, strange to say, not a single letter was received from the fair sex, although more than one listener associated his wife with his congratulations."[131]

Specifically in France, in 1969, while interviewed by *Le Figaro*, Thévenot described that "all social classes and all occupations are represented (…) although one finds a good share of teachers."[132] The presence of teachers was the result of several elements: the development of the Freinet pedagogy in France and the support of Thévenot toward the teachers following this method and toward the *Centre International Scolaire de Correspondance Sonore* (CISCS) [International Centre of School Correspondence], founded and animated by his friend Jean Borel. As I will present in a coming section, women were present, but much less visible within the field of sound which was historically dominated by men. Still, as interesting as it is, this information remains scarce and the knowledge we have of sound hunters' family background or level of education, of their personal trajectory, is limited. Yet, a crucial element is given with the question "other hobby." Amateur cinema and photography are the most cited, but a musical practice nearly never appears, meaning that sound hunting was the only sonic practice of these people.

The International Amateur Recording Contest's archives allow us to build a picture. The application forms allow us to follow the evolution of who were the participants throughout the 1950s and 1960s. For some years, precise statistics were also established, though they are not available for each year, and participants did not always fill all the form. Hence, for its first edition in 1952, participants were mainly between 20 and 30 years old, coming from a diverse range of professions: from radio technician to engineer, to teacher, student, beautician, merchant. Their years of experience were also diverse, from very recent (one week), to seasoned practitioners (eighteen years), and while most used commercial recorders, some built their own. Tape recorders were still new in 1952, and they cohabitated with the older sound recording technologies of disc-cutters and wire recorders. Contestants spent in average between two and five hours on their sonic pieces, while some spent as many as thirty hours on them. Finally, as well as other hobbies, the competitors most often mentioned radio and amateur cinema. Also present were tinkering, photography, and music.[133] Eight

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[131] *Radio Times*, 30 January 1959, "OK for Sound," by Douglas Walters. BBC WAC, R51/981/1.

[132] Jean Thévenot interviewed in *Le Figaro*, 27 November 1969.

[133] Information sheets of French participants. Archives JT et CdS, 19910681/18, folder 1er CIMES – 1952, siège : Berne (sic.), sub folder Fiches de renseignement, enregistrements français. Unfortunately, the information sheets of Swiss participants are not present. Also, the location on the folder is incorrect, as the first IARC happened in Lausanne.

years later, Thévenot mentioned that the mean age was 35.[134] For the French selection of the 1962 IARC, 145 submissions were received, from 95 candidates: 73 were male, 13 came from schools, 7 from female, and 2 from associations. The mean age was 40 years, with the youngest having 14 and the oldest 90. Their professions were very diverse.[135]

In a November 1969 issue of the daily newspaper *Le Figaro*, Thévenot also explained that "people from the province are much more numerous than Parisians."[136] It is something that Thévenot defended and supported constantly, as his position against the Paris-centred activities of the AFDERS demonstrates. There was an "artistic vitality of non-Parisian France that Paris tends to forget too often."[137]

Despite the fact that people from all horizons practiced it, tape recording was mainly a middle-class activity. In the face of mean wages, equipment remained expensive, as were blank tapes, especially if one was recording a lot. That price could impact the way people used their recorder and their tapes. As the son of a former sound hobbyist mentioned, when one bought an expensive equipment, one had the tendency to use it to its full, to make it profitable.[138]

3.3.2. Sound hunting as a leisure practice

Sound hunting appeared during a time of societal change. For the middle-class, it was the heyday of the 9-5 workday, that allowed the development of leisure and hobbies (but not in equal way between men and women, as I showed in the previous section). For instance, Keith Upton, of the Brighton Tape Recording Club had busy weeks. Besides his day-job as a student and then as an engineer, he participated – and organised, as the club's secretary – the weekly meetings in the evening, the monthly radio programme on the local BBC station, but also the organisation of events and

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[134] Jean Thévenot, "La famille internationale des chasseurs de son," *Le Courrier de l'UNESCO*, March 1960, 4-10, 8.

[135] Statistique française du CIMES 1962. Archives JT et CdS, 19910681/22, folder 11ème CIMES – 1962, Strasbourg, sub folder Programme, liste des jurés, récapitulatif du voyage à Strasbourg, etc.

[136] Jean Thévenot interviewed in *Le Figaro*, 27 November 1969.

[137] Jean Thévenot, *Aux Quatre Vents stéréo*, 7 December 1963, special show after the IARC 1963.

[138] Interview with Eric Thomas, 23 April 2022. With the result that one could have the tendency to only use the lowest speed to maximise the recording duration. A choice that had other technical consequences: the bandwidth was reduced and the slower the speed, the more material was packed in a reduced length, the more difficult it was to edit. This choice also impacted what was recorded: on one hand, one was careful not to record everything to save tape, but on the other hand, as the recording capacity was extended, one could be tempted to record more than necessary.

the preparation of the club's bulletin and sound journal. And these were only his club commitments, for Upton also had his own practice on the side.[139]

However, this access to leisure was not shared equally between men and women. Women did practice but were a minority, which is clearly visible in the pictures of clubs. To foster female participation, dedicated contests were sometimes organised by clubs. In December 1961, *Amateur Tape Recording* started a collaboration with Rachel Lindsay, also known as Roberta Heigh, author of romantic novels with strong female characters. Besides her writing activity, Lindsay was a keen user of her Grundig TK35, on which she dictated her novels. The collaboration was a series of articles entitled "Strictly Feminine," and was a way to make tape recording more appealing to women. To conclude her article, Lindsay initiated a contest, also opened to men, to hear about original ways to use the tape recorder.[140] Results were not what she hoped, as no women answered. In the following issue of the magazine, Lindsay lamented what she thought was a lack of motivation and ideas from women about what to do with the recorder. While she received answers from men, she was surprised that she had not received a single letter from a female tape recordist. She nonetheless recognised at the same time, that "quite a few housewives" were stuck at home most of the time.[141] Here, Lindsay touched upon the crucial point that "the seeming *right* to leisure and *access* to it were not always compatible."[142] Building on the statistics of the Office for National Statistics, Jonathan Gershuny and Kiberly Fisher described that, even if gender imbalances have evened over the last third of the twentieth century, women still have some 50 minutes less leisure per day than men.[143] Another point is that from the 1950s to 1970s, more women gained access to job, most of the time part-time, while retaining most of their amount of household and domestic tasks, which specifically reduced their leisure. The situation saw a gradual change at the end of the twentieth century, with men slightly increasing their household work. Though, "the phenomenon persists and remains important."[144] And as reported by Cécile Doustaly, mentalities take time to evolve: half of the respondent of a 1984 poll responded that men should provide the finance for the family, while women should take care of the home and family, even if they worked.[145] This caring for home and family was not always compatible with an activity that happened, as a hobby, outside working hours, that

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[139] Interview with Keith Upton, 2 April 2021.

[140] Rachel Lindsay, "Woman at Work," *Amateur Tape Recording*, December 1961, 47.

[141] Rachel Lindsay, "Are Men Superior?" *Amateur Tape Recording*, January 1962, 41. Her title was intentionally provocative.

[142] Cécile Doustaly, "Women and leisure in Britain: a socio-historical approach to twentieth-century trends," in *Leisure and Cultural Conflicts in Twentieth-Century Britain*, ed. Brett Bebber (Manchester: Manchester University Press, 2012), 181-204, 193. Stress in original text.

[143] Jonathan Gershuny and Kiberly Fisher, "Leisure," in *Twentieth-Century British Social Trends* ed. A.H. Hasley and Josephine Webb (Houndsmill and London: Macmillan Press Ltd, 2000), 620-49, 635.

[144] J. Gershuny and K. Fisher, "Leisure," 624.

[145] C. Doustaly, "Women and leisure in Britain," 193.

is to say mainly in the evening and during the weekends. Therefore, if several clubs were established by women,[146] the majority seemed not to have enjoyed the possibility of dedicating themselves to sound hobbyism as most of their male counterparts.[147]

This imbalance in handling household tasks and leisure time could have impacts within the household, and clubs appeared in this perspective as a solution to practice outside the house. As Karin Bijsterveld and Annelies Jacobs showed, the necessary space needed for working with the tape recorder could generate conflicts between wife and husband.[148] This need for space was physical (the recorder(s), the speakers, the cables, the eventual mixer, a table to spread and edit tape, etc.) as much as sonic (the necessary listening, sometimes at high volume, of the tapes, of the edits). Clubs offered these spaces, and added the social one. However, if that point works well in the British context, as Britain had a high number of clubs, what about France and its handful number of clubs? And what about isolated practitioners? The most motivated hobbyists set up home studios, like those who sent pictures of their "recording dens" for *Amateur Tape Recording Club*,[149] or as Vincent Freddy in the second chapter. These spaces "provide sanctuary from noise and other distractions, and let us do our recording in comparative peace."[150] Those less invested in their hobby had to do with what Bijsterveld and Jacobs called "the often contested nature of domestic space."[151] That contestation was born from social changes, with the reduced work-time bringing men more often at home, and from the fact the tape recorder never became a household furniture.[152] The machine thus moved from room to room through time and followed the evolution of the family, which resulted in what Bijsterveld and Jacobs have called "a multi-sited domestication."[153] However, Keir Keightley showed, that, at least for high fidelity in the US, a gendering of technology existed: even if the equipment became a household furniture, the contestation of the space, notably sonic, remained.[154] Clubs could mitigate these contestations.

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[146] Such as the Eastbourne Tape Recording Club, formed by a woman, Mrs. Harris.[146] The Ware Tape Recording Club was formed by Mrs. Campbell and Mrs. Wakely. This last one was an enthusiast train recordist while the former recorded the sonic ambiences around her house.

[147] Looking at the results of the French national contest and of the International Amateur Recording Contest, women are present among the laureates. However, in the 64 editions of the International Amateur Recording Contest, only two women were awarded the Grand Prix: Monique Canon in 1956, and Bert van den Brink in 1979. See the full list in Appendix 1.

[148] K. Bijsterveld, and A. Jacobs, "Storing Sound-Souvenirs," 36.

[149] *Amateur Tape Recording*, March 1963 & December 1963.

[150] *Amateur Tape Recording*, July 1963, 15.

[151] K. Bijsterveld, and A. Jacobs, "Storing Sound-Souvenirs," 28.

[152] K. Bijsterveld, and A. Jacobs, "Storing Sound-Souvenirs," 36.

[153] *Ibid*. 36.

[154] Keir Keightley, "Low Television, High Fidelity: Taste and the Gendering of Home Entertainment

Indeed, they offered physical and sonic spaces. The kind of space varied a lot and varied through time. Some started at home, but most of the time, a room was found or rented somewhere. For instance, the Brighton Tape Recording Club started using a room in a school, then used a spare room in a shop in central Brighton, and then was housed in the attic of a local church. To have that stable and private space allowed the club to further develop. The available space, which could accommodate 50 people, was divided into a control room and a recording room, and a club member built a multitrack mixer.[155]

The existence of such a venue confirms that, besides the physical and sonic spaces, clubs also offered a third kind of space, a social one. Clubs were places of togetherness, of doing together, of sharing means. Training in all sound related activities was offered by clubs to their members, a phenomenon I will develop in the next chapter. Members could also have their equipment serviced by knowledgeable members, could be taught to do it themselves, could try the equipment of fellow members, could learn how to edit or how to position microphones. The pooling of means allowed the building and buying of equipment that were potentially not affordable to every member. Thus, the Brighton Tape Recording Club was able to have a real studio, with a recording room and a control room, with most of its equipment self-built by members. The communal nature of the equipment allowed people to practice who either did not have the financial means to buy such equipment, while also welcoming the members who were less invested in the sound hobby and who therefore did not want to buy any equipment. Members could also leave their personal equipment at the club's disposal, again allowing the use of different recorders or microphones to other members. In that way, the equipment was in itself a vector of sociality, with a cultural consumption achieved in the collective.[156]

This collective quality catered to the organisation and the management of bigger events. These events served to promote the club, to gain membership, to earn money for the club, and to bring contacts for future activities. As I described in the second chapter, the field of sound recording was structuring itself, and clubs were in the grey zone between amateurs and professionals, filling spots where sound-related businesses were burgeoning or non-existing.[157] Collective activities such as contests, sound hunts, recordings of local musicians, were regularly organised and served to strengthen

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Technologies," *Journal of Broadcasting & Electronic Media* 47, no. 2 (2003): 236–59; Keir Keightley, "'Turn It down!' She Shrieked: Gender, Domestic Space, and High Fidelity, 1948–59," *Popular Music* 15, no. 2 (1996): 149–77.

[155] Interview with Keith Upton, 2 April 2021.

[156] Keith Upton, who joined the Brighton Tape Recording Club during the 1960s and was a member until its closure in the 2000s, saw a change occurring in the 1990s in how people were participating in the club: from a collective consumption to a much more individual one. For him, that change was a factor in the demise of clubs. I will come back to this in the conclusion, where I will investigate the demise of sound hunting.

[157] I will further detail this in the fourth chapter.

the cohesion of the group. Fairs and exhibitions also gave visibility to clubs: in December 1961, the Cambridge Amateur Tape Recording Society organised an exhibition which attracted about 2000 people.[158]

Another aspect of the sociality of sound hunting was the recorder itself, with the technical object as vector of sociality. Indeed, beyond sound, it was also the recorder in itself that gathered sound hobbyists. That was already the case at the time of the cylinder phonograph, as the recordings of Gustave Eiffel presented in the second chapter show: social events were organised *around* the sound recorder, which was personalised, a 'talking machine.' This fascination with a machine that could record and reproduce sound was still present in the 1950s. This is visible in clubs' pictures, where one often sees the recorder at the centre, the central element around which everything circled. As a technical equipment, the recorder was often depicted as coming within the competency of males. To make their equipment reviews more accessible to women, the French magazine *Le Magnétophone* added during its first year "the woman's point of view" category to their technical test, where an undisclosed woman gave her point of view on several aspects of the recorder being tested. The fact that this note appeared also for the durability category was criticised by a male reader, which provoked a vigorous answer by a woman who already had two tape recorders, knew how to service them, and was looking to buy a third one. These tests but also the technical articles, she said, were important to guide her choice and her maintenance.[159] This depiction of women as ignorant of technical subject was recurred, while in fact most of these tape records – so often associated with men – were manufactured by women in factories (figure 22). This rhetoric of women's ignorance seems therefore ironic, especially because thousands of them, while thousands of them, in Britain and on the continent, were soldering and assembling tape recorders, magnetic heads, speakers and microphones. However, this depiction of women mainly appears in the 1950s and in the beginning of the 1960s.[160] From then, such depictions became rarer. It should also be noted that the advertisements published in the British and French magazines were almost always gender neutral (when there was a human presence, which was rare): usually, the recorder was presented alone without any context, with often a list of its main technical characteristics.

[158] "Tape Club News," *Amateur Tape Recording*, January 1962, 27.

[159] Letters to the editor, *Le Magnétophone*, November-December 1959, 42.

[160] See notably the cover of the September 1959 of *Amateur Tape Recording* (a woman on her knees entangled in tape in front of a tape recorder) and the headset of the 'What Is?' with a woman looking in awe to the title.

Figure 22: The Grundig factory in Nuremberg. The only visible man is controlling the work of the workers, who are all women. The situation is the same in the other pictures of the article, who depicted the verification tests and the fabrication of the magnetic heads under a controlled atmosphere.
Le Magnétophone, February 1970, 41.

In 1960, the sound hobbyist Betty Walker offered a testimony of her practice that sums up the different points I made in this section:

> "Although I have owned a tape recorder for nearly five years, it is only in the last four months, since joining the BRC [British Recording Club], that I have delved more deeply into this absorbing hobby. My first recorder was a Grundig TK5 and I used this for nearly four years, principally for taping music and radio programmes, without once realising the enormous fun I was missing! A year ago, we sold our reliable old TK5 and bought a Ferrograph 48/N, 3 ¾ and 7 ½ ips. I think it was about this time that I began to feel the first twinges of tape fanaticism! I then began to spend money at rather an alarming rate, purchasing in quick succession a high-quality record-playing deck, a 20-Watt amplifier, a VHF tuner, a 12in. loudspeaker and finally a stethoscope headset. (…) Last year we went to Austria for a holiday and shot six reels of colour cine film (8 mm), also about 130 transparencies on 35 mm. We have had a great fun watching the films and after two or three false starts we have managed to tape a synchronised commentary. The next thing we are hoping to do is film a short play complete with soundtrack and titles – the lot!"[161]

[161] "Betty Walker, Clubman Profile of the Month," *Amateur Tape Recording*, June 1960, 45.

This confirms a number of details. First, the importance of clubs was clear: they were communities that taught ways of using and ways of hearing with the tape recorder. Second, sound recording and the manipulation of the tape recorder was considered as a fun leisure. Third, tape recording was not an isolated hobby, but was also practiced in tandem with video and amateur cine. Four, leisure could be a creative practice, and a creative practice could be leisure. Fifth, sound hobbyism was also a consumption practice of a new technology. With her joyful tone and the technical details ("a 20-Watt amplifier," "a 12in. loudspeaker," "a Ferrograph 48/N 3 ¾ and 7 ½ ips"), Walker seemed to clearly enjoy new sound equipment and gadgets (the stethoscope headset).[162] Under that perspective, sound hunting was a leisure activity that introduced novel views on sound through entertainment.

The same perspective was given in magazines' pictures, where recorders and recordings being performed were staged. That point brings to the forefront an important aspect of periodicals: the development of a narrative about sound recording through them. Magazines told the stories of clubs and of their members, staged and illustrated 'sound scenes' that could serve as inspiration to readers. In doing so, they participated in the establishment of a frame, of codes, of ways of doing, of an imaginary of sound hunting, and of a collective personality built through history (figure 23 and 24).[163]

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[162] Paul Théberge has explored this consumption practice linked to music technologies: P. Théberge, *Any Sound You Can Imagine*.

[163] The next chapter will concern these aspects.

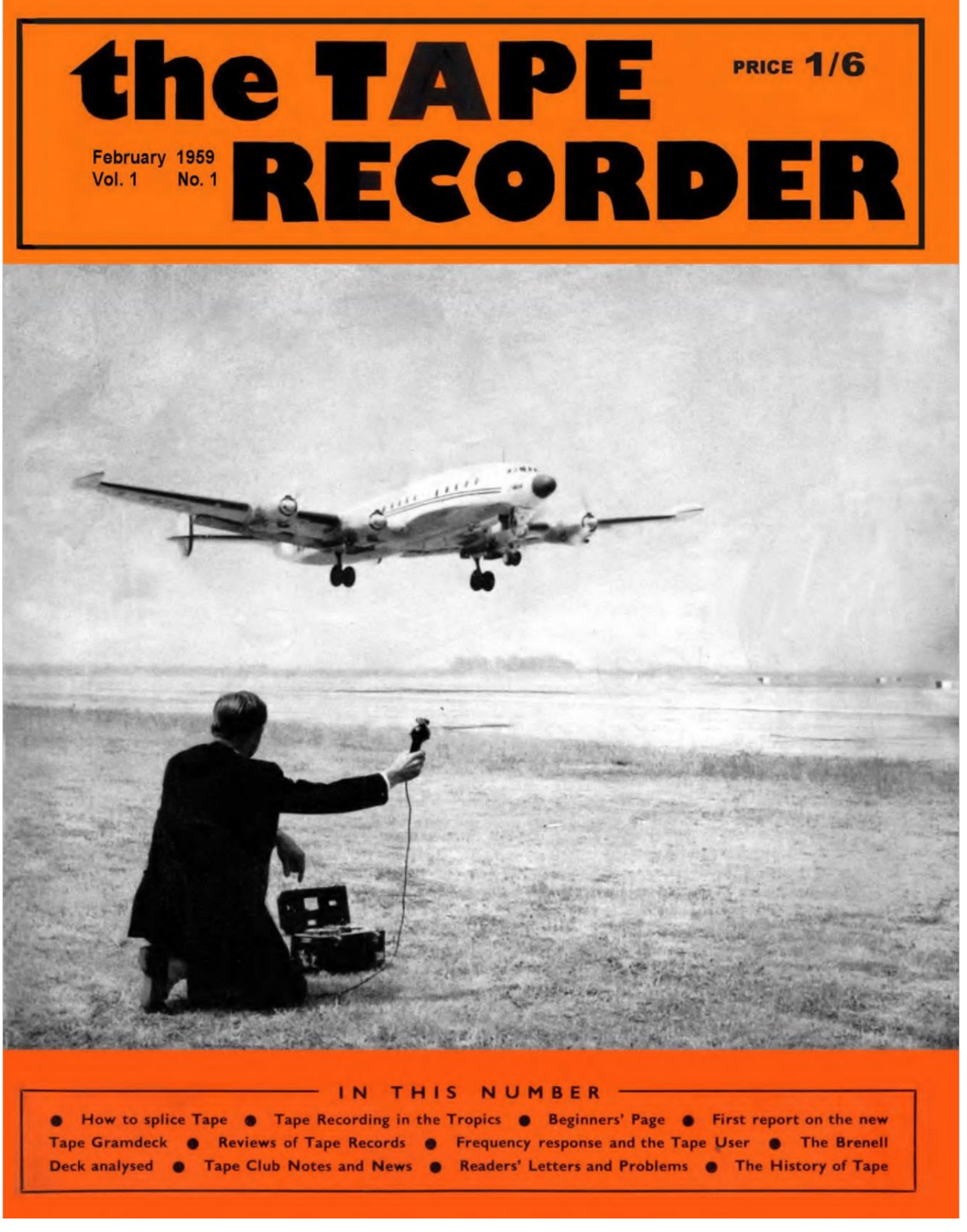
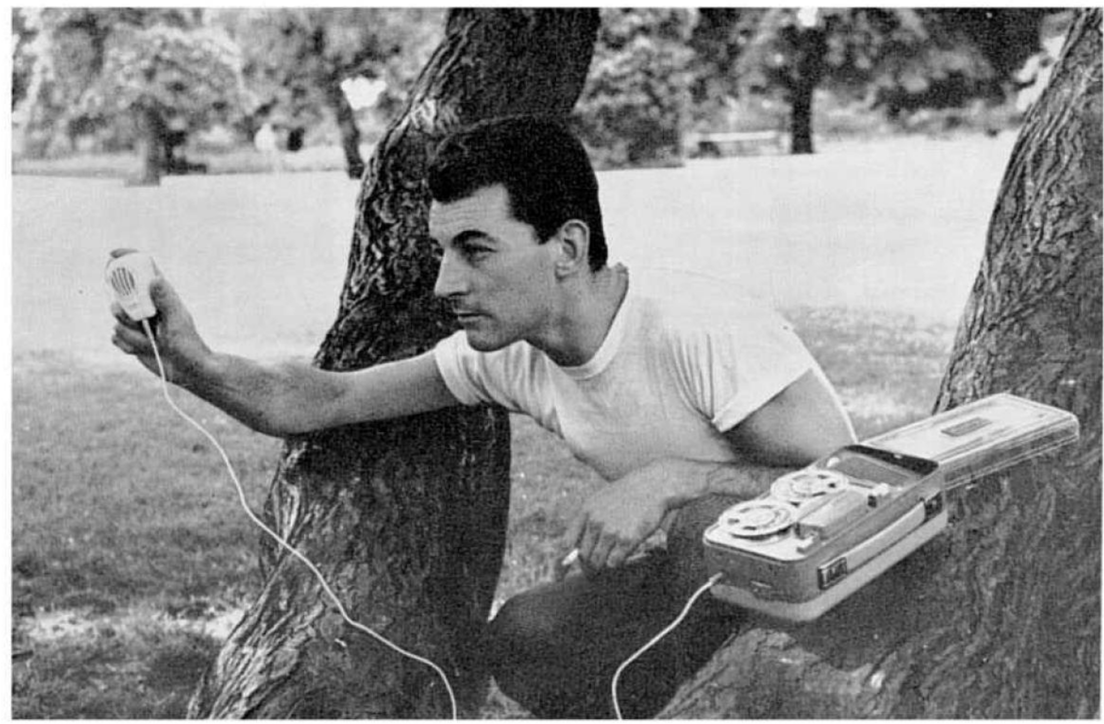


Figure 23: Cover of the first issue of *Tape Recorder*, February 1959.
B. R. Read, assistant (Special Effect Recordings) in the BBC's Library Production Unit, records a Lockheed Super Constellation from TWA taking off from London to New York with an EMI L2. Note that Read is not monitoring the signal through headphones or visually (the L2 was equipped with a level-meter and it was possible to monitor with headphones).



Sound-hunting is here!

New transistorised tape recorder at 25 gns. opens untapped worlds of sound for the enthusiast

Ever thought of all the sounds you've never recorded? *Out-of-doors* sounds. Live music. Cafe talk. Holiday sounds. Kids in the street. Ever thought of the fun you could have exploring this new world of sound... unfettered by flex and the weight of a normal tape recorder? Have you thought how you could use these sounds to build up your own sound album? To edit your own sound portraits . . . features . . . documentaries. A fascinating prospect? An absorbing hobby? A new art form? *It can be all these and more . . . if you carry a Clarion.*

CLARION: THE FACTS

The Clarion is genius pure and simple. (If you doubt that unclip the base and lock inside). It is fully transistorised. It runs 50 hours on 4 ordinary torch batteries at a governed speed of 3⅞ i.p.s. It records perfectly. Plays back reasonably as is and up to professional standards through a larger speaker or on your own full-size mains tape recorder. It can be used as a straight-through amplifier. The twin track 3" tape gives 44 minutes playing time. It weighs only 5 lbs. And the cost, at 25 gns., puts this incredible piece of electronic engineering almost in the accessory bracket. *You* should carry a Clarion-from now on.

(And if you already own a mains tape recorder, remember you double your scope and flexibility when you add a Clarion to the existing set-up.)

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Figure 24: Back cover of the second issue of *Amateur Tape Recording*, September 1959.
Advertisement for the Clarion Transitape battery-powered tape recorder, staging a somewhat casual sound hunter smoking a cigarette while recording in a park. The Transitape is informally placed on the tree in an instable position. Note the body position and the absence of headphone. Monitoring was only possible through the internal speaker as the machine was not equipped with a level-meter (The output of the Transitape was meant for an external amplifier, not headphones). In advertisements, such a staging was the exception. Through it, the picture and the text develop an imaginary about sound hunting highlighting the portability of the recorder.

3.4. The International Amateur Recording Contest and transnational networks of sound hunting

Contests were crucial moments to publicise the practice of sound hunting, as they were advertised and reported within the national and local press. It was then that the opportunity to collectivise the practice beyond its practitioners presented itself, together with the opportunity to attract new members by means of notable prizes. Such competitions helped to the internationalisation of a common sound hunting discourse and participation and were the opportunity to establish and strengthen common values on a trans-national level. The flagship was the International Amateur Recording Contest (IARC), established in 1951. This contest has to be thought of in relation to a shared desire amongst European Broadcasters to organise common events able to foster relations between European countries after the trauma of World War II: the Prix Italia appeared in 1948, the European Broadcasting Union in 1950, the Eurovision in 1954, the Eurovision Song Contest in 1956. These events were contests, to foster a friendly competition between European countries. Sound recording, the exchange of recordings, were also a way to gather, network, and do things together, to establish shared values. The international organisations of sound hunting shared a common vision: to share, through a hobby, a unity between people without distinction of race, language, class, country. This section will detail these aspects. The press articles that discussed the results of these contests, notably the international one we are interested in here, offer the opportunity to know what people outside the circle of sound hunting were thinking of this practice. The aesthetic aspect of the entries will be discussed in the fifth chapter.

3.4.1. The establishment of the International Amateur Recording Contest

The idea of an international contest was born from the meeting of two national contests, one French and one Swiss. Indeed, a sound hunting programme appeared in Switzerland at the same time as it did in France, in 1948. Two people were behind this endeavour, Paul Valloton, Chief of Report Services at Radio-Lausanne, and René Monnat, also from Radio-Lausanne. The programme stopped after a few shows “due to the cumbersome use of wire recorders.”[164] The *Association Suisse des Amateurs de l’Enregistrement Sonore* [Swiss Association of Sound Recording Amateurs] was nevertheless formed in March 1950, with Charles Krebser as president, Raymond Junod as treasurer, and René Monnat as secretary. Monnat restarted his programme the following month under the

[164] Association Suisse des Chasseurs de Sons. Archives JT et CdS, 19910681/1, folder FICS, Associations, Généralités, sub folder Suisse. During these years, René Monnat was known as Jean-Maurice Dubois. He changed name at the beginning of the 1950s, and his headed paper for correspondence displays “René Monnat (alias Jean-Maurice Dubois).” I will use only ‘René Monnat.’

title *Chasseurs de son* [Sound Hunters]. And like Thévenot in France, he sent a call to all Swiss amateur sound recordists, with similarly enthusiastic feedback. He therefore changed the name of his programme into *En suivant les pistes sonores* [Following the soundtracks] so that the association could use the definition 'sound hunter': *Association Suisse des Chasseurs de Sons* [Swiss Association of Sound Hunters].[165] For the German part of Switzerland, the association was named *Schweizerischer Tonjäger Verband*. A bi-monthly bulletin was started immediately, to inform members about sound activities in Switzerland and abroad. And the year after, in 1951, the first Swiss Sound Hunters contest occurred , in Lausanne and in cooperation with Radio-Lausanne. Many applications were received, the contest a success, and several special programmes were dedicated to it on Swiss radio.[166] An important character for the ASCS and the yet to come IARC and *Fédération International des Chasseurs de Sons*, Jean Borel, replaced Junod as treasurer of the Swiss association that same year.

In France, the origin of the national contest had roots in a collaboration between the Radio and the industry. At the demand of Wladimir Porché, general director of the RTF, Thévenot contacted the general representative of the *Syndicat National des Industries Radioélectriques*, SNIR [National Syndicate for Radioelectric Industries]. The idea was then to support Thévenot's programme financially, but René Marty, the general representative of the SNIR proposed instead to organise an annual contest, in collaboration with the RTF. Porché accepted, and the first French contest of amateur's recording happened in 1950.[167] That was also the beginning of a long and fruitful collaboration between Thévenot and Marty.

In December 1951, after the birth of the two contests, Monnat, who was in touch with Thévenot since 1949 through his radio programme and met him in 1950 when Thévenot toured Switzerland with a conference on talking machines,[168] would invite him for a meeting with the director of Radio-Lausanne, Jean-Pierre Méroz, to establish the basis of an international contest.[169] This internationalisation was positively welcomed by Thévenot's channel director and the Artistic Services of the RTF, by the SNIR, and by the French Direction of Youth Affairs and Sports who already supported the ADAES and the national contest. The International Amateur Recording Contest (IARC) was then built from scratch by Monnat and Thévenot between January and May 1952, often at night

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[165] The programme took back its initial name in 1956.

[166] Association Suisse des Chasseurs de Sons. Archives JT et CdS, 19910681/1, folder FICS, Associations, Généralités, sub folder Suisse.

[167] Note from Thévenot, "La RTF et le Concours du Meilleurs Enregistrement Sonore," 10 March 1953. Archives JT et CS, 19910681/18, folder 2ème CIMES – 1953, Siège : Paris, sub folder Organisation du CIMES, documents préparatoires. Porché and Thévenot were first in contact with the SNIR general representative Monin (his first name is not given in the papers I consulted) who tragically died in 1949. Marty took over the job in January 1950.

[168] Jean Borel, *Historique de l'enregistrement sonore d'amateur*. UNESCO Archives, Paris, FR PUNES AG 8-SEC-ERC-ONG.1-211.3.

[169] Association Suisse des Chasseurs de Sons. Archives JT et CdS, 19910681/1, folder FICS, Associations, Généralités, sub folder Suisse.

after their day-job. Everything, from the call, its diffusion through broadcast and press, the negotiation with their radios and with the industry for prizes, and the organisation of the logistics of the event, was done through weekly correspondence. In it, they shared their progress, but also their doubts. Among these, was their struggle with their directors, Wladimir Porché at the RTF and Marcel Bezençon at the Société Suisse de Radiodiffusion:[170] "Porché does not believe in amateur recording, he would even be opposed," said Thévenot. To what Monnat answered, "Porché and Bezençon… These two gentlemen have without doubt had an exchange about us. This is a fact: despite Bezençon's friendly attitude of, there is an evident hostility. It was him who influenced the Swiss studios and told them to give us nothing. Why? Because he does not believe in our success, or because this success does not suit him." Moreover, in France, to Thévenot's disillusionment, the ADAES was against the internationalisation of the contest.[171]

Despite this opposition, the first IARC happened in Lausanne in 1952 and gathered 64 French recordings and 66 Swiss recordings, that led to 30 hours of listening in two days for the jury. Participants were mainly men between 20 and 30 years old, with very diverse occupations, from teacher, to student, engineer, unemployed, soldiers or clergymen. To the surprise of Thévenot, an invitation card was even issued by the City Council of Lausanne with the note "dinner jacket": "Then, from a small programme which I was the first to think short-lived, an international movement is born, so important that it is now necessary to indicate that its manifestations should be honoured with a dinner jacket."[172] The jury was presided by Méroz, director of Radio-Lausanne, and despite his opposition, Bezençon would give a speech, together with Arno-Charles Brun, Thévenot's channel director. The majority of the organisation costs were covered by the SNIR, which also participated in the monetary prizes, together with the French Direction of Youth Affairs and Sports, and Swiss manufacturers of sound recorders. Equipment and tapes were also offered. The added value of all prizes was 830,000 French Francs.[173] Newspapers as far as Ankara spoke of the contest,[174] and the winning entries were broadcast in both France and Switzerland. The Programme Parisien, the channel where Thévenot worked, scheduled a 1h45 special programme.

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[170] Société Suisse de Radiodiffusion [Swiss Society of Radiodiffusion]. According to a letter from Monnat to Thévenot, Bezençon influenced the studios of the SSR to refuse lending spaces and equipment (see following note).

[171] Correspondence exchange between Thévenot and Monnat, December 1951 to June 1952. Archives JT et CdS, 19910681/18, folder 1er CIMES – 1952, Siège : Berne, sub folder Document concernant le 2ème Concours National d'Enregistrements d'Amateurs (1951), Correspondance avec René Monnat, textes et notes relatifs à l'organisation du CIMES 1952 et problèmes annexes. The first citation is from a letter from Thévenot to Monnat, 18 March 1952, the second is from a letter from Monnat to Thévenot, 21 March 1952.

[172] *Arts et Techniques Sonores*, June 1952, 5-10.

[173] Jean Thévenot, 'Liste complète et définitive des prix et donateurs du premier CIMES.' Archives JT et CdS, 19910681/18, folder 1er CIMES – 1952, Siège : Berne, sub folder Émissions spéciale (31/05/1952), documents préparatoires. There were 525,150 French Francs and 3065.90 Swiss Francs (equivalent to 306,600 French Francs) of prizes. The total is equivalent to 71,000 € (http://www.historicalstatistics.org/Currencyconverter.html, accessed 05/11/2021).

[174] *Arts et Techniques Sonores*, July-August 1952, 23.

The contest had four categories: editing, documentary, musical or spoken recording, snapshot. Five prizes were distributed in each category. The editing category was by far the most rewarded (50,000 French Francs in cash), followed by the documentary one (100 Swiss Francs in cash [roughly 10,000 French Francs] plus tapes, discs, and a crystal microphone). The two other categories had equipment as prizes, the main one being a turntable for the two categories. The Grand Prix was 100,000 French Francs in cash. Those prizes were substantial, as a secretary working full time was paid around 11,000 French Francs at that time.[175]

The second edition of the IARC happened in Paris, with 211 entries from Switzerland, France, Germany, Belgium, Austria, the Netherlands, and the United States. 50 of these submissions were selected and judged by an international jury. Prizes worth more than 1 million in French Francs were given to the winning entries. Submissions were accepted in nearly all the formats that existed at that time: disc (78, 45, or 33 rpm), wire (61 or 30 cm/s), tape (77.5, 38, 19.5, 9.5, or 4.75 cm/s), magnetic discs (33, 21, 15, or 11 rpm).[176] In light of the number of submissions, the quantity of prizes gathered and, the contest was once again considered a success by its organisers, despite the lack of support from the RTF in both the organisation and the contribution to the prizes.[177] The *Aux Quatre Vents* show dedicated to the contest was praised by a RTF listening report:

> "Typical and diverse, this production is of unquestionable interest, not only for the technical achievements, but also for the value of the hitherto unheard documents that are presented. Masqueraded under a trivial selection of recordings, the problem of information is laid."

The report also lauded Thévenot's performance, "whose comments are excellent," and the "very good editing of Jacques Landrieux," who took care of the technical aspects of the programme.[178]

Thévenot and Monnat started to look for isolated sound recordists and associations similar to the ADAES and ASCS as soon as 1950, and contacts were established in Belgium, the Netherlands,

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[175] In a document evaluating the first IARC, Thévenot planned to recruit a secretary to take care of the IARC and established a budget. Archives JT et CdS, 19910681/18, folder 1er CIMES – 1952, Siège : Berne, sub folder Correspondance avec Pierre Dellar, Wladimir Porché et diverse.

[176] Règlement du 2ème CIMES. Archives JT et CdS, 1990681/18, folder 2ème CIMES – 1953, Siège : Paris, sub folder Organisation du CIMES, documents préparatoires. Magnetic discs were a short-lived technology that appeared after the Second World War and were mainly used as dictating machines. A plastic or paper disc was covered with a magnetic oxide coating and wrapped around a cylinder or a muff. According to Hémardinquer and Aubier, these magnetic discs were rewritable more than 3,000 times. The discs were sold in different colours to accommodate the different services of a company. These dictating machines were often operated through a remote control. See Pierre Hémardinquer and Aubier, *Mon magnétophone. Choix, utilisation, prise de son* (Paris: Édition Chiron, 1964), 46-48.

[177] Report from Thévenot to Wladimir Porché, Jean-Vincent Bréchignac, Roger Marty, Gaston Roux, André Basdevant, Jacques Bureau, 1er février 1954. Archives JT et CdS, 19910681/18, folder 3ème CIMES – 1954, Siège : Brussels, sub folder CIMES 54, règlement et projet de réforme du CIMES.

[178] Rapport d'écoute du deuxième CIMES, présentation Jean Thévenot, montage Jacques Landrieux, 23 May 1953. Archives JT et CS, 19910681/18, folder 2ème CIMES – 1953, Siège : Paris, sub folder Émission CIMES 1953. Jacques Landrieux was a regular collaborator of Thévenot since the beginning of *Aux Quatre Vents*.

Britain, and Spain.[179] At the end of 1952, Thévenot went to Brussels to advise a group of sound hunters in the creation of the *Association Belge des Amateurs de l'Enregistrement Sonore* [Belgian Association of Sound Recording Amateurs]. He advised them to form a committee with officials from the State and from the industry. This is linked to Thévenot's belief that an official recognition of the practice was important and necessary for its development outside a limited circle of hobbyists. To collaborate and sustain strong links with a broadcasting corporation could also grant access to its Press Service and therefore allow to reach far more people. Faced with the willingness of Belgian sound hunters to print a bulletin, Thévenot also warned them of the huge amount of work it would require and offered to give them two pages of *Arts et Techniques Sonores* instead.[180]

With the proliferation of sound hunting associations in western Europe, and their interest in welcoming the contest in their countries, plans were established for the foundation of an international federation. Moreover, the question of creating an organisation to hold the contest was also necessary in view of its projected development and links with other international organisations. The next section will develop these points. For now, it is important to note that the rapid international development of the contest, its link with national Radios, and the establishment of an international federation of sound hunting, were also part of the post-World War II movement to have common and friendly organisations and events for people to meet and build collectively on a transnational level: the European Broadcasting Union, the Eurovision, the Prix Italia, the Eurovision Song Contest. The IARC was part of this movement, as was the *Fédération Internationale des Chasseurs de Sons*, FICS [Sound Hunters International Federation] founded in 1956. Friendly competitions were a way to establish common values. This notably went through the sharing of rules for contests. In the case of the International Amateur Recording Contest, the national contest for each participating country served to establish the national selection that would participate in the IARC. This means that the categories and calendar of the international contest decided on the national ones, that the criteria of the international contest dictated the national ones, and that the non-respect of the rules at national level could lead to the rejection of submissions at the international level.

However, because of its international dimension, the contest was also a tool of prestige, and officials realised that it could be useful for self-promotion. Thus, in 1961, Paul Gilson, director of the artistic services of the RTF, asked Thévenot to submit a French application to the FICS to host the 1962 IARC. Indeed, that year, the RTF planned to open its new RTF radio house of Strasbourg.[181] The contest would be the opportunity to present the building and its facilities to the European partners that attended. Determined to impress its partners, the RTF offered five days for the

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[179] Jean Borel, *Historique de l'enregistrement sonore d'amateur*. UNESCO Archives, Paris, FR PUNES AG 8-SEC-ERC-ONG.1-211.3. This is however one of the very few mentions of Spain in both this collection and in Thévenot's. I will come back on this absence in the conclusion to this thesis.

[180] *Arts et Techniques Sonores*, November 1952, 10-2. The Belgian association will finally be named *Groupement des Amateurs Belges de l'Enregistrement Sonore*, GABES [Group of Belgian Amateurs of Sound Recording].

[181] Letter from Jean Thévenot to Fredy Weber, 25 April 1961. Archives JT et CdS, 19910681/3, folder 1958-1961,

contest plus the annual congress of the FICS that happened each year around the contest. Simultaneous translation into the three languages of the FICS (French, German, British) was handled for the 55 participants[182] who came from 24 countries from Europe, Africa, south-east Asia, South and North America.[183] The British participants were especially astonished by the quantity and superb quality of food, wine, and champagne: "we will need time to resume to our fish, potatoes and boiled-beef-carrot routine."[184] In the end, the Strasbourg IARC and the inauguration of the RTF Strasbourg radio house were, for both the direction of the RTF and Thévenot, a sounding success. Therefore, despite their initial lack of support, the top officials at French Radio became aware of the interest, notably on the international level, that sound hunting could harness.

With its development, the IARC started to be promoted beyond Western Europe. Besides a promotion through his programme, Thévenot, thanks to his position at the RTF, was able to use its communication network. This allowed a national and international coverage of the event through the sending of official press releases. Thus, in 1963, the IARC was officially promoted – tapes and documentation – to the RTF partners in Turkey, Uruguay, and Japan.[185] That year, documentation was also sent to China Radio, who sent in return five tapes for the contest. Three were from the China Record Company, made by professionals and therefore not included in the IARC selection. But there were also two others pieces by Chinese sound hobbyists. For Thévenot, it was important to include these last two, that they should not be "excluded on political reasons, politics should not be part of our competition, which is international in the full sense of the word."[186] Thévenot insisted that the IARC should be honoured to receive proposals coming from that far, in that geopolitical context. I will discuss the links of sound hunting with the general geopolitical context in the next section.

As far as the contest itself and its content are concerned, its first years were the opportunity to try categories suggesting and supporting specific uses of sound recording. During the first two editions, there was also a category for professionals' entries. This one was offered longer durations and

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Fournitures de bruits enregistrés pour la constitution de la sonothèque internationale de l'UNESCO, sub folder UNESCO, répertoire 1961.

[182] Récapitulatif du voyage à Strasbourg du 5 et 6 octobre. Archives JT et CS, 19910681/22, folder 11ème CIMES – 1962, Strasbourg, sub folder A, sub sub folder Programme, liste des jurés, récapitulatif du voyage à Strasbourg, etc.

[183] 6ème Congrès de la FICS, 11ème CIMES, RTF, Maison de la Radio, Strasbourg, 19-24 octobre 1962. Archives JT et CS, 19910681/22, folder 11ème CIMES – 1962, Strasbourg, sub folder A, sub sub folder Programme, liste des jurés, récapitulatif du voyage à Strasbourg, etc.

[184] *La Revue du Son*, January 1963.

[185] Letter from Thévenot to Raymond Rémi, General Secretary of Fédération Belge des Amateurs de l'Enregistrement Sonore [Belgian Federation of Sound Recording Amateurs], 29 March 1963. Archives JT et CdS, 19910681/23, folder 12ème CIMES – 1963, Liège, sub folder Correspondances du Comité Français d'organisation du CIMES, de la Fédération Belge des Amateurs de l'Enregistrement Sonore, d J. Mees, secrétaire général de la FICS.

[186] Letter from Thévenot to Raymond Rémi, 14 April 1963. Archives JT et CdS, 19910681/23, folder 12ème CIMES – 1963, Liège, sub folder Correspondances du Comité Français d'organisation du CIMES, de la Fédération Belge des Amateurs de l'Enregistrement Sonore, de J. Mees, secrétaire général de la FICS.

its subjects – evocation of the history and development of sound recording, recording of a family event – are relevant to conclude that there was a desire to invite professionals in order to inspire and teach amateurs. This should be put in relation to the evolution of the amateurs' practice, and the place of family recordings within it. Often the first step in the practice of new sound hobbyists, family recordings were most of the time seemingly uninteresting for those outside the family circle: what, therefore, could a professional do? How can a personal and private event turn into something able to interest a large public? However, no entries are documented in the Thévenot collection, and the prizes were re-allocated to the amateurs. After these two trials, the professional category definitely disappeared from the IARC. There was also for a few years a category for 'Recording coming from the farthest in time and / or space.' The aim was to unearth old recordings and to arouse applications coming from outside Europe. Yet, the prize was never awarded, and after the 1955 IARC the category disappeared.[187] On the other hand, a successful category was created for recordings made in school, which I will come back to in the fifth chapter. And at the IARC 1957, a category was tested for "technical or aesthetic research."

These categories suggested uses, but they also confirmed existing uses. This is the case for the "sound of nature" category that appeared only in the beginning of the 1970s. In Britain, the Wildlife Sound Recording Society already existed since 1968, and magazines were offering since the end of the 1950s dedicated articles on the recording of nature's sounds.[188] On that matter, the contest was therefore acknowledging that that specific practice was shared on a sufficient scale for the creation of a dedicated category. Such acknowledgement sometimes came very late, as for the "video recording" category. The practice of amateur cinema was already popular in the 1950s, and I have described in the introduction that a number of sound hunters came to sound recording through it. And I will show in the next section that the statutes of the FICS were inspired by their cinematographic counterparts. Hence, as soon as 1954, Monnat proposed the addition of a sound / image category to Thévenot. Getting in touch with his colleagues at French Television, Thévenot reported that Jean d'Arcy, director of television programmes at RTF was "deeply interested," noting that a TV programme dedicated to amateur film existed – *Petit écran* [Small Screen] – and that a link could be done between it and the contest, similar to the one existing between *Aux Quatre Vents* and the contest.[189] However, the idea was not progressed forward and the welcoming of sonic slideshows, films and videos – of image hunters one could say – would come much later, in the 1970s.[190]

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[187] 5ème CIMES, compte-rendu de la séance de travail du dimanche 21 Octobre 1956 après-midi. Archives JT et CdS, 19910681/1, folder Relation de la FICS avec l'UNESCO 1956-1965, sub folder UNESCO, documentation générale.

[188] See notably the series offered by *Tape Recorder* from May 1959 to January 1960, with monthly articles by Eric Simms, of the BBC Recorded Programmes Permanent Library and Recorded Programmes Production Unit.

[189] Letter from Thévenot to Monnat, 9 April 1954. Archives JT et CdS, 19910681/18, folder 3ème CIMES – 1954, Siège : Brussels, sub folder Préparation du CIMES, concours Sons-Images et divers. I haven't been able to track down any episode of *Petit écran* at the moment, but it would be interesting to see if the films presented had soundtracks, and if so, what these soundtracks were.

[190] I haven't found an explanation in the Thévenot collection of why plans with Jean d'Arcy were not followed.

Finally, specific categories could be not only suggest a use, but also trigger imagination. Hence the thematic category, created in 1968, which proposed a different theme each year.[191] The first was "The Country I Live In," followed by "The Inventions of Valdemar Poulsen" and "Contrasts and Perspectives." The theme could be centred on the city that welcomed the contest, such as "Amsterdam" in 1975 or "Parma" in 1982. Questions of society were also submitted to sound hunters with "The Blind and Their Problems" in 1988 or "Freedom… what is it?" in 1992.

3.4.2. The *Fédération Internationale des Chasseurs de Son* and UNESCO

Following the first editions of the IARC and the interest of sound hobbyists' associations beyond France and Switzerland, the *Fédération Internationale des Chasseurs de Son* FICS [Sound Hunter International Federation] was founded on the 21st of October 1956 during the 5th IARC. Its statutes were approved at the 6th IARC, in Brussels, on the 20th of October 1957. The constitutive members were the national associations of Switzerland, France, Belgium, Germany, Austria, the Netherlands, and Britain, plus two international organisations, the World Tape Pals and the *Centre International de Correspondance Scolaire* [School Correspondence International Centre]. Thévenot was elected president and Jean Borel secretary.[192]

The statutes of the FICS were mainly written by René Monnat and Jean Borel and were inspired by the *Union Internationale du Cinéma Amateur*, UNICA [International Union for Amateur Cinema], founded in 1931, which organised each year – and still does – the yearly Nations Film Competition. Indeed, Borel was an early member of the UNICA and its general secretary at that time. He even wrote a history of the association.[193] The FICS and UNICA shared a common vision of exchange and unity between people without distinction of race, language, class, country. The practices of sound hunting and amateur cinema were seen as a point of contact for humanity, an activity able to establish links between people. A symbol of this was the motto of the UNICA: "*Omnis Unica Mente*," All of one soul.[194] The FICS had a goal: "to encourage and develop the practice of sound recording, on the cultural, technical and artistic levels."[195]

In order to establish the position of the contest and of the federation on an international level, the idea was suggested to join the *Union des Associations Internationales*, UAI [Union of International

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[191] The Appendix 1 gives the complete list of themes.

[192] Minutes of the Constitutive General Meeting of the International Federation of Tape Recorders, Brussels, Maison des Arts / INR (Belgian Broadcasting Corporation), 20 & 22 October 1957. Archives JT et CdS 19910681/1, folder Fédération Internationale des Chasseurs de Sons, 2ème Congrès, PV de l'AG, 18-19 octobre 1958, Berne, hôtel Bristol.

[193] Jean Borel, *Histoire de l'UNICA* (Neuchâtel, 1951 [1950]).

[194] Jean Borel, "Sens et raison d'être de l'UNICA." "All, of one soul" [*Tout, d'une seule âme*] is the translation given by Borel of the Latin motto *Omnis Unica Mente*. Another one is possible, 'everyone is unique in mind,' which is quite different.

[195] Statuts de la FICS. Archives JT et CdS, 19910681/1, folder Relations de la FICS avec l'UNESCO, 1956-1965, sub folder Dossier UAI, 1957-1960.

Associations]. Part of the motivation behind this was the desire to establish sound hunting as a recognised activity. The proposal was made by Borel. The UNICA was part of the UAI, and Borel knew officials from the UAI following a UNICA congress.[196] The FICS was admitted within the UAI by the end of 1957.[197]

Moreover, the human perspective heralded by the FICS was very close to UNESCO, and it made sense for Thévenot to establish contacts with UNESCO, in order to affiliate the FICS. However, if the affiliation to UNESCO made sense in the context of the Cold War, Thévenot was also interested in the contracts that UNESCO signed with some international organisations, to conduct international studies, prepare publications, organise congresses, workshops and exhibitions.[198] This interest was four-fold. It was in accordance with his desire to establish amateurs' sound recording as an object of study; it was the opportunity to bring money in the FICS to sustain it, as shown by his underscores in the document; if successful in obtaining contracts, it would be a foil to promote the FICS, the IARC, and sound hunting; and finally, the affiliation with UNESCO was a matter of prestige for the FICS and the IARC.

The first documents looking to bridge the IARC with UNESCO date back to 1954, before the creation of the FICS. Before the next IARC in Paris, it was decided that the prize ceremony would be housed at UNESCO. The Paris City Council already agreed to house the event, but the IARC was searching for a more international venue. The response was negative: it was not possible because the contest was not affiliated with the UNESCO, and because it was not sufficiently international: "Make your association international, and we'll make it officially international."[199] As the IARC's structure did not revolve around a head organisation, it did not facilitate the relation with UNESCO as it was not clear how to be affiliated without one. The 1956 IARC being held in Paris, an invitation was sent to UNESCO, who dispatched Fernand Pouey, from the Radio Unit. Pouey was enthusiastic about the activities carried out by sound hunters and advised the FICS to establish statutes for itself and to show them to the NGO Unit Chief, M. Hercik. That way, corrections could eventually be

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[196] Letter from Jean Borel to G.P. Speeckaert, General Secretary of the Union of International Association, 26 October 1957. Archives JT et Cds, 19910681/1, folder Relations de la FICS avec l'UNESCO, 1956-1965, sub folder Dossier UAI, 1957-1960.

[197] Procès-verbal de l'Assemblée Générale de la FICS, 18-19 octobre 1958, Berne. Archives JT et CdS 19910681/1, folder Fédération Internationale des Chasseurs de Sons, 2ème Congrès, PV de l'AG, 18-19 octobre 1958, Berne, hôtel Bristol.

[198] Underscored passage by Thévenot from a UNESCO booklet, *Coopération de l'UNESCO avec les organisations non-gouvernementales*, 26 June 1956. Archives JT et CdS, 19910681/1, Folder Relations de la FICS avec l'UNESCO (1956-1965), sub folder UNESCO, documentation générale (1956-1965).

[199] That was the answer of Bornhoff to Jean-Marie Marcel. Letter from Jean-Marie Marcel to Thévenot, 13 June 1954. Archives JT et CdS, 19910681/1, folder Relations de la FICS avec l'UNESCO, 1956-1965, sub folder UNESCO, documentation générale. The mention of Paris is strange. The contest did happen in Paris in May 1953, but it seems strange that Marcel wrote to Thévenot a year after, so it most probably linked to the IARC 1954. However, it was already decided by the time of Marcel's letter to hold this contest in Brussels in October 1954. Perhaps the mention nodded to a further edition which might be organised in Paris. The number of countries ready to hold the IARC was reduced in 1954, so it was probable that the contest would come back to Paris. This happened indeed two years later, in 1956.

made, and the FICS could then submit an application that would be examined by the General Assembly in 1958.[200] Thévenot met Hercik, in 1958, who was impressed by the size of the application and the importance of the sound hunting movement. He was even surprised that contact was only established now. Hercik was positive on the possibility to establish relations on "precise and limited tasks." Thévenot proposed that one of the first tasks could be a worldwide study of amateur recording and its cultural applications.[201] In his own report, Hercik mentions that he was surprised to see how Thévenot seemed to attach prestige to the UNESCO affiliation.[202] He consulted Pouey about the application, and Pouey wrote a very positive report, suggesting that, in light of the quality of a number of recordings presented to the IARC that he attended two years before, the UNESCO could find in the contest a very good source to build a sound library.[203] From here, the affiliation process was quick, and after two months, on the 6th of August 1958, Thévenot received a positive letter announcing that the FICS would be registered on the special list of NGO with which UNESCO had non official relations.[204]

The first contract followed rapidly. A proposal was made by UNESCO in March 1959, for the delivery of 200 minutes of sounds of typical interest, for 1,500 French Francs. The proposal was part of the International Sound Library that UNESCO wanted to build to support countries lacking such material and that were developing their audio-visual capacities.[205] That proposal was accepted by the FICS congress of October 1959, and the first contract between the FICS and UNESCO was signed by Thévenot on the 18th of January 1960. The sounds had to be delivered for the 1st of May 1960.[206] However, the contract was difficult to respect, and the delivery was done late. Only five associations of thirteen which were members of the FICS participated, and Thévenot had to call isolated French sound hunters who regularly contributed to his radio programme to complete the

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[200] 5ème CIMES, compte-rendu de la séance de travail du dimanche 21 Octobre 1956 après-midi. Archives JT et CdS, 19910681/1, folder Relation de la FICS avec l'UNESCO 1956-1965, sub folder UNESCO, documentation générale.

[201] Compte-rendu de Jean Thévenot de sa visite à M. Hercik, Chef de la Section des Organisations Non-Gouvernementales le 27 juin 1958, 28 juin 1958. Archives JT et CdS, 19910681/1, folder Relations de la FICS avec l'UNESCO, 1956-1965, sub folder UNESCO, documentation générale.

[202] Note from V. Hercik. UNESCO Archives, Paris, FR PUNES AG 8-SEC-ERC-ONG.1-211.3.

[203] Note from Fernand Pouey, Radio Unit, to answer V. Hercik asking for its opinion about the FICS, 21 July 1958, attached to the questionary answered by the FICS with its application. The application is signed from the 27 June 1958. UNESCO Archives, Paris, FR PUNES AG 8-SEC-ERC-ONG.1-211.3.

[204] Letter from Bozidar Aleksander, Chef de la Division des Relations avec les Organisations Internationales, à Jean Thévenot, 6 août 1958. Archives JT et CdS, 19910681/1, folder Relations de la FICS avec l'UNESCO, 1956-1965, sub folder UNESCO, documentation générale.

[205] UNESCO Communiqué de presse n°1847, 28 Novembre 1958, "L'Information au Service de l'Humanité. La Double Tâche de l'UNESCO." Archives JT et CdS, 19910681/3, folder 1958-1961, Fournitures de bruits enregistrés pour le contrat de la sonothèque internationale de l'UNESCO, isolated paper.

[206] Letter from Thévenot to Jan Mees, 19 January 1960. Archives JT et CdS, 19910681/1, folder FICS – Associations, sub foler FICS, Associations, Généralités. The date of 1 May is the delivery by members of the FICS to the FICS. The delivery date to UNESCO was the 15th of June (letter from Thévenot to Borel, 19 January 1960. Archives JT et CdS, 19910681/1, folder FICS, Correspondances et documents, 1953-1963 + 1 document de 1976.

200 minutes. He was quite bitter about this, as the amount of the contract that would come to the FICS after payment to the recordists which had participated, was more than the sum of subscriptions received that year. That last point was being the occasion to send a reminder to the FICS members that only five associations out of thirteen had paid their subscription that year and that, in general, late subscription payment or an absence of payment often happened.[207] Nevertheless, the UNESCO was very happy with the results of the first contract and of the articles that Thévenot wrote for the *Courrier de l'UNESCO* on sound hunting.[208] This opened the perspective of a new level of relation for the FICS, who would be eligible to apply in 1962 to become a NGO with consultative status.[209] And before that, a second contract was concluded, for 220 minutes of sounds coming from Europe, Asia, and Africa, on which 160 minutes would be chosen. The delivery had to done for June 1961, for a similar amount to the first contract, 1,500 French Francs. But despite the interest of the contract and the money that it could bring to the federation, only two minutes were received in April 1961. Thévenot was worried and shared his confusion with Fredy Weber, the president of the FICS.[210] To honour the contract, Thévenot again had to call isolated French sound hunters together with Swiss ones. In the end, only two associations affiliated to the FICS, the Swiss one and the CICS – which were close to Thévenot through Monnat and Borel (who was the founder of the CICS) – sent recordings. Thévenot was bitter: "Again, that would be alluding to dream rather than reality to speak about the famous 'collaboration' between the FICS and the UNESCO."[211]

There was some positive aspects though, like the 12th edition of the IARC, in Liège in 1963, for which Thévenot noted that "the IARC plays his part in the UNESCO Major Project Orient – Occident."[212] Tibet was present two times. Satoko Nishioka, the only woman of the Japanese expedition to the Himalaya, has notably recorded a dance that the young women of Wallunchungola dance one time every three months for three days and three nights while drinking beer and whisky and playing mouth's harp. Cambodia was also present through an exchange between the King and the

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207 Procès-verbal du 4ème congrès annuel de la FICS, Amsterdam, 28-29 octobre 1960. Archives JT et CS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 4ème Congrès de la FICS, Amsterdam, 1960.

208 Jean Thévenot, "Les chasseurs de son, grande famille," *Le Courrier de l'UNESCO*, March 1960, 4-10.

209 Procès-verbal du 4ème congrès annuel de la FICS, Amsterdam, 28-29 octobre 1960. Archives JT et CdS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 4ème Congrès de la FICS, Amsterdam 1960.

210 Letter from Thévenot to Fredy Weber, 25 April 1961. Archives JT et CdS, 19910681/3, folder 1958-1961, Fournitures de bruits enregistrés pour le contrat de la sonothèque internationale de l'UNESCO, sub folder UNESCO, répertoire 1961.

211 Letter from Thévenot to Fredy Weber and Jan Mees, 16 June 1961. Archives JT et CdS, 19910681/3, folder 1958-1961, Fournitures de bruits enregistrés pour le contrat de la sonothèque internationale de l'UNESCO, sub folder UNESCO, répertoire 1961.

212 Jean Thévenot, script of the special programme dedicated to the 1963 IARC. Archives JT et CdS, 19910681/23, Folder 12ème CIMES – 1963, Liège, sub folder Émission du 24/11/1963. At the same time, that edition of the IARC was an organisational disaster, which sparked tension between members and the Belgian association and between the Belgian Association and the Belgian Radio (see that same file).

members of the *Magnétographes Carolorégiens*, the Belgian club of Charleroi), together with China, whose competitor proposed "excellent music, quality exceptional."[213]

However, at that time, the UNESCO Radio Unit Chief was already expressing concerns about the FICS. From their viewpoint, the federation seemed to run idle, worked only within Western Europe, and he wondered when, at last, it would go further.[214] That remark about the FICS being Western Europe centric is better understood when one looks to the detail of the second contract delivery. If the recordings came from Cambodia, Congo, Spain, France, Greenland, Hoggar, Japan, Nigeria, Norway, Peru, Portugal, Switzerland, Tunisia, and United States, these were made by sound hunters of only two nationalities, French and Swiss.[215] And concerning the IARC, a rule was set to appear more global in its reach. The rule demanded that the country from which the recording came should be taken into consideration, instead of the nationality of the recordist.[216] Therefore, on a precise look, throughout the 74 years of the competition, competitors mainly came from a reduced number of Western European nationals. Still, concerning the remark of the limited internationalism of the FICS, Monnat voiced a different opinion. For him, UNESCO was also to blame for that situation, as it has done nothing to help the FICS in its internationalist effort, nothing "to open the doors against which we are blocked for more than 10 years." Monnat was specifically thinking about exchanges behind the Iron Curtain with Eastern Europe. He had an experience of it: through his work as Swiss representative at the Consultative Committee on International Radio, Monnat visited Poland in 1956, where he established contact with the sound hobbyists of the *Warszawski Radioklub* [Warsaw Radioclub] who expressed interest in organising the IARC in Poland.[217] Monnat continued: "Only direct contacts through a recognised and influential international organisation could make apparent to us what UNESCO wants. I know by experience that direct contacts are not enough in Eastern Europe. You absolutely need the support of the government… And even then, it will always be difficult to discover those who will have the boldness to join our sound hunting adventure."[218] That was also the view of some people behind the Iron Curtain: after the invasion of Czechoslovakia by the Warsaw Pact forces, Jaroslav Pour, the Programme director of

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[213] *Ibid*.

[214] Letter from Thévenot to Fredy Weber, 25 April 1961. Archives JT et CdS, 19910681/3, folder 1958-1961, Fournitures de bruits enregistrés pour le contrat de la sonothèque internationale de l'UNESCO, sub folder UNESCO, répertoire 1961.

[215] Deuxième fourniture de bruits enregistrés pour la constitution de la sonothèque internationale de l'UNESCO, 15 Juin 1961. Archives JT et CdS, 19910681/3, folder 1958-1961, Fournitures de bruits enregistrés pour le contrat de la sonothèque internationale de l'UNESCO, sub folder UNESCO, répertoire 1961.

[216] Liste des enregistrements en compétition. Archives JT et CdS, 19910681/22, folder 11ème CIMES – 1962, Strasbourg, sub folder C, sub sub folder Fiches de renseignement.

[217] Letter from Thévenot to Pierre Catuhe, French Ambassador in Poland, 3 December 1960. In that letter, we also learn that Monnat informed Thévenot of its meeting with the Polish sound hobbyists, as Thévenot immediately sent a selection of tapes from the 1956 IARC to the Polish sound hunters. Archives JT et CS, 19910681/3, folder Échange de courriers avec chasseurs de sons étrangers, 1956-1966, sub folder Pologne.

[218] Letter from Monnat to Thévenot, 29 April 1961. Archives JT et CdS, 19910681/21, folder 10ème CIMES – 1961, Berlin, sub folder Documents préparatoires de la FICS. Indeed, only few letters were exchanged between Monnat and Rybak Mieczyslaw of the Warszawski Radioklub, and the exchange stopped in September 1957 (information from the above letter from Thévenot to Pierre Catuhe).

the Czechoslovakian OUC radio channel, thought that the participation to an NGO affiliated to UNESCO was the only way to establish exchanges and travel outside the country.[219]

3.4.3. The entanglement of sound hunting and geopolitics

With its internationalisation, the contest became a tool of prestige, and slowly started becoming politicised. Several times, sound hunting suddenly colludes with geopolitics, shattering its value of peaceful sharing. Karin Bijsterveld describes the internationalism of the FICS as "Olympic internationalism,"[220] where "nations should continue to be distinguished as units with their own characteristics."[221] Therefore, "their internationalism (…) was clearly inter-nationalist." As she analysed, that was fully in line with the annual themes, centred on particular countries, regions, towns and villages, that the IARC proposed to competitors since 1968.[222] Such a structure was prone to tensions between countries. As early as 1962, a French representative noted that the FICS congress expressed a "political suspicion" concerning exchanges with Eastern Europe.[223] Nonetheless, following the presence of the Union of Soviet Socialist Republics and of the Popular Republic of China in this edition of the IARC, the headed paper of the IARC added "11th International Amateur Recording Contest" in Russian (written in Cyrillic) and Chinese (written in Chinese characters).[224] But these suspicions were clearly expressed and became problematic during the 1965 IARC, when – for Thévenot – submissions coming from China and USSR were voted down on political reasons.[225] However, as explored by Bijsterveld, the source of this problem was maybe more structural. The internationalism heralded by the FICS was indeed more inter-nationalist than a true collective movement acting beyond politics. Despite the non-political orientation written in the competition rules, the Cold War did interfere with it. Hence, in 1961, the organisation of the IARC was given to the Ring der Tonbandfreunde – the German sound hunting association, based in Hainholz. And the Ring der Tonbandfreunde decided to hold this contest in West Berlin only two months after the erection of the Berlin Wall. This decision came as a shock to several members of the FICS and of UNESCO, who thought it was very polarising, and could send a bad message to Eastern European

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[219] Letter from Jean Thévenot to René Monnat, 8 octobre 1967. Archives JT et CdS, 19910681/13, folder 2ème Rallye International 1968 "Sur la route de Dijon", 1967-1968, sub folder Organisation générale et divers (1967-1968).

[220] Karin Bijsterveld, "Eavesdropping on Europe: The Tape Recorder and East-West Relations Among European Recording Amateurs in the Cold War Era," in *Airy Curtains in the European Ether. Broadcasting and the Cold War*, ed. Alexander Badenoch, Andreas Fickers, Christian Heinrich-Franke (Nomos, 2013), 99-122, 103.

[221] K. Bijsterveld, "Eavesdropping on Europe," 109.

[222] K. Bijsterveld, "Eavesdropping on Europe," 109-10. For a list of the themes, see Appendix 1.

[223] Procès-verbal du 6ème congrès annuel de la FICS, Strasbourg, 20 octobre 1962. Archives JT et CdS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 6ème Congrès de la FICS, Strasbourg, 1962.

[224] Blank headed paper of the 11th IARC. Archives JT et CdS, 19910681/22, folder 11ème CIMES – 1962, Strasbourg, sub folder Dossier A, sub sub folder Établissement du règlement.

[225] Note from R.D.A. Marriott, Assistant Director of Sound Broadcasting to Assistant Head Central Programme Operations (recording), 2 November 1965. BBC WAC, R46/888/1.

sound hunters.[226] Unfortunately, the file in the Thévenot collection about this edition of the IARC is thin and does not bring extended information.[227] The decision to hold the contest in Berlin was apparently fiercely discussed since the beginning of 1961, but the only trace is a letter from Monnat to Thévenot. Monnat was answering Thévenot, who was worried about the decision to hold the IARC in Berlin, as were other members of the FICS. Monnat would also prefer to hold the contest in another German city, but he respected the choice of the German association and insisted on the importance of depoliticizing that decision. "Europe is divided in two blocs and we forget a third one because we only see and hear the howlers – the not-interested bloc, on either side, is the most numerous, and the most powerful."[228] In a second letter sent the day after, Monnat again reassured Thévenot about the organisation of the contest in Berlin: "Don't worry too much about Berlin. It pertains to you and me, to depoliticize this matter. We will achieve it, I'm sure of that."[229] The minutes from the congress that the FICS held after the contest are indeed completely silent about the situation in Berlin.

Six years later, in 1967, the FICS decided to organise the IARC in West Berlin for a second time. The proposal was made during the FICS Congress of 1966, which was held in Amsterdam. The idea came from the German sound hunters and was supported by German manufacturers: "It will be the tenth anniversary of the German association and going to Berlin would show that Berlin is Germany. It is not a political attitude. You will see, the odds are in our favour for a good work."[230]

At that same congress, the decision was also made to hold the 1968 IARC in Prague. That year, two Czechoslovakian representatives were present in Amsterdam, the Doctor Miroslav Štěpáneck, president of the *Český Fonoklub* [Czechoslovakian Phonoclub], and Jaroslav Pour, from the Czechoslovakian Radio, to submit their proposal.[231] The idea of welcoming Czechoslovakian sound hunters had been around for several years. Thévenot had friendly relations with the Czechoslovakian ambassador in France, Vaclav Pleskot, since the early 1960s. It is unsure when the contact was made,

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[226] Letter from Thévenot to Fredy Weber and Jan Mees, 16 June 1961. Archives JT et CdS, 19910681/3, folder 1958-1961, Fournitures de bruits enregistrés pour la constitution de la Sonothèque Internationale de l'UNESCO, sub folder UNESCO, répertoire 1961.

[227] The reason is unclear, but in a letter to Emile Garin, Thévenot admitted that he was suffering a nervous breakdown since the beginning of that year. Due to his health, he decided to delegate a number of his tasks to his new collaborator, Henry-Vincent du Laurier (Letter from Thévenot to Emile Garin, 27 February 1961. Archives JT et CdS, 19910681/3, folder Échanges de courriers avec chasseurs de sons étrangers, 1956-1966, sub folder Canada / USA). And indeed, Thévenot did not go to Berlin, sending du Laurier to replace him (Letter from Thévenot to Jan Mees, 29 July 1961. Archives JT et CdS, 19910681/3, folder UNESCO).

[228] Letter from Monnat to Thévenot, 29 April 1961. Archives JT et CdS, 19910681/21, folder 10ème CIMES – 1961, Berlin, sub folder Documents préparatoire de la FICS.

[229] Letter from Monnat to Thévenot, 30 April 1961. Archives JT et CdS, 19910681/21, folder 10ème CIMES – 1961, Berlin, sub folder Documents préparatoire de la FICS.

[230] Congrès la FICS, séance du matin, 22.10.66, par Pierre Guérin. Archives JT et CdS, 19910681/25, folder 15ème CIMES – 1966, Amsterdam, sub folder Documents préparatoires, compte-rendu du Congrès de la FICS.

[231] *Ibid*. Bijsterveld has developed on Štěpáneck, who was attending ideological seminar, in her article "Eavesdropping on Europe," 118-9. Štěpáneck was nonetheless a key figure for the establishment of a relation between Czechoslovakian sound hunters and their Western Europe fellows.

but Pleskot was present in Lausanne for the prize ceremony of the 1964 IARC (figure 25). In relation to the political use of the IARC that I presented in the previous section, it is probable that the RTF took advantage of the international aspect of the IARC to officially invite foreign representatives, as officials of the People's Republic of China embassy were also present. These invitations were also interesting for Thévenot, as he could push for international sound hunting collaborations. And indeed, Pleskot was interested in the contest, as it could bring French and Czechoslovakian Radios closer.[232] Following his meeting with Thévenot, Pleskot also entered in contact with local Czechoslovakian sound hunters to invite them to gather a national selection for the 1964 IARC. The gathering of the local sound hunters was organised by the journal *Zápisník 65* (a publication described as "military" by Bijsterveld[233]), who advertised in 1964 a national contest with rules copied on the IARC. *Zápisník 65* also worked to organise local sound hunting sections by offering them a dedicated section of the journal (like British and French magazines, then). In a letter that the journal wrote (in French) to Thévenot in 1965, the journal mentioned that different circles of sound recording already existed in Prague, but that they were local and that they were not able to assemble a proper national selection to participate in the IARC.[234] Nonetheless, this allowed the national Czechoslovakian contest to be launched, a contest to which Wilhelm Glückert, the representative of the German sound hunting association, had already been invited to the jury several times by the beginning of the 1970s.[235]

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[232] Letter from Thévenot to René Monsarrat, 25 June 1964. Archives JT et CdS, 19910681/3, folder Échanges de courriers avec chasseurs de sons étrangers, 1956-1966, sub folder Tchécoslovaquie. Monsarrat was a teacher from Monsaguel, who was friend with a Czechoslovakian woman (Jeanne Kustova) who helped him during his captivity during the War. He asked Thévenot if an internship is possible for the daughter of Kustova who already worked at Radio Prague.

[233] K. Bijsterveld, "Eavesdropping on Europe," 115.

[234] Letter from [? The handwritten name is not readable, but the letter is headed from the *Zápisník* journal (in the letter, the journal is described as *Zápisník 65*, but the header only bears *Zápisník)*] to Thévenot, 24 February 1965. Archives JT et CdS, 19910681/24, folder 13ème CIMES – 1965, Londres, sub folder Correspondance Internationale.

[235] Réunion du Comité Directeur de la FICS, 18-19 mars 1972, Mayence. Archives JT et CdS, 19910681/28, folder 21ème CIMES – 1972, Prague, sub folder CIMES 1972, règlement Suisse, notes manuscrites, correspondance, documents préparatoires.

Figure 25: IARC 1964, cocktail offered by the RTF at the prize ceremony in Lausanne. From left to right: Vaclav Pleskot (Czechoslovakia ambassador), José Allays (French sound hunter), Paul Robert (French sound hunter), unidentified, Szuma Wen-Sen (cultural advisor, ambassade of China), unidentified, Jean Thévenot.
La Revue du Son, December 1964, 520.

In their proposal to the FICS congress of 1966, Štěpáneck and Pour detailed that they wanted to organise the IARC in Prague so that Czechoslovakian sound hunters could finally meet their fellow sound hobbyists from the other side of the Iron Curtain. There was also the desire to open the competition to sound hunters coming from other socialist countries.[236] Štěpáneck knew about practitioners in Poland, Hungary, and Bulgaria.[237] Pour made clear that the IARC would be organised by Czechoslovakian Radio, with material and financial support from it, and an advertisement through its national and international networks.[238] However, the invasion of Czechoslovakia by the Warsaw Pact armies on the 20th and 21st of August forbade this project, and the IARC was relocated

[236] Congrès la FICS, séance du matin, 22.10.66, par Pierre Guérin. Archives JT et CdS, 19910681/25, folder 15ème CIMES – 1966, Amsterdam, sub folder Documents préparatoires, compte-rendu du Congrès de la FICS.
[237] Réunion du Comité directeur de la FICS, 18-19 mars 1972, Mayence. Archives JT et CdS, 19910681/28, folder 21ème CIMES – 1972, Prague, sub folder CIMES 1972, règlement Suisse, notes manuscrites, correspondance, documents préparatoires.
[238] Letter from Jaroslav Pour to Jean-Marie Grenier, 28 May 1968. Archives JT et CdS, 19910681/25, folder 17ème CIMES – 1968, Prague, sub folder Courriers.

in Heidelberg at the last minute.[239] Nonetheless, a Czechoslovakian delegation, again led by Miroslav Štěpáneck, was able to come in Heidelberg in October and voiced their desire to organise the IARC in Prague as soon as possible.[240] This happened four years later, in 1972. In the meantime, Czechoslovakian sound hunters participated in the international automotive / sound recording rally *Sur la route de Dijon* [On the road to Dijon] in September 1968 and 1969.

Štěpáneck continued to be present in the FICS congresses and re-submitted the Czechoslovakian application in 1971, with the initial annual theme "Art brings people closer" [*L'art rapproche les peuples*].[241] Despite the displayed friendship of this theme, the following executive committee of the FICS, where the organisation was discussed, proved to be very political. Štěpáneck read a letter from the Czechoslovakian Ministry of Culture, who insisted on the necessity to invite other socialist countries, and to give them all the rights to express their opinions and to vote during the jury of the IARC, and during the congress of the FICS. This provoked a general outcry, on organisational grounds – as only members of the FICS were supposed to be in the jury – but also on political grounds – as several members were suspicious about the presence and whereabouts of socialist countries inside the contest and inside the federation. In the end, the majority voted to go to Prague.[242]

Concerning the decision of holding the IARC in Prague after the Warsaw Pact invasion, it bears a resemblance with the IARC organised in Berlin after the building of the Wall. It seems that members of the FICS acted without taking, or without wanting to take, into account the broad picture. For them, sound recording and the tape recorder were tools of friendship and togetherness and no

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[239] That story has been mentioned by Bijsterveld in her article "Eavesdropping on Europe," and the Thévenot collection contains additional information. In the interview that Bijsterveld conducted with Milan Haering, this one said that the FICS knew since May 1968 that the IARC was not going to be organised in Prague. In fact, a meeting was indeed organised on the 11th of May, in Mainz. Czechoslovakia was not present at this meeting, where the recent Prague Spring was discussed together with potential future political instability. The executive committee decided to give full power to the president of the FICS, Heinz Runge to organise an alternative plan in case of a sudden degradation of the Czechoslovakian situation. By July, this organisation was in place, with an alternative location in the studios of the Süddeutschen Rundfunk in Heidelberg and a financial support from BASF. A first step was taken on the 23rd of August, two days after the invasion of Czechoslovakia by the Warsaw Pact armed forces, when a temporary FICS board was established to ensure the organisation of the IARC. But by mid-September a firm decision was still not made, and the final decision to relocate the Contest in Heidelberg was made during the second half of September. See the documents in Archives JT et CdS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 12ème Congrès de la FICS, Heidelberg, 1968.

[240] As a probable sign of support toward Czechoslovakian sound hunters, the presidency of the jury was given to Štěpáneck. He surprised everyone when he presented a composition of Wilhelm Glückert, president of the German sound hunting association, recorded by the Prague Radiobroadcast Orchestra, a composition that would become the official hymn of the FICS / IARC under the title *The CIMES March*

[241] Comité directeur de la FICS, 22 octobre 1971, Mons. Archives JT et CdS, 19910681/27, folder 22ème CIMES – 1971, Mons, sub folder Correspondance.

[242] Réunion du Comité directeur de la FICS, 18-19 mars 1972, Mayence. Archives JT et CdS, 19910681/28, folder 21ème CIMES – 1972, Prague, sub folder CIMES 1972, règlement Suisse, notes manuscrites, correspondance de Paul Robert, documents préparatoires.

politics should interfere.[243] In that sense, their decision to go to Berlin and Prague was quite bold and could be deemed as an expression of support and solidarity toward their fellow sound hunters – something that the theme of the Prague IARC reflected: *L'art, trait d'union entre les peoples* [Art, link between people][244]

Besides the FICS, ideas of internationalism and rapprochement were at the core of tapespondence associations. The biggest one was the World Tape Pals, founded in Dallas in 1952 by Harry and Marjorie Matthews. Initially, they wanted to send voice messages to their son fighting in Korea. That idea of using sound recordings as 'sound letters' to maintain contact with soldiers overseas was not new. A decade before, during the Second World War, Sonora Radio advertised their radio-phonograph-recording unit as a way for servicemen and families to stay in touch.[245] But the Matthews pushed the idea further and decided to send sound messages to unknown people throughout the world. They thus sent 300 sound letters to foreign journals and newspapers. As more and more answers were received, they decided to form the World Tape Pals. In 1957, they claimed 3000 members, while their journal, *Tape Topics*, published quarterly, claimed 10,000 readers. However, despite their motto, "World Peace Is Simply a Matter of Understanding," and a claim of non-political engagement, the World Tape Pals was involved with the People-to-People exchange programme born in 1956. This one was started by the US government to foster exchanges between people from the United States and foreign citizens. The fact that each tape had a discourse of the president Dwight Eisenhower as a way of introduction makes it look like a tool of propaganda through sound correspondence,[246] and the pitch of the programme was clear. Eisenhower explained that "if our American ideology is eventually to win out in the great struggle being waged between opposing ways of life, it must have the active support of thousands of independent private groups and institutions and millions of individual Americans acting through person-to-person communication in foreign lands." The World Tape Pals were indeed considered as participants in cultural diplomacy.[247] Additionally, Matthews was appointed head of the "Tape Recording Exchange" subcommittee of this governmental programme. According to Robert Krouch, the French correspondent of the World Tape Pals, Harry Matthews had an exclusive American perspective for the association, and was not

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[243] Still, as mentioned by Bijsterveld, several sound hunters, including the then-president of the FICS, Jan Mees, refused to go to Prague because they rejected the URSS affiliated regime (K. Bijsterveld, "Eavesdropping on Europe," 119).

[244] Règlement du CIMES 1972. Archives JT et CdS, 19910681/28, folder 21ème CIMES – 1972, Prague, sub folder CIMES 1972, règlement Suisse, notes manuscrites, correspondance, documents préparatoires. Karin Bijsterveld, in her article "Eavesdropping on Europe" gives another theme, "the Concert of Life" ('Eavesdropping on Europe,' 120), a theme that is also given in the list of annual theme established by the FICS and present on their website (https://soundhunters.com/theme.html, accessed 30/08/2022). However, the General Rules present in the Thévenot collection gives *L'art, trait d'union entre les peuples*.

[245] Susan Schmidt-Horning, *Chasing Sound: Technology, Culture, and the Art of Studio Recording from Edison to LP* (Baltimore, MD: John Hopkins University Press, 2013), 67.

[246] World Tape Pals, translation of the answer to the questionary of January 1958. Archives JT et CdS, 19910681/1, folder FICS, Associations, Généralités, sub folder World Tape Pals.

[247] Cited by Pascal Massinon, "Active Listening. The Cultural Politics of Magnetic recording Technologies in North America, 1945-1993," (PhD diss., University of Michigan, 2016), 90.

interested in Europe.[248] And indeed, while the World Tape Pals was a founding member of the FICS,[249] it resigned in 1960.[250]

3.4.4. The evolution of the FICS

It was the first time that an association resigned from the Federation, and that event opened tumultuous years. Besides the decision to hold the IARC in Berlin three months after the erection of the Wall, besides the disappointing results of the second UNESCO contract, both in 1961, internal conflicts concerning the Contest and its organisation plagued the FICS until the end of the 1960s. They were several stumbling blocks, with generally Thévenot on one side, national associations – the French one being one of the fiercest opponents – on the other, and Monnat in the middle trying to act diplomatically with everyone, while supporting most of Thévenot's claims. The first problem was about giving the organisation of the IARC to the FICS and national associations. Since the beginning of the contest, French and Swiss Radios were the main and sometimes only sponsors of the contest, and the other radios only provided technical support during the days of event, if the event happened to be in their country. Moreover, the rotating organisation by a national association had proved challenging, with a dropping number of submissions when not organised by Switzerland or France, and with several editions being near disasters.[251] On their sides, the national associations wanted to emancipate the FICS and the IARC from the supervisions of radios (and probably also from the supervision of Thévenot and Monnat). The second problem was about the jury of the contest and touched the core of what sound hunting was for Thévenot. Thévenot and Monnat wanted professionals to sit within the jury to judge the works of sound hobbyists. This was to avoid a close-circuit field and to confront amateurs' works with professionals. They thought that amateurs' practice could only benefit from this contact, and that this would lead to an acknowledgement of the quality of sound hobbyists' works, and of their originality, by radio professionals. The last hindrance was also in relation to the jury, as Thévenot and Monnat wanted to forbid national associations to vote for the candidates coming from their countries to avoid favouritism.[252]

The multiple rejections of these proposals and the problems that consequently appeared really impacted Thévenot. In a letter to Monnat, he expressed his dismay: "I spent 16 years of my life

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[248] Letter from Thévenot to Jan Mees, 27 May 1960; and Comments from Robert Krouch accompanying the translation of the answer to the questionary of January 1958. Both documents are in Archives JT et CdS, 19910681/1, folder FICS, Associations, Généralités, sub folder World Tape Pals.

[249] Archives JT et CdS, 19910681/1, folder FICS – Associations, sub folder Généralité.

[250] Procès-verbal de l'Assemblée générale du 4ème Congrès de la FICS. Archives JT et CdS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 4ème congrès de la FICS, Amsterdam, 28-29 octobre 1960.

[251] The 1963 IARC in Liège was notoriously badly organised, raising a lot of tension between the Belgian association and the other ones, and between the FICS and Belgian Radio. See 19910681/23, folder 12ème CIMES – 1963 Liège, sub folder Correspondances du Comité Français d'organisation du CIMES, de la Fédération Belge des Amateurs de l'Enregistrement Sonore, de J. Mees, secrétaire général de la FICS.

[252] The acme of these problems occurred between 1963 and 1966 and are detailed in the IARC corresponding folders in 19910681/23-24.

serving sound hunters, loosing time, money, health, and career, involved in far too many pathetic quarrels." He mentioned that he was against the FICS since the beginning, foreseeing the problems of ego that stemmed from the international dimension of the contest, and its related travels and prestige. But he was an idealist, so he still thought that the adventure was worth it: "I still have enough strength to do what I wasn't able to do during these 16 smear years."[253] Using his position at French Radio, Thévenot then withdrew the financial help that the Radio was bringing to the FICS and to the IARC. And as he was the only representative in front of the SNIR and of the different ministries that also supported the contest, they all followed his lead and stopped subsiding the IARC and the FICS. This provoked an enraged reaction of the AFDERS and its president. This choice meant the end of cash prizes for the IARC, and the 1964 FICS congress validated that these prizes would be replaced by medals in further editions.[254] The subsides and prizes withdrawn from the IARC by Thévenot were redirected to the French national contest only, that he organised himself under the aegis of the RTF. A number of these problems were resolved in 1968, opening the door to a return of the French radio within the IARC.[255] However, this return was not effective until the beginning of the 1970s and the resignation of the AFDERS from the FICS.[256] And after these events, Thévenot's investment remained much more limited than during the first two decades of the contest.

In the end, the links between UNESCO and the FICS lasted only a few years, and the contest remained the only activity of the federation. The internal problems experienced by the federation probably impacted its ability to build and sustain a long-term relationship with partners like UNESCO, which had clear objectives. These elements also voice the limits of the sound hunting international network's structure. At least until the end of the sixties, the organisation of the contest was very dependent on a limited number of people, and on radio institutions for its funding. Thévenot and Monnat had a central role as they were able to attract financial support, from their Radio but also from beyond, thanks to their positions. Thanks to their work at French and Swiss Radios, they were also able to advertise the contest through their respective radio networks. The withdrawing of Thévenot from the organisation of the competition for several years in the end of the 1960s cut a major part of the cash prizes that were afforded, and of the communication of the event. New

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[253] Letter from Thévenot to Monnat, 17 April 1964. Archives JT et CdS, 19910681/24, folder 13ème CIMES – 1964, Lausanne, sub folder Lauréats de la finale internationale, notes, correspondances de J. Thévenot et R. Monnat, etc.
[254] Communiqué à préparer pour les associations membres de la FICS, 11 March 1965. Archives JT et CdS, 19910681/24, folder 14ème CIMES – 1965, Londres, sub folder Correspondance de René Monnat. Still, cash prizes and equipment continued to be given during several years.
[255] Note from Thévenot to Roland Dhordain, 'Pour un concours Chasseurs de son 1969,' 19 November 1968. Archives JT et CdS, 19910681/25, Folder Chasseurs de Son 1969, sub folder Courriers préparatoires et budget.
[256] Archives JT et CdS, 19910681/26.

internal problems occurred again at the beginning of the 1980s.[257] Beyond Thévenot, this also indicates the limits of an international network built around a hobby, by hobbyists, something that I will tackle in the next chapter.

The IARC remained the only event of the FICS, which was not able to develop any other international relationship, as with the ties with UNESCO faded after a few years. What people like Thévenot, Monnat, and Borel wanted to build – the establishment of the cultural importance of amateur sound recording, the organisation of links with other international associations – was no longer pursued from the 1970s. The FICS would try to re-establish contact with UNESCO, notably for contracts in the 1980s, without success.[258] In 1995, the UNESCO ceased the relation with the FICS, as "no substantive exchange had taken place" and "that there was no effective co-operation between our two organisations."[259] Still, the IARC and the FICS would be the longest surviving sound hunter event and organisation. Thévenot died in 1983, but his programme was taken over by his collaborators Dominique Calace de Ferluc and Paul Robert until 2002. The IARC continued until 2016, when it was also decided to dissolve the FICS. The 2016 and last theme was "Goodbye!"[260]

[257] Fritz Aebi, president of the FICS between 1980 and 1990, noted in 1982 quarrels that remind what happened in 1960s. See Archives JT et CdS, 19910681/30, folder 31ème CIMES – 1982, Siège : Parme, sub folder Projet de changement du règlement du CIMES.
[258] Letter from Georges Malempré, Chief NGO Unit, to J.J.L. Mees, Vice-President FICS, 5 November 1986. UNESCO Archives, Paris, FR PUNES AG 8-SEC-ERC-ONG.1-211.3.
[259] Letter from Ahmed Sayyad, Assistant Director-General for External Relations, to Milan Hacring (sic., it is Haering), President FICS, 15 July 1996. UNESCO Archives, Paris, FR PUNES AG 8-SEC-ERC-ONG.1-211.3. The FICS re-contacted UNESCO in 2000, but despite a willingness of UNESCO to "evaluate the possibilities of establishing closer cooperation," it doesn't seem that the step was made as no further documentation are present in the file.
[260] For a list of IARC's venues, winners, and themes, see Appendix 1.

3.5. Conclusion

This chapter has detailed the historical developments of the sound hunting organisations in France and Britain: the radio programmes, the associations, the magazines, the contests. The main observation was a difference in the organisation of British and French networks. In France sound hunting was centralised around the figure of Jean Thévenot and his radio programme, who was constantly in demand for new recordings – the programme was entirely based on sound hobbyists who chose to submit their work. Only a handful of clubs existed in the country. Through his position at French Radio, Thévenot was able to attract financial support from the industry and the State. In Britain, by contrast, the network of sound hunters was much more widely distributed, with more than 140 clubs and no central point or figure of reference; the BBC radio programme was short-lived and did not achieve the popularity of Thévenot's, due to the BBC's reluctance to work with amateurs. The BBC, nor the State, supported the pursuit in Britain. In the UK, as compared to in France, there was a dynamic trade press dedicated to sound hunting, with three magazines entirely devoted to the practice that existed between the end of the 1950s and the beginning of the 1970s. At that time, only one comparable magazine existed in France.

This chapter has also detailed the background of sound hunters, showing that it was diverse, with many backgrounds represented. Women appeared less in the historical sources, but they were nonetheless the main working force in the tape recorder manufactories and practiced sound hunting.

Studying the history of the International Amateur Recording Contest and of the *Fédération Internationale des Chasseurs de Son* has shown how the development of sound hunting was dependent on French and Swiss Radios for its funding and promotion. I presented the sound hobbyists in contact with Cold War geopolitics and their choice not to deal with it and support their fellow sound hunters behind the Iron Curtain. There were opposition to the contacts, but they were a minority. However, this chapter also revealed the creaking of the international federation through internal struggles that led to the separation of the Contest from the Radio Broadcasters that were its origin, but also to aborted plans of cooperation with other international organisations such as UNESCO.

By detailing the history of British and French sound hunters, this chapter has made a significant contribution towards compiling the history of amateur sound recording. As mentioned in the general introduction of the thesis, France and Britain have been hitherto absent of the scholarly literature. Furthermore, a significant contribution was also made toward detailing the history of the International Federation of Sound Hunters.

4. THE FORMATION AND TRANSMISSION OF AN AUDILE CULTURE

The first two chapters have developed an historical narrative. This one adopts an analytical stance that will put into perspective the findings of the previous chapters to investigate the following questions: how did people get involved with sound hunting? What were the knowledge transmission mechanisms? Did sound hunting represent a specific audile culture? Was sound hunting a unified audile culture? Can we speak of a disciplinarity of sound hunting?

I will show how the clubs, magazines, radio programmes and contests described in the previous chapter were constitutive and indicative of a sonic culture that was passed on. I will analyse how a knowledge about listening and sound recording was established and disseminated through the national and transnational networks previously depicted. Clubs, magazines, radio programmes not only taught explicitly technical skills and brought people together, they also implicitly presented their members, readers, and listeners with a new orientation towards sound and listening, new sonic skills, a new listening habitus . All these elements will be approached as organisations able to gather people and develop a specific culture. In other words, this chapter describes the formation and dissemination of sound hunting acoustemology. The following chapter will study how this acoustemology was put in practice.

My methodology will be centred on mediology. My approach will also be user centred, using the social construction of technology and cultural and media theories to explore how sound hunters constructed their identity through their technology, sound recorders. I will also use the concept of *listening habitus* coined by Judith Becker. I will build on the concept of technology as a translator: the mediation of the microphone, because of this additional level, helps to decontextualize and to create a detachment from what is perceived, inducing a renewed perception of the environment. I will argue that this process of translating ambient sounds has been central in exploring and establishing the listening habitus of sound hunters. Through this, they learned to find the beauty in the banal, and even to translate the mundane into the sublime, what Martine Leroux has called the *Sharawadji effect*.[1] My approach of this translation of sound by sound technologies is inspired by the work of Bruno Latour.[2]

I will argue that amateurs established their own disciplinarity in sound recording, and that this was widely shared and therefore presents a common evolution in both France and Britain. Sound hunters applied a discipline and performed a distinctive listening habitus. The use and sharing of these elements, notably across borders, built a peculiar identity, which qualified them as members

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[1] Martine Leroux, "Sharawadji," in *À l'écoute de l'environnement. Répertoire des effets sonores*, ed. Jean-François Augoyard and Henry Torgue (Marseille: Éditions Paranthèses, 1995), 126-32.

[2] Bruno Latour, *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge, MA: Harvard University Press, 1999), 24-79.

of a common audile culture. The definitions and intellectual background of these words have been given in the general introduction of the thesis.

The first part of this chapter will come back on the character of Jean Thévenot and his collection. I described the collection in the general introduction, highlighting how peculiar it was that, from all his activities, the sound hunting collection is the only one preserved in a public archive. I will propose an interpretation of the building and meaning of this archive. From here, I will continue to propose a frame for the building of sound hunting acoustemology. Tape recording clubs will notably be considered in the historical context of the professionalisation of sound recording, to be viewed as training centres for creating sounds and listening in. This will lead to the final section of the chapter, which will propose to see clubs, contests, and magazines, as vectors, amongst others, of a new sonic sensitivity.

4.1. Hunting the sound document : the Thévenot collection

4.1.1. Jean Thévenot

Jean Georges Marie Thévenot (figure 26) was born in 1916 in Givors, near Lyon, from a middle-class catholic family. Attracted by writing and journalism, he wrote his first articles for local journals at 16 before moving to Lille to study at the Haute École de Commerce [Business School] to fulfil the family wish for him to pursue a business career. However, he swiftly switched to a curriculum between the Law School and the School of Political Sciences, writing for local newspapers at the same time. It was during these years, that, listening with a crystal set, he became aware of the suggestiveness of sound through radiophonic theatre pieces[3]. And it was with the Centrale Catholique du Cinéma et de la Radio, during the International Catholic Congress of Radiobroadcasting, in 1936 at Prague, that he spoke for the first time on radio. He would still pursue his studies, writing a PhD on the impact of television on radio and cinema. He first worked with the Radiodiffusion Nationale just before the Second World War. During the War, he became director of Radio Jeunesse in February 1941, before being accused of communism. Although Pierre Schaeffer – whom Thévenot knew from the Hôtel d'Angleterre in Vichy, where Radio Jeunesse and Jeune France (founded by Schaeffer and the place where he worked[4]) were housed – promptly cleared him from any suspicion, Thévenot was eventually fired in October, and remained expelled from the State Radio until the end of the War.[5] Still, summoned by former friends of Radio Jeunesse, Thévenot participated in a few programmes there in 1943. With Liberation approaching, Schaeffer called Thévenot on the 20th of August 1944, asking him to join his group at the Studio d'Essai, housed at the 37 rue de l'Université in Paris. There, Schaeffer was establishing the Radiodiffusion de la Nation Française.[6] Thévenot became Chief Administrative Officer, and his main jobs were the coordination of the different services and the preparation of a schedule of the artistic programmes.[7] At the end of the War, he was appointed Chief Administrative Officer of the new State Radio, but soon decided that

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[3] Jean Thévenot, *30 ans d'antenne: Ma radio et ma télé des années cinquante* (Paris: Harmattan, 2009), 30.

[4] Philip Nord, "Pierre Schaeffer and Jeune France: Cultural Politics in the Vichy Years," *French Historical Studies* 30, no. 4 (October 2007): 685–709.

[5] Note to the General Secretary of Radio, 20 mars 1941. Pierrefitte-sur-Seine, AN, 'Dossiers de Jean Thévenot, producteur d'émissions radiophoniques', 19970331/1, folder "Émissions Radio-Jeunesse, 1941-1944", sub folder "Radio Jeunesse". The note is unsigned, but the identification of Schaeffer is possible with the surrounding notes and with Thévenot, *30 ans d'antenne*, 48: "Already expert in the art of successfully defending undefendable causes, Pierre Schaeffer solved the incident in two shakes."

[6] For more details about that episode, see Karin Le Bail, "Émissions de minuit," in *Pierre Schaeffer, Les constructions impatientes*, ed. Martin Kaltenecker and Karine Le Bail (Paris: CNRS Éditions, 2012), 116-27, 121-7.

[7] J. Thévenot, *30 ans d'antenne*, 64.

both his job and the position were no longer necessary. He then asked to be transferred to general management, to work as policy officer for television. He therefore started to work at the Bureau d'études artistiques (Committee for Artistic Studies), quickly becoming its director when the former director, Pierre Garrigues, was sent to the United States. It was while working there that he wrote his first book, *L'âge de la télévision et l'avenir de la radio* [The Age of Television and the Future of Radio], developed from his doctoral thesis, that would be published in 1946.[8] The end of the War saw the creation of the RadioDiffusion Française (RDF), a replacement of the Radiodiffusion Nationale, and Thévenot was offered the position of director of commercial music programmes. However, he refused, preferring to work for a fee so that he could secure a greater degree of artistic freedom. Therefore, from then on and throughout the rest of his career at the French Radio and Television, and despite the number of programmes produced, Thévenot would always refuse to be appointed, receiving instead a fee for each series of programmes accepted. In parallel with his work with the French radio and television, he quickly started producing programmes for the Swiss television after the War. He also wrote for various journals, notably cinema journals like *L'Écran français* where he collaborated with Alain Resnais. His activities were not limited to French State radio and television, as he also produced different programmes for the French commercial radio Europe 1, but also for Radio Luxembourg or the Radio Télévision Suisse. From 1968, after health issues, Thévenot reduced his commitments, focusing only on his sound hunting programme. He died from a heart attack on the 15th of July 1983 at 67.

[8] Jean Thévenot, *L'âge de la télévision et l'avenir de la radio* (Paris: Les Éditions Ouvrières, 1946).

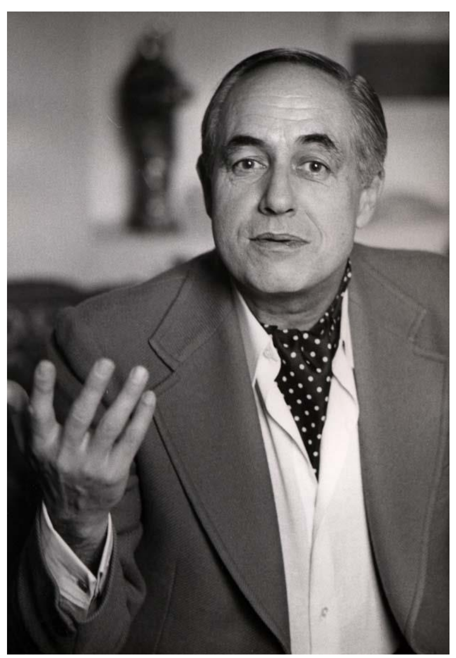

Figure 26: Jean Thévenot.
FICS

The main characteristic of Thévenot's production, both for radio and for television, was a search for authenticity and sincerity, to find the truth of beings,[9] to gather "human documentaries of psychological and sociological interest of absolute verity."[10] There was a real anthropological perspective in Thévenot's work, as stated that he wanted "to discover the *within* of people, and to understand how it works."[11] He often produced programmes centred around ordinary people of all ages.[12] He believed that everybody has something to say, noting how he liked "to discover people, places, for my knowledge and to pass on to others." Thévenot continued: "[n]othing should be unnecessary. Have I given to others as much as I have received from them?"[13] It was this quest and trust in humankind that allowed him to continue producing his programme on sound hunters. Because amongst the vast amount of material produced by amateurs, there is always the possibility of an exceptional document. If amateurs were hunting sounds, Thévenot was hunting documents that could express "the thought of someone, the manifestation of a personality, the communication between individuals."[14] It is through this anthropological perspective that his interest in recordings made by amateurs should be understood. And it is also through that perspective that his programme should be approached: what could the layman do with a microphone and a recorder? What did

[9] J. Thévenot, *30 ans d'antenne*, 111.
[10] *Ibid*., 116.
[11] *Ibid*., 149.
[12] Besides the sound hunting programme, see notably the series *C'est arrivé chez vous* [It happened at home], *En direct de…* [Live from…], *Visite à…* [Visit to…], *Le Grand Voyage* [The Great Journey].
[13] Jean Thévenot interviewed by Jacques Chancel, *Radioscopie*, 09/12/1969.
[14] J. Thévenot, *30 ans d'antenne*, 118.

these recordings mean? What happened when a subjective experience was objectified? How could the limit between the private and the public reveal truths about what was recorded, about the recordist, and about the listeners? Most of his shows had in common a desire to extract an experience from everyday life, in order to share it.

4.1.2. The building of an archive of amateurs' sound recording

Understanding this perspective is also important when approaching his archives. A collection transforms the object of interest into an object of study, opening up to the possibility of a pedagogy, an history, a specific knowledge. This perspective allows light to be shed on the meaning of the Thévenot collection. In relation to one of our central questions – the elaboration and transmission of an audile culture by amateurs around sound recording and the tape recorder – we have to wonder with Régis Debray, "at which material and social conditions is a heritage possible?"[15] As expressed in several documents, through this hunting of the sound document, Thévenot purposefully built an archive of amateurs' sound practices in order to save their work and document their practice. In 1975, he wrote a note for the direction of Radio France, to explain what had been saved, on which format. He re-iterated that the recordings, especially in the beginning, were interesting for their content much more than for their technical quality, which was often average. He also noted that recordings that could have appeared interesting ten or fifteen years ago, could now appear less so.[16] In another letter, Thévenot expressed the same idea: "Five or six years ago, [I decided to keep] the recordings made by amateurs broadcast by me that I felt should be saved, as archives, and as elements for future broadcasting in the other programmes of the RTF."[17]

> Because they have never been collected, private sound archives are generally not correctly appreciated. But we can say without mistake that their value is considerable from the ethnographical, sociological, political, artistical, scientifical, cultural and anecdotal point of view.[18]

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[15] Régis Debray, *Introduction à la médiologie* (Paris: Presses Universitaires de France, 2000), 21.

[16] Report from Jean Thévenot to Yves Jaigu (director of France Culture), Alain Trutat (programme advisor), François Billetdoux (policy officer to the direction), Claude Dupont (producer), Claude Mettra (producer), Pierre Descargues (producer), 'Enregistrements d'amateurs conservés dans les archives de la Radio,' 4 April 1975. Archives JT et CdS, 19940737/53.

[17] Letter from Jean Thévenot to Andrée Géant, 3 September 1958. Archives JT et CdS, 19910681/2, folder Dossier concernant l'Association des Amateurs de l'Enregistrement Sonore (ADAES) puis à partir de 1954 Association pour le Développement de l'Enregistrement et de la Reproduction Sonore (AFDERS), 1959-1966, sub folder Correspondances concernant les amateurs aveugles.

[18] Jean Thévenot, "La famille internationale des chasseurs de son," *Le Courrier de l'UNESCO*, March 1960, 4-10, 9.

However, archives from amateurs are rarely saved or accessible, especially when the technology to play them back has dramatically changed. Thévenot was well aware of that. Thus, I argue that he was mindful that he was building an archive of amateur recording, to save the voices of sound recording hobbyists, at a time when sound recording was becoming more widely practiced. He had the will to pass on the history of amateurs' recording, the history of amateurs' sonic practice. By collecting their recordings, he arranged an undifferentiated ensemble into an organised whole able to be passed on.[19] Transmission ensured the survival of a group through the sharing of what is communal, and it allowed the establishment of a collective personality through history.[20] Thévenot's programme served as a rallying point and through it, the 'sound hunting group' was established and identifiable, and it was identifiable because it had been named and defined. Grouping starts with naming, while defining justifies the group's existence and attracts similar minded people. Amateurs did develop a sonic practice using cylinders and disc-cutters, as I have shown in the second chapter, but traces of them are sparse because they were not gathered under a common banner and because their work was not collected, rendering it difficult to assess the extent of their practice retrospectively. Thévenot's programme and archiving made analysis feasible for sound hunters using tape recorders and brought to light that sound hobbyists were practicing with disc-cutters and phonographs.

I follow the perspective developed by Bruno Latour on groups, to say that "there is no group without some kind of recruiting officer."[21] Thévenot served as the recruiting officer of sound hunting, he was able to take on this role because of his place at Radio, which gave him the necessary exposure to spread his message. Radio also offered him the facilities to save the documents that were sent to him. Thévenot was then able to purposefully organise the conditions of a transmission of the work of sound recording hobbyists. In the words of Debray, he perpetuated, he made durable their ephemeral traces, he materialised them into a collection, and he collectivised them through his programme and his role in the organisation of national and international networks.[22] This work of elaboration produced 'memorable' [*du mémorable*] – such as the recording collection, the magazines he was involved in – and 'memorists' [*des mémorants*] – such as the listeners of the programme, the members of the associations, the readers of the specialised magazines. The memorable materialises memory and knowledge, while memorists are able to retrieve and pass on this memory and

[19] In 1976, Thévenot calculated that he broadcast one hour of recording for ten hours of material received, with a total of ten thousand hours of tape received since 1948. Introduction to the 'Jean Thévenot et Chasseurs de Son' collection. Archives JT et CdS, 19910681/1-35. This number is given by Thévenot and it's difficult to assess more precision as the recordings received have not been saved, only the programme has been.

[20] Régis Debray, *Transmettre* (Paris: Odile Jacob, 1997), 21.

[21] Bruno Latour, *Reassembling the Social* (New York: Oxford University Press, 2005), 32.

[22] R. Debray, *Introduction à la médiologie*, 19.

knowledge.[23] This elaboration can be understood as a group capacity. It means to gather people and to maintain them together through common ideas, beliefs, memories, practices – here a new *listening habitus*, a way to approach and experience the sonic milieu.[24] The trace and the group socialise and transindiviualise the individual memory by objectifying it, to establish a common good.[25] This ability to form a group was strengthen because Thévenot could use the press office of Radio. As I showed, this allowed a national coverage, in both national and local newspapers of the activities he organised, and the development of international contacts.[26]

It is because the archives exist that these group activities can be studied. Thévenot created and maintained a trace of sound hunting through the building of its collection in the course of the thirty-five years during which he produced his radio programme. This went beyond collecting sound recordings. As I have showed in the third chapter, Thévenot, alongside Jean Borel, was interested in writing a history and study of amateur's sound recording. The questions asked on the application forms of the IARC and national contests (at least the French and Swiss ones) should be understood in that perspective, to document the sound hunters in themselves: what their age and background were; when they started to record; and what their other hobbies were.

Thévenot's programme was a landmark in the history of amateur recording because it has been preserved and thus gives access to recordings that were not made to be public; that is to say not made to be accessible outside the recordists' close circle. Most of the recordings aired still exist to this day only because they were broadcast, which points to the role of the public institution in the preservation of these amateur recordings. And at the same time, notably for the first years of the show, the programme allowed Radio to build an archive of itself through the amateurs that were recording it at a time when Radio did not archive its own programmes. *On grave à domicile*, *Aux Quatre Vents* and *Chasseurs de son* – the three names that Thévenot's programme bore through the years, always with the same concept, which only focused on broadcasting amateurs' sound recordings – relied on a constant intertwining of the private and the public. For all these reasons, it can be said that indeed "Thévenot and his sound hunters work for tomorrow's historians."[27] However, because he chose what would be broadcast, and therefore preserved for transmission, he acted as a filter that determined what was preserved in the Radio France archives through the recording of his programme. This poses the question of what his criteria of selection were, about what was discarded,

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[23] R. Debray, *Transmettre*, 27.

[24] The idea of listening habitus will be developed in the next section.

[25] R. Debray, *Transmettre*, 23.

[26] Indeed, the Thévenot collection contains a lot of press releases redacted by Thévenot, together with the press cuts and news articles related to them. The contests, national and international, were privileged moments for this communication.

[27] Roland Dhordain, *Le Roman de La Radio: De La T.S.F. Aux Radios Libres* (Paris: La Table ronde, 1983), 163.

about a potential bias. Thévenot recognised that he was not interested in every recording,[28] but at the same time, for the lack of anything better, he also broadcast recordings that were for him – and other listeners – not that interesting.[29] What then, for him, transformed a recording into a sound document worth of being not only broadcast, but also preserved in the archives of radio through that very broadcast?

4.1.3. Radiogeny

The notation sheets of the different contests organised by Thévenot bring elements to approach this question. Besides notes on the technical quality and originality, there was another important criterion the jury had to take into consideration, the '*valeur antenne*' [broadcasting value] (figure 27). No explanation is given on the notation sheets, but the concept of radiogeny recently used by Kate Lacey is useful for us to grasp what this means. This concept is the sonic equivalent of its visual counterpart, photogeny. Photogeny was developed at the beginning of the twentieth-century by the film director Louis Delluc, to describe films where the accent was put on the articulation between the poetic of an image, the very media of this image, and the way it was captured or filmed, all this being also in relation to the cultural reception of this image.[30] For Lacey, therefore, a broadcast is radiogenic when it recognises, exploits, and celebrates radio specificities, and refers "to those aspects that are only evident in the recording and broadcasting of sound and that reveal or express an encounter with some sort of truth."[31] This aspect of "truth" is important, and was seen by Thévenot as a token of sincerity and authenticity. He repeatedly spoke of the importance of "live recording" for capturing voices "in the real,"[32] as a way to reveal one to oneself and to the others. This taste for authenticity was not new, and as soon as 1946 Thévenot began writing about programmes that could make the microphone disappear, to convince the listener that the scene was happening in reality, and not in front of a microphone. In other words, that the snapshot was not commanded, but happened spontaneously.[33] His interest for the document, for the snapshot, that amateurs could

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[28] Jean Thévenot interviewed by Jacques Chancel, *Radioscopie*, 09/12/1969. "I have noticed that a number of amateurs use recording as a way to let off steam to evacuate their problems. I am not interested in these, save the psycho-sociological level."

[29] As seen in chapter two.

[30] Kate Lacey, *Listening Publics: The Politics and Experience of Listening in the Media Age* (Cambridge; Malden, MA: Polity Press, 2013), 93-4.

[31] K. Lacey, *Listening Publics*, 93.

[32] J. Thévenot, *30 ans d'antenne*, 156.

[33] J. Thévenot, *L'âge de la télévision et l'avenir de la radio*, 59.

send stem from this. In a letter to René Monnat, he mentioned his passion for authentic documents and snapshots of life, saying that this attraction for the document had shaped *Aux Quatre Vents*.[34]

However, this approach was not shared by everybody at Radio, and it was debated on the Programme National in May 1951. The debate was provoked by the coming broadcast of a special edition of *Aux Quatre Vents*, entitled '*Une journée en France*' [A Day in France]. Developed from one Thévenot's ideas, the concept was to produce a "*documentaire simultanéiste*" [simultaneous documentary] to ask the listeners of *Aux Quatre Vents* to record whatever they wanted, wherever they were, but on the same day, in order to obtain a sonic snapshot of France on that particular day. Thévenot and his collaborator Jacques Landrieux took care of the editing, by organising the recording, from the morning to the night, from the recording of a couple getting up to that of a woman giving birth.[35] The documentary triggered a debate surrounding the place of amateurs' lived experience on Radio, especially the role of improvisation and spontaneity which were key attributes of the practice. Drawing on this example, respondents of the debate praised the value of amateurs' documents. In the end, though, in the end, it was the role of the professional that was highlighted, as only the radio professional – here, Thévenot – was considered able to collect, organise and present the documents. And in doing so, Thévenot was cutting, isolating specific elements, rejecting others. For several respondents of the debate, this altered authenticity, and placed the result in the realm of art, disconnected from the initial recordings made by amateurs.[36] These remarks make clear the influence and impact of Thévenot on the broadcast recordings in the editing and in the narrative that he organised at each programme. This is not necessarily a negative point, because as I showed in the previous chapter, the aim was to support the sound hunting community. But this support was achieved through a certain perspective.

In radiogeny, what interested Thévenot was the ability of a recording to evoke a scene, an event, a person's character, to transport the listener side by side with the recordist. An important feature was thus the recording's capacity to trigger the listener's imagination. For example, let's look at *Le bourdon de Notre-Dame*, as notated by Thévenot:

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[34] Letter from Thévenot to René Monnat, 9 November 1955. Archives JT et CdS, 19910681/18, Folder 4ème CIMES – 1955, siège : Lausanne, sub folder Organisation.

[35] "Une journée en France," *Aux Quatre Vents*, 2 June 1951.

[36] "Problème d'utilisation à la radio de ce qu'on appelle le document brut," [Problem of using raw documents on radio] *Tribune de Paris : Les hommes, les événements, les idées à l'ordre du jour*, 30/05/1951. To debate were present Raymond Thévenin (host of the programme), Jean Calvel (head of reports, RDF), Jean Nohain (producer at the RDF), Pierre Décave (president of the radiophonic critic association), André Gillois (producer at the RDF), and Jean Thévenot.

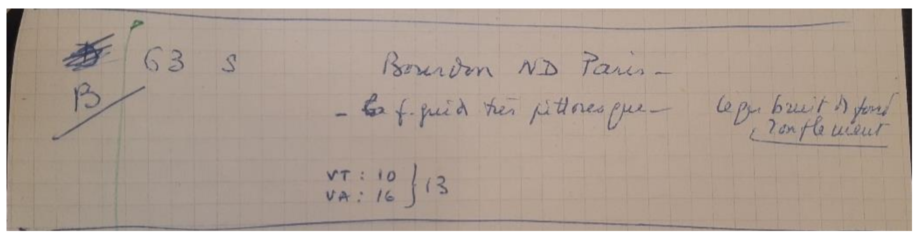

Figure 27: Thévenot's notation sheet of Stefan Kudelski's submission, *Le bourdon de Notre-Dame*, for the first edition of the International Amateur Recording Contest in 1952.

Archives JT et CdS, 19910681/18, folder 1er CIMES – 1952, sub folder Émission spéciale (31.05.52).

Le bourdon de Notre-Dame is an interview with a guide of Notre-Dame de Paris, made on site in the south tower in 1952 by Stefan Kudelski. At the end of the interview, the guide strikes the great bell. He submitted this recording to the first International Amateur Recording Contest, held in Lausanne that same year. It was made with the handheld autonomous recorder that he built with André Viezemski, described in the second chapter. The figure 27 shows what Thévenot thought of this recording. At the bottom, "VT" stands for "Valeur Technique" [technical value], "VA" for "*Valeur Antenne*" [broadcasting value]. Notes are given out of 20, 13 being the mean and final note given by Thévenot. On the left, "B 63 S" is the identification of the recording, which were judged anonymously. "B" is the category in which the recording competed, "63" is its number (the 63rd recording received in that category), "S" is the identification of the nationality of the recordist (Kudelski was Swiss). In the middle and on the right, below the title of the recording, are comments on Thévenot: "the female guide very typical" in the middle, and "A bit of background noise, hum" on the right. In 1952, the ability to record on location demanded either using a setup with batteries or being in close proximity to a socket. As mentioned in the second chapter, Kudelski consciously chose to record in the south tower. He wanted to highlight the autonomous quality of the recorder, and therefore selected a location which was difficult to access, that is, beyond the reach of mains-powered recorders. The recorder, a Nagra I, was still a prototype, and so its performance was of a low quality compared to mains-powered recorders or latter battery-powered ones, as expressed by the average technical value note of 10/20 given by Thévenot with "background noise, hum." Background noise refers to a bad signal to noise ratio, not to the presence of the background ambience of the recorded scene. On this occasion this ambience was praised, as it was the 'proof' that the recording was made outside, in the south tower of Notre-Dame. Its presence was part of the broadcasting value note ("VA").This one was judged high, 16/20, notably thanks to the guide who was seen by Thévenot as "very typical." This recording won the first prize of the category B, 'Documentary and report.'[37] On a final note, it is worth pointing out that the ability of recording outside was

[37] The prize was 100 Swiss Francs offered by Siemens, a bundle of tapes, a bundle of discs from the label Le Chant du Monde, and a crystal microphone.

not judged on a technical side, but for what it brought to the recording, and therefore, to its broadcasting value.

Another revealing example was given during the 1959 edition of the IARC, organised in London. A French sound enthusiast, Jean-Claude Hénin, a cartographer from Paris, composed a "montage without words," a composition of recordings which he used to evoke the different periods of life, from womb to tomb. The editing and technical quality was praised, and the composition was seen as "real sound, without waffle." However, its abstract quality was considered difficult without the accompanying note: "an instruction book is needed," wrote the jury. But the following comment made by a jury member was more telling about the radiogenic concept: "[the piece gives] the impression of a film soundtrack. Images are missing. Original, but *not very radiophonic*. 14/20."[38] The use this word of "radiophonic," encompasses the crux of what was necessary for Thévenot, a man of radio producing a radio programme: voice. For him, radio was thought primarily as a medium articulated by voice, for voice.[39] That means that Thévenot spoke a lot in his programme, to introduce each recording and to link them to a human endeavour. The comparison between Hénin's sonic piece and *Une journée en France* is illuminating. While the concept is similar – a temporal compression to sonically express a life (Hénin) or a day (Thévenot and Landrieux) in a reduced time – the treatment is quite opposite: an unsegmented sonic piece without words for Hénin against a collection of 15 recordings made by sound hunters around France gathered by a 16-page script for Thévenot and Landrieux.[40] Of course, the duration of the two pieces was different. Hénin was limited to 15 minutes as he submitted his piece in the "editing" category of the International Amateur Recording Contest, while Thévenot and Landrieux had one hour. But in the end, Thévenot's speaking time was equivalent to the duration of the broadcast recordings and each of the recordings was introduced and commented before its airing. In other words, Thévenot never let a sonic piece unfold by itself, he never let the recordings speak for themselves. I will show in the next chapter that this feature, that is, speaking a lot, was characteristic of a certain way to do radio shows and that it has a history.

Another reason for the rejection, despite a recognised interest, as the above comments showed, seems to be the common aspect of sounds present in these recordings. Indeed, a similar recording of a sonic ambience, but made in a Tuareg camp in the desert by Henry Brandt, a photographer

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[38] Jean-Claude Hénin, *L'existence*, information sheet and jury notes. Archives JT et CdS, 19910681/20, folder 8ème CIMES, 1959, Londres, sub folder Fiches d'enregistrements et scripts français et étrangers utilisés dans *Aux Quatre Vents*. Thévenot's comment was harsher: "Quite naive but well made, good sound. One should not take it as a philosophical essay, but as an editing. 12/20." No precision between broadcast and technical values are given. The stress is mine.

[39] I will detail this point in the following chapter.

[40] *Une journée en France ou Une journée d'hiver en France*, first version of the script. Archives JT et CdS, 19910681/16, folder Émission « Une journée en France » 1950-1951, sub folder Texte préparatoire.

from Valangin, gathered a very good 'broadcast value' and won the first prize in the 'Snapshot' category in the 1954 IARC.[41] As noted by Brandt in his application, his piece is an unedited recording made during an evening in the camp. Camels call their calves while being brought back to the camp, a dog barks from time to time, all this shrouded in the singing of cicadas. All elements that, due to their unfamiliarity, were thought to be able to grasp the imagination. As Thévenot wrote, "the same work can appear either banal or extraordinary whether it is showed in its country of origin or abroad."[42] Indeed, in 1961, a snapshot of a herd in the French countryside was submitted by the sound hunter Michel Pellissier, under the title *L'arrivée du troupeau* [Arrival of the herd]. As the title indicates, the piece is the recording of a herd, with mooing, cries, bells, a car passing, and other sounds of the countryside. "Good sound take, but what could be done with it?" wondered Thévenot. The recording was a French equivalent to Brandt's recording, but with known elements that did not fit Thévenot's idea of what was radiogenic. "Good element for a sound effect library" was his final comment, with no note given.[43] However, true to his support to the sound hunting community, he broadcast an extract of this recording in *Aux Quatre Vents*.

The epitome of what Thévenot considered radiogenic, was present in the documentary *Pris sur le vif* [From life] that he made for the Prix Italia 1961, on request from Paul Gilson, director of the artistic services of the RTF.[44] The documentary is an anthology of French amateurs' recordings, taken from the very archive that Thévenot was building, that celebrates its richness, from historical recordings to virtuoso or technical experimentations, to snapshots of life. Each recording is introduced by Thévenot, and its commentary forms the red line of the documentary. Musical recordings, except if humoristic and unconventional, are absent, as are *musique concrète* and pure sonic pieces such as *La circulation à Paris*, or the pieces by Hénin and Dupeyrat. *Pris sur le vif* was chosen to represent France in the Prix Italia 1961, in the documentary category. The piece won the competition, a consecration of the richness of amateurs' work, a validation of Thévenot's ideas, and a validation of his programme.

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[41] Henry Brandt, *Ambiance du soir dans un campement de Touaregs au Niger*. Archives JT et CdS, 19910681/18, folder 3ème CIMES – 1954, siège : Bruxelles, sub folder Notations et observations.
[42] André F. Liotard, Samivel, Jean Thévenot, *Cinéma d'exploration, Cinéma au long cours* (Paris: Chavane, 1950), 23.
[43] Bande 44D, Michel Pellissier, *L'arrivée du troupeau*. Archives JT et CdS, 19910681/21, folder 10ème CIMES – 1961, Berlin, sub folder Documents préparatoires – dont manuscrits – concernant l'émission spéciale du 30-11-61 diffusée sur France II et l'émission du 23-12-61 diffusée sur France IV, sub sub folder Fiches et scripts utilisés dans les émissions (dont documents manuscrits).
[44] Jean Thévenot interviewed by Guy Erismann, *Magie et vérité des sons*, 31 July 1964.

4.2. The building and dissemination of a knowledge about sound

4.2.1. Broadcasting a new listening habitus

In an article for the *Courrier de l'UNESCO* in 1960, Thévenot, building on twelve years of programmes, described the evolution of amateurs' sonic practice.[45] He saw three stages to the process, which can be described as the progressive acquisition of the new *listening habitus* of the sound hunter. The concept of listening habitus was developed by Judith Becker and will be useful to assess the impact of these radio programmes and what they brought to their listeners. "Habitus is an embodied pattern of action and reaction, in which we are not fully conscious of why we do what we do; not totally determined but a *tendency* to behave in a certain way."[46] This notion helps us to understand how sound hunters developed a specific culture of sound and what their originality and importance were. If Becker has defined the listening habitus in relation to music, I argue that this concept is also relevant for the way we engage with the sonic environment. Becker writes that "we listen in a particular way without thinking about it, and without realizing that it even is a particular way of listening. Most of our styles of listening have been learned through unconscious imitation of those who surround us and with whom we continually interact."[47] She writes this in regard to music, but to apply this thinking to the sonic environment is particularly fruitful, as it helps us to understand that how one listens can also be constructed as a social construct. One of Thévenot's purposes, and of all the socialities that I described in the previous chapter, was to make one aware of how one listens, and to present and transfer other ways of listening. In other words, to put forward and teach a new listening habitus.

It is such a process of progressive transformation of the listening habitus that Thévenot described in his three stages of the sonic practice of the amateurs. His taste for the sound document and for radiogenic recordings is of course very present in his description. During the first stage, the amateur tries his recorder and focuses on recordings made within the family circle. "Nine times out of ten, people outside the family circle will find only dreadful platitudes" in them.[48] At this stage, the ears of the sound apprentice are not yet trained to approach sound creatively, or at least in an interesting

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[45] Jean Thévenot, "La famille internationale des chasseurs de son." *Le Courrier de l'UNESCO*, March 1960, 4-10.

[46] Judith Becker, "Exploring the Habitus of Listening," in *Handbook of Music and Emotion: Theory, Research, Applications*, eds. Patrick N. Juslin and John Sloboda (New York: Oxford University Press, 2010), 127-57, 130. Stressing in original text. The concept of *habitus* used by Becker is taken from Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge: Cambridge University Press, 1977), 72.

[47] J. Becker, "Exploring the Habitus of Listening," 130.

[48] J. Thévenot, "La famille internationale des chasseurs de son," 8.

way; the results are basic and thus generally uninteresting. The second stage happens because the amateur has acquired a certain knowledge of their equipment, and so they make better sound recordings, they know how to edit, how to mix. At this stage, they record more music and compose soundtracks for amateur cinema or theatre, experiments with *musique concrète*. Yet, they realise that most of the time, the results compare poorly with those of professionals. In that stage, the sound hunter elaborates a direct link between technique and the possible result, with a technical knowledge bringing forward new possibilities of realisation and a heightened curiosity about sound. At a third stage, the amateur understands that they should do what cannot be done by professionals because of their economical and temporal constraints. Only amateurs have the luxury of time without owing any justification, without the need of being profitable. The amateur can get up in the middle of the night to perform a specific recording or can pursue an experiment for several years. Therefore, for Thévenot, snapshots, documentaries, and sonic experiences were the domain of the amateur.[49] The way Thévenot describes this evolution, which culminates to the precise 'genres' that he was most interested in – snapshot and documentary – is of course strongly influenced by his radiogenic aesthetic. It nevertheless points to the fact that experience and a mastery of the equipment bring an ability to develop sonic and musical ideas, and realise them. On improving their skills – practical and sonic – the sound hobbyists produced works that were able to go beyond the family circle, and thus, to interest, and attract, more and more people.

In the communication of these ideas to the sound hobbyist, the British and French programmes had different approaches. The most important of Thévenot's approach was probably the use of the public as an "agent of creativity," something that the BBC was very reluctant to do. The expression comes from the sociologist Elihu Katz, in the report he wrote for this very BBC in 1977. One of his proposals was to get closer to the public, to listen to their remarks but also to their ideas in order to develop new programmes and novel forms of interaction between radio and its listeners.[50] That was exactly what Thévenot did since the beginning of his programme in 1948, and in this perspective, the programme can be seen as an on-going co-production between him and French sound hunters. Another difference can be identified, following the sorting in communicative entitlements made by Paddy Scannell between communication of opinions and communication of experiences, each offering a distinct form of sociality. Opinions are allowed to people by virtue of their status, while experience is permitted to everyone.[51] *Sound* falls most of the time into the first category, with speakers who were all experts. The pitch of the programme was that professionals, often from the BBC, explained what should be done, how, and why. Amateurs were not often present, in favour

[49] *Ibid*., 8.

[50] Elihu Katz, *Social Research on Broadcasting, Proposals for Further Developments* (London: BBC, 1977).

[51] Paddy Scannell, *Radio, Television, and Modern Life: A Phenomenological Approach* (Oxford; Cambridge, MA: Blackwell, 1996), 93.

of discussions with specialists about sound effects, acoustics, recording underwater, or sound in theatre.[52] The clearest example was during the 1960-61 season, when an educational series was broadcast. The object of the series was "to break down the technical information into language which the layman can understand and to warn against the various pitfalls" of recording.[53] In this series, a teacher, Ivor W. Jarman – instructor of BBC editing engineers – taught a pupil, Angela Jeffreys – a teacher in a school for deaf children – to operate a tape recorder, to record correctly, to edit, to identify common problems and to solve them. "At the end of this series, [Jeffreys] subsequently entered the British Amateur Tape Recording Contest and her entry was 'Highly Commended.'"[54] This series was a success, with encouraging letters received from listeners, and good Listener Research reports.[55] The pedagogical quality of *Sound* was certain and recognised within the BBC to the extent that there were several requests from overseas departments to send tapes and scripts for training purposes.[56]

On *On grave à domicile / Aux Quatre Vents / Chasseurs de son*, the perspective was very different, with an ethos based on the communication of experiences. Sound hunters were invited to share their experience and recordings. Against the, most of the time, unidirectional sociality of *Sound*, a peculiar form of sociality was sought by Thévenot, one closer to a forum, where sonic practices could be showcased, discussed, and put to the test of the broadcast, and where private recordings became public: can a private recording maintain its interest and grasp the attention of a public that will not necessarily be able to relate to it? This sometimes surprised the programme's guest. Thus, the sound hobbyist Maurice Meier:

> "What sort of interest could it offer to your listeners? (…) I wouldn't want to be detrimental to your programme. (…) What would you think of the following pitch: General theme: the amateur-recordist that you present is not here to teach, neither to submit recordings. He is only here to open perspectives, maybe undreamt of by a category of listeners that we could call the 'MICROPHONICALLY WEAK,' to give them little bit of advice from a seasoned enthusiast

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[52] These examples are taken from the episode 47 to 54, broadcast between March and June 1961.

[53] Report of Ivor W. Jarman, 1 June 1961. BBC WAC R51/981/1.

[54] Report on *Sound* from Marguerite Cutforth to Janet Quingley, Assistant Head of Talks, 31 July 1962. BBC WAC R51/981/1.

[55] Report of Ivor W. Jarman, 1 June 1961. BBC WAC R51/981/1. Neither the letters or the Listener Research Reports are present in the documents related to *Sound* at the BBC WAC.

[56] Report on *Sound* from Marguerite Cutforth to Janet Quingley, Assistant Head of Talks, 31 July 1962. BBC WAC R51/981/1. The Nigerian Broadcasting Service was notably interested as soon as 1959 (Note from Timothy Eckersley, Assistant Head of Central Programming Operations (Recording), 22 July 1959. BBC WAC R51/981/1).

(…). Awakening in the novice of a taste for collection and research of unusual equipment and recordings."[57]

Despite the surprise shown by Meier, he was well aware that his sensitivity to sound was more developed than that of others, that his listening habitus was different. He was eager to share it, "to open new perspectives" to novice listeners. It is also remarkable that he linked it to the microphone, that is to say, to a mediated form of listening (something that I will detail in the next section). Hence, in Thévenot's programme, the discussion, the exchange of ideas and practices, was privileged, in parallel with the broadcasting of amateurs' work. As I have shown, this was influenced by the radiogenic qualities sought after by Thévenot, who was aware that his choices had an influence on the hobbyist community.[58] The source of that influence was two-fold: through the choice of the recordings, and through the comments he always added. Thus, the listening of the audience of his programme was oriented toward what he thought was interesting, toward what should be noted, toward a distinctive idea or technique. It was a specific listening habitus that was promoted through his choices and comments. Still, he constantly pushed sound hunters to test and develop their own ideas, to work toward originality and independence.

This notwithstanding, the different socialities used by the British and French programmes, all worked to give a sense of a community, to establish a community, of sound recording hobbyists. Thévenot's programme was more influential in that, as he aired only recording made by amateurs, and, because of that, of the volume of discs and tapes received and broadcast. Moreover, to push sound hobbyist to send their work, and to foster a baseline technical quality, each sound hunter who had a recording broadcast received a small fee during the first years.[59] Thévenot also regularly organised contests and special programmes, to which the sound hobbyists were asked to participate, a way to promote interest and publicise the activity, notably because he was able to use the press office of the Radio which gave a great impact and coverage in a variety of national and local newspapers. An illuminating example was the contest broadcast in 1964 '*Nous diffusons, vous ferez le reste*' [We broadcast, you will do the rest]. For two weeks, several times a day, on all the channels of the ORTF, sound effects and ambiences were broadcast. Sound hunters had to record them, and to compose a piece with that sound matter: the winning entries were broadcast in a special edition of *Aux Quatre Vents*. This kind of contests, always followed by keen listeners, could involve the participation of the general director of Radio, such as in 1965 with '*Le feuilleton magnétique*' [The Magnetic Series]. A similar idea with sound effects was suggested for *Sound*, but never made it, Eckersley

[57] Letter from Maurice Meier to Jean Thévenot, 2 May 1948. Archives JT et CdS, 19910681/4, folder Émissions pionnières. (emphasis in original)

[58] Jean Thévenot interviewed by Jacques Chancel, *Radioscopie*, 9 December 1969.

[59] Report of the General Assembly of the ADAES, *Arts et Techniques Sonores*, September-October 1954, 10-1. The fee disappeared after the 1953-1954 season.

rising copyright problems and unfair competition with the companies that were selling sound effects.[60] The numerous contests organised by Thévenot and the consistency of his programme throughout the years, offered a rallying point for the French sound hunting community. Moreover, the perspective of being broadcast was for sound hunters an additional motivation factor and acted as a rallying point in itself, supporting their deepening self-awareness.

Finally, the establishment of community was aided by the fact that these radio programmes extended beyond their airing times, and another site of knowledge transfer was the exchange occurring via correspondence between the producers and the listeners. For Thévenot, letters were a place to interact with his public, and, as he gave its address at the Radio at each show, epistolary exchanges are numerous in his collection at the Archives Nationales. This makes sense, to an extent, as his programme relied entirely on the submissions of amateurs, so he had to create and maintain a contact with them. However, the letters go beyond a simple cordial exchange, and shows that they were a privileged site to pass ideas and advice on. Answers were always detailed, and discussions ranged from technical details such as the placement of the microphone, the setting of levels, the handling of the equipment, and solutions to prevent buzzing, to musical remarks and advice on what equipment one should buy.[61] Through these letters, notably the answers of Thévenot's correspondents, one notices the progressive acquisition of a knowledge about sound that can be reconstructed. People learnt how to listen and what to listen to, notably the flaws (hum, buzz, wow and flutter, distortion, handling noises, etc.). All these elements that Thévenot and his collaborators sought to remove before the broadcast, but that reveal a technical level, a way of working, a way of listening and recording.

Through his exchanges, Thévenot also knew how to stimulate the activities of his listeners and correspondents by offering broadcasts. This often meant accepting material of average technical quality and editing it to keep only the 'broadcastable' parts.[62] An example of this is the recording made in 1954 by Jean Evenou in a gold mine that was discussed in the second chapter. The jury of the IARC was not convinced, Thévenot noting on his notation sheet that the text was "mediocre," while the sound was tarnished by "reverberation and telephone."[63] However, the public review that

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[60] Note from Timothy Eckersley to Marguerite Cutforth, 6 April 1959. BBC WAC R51/981/1.

[61] For all this, the correspondence between Thévenot and René Fournier, held regularly during a year in 1951-1952 is exemplar. Archives JT et CdS, 19910681/2, folder Dossier concernant l'Association des Amateurs de l'Enregistrement Sonore (ADAES) puis à partir de 1954 Association pour le Développement de l'Enregistrement et de la Reproduction Sonore (AFDERS), 1959-1966, sub folder Correspondances concernant les amateurs aveugles.

[62] Jean Thévenot interviewed by Jacques Chancel, *Radioscopie*, 09/12/1969.

[63] Archives JT et CdS, 19910681/18, folder 3ème CIMES – 1954, siège : Bruxelles, sub folder Notations et observations. Thévenot speaks about the telephone quality of the recording because a telephone line (with its limited bandwidth) was used to record a commentary inside the mine (see chapter one).

he wrote in *Arts et Techniques Sonores* was kinder: here, the recording was called "remarkable."[64] It was also later broadcast in *Aux Quatre Vents*. The aim was always to support sound hunters, even if searching and editing the 'broadcastable' parts was highly time consuming. Concerning *Sound*, as mentioned in the previous section, the collections related to the programme at the BBC Written Archive Centre does not hold any listeners' letter. Listeners wrote to *Radio Times*, but this correspondence did not survive. However, the main compere of *Sound* was Douglas Brown, who was also the editor of *Tape Recording* magazine, a privileged ground to be in contact with the community of tape recordists, due to its letters to the editor, and pages dedicated to the activities of tape recording clubs. It is thus probable that he acted as a relay between the community and Marguerite Cutforth to pass her some topics that could interest British sound hunters.

4.2.2. Technology as a translator

Trevor Pinch and Karin Bijsterveld have pioneered new approaches to study the interaction between music and technology, observing how breaches of pre-existing ways of doing "reveal underlying norms and values," and noting how "reactions to new technologies could provide a fertile research site for investigating how technologies in general are embedded within conventional normative frameworks."[65] I want to propose that sound hunting, through its use of the tape recorder, created such a breach in the listening habitus, with the sound hunters' community making a significant contribution.

The sound hunting listening habitus was the result of the use of listening mediation tools: microphone, tape recorder, headphones, speakers, cables. One does not hear the same thing with ears alone as compared to listening through a microphone and speakers or headphones. These last ones follow technical characteristics elaborated beforehand, and through the twentieth century, there has been a progressive opening of the bandwidth of microphones, recorders and speakers, an enhancement of the dynamic and signal to noise ratio. On its side, the human ear evolved though time, both physiologically (as illustrated by the impact of ageing) and psychologically (that is, its dependency on training, for its increase of resolution, discrimination, and development of specific listening modes). Despite the apparent effectiveness of listening tests organised by Edison, as described by Emily Thompson,[66] people were very aware of the limitations of sound technologies. Monaural sound was notably seen by Jean Cocteau as an annoying constraint, one that made the

[64] *Arts et Techniques Sonores*, July-August 1954, 8.

[65] Trevor Pinch and Karin Bijsterveld, "'Should One Applause?' Breaches and Boundaries in the Reception of New Technology in Music," *Technology and Culture* 44, no. 3 (2003): 536-59, 538.

[66] Emily Thompson, "Machines, Music, and the Quest for Fidelity: Marketing the Edison Phonograph in America, 1877–1925," *The Musical Quarterly* 79, no. 1 (1995): 131–71.

listener dream of future possibilities. Cocteau also pointed to a possible reason for the success of Edison's listening tests: the ear – more precisely the brain – is fast in completing the missing parts, and very adaptable in accepting those missing parts.[67] Something that Schaeffer showed very clearly in the *Solfège de l'objet sonore*, where he demonstrated that the ear is perfectly able to reconstruct the bass frequencies of any orchestra, while the speaker of a random radio is too small to emit the fundamental of these frequencies. They are reconstituted by the brain thanks to their harmonics.[68]

My use of the word 'translation' stems from two sources. The first is historical and comes from authors of the 1930s who used the word to qualify the transduction operated by turntables electric pick-ups. The shape of disc grooves makes the pick-up needle vibrate, and these vibrations are 'translated' into an electric current.[69] The second source is more recent, and it is Bruno Latour, to highlight that the mediation of sound recorders is not neutral. As Latour writes, "[translation] refers to all the displacements through other actors whose mediation is indispensable for any action to occur. In place of a rigid opposition between context and content, chains of translation refer to the work through which actors modify, displace, and translate their various and contradictory interests."[70] As such, a microphone or a recorder do not have interests, but they do have constraints due to how they were engineered, to the use of specific parts in their manufacturing, to their user, to the context in which they are used.

The use of the word 'translation' thus helps to understand that the input and the output are not equivalent. Sound hobbyists were well aware of this. As noted by Ray Stanton King, a salesman and sound hunter who won the IARC in 1964: "Microphones so often hear much more than the human ear."[71] For field recordists, the presence of the microphone or speaker as an interface created a detachment toward the sound source, which allowed for a renewed perception.[72] Audio technologies provided a specific focus and detachment from sound sources. They thus acted as a translator to break into the listening habits that make reality "so boring,"[73] because the listener has stopped taking an interest in it. Instead, the listener could hear the mundane, which was normally unheard

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[67] Jean Cocteau, "Le Club d'Essai," in *La chambre d'écho, Cahiers du Club d'Essai de la Radiodiffusion Française* (Paris: Radiodiffusion Française, 1947): 12-6, 14. Pierre Schaeffer explores similar aspects at the beginning of the *Solfège de l'objet sonore*, INA-GRM, 1998 [1967], INA C 2010-2012 (3 CDs and book).

[68] Pierre Schaeffer, *Solfège de l'objet sonore*, INA-GRM, INA C 2010-2, 1998 [1967]. Disc one, tracks 21 to 26.

[69] Pierre Hémardinquer, *Pick-up et amplification musicale* (Paris: Éditions Chiron, 1930).

[70] Bruno Latour, *Pandora's Hope*, 311.

[71] Ray Stanton King, "Boredom Led to the Production of Sink Symphony," *Tape Recording*, December 1964, 491.

[72] See the interviews in Cathy Lane and Angus Carlyle, *In the Field: The Art of Field Recording* (Axminster: Uniform Books, 2014 [2013]).

[73] François Jullien, *L'inouï* (Paris: Grasset, 2019), 66.

because of "the very fact that it continuously lay before my eyes and as such, is no longer perceived."[74] Microphones, headphones, speakers and records allowed both recordists and listener to become aware of what is silenced by our very experience because of habit, by force of habit – because of a listening habitus. The banal, the usual, the everyday, were normally the first to disappear, to cease being perceived, but technological mediation allowed a renewal of the perception. In this sense, microphones and recorders were tools that raise sound awareness.

Within this framework, the example of Joseph-Maurice Bourot, a scientist from Poitiers, is illuminating. Much of his work for the different editions of the IARC he participated in the 1950s, was based on the amplification of very soft sounds. That is, he relied on a certain aspect of the sound chain. He did not simply use the recorder; he searched for specific arrangements and methods in the use of the microphone and amplifier to record sounds that were normally below the threshold of the human ear, such as the cracking of a wood pile in an attic, the movements of a chick in its egg, with its heart beating.[75] In a way, Bourot applied, ten years before the *Traité des objets musicaux*, the instructions of Pierre Schaeffer: to use machines to practice how to hear better.[76]

Moreover, specific microphones can render sounds audible that remain inaccessible to the human ear (like sounds in the ultrasonic range or accelerometers to detect vibrations), and through the means of amplification, even the most discreet sounds become accessible, that is, hearable. These specialised microphones were advertised in sound hobbyists' periodicals. Hence, the July 1960 issue of *Tape Recording* dedicated a full page to contact microphones, their use in a variety of professions, but also to the sonic worlds that they could open to sound enthusiasts.[77]

It is important to provide a bridge with the discussion in the second chapter, where I identify the operational chain which fostered links at each technological change. Each link should be conceived as a new site of mediation or a new site of affordance for the sound engineer / sound tinkerer. Another aspect resulting from the translation operated by sound technologies must also be noted: the development of specific sonic skills, which can be described as a technicisation of listening. Hear, for instance, the former sound engineer Daniel J. Levitin:

> "I found work as a producer of other bands. I learned to hear things I had never heard before: the difference between one microphone and another, even between one brand of recording tape and another (Ampex 456 tape had a characteristic "bump" in the low-frequency range, Scotch 250 had a characteristic crispness in the high frequencies, and Agfa 467 a lustre in the midrange).

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[74] *Ibid*., 24.

[75] Joseph-Maurice Bourot, *Un tas de bois… vous parle* (presented at the 1954 IARC),

[76] Pierre Schaeffer, *Traité Des Objets Musicaux : Essai Interdisciplines* (Paris: Seuil, 1966), 66.

[77] "Contact microphones," *Tape Recording*, 13 July 1960, 19 (between November 1959 until December 1960, *Tape Recording* was issued fortnightly, hence the additional precision in the date).

> Once I knew what to listen for, I could tell Ampex from Scotch or Agfa tape as easily as I could tell an apple from a pear or an orange."[78]

That example clearly shows that such a technicisation of the ear consists in listening to specific details of sound, beyond its content – here, the instrument and the music that Levitin was recording, for example – to determine new information. It is an example of acoustemology, to use a word created by the anthropologist Steven Feld: "Acoustemology "conjoins 'acoustics' and 'epistemology' to theorise sound as a way of knowing. In doing so, acoustemology inquiries into what is knowable and how it becomes known, through sounding and listening."[79] Levitin's specialised ear is able to access more levels of interpretation than the mundane listener. He has learnt to use a specific method to look for specific details in whatever is being recorded ("once I knew what to listen for"), and these details inform him on elements beyond what is being recorded (the brand of the tape). Audiophiles that prefer valve-based amplifiers instead of transistor ones because of precise sonic details act similarly: certain technologies translate in certain ways. That ability to navigate between these different levels is a form of sensory selectivity.[80] This selectivity was not limited to the sense of hearing. On some aspects, the translation operated by technology could be felt beforehand physically, giving information on its possibilities and qualities. Thus, each type of tape had its touch, its peculiar feeling under the fingers: some were silky, others were rough or sweet. The tape manufactured by Pyral had a purple colour and a distinctive smell. Moreover, the thickness also varied, and the thinner the tape, the more prone it was to getting tangled and the more difficult it was to manipulate it.[81]

Going back to listening, the classification of listening modes elaborated by Karin Bijsterveld in her *Sonic Skills* book, and her useful partition of these modes in purposes of listening (monitory, diagnostic, exploratory) and ways of listening (analytic, synthetic, interactive) helps to capture how a sound engineer like Levitin worked. The analysis of listening modes established by Bijsterveld helps because, together the acoustemology, it stays level with the practice by offering intentions that allow to follow this practice and its operational chain. As Bijsterveld studies listening practices in science, technology, and medicine, her modes are embedded in a distinctive cultural context. We could say that each has a particular listening habitus, acquired through the specific learning and experience of these disciplines. These listening habiti and sonic skills are embodied, as Pierre Bourdieu reminds us: "every knowledge, (…) is an act of construction implementing schemes of thought and expression. (…) A system of internalised embodied schemes which, having been constituted in

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[78]Daniel J. Levitin, *This Is Your Brain on Music: The Science of a Human Obsession* (New York: Dutton, 2006), 3.
[79] Steven Feld, "Acoustemology" in David Novak & Matt Sakakeeny (eds.), *Keywords in Sound* (Durham, NC, Duke University Press, 2015), 12-21, 12.
[80] Karin Bijsterveld, *Sonic Skills* (London: Palgrave Macmillan, 2019), 18.
[81] Claude Giovanetti interviewed in Marie Guérin, in Gilles Davidas, Alain Joubert, "Le geste magnétique," *Atelier de la Création*, France Culture, 22 January 2013.

the course of collective history, are acquired in the course of individual history and function in their practical state, for practice."[82]

The key point in relation to sound hunting and its acoustemology is that the internalisation of the embodied schemes of sound hunting in a distant past remains accessible through the recordings that have survived. But these embodied schemes also appeared through the processes by which recordings were rejected by the IARC, and through the flaws that Thévenot, *Sound*, clubs and magazines, sought sort to remove: the hum, the manipulation noises, the distortion, the bad manipulation of tape, to cite some of the most important ones. In all these, the presence of the recordists is made audible, though involuntarily in the majority of cases. And through them, it is also the technical level of these recordists that is made audible, with the progressive acquisition of skills creating traces. Taken as a whole, these recordings that exhibited flaws, allow to follow the progressive acquisition of skills. That is to say the progressive acquisition of a new listening habitus: to be able to hear that there is a hum on the recording, that it is a flaw, that it could be removed if a specific procedure is followed,[83] or that rubbing the microphone capsule generates a lot of noise that completely covers what was supposed to be recorded, that a direct monitoring allows to realise this, and that the capsule should therefore not be manipulated. In other words, inaudible movements can generate very audible sounds, and for the acquisition of appropriate gestures, the monitoring of the recording is mandatory.

Rubbing the microphone capsule and the hum are only two examples amongst many, but they clearly foreground that the learning of sound recording consists not only in technical and listening skills, but also in learning of specific gestures and in the learning of what gestures should not be made – the embodied schemes that Bourdieu spoke of. In the chain of operations of sound recording, there are specific movements, gestures, postures that could be heard – that could be translated on the recording – and that therefore should be avoided. The listening habitus is thus also a bodily discipline. That learning-through-listening-through-technology is captured in the concept of "techoustemology" developed by the ethnomusicologist Thomas Porcello. The concept was forged to add the technological mediation to the acoustemology developed by Steven Feld. Techoustemology "foreground[s] the implication of forms of technological mediation on individuals' knowledge and interpretations of, sensations in, and consequent actions upon their acoustic environments as grounded in the specific times and places of the production and reception of sound."[84] As such, techoustemology offers a precision on how the sound hunting listening habitus was used.

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[82]Pierre Bourdieu, *La Distinction : Critique Sociale Du Jugement* (Paris: Les Éditions de Minuit, 1979), 545.
[83] The specific case of a musical use of the hum is here left aside.
[84] Thomas Porcello, "Afterword," in *Wired for Sound: Engineering and Technology in Sonic Cultures*, ed. Paul. D. Greene and Thomas Porcello (Middletown, CT: Wesleyan University Press, 2004), 269-81, 269.

This, however, does not mean that the sound hunting community had a shared attitude towards the equipment. As I showed, some sound hunters were more interested in tinkering with the audio capacity of recorders and did not actually record a lot; others were interested in the technical aspect of the choice of specific microphones, speakers, brands of tape; and others saw the equipment as only a tool to capture sounds. The level of investment in and knowledge of sound hunting acoustemology and techoustemology varied a lot.

A last point about the translation operated by technology is that it evolves through time. The medium on which sound was recorded ages, and so does the equipment that serves to reproduce it, to translate it. The media and its mediation are not stable through time. This is especially true for sound hobbyists' recordings. The usual condition of preservation for amateurs are an attic or a cellar, without any temperature or humidity control. Yet, nitrate cellulose discs, wax cylinders, are sensible to humidity. Here, the evolution of the materials used to build discs has its importance. Discs with a cardboard core, while cheaper by then, were more durable, because cardboard warps at the same speed as nitrate cellulose: the disc warps but remains hearable. On the contrary, with aluminium core discs, only the nitrate cellulose layer warps, and finally cracks because the aluminium stays fit. Moreover, once retrieved, they require specific treatment to clean them. A usual reflex could be to use water or alcohol. If the impact of water is debated, alcohol definitely alters, in a non-reversible way, the surface of nitrate cellulose discs and cylinders.[85] Unearthed recordings could therefore be lost as they are cleaned. With respect to tape, the presence of a magnet will erase it, and the use of iron-based object to manipulate it will also alter the signal that its magnetic coating bears. Depending on the brand and of the type, tape can also be fragile and subject to shedding.[86] The material properties of the equipment and how they are subsequently handled can alter the content. The ageing of the material is an ageing of the recording, and an understanding of the material tradition of the media allows correct manipulation.[87]

Because of this materiality, the ageing of the media is hearable and brings its own 'aura.' As I will show in the next chapter, in an old recording, media-referential noises are expected by the listener, as a mark of the age of the recording.[88] Heard now, these documents have a distinctive aesthetic, an aesthetic that is anticipated by the contemporary listener, as a proof of the age of the recording. Therefore, it influences what one hears, and how one will listen. Recently, musicology has started to study recordings, especially early recordings, as ways to access how music was played

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[85] Peter Copeland, *Manuel of Analogue Sound Restoration Techniques* (London: British Library, 2008), 319-20.
[86] See this blog post of the Media Digitization and Preservation Initiative of Indiana University Bloomington for an example: https://blogs.iu.edu/mdpi/2017/11/14/where-the-wild-things-are-audio-oddities-at-iu-part-1-tapes/ (accessed 20/06/2022).
[87] Brian Kane, "Relays: Audiotape, Material Affordances, and Cultural Practice," *Twentieth-Century Music* 14, no. 1 (2017): 65–75, 72-3.
[88] Patricia Jäggi, *Im Rauschen der Schweizer Alpen* (Bielefeld: transcript Verlag, 2020), 166, 218-9.

and how it reflects the thought processes behind it.[89] This investigation is also about the influence of available technology on what was recorded and how it was recorded, and therefore the influence of technology on what one listens to now. Sound recorders of the beginning of twentieth century lacked precision, dynamic, and were not always reliable. One does not hear what was recorded, and what reaches us is an altered archive.

4.2.3. Clubs as training centres for creating sounds and listening in

The availability of affordable tape recorders opened up the practice of recording to more people. However, I have shown in the second chapter how technical the operation of a tape recorder could be, and I have presented in the previous sections the numerous letters received by the French and British magazines, but also by French and British Radios, from readers and listeners eager to learn how to use their equipment.[90] Sound hunters were not necessarily always aware of the 'translation' operated by the mediation of sound technologies: : they did not all comprehend immediately the affordances of the technology. To teach all these aspects, the rise of clubs and of specialised periodicals allowed the newcomers to learn how to approach sound and listening through recording. In that way, they were preconditions for the creation and extension of sound hunting as a common cultural practice.

As I showed in the second chapter, the field of sound engineering was becoming more structured in the fifties and sixties. In that context, clubs were a privileged place where someone interested in sound and sound recording could learn how to operate their recorder, how to perform a recording, how to edit, how to classify a sound or recording library. This training started early. In France, as soon as the creation of the *Association Des Amateurs de l'Enregistrement Sonore* in 1949, a *Cercle des Études Techniques* [Technical Studies Group] was formed, where courses on various technical subjects were offered to the members of the association every fortnight. These courses were taught by knowledgeable members and were advertised by Thévenot at the end of his programme, together with a call to amateurs to send their recordings.[91] These knowledgeable members came in partly from radio. The BBC had its own internal training department, and some members of the Corporation were also members of clubs, with, for example, Ken Geen, being a technical operator at the BBC and active member of the Cardiff Tape Recording Club, where he passed on his knowledge:

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[89] See notably the AHRC funded network, *Redefining Early Recordings as Sources for Performance Practice and History*: https://early-recordings.com/ (accessed 18/07/2021).

[90] See *Amateur Tape Recording*, August 1959, 8-9, or Douglas Walters "OK for Sound," *Radio Times*, 30 January 1959, for example.

[91] The advertising of the ADAES and after of the AFDERS activities continued until Thévenot split with them and created the AFCS in the beginning of the 1960s.

"my professional side went hand in hand with the amateur club members because I could pass on to them the knowledge I gained in my career and their enthusiasm rubbed off on me!"[92] Similar exchanges existed in France, where people working within Radio during the day turned to clubs during the evening. Moreover, as shown by the first years of *On grave à domicile* and *Aux Quatre Vents*, such exchanges existed even before the clubs were formed. Thus Pierre Tchernia, who worked at the Club d'Essai, was a regular collaborator of a Parisian group of sound recording hobbyists who gathered at the home studio of Jan Mees.[93] Another source of knowledge about sound recording came from ham and radio and electronic technicians. I have explored in a previous chapter the close relationship that radio operators and sound hunters shared when Thévenot launched his programme and the ADAES. Furthermore, the survey conducted by the BBC with the listeners of *Sound*, which I presented at the beginning of this section, shows that electrical and electronics professions were dominant; that a quarter of the respondents had built their recorders from kits; and that a third had customised their equipment.[94] Finally, literature was also available to train the novice, in both French and English. This already existed in the days of the phonograph, as detailed in the second chapter. With the advent of the tape recorder, and before the advent of sound recording clubs, new handbooks appeared,[95] and some of these were reprinted several times.[96] The BBC edited his own manual,[97] and amateurs themselves wrote some.[98] The handbooks offered similar content, including: notions of acoustics, a detailing of types of microphones, information on the general use of a tape recorder, and instruction on how to perform a recording and how to edit. They differed on the level of technicity provided (in acoustics and electronics), on the presence of tutorials to record sound effects, and on the extent of the guidance with respect to organising record sessions.

Therefore, the activities proposed within the French and British clubs built on an existing substrate. These clubs had the advantage of a direct sociality, with face to face exchanges where one

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[92] Interview with Ken Geen, 28 September 2020. The Cardiff club was formed in 1961 and Geen joined a few years later.

[93] *Aux Quatre Vents*, September 1950.

[94] Sound? Break-down by occupation of sample of 103 listeners, undated (but within documents of May 1960). BBC WAC R51/981/1.

[95] Pierre Hémardinquer, *Le fil, le film et le ruban sonore. Enregistrement et reproduction magnétiques des sons. Technique, pratique, applications* (Limoges: Éditions des Imprimeries Techniques, 1948); William D. Groover, *Construisez votre magnétophone* (Paris: Éditions Gead, 1951); Bernards Radio Series n°114, *An Inexpensive Tape Recorder* (London: Bernards Ltd., 1953); Reginald E. B. Hickman, *Magnetic Recording Handbook. Theory, Practice, and Service of Domestic and Professional Tape and Wire Recorders* (London: George Newnes, 1956); William C. Brown, *Practical Tape Recording Manual* (London: Bernards Ltd., 1958).

[96] The manual from Percival J. Guy, *How to Get the Best Out of Your Tape Recorder* (London: Norman Price, 1958), was reprinted four times during the 1960s.

[97] *BBC Recording Training Manual* (London: British Broadcasting Corporation, 1950).

[98] Claude Gendre, *Le magnétophone et l'enseignement audio-visuel* (Paris: Éditions Chiron, 1966). Gendre was a teacher and sound hunter.

could be supervised as they tinkered, learnt to edit, or tried different models of recorders and microphones before an eventual purchase. Their presence helped disseminate the practice of sound recording and techniques of listening, the learning of sonic skills. Lessons were offered on technical details, on recording and editing training; new equipment was showcased by members or by representatives from manufacturers; listening sessions of members' work or of commercial recordings were organised; instructions in electronics were provided; external speakers were invited. Each club had its own programme of activities (figures 28 and 29). Moreover, with tape recorders and tapes expensive to purchase, clubs were also a place where people could practice or borrow equipment without the need of owning a recorder.[99] Clubs were places where the sound hobbyist could bring their recorder for servicing and fine tuning. A similar shared set of aims was also organised for wildlife recordings, through competitions[100] and workshops organised directly by the BBC, and through the establishment of the Wildlife Sound Recording Society in Britain in 1968, which had a close relationship with the BBC.[101] The Vice-Chairman of the Society, Richard Margoschis, had a monthly column in *Tape Recording* about nature recording, and he won prizes at the British sound recording contest on several occasions.[102] This shows again how fluid was the circulation of people and knowledge between radio professionals and the network of sound recording hobbyists.

Members of the clubs were in demand of technical knowledge. They asked for practical meetings where they could be trained in soldering, in constructing their equipment, in splicing and editing tapes. Besides these courses, members demanded technical demonstration, outdoor visits, and collaboration with local organisations.[103]

[99] Interview with Keith Upton, 2 April 2021.

[100] The competitions had several categories: bird, mammal, insect, amphibian, and atmosphere (sounds of the atmosphere, like rain, storm or wind).

[101] Desmond Hawkins, controller of the BBC South and West Region was the Honorary Secretary of the Society.

[102] That column existed from 1968 until the end of the magazine. Due to the Covid-19 pandemic I have not been able to access any issue of *Sound & Picture Tape Recording Magazine*, the new name of *Tape Recording* from April 1971. I therefore cannot confirm the presence of Margoschis in the renewed team of the magazine at the moment.

[103] *Tape Recording*, 13 July 1960, 31, for instance.

DERBY TAPE RECORDING CLUB. PROGRAMMES.

27TH SEPT.1967.

"All Your Own" — Mr. D. Land
Competition — Open subject.
Live Recording — "The Silhouettes"

11TH OCT. 1967.

"All Your Own" and Demonstration of Tape Recorder — Mr. D. Hill
Quiz. — Miss Buchan
This and That. — Mr. Stanway
"What's my line" — Mr. Hayhoe
Original Limerick on Tape Recording (5 lines) — Members.

25TH OCT.1967.

"All Your Own" — Mrs. D. Land
Competition — "Dial 999"
This and That — Mr. A. Stanway
Scripts for Group Activities.
Dubbing from Club Machine.

8TH NOV.1967.

"All Your Own" — Mr. M. Nichols
Quiz. — Mr. Hayhoe
This and That — Mr. A. Stanway
Guest Speaker — Mr. Tailby, Messrs. Victor Bucklands Ltd.

22ND NOV. 1967. LADIES NIGHT.

29TH NOV.1967. ANNUAL DINNER - MARKEATON HOTEL.

6TH DEC.1967.

"All Your Own" — Mrs. V. Barlow
Subject Tape — "Comic News Bulletin"
This and That — Mr. A. Stanway
"What's my line" — Mr. Town
Cinè Film with sound on stripe — Mr. D. Flecknoe

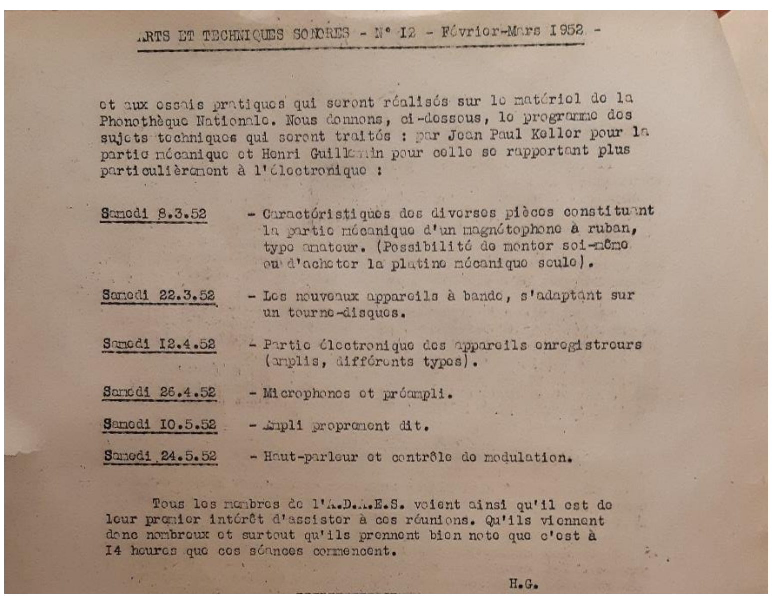
20TH DEC.1967.

"All Your Own" — Miss Johnson
Quiz. — Mr. Martin Stanway
This and That — Mr. A. Stanway
"Face the Music" — Mr. D. Hill

3RD JAN. 1968. NEW YEAR'S PARTY, but including competition tape "Christmas".

ANNUAL COMPETITION - SUBJECT "WINTER" 7 minutes max. Mono 3.3/4".
Entries to be in by March 15th 1968.

Figure 28: Derby Tape Recording Club, programme of activities, last quarter 1967.
Mark Vernon collection.



ARTS ET TECHNIQUES SONORES - N° 12 - Février-Mars 1952 -

et aux essais pratiques qui seront réalisés sur le matériel de la Phonothèque Nationale. Nous donnons, ci-dessous, le programme des sujets techniques qui seront traités : par Jean Paul Keller pour la partie mécanique et Henri Guillemin pour celle se rapportant plus particulièrement à l'électronique :

Samedi 8.3.52 - Caractéristiques des diverses pièces constituant la partie mécanique d'un magnétophone à ruban, type amateur. (Possibilité de monter soi-même ou d'acheter la platine mécanique seule).

Samedi 22.3.52 - Les nouveaux appareils à bande, s'adaptant sur un tourne-disques.

Samedi 12.4.52 - Partie électronique des appareils enregistreurs (amplis, différents types).

Samedi 26.4.52 - Microphones et préampli.

Samedi 10.5.52 - Ampli proprement dit.

Samedi 24.5.52 - Haut-parleur et contrôle de modulation.

Tous les membres de l'A.D.A.E.S. voient ainsi qu'il est de leur premier intérêt d'assister à ces réunions. Qu'ils viennent donc nombreux et surtout qu'ils prennent bien note que c'est à 14 heures que ces séances commencent.

H.G.

Figure 29: Association Des Amateurs de l'Enregistrement Sonore. Programme of activities of the Cercle d'Études Techniques, March to May 1952.
Arts et Techniques Sonores, February-March 1952.

In Britain, beyond clubs, national courses were also offered, with the BBC and its Radiophonic Workshop often involved. For instance, the week-long Third National Tape Recording Course proposed by the Rose Bruford Training College in 1960, offered sessions with Frederick Charles Judd, Ivor W. Jarman – who was also part of *Sound* – and John Borwick in studio operations, editing and technical skills. Daphne Oram was also present to provide instructions on how to record musical instruments and choirs, and create electronic effects, while Desmond Briscoe, Geoffrey Hodgson and Graham Jones covered the production of a studio drama. The programme was completed by Richard Burwood and Jack Singleton who showcased how to record outdoors with the aim of contributing to magazine programmes.[104]

In tandem with these activities, magazines also brought support to the community on a wide range of subjects, and at a variety of levels. This support was most of the time done through tutorials, with the magazine format allowing more specific subjects to be explored, in comparison with books. The first issue of *Amateur Tape Recording* presented a definition of the essential vocabulary of audio (cycles per second, frequency response, input, mixing, etc.);[105] the September 1959 issue of *Tape Recorder* explained how to record aircrafts and atmosphere sounds;[106] the June 1960 issue of *Tape Recording* presented contact microphones and their possibilities;[107] while the August 1957 issue of *Tape Recording* presented an article about insect sounds.[108] The June 1960 issue of *Tape Recording* offered nearly ten pages on microphones characteristics and microphone reviews. These tutorials also went beyond recording techniques, such as in the September 1964 issue of *Amateur Tape Recording* where a tutorial explained how to build a recording studio,[109] or the May 1969 issue of *Tape Recording*, where an article detailed specific ways of listening. Remarkably, this last article suggested ways of listening that would be at the core of the yet to come spectral music, pointing to spectrum analysis of sound, time, perception, timbre, and sound stream questions.[110] These examples are

[104] *Tape Recording*, vol.3 n°14, 2 December 1959, 31. The magazine was published fortnightly at that time, hence the additional precision in its reference.

[105] *Amateur Tape Recording*, August 1959, 20. 'Hertz' as the standard unit for frequency was adopted in 1960. The older name of 'cycle per second' continued to be used in the sixties and is the one we come across most often in the magazines.

[106] B.W. Read, "Build a Library of Sound Effects," *Tape Recorder*, September 1959, 338-9.

[107] 'Contact microphones,' *Tape Recording*, 13th June 1960, 19.

[108] Dennis Leston, "How to Record Insect Sounds," *Tape Recording*, August 1957, 14-5.

[109] Ken Thompson, "Building a Studio," *Amateur Tape Recording*, September 1964, 23-4.

[110] Cyril Clouts, "Project Alpha," *Tape Recording*, May 1959, 162+. Spectral music is a current in contemporary music that developed in the 1970s initially in France, around composers Gérard Grisey, Tristan Murail, Michaël Levinas, Roger Tessier and Hugues Dufourt. Taking advantage of the new tools of sound analysis brought by computers, it is based on spectral analysis and synthesis of sound.

taken from the British press, but similar tutorials occurred in France.[111] More specifically in British magazines, letters to the editor were also a privileged space to deliver precise explanations.

As a result, clubs, magazines, and books helped novices turn an individual and possibly fragmentary operational understanding into a common body of expertise. Part of this was the learning of a specific vocabulary. Thomas Porcello has shown that the way of speaking about sound is constitutive of sound engineering.[112] As a related practice, sound hunting used the same jargon of listening (how to describe sounds) and sound recording (the translation operated by sound recording technologies), but also of the equipment (the description and the parts of the tape recorder, of the mixer, of the microphone, etc.). That aspect of vocabulary is far from anecdotal, as naming helps to identify and fix a common referential. The proper or improper use of the vocabulary is also important socially for people to be recognised as an insider or an outsider.[113] All British and French magazines dedicated series to teach the essential vocabulary of sound recording.[114] Clubs, magazines and books were a vector of ear training, and for the dissemination of knowledge about the equipment and its affordances, about listening and sound recording, within the community. This one, because it was a grouping of knowledge, was able to take the individual to the next level.

For people in need of sound-related information or service, clubs were identified as places where the knowledge, the people, and the equipment, were. In Britain, this was important, as places for electronic music and *musique concrète* were rare. In 1968, an unidentified author wrote in *Tape Recording* about

> "the absolute lack of facilities for such work in this country. If you, a private individual, wanted to experiment in this medium there is not a single studio in the United Kingdom that would be open to you. On the Continent and in the United States of America, things are very different. Not only do a large number of studios exist but many of them are state subsided. But in the UK, nothing. That country has always been notoriously niggardly in its support for the arts so it is hardly surprising that electronic music should be totally ignored."[115]

Indeed, in his *Répertoire international des musiques électroacoustiques*, published the same year of this critic, Hugh Davies mentioned – besides the studios of the BBC[116] – only three "improvised

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[111] See for instance : "Le microphone : principes et types," *Le Magnétophone*, July-August 1959, 14-6; "La stéréophonie," *Le Magnétophone*, January-February 1960, 28-9 ; "Sons et chants des poissons," *Le Magnétophone*, April 1967, 9-13.

[112] Thomas Porcello, "Speaking of Sound: Language and the Professionalization of Sound-Recording Engineers," *Social Studies of Science* 34(5), 2004: 733–58.

[113] *Ibid*., 748.

[114] For instance, "Essential Vocabulary," *Amateur Tape Recording*, August 1959, 20; "L'ABC du magnétophone : le son," *Le Magnétophone*, May-June 1959, 23.

[115] "Cross Talks," *Tape Recording*, July 1968, 298.

[116] But I have shown what the attitude of the BBC was towards sound hunters.

official studios”: the one of John Boyden Recordings Ltd., Stagesound and Parlophone, all three in London. Two “permanent official studios” are listed, but not yet opened at the time Davies wrote.[117] Besides them, 26 private studios, either permanent or improvised, opened by individuals are listed.[118] Tape recording clubs are not part of Davies’ list, because his aim was to “document all the electronic music ever composed,” and as such, “the only restriction has been the decision not to include sound effects, such as montages made in school classrooms, for amateur tape recording competitions, mood music, effects for film, radio, and TV, and other similar applications.” For Davies, this last list “do[es] not really come under the heading of musical composition.”[119] That aesthetic point of how categorise the work of sound hobbyists will be examined in the next chapter, but the point here is to show that tape recording clubs held a place of importance for individuals in Britain who wanted to start dabbling with electronic music, or want to compose pieces but did not have the mean or space to acquire the necessary equipment.

In that context, clubs were identified as good outlets for specialised audio needs. Hence, the Cardiff Tape Recording Club had a range of different clients between the 1960s and the 1990s, including the Cardiff City Council that called on them for the recording of the Cardiff Searchlight Tattoo from 1968 until the end of the event in 1992.[120] The event was the biggest of its kind in Britain, with hundreds of military bandsmen marching and playing within the walls of Cardiff Castle, plus demonstrations of battles and other military activities. This calls for a high level of professionalism from the Club and its members. In Switzerland, when Thévenot looked in 1977 at the situation of the past 25 years, he noted that sound hunters were regularly recruited by radio for recording works.[121]

Club members were aware of the quality of their work. As I have shown, they were in touch with people working at radio institutions and within the industry (representatives often visited the clubs to showcase their new equipment), they were listening to radio, and had many examples to which they could compare their work. Sometimes members were even more competent than the industry representatives that often visited the clubs. They could therefore affirm and justify their motto of “The sound amateurs with a professional approach” (figure 30).

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[117] One in the Adwick High School and one in the Middlesbrough College of Art.

[118] Hugh Davies, *Répertoire Internationale des Musiques électroacoustiques* (Paris and Trumansburg, NY: MIT Press, 1968), 154-68.

[119] *Ibid*., iv.

[120] Interview with Ken Geen, 28 September 2020.

[121] Jean Thévenot, “Amateurs et professionnels : conflit ou coopération ?” *Hi-Fi Stéréo*, May 1977.

Figure 30: A meeting of the Federation of British Tape Recording Club in Torquay. The sign reads: "FBTR – The sound amateurs with a professional approach."
Brighton Tape Recording Club archive.

A clear example of this is given by Marcel Cellier, who was a Swiss trader in ores and metals, but also a musician, ethnomusicologist, and sound hunter. From the 1950s, thanks to his job, he was allowed to travel regularly behind the Iron Curtain, mostly in Romania and Bulgaria. He soon started to record the traditional musicians he met. Interviewed by Thévenot in 1970, he defined himself as an amateur sound recordist, saying that "sound recording does not feed its man."[122] Still, by the time of the interview, he had already won two Grand Prix of the Académie Charles Cros, with one revealing the flute virtuoso Gheorghe Zhamfir, and he would win a third Grand Prix the following year.[123] At that time, he had also started to record women choirs in Romania, notably the Bulgarian State Radio and Television Female Vocal Choir, a work that he would publish as *Le Mystère des Voix Bulgares* [The Mystery of Bulgarian Voices] five years later, in 1975. The disc acquired a worldwide fame through the years, and was acclaimed by people like George Harrison, David

[122] Marcel Cellier interviewed by Jean Thévenot, *Du laboratoire au violon d'Ingres*, 5 December 1970.
[123] The Grand Prix de l'Académie Charles Cros is still active to this day and is one of the main awards for discs in France.

Bowie, Kate Bush and Bobby McFerrin.[124] Cellier could achieve this because his recordings were of high quality, even 'professional,' based on a precise methodology that regulated the choosing of the spaces where to record, the choice and location of the microphones, the monitoring of the levels, the editing of the recordings. It was the quality of the musicians he worked with, together with this working discipline, that earned him three Grand Prix of the Académie Charles Cros, and a Grammy Award in 1989 for the second volume of *Le Mystère des Voix Bulgares*. All this was achieved while sound recording was his spare time activity, his hobby. The figure 31 shows Marcel Cellier during one of his recording trips in Romania.

Figure 31: Marcel Cellier recording on Mount Gaina, Romania, in 1972.
Picture by Catherine Cellier.

[124] Robin Denselow, "'We feel like cosmic rain": how the *Mystery of the Bulgarian Voices* became global stars." *The Guardian*, 6 June 2019. https://www.theguardian.com/music/2019/jun/06/we-fall-like-cosmic-rain-how-the-mystery-of-the-bulgarian-voices-became-global-stars (accessed 20/06/2020).

4.3. The disciplinarity of sound hunting

4.3.1. Discipline, and the organisation and transmission of knowledge

I identified the audile culture of sound hunting as a shared attitude toward listening, toward sound recording, and toward the equipment: "the alliance of gestures, knowledge, and beliefs that constitute a way of cultural consumption."[125] I argue that sound hunters were following a discipline that was taught through the different forms of sociality that constituted their community, as they manifested in clubs, magazines, radio programmes. One could argue that a disciplinarity requires the formation and stabilisation of canons of knowledge, all things that are not compatible with an activity practiced as a hobby. I would nonetheless claim that through the magazines, the radio programmes, and the clubs, a *specific knowledge*, and particular modes of action about listening, about sound, and about sound recording, formed, and eventually led to this knowledge being used in standardised ways by amateurs. A whole body of works was produced and published, novices were trained in precise methods, with series of tutorials detailing these methods in the magazines. Listeners of *Sound* could experience these very methods in the already mentioned series where a young woman was trained by a sound engineer of the BBC. Worded differently, the activities analysed in the previous sections form an ensemble of bodily skills, material apparatus, and formal instruction. That common practice of being a sound hunter was established and shared within the community of sound hunters and passed on. Following the historian of science Jan Golinski, I identify these elements as social and instrumental regimes that expressed a discipline.[126] And this common practice created the sound hunter as a "professional listener,"[127] who was capable of inducting the novice listener / amateur sound recordist.

The activities of the clubs described in the magazines suggest that a common set of practices was taught, that common techniques and the embodiment of these techniques were explained, that common instruments were used, that common ways of working were demonstrated, that common values were promoted. The clubs answered a need that was not new. In 1948, when the British Sound Recording Association started to reconvene, its president, W. S. Barrell, pointed out that: "In the past our profession has been badly hindered by the lack of a suitable place where these discussions could take place and where our common problems could be chewed over. Here, then is the *raison d'être* of this Association. As yet young in years, it gives opportunity to provide those needs."[128]

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[125] R. Debray, *Introduction à la médiologie*, 156.

[126] Jan Golinski, *Making Natural Knowledge: Constructivism and the History of Science* (Chicago: University of Chicago Press, 2005 [1998], 77

[127] Graham Harris, "A Touch of Old Safari," *Amateur Tape Recording*, August 1967, 13.

[128] W. S. Barrell, "Sound Recording – Today and Tomorrow," *Sound Recording* 3, no. 4 (1948): 68-71, 71.

The mediological analysis that I proposed for the Thévenot collection in the first part of this chapter can be extended to the formation and organisation of the whole sound hunting community. Following Debray, the collective elaborations around sound recording described in the previous chapter can be approached through the binomial organised matter / materialised organisation. The first are "arrangements of communication:" the magazines, the flyers and programmes of the clubs, the press releases and advertisements of the contests, but also the sound libraries built within clubs and by Thévenot through his programme. Each had its own spread mechanism and was embedded with meaning (the description of these elements was detailed in the third chapter). The second part, materialised organisation, designates the "arrangements of community." These are "the diverse forms of cohesion uniting the human operators of a transmission:"[129] the clubs, the national and international federations, the Radios that were involved through certain of their employees (the different socialities described in the third chapter).

Building on this, this chapter considered, relying on Debray's theory, how the aim of a materialised organisation is to gather, to settle, to make last [*faire groupe*, *faire lieu*, *faire durer*].[130] To make last is to make the ephemeral durable, to stabilise events in time in order to elaborate a tradition. I have shown in the first part of this chapter that Thévenot aimed to create sound hunting as a tradition that would last, including via his processing of archiving sounds. To reinforce this tradition, he produced commemorative episodes of his own programme to celebrate ten and twenty anniversaries. In 1961, his proposal for the Prix Italia, *Pris sur le vif*, was subtitled *Anthologie de l'enregistrement d'amateurs français* [Anthology of French amateurs' sound recording] and was a real anthology of French sound hunting. Through it, beyond the recordings, a history was narrated, a narrative was created (with the limits and bias that I have presented in the first part of this chapter), and a sound hunting tradition was established. The same was done with the International Amateur Recording Contest, by him, but also by the *Fédération Internationale des Chasseurs de Sons*. In each yearly compilations that were edited from 1989 to present the winning entries, one or several tracks were added to celebrate past Grand Prix. Thévenot's successors pursued his memory work in celebrating the anniversaries of the programme and of the international contest. Through all these elements, a process of self-identification that was put in place. The aim was to set historical markers that could be used as references – and should be used as such, at least by members of the community. This self-identification was also an historicization of the practice.

To settle is to trace limits. This is an important feature, because as put by Golinski, "discipline formation requires the consolidation of a community that shares a particular model of practice which in turn implies modes of regulating behaviour that may have had wider applications."[131]

[129] R. Debray, *Transmettre*, 30.
[130] R. Debray, *Introduction à la médiologie*, 28-9.
[131] J. Golinski, *Making Natural Knowledge*, 69.

Users defined and policed the boundaries of their disciplines. From that perspective, the position of the BBC toward sound hunting, the quarrels between Thévenot and the AFDERS, between Thévenot and the FICS, and within the FICS – all described in the previous chapter –, appear under a new light. They were not only quarrels between these people's ego, but also the marks of major discrepancies on what 'sound hunting' was and what it was not, on how the field should be regulated (that the jury of the IARC should be formed of professionals, for Thévenot and Monnat), and on the relation sound hunting should have with others, notably Radio (that is, how national radio broadcasters provided support to sound hunting). That is, they were essentially divergences on the boundaries of sound hunting and on its negotiations. The contests, especially the IARC, also helped define the categories and rules that were to be followed within national and local clubs if one wanted to participate in the international contest: "disciplinary boundaries (…) became a structuring feature."[132] Hugh Davies followed similar 'boundary rules' in his *Répertoire International des Musiques Électroacoustiques* when he decided not to include works made by amateurs and sound effects, despite amateurs and tape recording clubs producing electronic music pieces.[133]

To gather is to weave together affiliations and a sense of belonging. The aim is to share and sustain memory. This is the meaning of the different socialities that I described in the previous chapter. Clubs, magazines, fairs, contests, were gathering places, gathering objects, gathering events. The sound recorder itself, the technological object, can also be seen as a gathering object, an object that by itself fostered social relations between like-minded people. The radio programmes were 'temporal gatherings,' where people gathered at the same time while being at different places to listen to the same content. During this time, the French programme offered links with other hobbyists, while the British equivalent offered technical advice and links with other disciplines. Magazines also helped sound hobbyists to place their practice within the general network of sound-based activities and informed them about the other uses of the tape recorder (including non-sound-based uses). The evolution of the magazines can be seen as a move toward other nodes of sound practice, with different affiliations and a different sense of belonging. Thus, *Amateur Tape Recording*, which merged with *Hifi Sound* in 1967, focused on high-fidelity listening equipment; while in 1970 *Tape Recorder* evolved into *Studio Sound*, progressively leaving its amateur origin for professional environments.

In Debray's description, the organisation of a system of knowledge transmission is simultaneous with the formation of an ensemble of representations and an ensemble of institutions. However, in sound hunting, the latter was much less developed than the former. A process of institutionalisation began when the ADAES was housed at the Phonothèque Nationale, a national institution inherited from the former Musée de la Parole et du Geste, and before from the Archives de la Parole. This

[132] J. Golinski, *Making Natural Knowledge*, 67.
[133] H. Davies, *Répertoire International des Musiques Électroacoustiques*, iv.

link with a heritage function was more than a coincidence. As seen in the previous chapter and in the first part of this chapter, Thévenot was aware of the cultural value of amateurs' sound recordings, and of the heritage he was building through his programme. To go to the Phonothèque Nationale was a conscious move by both Thévenot and the then-director of the Phonothèque Nationale, Robert Dévigne, who was the one who proposed to house the first sound hunting association: "Isn't the Phonothèque Nationale obvious to be the house for all the accomplices of phonography?"[134] Still, the link between the ADAES / AFDERS / AFCS and the Phonothèque was never properly organised. A limited collaboration began around folkloric music with the AFCS but was never really put forward. As I detailed in the third chapter, the same happened with UNESCO. There was a similar situation in Britain. Despite the number and wealthiness of clubs, several existing until the 2000s, there was no institutionalisation of the practice. The Federation of British Tape Recording Club, who became the British Sound Recording Association in 2002, has not gathered *a history* of its clubs and activities, and no tradition was passed on.

Probably, one of the reasons sound hunting fell into such oblivion is that sound hunters found it difficult to establish fruitful collaborations. . Because following the mediological approach of transmission, an 'organised matter' (the cultural capital of sound hunting) must be supported by a 'materialised organisation.' Only what has been kept can be passed on, and to pass on knowledge and archives, an organisation that survives its members is necessary. Such an organisation also allows to pass on an identity, a cultural heritage (in which the listening habitus becomes inscribed). But there was no distribution network, neither in Britain nor France, that created the conditions for a materialised organisation to sustain sound hunting. Investments in training and knowledge acquisition were not centralised, and resources were not pooled systematically.

Thévenot was well aware of this and worked on an amateurs' sound recording library project. But his sudden death from a heart-attack at 67 interrupted it and it was not pursued. There were also attempts within the ADAES / AFDERS to build a library that could be shared, but based on the sources available, it does not seem like the project was carried on. The FICS could have built something through the archives of the contest, but such a project was never organised, and the CDs edited at each IARC were only distributed to its members. This might be the explanation to the problem of sources concerning sound hunters. Despite active national and international organisations, the material has, most of the time, remained private, inaccessible beyond the family, close circles, or clubs and federations members, because there was not an institution to collect and high-

[134] *Arts et Techniques Sonores*, December 1953, 7.

light them. Even the archive of the recordings of Thévenot's programme, stored at Inathèque, remained inaccessible to most.[135] Without that connection with larger circles, the purpose of an archive is less visible, especially when it deals with a hobby, and with a technology that dramatically changed over the course of 70 years. The cultural heritage of sound hunting stayed private and therefore barely accessible.[136]

4.3.2. "The sound amateurs with a professional approach"

The disciplinarity of sound hunting that I described above calls for a thorough analysis of the idea of the sound hobbyist. Not all amateurs were interested in sound at the same level, and therefore, not all amateurs adhered to the disciplinarity of sound hunting at the same level. Different degrees should then be introduced to describe the hobbyists and the engagement they had with their practice. For this purpose, the concept of "serious leisure" developed by Robert A. Stebbins is helpful. In his studies of hobbies, he describes three levels of participation and dedication to the practice, from dabblers, to participants, to devotees.[137] A key element to differentiate between these categories is the dedication of people *outside* the practice, that is, in the organisation of events, for knowledge transfer, for communication about their hobby. This classification also points to varying levels of passion within the practice. The more passionate, the more time, money, and space were dedicated for practice, as the figures of Freddy's home studio in the second chapter show. Because of their dedication, devotees chose to maintain a dedicated space for their practice, even if it could mean tensions with other household members.[138] By contrast, for 'dabblers,' the activity did not dominate their lives, and people could practice more for the social aspect rather than for the activity itself. On the second level, the 'participants,' people had a certain interest in the practice, but not to the extent that it occupied a major part of their time. On the third level, the 'devotees' had a passion for sound recording that drove them. Their level of knowledge and mastery was often equivalent to that of professionals.

This classification helps to better understand the difference between the hobbyists described by Bijsterveld. In her 2004 article about Dutch sound hunters, the sound hunters of the *Nederlandse*

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[135] As the recordings can only be listened on-site. Which is ironic, as the entire programme was based on submissions freely made by private individuals, but now inaccessible even to them.

[136] Johannes Müske, "Constructing Sonic Heritage: The Accumulation of Knowledge in the Context of Sound Archives," *Journal of Ethnology and Folkloristics*, 4, no. 1 (2011): 37-47.

[137] Robert A. Stebbins, *Amateurs, Professionals, and Serious Leisure* (Montreal London: McGill-Queen's University Press, 1992), 46. The culmination of fifteen years' work, Stebbins' study is based on classical musicians, actors and actresses, archaeologists, baseball players, astronomers, entertainment magicians, and football players.

[138] *Ibid*., 14.

Vereniging van Geluidsjagers, NVG [Dutch Society of Sound Hunters] could be described as 'devotees.'[139] In contrast, the ones described in her article written with Annelies Jacobs in 2013, look much more like 'dabblers' whose investment toward the practice of sound recording is comparatively low.[140] The activities described in the previous chapter were organised by a core of devotees who planned and led activities. They were joined by participants, and sometimes by dabblers. Similarly, it was mainly participants and devotees that were club members, hence the few thousand memberships in France and Britain (but also in the Netherlands, as described by Bijsterveld, and in Switzerland and Belgium), and it was only devotees that organised the clubs, and local radio programmes. To this, isolated practitioners should be added. While they usually did not participate, or only seldomly, to the activities of clubs, these were nonetheless numerous. The important print-runs of the magazines (60,000 copies for *Amateur Tape Recording*), when compared to the memberships of clubs, show that both isolated sound hobbyists and dabblers were numerous. And Thévenot was able to maintain his programme for such a long time because there was a critical mass of devotees and participants (from clubs and as isolated sound hunters). It is useful at that point to recall the amount of submissions that Thévenot received for his programme: in 1976, more than 10,000 hours of material had been received since 1948, with a ratio of one hour of recording broadcast per ten hours received.[141]

For devotees, and to a lesser extent, for participants, amateurism and professionalism were porous categories. Hence, Pierre Tchernia, who worked at the Club d'Essai, was a regular collaborator of sound hobbyists Jan Mees (future CEO of the Savonneries Lever-Astra) and Guy Tavernier (mathematics teacher). And Thévenot recruited sound hunters he met through his programme to work on other projects, for instance Jean Sartini et Daniel Madelaine for the live recording of *C'était pour rire* in 1949.[142] Dominique Calace de Ferluc, who took over *Chasseurs de Son* with Paul Robert when Thévenot disappeared, first started recording as a teenager. His first attempts, that he sent to the IARC, were not highly viewed.[143] He nonetheless pursued his work and became Thévenot's assistant in the production of *Aux Quatre Vents,* before taking charge of the programme from 1983. In Britain, Keith Upton joined the Brighton Tape Recording Club aged 16 and his interest in sound related activities developed through the club. A trained engineer, he worked in civil aviation, but also started to sell blank tapes and to record weddings. He eventually dropped his engineering job to set

[139] K. Bijsterveld, "What do I do with my tape recorder."

[140] K. Bijsterveld, and A. Jacobs, "Storing Sound-Souvenirs."

[141] Introduction to the Jean Thévenot collection. Gilles Marchandou, *Culture ; Radio France (1947-1986), Répertoire (19910681/1 – 19910681/35)* (Pierrefitte-sur-Seine: Archives Nationales, 1991), 6.

[142] Thévenot, *30 ans d'antenne*, 113. Sartini recorded on disc while Madelaine made a backup on wire.

[143] Thévenot put a note of 5/20. Calace de Ferluc was assistant accountant by then. Fiche de Dominique Calace de Ferluc, CIMES 1964. Archives JT et CdS, 19910681/24, folder 13ème CIMES – 1964, Lausanne, sub folder Fiches et textes des enregistrements retournés aux candidats.

up his own sound business, TS Professional, which still exists. Besides his company, Upton maintained his commitment within the club, by helping in the organisation of events and in the production of the radio programme the club had on the local BBC station, and by recording the audio journal that the club published each month to its members and to the members of the national federation.[144]

Generally, radios stations were important sources of requests for sound hobbyists. That was brought out during the 11th IARC in 1962, where Guy Serin, the international president of the *Union Mondiale des Voix Françaises* [French Voices Worldwide Union] interviewed the producers of the sound hunting programmes that existed in Europe and were present in Strasbourg. Six persons, from five programmes coming from four countries (Switzerland, Britain, Belgium, France) were questioned. Hence, as I have already noted, the BBC preferred programmes made by professionals speaking about recording. In Alemannic Switzerland and Belgium, radios stations tended to recruit amateurs as collaborators or correspondents, and in Switzerland in general, there was the clear orientation toward a decentralised teamwork between radio stations and amateurs, who were recruited because of their distributed location across the country.[145] Thus, sound hobbyists, most notably the devotees, moved freely between the amateur and professional domains, with professionals practicing as amateurs, and amateurs practicing as professionals. It should be reminded that all this happened in the context of the organisation and professionalisation of the sound recording field, as I described in the second chapter.[146] Writing on nature recordings, Joeri Bruyninckx has also described how the BBC was able to sustain a network of recording amateurs working on its technical standards for the supplying of wildlife recordings.[147]

The fact that amateurism in a particular field is accompanied by its professionalisation is not just a feature of the sound recording field/of sound recording. The historian of science Graeme Gooday described a similar situation for natural sciences,[148] Hugh S. Torrens has done the same for the

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[144] Interview with Keith Upton, 2 April 2021.

[145] *La Revue du Son*, January 1963.

[146] This structuring of the sound engineering field is also visible in the press, with the apparition of dedicated pro audio magazines, like *dB Magazine* (1967-1994), *Recording Engineer / Producer* (1970-1992), the transformation of *Tape Recorder* into *Studio Sound* (1970), *Modern Recording* (1975-1986).

[147] Joeri Bruyninckx, "For Science, Broadcasting, and Conservation: Wildlife Recording, the BBC, and the Consolidation of a British Library of Wildlife Sounds," *Technology and Culture* 60, no. 2S (2019): S188–215; Joeri Bruyninckx, "Trading Twitter: Amateur Recorders and Economies of Scientific Exchange at the Cornell Library of Natural Sounds," *Social Studies of Science* 45, no. 3 (2015): 344–70.

[148] Graeme Gooday, "'Nature' in the Laboratory: Domestication and Discipline with the Microscope in Victorian Life Science," *The British Journal for the History of Science* 24, no. 3 (1991): 307–41.

development of British geology,[149] as has Edward P. F. Rose.[150] The same happened with respect to the provision of radio services.[151]

Therefore, tape recording clubs and their members operated in a grey area between professionals and amateurs, filling spots where businesses were only burgeoning or non-existing. One of these burgeoning sonic activities was the renting and management of Public Address systems. As shown by Philip R. Kirby in his study of the history of recording studios in the UK, early private recording businesses were often linked to such services.[152] If Kirby does not speak about amateurs and tape recording clubs, they nonetheless offered similar services. Kirby describes how the independent sector of recording studios developed with the advent of the tape recorder and became commonplace by the mid-1960s.[153] This being, the British Sound Recording Association journal listed in 1947 twenty-two "private disc recording studios." There were described as "personal recording studios," many of which "possess[ed] facilities for mobile recording, with both direct disc and magnetic recording units."[154] However, the "personal" aspect of all these studios should be approached cautiously, as two music industry companies were listed. The first was Boosey and Hawkes London studio. The second was His Master's Voice, but with a studio that seemed peculiar, as it is listed as "H.M.V. Personal Recording Service," located at the same address as their shop in London on Oxford Street. Tape recording clubs and independent studios were therefore developing in parallel, with overlaps. Moreover, it was also during the 1950s and 1960s that the first 'home studios' appeared. Sound hunters, with their interest in sound and their tinkering abilities, were amongst the ones who had such facilities,[155] and the trade press offered tutorials explained how to build a home studio.[156] Identified amateurs such as Father Raymond Garnier, from Trouhans, or Georges Savy,

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[149] H.S. Torrens, "Notes on 'The Amateur' in the Development of British Geology," *Proceedings of the Geologists' Association* 117, no. 1 (2006): 1–8.

[150] Edward P. F. Rose, "British Pioneers of the Geology of Gibraltar, part 1: The Artilleryman Thomas James (ca 1720-1782); Infantryman Ninian Imrie of Denmuir (ca 1752-1820); and Ex-Militiaman James Smith of Jordanhill (1782-1867)," *Earth Sciences History* 32, no. 2 (2013): 252-78.

[151] Susan J. Douglas, *Listening in: Radio and the American Imagination* (Minneapolis, MN: University of Minnesota Press, 2004 [1999]).

[152] Philip R. Kirby, "The Evolution and Decline of Traditional Recording Studio," (PhD diss., University of Liverpool, 2015), 47-8.

[153] *Ibid*. 45. Kirby describes that there were only corporate studios before the 1950s, with EMI and Decca being the nearly only ones in the UK, until Pye and Philips entered the market in the 1950s.

[154] "Private Disc Recording Studios," *Sound Recording. The Official Journal of the British Sound Recording Association* 3, no. 1 (Summer 1947): 11. Though mainly in London, studios were present in Glasgow, Manchester, Liverpool, Birmingham, Yorkshire, Sussex, Dorset, Warwickshire, Cheshire.

[155] *Amateur Tape Recording* exhibited a selection of home studio from its readers in the March and December 1963 issues.

[156] Ken Thompson, "Building a Studio," *Amateur Tape Recording*, 1964, 23-4. Thompson was a member of the Millom and District Tape Recording Club.

from Carcassonne, had such a home studio and were recognised for their skills on their local level (and beyond for Father Garnier). As such, they had a real and rich sound activity besides their daily job, as priest for Garnier, and as chief electrician for the City Council of Carcassonne for Savy.[157] As for the clubs, their sound activities were most of the time offered for free.

These roles performed by sound hobbyists invite to re-examine the word 'amateur' and the place of sound hunting in the cultural history of sonic practices. Professionalism, or the conducting and delivering of a particular work in a precise, qualitative, and efficient way, was not reserved to professionals, or to a paid labour relation. The question of 'amateurism' is a complex one, which can only be understood with its professional counterpart. Amateurism could be comprehended as "a function of modern divisions of labour; when there is no employment to act as its antonym, the category loses meaning."[158] Moreover, as pointed by Ruth Finnegan in her study of amateur musicians in Milton Keynes, the "'obvious' amateur/professional distinction turns out to be a complex continuum with many different possible variations. Indeed, even the same people could be placed at different points along this line in different contexts or different stages of their lives."[159]

This perfectly sums up the life path of a sound hobbyist like Keith Upton, Marcel Cellier, Father Garnier. For Thévenot, there was no intrinsic difference between amateurs and professionals, and the use of the word amateur did not, for him, point to inferiority. Historically, amateurs and professionals were working together to form the first professional sound recording associations. The difference was that amateurs were free in their agenda and ideas, while professionals needed to stick to strict durations and themes and had an agenda to respect for their productions. Moreover, amateurs were spread all over the country and in daily contact with their environment and with people living there. They could therefore have access to recording opportunities which were not available to professionals. Thévenot was not alone in his appreciation of the value of amateurs. The sound hunter Marcel Cellier was happy to be an amateur: "this is maybe the most joyful aspect, we are free and do what pleases us, what we want to do."[160] In Britain, the specialist train recorder Peter Handford (figure 32) shared a similar view: "The amateur has an enormous advantage as having no customer to worry about he can experiment at will until he achieves a personally satisfying result."[161] Handford also worked for the cinema industry, where he collaborated with David Lean on *Summertime*, with Alfred Hitchcock on *Under Capricorn* and *Frenzy*, and won an Academy Award and a

[157] See the documentaries: Marianne Lamour, *Georges Savy, chasseur de sons*, France 3, 18 July 1974; Dany Fog, *Boulot… Credo… Sono…*, France 3 Bourgogne, 15 March 1976. That last one is available online, in French: https://www.youtube.com/watch?v=6p9les2yScc (accessed 20/04/2022).

[158] Julia Bryan-Wilson & Benjamin Piekut, 'Amateurism,' *Third Text* 34(1), 2020: 1-21, 13.

[159] Ruth Finnegan, *The Hidden Musicians: Music-Making in an English Town* (Cambridge: Cambridge University Press, 1989), 14.

[160] Marcel Cellier interviewed by Jean Thévenot, *Du laboratoire au violon d'Ingres*, 5 December 1970.

[161] Peter Handford, *Sounds of Railways and Their Recording* (Newton Abbot: David & Charles, 1980), 125.

BAFTA for his work on *Out of Africa*. He was therefore well informed of the constraints of professional work: "The best way to learn what can and cannot be done is to experiment, but such opportunities are often denied to professionals since experiments can take time and cost money, expenditures of which customers often begrudge."[162]

Figure 32: Peter Handford setting up his microphones with improvised wind shields. One can be a renowned sound recordist and use a rather strange and non-orthodox wind shield solution. Another interpretation is that the combination of a colander and stocking indeed makes an efficient and inexpensive wind shield.
Picture by Tom Weir made in 1961 for the article that The Observer published on Handford: John Gale, 'The Man the Engines Talk To…' The Observer, 5 February 1961, 34-5. (That picture was not used in the article)
Peter Handford collection. National Railway Museum. HAN/3/1.

Still, there was a divide between amateurs and professionals. As I showed, the BBC was very reluctant to open itself to the presence of amateurs, and Thévenot mentioned several times that he had to fight to defend the presence and validity of amateurs on the French airwaves.[163] Still, some

[162] *Ibid*.
[163] A good example of this is the case of André Almuró, who moved between being considered an amateur and being considered a professional several times. Now recognised as an early composer of musique concrète, Almuró started as a sound hobbyist, and won a first prize at the first IARC in 1952. The liner notes of the

of Thévenot's directors were enthusiastic about sound hobbyists. Louis Dandrel, director of France Musique in 1976-77 saw their contribution as essential, notably for programmes that were out of the ordinary. One of these was the *Jour J de la musique* [D-Day of Music], whose aim was to do an inventory of sound practices in France: that is, how French people were playing music, what and where, how it was part of their leisure. 20,000 musicians were recorded all other France that day, thanks to the sound hunters' community. "Sound hunters were the ears of Radio, but also of the Nation."[164] For Jean Deloron, Radio France Head of Sound, "sound hunters are able to find the current event that we would not be able to collect, even if we know that it exists. Radio sometimes acts in ignorance of the territory, of what is happening. The sound hunter is there, he knows."[165] It was the sound hunter's knowledge of the local that Thévenot sought to capture since the beginning. This wish was not limited to France. In Belgium, Maurice Hankard, director of the Radio in the 1950s, also praised sound hunters: "You, amateurs, you bring us fresh blood. You don't have to

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monographic disc *L'envol / Ambitus*, published by BAM in 1971, indicates that he worked with the Club d'Essai and the Centre d'Études de la Radio between 1948 and 1958 (André Almuró, *L'envol / Ambitus*, BAM LD 6018. There is no date on the sleeve nor on the disc. Discogs gives 1971, but the date 1967 sometimes appears.). This would be inconsistent with its participation to the IARC, especially as Thévenot knew very well the Club d'Essai and the Centre d'Études de la Radio, as I showed. More probably he received payment for several radio plays during that period. In the description provided by Inathèque of the broadcast on the 20th December 1953 of *Le sillage des ondes*, Almuró is described as a "solitary researcher associated to the Centre d'Études de la Radio." Almuró was a member of the Radio Club de la Maison des Lettres [Radio Club of the Humanities House] which had a studio at the Maison des Lettres, the same club that Daniel and Henri Madelaine frequented and to which they lent their equipment (see second chapter). It was there that he composed his radio plays. In a 1954 letter addressed to Thévenot, he wrote that he was at the studio only from 8pm during the week, which suggests that he had a day-job. Moreover, his radio dramas were not all broadcast, because of the very fact that he was an amateur. As he wrote to Thévenot, he suffered from his status, but the technicians' syndicates of the RTF were opposed to the use of recordings made by people not working at the Radio. (Letter from André Almuró to Thévenot, 5 February 1954. Archives JT et CdS, 19910681/3, folder Correspondance avec Radio Maroc 1953-1954. The presence of this letter in a folder dedicated to the exchange with Radio Maroc is explained by Thévenot asking him the authorisation to send his IARC piece to Radio Maroc who was working on the production of a programme similar to Aux Quatre Vents. Again, a sign that, at that time, Almuró was definitely not working at Radio, but practicing as a hobbyist.) Considered an amateur, several of his works were not broadcast, while they were accepted by the Club d'Essai. That did not discourage Almuró however, and he finally joined the RTF in 1957 within the Groupe de Recherche Musicale and started to produce his own programme dedicated to electroacoustic music in 1959, called *Ombres et Ondes* [Shadows and Waves].

[164] *Chasseurs de son stéréo*, France Musique, 2 November 1976. That was a special programme centred on a debate about "What Radio awaits from sound hunters?" with the participation of Danielle Nisieux (France Inter), Yves Jaigu (Director of France Culture and president of the jury of the 1976 national contest), Jean Deloron (Radio France Head of Sound), Louis Dandrel (Director of France Musique), Guy Cosson and Alain Trémel (both sound hunters and long-time collaborators of Thévenot's programme).

[165] *Ibid*.

thank us, but we, official Radio, have to." A 45' slot was given to a programme dedicated to amateurs' sound recordings soon after.[166]

The technical knowledge and discipline brought forward by clubs, radio programmes, periodicals and contests did not exist in isolation. Embedded in them was also a new sonic sensitivity.

4.3.3. Books, clubs, schools, contests, and the diffusion of a new sonic sensitivity

Contests, notably the IARC, were privileged sites for the diffusion of a new sonic sensitivity co-created by sound hunters and professional radio producers. These contests were covered by local and national newspapers, in France and Britain, and thus publicised the sound hunting practice. Hence, in France, the national newspaper *L'Humanité*, published, a short article to present sound hunting on the 12th of July 1978. It was described as an invitation "to the discovery of sonic life."[167] Sound hunting was represented as a way to preserve ephemeral moments, but also a way to focus on elements that are pleasing not only for the ears, but for the soul, "amidst an aggressive world."[168] Indeed, in the 1970s, an awareness about the sound environment percolated through Western societies.[169] In the same *L'Humanité* article, sound hunting was also seen as an invitation to meet people and exchange with them, "a fantastic memory machine," and as a means of collecting voices and folklore. It was, finally, "a creative tool," thanks to the possibilities opened by editing: "you construct, you mix, you play on intensity. You create from raw material, which is enthralling and very funny."[170] A few words about the IARC were given at the end of the article, with a resume of the rules and all necessary information for readers. If the content of this article is not very original and only run through the common uses of the tape recorder that I described in the introduction, its enthusiastic tone carries a form of surprise in the face of the diversity of all these uses and ultimately praises the practice. Other articles lauded sound hunting more directly:

> "While the actual radio produces amateurism without realising it, amateurs, on their side, are doing actual radio. (…) Nothing more surprising than the achievements of these sound hunters, of which the cleverest, the most poetically eccentric, the most skilful, M. Joseph-Maurice Bourot, is a true Walt Disney of the tape recorder. (…) If that is not art, it is at least radio."[171]

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[166] *Arts et Techniques Sonores*, April 1954, 8.
[167] France Rome, "Les oreilles en balade. À la découverte de la vie sonore, la chasse au son," L'Humanité, 12 July 1978, 6. The quotations are from a sound hunter named 'Dominique' (his surname is not given).
[168] *Ibid*.
[169] I will come back on this in the fifth chapter, as sound hunters were also working on that aspect.
[170] F. Rome, "Les oreilles en balade." 6.
[171] Clément Ledoux, "Amateurs, à vos postes !," *Le Canard Enchaîné*, 3 November 1954.

Tapespondence also fascinated people who did not collect sounds. Such tapespondence tapes were sometimes featured in the IARC and even won prizes, like in 1962. Because winning tapes were broadcast during the Prize ceremony, and because this one was public, spectators were able to discover them. A member of the audience was amazed:

> "This is astonishing, this is extraordinary, unbelievable… This gentleman, Guy Serin, chemist from Salvetat-sur-Agou, who sends tapes all other the world between people who speak or want to speak French… And this gentleman Pierre Guérin, who, from Sainte-Savine, gave shape to the round of children around the world. This is amazing, extraordinary…"[172]

Contests thus provided an opportunity to promote sound hunting. Discs were also edited with winning selections of the IARC, at least in France, Germany, Belgium, and Britain.[173] The first one, *Instantanés et truquages sonores* [Snapshots and Sound Effects] was a 45 rpm published in 1956 by La Voix de son Maître with English, Belgian, Danish and Swiss recordings.[174]

These contests, discs and articles, were model endeavours that could foster inspiration and imitation. The spreading of technical and social models was another aim of the specialised periodicals. The impact of the microphone and of the recorder, and of all the sound chain, together with the difference between what one hears bare-ears and through a technologically mediated listening, was detailed. In the June 1953 issue of *La Revue du Son*, in another example of the fluid and constant exchange between professionals and amateurs, the head of the sound recording department of the RTF was invited to describe and explain how to record a jazz orchestra. Seven pages were dedicated to this, from how to approach and understand the acoustic peculiarities of the venue, to the choice of microphones that were appropriated to the instruments, to the "microphonic layout" of what was recorded and to the "orchestration for the microphone."[175] Similarly, the articles where a reporter from *Amateur Tape Recording* followed the sonic peregrinations of Bob Danvers-Walker – a radio, newsreel and television announcer, who was also a sound hobbyist – offered a behaviour model.[176] Moreover, the diffusion of such models also served another purpose: to legitimate the practice. This legitimation could be important for the sound hobbyists that were practicing alone until then and could encourage them to group together.

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[172] *La Revue du Son*, December 1962.

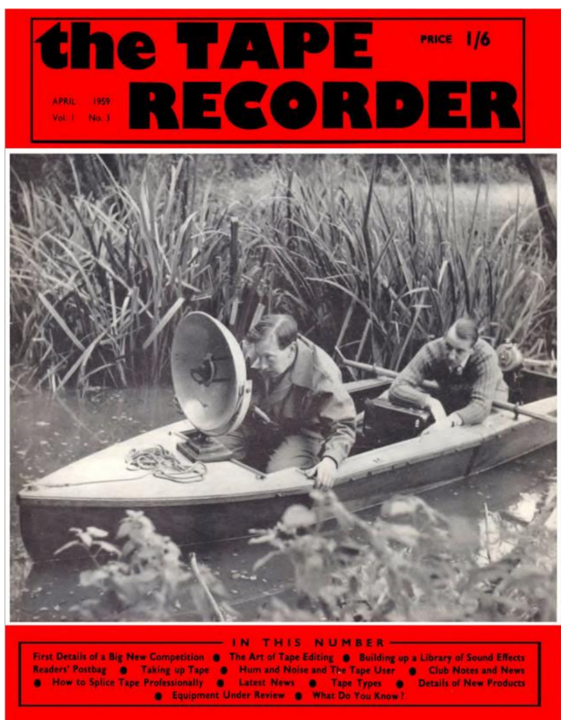
[173] Procès-verbal du 4ème congrès annuel de la FICS, Amsterdam, 28-29 octobre 1960. Archives JT et CS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 4ème Congrès de la FICS, Amsterdam, 1960.

[174] *Instantanés et truquages sonores*, La Voix de son Maître, 7 EMF 86, 1956 (Discogs indicates the date 1957).

[175] José Bernhart, "La mise en onde du grand orchestre de jazz symphonique Wal-Berg," *La Revue du Son*, June 1953, 134-40.

[176] *Amateur Tape Recording*, January 1967, 22-3; February 1967, 22-3.

In that diffusion of listening and sound recording models, the visuals were important. The editors of *Tape Recorder* immediately understood that, with spectacular and eye-catching covers (figure 33). *Le Magnétophone* also staged the tape recorder as a technological object at each cover, either through graphic design or through pictures. In contrast, *Tape Recording* had a much less attractive design (figure 33). It is also noteworthy that that staging of the tape recorder was not often used in advertisements – at least the ones published in specialised periodicals. Most of the time, the machine appears devoid of context and human presence: the recorder is presented alone, together with its main technical characteristics (figure 34). The diffusion of models of behaviour was therefore not made by the manufacturers but by the users themselves.



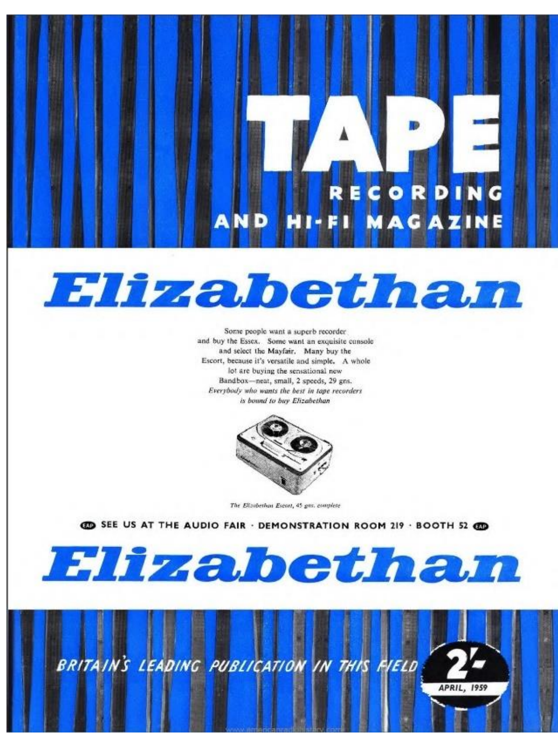


Figure 33: covers of the March 1959 issues of *Tape Recorder* and *Tape Recording*. The design approach is obviously very different.

Figure 34: two typical tape recorder advertisements. The recorders are presented in themselves, without any context. Left: Akai X-4 (*Tape Recording*, December 1965, 501). Right: Brenell Mk 5 (*Amateur Tape Recording*, February 1961, 2).

When it gained a larger popularity, the tape recorder became a commodity, which also had the consequence that it became a gift that could be offered to friends, or from parents to their children. This last point is important, as future major figures in sound recording began practicing that way. Someone like Walter Murch, future film editor and sound designer who won three Academy Awards for notably his work on *Apocalypse Now* and *The Godfather* trilogy, had his first contact with sound experiments when he was 10 (Murch was born in 1943), when the family of one of his friends acquired a tape recorder:

> Over the next few months, I made a pest of myself at that household, showing up with a variety of excuses just to be allowed to play with that miraculous machine: hanging the microphone out the window and capturing the back-alley reverberations of Manhattan, scotchtaping it to the shaft of a swing-arm lamp and rapping the bell-shaped shade with pencils, inserting into one end of a vacuum cleaner tube and shouting into the other, and so forth.[177]

Then, the Murch family acquired a Revere recorder: "I swiftly appropriated the machine into my room and started banging on lamps again and resplicing my recordings in different, more exotic combinations. I was in heaven." A few years later, while coming back from school, Murch stumbled

[177] Walter Murch, foreword to Michel Chion, *Audio-Vision: Sound on Screen* (New York: Columbia University Press, 1994), xiii.

by chance on a radio programme that was broadcasting pieces from the *Panorama de la musique concrète* disc. At this point, he realised that he was not alone in his experimentation and that actual composers of that kind of music existed. This was another turning point: it was a validation of what he was doing as a hobby. Murch would then devote himself to sound and sound design.[178]

Chris Watson, the main sound recordist famous for his work on Sir David Attenborough's natural history documentaries and founding member of the experimental music bands Cabaret Voltaire and the Hafler Trio, is another example. His history illustrates how this new sonic sensitivity spread through family agents, radio networks, and libraries. He got hooked when his parents bought him a National reel-to-reel recorder while his was 12. He first explored all the sounds of his house, before realising that his recorder could be used outside. He then started to record the birds in his garden. A few years later, like Murch, he discovered *musique concrète* on radio. If Murch was already doing his own compositions, the discovery that the tape recorder was not only a tool to document and record sound but could be also a creative instrument was a revelation for Watson. And soon after he found *Composing With Tape Recorders: Musique Concrète for Beginners*, a book by Terence Dwyer first published in 1971.[179] This book provided him with the inspiration to conduct his own experiments in sound.[180]

Radio, books, and by extension periodicals, were important agents for the diffusion of a different listening habitus. They showed what could be made possible by the use of tape recorders, and in so doing provided sound hunters with validation for what they were doing – or what they were about to start doing. Dwyer's book was reprinted four times in its first five years, showing a real public interest, which reflects how since the early 1950s, sound hobbyists were attracted by the sonic manipulations of *musique concrète*. Reporting on the sixth edition of the IARC, Thévenot noted that there was more and more *musique concrète*. But more importantly, he also remarked that it appeared now as a means of expression, rather than as an end in itself.[181] Thévenot referenced the sound games that involved playing backward or at different speeds that were often present in the first years of the IARC. Such clichés were now rare, in favour of real composition works – that is to say, works where amateurs were expressing themselves through sound, with the elaboration of a musical discourse. Thévenot made this observation in 1958, the year when Pierre Schaeffer established the Groupe de Recherches Musicales, that would become the main research centre for *musique concrète*. Therefore, while *musique concrète* was still being developed and theorised in official state-sponsored centres, and while these ones were still in the making, amateurs were practicing and a number of them, as Murch and Watson, arrived at similar results without knowing about Pierre Schaeffer and

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[178] *Ibid*., xv. Similar histories exist for cinema, for instance Jean-Pierre Melville who get hooked to it at 6, when his parents offered him a Baby-Pathé video camera.

[179] Terence Dwyer, *Composing with Tape Recorders: Musique Concrète for Beginners* (London, New York: Oxford University Press, 1971).

[180] Tom Flint, "Chris Watson: the Art of Location Recording," *Sound On Sound*, December 2018. https://www.soundonsound.com/techniques/chris-watson-art-location-recording (accessed 20/05/2022).

[181] *La Revue du Son*, December 1958, 343.

Pierre Henry.[182] As Murch says: "The tape recorder (…) encouraged play and experimentation." [183] Tape recorders, and tape as a medium, were offering up possibilities of sound manipulation that were easily accessible for someone willing to experiment, including children.

That accessible affordance of "play and experimentation" was a reason for the use of tape recorders in schools, another important site for the diffusion of a new sensitivity toward sound. This is exemplified by an article in *Tape Recording* about the Barnham County Primary School. This school had its own broadcasting studio, and every room was wired for sound so that recordings could be relayed to any part of the school. Pupils had regular exercises where they had to produce a 45' script from a given text and record it with sound effects. They visited and recorded places of interest, interviewed people. Training on the tape recorder started at the age of 4. Pupils learnt to use the recorder, but also to listen through a microphone – that is, to understand the 'translation' that it produces. They also learnt how to conduct interviews.[184] The Mortimer Wilson School in Derbyshire even made field recording in Morocco.[185] In other schools, it was electronic music and *musique concrète* that was included in the syllabus. Children were learning a discipline of listening and sound recording. However, these schools were the exceptional, as an article in *Tape Recording* reported in August 1966: a lot of schools were equipped, but the equipment was not used fully, restricted by the limited knowledge of the teachers. "That knowledge, imagination and capability is, in the vast majority of cases, sadly lacking," commented the reporter of *Tape Recording*.[186] From the schools he visited and called, the teachers could choose whether to use – or not to use – the sound recorder. If younger teachers were keener to use it, teachers from older generations were rarely aware of its possibilities and not ready to learn it.[187] Citing the *Report on Audio-Visual Aids in Higher Scientific Education*, Denis Gilbert wrote that "with some notable exception among individuals and groups of enthusiasts, most University staff seem apathetic towards, and even unaware of, the potential use of such aids."[188] As I explained in the second chapter, there was a process to learn in order to use a tape recorder correctly, and it took time. David Morton mentions this need for dedication and sees a low dedication as a reason for the seemingly lack of sound hobbyists in the US: people lacked the necessary motivation to obtain results that could motivate them to pursue the practice.[189] Here, we

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[182] Only few examples of early *musique concrète* composed by amateurs have survived and the next chapter will detail some of them.

[183] *Ibid*., xiii-xiv.

[184] *Tape Recorder*, February 1962, 11.

[185] *Tape Recording*, August 1966, 285-6.

[186] Denis Gilbert, "Tape in the Schools, or Is It?," *Tape Recording*, August 1966, 275-7, 276.

[187] To be fair to these teachers, as mentioned in the article, there was no incentive from their direction, and the ones who decided to undertake evening classes paid for them with their own money.

[188] Cited by D. Gilbert, "Tape in the Schools, or Is It?," 277.

[189] David L Morton, *Off the Record: The Technology and Culture of Sound Recording in America* (Rutgers University Press, 1999), 169.

notice again the elements that distinguished the three categories of hobbyists. There are fewer devotees (people highly inclined to devote time) than participants (people moderately inclined to devote time), and there are fewer participants than dabblers (people less inclined to devote time). Some of the works produced by pupils guided by devotees have recently been retrieved and issued by the British label Trunk Records. This release, with pieces from the Chelmsford County High school, the Heslington Primary School, and others, provides first-hand evidence of the creative uses of sound recording in schools.[190]

In France, the situation was similar. The use of sound recorders in classrooms was mostly limited to the teachers that followed the Freinet pedagogy. Developed by Célestin Freinet, the pedagogy was based on enquiry-based learning, cooperative learning, and the support of children's free expression through the organisation of artistic and manual activities.[191] To disseminate his method, Freinet founded in 1947 the *Institut Coopératif de l'École Moderne* (ICEM) [Cooperative Institute of Modern School]. The use of sound recording, as soon as it became usable in a classroom – that is, as soon as tape recorders were available – was regarded as an important component by the teachers that followed the Freinet pedagogy.[192] There was a need of a recorder adapted to a use in a class, and therefore adapted to be used by children. The recorder was required to be easy to use, very reliable, and sturdy. It was Gilbert Paris, a self-taught electronics engineer, who designed the recorder in 1951, the Parisonor.[193] Within the ICEM, the audio-visual activities were led and organised by Pierre

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[190] *Classroom Projects. Incredible Music Made by Children in Schools*, Trunk Records, JBH049LP/CD, 2013.

[191] For a summary of Freinet's life and pedagogy, see Louis Legrand, "Célestin Freinet: a creator committed to the service of the popular school," *Prospects: The Quarterly Review of Comparative Education* 23, no. 1-2 (1993): 403-18. The ICEM is still active in more than 30 countries around the world.

[192] Several teachers tried to use disc-cutters but their manipulation by children was far from optimal. They also tried wire recorders, but magnetic wires were too breakable for a use in classrooms: Gilbert Paris, "Compagnon de route de Pierre Guérin," in *Pierre Guérin. Sur les pas de Freinet*, ed. Marceau Gast, Madeleine Guérin and Claudie Guérin (Paris: Ibis Press, 2008), 41-7, 42-3.

[193] The distribution to Freinet teachers really started with an improved version in 1953. In the end, the Parisonor was built until 1969, with constant improvements, and sold almost exclusively to schoolteachers, to more than 500 exemplars. See the recounting of Paris himself in Gilbert Paris, "Compagnon de route de Pierre Guérin," in *Pierre Guérin. Sur les pas de Freinet*, ed. Marceau Gast, Madeleine Guérin and Claudie Guérin (Paris: Ibis Press, 2008), 41-7, 42-3. The Parisonor was authorised by the National Education Ministry in 1956 – opening for a use beyond the sole Freinet schools (*L'Éducateur* 15, 49. The decree was published on the 15th of December 1956).

Guérin.[194] Guérin notably organised (and recorded a number of) the publications of the *BTson* (a disc accompanied by a booklet and slides) between 1960 and 1988.[195]

Besides the ICEM, The *Centre International Scolaire de Correspondance Sonore* (CISCS) was created by Jean Borel in 1956, under the auspices of the *Fédération Internationale des Chasseurs de Son* (FICS) [International Federation of Sound Hunters], of the *Institut Coopératif de l'École Moderne* (ICEM) [Cooperative Institute of Modern School], and with the help from the Education Department of the Republic and Canton of Neuchâtel. Borel funded the CISCS with its own money because it was "a personal dedication to pedagogy and international cause."[196] The centre was in fact working since 1953. Its aim was to foster relationships between schools around the world through the exchange of recorded messages on tape. The CISCS worked beyond linguistic and political borders, to create a peaceful and friendly climate. It was composed of volunteer teachers, and in 1959, it had more than 300 members all other the world. Guérin was the secretary of the CISCS and its French representative. Like the ICEM, the CISCS was a regular supplier of recordings for *Aux Quatre Vents*, 70 between 1956 and 1960, and a report written in 1960 indicated that the CISCS was usually strongly established in countries lacking a sound hunting association.[197] This identifies schools as important networks for the spread of sound hunting.

The ICEM and the CISCS used tape recorders to tapesponde,[198] to interview personalities visiting the school or people whose craft was disappearing or elderly people who grew up in the nineteenth

[194] For more on Pierre Guérin, notably his investment toward sound based activities, see Marceau Gast, Madeleine Guérin and Claudie Guérin (ed.), *Pierre Guérin. Sur les pas de Freinet*, ed. Marceau Gast, Madeleine Guérin and Claudie Guérin (Paris: Ibis Press, 2008).

[195] A number of them have been digitised and are available online: http://rivaudiere.fr/BTSons/index.htm (accessed 30/04/2022). BTSons is for *Bibliothèque de Travail Sons* [Work Library – Sounds].

[196] Letter from Jean Borel to the Centre d'Information du Département de l'Éducation de l'UNESCO, 8 août 1957. Archives JT et CdS, 19910681/1, folder Relations de la FICS avec l'UNESCO, 1956-1965, sub folder UNESCO, documentation générale (1956-1965).

[197] Procès-verbal du 4ème Congrès annuel de la FICS, Amsterdam, 28-29 octobre 1960. Archives JT et CdS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 4ème Congrès de la FICS, Amsterdam, 1960.

[198] For a recording of the pupils of Pierre Guérin receiving a box sent from their New Hebrides correspondents, that was broadcast in *Chasseurs de son*, 18 July 1976: https://www.radiofrance.fr/franceculture/podcasts/les-nuits-de-france-culture/dans-les-classes-freinet-avec-pierre-guerin-pionnier-du-magnetophone-a-l-ecole-7202111 (accessed 30/04/2021).

century.[199] They also recorded plays and produced electronic music.[200] However, like in Britain, not many sound experimentations by the pupils have been preserved.

Contests, notably the IARC, played a role in promoting models of practice and of legitimation of that practice: to support the use of tape recorders in class, a specific category was created in the IARC, entitled 'recordings of pedagogical nature.' The manufacturer Grundig also organised a School's Tape Recording Contest (the first edition being in 1965). Interested teachers were also supported by dedicated books for the use of tape recorders and for the composition of experimental music in classrooms. In Britain, an important figure was the composer and music pedagogue John Paynter, who published in 1972, *Hear and Now: An Introduction to Modern Music in School*.[201] A similar movement happened on the other side of the Atlantic, with Raymond Murray Schafer in Canada, who was also very involved in the promotion of a new sonic sensitivity in school.[202]

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[199] See the eight cassettes *Chasseurs de son*, edited by Radio France in 1982, but with recordings from 1953 to 1982. The cassette was edited by Pierre Guérin and Gilbert Paris from recordings sent and broadcast in Thévenot's programme. The cassettes won the Grand Prix of the Charles Cros Academy. *Chasseurs de son*, Radio France, collection 'Vive la Radio,' SON010/080.

[200] Some tapes have been retrieved by the ICEM and are available online: https://www.icem-pedagogie-freinet.org/node/6618 (accessed 29/05/2022).

[201] John Paynter, *Hear and Now: An Introduction to Modern Music in School* (London: Universal Edition, 1972).

[202] To stay in the 1960s and 1970s, Schafer wrote *The Composer in the Classroom* (Toronto: BMI Canada Ltd., 1965); *Ear Cleaning: Notes for an Experimental Music Course* (Toronto: BMI Canada Ltd., 1967); *The Rhinoceros in the Classroom* (London: Universal Edition, 1975); *Creative Music Education: A Handbook for the Modern Music Teacher* (New York: Schirmer Books, 1976).

4.4. Conclusion

This chapter started with a study of the character of Jean Thévenot and of the Thévenot collection itself, to conceive Thévenot as a 'hunter' of sound documents; and argued that Thévenot was aware of what he was building. He allowed sound hunting in France to have a documented history, and thus gathered documents and recordings to this end. In what Thévenot chose to highlight, I showed that his choices were not neutral, as he was especially after documents that matched his radiogenic aesthetics – that is, snapshot and documentaries. Nonetheless, faced with the quantity of the documents he gathered, I argued that his collection is a correct representation of what sound hunting in France was.

Following a mediological analysis, I then demonstrated how a knowledge about listening and sound was built by sound hunters, through their different channels, whose history was described in the previous chapter. I demonstrated that sound hunters developed a peculiar way to approach listening and sound recording, that is, a peculiar listening habitus. The mediation of sound technologies was central in this listening habitus. In this context, clubs became training centres for practical skills. I argued that these practical skills can be viewed as a discipline. This discipline was common between France and Britain, that is, sound hunting was characterised by a unified audile culture.

Within a slowly professionalising field, sound hunters were moving between being considered amateurs and being considered professionals. For some, sound hunting was a springboard toward a career in sound activities, while others identified as amateurs. This move between the professional and the amateur realms was facilitated because sound hunters developed a disciplinarity of listening and sound recording that allowed them to do so.

I finally described how the books and magazines written by sound hunters, how their clubs, their radio programmes, and their contests, were vectors for the diffusion of a new sensitivity regarding sound. Here again, the different organisational modes in France and Britain highlighted in the previous chapter were insignificant in this regard, for sound hunting was a coherent and unified audile culture.

This chapter contributed to the history of sound recording by detailing how the disciplinarity of sound hunting was born. Another contribution was made through the detailing of how the field professionalised and what the place of amateur sound hobbyists within that professionalisation was.

5. “All the sonic is ours.” The aesthetics of sound hunting

“There is no ‘genre’ that should be dismissed: all the sonic is ours.”[1] Thus spoke Jean Thévenot, in his introduction to the first programme of *Aux Quatre Vents* on the 6th of October 1949. And thus he established what sound hunting was for him: a window into all the sounds that inhabited the world. In the second chapter, I studied the tape recorder using a mediated listening approach: the possibilities of a piece of technology to act as a translator through its mediation, and the sonic practices that emerged through it. Following the sound hobbyists, I then considered the sociabilities that developed around that piece of technology. This led to the analysis of how an audile culture about listening and sound recording was formed and passed on. Now, this final chapter goes back to the tape recorder and to the tapes recorded by these sound hunters. This will serve to answer the following questions: what influences did sound hunters have? What do the recordings that sound hunters created reveal about their sensitivity toward sound, and about the evolution of this sensitivity? What framework can be established to approach their listening and sound recording practice? What were their views on their own work?

The first section of this chapter will analyse the influences of sound hobbyists’ works. A major influence in the 1950s and 1960s was radio. One of the major diffusion networks for the practice was radio programmes and two of its main orchestrators – Jean Thévenot and René Monnat – who organised the community on the French and Swiss levels before expanding internationally with the IARC, were heavily involved with radio broadcasting. It is then understandable that this media had an impact on sound hunters’ practice. Thévenot himself was aware of his influence: “For sure, the sound hunting radio shows, by the choices operated to establish the programmes, by the way they are presented, had a huge influence on the development of the activities of amateurs.”[2] A notable feature was the omnipresence of a commentary to provide context for the sounds. Through the presence of voice, the evolution of radio professionals’ sensitivity toward sound that is exposed, the acceptance of its use on radio versus the voice. The second influence I will detail is that of the everyday, with sound hunters capable of capturing a diversity of auditory experiences from listening to wildlife to cataloguing the sound of Yorkshire coaches to preserving the sonic ambience of rural villages. To understand these recordings, we have to deploy an everyday aesthetics, a technique that is, arguably, at the heart of a number of today’s field recording works. Finally, I will look into *musique concrète*, electronic music and other technical experiments, to show that these genres were not restricted to avant-garde artists but were practiced independently by amateurs from the beginning of sound hunting. I will argue that all these influences on the sound hunting community can be conceived as contributing to the creation of a new sonic imaginary. I follow here the recent work

[1] Jean Thévenot, introduction of the first show of *Aux Quatre Vents*. Archives JT et CdS, 19910681/4, folder *Aux Quatre Vents*, diffusion de octobre 1949 à novembre 1951 sur la Chaîne Parisienne, sub folder Texte de préparation de l’émission (06.10.1949).

[2] Jean Thévenot, press release for the 1964 IARC, *Musica*, 26 November 1964. Archives JT et CdS, 19910681/24, folder 13ème CIMES – 1964, Lausanne, sub folder Presse publiée (dont publications allemandes).

of James Mooney and Trevor Pinch. The percolating of this sonic imaginary can be seen as its progressive stabilisation.[3]

The evolution of sound hunters' works was indeed also the evolution of their relation to sound, its conceptualisation and aestheticization. In his interview with Angus Carlyle published in 2013, Steven Feld concludes by raising two questions: "what it means to be a listening agent, and what it means to be a listening subject."[4] The second section of this chapter will investigate ways of answering these questions by reconstructing the perspectives of sound hunters. I identify three elements characterising the listening and sound recording practice of sound hunters: everydayness, curiosity, imagination. These qualities allow the enactment of a creative listening, that is, an interaction, through listening, with the sonic milieu. Recording devices, through the mediation they brought, allowed further possibilities. This second section will analyse these three qualities and the resulting creative listening. For the purpose of analysis, these notions are treated separately, but they rely on each other and always occur together. The results that I put forward are compatible with today's equivalent of sound hunting, which is nowadays usually referred to as 'field recording.' The relation between sound hunting and field recording will be explored in the conclusion of this thesis. Of course, not all sound hunters use these three qualities on the same level. Nonetheless, even dabblers who only practiced occasionally touched upon some of them, which I will show through documented examples. In this section, a number of pieces by sound hunters will be analysed alongside contemporaneous works by different composers and sound artists. I will show that, even if the theoretical development was not present, or was not shared by the authors of these pieces, or has not been saved, a number of sound hunters had a practice comparable to the avant-garde.

The third section will be devoted to assessing how sound hunters thought about their relationship with aural art. I will show that the proximity between amateur practices and 'Art' was challenging for the majority of sound hunters. This notably appeared in the choice of words that sound hunters used to define their works. However, the difficulty they had in categorising their works does not reduce retrospectively their significance but poses questions about the significance of these very categories. That difficult confrontation had a significance that I will highlight, but instead of trying to put sound hunting into artistic or musical categories, I will consider it as a creative practice with different aesthetics. The variety of practices in sound hunting, demonstrated in the first two sections of this chapter, expressed different attitudes towards sound, and different conceptions of the sound recorder: as a tool of documentation (of events, of people, of wildlife, of personal life), as

[3] James Mooney and Trevor Pinch, "Sonic Imaginaries: How Hugh Davies and David Van Koevering Performed Electronic Music's Future," in *Rethinking Music Through Science and Technology Studies*, ed. Antoine Hennion and Christophe Levaux (London: Routledge, 2021), 113-49.

[4] Steven Feld, interviewed by Angus Carlyle, in Cathy Lane and Angus Carlyle, *In the Field: The Art of Field Recording* (Axminster: Uniformbooks, 2014 [2013]), 201-12, 212.

a tool for imagination (creative listening, *musique concrète*, electronic music, plays), as a tinkering object (the building and modification of tape recorders), as a tool of exchange (tapespondence). Sound hunting appears as a democratic practice in which everybody could contribute. The position of a creative practice accessible to everybody was shared among the art world, with a major voice for this democratic ethos being Joseph Beuys who argued "everybody is an artist." The 1960s were a period in which art and its definition were being questioned, and in which there was a penchant for an art of the everyday, with sound hunting practices making a contribution to this complex social shift.

Differently from the previous chapters, which relied on documentary sources, this chapter will mainly rely on a number of recordings. Due to their availability, all the pre-1957 recordings I was able to access are from Thévenot's radio programme, stored at the Inathèque (Bibliothèque Nationale de France). From 1957, recordings are also available from the British Sound Recording Association, accessible at the British Library. CDs edited by the International Amateur Recording Contest were also consulted, together with recordings saved by Mark Vernon, and others accessible through various archives in Britain and Switzerland.

To know what people generally thought about sound hunters' recordings, the Thévenot collection, with its archives of contests, national and international, provide insights. These documentary sources include information on what the jury appreciated, press cuttings commenting on the tapes, and via application forms, the thoughts of the sound hobbyists. The jury, in France, was mainly composed of radio professionals. There was therefore the filter of radiogeny. That was also the case at the beginning of the international contest, but less so from the 1960s, as I showed in the third chapter. Due to the contested relationship of Thévenot with the IARC (see chapter two), the collection is less precise on what people thought about these pieces from the end of the 1960s. A pattern emerges from the notation sheets present throughout the 1950s and 1960s: most of the works were given average ratings, between 10 and 12 out of 20. Winning tapes were far above, totalising notes of 15 and above. And some others were just not good. General comments like "of no interest," "bad imitation," "very pretentious," "this is crap," were sometimes made, but most of the comments criticized technique flaws – how sounds were captured using the equipment. With the improvement of recorders, technical flaws became rare, and at a later stage, the absence of ideas framing the recording became the focus of criticism. Looking back on the 1966 IARC held in Amsterdam, Pierre Guérin, seasoned sound hunters very involved in school recording, commented that

> "sound hunters works remain, in general, the usual humdrum routine (for instance in the A category [editing]: youth club comedy, this year with the dominant idea of mankind besets by

> modern world unpleasantness. Humdrum routine of organ, zither, etc… in stereo. Overall, on the technical level, good quality, but platitude in regard to ideas."[5]

However, two years before, the general commentary was much more enthusiastic:

> "Free from the fear of untameable equipment and of the temptation to play with it in vain, they [the sound hunters] let themselves explore more freely their spontaneous ideas, their inner voice, their inspiration, and taste. This allows us to hear a vast majority of technically perfect recordings, each one expressing a personality in the most diverse range: poetry, reality, humour."[6]

The following sections explains these shifts and highlights the diversity of the forms by which recorded sounds were presented.

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[5] Pierre Guérin, Congrès de la FICS, séance du matin, 22.10.66. Archives JT et CdS, 11910681/25, folder 15ème CIMES – 1966, Amsterdam, sub folder Documents préparatoires, compte-rendu du Congrès de la FICS.

[6] Jean Thévenot, press release for the 1964 IARC, *Diapason*, December 1964.

5.1 The influences acting upon the work of sound hunters

5.1.1. Radio, voice, and sound hunting

A striking feature of most works done between the 1940s and the 1960s is the presence of a commentary, that explains what is being listened to. Besides music and wildlife recordings, sound tapes without commentary were a rarity. Most of the time, a voice introduces and comments what will be heard. This commentary is either done live or overdubbed. And a striking feature of this commentary, is that on the majority of tapes, it is as long as the recording or sound piece in itself. With the commentary, sounds were no longer presented for themselves but were introduced and 'staged.' The commentary was a *mise-en-scène* of sounds and of sound, which were developed within a mediated narrative.

Several reasons can explain the prevalence and duration of the commentaries. First, for a number of sound hunters, sound recording was more the recording of an experience as opposed to the random recording of a sound scene. The commentary therefore provides context, explaining the situation, and the conscious thoughts and conveying the sentiments of the recordists. Such recordings, more than a documentary or a report, sounds like a sonic journal that recorded a moment in the life of the recordist, similar to a photograph. A live commentary was seen as the proof that this moment had happened in a real life. In that context, technical flaws were also markers of authenticity, with distortion arguably intensifying the experience and bringing sincerity to a recording that could not be replicated in studio during a staged recording. This is clearly explained by the sound hunter Denys G. Killick in the June issue of *Tape Recording*, where he relates his experience of producing a feature from a fair, the climax of which was riding on a surprisingly intense roundabout where his commentary passed from calm to yelling: "That particular recording is so good because it is so obviously sincere. (…) There is no technical formula to achieve a result like that."[7] A similar process has been observed in photography and amateur cinema, where blurred pictures are a characteristic of actuality pictures, a sign that the photography or the film were taken while the event was happening – signalling its authenticity.[8] However, the recordings made on site were only the first part. The "disjointed episodes and impressions" had to be organised in "a coherent whole" through a voiced narrative that described and organised the feature. Once the recordings

[7] Denys G. Killick, "All the fun of the fair," *Tape Recording*, 13 June 1960, 14-5, 15.
[8] For photography, see Luc Boltanski, "La rhétorique de la figure," in *Un art moyen. Essai sur les usages sociaux de la photographie*, ed. Pierre Bourdieu (Paris: Les Éditions de Minuit, 1965), 173-98, 193-4. For amateur cinema, see Patricia R. Zimmermann, *Reel Families. A Social History of Amateur Film* (Bloomington and Indianapolis, IN: Indiana University Press, 1995).

had been made, one needed "a good imagination coupled with an inexhaustible store of patience," to organise and edit the whole.[9] As such, sonic journals were an embodiment of personal histories.

Second, recordists of strange sounds perceived that their recordings required a mode to prepare the listener. In the case where the sounds could be difficult to identify, the fact of knowing their sources could add to the interest of the recording. This provides a surprising and renewed consideration of these sounds or sound sources. This is the case for underwater sounds for example, or for the recordings of very faint sounds made by Joseph-Maurice Bourot.[10] However, that need of explanation and identification also signifies a possible difficulty in considering the sounds by themselves on an aesthetic level, independently of their sources. In other words, the impossibility of identifying was seen as a reduction of the appeal of the recording, or of the sound piece. This posture is the opposite of *musique concrète*, in which the non-identification of sounds, their decontextualization from their origin and meaning, is a primordial step to achieve what Pierre Schaeffer called "reduced listening." Reduced listening is "a listening mode that focuses on the traits of the sound itself, independent of its cause and of its meaning."[11] The opposition between sound hunting and *musique* concrète approaches to sound and listening will run through this section, and throughout the chapter.[12]

For sound hunters, most of the time, sound was conceptualised as the carrier of an experience, and not as the end of the recording. This is very clear with Thévenot, who, despite being one of the most active promoters of sound hunting, did not push forward features that were devoid of commentary. For him, sound was the carrier or an element of a narrative that had to be, before anything else, carried by voice. Beyond sound, that narrative was at the heart of his idea of what was radiogenic, and that narrative had to be conducted by voice – the essential instrument to convey an experience. And the more palpable the experience, the more radiogenic the recording, the more highly viewed was the recording by Thévenot. This explains why Thévenot was fond of snapshot, and why he tried to push sound hunters to produce them, because snapshots are the direct recording of an experience. Within that experience, sound is only a part, a vector to convey it. Sound was considered for its capacity to illustrate experiences, and its quality was almost seen as secondary.

We can here re-examine the notation sheet of *La circulation à Paris* [Traffic in Paris], a recording made by Stefan Kudelski for the 1952 IARC – Thévenot wrote of it: "sensational sound scene." The recording was made with an early prototype of the Nagra I, allowing Kudelski to perform a six-minute field recording while walking in the streets and Paris' underground. This was new for the

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[9] D. G. Killick, "All the fun of the fair," 15.

[10] A chick in its egg, the cracks of a woodpile.

[11] Michel Chion, *Audio-Vision. Sound on Screen* (New York: Columbia University Press, 1994), 29.

[12] The theoretical approach of *musique concrète*, that was being developed in parallel with sound hunting, will be presented progressively through the chapter.

time, as I shown in the second chapter, and that performance impressed Thévenot. However, despite the novelty and spectacular aspect of the recording, Thévenot could not reconstruct any narrative from it. Despite being "sensational," the sound scene remained for him a banal one. He could not see any interest, or any point, in sharing it on air. He consequently gave it a Broadcasting Value note of only 6 out of 20.[13] All this also despite the fact that he was the co-founder of a sound effects company in the early 1950s, the *Agence Générale d'Enregistrement Sonore - Memnon* [Sound Recording General Agency - Memnon]. He was trained to appreciate sound and the imaginary that it had the potential to convey. Looking at a review of sound effects records that he wrote in *Arts et Techniques Sonores*, Thévenot was able to have a precise judgement regarding the evocative power of a sound scene. The discs, a church bells recording and the recording of the ambience of a popular meeting, were assessed on both the technical level, the authenticity of the scene, and their capacity to foster imagination.[14] Still, for him, sound effects were not considered as independent works.[15] There were recordings not meant to be listened on their own but meant as a decor, a support for an action or an experience. The question is where and how an effect becomes a sound or sound scene that could be considered as an independent work, as opposed to a sound to be used, say, in another radio show. For instance, what is the difference between the bells and crowd recordings that he reviewed and *La circulation à Paris*? Worded differently, the issue that ran through sound hunters' approach to sound was: were sounds to be regarded as objects of intrinsic interest, judged solely for their own qualities, or, were they to be judged for their value as signifiers? This question points again to the opposition between sound hunting and *musique concrète*. For that last one, the aim of listening was to free "ourselves from the ordinary, throwing out the natural as well as the cultural," in order to "find an authentic *sound object*"[16] – that is, a sound listened for itself and its intrinsic details. As written by Schaeffer a few lines after, it is a question of intention on the listener's part: "*The sound object is the coming together of an acoustic action and a listening intention*."[17] That means that sound objects do not exist by themselves but are the meeting of a sonic event and a listening intention. The opposition between sound hunting and *musique concrète* could therefore only be a matter of listening intention, but we will see that other core differences concerning sound object were at play.

There is therefore a tension between the praised freedom of the amateurs, the incentive that they had not to copy radio professionals, and radiogeny, where, despite their apparent freedom, sound

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[13] Archives JT et CdS, 19910681/18, folder 1er CIMES – 1952, sub folder Émission spéciale (31.05.52).

[14] *Arts et Techniques Sonores*, September-October 1952, 7-8.

[15] Hugh Davies neither considered them as "works" in his *Répertoire Internationale des Musiques Électroacoustiques*, because they "do not really come under the heading of musical compositions." Hugh Davies, *Répertoire International des Musiques Électroacoustiques* (Paris and Trumansburg, NY: MIT Press, 1968), iv.

[16]Pierre Schaeffer, *Treatise on Musical Objects: An Essay across Disciplines* (Oakland, CA: University of California Press, 2017 [1966]), 213. Stress in original

[17] *Ibid*., 213. Stress in original.

hobbyists had to follow certain unnamed rules if they wanted to have their recordings or pieces broadcast.[18] Original recordings, that could have brought something new, could hence be rejected.[19] So was *La circulation à Paris*. The undefined rule of radiogeny was criticized by a Swedish sound hunter, Arne Juul Jacobsen, who participated in the 9th edition of the IARC, in Amsterdam. For him, sound hunters had to find new ways of expressing themselves in sound, ways that were not offered by radio. But he soon discovered that "the jury uses radio as scale. (…) The denomination of the categories prevents the jury from detaching itself from radio." Hence, while for Jacobsen the prizes should be given to people who brought novelty, they were given to those who replicated models elaborated by radio.

> "It seems that an essential aspect is forgotten: the sound hunters who seriously use their recording equipment as instrument, who experiment and try to build something new, searching new expressions, new methods and new ways of doing – new compositions – a new style."

However, the jury of the IARC 1960 was not after this, and the winning tapes, for Jacobsen, were more "radio for the amateurs" than something else. Despite the quality of the proposals, they were not fulfilling the potential of sound hunting in his opinion, because of the influence of radiogeny.[20]

A third reason that explains the use and the importance given to the audio commentary is, as noted by the historian of radio Robert Prot, the post-War context of a talkative radio: "producers wanted to present and comment" what they were broadcasting.[21] Thévenot was no exception, and his programmes are a testimony of that. His time commentating was almost always equivalent to the duration of the recordings that he chose to broadcast. This talkative aspect was partly due to the limitations of technology, especially for reports and outdoor recordings. Before the Second World War, recording on location required expensive and cumbersome equipment to be transported into the field, to which the reporter would be linked up through a cable that restricted his mobility.[22] These logistical and financial constraints did not prevent radio stations from seeking out 'actuality recordings.' These were reports that stressed the factual and emphasised the ordinary life of the

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[18] And well-marked in contests. One should remember that Thévenot was promoting sound hunting through radio, and that the origin of the IARC is a meeting between two radio producers.

[19] Or completely re-contextualised, as Thévenot and his collaborator Landrieux edited the recordings most of the time, tailoring them for a use on radio.

[20] Arne Juul Jacobsen, "Concours International du Meilleur Enregistrement Sonore et pensées post-festum," *Lyd & Tone*, January 1961, 1-8: 7. Stress in original. Pagination is the one present in the French translation of the article present in the Thévenot collection. Archives JT et CdS, 19910681/20, folder 9ème CIMES – 1960, Amsterdam, sub folder Dossier A, sub sub folder CIMES 60 / Presse.

[21] Robert Prot, *Jean Tardieu et la nouvelle radio* (Paris: Harmattan, 2006), 114.

[22] For a direct account, see Godfrey Talbot, *Ten Seconds From Now: A Broadcaster's Story* (London: Hutchinson, 1973). See also Barry Turner, Daniel Barredo, and Steven James Grattan, *Reporting from the Wars 1850-2015: The Origins and Evolution of the War Correspondent* (Wilmington, DE: Vernon Press, 2018), chapter 5 notably for accounts on what battery-powered equipment brought to reporters.

masses, with a particular concern about social conditions during the depression years of the 1930s.[23] When these reports were first produced, limited by the technology, journalists had to describe in words the scenes they had witnessed when back in the studio. Few on-site sounds could be recorded. According to Paddy Scannell and David Cardiff, the first British radio feature using 'actuality sound' recordings taken on location was produced in the summer of 1934 by Lawrence Gilliam, who hired a recording van from a film company.[24] As detailed in the second chapter, battery-powered portable wire recorders were developed during the War but their use remained limited, in part because microphones had poor sensitivity. This necessary use of a retrospective voice, recorded later in the studio, to get round the weakness of the audio equipment participated in a particular way of doing radio outside the studio. An example of this is given by the husband of Marguerite Cutforth (the producer of *Sound*,), René Cutforth. A famous reporter at the BBC, mainly known for his war reports in Korea, he produced dozens of documentaries where the description was mainly carried out by the voice, with sounds recorded in the field being illustrative only. For him, the absence of a commentary was seen as a reduction in the experience that was passed on, in a similar way to what Thévenot was doing.[25]

However, behind this utilisation of the commentary lies a deeper question, which has to do with the use, on radio, of sounds without a vocal commentary, and the post-war rise of sound hunters sheds new light on this process. That movement of producing features without voice, or a voice reduced to its minimum, based solely on sound was the direction chosen by "the Pure Sound School," as Cutforth called it in 1959.

> "The very newest school of thought in Radio," Cutforth continued, "is a school which talks about 'Pure Sound', and 'Pure Radio,' and has the idea that you could make a feature out of sounds alone, strung together with almost no speech at all."[26]

That school, against which he was strongly opposed to, was developing thanks to the advent of battery-powered field recorders that facilitated recording on location which met pre-existing demand for the expanded use of sound on radio that had been present a decade before. In 1947, the French international correspondent and radio producer, Samy Simon, wrote an article that prefigured that 'pure sound school.' Simon stated that one has to search for "sound elements that carry their own eloquence," in order to "give them predominance" over a voiced description. He claimed that, in the absence of speech, rhythm and variation of sound are important to sustain a discourse made in sound. However, one should take care to not "oversaturate" the ear. A whistling train in

[23] Paddy Scannell and David Cardiff, *A Social History of British Broadcasting. Vol.1: 1922-1939, Serving the Nation* (Oxford; Cambridge, MA.: Blackwell, 1991), 142.

[24] P. Scannell and D. Cardiff, *A Social History of British Broadcasting. Serving the Nation*, 146-7.

[25] René Cutforth, "Recording in the Tropics," *Tape Recorder*, February 1959, 7-11, 9-10.

[26] *Ibid.*, 9.

the countryside was, he noted, highly evocative, "but after one minute, there are no more fields nor cows, nor river, nor bell tower. There is just a noise reduced to itself, which has delivered its message, given its flesh, like an empty envelope." To prevent this, rhythm and dynamism were, he argued, the key attributes. "Sound illustrations should live by themselves" in all their colours and movements, to deliver their messages. Simon concluded, "the best documentary, on radio, is certainly the one which speaks least, and it's why we still have, us which job is to speak in front of a microphone, so many improvements to do."[27]

There are many things to unpack from Simon's article. In direct relationship with the use of sound on radio, Simon supports the idea that sounds alone are able to carry meaning . In this, not all sounds are equivalent, as each has a distinctive imaginary power attached to it: a footstep can say a lot about the person walking, about the scene that is happening and its ambience. This is what Simon says, when he speaks about the "eloquence" of sound elements that can "deliver their messages." Such a posture was echoed in the work and writings of the documentary maker John Grierson, who wrote in 1930 that "there must be a poetry of sound which none of us knows… Meaning in footsteps, voices in trees, and woods of the day and night everywhere."[28] That "meaning" is not only referential (about the origin of the sound), but also contextual (about what is around that sound, its context and atmosphere: is the sound close or far, soft or loud, dry or reverberated, accompanied by other sounds or not, etc.). The meaning mentioned by Grierson occurs when both referential and contextual elements are present: I am hearing the footsteps of a woman (I identify high heel) in a vast stony hall (there is a lot of reverberation) under the rain (I hear rain). It is mainly through the contextual information that imagination can unfold. It is thanks to this imagination and meaning that sounds convey that the construction of a sonic discourse became possible. And because there is a discourse, there is, for Simon, the necessity of managing the listener's attention. The problem of duration is the crux of this necessity to manage attention. For Simon, long durations with similar sonic elements should be prohibited, as he thought they saturated the ear and lost meaning through time. There is thus an almost musical discourse in place in order to manage the listener's attention and deliver the intended message.

To approach the different possible ways to elaborate a musical discourse from sounds – which will be useful to better understand the work of sound hunters –, the composer and electroacoustic music theoretician Simon Emmerson has developed a useful classification.[29] Emmerson came up

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[27] Samy Simon, "Le documentaire," *La chambre d'écho, Cahiers du Club d'Essai de la Radiodiffusion Française* (Paris: Imprimerie de l'Union, 1947): 54-6, 54-6.

[28] John Grierson, "On the Talkie Horizon," *The Clarion*, January, 13. Cited by Geoffrey Cox, "'There Must Be a Poetry of Sound That None of Us Knows…:' Early British documentary film and the prefiguring of musique concrète," *Organised Sound* 22, no. 2 (2017): 172-186, 175.

[29] Simon Emmerson, "The Relation of Language to Materials," in *The Language of Electroacoustic Music*, ed. Simon Emmerson (Basingstoke and London: The Macmillan Press, 1986), 17-40.

with a classification with "aural discourse," composed of musical objects free of associations, that is, that does not reference the real world. Against this type of discourse, Emmerson proposed a "mimetic discourse," based on the use of sounds from the environment (natural or human-made). Between these two poles, Emmerson added a category for works using a mix between them. To these discourses, Emmerson added three musical syntaxes: an "abstract syntax," derived from models or ideas with no apparent musical origin; an "abstracted syntax," which has its source in the sound material itself; and a syntax that is a combination of the previous two.[30]

In view of the "poetry of sound" sought after by Grierson and Simon's establishment of a discourse made of sounds alone, it is now possible to better understand the proximity and distance that their ideas had with *musique concrète*. Following Emmerson, Grierson and Simon were working, or envisioning a 'mimetic discourse' with an 'abstracted syntax.' The proximity with *musique concrète* is detectable in their conception that sound can be independent, that can articulate a discourse, that it is possible to organise rhythm and dynamism through sound alone. But a major difference was that Schaeffer always tried to remove the anecdotal nature of sounds – that is, to distance himself from a mimetic discourse, which he saw as "antimusical."[31] If taken from the everyday, the context was also systematically removed, to prevent any pre-existing dramatic progression that could constrain imagination (like the recording of a locomotive launching her engine and departing).[32]

As highlighted by Claude Huchin in 1957, these two tendencies, one of "pure document" and the other with a commentary, were also present in the commercial discs edited during the 1950s.[33] These two perspectives correspond to the distinction observed by Jacques Peuchmaurd, literary critic and writer, between "report" and "documentary." In reports, the role of the reporter is dominant, "he speaks on the sonic background, describes the setting, comments the events, only seldom behind the raw sonic element. He is not only the ear, but the eye." In documentary, on the contrary, the reporter disappears. "The man is mute. Here, the microphone is all. (…) The microphone takes only sounds, raw sounds, without commentary."[34] If a commentary is nonetheless necessary, it will be added in studio. "Pure study document" became easier to record with battery-powered recorders

[30] *Ibid*., 17-24.

[31] Pierre Schaeffer, À la recherche d'une musique concrète (Paris: Seuil, 1952), 20.

[32] *Ibid*., 20-1.

[33] Claude Huchin, "Enregistrements sonores," *Cahiers des Explorateurs*, nouvelle série, 3, June 1957, np. The article also gives the information, obtained from French record companies, that folkloric music discs were rarely edited at more than 2000 copies, a diffusion thus limited.

[34] Jacques Peuchmaurd, "Le théâtre du monde," *La chambre d'écho, Cahiers du Club d'Essai de la Radiodiffusion Française* (Paris: Imprimerie de l'Union, 1947): 57-8, 58.

and coexisted with commented recordings and recordings organised with a narration and a commentary. [35]

This distinction existed for Thévenot and Cutforth too, so that 'pure' sound recordings – that is to say, without voice – occurred in both Britain and France. A bigger picture emerges here. People, at least within the tradition of radio broadcasting, faced difficulties when approaching these works because they were challenging for them to classify: they were not documentaries (because of the absence of voice), they were not *musique concrète* (because sounds were not modified and were presented within their context (*i.e.*. not as sound objects)), they were not sound effects (because they lasted several minutes and were composed), and they were not wildlife recordings (because of the absence of wildlife). In regard of Emmerson's classification, 'pure sound recordings' fall in the mimetic discourse category, and as Schaeffer, Thévenot and Cutforth had difficulties to apprehend this category of works. These represented new sonic objects, conveying a sonic sensitivity in the making that took time to digest. Or more precisely, they represented a sensitivity in the making in relation to radio, which was seen, primarily, as a medium for conveying the human voice. That aspect was not new. As the radio historians Shawn VanCour and Andrew Crisell have shown, already in the early days of radio drama in the 1920s, voice and speech were affirmed as a source of narrative information that should be privileged. On the other hand, the use of sound effects (and music) should be based "on a principle of sonic parsimony" with a limited number of sonic inputs.[36] "Context is the key to the meaning of the sounds (…) and the means by which context is established is at bottom *verbal*."[37]

Therefore, the diffusion of this new sonic sensibility was not the prerogative of sound hunters alone. Radio professionals were also involved, as their conventions were shaken up. More accurately, this was not a 'new' sensitivity, as Geoffrey Cox has shown that such a use of sound was already present in documentary film.[38] This was more the sign that the use of sound as an aestheticized element was percolating through society. Sound hunters, because they were also using sound recorders, experienced it at the same time as radio professionals and avant-garde composers.

The resolution of relying only on sounds took time and is traceable through the evolution of sound hunters' works. A commentary was often seen as necessary and is characteristic of the 1950s,

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[35] Andrea Paganini, "Déplacements de sons, déplacements d'images. Un exemple de réemploi dans l'œuvre de Jean Rouch," *Revue de la BNF* 45, no. 3 (2013): 32-9, 33.

[36] Shawn VanCour, *Making Radio: Early Radio Production and the Rise of Modern Sound Culture, 1920-1930* (New York: Oxford University Press, 2018), 124. For the history of early radio drama and its use of sound, see chapter four, 97-124.

[37] Andrew Crisell, *Understanding Radio* (London; New York: Routledge, 1994 [1986]), 53. Stress in original. For sound, music, and silence on radio, see 44-53.

[38] Geoffrey Cox, "'There Must Be a Poetry of Sound That None of Us Knows…' Early British documentary film and the prefiguring of musique concrète," *Organised Sound*, 22, no. 2 (2017): 172-186.

1960s and 1970s. However when one listens to the IARC discs of the 1990s, there are no more spoken commentaries; the paratext became textual, when there was one. At that time, the contest was no longer linked to broadcasters, and this supports the idea that the presence of a voiced commentary was effectively due to the influence of radio.

5.1.2. The everyday

The sonic milieu of the everyday was another source of influence upon sound hunters. To define the everyday as an influence means that sound hunters were listening and enthralled by specific elements, which they then recorded. In 1954, Jacques Landrieux, the collaborator of Thévenot, called for a "sonic geography of France," for "sound takes (…) that would be the sonic poster of your county."[39] Remarkably, Landrieux positioned his editorial under the banner of tourism. France was countlessly pictured on posters and in postcards, but their sonic equivalent did not exist, while the tourist "was charmed by the bells of herds in the mountains, the songs of the shepherds in the Landes, the singing manner of speaking of Provençal during a boules party (…)."[40] While many discs were available with folklore from abroad, Landrieux regretted that French folklore discs were much rarer. To finally record it, he defended the idea, already presented in the previous chapter, that sound hunters were better positioned than radio stations to produce such recordings because they knew their living places – that is, they knew better what their specificities were, their local curiosities, their notable dates, and because they knew the people, they could work more easily with them. Minus the tourism aspect, Landrieux's French sonic geography recalls the sound library that UNESCO wanted to build, and for which the FICS was awarded two contracts at the end of the 1950s. UNESCO sought typical sounds to build a library that could be used by countries lacking such material but that were developing audio-visual capacities.[41]

The housing of the *Association Française des Chasseurs de Son*, AFCS, within the Phonothèque Nationale facilitated these exchanges between local associations and groups of folkloric music, even if they came quite late in the 1960s. It was indeed not before 1968 that the beginning of a collaboration started, with the "Operation folklore." The aim was to facilitate the meeting between members of the French sound hunters association and the different folkloric associations of the country in order to collect traditional songs, music, and local dialects. From October 1968, the French mag-

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[39] Jacques Landrieux, "Pour une géographie sonore de la France," *Arts et Techniques Sonores*, March 1954, 1.
[40] *Ibid*.
[41] See chapter two for more details on these contracts.

azine *Le Magnétophone* dedicated pages to this "operation folklore," with interviews of sound hunters interested in folklore,[42] calendar of folkloric events throughout the country, contact of the folkloric associations, calls for collaboration. The partnership was extended to amateur cinema a year later.[43] The AFCS kept a sound library for all the recordings it received, and this collection was shared with the Phonothèque Nationale. Later in 1970, the calendar of folkloric events started to cover Belgium, Switzerland, and Italy.[44]

Private initiatives predated the work of the AFCS. Jean-Michel Guilcher, for instance, an employee in a publishing house, scouted Brittany for folkloric songs with his Webster-Chicago in 1945.[45] The preservation carried out by amateurs did not only concern music and folklore; vanishing professions and crafts were also documented. To achieve this, the teachers of the *Institut Coopératif de l'École Moderne* were instrumental. They went on the road, alone or with their pupils, to meet craftswomen and craftsmen. When going out with their students, the children were in charge of conducting the interviews.[46] To carry out this work, which comprised the edition of discs and slides, an association was formed by Pierre Guérin, teacher at Sainte-Savine, the *Association Paroles, Images et Son*.[47]

Similar projects existed in Britain. One remarkable case is the one of sound hunter G. M. Carson, who led a team of voluntary tape recordists and embarked upon the recording of the sonic life of Derbyshire villages, to save their sonic ambiences for future generations. The recordings were complemented by photographic surveys. Carson and his team covered all aspects of village life, gathering material from inns, churches, chapels, local industries, organisations, and characters. Four villages had been surveyed by 1959: Ashford-in-the-Water, completed in 1957, Holmesfield, done in 1958, Calver and Curbar, both covered in 1959. The finished production for Holmesfield was 2 hours and 30 minutes long, accompanied by 125 pictures. This material was gathered through 6 months. Carson's aim was patrimonial:

> "The finished result becomes the property of the community and not of any individual.
> In many years to come, future generations will be able to hear and see what life in the

[42] See notably Marie-Louise Vidal de Fonséca, "Opération folklore," *Le Magnétophone*, October 1968, 3-9.
[43] "Opération folklore," *Le Magnétophone*, May 1969, 8-12.
[44] "Opération folklore," *Le Magnétophone*, May 1970, 3-12.
[45] Application form of Jean-Michel Guilcher. Archives JT et CdS, 19910681/18, folder 1er CIMES – 1952, siège : Paris, sub folder Émission spéciale.
[46] An example is given by Paul le Bohec and his class, who interviewed a knife-grinder. The documentary was submitted to the 1963 IARC and broadcast on the 7th of December 1963. Jean Thévenot, Script de l'émission spéciale. Archives JT et CdS, 19910681/23, folder 12ème CIMES – 1963, Liège, sub folder 12ème CIMES, émissions spéciales.
[47] The archives of the association have been given to the Bibliothèque Nationale de France in 2018.

village was like. They will be able to judge the changes and the realizations, or failures, of our present ambitions."[48]

This documentary approach, with its aim of collecting sounds that were changing, precedes what researchers in acoustic ecology would do two decades later. It is notably reminiscent of what Raymond Murray Schafer would do a decade later with the World Soundscape Project, most notably the *Five Villages Soundscapes*, a series of studies in five European villages made in 1975 and published two years later. The aims were different, with the World Soundscape Project seeking to discern causal dynamics – that is, the relationship between sound and the everyday life of these villages –, but these two distinct activities both sought to document of the 'sonic system' or 'sonic ecosystem' of precise localities.[49]

To use Pyral's slogan – the manufacturer of instantaneous discs that we came across in the second chapter, and who, with the advent of tape recorders, started to produce tapes –, sound hunters were recording the "Echo of the World."[50] This echo embraced the more mundane sounds of transport. Hence, on *On grave à domicile*, on the 11th of June 1948, the sound hunter Gérard Koeltz proposed an editing from the inside of the airport, with the announcement of the night flight, to the departure of the plane, a Douglas DC-3, with a recording made inside. Koeltz also proposed different recordings of other types of French airplanes (Morane, Daurat, Lioré et Olivier). Another hobbyist, named André Marco, proposed recordings of the sea, of a train passing and departing, of a sawmill, of a plane, and an editing recreating a car accident.[51] A decade later, in 1960s, Mrs. J. Wakely, of the Ware Tape Recording Club, recorded the sonic ambience from her window. Living by the railroad, she recorded passing trains.[52] One of her colleague from the same club, Mrs. A. Campbell, had similar recorded the echoes of the city from her window. For a club event, she produced a tape contrasting "the extreme noise of a Saturday evening and the silence of a Sunday morning – broken only by singing birds."[53]

Often, hobbyists specialized in certain sounds, including those created by the movements of people and goods in modern ways. Stanley Schofield, "specialist producer of documentary motor sport recordings" released a series of pre-recorded tapes and discs featuring recordings of Mercedes, of the Grand Prix d'Europe at Spa, of the British Grand Prix at Silverstone, of the Isle of Man Tourist

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[48] 'Sound pictures of English Villages,' *Tape Recording*, 2 December 1959, 23. According to the article, the British Institute of Recorded Sound showed interest in the work, but I haven't been able to track down any trace of it.

[49] Raymond Murray Schafer (ed.), *Five Village Soundscapes* (Vancouver, BC: A.R.C. Publications, 1977). In the absence of Carson's recordings, it is unfortunately not possible to precisely compare the two works.

[50] See for instance the Pyral advertisement in *Le Magnétophone*, November-December 1960, 44.

[51] *On grave à domicile*, 11 June 1948.

[52] Fred Chandler, "News from the Clubs," *Tape Recording*, 13 July 1960, 31.

[53] Fred Chandler, "News from the Clubs," *Tape Recording*, 13 July 1960, 34.

Trophy.[54] However the interest of sound hunters was also aimed toward less spectacular vehicles. Hence David Anthony Peart, a train and bus enthusiast from Yorkshire, for example, used a Uher portable reel to reel recorder to document the sounds of every model of bus and coach used in Yorkshire – the largest county by geographical area in England, including large metropolitan areas and small rural communities. A member of the Railway Society, he was also a keen train recordist. A patient collector, he accumulated 1600 reels of transport recordings over forty years.[55] Peart was not alone in his quest for the sounds of people and goods on the move, as figure 35 shows.[56] The figure shows the sleeve of a cassette self-released by Richard S. Smith, another coach enthusiast.[57] The writings on the cassette's sleeve – the title with "Second edition," the indication of the recordist, the "copyright reserved" precision – indicate that, if self-released (no label appears anywhere), the cassette was nonetheless distributed. That distribution occurred within the network of buses and transport enthusiasts, remaining invisible and inaccessible for people outside the pursuit.[58] Peter Handford, who will appear again in the chapter, started his business of train recordings in the same way, through a mail-order circulating in train enthusiasts' circles.[59] These networks were international in reach. In January 1969, for instance, a Greek amateur asked French sound recordists to send him the sonic ambience of the Gare de Lyon, in Paris. Soon after, a tape was sent to him.[60]

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[54] Stanley R. White, "Sound Stories," *Tape Recording*, February 1959, 13.

[55] Peart disappeared in 2006. He is the "Yorkshireman" whom Ian Rawes spoke about in his interview with Cathy Lane (C. Lane and A. Carlyle, *In the Field*, 135-146, 137). His collection was acquired by the British Library in 2007. Many thanks to Vedita Ramdoss, Sound and Vision Team Leader at the British Library, for hunting down this collection in the BL collection.

[56] Many thanks to Vedita Ramdoss for the Richard S. Smith cassette reference.

[57] Smith has a website: http://richardstransportpages.co.uk/ (accessed 21/07/2022).

[58] Nowadays, the main reference for buses and coaches is https://www.classicbuses.co.uk, a website by Dick Gilbert maintained since 1996. The links tab is especially extensive, as is the calendar of events (accessed 21/07/2022).

[59] Peter Handford, *Sounds of Railway and Their Recording* (Newton Abbott: David & Charles, 1980), 57-62.

[60] *Le Magnétophone*, January 1969, 32-3.

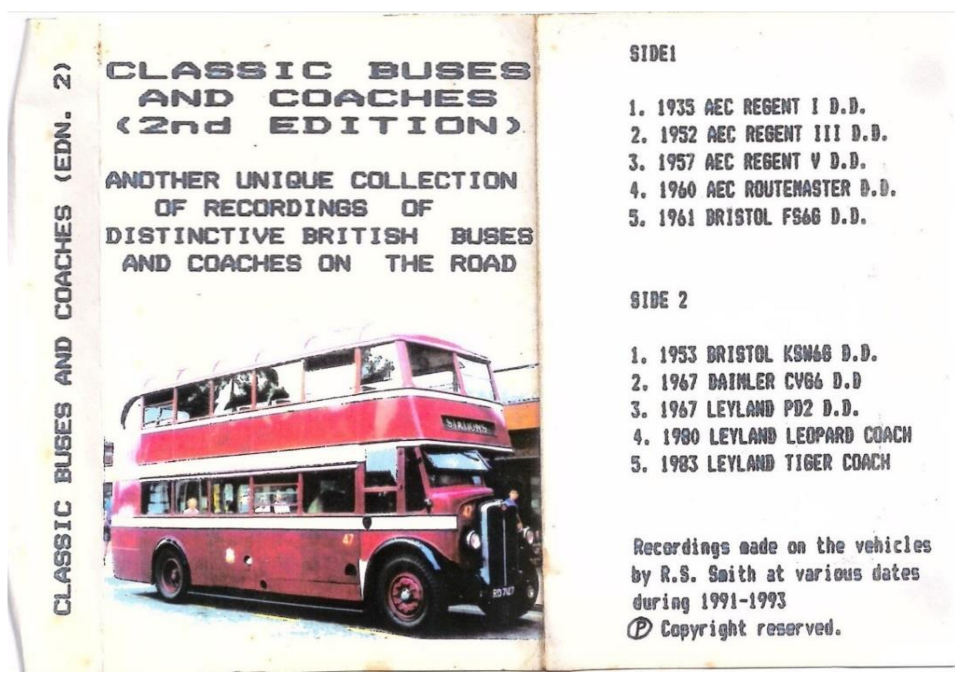

Figure 35: Richard S. Smith, *Classic Buses and Coaches* cassette sleeve.

A similar organisation is observed for wildlife recordings, with active local and national associations. The network of bird songs recordists built on those of ornithologists, which was already existing and efficient. Jean-Claude Roché, a pioneering audionaturalist who built one of the most important bird song libraries in the world, relied on this network for his travels.[61]

In her work on Dutch sound hunters, Karin Bijsterveld noted, from the 1970s, a shift in the appreciation of screaming engines and other industrial noises, replaced by an awareness of the noise created by the modern world.[62] That was a trend within sound hunters, who started by that time to capture the anthropisation of the environment and its impact on the sonic ambience, as revealed in the application forms of the different contests present in the Thévenot collection. "Planes, cars, and other sound pollutions threaten to discourage us," said one of them. But with patience, "despite all opposition," this sound hunter, Francis Guérig, was able to "find the sound take that will bring tears to the most sceptical."[63] Nature sounds were increasingly seen as a way to cope with the noisiness of daily urban life.[64] Interviewed in a French national newspaper in 1978, another sound hunter

[61] Jean-Claude Roché interviewed by Bernard Fort, *Jean-Claude Roché, Audio-naturaliste. Dialogues avec Bernard Fort et les oiseaux*, Frémeaux et Associés FA5757, 2020.
[62] Karin Bijsterveld, "'What do I do with my tape recorder…?': Sound hunting and the sounds of everyday Dutch life in the 1950s and 1960s,' *Historical Journal of Film, Radio and Television* 24, no. 4 (2004): 613-34, 630.
[63] Form of Francis Guérig. Archives JT et CdS, 19910681/30, folder 31ème CIMES – 1982, Parme, sub folder CIMES 82, fiches et scripts de participation.
[64] That idea was not novel, as Karin Bijsterveld showed, but I am focusing here on sound hunters. Karin

commented that "the sound of waves, one can listen to it for hours. Well recorded, the backwash is a genuine relaxation music, like a lullaby amidst an aggressive world."[65] The 1970s were the decade of the expansion of New Age movements; when whale songs became known through bestseller discs like Roger Searle Payne, *Songs of the Humpback Whale*[66] (which features recordings of whales) when Irving Teibel started his *Environment* series,[67] when Dan Gibson started his *Solitudes* series[68] (these last two feature nature recordings devoid of any human sounds). At the same time that R. Murray Schafer started to work on acoustic ecology, with the birth of the World Soundscape Project in 1970 and the publication of *The Book of Noise* the same year. *The Vancouver Soundscape* was released as a double LP and companion book in 1973, while his most-known book *The Tuning of the World* was edited in 1977.[69] Sound hunters were part of a wider movement to record "nature" (without the noises created by modern humans).

By the beginning of the 1980s, the term "soundscape" also appeared under the pen of sound hobbyists:[70] For instance, in the 1982 IARC, Jacques Remazeilles and Bernard Ancèze submitted

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Bijsterveld, *Mechanical Sound: Technology, Culture, and Public Problems of Noise in the Twentieth Century* (Cambridge, MA: MIT Press, 2008); Mansell, *The Age of Noise in Britain*.

[65] France Rome, "Les oreilles en balade. À la découverte de la vie sonore, la chasse au son," *L'Humanité*, 12 July 1978, 6. The sound hunter is named by his first name only, 'Dominique.'

[66] *Songs of the Humpback Whale*, CRM Records SWR-11, 1970. Released to a much larger scale by Capitol Records the same year under the reference ST-620. National Geographic included extracts of the album on a flexi-disc with its January 1979 issue (vol.155 n°1), instantly distributing it to 10,5 million copies worldwide. In relation to what I said about commentary, it should be noted that while the original release was devoid of a voiced commentary, this one being only printed on the sleeve (with much more precision on the Communication/Research/Machines (CRM) edition than on the Capitol one), National Geographic thought that a voice commentary was necessary to accompany its flexi-disc. For a recent commemorative interview with Payne, see Tim Lewis, "'It always hits me hard:' how a haunting album helped save the whales" *The Guardian*, 6 December 2020. https://www.theguardian.com/environment/2020/dec/06/the-songs-that-saved-the-whales (accessed 24/07/2022).

[67] Released under the name of his company, Syntonic Research Inc., and published by Atlantic between 1969 and 1979. Teibel labelled his discs as "psycho-acoustic" and used them for therapeutic uses. His archive has been given to the New York Public Library by his daughter Jennifer Ballow.

[68] The *Solitudes – Environmental Sound Experiences* series (1981-1989) consist of twelve albums featuring pristine nature recordings. They were published by Gibson own company, Solitudes. From 1989 on, Gibson systematically added music to his nature recordings. Gibson, who had a career in documentary film before starting his Solitudes business at 59, developed and patented a parabolic microphone for his recording. Gibson donated his archives to Library and Archives Canada.

[69] Raymond Murray Schafer, *The Book of Noise* (Vancouver: Price Print, 1970); Raymond Murray Schafer (ed.), *The Vancouver Soundscape* (Vancouver: Sonic Research Studio, Simon Fraser University, 1973); Raymond Murray Schafer, *The Tuning of the World* (New York: Knopf, 1977).

[70] For a critical approach of the term, see Jonathan Sterne, 'The Stereophonic Spaces of Soundscape,' in *Living Stereo: Histories and Cultures of Multichannel Sound*, ed. Paul Théberge, Kyle Devine, Tom Everrett (New York: Bloomsbury, 2015), 65-83; Tim Ingold, 'Four objections to the concept of soundscape,' in *Being Alive*, Tim Ingold (Abingdon: Routledge, 2011), 136-9.

their *Paysages sonores des Basses-Alpes* [Soundscapes from the Lower Alps], a "Magnetophonic (sic.) composition based on authentic sounds. As a study of soundscapes, this document could be used for pedagogy."[71] A shift, also concerned radio organisms, was clearly underway during these years. This shift. In 1976, the European Broadcasting Union decided to organise an international and interdisciplinary roundtable on the place of sound in contemporary societies and on the mentality of people. The organisation of that colloquium was undertaken by Radio France, which set a series of "exploratory meetings" led by its *Cellule d'études prospectives* [Prospective Studies Team] between the 8th and the 17th of November 1977.[72] Sound hunters participated in these meetings, as well as several fishermen of Lesconil, the French village that Schafer visited for *Five Village Soundscapes*, who moderated and corrected Schafer's conclusions.[73]

A radically different strand of sound hunting recorded disappearing mechanical sounds. People like Peart, Smith and Handford sought to preserve old mechanical sounds, and, in that sense, their work was very similar to the work of wildlife recordists. Mechanical sound recordists and wildlife ones were cataloguing the sonic world and its evolution, the coming of new sounds and the vanishing of others. Despite being often not very visible, they nonetheless achieved the preservation of natural and human-made sounds on a wide variety of subjects, and a number of their collections are unique and non-replicable: the original life-forms are extinct or much diminished in number and machines are now silent. External observers were aware early of that work and its importance and praised sound hunters for it. Hence, in 1955:

> "Differently from official historians that are the radio professionals, these amateurs are memorialists. (…) Besides the university scholars that we hear all year long, there are those amateurs, the isolated researchers. What would be our archives, our National Museum of great voices if these obscure, low-ranking, these nobodies were not here?"[74]

The journalist E. Dana had the conservation of radio archive more specifically in mind (hence the reference to the great voices of the past), but his remark could well be applied to the sound hunters I named above. In Britain too, sound hunters were invited "to join the hunt for Britain's vanishing sounds."[75] In that article, sound hobbyists were bid to turn into "sound preservers" in order to save the typical sounds of their hometown, the voices and memories of the elderly, the local folkloric music, the street sounds of transportation in decline such as cart horses and steam trains. The author (unnamed) also mentioned that all these "sound records of local history" could

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[71] Form of Jacques Remazeilles and Bernard Ancèze. Archives JT et CdS, 19910681/30, folder 31ème CIMES – 1982, Parme, sub folder CIMES 82, fiches et scripts de participation.
[72] Cellule d'études prospectives de Radio France, *L'Homme d'aujourd'hui dans la société sonore* (Paris: Radio France, INA, 1978).
[73] *Ibid*., 223-30.
[74] E. Dana, "Auditeurs, à vos postes," *Le Dauphiné Libéré*, 7 November 1955.
[75] "Sound Hunting. Capturing Britain's vanishing sounds," *Amateur Tape Recording*, April 1962, 26.

be turned into valuable radio material for the local radio.[76] Sound hobbyists were documenting what was usually not documented but which – until their disappearance – was part of everyday life. These examples demonstrate an attention toward the sonic milieu, and how the sounds inhabiting the everyday became a source of interest and contemplation.

5.1.3. *Musique concrète*, electronic music, technical experiments

As the examples of Halim El-Dabh, Francis Dhomont (second chapter), and Walter Murch (fourth chapter) have shown, sound hobbyists made what could be called proto-*musique concrète* and electronic music. As I argued, the possibilities of these types of music, their affordances, were offered by sound recorders. As Pierre Schaeffer himself wrote, it was possible to transform recorded sounds by accident or through an alternative utilisation of the equipment, such as playing the same disc at different speeds.[77] For people who had not personally experimented with sound recorders, the public promotion of *musique concrète* and electronic music on radio and through concerts came soon in the 1950s. In Britain, an article of *The Times* mentioned the February 1954 broadcast of *musique concrète* on the Third Programme as the first of its kind in the country. The same article details that the same year, a morning session of the Aldeburgh music festival was dedicated to *musique concrète*, at which Tony Meyer, cultural attaché of the French embassy gave a lecture and a demonstration on it.[78] In France, the public promotion started earlier. The main *musique concrète* centre was the Club d'Essai, and because it was part of Radio, it had its own slots and programmes, which ensured that there was a regular promotion of this innovative form of music from 1948; although broadcasting infrastructure remained in a poor state after wartime damage which meant that the Club d'Essai's coverage was limited to Paris and its surroundings until 1950 when it started to be broadcast on short waves through Paris Inter.[79]

By the middle of the 1950s, *musique concrète* was sufficiently well known to provoke parodies. Indeed, at the 1956 IARC, several *musique concrète* pieces – all from Belgium – won first prizes, including the Grand Prix. One of these was a documentary made by a 26 year old bachelor in criminology from Mons, Jacques Bouillon, whose parody of *musique concrète* won the first prize in the 'Documentary' category. It consists of a radio interview with the imaginary composer Flanel

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[76] *Ibid*.

[77] Pierre Schaeffer, *À La Recherche d'une Musique Concrète* (Paris: Seuil, 1952), 22-3. Schaeffer was using discs at that time (1948), but the same is possible with wire and tape recorders.

[78] "Musique concrète: Noise, sound, or music?" *The Times*, 1 July 1954, 5. Louis Niebur also mentions that broadcast of the 5th of February 1954 as the first broadcast of *musique concrète* in Britain (Louis Niebur, "'There Is Music in It, But It Is Not Music': A Reception History of *Musique Concrète* in Britain," *Twentieth-Century Music* 15, no. 2 (2018): 211–30, 223).

[79] Robert Prot, *Jean Tardieu et la nouvelle radio* (Paris: Harmattan, 2006), 96-7

Plotszky, who had just achieved his magnum opus, *Cosmogonies Aléatoires* [Aleatory Cosmogonies] a 3 hours and 22 minutes long piece of *musique concrète*. Despite the interview format, most of the nearly nine minutes of the documentary comprised music, with extracts from "the darting theme of reincarnation," "the scream of the lone human," and other examples. The interview was brought to a halt when Flanel Plotszky left the studio to protest that his piece was not going to be played in its entirety while the interviewer tried to justify himself "well, because, *musique concrète*…hem…it is a bit like mushrooms…: it's very good, but there is such a thing as too much!" The 18th movement, 'Finale in form of conch shell,' was then played.[80]

That same year, the Grand Prix was awarded to a 22 year old unemployed Belgian woman, Monique Canon (one of only two women to have won a Grand Prix). Canon composed *Thème et variations sur instruments à percussion* [Theme and variations on percussions] by recording all the instruments and using "in the simplest way" the possibilities of the tape recorder to develop her ideas, "like a musician would have developed, from a theme, a symphony." To illuminate "moments that seemed dull and not very radiophonic, (…) to give them more homogeneity and brightness," Canon "thought that a bit of echo would give them the missing strength." Rhythm is the main idea of the piece which is "what is now usually called *musique concrète*."[81] Even if only a few *musique concrète* pieces have been preserved in the Thévenot collection, the written entries of the IARC and the written scripts of his radio programme demonstrate that *musique concrète*, its principles and aesthetics, were known and practiced at home by amateurs by the mid-1950s.

By the end of 1950s and the 1960s, British tape recording club members were also routinely engaging with *musique concrète*. In 1959, for instance, members of the Leicester Tape Recording Club worked on a play with an outer space theme, that provided "plenty of scope for experimenting in the musique concrete field,"[82] while during the following year, the members of the Eastbourne Tape Recording Club convened on Wednesdays "to compile musique concrete."[83] At the 1959 IARC, Thévenot noted that "the difficult exercise of *musique concrète* seems to be the guilty pleasure of amateurs. We heard a lot this year, in Paris first, and then in London."[84] Hence, both the French national selection (that was judged in Paris) and the international selection (the IARC happened in London that year, where the national selections competed) had a good proportion of

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[80] Jacques Bouillon, *Regards – très personnels – sur la musique concrète*. Archives JT et CdS, 19910681/19, folder 5ème CIMES – 1956, Paris, sub folder Fiches des participants.
[81] Monique Canon, *Thèmes et variations sur instruments à percussion*. Archives JT et CdS, 19910681/19, folder 5ème CIMES – 1956, Paris, sub folder Fiches des participants.
[82] *Tape Recording*, 4th November 1959, 31.
[83] Fred Chandler, "News from the Clubs," *Tape Recording*, 27 July 1960, 23.
[84] Jean Thévenot, script of the special programme of the 10th of December 1959, France 2, 20h31/22h. Archives JT et CdS, 19910681/20, folder 8ème CIMES – 1959, Londres, sub folder Émissions spéciales.

this musical style. Sound hobbyists were thus well informed of what was possible to do with a tape recorder and of the latest musical evolutions.

Electronic music was also composed by amateurs in the 1950s. In a pioneering work, the music historian Ian Helliwell has documented the work of British pioneers of electronic music, a number of them being amateurs.[85] Frederick Charles Judd, ardent promoter of electronic music, offered multiple series of tutorials in *Amateur Tape Recording*, a magazine in which he served as technical editor.[86]

In France, for external observers, sound hunters and Thévenot were associated to technical experiments, at least in the 1950s. Thus, when the producer Jean Ployé decided to do a series about 'His Majesty Sound' [*Sa Majesté le Son*] in 1958, he asked Thévenot to take care about the documentary and experimental practices.[87] Alongside the presence of Abraham André Moles (with whom Thévenot produced in 1957 a programme for Swiss Radio, *Sounds from Tomorrow or Elsewhere* [*Sons de demain ou d'ailleurs*]), sound hunters were regularly featured in this programme. This being said, as Thévenot wrote in 1964, dull utilisations of the tape recorder to produce electronic music and *musique concrète* were also produced routinely.[88]

These became rare by the mid-1960s, at least in the tapes sent to the IARC. Thus, in 1964, Thévenot commented that there was less and less "technical manipulations considered as an end in itself and that I would describe as completely pointless." On the contrary, "inventiveness" was more present, and was "established on the resources of daily life as much as stemming from the sources of imagination."[89] Sound hobbyists searched for alternative ways to use the equipment, and the best hobbyists infused research with poetry. They were engaging in experimentalism, as defined by Benjamin Piekut, that is, a practice that explore "both ordinary and extraordinary:" the "everyday world around us, as well as the possibilities that this world might be otherwise."[90]

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[85] Ian Helliwell, *Tape Leaders. A Compendium of Early British Electronic Music Composers* (Velocity Press, 2021 [2016]).

[86] For instance, between November 1960 and March 1961, he offered a series on "How to make modern music with a tape recorder."

[87] Letter from Thévenot to Joseph-Maurice Bourot, 30 October 1958. Archives JT et CdS, 19910681/35, folder Émission "Sa majesté le son », 1958-1959.

[88] Jean Thévenot, press release for *Musica* concerning the IARC 1964, 26 November 1964. Archives JT et CdS, 19910681/24, folder 13ème CIMES – 1964, Lausanne, sub folder Presse publiée (dont publications allemandes).

[89] Jean Thévenot, press release for *La Revue du Son* concerning the IARC 1964, December 1964. Archives JT et CdS, 19910681/24, folder 13ème CIMES – 1964, Lausanne, sub folder Presse publiée (dont publications allemandes).

[90] Benjamin Piekut, *Experimentalism Otherwise* (Berkeley and Los Angeles, CA: University of California Press, 2011), 2.

Hence, in 1962, for the IARC, a Swiss sound hunter, Francis Jeannin, a 24 years old "instrument specialist,"[91] had the idea "[of making] a recording without the help of a recorder." He used only a tape and a magnet (taken from a loudspeaker) to produce the sound elements of the piece. Because the magnet re-orients the magnetic particles of the tape, it was possible to inscribe sounds on it and to modify sounds that pre-existed. To increase the range of possibilities, Jeannin played that altered tape on his reel-to-reel at different speeds while moving the magnet around the tape. With a careful and informed manipulation, Jeannin was able to produce "all sorts of noise effects. The wood-sawyers, the slow motion of a motor and the passing by of a few racing cars, the taking-off of a jet, (…) a four engined plane." Using these noise effects, multitracking, and further tape manipulation (speed variation, echo, editing), he composed an "haunting music" that obtained the third prize of the editing category. Forty hours were necessary to obtain the final result.[92]

During the same year, a 44-year old metal worker from Switzerland, Willi Bauman, used the erasing frequency of his tape recorder as a signal generator. He slowed down the 70 kHz frequency by recording it while rewinding the tape and played this recording at slow speed while recording on a second recorder. As the rewinding speed is not stable, he obtained a gradually decreasing tone that he subsequently used as a "sort of non-graduated scale" to compose a musical piece. This one was highly praised, and he won the second prize of the sound effect category.[93]

With the spreading of cassette recorders, such experiments became rarer and are no longer present in the submissions to the IARC in the 1970s. In one of his last interviews in 1983, a few months before his disappearance, Thévenot believed that sound hobbyists had become less creative, that they relied too much on technology, and that their recorders were doing most of the work. Moreover, the cassette forbade editing, and for him, creation meant editing was a necessity.[94]

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[91] I am not sure what Jeannin meant by "instrument specialist," as no further information is provided on his form.

[92] Francis Jeannin, *Ballade d'un aimant*. Archives JT et CdS, 19910681/22, folder 11ème CIMES – 1962, Strasbourg, sub folder Note, sub sub folder Catégorie B.

[93] Willi Bauman, *Ticino*. Archives JT et CdS, 19910681/22, folder 11ème CIMES – 1962, Strasbourg, sub folder Note, sub sub folder Catégorie E, trucages.

[94] Jean Thévenot interviewed in *Atout cœur*, Radio Bleue, 29 April 1983.

5.2. Creative listening

5.2.1. Everydayness

I described how the everyday was an influence for sound hunters in the previous part. I conceive the everyday as the habitual, the customary, and everydayness as a quality, the specific within the global of the everyday. This move from 'everyday' to 'everydayness' follows Henri Lefebvre's analysis. For him, the everyday was a point of reference, "the most universal and the most unique condition, the most social and the most individuated, the most obvious and the best hidden."[95] As a condition, the everyday was experienced and practiced, and everyday life was a mode of being, linked to repetition.

By contrast, everydayness is the difference in the repetition and is linked to change.

> "Banality? Why should the study of the banal itself be banal? Are not the surreal, the extraordinary, the surprising, even the magical, also part of the real? Why wouldn't the concept of everydayness reveal the extraordinary in the ordinary?"[96]

To find beauty in the banal, to reveal the cultural weight put on the banal, on the everyday, that render it no longer experienced, is the experience of everydayness. This allows us to understand how sound hunters turned the everyday into something of their own, how a creative practice emerged from the listening of the everyday. As the artist Allan Kaprow said: "Intentionally performing everyday life is bound to create some curious kind of awareness."[97]

The specific sound hunting listening habitus that performs everyday life was expressed by the sound hunter Graham Harris in the August 1967 issue of *Amateur Tape Recording*. He recounted his sonic experience at a crossroad in Salzburg:

> What sounds like an insignificant noise to the human ear is not necessarily so to the sensitive microphone. Equally important is that what may sound like a jungle of noise at the time can, at a later date, be atmospheric. An ordinary street scene is not so cosmopolitan as it may seem to be at first. What applies to the camera also applies to the tape recorder. It is not always the pretty picture that sends friends in ecstasy: it is not always the unusual sound that pricks the ear. During one holiday I stood in one of the streets of Salzburg – away from the tourists' attractions, the castle, the Platz, away from the narrow streets with wrought iron shop signs. I was in the centre of a crossroads – dull perhaps, but precarious. I fired the camera and detonated the tape

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[95] Henri Lefebvre, "Everyday and everydayness," *Yale French Studies* 73 (1987): 7-11,9.
[96] *Ibid*.
[97] Allan Kaprow, *Essays on the Blurring of Art and Life* (Berkeley, CA: University of California Press, 2003), 187.

> recorder for no other reasons than that scene with its mass of sound was what I saw and heard at that time.[98]

This experience relates to what Martine Leroux has called the Sharawadji effect – the sensation of awe produced by a sound environment. This effect, always circumstantial, is especially linked to everyday life, and is a decontextualization of what is not, a priori, beauty: the banal suddenly appears beautiful.[99] You are suddenly part of the around, of the atmosphere. Such an attitude was exemplified by the sound hunter Bob Danvers-Walker, a regular collaborator of *Amateur Tape Recording* (figure 36). Through his articles, he portrayed the microphone and the tape recorder as tools of awareness toward the sound environment, and tools adapted to explore its sonic potential – for itself, for preservation, or for use within a soundtrack or an electroacoustic music piece. As detailed in the previous chapter, sound hunting was an education of the ear, a sonic disciplinarity, something that Harris summed up in the same article a few lines after:

> "[sound hunting was not] just a matter of simply waving the microphone around willy nilly. On the contrary, a fully trained sound scout will be a professional listener."[100]

What Harris meant by "a fully trained sound scout" being "a professional listener" was somebody able to make a sidestep from her or his habits, to de-habit her or his perception.[101] In other words, to adopt a new listening habitus. That ability can, and often does, require training to move between different intentions of listening, especially when the sounds are related to a non-attractive everydayness, such as the *Sink Symphony* of Ray Stanton King (a composition based on sink noises that won the 1964 IARC which I will explore in the next section) – that is, based on the incidental everyday that is usually not afforded much attention at all, let alone as an object of aesthetic beauty. That side-stepping from habits, to access the beauty in the banal, is very close to the "art of hearing" that Pierre Schaeffer developed through *musique concrète*, that is, an ability to de-center, to decontextualize what is heard, to listen to the sonic qualities beyond the eventual meaning or recognition of sound.

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[98] Graham Harris, "A Touch of Old Safari," *Amateur Tape Recording*, August 1967, 12-3.

[99] Martine Leroux, "Sharawadji," in *À l'écoute de l'environnement. Répertoire des effets sonores*, ed. Jean-François Augoyard and Henry Torgue (Marseille: Éditions Paranthèses, 1995), 126-32.

[100] G. Harris, "A Touch of Old Safari," *Amateur Tape Recording*, August 1967, 13.

[101] On de-coincidence, see François Jullien, *Dé-Coïncidence: D'où Viennent l'art et l'existence* (Paris: Grasset, 2017), et François Jullien, *L'inouï* (Paris: Grasset, 2019).

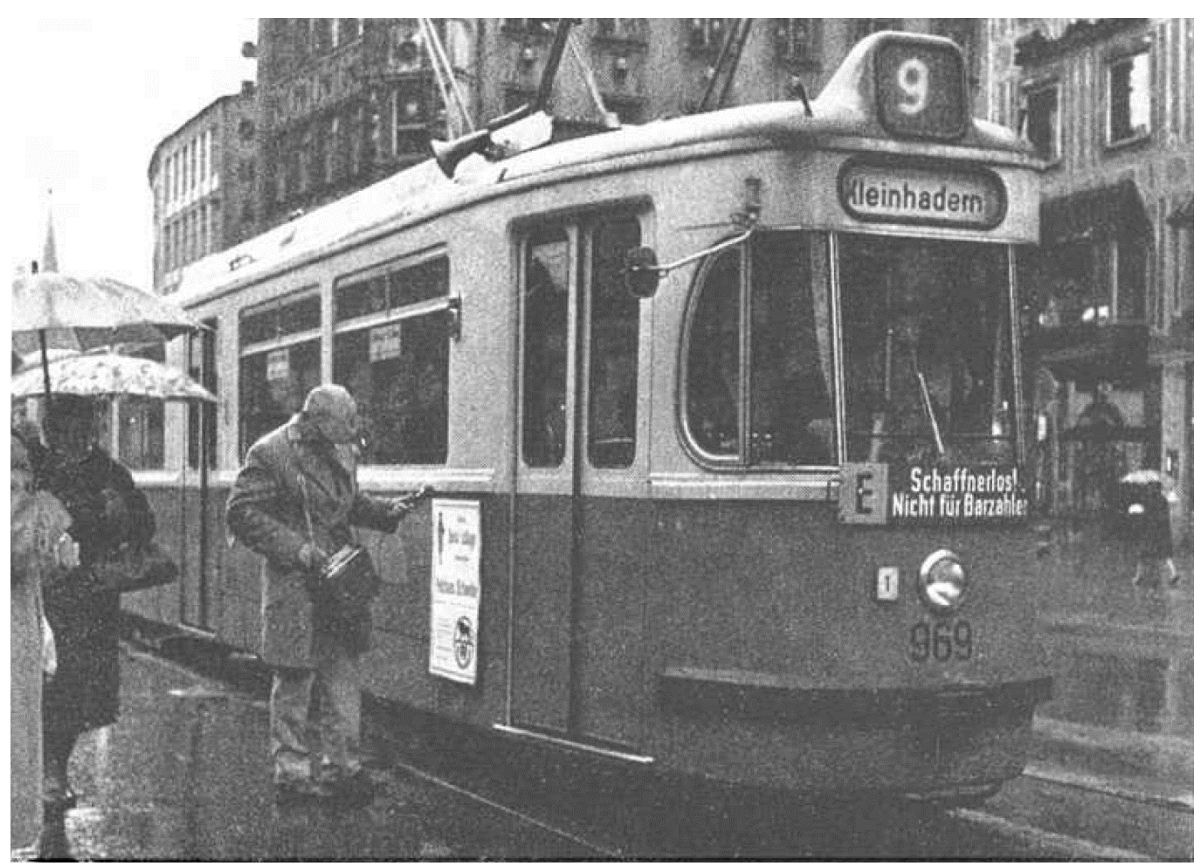

Figure 36: Bob Danvers-Walker recording a tram in Munich.
Amateur Tape Recording, August 1967, 20.

Such an art of hearing was practiced in 1964 by the sound hunting section of Lausanne when they recorded a soundwalk within the National Switzerland Exhibition. They even published it under the title *Souvenirs de l'Expo*. The disc was a collection of recordings made by the Swiss team in the different areas of the exhibition. These recordings were edited and organised into one global piece of 26 minutes that was published on disc on the Fono Gesellschaft label.[102] Besides this piece, the *Association Suisse des Chasseurs de Sons* held a stand at the Exhibition, through its Lausanne antenna, which was presided by Lucien Ghittori at the time. Sound hunting demonstrations were organised during the nine months of the Exhibition (which started in April and lasted until the end of the year).[103]

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[102] Chasseurs de Sons de Lausanne, *Souvenirs de l'Expo*, Fono Gesellschaft FG 25-4319, LP7576, 1964. This disc has been digitised by the Swiss National Sound Archives and can be listened here: https://www.fonoteca.ch/cgi-bin/oecgi4.exe/inet_fnbasedetail?REC_ID=18348.011 [consulted 26/06/2021]. The Swiss sound hunters that I questioned were not able to identify the sound hunters who produced that work.

[103] Archives JT et CdS, 19910681/24, folder 13ème CIMES – 1964, Lausanne.

The 26' of the disc are recordings made on-site, without any commentary. If voices are heard, they are from exhibitors present during the recording, or emanating from PA speakers present in the Exhibition spaces. This makes the work remarkable, as recordings of such length without any commentary are rare. The work takes the form of a soundwalk in the Exhibition, which different areas are depicted through 56 field recordings. The transition between these field recording is done thanks to the *Allegro* of the Divertimento in B-Flat Major K.270 by Wolfgang Amadeus Mozart, through a few bars each time. Such an organisation is highly reminiscent of the *Pictures at an Exhibition* of Modest Mussorgsky where a musical theme serves as an introduction and link between all the pieces, which are musical depictions of drawings and watercolours by Victor Hartmann. Here, in *Souvenirs de l'Expo*, it is the *Allegro* of the K.270 that serves as the personification of the visitor, who wanders through the Exhibition. The signature tune from the Exhibition opens the piece, followed by an arrival by train at the North entry of the Exhibition. The conclusion is made by the closing of the doors of the East exit.

The contrast between the field recordings and the Mozart piece is striking, even more so because the sound takes are short (less than a minute), not accompanied by any commentary, and consist of machine sounds, general ambience, birds, presenters speaking in German, French, Italian, or several languages at the same time, or sounds of unknown origin – basically the sonic ambience of the Exhibition. On multiple occasions (the different machine recordings, the photography stand where different languages are overlaid), there is no precise focal listening point, and it is the general ambience that was recorded, as for Graham Harris above. That presentation, devoid of any written or spoken commentary, is an invitation to listen to each sonic scene for itself. As such, the disc of the Chasseurs de sons de Lausanne fulfils what is for John Levack Drever one of the underpinning goals of soundwalk, "circumnavigating habituation, in a process of de-sensitization and consequently re-sensitization, in order to catch a glimpse (*un coup d'oreille*) of the 'invisible, silent and unspoken' side of the everyday."[104] Presented here is the sonic ambience of the everydayness that characterised the Exhibition. As the editing is very fluid, the ensemble flows as one piece that depicts a walk through the Exhibition. The flow of the piece is facilitated by the fact that, at each apparition, the Mozart divertimento resumes from where it stopped (and is not started again from its beginning). As the walk progresses through the Exhibition, the listener also progresses through the divertimento, which gives the impression of a stroll with different stopovers.

In light of this, the *Souvenirs de l'Expo* was a remarkable work for the time, very close to the 'anecdotal music' that Luc Ferrari would develop a few years after. The founding piece of this anecdotal music is *Presque rien n°1, ou, Le lever du jour au bord de la mer*, achieved in 1970. The piece is composed of a multitude of recordings made by Ferrari in the Croatian fishing port of Vela Luka

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[104] John Levack Drever, "Soundwalking: Aural Excursions into the Everyday," in *The Ashgate Research Companion to Experimental Music*, ed. James Saunders (Farnham: Ashgate, 2009), 163-92, 166.

in 1967. He set the microphones at his window and recorded every morning between 4am and 6am. The editing was made "with the most undetectable intervention possible" to give the sensation of one long sequence shot. In the programme's note of the piece, Ferrari described it as "a sonic photographic slide," "the most faithful and realistic reminiscence of a fishing village at dawn."[105] The piece was the completion of an evolution that lasted several years, in which he worked to remove any abstract sounds and to keep the context within which sounds were recorded. In the words of Simon Emmerson, Ferrari moved from an aural discourse to a mimetic one, a major move from the aesthetics and method of Pierre Schaeffer, with whom he worked for several years and who, as I mentioned, privileged an aural discourse and disregarded mimetic ones.

The *Chasseurs de son de Lausanne* and Ferrari lent an ear to the peculiar attributes that could turn the banal into the beautiful. They remained curious about the everyday sonic milieu, to extract specific qualities of it, to find its everydayness.

5.2.2. Curiosity

Curiosity is to reach, to engage with what surrounds you, to welcome it. Curiosity is a mode of being, and a way to engage with daily environments and situation. To be aware and interested in what lies around and in what is going on is a way to open oneself to the beauty that can emerge from the banal, from the song of a blackbird to the colour of the sea, or to the aethereal harmonics of a vacuum cleaner. Everyday aesthetics has emerged as a current in philosophy of art, "which rejects or puts into question distinctions such as those between fine and popular art, art and craft, and aesthetic and non-aesthetic experiences."[106] Following Dewey, all experiences, even the most mundane sounds, can be considered from an aesthetic point of view.[107] That was the approach of Ray Stanton King when, in 1964, he recorded sink noises in south-west England (figure 37).[108] A salesman from Oxford, he already regularly used his Fi-Cord portable tape recorder to record "trains, busy streets, weighting machines."[109] And it was thanks to his frequent travels and stays in hotels that he realised the variety of sounds that a sink could produce. Hence, he endeavoured to record "well over forty sinks," to finally select "seven good and contrasting examples of the most

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[105] Luc Ferrari, *Presque rien n°1, ou, Le lever du jour au bord de la mer*, Maison ONA 0059, 2018. The score features the complete editing plan established by Ferrari.
[106] Crispin Sartwell, "Aesthetics of the Everyday," in *The Oxford Handbook of Aesthetics*, ed. J. Levinson (London, New York: Oxford University Press, 2005), 761-770, 762.
[107] John Dewey, *L'art comme expérience* (Paris: Gallimard, 2010 [1934]), 32-7.
[108] The piece can be listened here: https://soundhunters.com/soundfiles/sink.mp3 (accessed 18/07/2019).
[109] Ray Stanton King, "Boredom Led to the Production of Sink Symphony," *Tape Recording*, December 1964, 491.

fruity sinks in south-west England."[110] Accompanied by a commentary guiding the listener on the qualities of each sink for producing a variety of rhythms and sound matters, the tape won the first prize of the seventh edition of the British Amateur Tape Recording Contest, and, a few weeks later, the Grand Prix of the twelfth edition of the International Contest for the Best Sound Recording. Beyond the piece, which could have been composed by John Cage or a Fluxus artist, the important point is that someone, who was not a musician, had the idea to repeatedly listen with curiosity to the gargling of a sink, and, grasped by the details, decided to record more of them, to compose a piece and to share it. The most mundane things can be interesting if one gives attention, if one reaches to it and welcomes it, if one is part of it. There is a mutual enrichment of the subject and of the object of attention, and beauty can arise from this exchange, even with the banal.

Figure 37: Ray Stanton King mimicking a recording of a sink for an advertisement for Fi-Cord, Grampian and Brenell. King used the Fi-Cord (left) and a Grampian microphone (in hand) for the recordings. The editing and final dubbing was done on a Brenell tape recorder (lower right).
Tape Recording, January 1965, 7.

[110] *Ibid*.

Certainly, there are different ways to read King's piece. It can be viewed as a parody toward the very practice of sound hunting and toward the contest, and as self-mockery. However as one reads his account of the piece, it enters another level, one of curiosity toward the sound of an everyday object. Which raises the issue of King becoming intrigued enough to extensively listen to and record sinks. That curiosity was part of his interest for "off-beat and off-street noises met during [his] search for unusual recordings." King recalled:

> "It was early one morning in an Exeter hotel. I had staggered to the wash-basin, damped my eyebrows, and pulled out the plug. Inspiration hit me as abruptly as it must have done Archimedes: there it was, the most beautiful noise any tape enthusiast had ever heard! "Bz-Bz-Bz-Bz-kerjoink, blooop, whistle and hoot!" Everything up from 40 cycles to 12 Kc/s!"[111]

The technical detail of frequencies shows that King was not a beginner. His listening habitus was that of a sound hunter. As with Graham Harris at a cross-road in Salzburg, King suddenly experienced a Sharawadji effect. No matter that the source of that wonder was a sink, King was fascinated by the beauty of what he was hearing. To compose the piece, King recorded "well over forty" sinks, often several times, and most probably listened attentively to even more during the three months of composition of the piece. Each sink was listened to several times before launching the recording, to study the noises and set the levels. In his enterprise, King had to learn to ignore the criticism that his sonic enterprise could generate. Some of his friends notably asked if there was a chance of his equipment getting over-heated.[112] Disregarding these satirical comments, he nonetheless discovered that old sinks produced more interesting sounds than new ones. That level of dedication goes beyond a simple joke. Certainly, a humorous aspect is still present, given the subject, but one of the most interesting features of the piece, that demonstrates a subtlety on King's part, is the balance between joke and seriousness. King knew that he was dealing with sinks, but nonetheless assumed a very serious tone in his commentary, describing and guiding the listener in what it means to be listening. Somehow, the tape is an exercise in reduced listening.

The mediation of microphones and amplifiers was paramount for King. As he said, "microphones so often hear much more than the human ear."[113] This mediation has an influence as it translates what comes through, presenting an alternative to the bare-ear perception. This dissimilarity, obvious in the case of King due to the limited bandwidth of the microphone he used (a Grampian DP4, a standard model for domestic use), helps to de-habit the perception, to de-coincide: a scenery will sound differently bare ears in comparison to a recording, and different equipment

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[111] *Ibid*.
[112] *Ibid*.
[113] *Ibid*.

and configuration of equipment will give different results. The recognition and the acceptance of this difference are ways to enlarge our cognitive and perceptual horizon. Notably because microphones can access places where the ear cannot be, and, through amplification, can reveal unheard details. The technological equipment can provide a renewal of the perception, the mediation of sound technologies helps to be differently at the same place. One can take interest in mundane sounds because they are presented differently, revealed under a new light, exposing details that were unknown, and unthinkable, before being experienced. One can become passionate about sinks.

As a practice based on listening, sound hunting helped people become conscious about what they were hearing, and therefore to experience the environment more intensively, beyond notions of sound, noise, and music – that depend on one's curiosity, action, and opinion at a giving time. "Wherever we are, what we hear is mostly noise. When we ignore it, it disturbs us. When we listen to it, we find it fascinating."[114] The blurring performed by John Cage of noise, music, and sound into only one category allows to give the same level of interest without projecting preconceived ideas or feelings onto what is listened to. Sound hunters like Ray Stanton King were doing exactly that.

To further approach curiosity in relation to sound, the concept of affordance developed by James Gibson to analyse visual perception provides avenues. "The affordances of an object are the uses, functions, or values of an object – the opportunities that if offers to a perceiver."[115] Applied to sound, this concept provides rich perspectives to study listening in relation to ambient sounds, as the sound environment could be seen as ever renewed affordances. Such an opportunity was experienced by a runner-up of the first British Amateur Tape Recording Contest, prompting the following comment by one of the judges: "An ambitious range of material, most of it well done. (…) His interest in sound for its own exciting sake was present all the time, particularly in the sequence which compared the song of the lark with the scream of jet aircraft."[116] To be able to listen to sound "for its own exciting sake" is to be able to perceive the aesthetic qualities of an object independently of its function in order to link them as part of a coherent sonic sequence. That is to say, as a listener opened to ambient sounds, this particular competitor (who was not named) was able to distinguish specific qualities in them – such as texture, rhythm, harmony, movement, or timbre to name a few – qualities that lied beyond, or more probably below, their significations. It was also possible for

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[114] John Cage, *Silence: Lectures and Writings* (Middletown, CN: Wesleyan University Press, 1961), 3.

[115] Eric Clarke, "What's Going On? Music, Psychology, and Ecological Theory," in *The Cultural Study of Music, a Critical Introduction*, edited by Martin Clayton, Trevor Herbert, Richard Middleton (New York & London: Routledge, 2012), 335-42, 337.

[116] Tony Gibson, "Tony Gibson's comments on one of the winning entries of the first British Amateur Tape Recording Contest," *Tape Recording*, December 1957, 21. The name of the composer of that tape is not given.

him to be able to jump between the contemplation of the details within a sound scene, to an appraisal of the globality of that particular sound scene: to focus on one specific element (like a bird or a motor) by isolating it from what is happening around; and to broaden the lens in order to perceive all the elements of the sound scene and their organisation. By which even the mundane sounds and environments become interesting to listen to, blurring the limits between noise, sound, and music, as did the candidate of the British Amateur Tape Recording Contest above, as did the anecdotal music of Ferrari, as did the *Chasseurs de Sons de Lausanne*.

A typical example of sonic curiosity were the technical experiments produced in the 1950s by Joseph-Maurice Bourot, a scientist from Poitiers. He presented several pieces for the IARC of 1954 and 1955 in which he was interested in the life happening below the threshold of human perception: the activity of a woodpile, the evolution of a chick inside its egg, the sound of a jumping flea. Here are a few lines from the introduction commentary of his piece *Un tas de bois… vous parle* [A Woodpile…Speaks]:

> The recording of very feeble sounds has always amused me. Of course, the best microphone is less sensible than the ear, whose possibilities are wonderful. But still, the amplification of the soft murmurs that inhabit our life is interesting, because they take a new flavour. They establish themselves; they emerge from the background where the roar of the modern city had put them. Sometimes, it is a real eye-opener.
>
> (…) It was a random woodpile, without any cheating nor preparation, trust me. A simple woodpile that, in my attic, waited for Winter. One night – because during the day, alas, it is too noisy – a night then, I went to interview it, with my microphone. And here is what he said, with admittedly a very low voice, barely covering the hiss of the valves or the noise of a late car, for finally being submerged by the recrimination of the inhabitants of a distant henhouse. Ladies, gentlemen, a woodpile…speaks!

The originality of Bourot's work is presented directly in the commentary: the recording of very feeble sounds from the everyday, unheard because of their softness and because of the noisiness of modern city. However, the mediation of microphones, amplifiers and speakers gave an access to them, and it was thus a usually inaccessible sound world that Bourot allowed others to hear. The duration of his commentary was often equivalent to the duration of the recording itself. But there was a need to explain what was being heard because of the unfamiliar aspect of the sounds, and because of the unfamiliar technique that allowed their recording. The entire success of the work relied, and still relies, on the listeners' understanding of what they had heard. The interest of the piece relied on the recognition of the sound source. Without an explanation, it was nearly impossible to recognise what was being listened to, and the appraisal of the sounds therefore required a trained listening habitus, as they were quite noisy. On the other side, the understanding of the

sound sources can provoke fascination in the listener: one is listening to a woodpile, to the heart-beats of a chick inside its egg, and one understands how exceptional it is to be able to hear them. Bourot then attached much care to his commentary, and in his precision, he is very pedagogical and knows how to harness the poetic power of sound.

Bourot's work of was a precursor to that of the Danish painter and sound artist Knud Victor (1924-2016) who, from the middle of the 1960s, recorded the very faint and subtle sounds of insects, rocks, birds and mammals in their nests. As with Bourot, Victor also relied on a commentary in numerous of his pieces, to compose a narrative and explain what is being heard.[117] He defined himself as "a sound painter," using his sound recordings as colours.[118]

A sign that sound hunting audile culture was a unified culture, such recordings, which demand as much a discipline of listening as a discipline of patience and waiting, were also practice in Switzerland, with someone like Otto Schöni, an interior designer from Binningen, who presented at the 1968 IARC recordings of a butterfly inside its chrysalid, of a butterfly drinking, of a snail removing his epiphragm, of a snail eating a leaf of salad, and of chicks in their eggs.[119]

The practice of Schöni, Bourot, Victor, and King aims to make one witness of a situation through a recording. An event is presented, unaltered. With the musicologist Pierre-Yves Macé, we can call these recordings "phonographies," recordings of parts of the real that "render audible the audible."[120]

5.2.3. Imagination

The third idea that I associate with the creative listening performed by sound hunters is imagination. As Marcel Cobussen puts it, "imagination is a necessary quality when listening."[121] It is

[117] For instance, *Le Petit Duc* and *Les Éphémères*.

[118] Patrick Martin, *Knud Victor, le chantre du Luberon*, France 3 Marseille, 26 October 1979. This documentary is available online: https://www.youtube.com/watch?v=FKmfDy6xvfk (accessed 30/04/2022).

[119] Otto Schöni application form. Archives JT et CdS, 19910681/25, folder 17ème CIMES – 1968, Prague, sub folder Textes et fiches Suisse, 17ème CIMES 1968. The folder bears the inscription "Prague", and Prague is also written in the inventory to describe this folder. However, as I explained in the third chapter, this edition was moved to Heidelberg at the last moment, following the invasion of Czechoslovakia by the Warsaw Pact armies.

[120] Pierre-Yves Macé, *Musique et Document Sonore : Enquête Sur La Phonographie Documentaire Dans Les Pratiques Musicales Contemporaines* (Dijon: Presses du réel, 2012), 80. The word 'phonography' comes from the Greek *φωνή* (*phonè*), a word translating a loud and clear sound, notably the voice and its sound, the cries of animals, the sound of instruments; and *γράφειν* (*graphein*), from the verb *γράφω* to write, to trace (Anatole Bailly, *Dictionnaire Grec-Français* (nl : Gérard Gréco, 2021), 2482 and 561).

[121] Marcel Cobussen, "Listening And/As Imagination," in *The Oxford Handbook of Sound and Imagination*, vol.2,

suggestive, it brings back memories, it elicits narratives. Despite Cobussen taking instrumental sounds as his point of departure, I claim that everyday sounds, ambient sounds, also stimulate the imagination, if one is able to perceive their affordances. Such an opportunity was experienced by Brian Eno, when he recorded random sounds around Hyde Park and Bayswater Road, listened to them and tried to memorise them. "I found that you can learn it. Something that is as completely arbitrary and disconnected as that, with sufficient listenings, becomes highly connected. You can really imagine that this thing was constructed somehow."[122]

The process implemented by Eno facilitated a renewed focus on what he had recorded, through repeated listening of the same tape. It allows what Anna Tsing has called the "art of noticing."[123] The art of noticing is to look at "patterns of unintentional coordination develop in assemblages. To notice such patterns means watching the interplay of temporal rhythms and scales in the divergent lifeways that gather."[124] Eno experienced it from a recording, but the same is accessible bare-ear, while listening to the sonic milieu. Applied to listening, such noticing opens imagination, generates ideas, and develops a creative listening. Creative in the sense that, to follow Tsing, patterns are unveiled from unintentional coordination, and the listener can literally 'play' with his listening. This perspective, close to the position of John Cage, contrasts with the position of Pierre Schaeffer, for whom the anecdotal was "antimusical" because "the dramatic sequence constraints imagination."[125] On the contrary, for sound hunters who were recording in the field, listening became an activity that fostered the "creation, consolidation and elaboration of meaning systems."[126] A narrative, in real time or reconstructed, was drawn from ambient sounds, creating an 'ambient narrative.' The art of noticing became for them an ability to find, or better, to be aware of little details, an ability to pay attention to this ambient narrative. In his patient listening, it was something that Knud Victor was aware of, when he explained that "sounds are like phrases. And there are bigger phrases in the sound environment."[127] Through a training of the ear, the implementation of a distinctive listening habitus, one can contemplate the sonic environment in a renewed way.

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edited by Mark Grimshaw-Aagaard, Mads Walther-Hansen, Martin Knakkergaard (New York: Oxford University Press, 2019), 115-30, 116.

[122] David Toop, *Ocean of Sound: Ambient Sound and Radical Listening in the Age of Communication* (London: Serpent's Tail, 1995), 130.

[123] Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton, NJ; Oxford: Princeton University Press, 2015),17-27.

[124] A. L. Tsing, *The Mushroom*, 23.

[125] P. Schaeffer, *À la recherche d'une musique concrète*, 19-21.

[126] Arild Bergh and Tia DeNora, "From Wind-Up to iPod: Technocultures of Listening," in *The Cambridge Companion to Recorded Music*, edited by Nicholas Cook, Eric Clarke, Daniel Leech-Wilkinson and John Rink, (Cambridge: Cambridge University Press, 2009), 102-15, 106.

[127] P. Martin, *Knud Victor, le chantre du Luberon*.

> The sounds of a train climbing through the countryside, for instance, can be likened to a symphony in three movements, played without a break: first, pianissimo, the birdsong and a distant whistle emphasise the silence out of which the train is heard approaching, perhaps with a brief and abrupt change of tempo when the wheels slip; the train comes closer at a steady and now slower tempo, reaches a crescendo as it passes by, then climbs away into the distance, now pianissimo again, with maybe a long, lonely whistle as a coda. Sounds such as these are surely as evocative as a musical composition and can be equally emotive.[128]

Peter Handford applied a similar process in this description of a banal sound scene, a steam train passing by in the countryside (banal for a time in which steam trains were in use, which was the case during the first decade when Handford recorded). The different sounds existed for themselves, but the focus was also on the global sound scene that was happening at that particular moment: on how the different elements (the train, the birds, the wheels, the rails, the whistle, to cite only the ones Handford speaks about, but one could add the wind and cattle, as on his *Trains in the Hills* disc[129]) formed a global and unique event in which each individual element played its part (figure 38).

Figure 38: Peter Handford recording a solitary locomotive in Gailenkirchen, Germany, in 1972.
Picture by Brian Stephenson.
Peter Handford Collection, National Railway Museum. HAN/3/1.

[128] P. Handford, *Sounds of Railways and their Recording*, 9.

[129] Peter Handford, *Trains in the Hills*, Argo Transacord ZTR 109, 1963.

Handford's work is a documentation of the end of the steam age in Britain, and an homage to the machines and the men who operated these emotive engines. As he said, "I have a great admiration for all railwaymen, particularly rivers and firemen: my work is in a way a kind of memorial to them."[130] Handford created a poetization of locomotives which were personalised and staged in each of his pieces. The choice of the recording location was paramount. Handford's recordings are not simple passings of train. He searched for specific sounds, that could express a situation, that could suggest a scene and foster the imagination of the listener.[131] Slopes that locomotives had difficulties passing were a privileged location, as were settings with hills and tunnels that could provide interesting sonic ambiences. Stations were also privileged sites, with their multiple trains departing, some slipping because of their weight, while others arrived, braking with loud grindings, all these sounds being reverberated by the hall in which announcements were made, while passengers departing and arriving walked and ran for their trains. As the critic Nigel Harris put in the magazine *Steam Classic*: "The key to the success of Peter Handford's recordings was that he didn't simply record a locomotive's passing. He 'painted' the whole scene in sounds, always endeavouring to create an individual atmosphere."[132] The painting analogy was a strong one, as Handford, just like Luc Ferrari, edited his pieces seamlessly to recompose events in a duration compatible with the disc format and with the gathering of several events on each side.[133] To accompany the recordings and introduce them, a brief written commentary was printed on the sleeve. This one was written by Handford himself, and his poetic tone aims to transport the listener near the microphones that witnessed the scene.

> "On Bank Holiday Saturday afternoon in August 1959, 'B.16/1' class 4-6-0 No. 61432 has reached Malton Station, very much behind time, with a train from Leeds. Now getting the 'right away' No 61432 gives a rather strangled whistle and wheezing desperately, moves the train forward to

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[130] John Gale, "Leisure for Living. The Man the Engines Talk To," *The Observer*, 5 February 1961. The title of the article is also a plea in the direction of "serious leisure." See Robert A. Stebbins, *Amateurs, Professionals, and Serious Leisure* (Montreal London: McGill-Queen's University Press, 1992); *Between Work & Leisure: The Common Ground of Two Separate Worlds* (New Brunswick, N.J: Transaction Publishers, 2004).

[131] I will continue exploring the topic of imagination in the conclusion.

[132] Nigel Harris, review of *Impressions of Steam*, *Steam Classic*. This is a press-cut without date present in the Peter Handford collection, National Railway Museum, York. HAN/1/7, Argo Transacord catalogues, publicity and material, and the ASV Transacord index compiled by Jim Palm.

[133] There are few editing plans in the Peter Handford collection, in which sections of recordings are marked "side 0, 1m15sec, must use," "side 3½ (sic) 1min 15sec, use if possible," "add whistle at end side 4 as train goes away." Peter Handford collection, National Railway Museum, York, HAN/1/5, early days of Transacord. That undated note is written at the back on an information sheet for Handford's disc *The Lickey Incline, Passenger trains*. I haven't found a disc with that name, but it probably refers to *Steam on the Lickey Incline* disc, published by Argo Transacord in 1959 under the reference ZTR 128.

> the signals, slowing to a stop while the level crossing gates are opened; the signals clear and the engine makes a brave, but wildly off-beat, start and shrouded in wheezing steam, takes the train out of the station for, perhaps fortunately, the last tap of the journey to Scarborough."[134]

Reading this text, one feels that there is a real dramatization of the everyday in Handford's work, a dramatization that serves to open up the imagination of the listener. Stories are told, in which trains are the main actors. Sometimes, the sound take made in the field directly captured a scene that became the piece itself:

> "On board a five coach Templecombe-Bath (Green Park) train on the Somerset and Dorset line; an unedited extract from a recording made in October 1960. Soon after leaving Evercreech New, on the 2½ mile 1 in 50 climb toward Shepton Mallet, it had become obvious that all was far from well with the engine, a 'Standard Class 4' 4-6-0 No. 75073. Passing Mile Post 22¾ speed has dropped to about 13½ mph and the engine is labouring horribly; there is an ominous clatter as the fireman, obviously intent on doing all he can, lifts the long fire irons from the side of the tender; it has now taken about 4½ minutes to cover one mile of the uphill journey towards Cannard's Grave, a place which has seldom seemed to be so aptly named. Now approaching the summit, speed drops even lower, though the engine's exhaust beat strengthens a little as the driver makes an almost desperate effort to prevent the brakes from finally leaking on; just saved by the summit, No. 75073 drifts downhill towards Shepton Mallet Station where, for some twenty minutes, a much needed rest will be taken before tackling the next climb, to Windsor Hill Tunnel and Masbury summit. Unfortunately, despite the valiant effort of the crew, the climb to Masbury proved to almost as funeral as the journey from Evercreech and the eventual arrival at bath was somewhat behind schedule."[135]

These examples make clear the portraiture of locomotive that Handford was after. As a train spotter, he did not speak of 'locomotive,' but used instead 'engine' and its number to designate the locomotive, a gesture that personalised it.[136] On this specific disc, the accent was put on the effort that the engine has to produce, but the fascination with the train, seen as an almost mythological object, is present throughout Handford's work. Because of their size, noisiness, steam, their sheer mechanical dimension and power, trains and their sounds evoked a feeling of the sublime that prompted their depiction in sound.[137]

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[134] Booklet notes of the track 'B.16 at Malton,' from Peter Handford, *Trains in Trouble*, Argo Transacord EAF 117, 1966. The recording was made in 1959.

[135] Booklet notes of the track 'B.R. 'Class 4' on the Somerset and Dorset Line,' from Peter Handford, *Trains in Trouble*, Argo Transacord EAF 117, 1966. The recording was made in 1960.

[136] On train spotting, see Ian Carter, *British Railway Enthusiasm* (Manchester: Manchester University Press, 2008), 90-102.

[137] And in cinema: Abel Gance, *La roue* (1927), Jean Renoir, *La bête humaine* (1938), for instance.

Handford was not alone in this endeavour. On the other side of the Atlantic, Emory Cook used train recordings to demonstrate the power and definition of his speakers, and the quality of his recordings.[138] Handford knew of Cook's activities, as it was Cook's disc, *Railway Dynamics*, published in 1952, that encouraged him to launch his own railway recordings business.[139] And even Schaeffer, despite his reluctance toward anecdote, toward sounds that can generate images, began recording them and was fascinated by their sounds and their ability to stimulate imagination, to the point that he wondered "why shouldn't we broadcast three minutes of 'pure coach,' telling people that they just have to know how to listen, that the whole art is in hearing?"[140]

To follow Cobussen again, "as a creative act, listening is always already somehow attached to the imaginary. However, this *imagining-through-listening* is to a certain extent determined – and perhaps restricted – by the sonic input and, sometimes, by the sound sources."[141] Here, however, as the examples of the previous section have shown, I would argue against the deterministic Cobussen's view. It is more cultural and educational factors – the listening habitus – that restrict the imagination that one is able to project by their listening and which prevents the ability to perceive affordances that are able to generate values in everyday sounds, in all kinds of sound. This was studied by Arild Bergh and Tia DeNora: "negative assessments of works are those that omit certain links in the assembly process and add others, thus recontextualising (recomposing) works in less flattering ways."[142] Even more with ambient sounds, a cultural layer exists which designates some as unwanted, and others as acceptable. However, those restrictions are largely cultural and dependent on what is accepted as noise, as sound and as music, and on the level of interest projected into each of these categories. The gurgles of *Sink Symphony* can keep a lot of listeners outside of the humorous, conceptual, and musical intention of the work. And even people accustomed to experimental sound practices could find it ridiculous. Such postures, inherited from a cultural and social context can filter the sonic input and recontextualise it in a negative way. The listening habitus is often more important to the appreciation of the sounds than the sounds themselves, and the ability to change it requires undertaking a de facto apprenticeship that led to a new openness – a heightened sense of curiosity. This listening habitus, however, has little to do with the sounds themselves, that inhabit the everyday. If for Bourot the recognition of the recorded sounds was paramount in the appraisal of his work, for King and his *Sink Symphony*, that recognition, exacerbated by their fixation and their isolation on tape, can generate rejection. Sinks were viewed as utilitarian object linked to washing and receptacles of dirtiness – not an object to appreciate aesthetically. In King's piece, they

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[138] Eric D. Barry, "High-Fidelity Sound as Spectacle and Sublime, 1950-1961," in *Sound in the Age of Mechanical Reproduction*, ed. David Suisman and Susan Strasser (University of Pennsylvania Press, 2010), 115-38.

[139] P. Handford, *Sounds of Railways*, 55-6.

[140] P. Schaeffer, *À la recherche d'une musique concrète*, 19-20.

[141] M. Cobussen, "Listening And/As Imagination," 116.

[142] A. Bergh and T. DeNora, "From Wind-Up to iPod," 107.

were suddenly foregrounded as aesthetic objects. Besides his voice, they were the only thing to listen to. However, King's commentary guided the listener *into* the details of the sound itself. And if these recordings lack the repetition seen by Schaeffer as important in the access to reduced listening, King tried to lead the listener into a form of listening detached from the cultural appreciation of sinks, a listening only interested in their sonic qualities – a sign that he had himself listened to them in a reduced way.

Sound hunters were aware that some of their works could be difficult to grasp for novices. Values are created and attached to what is listened to, and these values are "embedded in and arise from the current situation and the biography of those involved."[143] Again, the context, even for "a fully trained sound scout", is paramount. For the same listener, the same sound can prompt opposite reactions depending on the context, depending on what one is doing (I can appreciate the harmonics developed by the vacuum cleaner and sing along to them, and I can be disturbed by this same vacuum cleaner and deaf to its harmonics if I need silence for another activity. The same object, the same sound, the same person, can generate opposite reactions.) As the cinema scholar Rick Altman put, "one only hears for oneself."[144]

For the decentring of the listening habitus, activities, notably contests, became an important mechanism. For instance, the Coventry Tape Recording Club organised a household noises competition. Most of the tapists looked for bizarre and humoristic sounds, but beyond these, the very point was the search itself.[145] Such sound hunts of everyday sounds, because they specifically asked to listen carefully to the sound environment, to be curious about it, raised an awareness toward ambient sounds and participated in the diffusion of the new sensitivity toward sound that I described in the previous chapter. A similar aim was at the centre of the *Journey Into Sound*, a five channel sound piece composed by the Brighton Tape Recording Club in 1968 for the Brighton Festival. The one hour and a half piece examined and created "the world of sound with special emphasis on local and natural sounds." The piece was "designed to entertain and make the listener more aware of the sounds around him."[146] To compose the piece, recordings were made in different places in Brighton (the harbour, the station, musicians playing in the street, to name a few) (figure 39). Three tape recorders were used for the surround sound of the installation, to broadcast on a

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[143] A. Bergh and T. DeNora, "From Wind-Up to iPod," 107.

[144] Rick Altman, "Material heterogeneity of Recorded Sound," in *Sound Theory, Sound Practices*, ed. Rick Altman (New York and London: Routledge, 1992): 15-31, 23-4.

[145] Fred Chandler, "News from the clubs," *Tape Recording*, 13 July 1960, 31.

[146] "Journey into sound," *Brighton and Hove Herald*, 26 April 1968.

stereo in the front, a stereo in the back, a mono channel in the centre. The maintenance on the synchronisation was tricky, but the show ran every night during the three days of the festival.[147]

Figure 39: Martin Herridge and John Tugwell of the Brighton Tape Recording Club recording sounds at Shoreham Harbour for the *Journey Into Sound* installation.
Brighton Tape Recording Club archive.

These examples also make clear how the recording technology could facilitate the noticing of unintentional coordination patterns. The recording medium, because it allowed amplification on faint details, multiple listenings, organisation and composition (on the recordist side), and repeated listenings (on the listener side), changed the relation that recordists and listeners had with sound. Repeated listenings allowed an awareness to emerge, new details to be noticed. As with Eno, listeners started to notice rhythm in the scenery, synchronisation, antecedents and consequents between separated elements, cadences that conclude sound sequences. Furthermore, amplification brought unexpected details to the ears, as the example of Joseph-Maurice Bourot showed. These elements allowed a creative listening that was able to establish an aesthetic relation with ambient sounds, one which gave them musical qualities, and allowed one to listen to them as one listens to music.

[147] Interview with Keith Upton, 02/04/2021. The festival ran from the 2nd to the 4th of May 1968. By then, multi-track recorders existed, but their prices kept them out of reach for most amateurs.

5.3. The sound of sound

5.3.1. Sound hunters and their aesthetic positioning

I have presented the influences that nourished sound hunters in their work and presented a conceptual approach – creative listening – to explain changes to their practice. I showed that a number of them led a practice comparable to the work of contemporaneous composers and sound artists. But did sound hunters view themselves as composers, sound artists, or experimental musicians? Did they consider their works as 'pieces' or as mere 'sound games'?

A first hint is given by the category names used for the contests. In the first years of the contests, four categories were used: 'Editing,' 'Documentary,' 'Music or speech recording,' 'Snapshot.' Despite being tailored for radio plays and drama in the general rules of the contest, the editing category was more a catch-all one to include everything that could not be included in the others.[148] It was renamed "radio plays, sketches" after a few years, before being called "Composition" for some years by the end of the 1950s and the beginning of the 1960s. The rules of the contest detailed it as "radio plays, drama, sketches, etc." The apparition of that name – Composition – coincided with the creation of a new category, "Technical experiment."[149] In the words of Geoff Chandler, one of the founders of the British Amateur Tape Recording Contest, that category covered "all that was produced through machine manipulation: sound composition, *musique concrète*, electronic music, multitracking."[150] Later, despite the addition of new categories ("Nature sounds," "Sonic correspondence") and the entry in the contest of dioramas and video recordings as specific categories during the 1970s, the "Technical experiment" one disappeared, replaced by "Trick recordings of all kinds" (and by 1967, the "Composition" category took back its name of "Radio plays, drama"). The word 'music' was thus never employed in the general rules, except for "Music recording" which designated the recording of musical performances rather than the creation of original musical works entirely from sounds recorded and manipulated on tape. The closest category was "Technical experiments" but its description in the contest's rules was laconic and very wide: "Recordings produced primarily or exclusively with acoustic, electronic, or cutting media."[151] The word "art" was never

[148] That point was acknowledged by observers abroad, for instance in Sweden for the IARC 1960 (which was the first participation of a Swedish national selection): Arne Juul Jacobsen, "Concours International du Meilleur Enregistrement Sonore et pensées post-festum," *Lyd & Tone*, January 1961. A French translation of the article is within the Thévenot collection: 19910681/20, folder 9ème CIMES – 1960, Amsterdam, sub folder Dossier A, sub sub folder CIMES 60 / Presse.

[149] IARC 1960, general rules. Archives JT et CdS, 19910681/21, folder IXème CIMES – 1960, Amsterdam, sub folder Documents préparatoires, règlement, notes manuscrites.

[150] Geoff Chandler interviewed by Clifford Michelmore, *Creative Cassettes*, Radio Tee. Unfortunately, no date is associated to this item in the British Library.

[151] IARC 1976 General Rules.

used either. Thus, in spite of the fact that *musique concrète* and electronic music pieces were often submitted, these established musical styles never had a formal identification in the contest, and were classified under the term 'Technical experiments.' It therefore seems that the contest never fully kept up with the musical evolutions that were happening in parallel. Sound hunters, however, did appreciate how their practices overlapped with *musique concrète* and electronic music. Why did contests therefore not fully recognise the reach of the practice?

To provide an answer, it is worth investigating the roles of Jean Thévenot and René Monnat, who were at the origin of the contest and its rules. The main French and Swiss promoters of sound hunting never used the words '*musique concrète*' and 'electronic music' when describing the different practices of sound hobbyists. Sound hunting was just not conceived that way for them. In his programme, Thévenot broadcast only what he received, as I showed in the third chapter, but *musique concrète* and experimental music were not what he was seeking from sound hunters. He was familiar with these developments, as he produced on several occasions programmes that were dedicated to *musique concrète* and electronic music. A notable one was a programme that he produced for Radio Lausanne in 1957. This programme, *Sounds from Tomorrow or Elsewhere* [*Sons de demain ou d'ailleurs*]), was based on an idea of Abraham André Moles, who brought back from the US "sonic documents that, in addition to the one he already had in his possession, allow to establish a complete panorama of all the ultra-modern, and even futurist, processes for the electronic processing of sound."[152] The programme was welcomed by positive reviews and plans were made to produce another one for the French public.[153] Therefore, Thévenot had a good knowledge of the most modern musical developments, and was able to arouse interest in them. His choice not to associate these musical developments to sound hunting was thus not related to a disinterest or aesthetic choice. No document in the Thévenot collection clearly states why, but hints are given in a 1963 exchange that Thévenot had with the president of the newly formed *Association Françaises des Chasseurs de Son*, AFCS [French Sound Hunters Association].

Thévenot was contacted by a sound hunter living in Bordeaux, who had just founded the GARC, *Groupe d'Arts et Recherches Contemporaines* [Contemporary Arts and Research Group] and wanted to join the AFCS. Exchanging with the president of the AFCS about this conversation, Thévenot

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[152] Letter from Jean Thévenot to Radio Lausanne, 18 December 1956. Archives JT et CdS, 19910681/35, folder Émission « Sons de demain ou d'ailleurs » 1957. Moles, a pioneering scientist in information studies, closely collaborated with Pierre Schaeffer to theorise *musique concrète*. He co-wrote with Schaeffer a chapter of *À la recherche d'une musique concrète* (chapter 12, "Esquisse d'un solfège concret") and participated in the *Traité des objets musicaux*. He also wrote *Les musiques expérimentales* (Paris, Zurich, Bruxelles: Édition du Cercle d'Art Contemporain, 1960), in which he approached electronic and experimental music under a perspective informed by psychology, psychoacoustic, and information studies.

[153] Letter from Thévenot to Abraham André Moles, 5 March 1957. Archives JT et CdS, 19910681/35, folder Émission « Sons de demain ou d'ailleurs » 1957.

wrote, “the only drawback, I think, would be to look very ‘*Service de la recherche*.’”[154] The *Service de la recherche* [Research Department] was where Pierre Schaeffer worked on *musique concrète* at French Radio.[155] Thévenot’s remark indicates that he did not want to have a *musique concrète* aesthetic associated to the AFCS to clearly distinguish sound hunting from what Schaeffer was doing. *Musique concrète* was the domain of the *Service de la recherche*, the other uses of the tape recorder were the domain of sound hunting, and Thévenot did not want to encroach on Pierre Schaeffer and the GRM turf. Thus, despite the opportunity to set a group in Bordeaux, the proposal was not carried forward and the south-west region remained without a local AFCS branch in the following years. More than a political decision, this choice had to do with the identification of sound hunting and *musique concrète*. As the sociologist Tia DeNora wrote, “labels are contextualisation cues; as such they are also instructions for, invitations, to, a form of reality.”[156] The ‘sound hunting’ expression carried its own discipline and imaginary within, as ‘*musique concrète*’ had its own disciplinary and imaginary. To accept the *Groupe d’Arts et Recherches Contemporaines* would have impaired the identification of the ‘sound hunting label.’[157]

In that framework, Thévenot’s decision was suitable. Indeed, the sound hunter who contacted Thévenot was Roger-Pierre Lafosse. The two had met before, as Lafosse won a prize in the 1959 IARC, with a piece named *Le biniou et le labo* [The Bagpipe and the Lab]. The piece mixes a *musique concrète* typical of the fifties with a solo Breton bagpipe played with a strong jazz influence (as reported by Thévenot, Lafosse described himself as a jazzman).[158] It competed in the ‘Technical experiments’ category and won a prize. The piece was judged “very well made, but boring, 14/20” by Thévenot, with another comment stating “Rehash but well made. Rhythm good, but the whole is

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[154] Letter from Thévenot to Jean-Marie Grénier, 25 October 1963. Archives JT et CdS, 19910681/2, folder Dossier Association Française des Chasseurs de Son, 1963-1969, sub folder Correspondance avec la province (1963-1969).
[155] The *Service de la Recherche* was created by Pierre Schaeffer in 1960 and existed until the dissolution of the ORTF in 1974. It had five components: the *Groupe d’études critiques* [Group of Critical Studies], the *Groupe de recherches technologiques* [Group of Technological Research], the *Groupe d’études sociologiques* [Group of Sociological Studies], the *Groupe information* [Information Group], and the *Groupe de recherches musicales* (GRM) [Group of Musical Research]. For more on the *Service de la recherche*, see Jocelyne Tournet-Lammer, "Pierre Schaeffer et le Service de la recherche de l’ORTF (1960-1974)," *Hermès* n° 48, no. 2 (2007): 77–86.
[156] Tia DeNora, *Making Sense of Reality: Culture and Perception in Everyday Life* (Los Angeles, CA: SAGE, 2014), 111.
[157] As seen in the previous chapter, Hugh Davies followed the same line of thought when he decided to exclude amateurs’ recordings and sound effects from his *Répertoire International des Musiques Électroacoustiques*.
[158] An extract of the piece was broadcast on *Sound* on the 22nd of November 1959. The last 10 minutes of this broadcast, where an extract of Lafosse piece is present, has been saved by A.W.E. Perkins and is available at the British Library: British Library, A.W.E. Perkins collection, C1343/33.

too long, 13/20." The piece was copied to be broadcast later on *Aux Quatre Vents*.[159] But more importantly, two years after his contact with Thévenot in 1963, Lafosse founded the festival Sigma, with Moles as a cofounder, that became for thirty years a major event in France for new music and sound art.[160] In 1971, Lafosse collaborated with Pierre Henry on the *Corticalart*.[161]

This being, that boundary-defining choice was coherent with what I describe in the fourth chapter about what Thévenot found inspiring in sound hunting, namely, snapshot, historical recordings, human documents – thus a practice linked to journalism and documentary, close to his own work at French radio and television, close to his radiogeny aesthetics. This is reflected in the anthology that he presented for the Prix Italia in 1961. Despite the fact that *musique concrète* pieces won Grand Prix (notably the piece from Monique Canon in 1956), *musique concrète*, electronic music and sound effects are nowhere to be found in his selection. He did have an interest in technical experiments, but this was a tinkering interest, a curiosity toward the existing or expanded possibilities of the equipment. More than the result, it was the process of tinkering that attracted Thévenot, the "technical research of documentary interest," as he said.[162] Hence his interest in Joseph-Maurice Bourot, who pushed his equipment to explore beyond the threshold of human perception, or his predilection for the experiments of Roger Boucarre, a Swiss accountant who modified his electronic accounting machine to produce electronic music with punch cards. The result, broadcast in 1963, was a simple melody in B major.[163] For Thévenot, the interest was in the technical exploration that

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[159] Roger Lafosse form. Archives JT et CdS, 19910681/20, folder 8ème CIMES – 1959, Londres, sub folder Fiches d'enregistrements et scripts français et étrangers utilisés dans *Aux Quatre Vents*. Lafosse defined himself as a "manufacturing agent." The piece was broadcast on *Aux Quatre Vents* on the 26th of December 1959. It was also broadcast on *Sound* on the 22nd of November 1959.

[160] The Festival Sigma was co-founded by Lafosse with the scientist Abraham André Moles, the writer Robert Escarpit, and the composer Michel Philippot who was also head of the ORTF municipal services of Bordeaux. Both Moles and Philippot have been collaborators of Schaeffer before the advent of Sigma. For more information about Sigma, its evolution and relationship with French cultural politics, see Françoise Taliano-des-Garets, "Le festival Sigma de Bordeaux (1965-1990)," *Vingtième Siècle. Revue d'histoire* 36 (1992): 43-52.

[161] Pierre Henry, *Mise en musique du Corticalart de Roger Lafosse*, Philips 6521 022, 1971. The Corticalart was a device engineered by Lafosse to translate in real time the electrical activity of the brain in music. The disc is a recording of several improvisations of Henry with it.

[162] Jean Thévenot, press release for the IARC, *Musica*, 26 November 1964. Archives JT et CdS, 19910681/24, folder 13ème CIMES – 1964, Lausanne, sub folder Presse publiée (dont publications allemandes).

[163] *Aux Quatre Vents*, 9 February 1963. That last case of Roger Boucarre is significant, as it is a kind of circuit bending ahead of its time. Circuit bending is "the creation of new connections inside sound-generating electronic devices to provide sounds unintended by their original designers." (Brandon Smith, 'Circuit bending,' *Grove Music Online*, 2016). I am not saying that he predated circuit bending, but that, again, sound hunters were having similar ideas, similar sonic imageries, to those of composers and sound artists. The tinkering culture of sound hunting, which I already presented in the second chapter, appears again as an important component and driving force of it. For more on circuit bending, see Trevor Pinch, "'Bring on Sector Two!' The Sounds of Bent and Broken Circuit," *Sound Studies* 2, no. 1 (2016): 36-51.

turned an accountant machine made for calculation into an accountant machine able to produce sound. The same applies to Monnat, who was also a man of radio.

However, besides tinkering, a contact with new music genres was pushed by a number of sound hunting heralds. One of them was Frederick Charles Judd, sound hunter, electronic music pioneer and promoter, writer for *Tape Recording*, and editor of *Amateur Tape Recording* during the final years of the magazine. Judd had an important role in the diffusion of avant-garde ideas in Britain. His articles in the specialised periodicals presented the ideas and principles of electronic music and *musique concrète*, he wrote different books to democratise sound recording and sound experiments,[164] and he organised the short-lived 'Centre of Sound,' based in London Soho at the beginning of the 1960s.[165] Through these activities, Judd acted as a hub linking together the avant-garde and the sound hobbyist communities. Exemplary of this was his participation in the Dartington Summer School of Music, where he was the convenor of electronic music workshops between 1960 and 1962. The Dartington Summer School of Music was the British equivalent to the German Darmstadt and Donaueschingen summer schools, that is, academies mainly meant for composers and musicians, but that provided public lectures and concerts. In Dartington, Judd met and worked with the Italian composers Bruno Maderna and Luciano Berio,[166] and following the 1961 session, he wrote in *Amateur Tape Recording* in order to pass on a number of ideas to sound hunters. His words were also meant to reassure the novices in electronic and *musique concrète*:

> "The Italian composer and conductor Bruno Maderna explained at the Dartington Summer School of Music, that students should not attach too much importance to the construction of sounds; it did not matter whether the sounds were beautiful or ugly. The scenery of the countryside is still beautiful even when it is raining; one can see the beauty through the rain."[167]

Judd's words were important as we have seen that the use of a tape recorder was a technical task with a learning curve. Patience and perseverance were important qualities, besides imagination. Aware of this, Maderna explained that one should not feel discouraged if the first attempts did not match expectations, and that the quality of the whole was more important than the quality of each isolated sounds. His words were also an incentive to re-evaluate what influenced the judgement of taste that one put on sounds: the seeming imperfection of certain sounds, to accept that in forging sounds, the results could differ from the initial idea, and that this difference could hold potential.

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[164] Frederick Charles Judd, *Electronic Music and Musique Concrete* (London: N. Spearman, 1961); *Tape Recording for Everyone* (Blackie, 1962); *Circuits for Audio and Tape Recording* (Haymarket Press, 1966); *Electronics in Music* (London: Spearman, 1972).

[165] I. Helliwell, *Tape Leaders*, 73.

[166] I. Helliwell, *Tape Leaders*, 73. Frederick Charles Judd, "How to make modern music with a tape recorder," *Amateur Tape Recording*, November 1960, 14-15, 15.

[167] Frederick Charles Judd, "How to make modern music with a Tape Recorder, part V," *Amateur Tape Recording*, March 1961, 22-23, 22.

Maderna pushed the participants of the Summer School to consider the whole rather than the part in order to see beyond local flaws, and not to stop because the results differ from the original wish. These elements were important, as a number of sound hobbyists seemed to self-censor their work, belittling their qualities because of a lack of technique or because of strange sounding results. This was expressed early by Raymond Rémi, a Belgian sound hunter member of the GABES, *Groupement des Amateurs Belges de l'Enregistrement Sonore* [Group of the Sound Recording Belgian Amateurs]. Tackling the problem in 1954, he wrote in *Arts et Techniques Sonores*: "Amateur, I beg you! Do not give up to an inferiority complex, you, who is the best champion of this moving and magnificent art." That Rémi spoke like this tends to indicate that a number of amateurs were depreciating their work when comparing themselves to professionals. He continued:

> "Art lives from liberty and dies out of constraint. Amateur's art is too subtle to suffer the clumsiness of an equation, of a problem. This is why, dear amateur friends, you can hold in check those who know more than you from a technical and even artistical point of view. Yes, professional friends, you are often too sophisticated in your manners, and you simply forget to be human."[168]

Rémi touched upon similar points as Maderna and Judd, insisting that technique was not everything. For him, professionals, because of their technical and artistic education and discipline, were constrained in their possibilities. Similar ideas were expressed by Thévenot. Through the defence that the absence of an in-depth theoretical knowledge allows amateurs to have ideas that are no longer accessible to professionals, Rémi brings sound hunting closer to naïve art and outsider art, with the conviction that it had value in itself. The title of his article, *L'art naïf, école de la verité* [Naïve art, school of truth] was very clear on this point. As such, the comparison with the productions of professional composers or radio people was not relevant, as they should not be put in the same category. Rémi continued:

> "Do not postpone indefinitely the realisation of your projects, that you are maybe cherishing in secret, deep in you, with these delight that binds to dream. Tackle the task now and you will be in the truth because your Art will be juvenile and spontaneous. Its rustic nature will give the vital typical note that will bring a smile and soothe the soul."[169]

That distinctive quality of sound hobbyists, that naïve practice able to tug at heartstrings, was acknowledged by external observers – people who were not practitioners of sound hunting. Hence, a journalist of a French regional newspaper, who wrote after having listened to the 1955 IARC:

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[168] Raymond Rémi, "L'art naïf, école de la vérité," *Arts et Techniques Sonores*, May 1954, 3.
[169] *Ibid*.

"This contest, created and animated by Jean Thévenot, is a kind of Prix Italia for amateurs. One witnesses less technical means and less luxury than in the great Venetian competition. But one finds more inventiveness and more faith."[170]

Five years later, a call for new compositions, for new styles, was also made by the Swedish sound hunter Arne Juul Jacobsen, whom we already came across in the first part of this chapter. For him, a way was to be found beyond radio: "Yes, we are searching for new styles in the art of sound, new combinations to the three following elements: noise, speech, and sound, these are our bricks." For that, one had to drop "customary traditions in the technique and art of sound."[171]

Fifteen years later, the call for imagination was still vivid, but so was the self-deprecation. Compare the above with the following document (figure 40):

IMAGINATION UNLIMITED

(Sometimes known as Leicester Tape Recording Club)

WHAT DO YOU THINK THAT A TAPE CLUB IS ALL ABOUT

The use of microphones, tape recorders and audio equipment?

Certainly, but only in the same way that portrait painting is about the use of paints and brushes. Tape enthusiasts, like artists, require creative tools but far more important is the quality of imagination. Tape clubs exist in order to bring together those who are interested in the creative use of sound.

Perhaps you own a tape recorder and are aware of some of it's basic uses, things like; recording BBC programmes, sending messages to distant friends or relatives, learning a speech or a foreign language. If these and similar uses satisfy you----Goodbye and Goodluck---- a tape club is not for you. Our members may use their machines for these purposes on ocassion, but they are not our reason for joining together in a club.

Neither do we meet in order to impress each other with our individual collections of shiny, sophisticated, expensive audio equipment, imaginative ideas are the most envied commodity.

Don't be put off by that splendid sounding word 'creativity'. It only means for us trying to turn ideas into programmes in sound, attempts which seldom result in a master-piece but do give us a great deal of pleasure.

If you this have ever written a script, a story or a poem and would like to see it translated into sound, if you are interested in acting or producing plays on tape, if you have dabbled with recording and tried to produce a new sound effect or capture an unusual sound and, most of all, if you have ideas for exploring the world of creative sound and lack equipment or technical knowledge to put them into effect---- then you need us. And we need you.

you don't even need a tape recorder
we have lots of those
Just bring your imagination along with you.

Figure 40: The Leicester Tape Recording Club manifesto. The document is undated but is probably from the mid-1970s. Mark Vernon collection.

[170] E. Dana, "Auditeurs, à vos postes," *Le Dauphiné Libéré*, 7 November 1955.

[171] A. J. Jacobsen, "Concours International du Meilleur Enregistrement Sonore et pensées post-festum," 7.

As the fourth paragraph says:

> "Don't be put off by that splendid sounding word 'creativity'. It only means for us trying to turn ideas into programmes in sound, attempts which seldom result in a master-piece but do give us a great deal of pleasure."

Despite calling to an "imagination unlimited," a strong limit that should not be crossed is felt in the wording. Arriving suddenly and unannounced is the precision that belittles the word "creativity," "a splendid sounding word," and the work of the members, that are only "trying" to turn their ideas in sound. The precision was felt necessary enough to have its own paragraph. It is understandable that, to attract new members, the club insisted on the fun and good times that one would find there. But it is striking that this fun aspect was pitted against creativity. The partition between popular and serious, between games in sound and music, between amateurs and professionals, looms behind all this. And, for the hobbyists, crossing that partition meant they risked making fools out of themselves. A certain weight is bestowed upon the word 'creativity', which is described as something that should not be used without care. Because of its association with art and music, the pretentiousness to use it seemed to expose them to a kind of ridicule. The result of their effort is thus simply named "programme in sound," rather "work" or "piece." Looming behind this labelling is also the weight of a music being based on a score and played by acoustic instruments on a stage. Against this, the tape recorder – an electronic machine – and the efforts of an amateur, did not look very serious.

A similar position is voiced by Helmut Weber, Swiss sound hunter, President of the Swiss Sound Hunters between 1984 and 2004 and General Secretary of the International Federation of Sound Hunters between 1991 and 2016. Looking retrospectively on his sound hunting activity, he now sees it more as sound games than anything else (despite his winning at the Swiss national prize in 1982), and he thinks that that was the case for most sound hunters.[172] In that light, Raymond Rémi stands out as an exception, as he openly spoke about art, and how the work of amateurs should be considered as art; how for him, the practice of sound recording, the use of a tape recorder, was poetry: "Poetry! All is poetry in this living art! (…) Get carried away by your imagination. It will allow you to charm, to delight, to win hearts, to convert."[173]

In sum, the majority of sound hunters did not consider themselves as 'poets,' 'composers' or 'sound artist' even if some of their works do in retrospect fit these categories.

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[172] Helmut Weber, personal communication, 31 October 2021.

[173] R. Rémi, "L'art naïf, école de la vérité," 3.

5.3.2. The democratisation of a creative practice

This does not remove the pleasure that the sound hobbyists felt in creating, as the Leicester manifesto mentions. The tape recorder was considered as a creative tool, adapted to express "sound ideas," as written in the same manifesto, and it should be used that way. That pleasure of creating with sound was expressed by Judd in November 1960:

> "The composer of electronic music or *musique concrète* has little to offer justification of his work. He can regard it as an experiment in an unexplored field and can supply musical motive by pointing to the fascination of creating new sounds."[174]

Judd was aware that new music, or arrangements of sounds that could sound similar to avant-garde art, were subject to criticism. But he enjoined sound hobbyists to keep their track, as for him, the important thing was to take pleasure out of the practice. In the end, to call the practice of sound hobbyists music, art, programme in sound, or another designation has little importance, since they were practicing anyway. The naming of their activity was not their first concern. "No genre should be dismissed" as Thévenot said, "all the sonic is ours."[175] In the face of this, artistic discussions were not at the basis of sound hunting because sound hunting was a diverse practice, more a grouping of different practices than a genre in itself. Some were interested in *musique concrète*, while others preferred the recording of birds, while others were concerned with sonic journals, while other were into interviews, to cite only a few. All these people with their different interests nonetheless participated in the same pursuit, gathering in national and international contests, radio broadcasts, magazines, and clubs. More than a genre, sound hunting was a connective practice that brought together people from various backgrounds and with various interests toward sound. What unified them was the creative use of a sound recorder. This was a tool that served to extend the creative agency of the listeners. As such, it represents a democratisation of sound techniques, the spread of a creative practice based on sound. Most of the time, the practice remained private, without public events such as concerts. This thesis has highlighted that the only public 'faces' of the practice were most of the time restricted to the contests and the broadcasts. The organisation of events like *Journey Into Sound*, in Brighton in 1968, were an exception. Sound hunting was therefore a home practice, announcing the development of home studios that will flourish with the availability of cheap multitrack equipment from the end of the 1970s and 1980s.[176] The situation that the musicologist Paul Théberge has described, that the home studio is "a private space within a private dwelling" is very much similar

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[174] F. C. Judd, "How to make modern music with a tape recorder," 14.

[175] Jean Thévenot, introduction of the first show of *Aux Quatre Vents*. Archives JT et CdS, 19910681/4, folder *Aux Quatre Vents*, diffusion d'octobre 1949 à novembre 1951 sur la Chaîne Parisienne, sub folder Texte de préparation de l'émission (06.10.1949).

[176] Paul Théberge, *Any Sound You Can Imagine. Making Music / Consuming Technology* (Middleton, CN: Wesleyan University Press, 1997), 231-5.

to what Karin Bijsterveld studied,[177] and to the home studios that I depicted in the second chapter (such as Freddy's).

If we broaden our lens, sound hunting developed on a new scale during the 1950s and 1960s, a period where the very definition of what art is, of what an artist is, was questioned. Joseph Beuys was an important figure in that redefinition that put art back at the heart of society:

> "That is precisely what, to my mind, people can experience with the help of such objects. They can realise that everyone is an artist, because many people will ask themselves: "Why don't I make something like that, something similar." The sentence "Everybody is an artist," simply means to point out that the human being is a creative being, that he is a creator, and what's more, that he can be productive in great many different ways. To me, it's irrelevant whether a product comes from a painter, from a sculptor or from a physicist."[178]

For Beuys, then, everybody has something to say, everybody can be creative if they have the right tool. For sound hunters, that tool was sound. Sound hunters unearthed the expression of an everyday aesthetics in the recording and manipulation of all kinds of sounds, and in the recording of the everyday life of people. They listened to, produced, and recorded the "folklore of the everyday," to quote Father Garnier, a seasoned sound hunter.[179] Sound hunting was a recording of that folklore that inhabits ordinary life. In that, sound hunters were very close to the "invention of the everyday" theorised by Michel de Certeau.[180] De Certeau, against mass culture and against generalisation, has shed light on the creativity of their everyday, the tactics used by people to navigate mass consumption culture, how they act and manage mundane actions such as walking or cooking and put creativity into them. That creativity generates diversity and enriches the everyday, creates the folklore of the everyday. This was the human value that Thévenot was after: a curiosity toward fellow humans and the stories they can tell. Through sound, sound hunters collected memory, and knowledge. A voice was given to those we usually did not hear, to show that everyone's life has something peculiar about it, if one gives interest. This attitude is reflected in the work of Pierre Guérin, teacher, sound hunter, and active promoter – through his involvement with the Freinet pedagogy – of the social benefits that sound recording could have. His work of memory collecting – in which he collected with other Freinet teachers memories of ordinary people –, and of sonic

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[177] *Ibid.*, 234; Karin Bijsterveld and Annelies Jacobs, "Storing Sound-Souvenirs: The Multi-Sited Domestication of the Tape Recorder," in *Sound Souvenirs. Audio Technologies, Memory and Cultural Practices*, ed. Karin Bijsterveld and José van Dijck (Amsterdam: Amsterdam University Press, 2013): 25-42.

[178] Joseph Beuys and Jörg Schellmann, *Joseph Beuys, the Multiples: Catalogue Raisonné of Multiples and Prints* (New York; Munich: Edition Schellmann, 1985 [1971]), no pagination. The quote is in the part 'Questions to Joseph Beuys, part one, December 1970.'

[179] Dany Fog, *Boulot… Credo… Sono…*, France 3 Bourgogne, 15 March 1976. The documentary is available online: https://www.youtube.com/watch?v=6p9les2yScc (accessed 20/04/2022).

[180] Michel de Certeau and Luce Giard, *L'invention du quotidien. Vol.1: Arts de faire* (Paris: Gallimard, 2010).

heritage, have been recently published by Frémeaux et associés and is a testimony of his involvement.[181] Sound hobbyists, even if they did not theorize their work, were practicing, enacting and collecting this folklore of the everyday.

Thévenot was well aware of that, and of the socio-historical role that the sound hunter could play because of this human quality of sound hunting. His vision of what the whole pursuit of sound hunting could be aimed to establish the character of the amateur sound recordist – as there are amateur musicians. As such, the sound hunter was placed within and was part of the cultural ecosystem: support to the local musicians, collector of oral histories, reporter of the local community and territory, baton of Radio within the local community and territory, trainer of novices.[182] The sound hunter had, for Thévenot, a role in the "social sculpture," to quote Joseph Beuys. Beuys worked and theorised his concept of "social sculpture" in the late 1960s and 1970s, to define that art included the whole activities and processes of living, that it was not reserved to professional artists, and that therefore it could be enacted by anyone.[183] This movement was a desacralisation of the artist rather than of art, that kept its agency and possibilities. I argue that sound hunting met these ideas. To paraphrase Tia DeNora, sound hunting offered processes and techniques that were able to organise perception, and to foster creativity.[184] The mediation of the sound recorder helped in that process, and in some cases even sparked it. This idea is not contradictory to what I explained in the previous section, that sound hunters had difficulties, or even refused, to consider themselves as composers or poets and their work as art. They were nonetheless practicing, and as Beuys developed: "If creativity relates to the transformation, change and development of substance, then it can

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[181] See notably *Terre-Neuvas et Cap-Horniers. Archives orales, témoignages des derniers navigateurs de la marine à voile*, FA5393 (2 CDs), 2013; *La France rurale. Paroles de gens modestes au premier XXème siècle. Témoignages enregistrés*, FA5488 (3 CDs), 2015; *La déportation : Témoignages et itinéraires de déportés (1942-1945)*, FA5001(4 CDs), 2000. This work was done through the association *Paroles-Images et Sons*, in which Guérin worked with other Freinet teachers, notably Raymond Dufour. Memories and words were collected from 1953 (as soon as the Parisonor tape recorder of Gilbert Paris became available, see chapter 3) until the end of the twentieth century. The archives of *Paroles-Images Sons* have been given to the Bibliothèque Nationale de France. Guérin passed away in 2006 and his work has progressively been made available by Frémeaux et associés.

[182] These points appear in an exchange of letters between Thévenot and Jean-Marie Marcel, the president of the AFDERS with whom Thévenot was in conflict. Letters sent between the 17 and the 26 June 1962. Archives JT et CdS, 19910681/2, folder Dossier concernant l'Association des Amateurs de l'Enregistrement Sonore (ADAES) puis à partir de 1954 Association pour le Développement de l'Enregistrement et de la Reproduction Sonore (AFDERS), 1950-1966, sub folder Correspondance de Jean-Marie Marcel et J. Thévenot, Projet de protocole entre l'AFDERS et le SIERE.

[183] Cara M. Jordan, "Joseph Beuys and Social Sculpture in the United States," (PhD diss., City University of New York, 2017), 2.

[184] T. DeNora, *Making Sense of Reality*, 112.

be applied to everything in the world, and is no longer restricted to art."[185] Such a perspective gives daily creative operations a new dimension:

> "Sound hunting is a wonderful hobby. Not only words and music, but also the sounds of a world that we too often ignore: the chant of the cockerel and of the nightingale, the cries of familiar animals, the rough dialect of our hosts, the calls that became, because of routine, specific melodies, the chant of bells, the oompah of local wind sections or funfairs, the noise of the blacksmith or the thresher, as the murmur of the stream or the rustling of the wind. There is here, a whole domain to explore, a new art to create. For this, you don't have to be a great technician; you mostly need intuition and taste. It is possible to be an artist in sound recording, as there are artist photographers, and actually, it belongs to amateurs to transform a technical and mechanical method into an artistic and lively way of doing."[186]

These words echoed Guy R. Williams' book, *Use Your Ears!*, written three years after, that opened the general introduction of this thesis. Sound hobbyists constantly bathed in a sound world that could be the trigger and the source for "a new art," whose main tools were a microphone and a tape recorder. This new art was open to all, and for Hémardinquer and Aubier, amateurs were the only ones able to bring life into a technical action – that is, sound recording. In this, they echoed the poetical tone of Raymond Rémi, but also the remark of the *Dauphiné Libéré* journalist I quoted above, for whom the proposals of sound hunters were fuller of life in comparison with the work of professionals.

Thévenot, as Monnat in Switzerland, and as the other producers of sound hunting programmes in France (such as Guy Serin in Toulouse and Montpellier), relied on the creativity of the public for their programmes, and these were a weekly showcase of this creativity. From this perspective, their work can be seen as a participation in the 'social sculpture.' The creative listening frame that I established in the previous part and that notably describes how sound hunters searched the beauty in the banal, acknowledges that. Thus, the French sound hunter Michel Laniau, about performing recordings in the field: "What stimulates me in that kind of recordings, is to observe that a sonic phenomenon, banal when it comes down to it, can reach another dimension."[187] Laniau also acknowledged the discipline that I described in the previous chapter: "To go outside with this [a portable sound recorder] does not mean to put anything on the tape, but to find what to record. And that requires a specific hear training."[188] Sound hunting as a discipline made people aware of

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[185] This quote is from the film *Joseph Beuys / Transformer* by John DiLeva Halpern, 1988, I.T.A.P. Pictures, Ronald Feldman Fine Arts.

[186] Pierre Hémardinquer and Michel Aubier, *Mon magnétophone. Choix, utilisation, prise de son* (Paris: Éditions Chiron, 1964), 86.

[187] Michel Laniau interviewed by Brigitte Vincent, *15-115*, France Culture, 8 February 1988.

[188] *Ibid*.

the structures surrounding their perception, notably their habits and practices of listening. The microphone and the recorder were tools of self-reflection, and the discipline of sound hunting carried within itself an ability to de-coincide and exit assumptions. The naming and boundary-defining attitude that I described had its importance. The expression 'sound hunting' carried a peculiar practice and imaginary within it. At the centre of this imaginary was the 'hunt,' as I described in the general introduction: the hide, the senses on alert, to prick up the ears. All these describe a connection with the present moment during the listening / recording sessions, something that some sound hunters have described as "a zen-like moment."[189] Understood that way, the creative listening of sound hunters was closed to the art of listening promoted by Murray Schafer a few years later: "When you take your ears for a soundwalk, you are both audience and performer in a concert of sound that occurs continually around you. By walking you are able to enter into a conversation with the landscape."[190]

There was therefore a tension within the sound hunting community, between the ones who saw each of them as artists in their own right and thus called on their creativity, and, on the other side a majority of sound hunters who had difficulties or refused to call their work art and themselves artists. Nonetheless, a movement of democratisation of sonic practices occurred with sound hunting.

[189] Peregrine Andrews and Phil Smith, "A Society of Recordists. A Sonic Portrait of the Wildlife Sound Recording Society," *Between the Ears*, BBC Radio 3, 17 April 2022: https://www.bbc.co.uk/programmes/m001692r (accessed 30/04/2022).

[190] Raymond Murray Schafer, ed., *The Vancouver Soundscape* (Vancouver, 1978), 71.

5.4. Conclusion

This chapter has been concerned with the aesthetics of sound hunters. A number of their works were tailored for radio broadcasting, which impacted how they were constructed. Notably, a commentary was often present. I traced the origins of such a commentary and unearthed a bigger picture involving the conception of the use of sound – that is, without voice – by both sound hunters and radio professionals. I also described how incidental everyday interactions between sound hunters and their aural environment were a source of inspiration and I showed that amateurs were well informed about *musique concrète* and electronic music, dating back to the inception of these musical genres.

I conceptualised the listening habitus of sound hunting as *creative listening*, with three main characteristics: everydayness, curiosity, and imagination. The exploration of these qualities led sound hunters to produce works that were, retrospectively, pioneering. I analysed several of them, putting them in relation to contemporary works by avant-garde composers, to establish that ideas and techniques were similar between these composers and sound hobbyists.

Most sound hunters were, however, reluctant to call their work 'music' or 'art.' In some of their writings, the distinction between popular and serious, between games in sound and music, was acknowledged, and for a majority, music was still associated with a score, with acoustic instruments. Calls to sound hunters to stop belittling their work or to establish it as a 'sonic naïve art' occurred but were isolated instances.

Finally, I elaborated on how sound hunting democratised sonic practices. I showed that sound hunting was a connective practice that gathered people of many backgrounds with an interest in sound. I also showed how sound hunting – because it was an amateur pursuit and thus integrated within society – shared ideas with artistic movements that questioned the definition of art and the artist. Sound hunters did not theorise their position, but they practiced, and that practice had a meaning that I put in relation to the ideas of Joseph Beuys.

This chapter has made a contribution to the history of the senses, detailing how new kinds of sonic objects were received and progressively accepted as aesthetic objects in themselves.

The chapter has also contributed to musicology, as it showed that sound hobbyists were practicing *musique concrète* and electronic music as these genres were being invented and theorised. Ideas and practices hitherto considered the innovation of avant-garde composers were in fact routinely practiced by amateur sound hunters contemporaneously; and in some cases, even earlier.

6. CONCLUSION

As I come to the conclusion of this work, it is useful to re-state the core research questions that guided it. In the second chapter, I investigated to what extent sound hunting was practiced before the advent of the tape recorder, and whether the advent of the tape recorder had an impact on the practice. This work also asked to what extent sound hobbyists were connected to the broader field of sound recording. To answer these questions, I have demonstrated that sound recording was practiced as a hobby since the beginning of sound recording technologies and documented how sound hobbyism with tape recorders built on an already existing basis that was vivid. Tape recorders brought new affordances with them, which, together with other social changes (that I examined in the third chapter), allowed the rise of a sonic practice to a new scale. I showed that tinkering with equipment was a key feature of sound hunting (and more generally, of sound recording), and that this emerged in part due to the limitations of early sound technologies. Finally, I showed that the professionalisation and normalisation of the sound recording field happened in parallel and that sound hobbyists were part of these processes. The ideas of "sites of affordances" or "sites of mediation," and "spectrum of affordances" were central to my analytical framework.

The third chapter aimed to answer a series of questions related to how the sound hunting community developed in France, Britain, and on the international stage. How was this sound hunting community built? What were the histories of its different components, that is, the radio programmes, magazines, contests, clubs? Was the situation different in France and Britain? Who were the sound hunters? What was the history of the international federation of sound hunting? Taking into consideration all these questions, I showed that the networks of diffusion were different between France and Britain. In France, there was a strong central point of reference and support from the Radio institution, the industries, and a State agency. This was mainly built by Jean Thévenot, thanks to his position within French Radio. In Britain, the network was distributed across the country, and sound hunting did not receive any State sponsorship. As a result, activities and initiatives abounded on the local level but were less organised on a national level. I demonstrated that the background of sound hunters was diverse, with many occupations and different age. I also showed that the organisation of sound hunting on an international scale (the IARC and the FICS) and the creation of links with other existing international organisations (such as UNESCO) involved only a handful of people (Jean Thévenot and René Monnat most notably), which impacted the international development as soon as these people quit the organisational committees of the IARC and FICS (Thévenot distanced himself in the end of the 1960s, and Monnat died in 1973). Regarding the European geopolitical context of the Cold War, sound hunters chose not to deal with it and support their fellow sound hunters on the other side of the Iron Curtain. Some were against these contacts, but they were a minority. Contacts remained limited though, with long term relations established with only Czechoslovakia.

The fourth chapter studied a set of questions related to how the audile culture of sound hunting was formed and passed on. How did people get enrolled? What were the knowledge transmission mechanisms? Did sound hunting represent a specific audile culture? Was sound hunting a unified audile culture? Can we speak of a disciplinarity of sound hunting? The concept of listening habitus was central in my way of approaching of these questions, and I argued that through radio programmes, magazines, clubs and contests, sound hunting became a distinctive listening habitus that was formalised and passed on. I argued that a disciplinarity of sound hunting appeared, and that the limit between amateurs and professionals were porous, as sound hunting was for a number of sound hobbyists a springboard toward a career. The differences between France and Britain highlighted in the previous chapter ebbed away in favour of the development of a unified audile culture. Through a mediological approach, I showed that the way the pursuit of sound hunting was organised at national and international levels explains its evolution.

Finally, the fifth chapter evaluated the aesthetics of sound hunting. What were sound hunters influenced by? What do the recordings that sound hunters created reveal about their sensitivity toward sound, and about the evolution of this sensitivity? Can a frame be established to approach their listening and sound recording practice? What were their views on their own work? Working through the influences of sound hunters, I explained that their recordings and works are a testimony to a sensitivity that was emerging towards how to conceptualise sound, and I showed that this point was especially noticeable through the use of a commentary. I also demonstrated that that sensitivity toward the use of sound was also in the making for radio professionals and that this is especially perceptible in how the concept of radiogeny was applied to accept or reject sound hunters' works. I also explained that sound hobbyists were practicing *musique concrète* and electronic music as these genres were being invented and theorised. Ideas and practices hitherto considered innovation at the hand of avant-garde composers were in fact routinely practiced by amateur sound hunters contemporaneously; and even slightly earlier. The vocabulary and theorisation of sound hobbyists were different, but the sonic results were comparable. However, I described that despite this proximity of results, sound hobbyists had difficulties regarding, or were not interested in, explicitly acknowledging the aesthetic value of their work. Notwithstanding, the creativity of sound hunters was real and exemplar of wider aesthetical practices that were redefining art and highlighting people's creativity.

6.1. Sound hunting at the end of the 1970s

The thesis has focused on the period from 1948 to 1978. It was then that sound hunting communities were most active. But what happened afterwards? I already mentioned that Thévenot's programme was taken over after his death in 1983 and continued until 2002. A number of tape recording clubs continued to exist until the 1990s and into the beginning of the 2000s. The last contest of the British Amateur Tape Recording Club, the 54th edition, happened in 2011. And the IARC saw its last edition in 2016. But for commentors, these activities paled compared to those of the 1950s to the 1970s. Already in 1970, a column in *Studio Sound*, the magazine in which *Tape Recorder* transformed in February 1970, had a bitter tone:

> "What happened? Precisely nothing. (...) Recording clubs languish and die, and the movement can no longer hold its principal journal to its old allegiance. The truth, as I see it, is that recording as a hobby is one of the greatest flops of all time."[1]

The writer, who signed under the name 'Dropout,' was disappointed by the lack of reaction of the readers. With the transformation of *Tape Recorder* into *Studio Sound*, the magazine targeted a professional readership, reducing the amateurs and clubs' activity to the column of Dropout, who hoped to have interactions with readers to keep the column alive. It stopped after three months. Even Frederick Charles Judd, who was an early and active promoter of sound hunting and electronic music, quit the pursuit at the beginning of the 1970s. Despite all his encouragement to sound hobbyists through his conferences, books, and articles, that one should not belittle one's work in front of professionals, he finally stated that only composers who had an academic training could be considered as "composer[s]."[2]

However, one could view this transformation as a sign that sound-based activities were becoming embedded in wider society. I showed in chapter three that the field of sound recording was structuring itself until the mid-1960s, and I described that tape recording clubs were a springboard for individuals who wanted to make a living with sound recording and engineering. In the 1970s, more electronic music studios – with their related courses on sound – opened in universities[3] and a lot of

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[1] Dropout, "A Concluding Commentary," *Studio Sound*, April 1970, 172-3, 172.

[2] Ian Helliwell, *Tape Leaders. A Compendium of Early British Music Composers*, 73. There is a possibility that 'Dropout,' the person behind the column, was Frederick Charles Judd himself, who was about to leave the pursuit of sound hunting and electronic music.

[3] Amongst the first to open were the Electronic Music Studio at Goldsmith, King's College, and Manchester University (1967), at the University of York and at the Royal College of Music (1968). Nine other studios opened between 1970 and 1975. For more information, see Nicola Anne Candlish, 'The Development of Resources for Electronic Music in the UK, with Particular Reference to the Bids to Establish a National Studio,' (PhD diss., Durham University, 2012), chapter 3 notably.

small independent studios opened.[4] Training by clubs was therefore less needed, especially for the younger generation. The evolution of the different magazines is also a plea in the direction of a professionalisation of the field. Viewed that way, sound hunting paved the way for this development with its clubs, magazines, and programmes.

Another reason for the apparent decline of sound hunting (but not of its long-lived cultural effect) relates to the failure to attract a new generation of sound hunters. Members aged, and, because of this very ageing, the younger generation of sound hobbyists did not recognise itself in the first generation of tape recording club members. Because it seemed 'old' from the outside, in its rules, in its activities, in its graphic communication. Pierre Bourdieu has described, in the editorial world, how authors position themselves in relation to a more or less correct representation of the different editors, and that it is that representation that guides their behaviour.[5] A similar point can be made about tape recording clubs. Wider society had changed by the 1980s and youths did not recognise themselves in the way elders were practicing in clubs. The image they projected did not attract younger people. Eric Thomas, for instance, was linked with sound hobbyism through his father and attended a few club meetings, but the way to approach sound and technology did not appeal to him and did not correspond to his interests.[6] One could say that the sonic imaginary had changed, and that the one proposed by tape recording clubs did not correspond to the aspiration of the younger generation.[7] But another view could be, following James Mooney's and Trevor Pinch's framework of sonic imaginary, that sound hunting arrived at its "stabilisation phase" by the end of the 1970s.[8] Its ideas about listening and sound became embedded in society at large, younger people were recording, but just, they did not call that activity 'sound hunting.'

Still, in the face of these changes, the categories of the IARC, to focus on the main annual sound hunting event, did not evolve in ways that might have attracted a new generation. Instead, they kept the structure initially made at the beginnings of the 1950s. The attempts to modernise the event

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[4] On the development of independent studios, see Philip R. Kirby, "The Evolution and Decline of Traditional Recording Studio," (PhD diss., University of Liverpool, 2015), 170-4.

[5] Pierre Bourdieu, *Microcosmes: Théorie des champs* (Paris: Raisons d'agir, 2021), 455-61.

[6] Interview with Eric Thomas, 23 April 2022.

[7] Indeed, by the beginning of the 1980s, more affordable synthesizers started to hit the market, with young people a privileged target, as shown by Paul Théberge: *Any Sound You Can Imagine. Making Music / Consuming Technology* (Middleton, CN: Wesleyan University Press, 1997), chapter 4, 5 and 6. See also how David Van Koevering targeted young musicians to sell Moog synthesizers in Trevor Pinch and Frank Trocco, *Analog Days. The Invention and Impact of the Moog Synthesizer* (Cambridge, MA: Harvard University Press, 2004 [2002]), chapter 12.

[8] James Mooney and Trevor Pinch, "Sonic Imaginaries: How Hugh Davies and David Van Koevering Performed Electronic Music's Future," in *Rethinking Music Through Science and Technology Studies*, ed. Antoine Hennion and Christophe Levaux (London: Routledge, 2021), 113-49.

rendered it more complex, with the creation of sub-categories. The only major change was the welcoming of video in the contest. But this move only acknowledged a proximity of practice with amateur cinema that existed since the very beginning of sound hunting. While, as early as 1960, Arne Juul Jacobsen, a Swedish sound hunter and journalist from the sound hunting and high-fidelity magazine *Lyd & Tone*, found that the categories of the contest only poorly reflected the submissions made.[9] His remarks had no influence and as with tape recording clubs on the local level, the IARC failed to attract a younger generation. The absence of renewal and of a younger generation was clearly visible within the board of the FICS. The miss link with the sonic practices of younger people and with the development of sound recording as a genre – field recording – certainly comes from there, despite the fact that several sound hunters voiced a movement in that direction as I showed in the fifth chapter

In the end, sound hunting remained a private hobby. The attempts to link the pursuit with institutions failed, as exemplified by the relation of the FICS with UNESCO, and by the failed plans of Thévenot for a global library of amateurs' recording and for creating links with other disciplines. Thévenot was not able to have its discourse taken by others; his history of amateur's sound recording, his theorisation of it, were not appropriated by others. As analysed in the fourth chapter, the cultural heritage of sound hunting was not passed on, which had an impact on the liveliness of the pursuit. Thévenot remained isolated, with Monnat, in his attempts of conceptualisation of sound hunting. As unifiers, they were able to gather people who shared their views and worked with them in this conceptualisation – like Borel and Guérin who worked in their own contexts as education practitioners. Other isolated individuals did the same in Britain, such as Frederick Charles Judd and Graham Harris. But all this work remained highly dependent on very few people. And when these passed away or quit – René Monnat died in 1973, Jean Thévenot in 1983, Judd quit sound recording and electronic music by the beginning of the 1970s – the effort of conceptualisation, of establishing the cultural importance of the amateur sound recordist, in building a sound library celebrating their richness and diversity, in creating its history, were not carried forward.

As there are many amateur musicians, as there are amateur photographs and filmmakers, the aim was to establish the amateur sound recordist as a character and to support them. In that regard, Thévenot, Monnat, Judd, Harris, Guérin, Borel, worked to start and establish a tradition, the tradition of the amateur sound recordist. Thévenot's boundary-defining work (notably, to separate sound hunting from *musique concrète* and electronic music) – finds here another justification. These genres developed at the same time as sound hunting and worked in establishing their own tradition and history through milestone pieces, characters, events, and writings. Sound hunting had to find

[9] Arne Juul Jacobsen, "Concours International du Meilleur Enregistrement Sonore et pensées post-festum," *Lyd & Tone*, January 1961. Traduction française de l'article, Archives JT et CdS, 19910681/20, folder 9ème CIMES – 1960, Amsterdam, sub folder Dossier A, sub sub folder CIMES 60 / Presse.

its way, and in that regard, *Pris sur le vif*, the anthology of French sound hobbyism compiled by Thévenot, was an attempt to establish a milestone that presented all the different branches that Thévenot envisioned for the sound hunting tradition, while the IARC was the annual great event celebrating and establishing sound hunting publicly in society

Still, the FICS continued to organise the IARC until 2016. And if Thévenot's plans on the global level of sound hunting were not carried on, there was nonetheless a lot of activity on the local level, through clubs or through private individuals that were recognised within their communities. And Thévenot's programme was carried on by Dominique Calace de Ferluc and Paul Robert for 19 years. Such a longevity shows that sound hunters were still numerous and practicing; and the programme continued to support them.

Sound hunters were part of a transition toward an awareness of the sonic, toward the conception of sonic activities as a hobby. Sound hunting had a social dimension at its core, together with a tinkering spirit and a curiosity about the sound milieu. What started as a curiosity on French radio waves has revealed a collective social imaginary, a collective ethos to explore the possibilities of sound and sound recording. Sound hunting, conceived as the practice of the amateur sound recordist, encouraged everyone to participate, without being affected by set hierarchies, so that all ages and most backgrounds became involved – as with amateur musicians.

> "Concerning sound recording, the amateur is the one who enjoy, that is to say, who practice sound hunting for pleasure, for the love of research – scientific, technic, or intellectual – to the sole end of getting off the beaten track to break new grounds and create."[10]

[10] Jean Borel, "Parlons encore du 'chasseur de son,'" Archives JT et CdS, 19910681/1, folder Fédération Internationale des Chasseurs de Son, correspondances et documents.

6.2. A geography of sound hunting

This thesis focused on France and Britain, but at this point, it is interesting to try to establish a ‘geography of sound hunting.’ To begin this geography, the Thévenot collection is fitting, as it is one of the best sources for a study of the sound hunting movement, in France, but also for the international development of the sound hunting network, through the IARC and the FICS. Switzerland, Belgium, Germany, the Netherlands, the United Kingdom, appear regularly. Denmark and Sweden appear more seldomly. And then, there is the curious absence of southern Europe. Italy is present early in the 1950s through the contact of Mario Migliardi of the Studio di Fonologia, to keep him in touch of the activity of the IARC and FICS. Migliardi participated several times to the IARC, as a representative of Italian Radio. He showed a real interest in the sound hunting activity, and declared in 1960 that "very soon, the RAI is going to inaugurate in a spectacular way a programme dedicated to sound hunters. Depending on the feedback, the RAI will be happy to organise the IARC."[11] And during the 6th Annual Congress of the FICS at Strasbourg in 1962, the Italian representative (unnamed in the papers) proposed to welcome the IARC in 1963. However, the comment was made that there was no association in Italy, and Monnat raised a warning: how can a relationship be established with the RAI, how can the FICS be certain that a broadcast slot will be dedicated to the contest? Indeed, the radio programme mentioned by Migliardi seems to have never been made. Two months were given to the Italian representative to bring confirmation and answers. In the event of an impossibility, M. Bussers, from the Belgian association, announced that he was willing to organise the contest in 1963.[12] No further information is present in the Thévenot collection about this Italian project, and the 1963 IARC was organised in Liège, Belgium. One has to wait until 1982 to have the IARC organised in Italy, in Parma (it came back in Parma in 1994, and in Lugano in 2005).[13] That year, the Grand Prix was won by Italian Nando Monica. And two years later, at the 1984 contest, it was the Italian selection that won the "Best National Selection" cup. But no information is present in the Thévenot collection about an Italian national association. An Italian competitor stands out, Roberto Santini. He won the Grand Prix in 1977 (the first Italian national to do so), in 1978, in 1983, in 1984, in 1991, in 1994, in 1995, and in 2000, the highest number of victories by a single individual.

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[11] Procès-verbal du 4ème congrès annuel de la FICS, Amsterdam, 28-29 octobre 1960. Archives JT et CdS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 4ème Congrès de la FICS, Amsterdam, 1960.

[12] Procès-verbal du 6ème Congrès Annuel de la FICS, Strasbourg, 20 octobre 1962. Archives JT et CdS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 6ème Congrès de la FICS, Strasbourg, 1962.

[13] See Appendix for a list of the venues, winners, and annual themes of the IARC.

Another curious absence is Spain. Despite the proximity with France, and the presence of active sound hunters in the south of France, only a few mentions of Spain are present in the Thévenot collection. The first in 1956, when the Spanish national selection won a non-competing mention for their first participation in the IARC.[14] They were notably represented by José-Maria de Guillén-Garcia of the *Asociacion Nacional de Constructores de Aparatos de Radio y Anenos* [National Association of Radio and Aerial Manufacturers] On the same document, Thévenot wrote that 1956 was the first presence of Spanish competitors in the IARC but that a national contest with rules following the IARC had existed for several years (in that document, Portugal is also mentioned, together with Cuba and Canada, as countries with which contacts were established but without feedback).[15] That same year, Spain was amongst the founding countries of the FICS, before disappearing from the status the year after. Then thirteen years passed, and in 1970, a Spanish sound hunter was part of the jury of the 1970 IARC, Nicasio Corchuelo Lopez, from the "ADGCM."[16] The meaning of the acronym is not given, but was clarified the year after, when a Spanish association apparently joined the federation during the Congress of the FICS, the *Associatione* [sic] *para la Difusion de Grabaciones en Cintas Magnetofonicas* [Association for the Dissemination of Recordings on Magnetic Tapes], based in Madrid and represented by Corchuelo.[17] Two years after, in 1972, Pierre Guérin noted that there were no more news from Spain.[18] There are no traces of Portugal or Greece in the Thévenot collection.

Concerning Eastern Europe, there were attempts of contact, as I have shown in the third chapter. Czechoslovakia is present, with the underlying geopolitics analysed by Bijsterveld. As I showed, The Union of Soviet Socialist Republics participated in a few editions during the 1960s, and farther to the East, The People's Republic of China also participated in a few editions during the 1960s. Japan was present within the FICS, but never paid its membership and never truly participated. It was excluded in 1968.[19] Thus, even if the *Namaroku* movement that I detailed in the main introduction was vivid, it seems that no contact was established with European sound hunters. When the *Namaroku* bloomed in the 1970s, Thévenot had already taken his distance with the IARC and the FICS

[14] *La Revue du Son*, December 1956, 311. No name is given in the article.

[15] 'Associations – 6.11.56,' written document by Thévenot on a loose sheet dated from the 6 November 1956. Archives JT et CdS, 19910681/, folder FICS – Associations, 1955-1969.

[16] Jury du CIMES 1970. Archives JT et CdS, 19910681/27, folder 21ème CIMES – 1970, siège : Genève, sub folder Classement général.

[17] Rapport du Secrétaire Général présenté au XVème Congrès de la FICS à Mons en octobre 1967. UNESCO Archives, Paris, FR PUNES AG 8-SEC-ERC-ONG.1-211.3.

[18] Réunion du Comité Directeur de la FICS, 18-19 mars 1972, Mayence. Archives JT et CdS, 199106081/28, folder 21ème CIMES – 1972, Prague, sub folder CIMES 1972, règlement Suisse, notes manuscrites, correspondance, documents préparatoires.

[19] FICS, 12ème Congrès et 17ème CIMES, Heidelbeg, 18-22 octobre 1968. Archives JT et CdS, 19910681/1, folder Congrès annuels de la FICS, 1958-1968, sub folder 12ème Congrès de la FICS, Heidelberg, 1968.

(with the consequence that the IARC and FICS files became very thin in his collection), and if there were contacts, they do not appear in his collection.

For Africa, Australia, the Middle East, South-east of Asia, North and South America, as mentioned in the third chapter, the entries were, more often than not, sent by European expatriates.

In the end, the list of the IARC venues is nearly limited to the countries of the initial members of the FICS: France, Switzerland, Germany, Belgium, Netherlands, United Kingdom, Denmark.[20] Therefore, the Thévenot collection only allows a European cartography. However, this one is close to the cartography established by Thomas Y. Levin in his study of Phono-Post discs,[21] with notably the absence of southern Europe. This is probably due to the scarcity of sources, but faced with the quantity that Levin was able to retrieve (several thousand), and in light of Thévenot's ability to establish contact with individuals and organisations overseas and with individuals behind the Iron Curtain, there is probably another reason behind it. Language was not a problem for Thévenot, as he was able to have his letters translated, and his collection had numerous correspondences written in various languages. Then, how can this absence of southern Europe be explained? The most probable explanation is that there *were* sound hunters in Italy, Spain, and southern Europe, but that they lacked an organisation able to gather themselves and give them light. As detailed in the introduction, sound hunters in the United States faced a similar problem. There were present and active – one of them regularly participated in the IARC and won prices[22] – but, as already commented upon by observers in the 1960s, they did not arrange an organisation to support and consolidate their activity, remaining thus much less visible, and hearable.[23] It is probable that if Mario Migliardi announced a project for a sound hunting programme, it was because he was aware of an existing practice. Thus, further work is needed to unearth what the sound hunting scene was like in Italy, Spain, and in the other countries absent from the Thévenot collection.

[20] Czechoslovakia (1972, after an initial try in 1968), Austria (1977) and Italy (1982) were added later. See appendix 1.
[21] Thomas Y. Levin, "N'écrivez pas, parlez ! Vers une archéologie de la messagerie téléphonique," conference at the Centre Pompidou, Paris, 4 November 2015.
[22] It was Kenneth Miller, who notably won a first prize in 1960 with a piece entitled *1999*. He produced the tape "in [his] bedroom, between the bed and the steam radiator, in 1959." Thévenot's comments were "excellent sound takes, good sound effects, humour. 16/20." Kenneth Miller's form. Archives JT et CdS, 19910681/20, folder 9ème CIMES – 1960, Amsterdam, sub folder Documents manuscrits, fiches et scripts d'enregistrements de la finale internationale, observations et notations.
[23] Mark Mooney, JR & Jean Cover, "Cross Talks," *Tape Recording*, February 1963, 10; Émile Garin, "Le magnétophone aux États-Unis," *La Revue du Son*, February 1963.

6.3. To record, to share, to listen

To sum up and contextualise all the findings that I detailed, I am going to present a last example. Despite dealing with an individual, this last story touches upon all the points, practical and theoretical, that I developed in these pages. It sums up how fluid the circulation of agents was between places, backgrounds and between the professional and amateurs worlds, how the IARC served as a meeting point, how the radio programme of Thévenot served as a training ground, how a sound hobbyist network was built, how this individual network became an important node for the circulation and recording of local but also foreign musicians, how this network became entangled with international organisations and with geopolitics, how sound – and sound technologies – were understood and used within a local community, how a sonic practice gathered people. Thus was Father Raymond Garnier, the priest of Trouhans, a rural village of Burgundy, with 544 inhabitants in 1962.[24]

As soon as he was ordained, Father Garnier looked for new ways to communicate with his parishioners, using twentieth century media.[25] He first used films, silent for ordinary people at the time, which ignited his passion for all sound related equipment in order to provide soundtracks. But the use of 78 rpm discs was not practical, notably because the synchronisation with pictures was complicated. The discovery of the tape recorder during the 1950s was then "a revelation." The tape recorder was thus first used as an auxiliary to cinema, to replace discs – a common usage for sound hunters. However, Father Garnier soon started to use the tape recorder to record the musicians of his parish and collect the stories and memories of his parishioners. Like other sound hunters, he kept his disc-cutter to circulate the recordings he made on tape. It was when a friend told him about the IARC, and encouraged him to participate, that Father Garnier started to think about other uses. One of his friends, Father Griveaux, the choirmaster of the cathedral of Autun, was also a sound hobbyist, and a photographer. He had a collection of pictures from the tympanum of the cathedral that he used regularly during public visits. They decided to build a piece around these pictures, accompanied by a humorous text written by Father Griveaux, Father Garnier taking care of the sound. With the sound piece, the two Fathers won the second prize in the editing category. Thrilled by this prize, Father Griveaux transformed the piece into a real sound and light show for the cathedral of Autun. And on his part, Father Garnier, met Jean Thévenot at the IARC, who asked him to produce more recordings in order to broadcast them in his radio programme.

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[24] Ldh/EHESS/Cassini, http://cassini.ehess.fr/fr/html/fiche.php?select_resultat=38317 (accessed 19/04/2022).

[25] The following information are mainly taken from a documentary of Dany Fog dedicated to Father Garnier: Dany Fog, *Boulot… Credo… Sono…*, France 3 Bourgogne, 15 March 1976. The documentary is available online: https://www.youtube.com/watch?v=6p9les2yScc (accessed 20/04/2022).

Through the building of his technical knowledge, the meeting with artists and musicians, Father Garnier wanted to find ways to build new social links and get closer to his parishioners. Sonic practices and sound recording were, for him, a "celebration of the everyday," and "a liturgy of the everyday" – to use the vocabulary that I developed in the fifth chapter. Father Garnier was searching for the everydayness of the everyday of his parishioners. For Father Garnier, that liturgy of the everyday was able to sustain and form a folklore. And it was that folklore of the everyday that he started to record every year during the *Fêtes de la Vigne* [Vine Celebrations], a folkloric music and dance festival in Dijon.[26] Father Garnier recorded the festivities directly in Dijon, but also invited musicians to perform in his church in Trouhans.[27] Thus, musicians from all over the world came to his village and performed for the inhabitants and were recorded. With his recordings of folkloric music made thereby, Father Garnier won a Grand Prix from the Charles Cros Academy. That prize was for him a stimulation to pursue his research in the roots of folkloric music. Through contacts established with Hungarians at the *Fêtes de la Vigne*, and because his sound recording work of folkloric music was known and valued (notably thanks to Thévenot, who was a member of the Charles Cros Academy), Father Garnier was subsequently invited by the Cultural Institute of Hungary to produce a study on music teaching in Hungary. There, he met and interviewed Zoltán Kodály and recorded the Hungarian Army Choir.[28]

Father Garnier sent several of his recordings made at the *Fêtes de la Vigne* to Thévenot, for his radio programme. This way, Thévenot learnt about these *Fêtes de la Vigne* and met the organisers, the *Comité Bourgogne* and its president, Robert Levavasseur. This happened at a time when Thévenot was increasingly on bad terms with the FICS and was searching for solutions to launch a new dynamic within the IARC. A collaboration with the *Fêtes de la Vigne* seemed a solution.[29] If the discussions started in 1963, it was only in 1965 that a collaboration started between Thévenot and the *Comité Bourgogne*.[30] And when, a few years later, Thévenot withdrew his participation – and the one

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[26] The *Fêtes de la Vigne* were established in 1946 and still exist to this day. Since the beginning, it is a folkloric music and dance festival, with artists coming from all over the world.

[27] Trouhans is located at about thirty kilometers from Dijon.

[28] Zoltán Kodály (1882-1967) was a composer, ethnomusicologist and pedagogue. One of the most famous composers in Hungary, he started to scout central Europe in 1905 with a cylinder phonograph to collect and study folkloric music. In the 1930s, he started to write his own music education method, the Kodály method, which is now used worldwide.

[29] Projet de collaboration entre le Comité Bourgogne et les responsables du CIMES, minutes of a conversation between Robert Levavasseur and Jean Thévenot, 1 December 1963. Archives JT et CdS, 19910681/33, folder Comité Bourgogne – correspondance, 1961-1968, sub folder Courriers et documents relatifs à la Fête Internationale de la Vigne et aux Jeux d'Automne.

[30] With only the French national selection. The *Fêtes de la Vigne* happened at the beginning of September and the French results were announced then. The winning tapes competed a month later in London at the IARC. Given the fact that the contest was organised in Burgundy, the price offered by the *Comité Bourgogne* was wine

of the ORTF – from the IARC, the partnership with the *Comité Bourgogne* entered to new level: in 1967, the first edition of the *Rallye international des chasseurs de son, "Sur la route de Dijon"* was organised, an automotive / sound recording competition. Cars coming from France, Switzerland, Belgium converged in Dijon, with various sonic trials on the road. The year after, in 1968, two Czechoslovakian cars joined for the second edition of this rally. The contact with the Czechoslovakian group was organised by René Monnat, who arranged their travels through Switzerland, their accommodation for several days with Swiss sound hunters, and the necessary papers so that they could exit Czechoslovakia.[31] Despite the invasion of their country by the Warsaw Pact armies in August 1968, six Czechoslovakian sound hunters were able to exit their country a few weeks after to participate in the Rally. However, their tapes recorded in Czechoslovakia for the two first sonic trials were kept by the Czechoslovakian authorities at the border.[32] This rally proved to be life-changing for at least one of its participants, Milan Haering. Indeed, amongst the six sound hunters, two were under cover State agents, and Haering became increasingly concerned about some words he had during the trip. He flew to Switzerland the year after, where he was welcomed by fellow sound hunters probably those who he met the year before through Monnat.[33] Haering maintained his investment with sound hunting, as he became president of the FICS decades later. Concerning the rally *Sur la route de Dijon*, it continued until 1975. And Father Garnier continued to record within his studio in Trouhans. Father Garnier passed away in 1990. As with so many sound hobbyists, it is unclear what happened with his studio and recordings after his disappearance. A typical example of a very active sound hunter of whom very few signs remain. The Diocèse de Dijon, of which he depended, only have a very thin file on him. The contacts they have that knew him have not answered my calls to this day.

Thus, all this happened thanks to the interest that Father Garnier had in sound. Thanks to his acoustemology – what he understood of the relation of sound to the folklore of the everyday –, to the possibilities offered by a new sound recording technology – the tape recorder –, to the sociomaterial agencies of sound that brought people together – sound hunting.

– in the form of 57-litre barrels (letter from Thévenot to Robert Levavasseur, 13 April 1965. Archives JT et CdS, 19910681/33, folder Comité Bourgogne – correspondance, 1961-1968, sub folder Courriers et documents relatifs à la Fête Internationale de la Vigne et aux Jeux d'Automne).

[31] Letter from René Monnat to Robert Levavasseur, President of the Comité Bourgogne, 4 July 1968. Archives JT et CdS, 19910681/13, folder 2ème Rallye International 1968 "Sur la route de Dijon », 1967-1968, sub folder Organisation générale et divers (1967-1968).

[32] The recordings to produce in the home country were "Typical music or drink" and a "Message to Burgundy." Cahier de contrôle des équipes, rallye « sur la route de Dijon » 1968. Archives JT et CdS, 19910681/13, sub folder Deuxième rallye, 1968.

[33] Karin Bijsterveld, "Eavesdropping on Europe: The Tape Recorder and East-West Relations Among European Recording Amateurs in the Cold War Era," in *Airy Curtains in the European Ether. Broadcasting and the Cold War*, ed. Alexander Badenoch, Andreas Fickers, Christian Heinrich-Franke (Nomos, 2013): 99-122.

> Owning a tape recorder and using one, as any tapist knows, are two different aspects of one world. (…) Using a tape recorder is an initiation to *a way of life*. A tapist begins to listen to sounds in a way that he's never listened before, until he comes to the point when his critical faculties are so well developed that he can set himself up as an audioanalyst."[34]

For Jean Thévenot, René Monnat, Father Garnier, Milan Haering, and for most of the sound hunters named in this thesis, owning a tape recorder was indeed "*a way of life*." A way to be in contact with the world, with people. Their listening habitus was one of a creative listening able to find the everydayness of the everyday through a curiosity toward the world and its people, a listening habitus with a sonic imaginary able to gather. They had knowledge about listening, about sound recording, and about the equipment, that they shared as active members of the sound hunting community (Father Garnier is listed on the map of French clubs, figure 18, chapter II) – as devotees, to quote Stebbins. As amateur sound recordists, they recorded the folklore of the everyday and they gave a voice to what was usually not heard – ordinary people, trivial objects, living beings. Sound hunters, they were able, beyond recording, to listen.

[34] Graham Harris, "Tape is a way of life," *Amateur Tape Recording*, January 1967, 8. Stress in original.

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Equipment:
www.radiomuseum.org
http://www.prestohistory.com/

Early recordings:
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https://early-recordings.com/
https://www.phono-post.org
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United Kingdom Audio Recording Association: https://www.ukara-gb.org/home
Fédération Internationale des Chasseurs de Son : https://soundhunters.com/
Elements on several British Tape Recording Clubs: http://meagreresource.com/other-projects/tape-recording-clubs/

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Soudmaps and soundwalks:
Ian Rawes' London Sound Survey: https://www.soundsurvey.org.uk/index.php/survey/soundmaps
The Walking Festival of Sound: http://wfos.net/

Appendices

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Appendix 1. International Amateur Recording Contest: list of venues, winners of the Grand Prix, nationalities of the winners, titles of the winning pieces, annual themes 301

Appendix 1. International Amateur Recording Contest: list of venues, winners of the Grand Prix, nationalities of the winners, titles of the winning pieces, annual themes

Categories of the Grand Prix: A: Audio; M: Mono; S: Stereo (from 1960, only mono before); MM: Multimedia, V: Video. After the table established by the *Fédération Internationale des Chasseurs de Son*, completed and corrected (https://soundhunters.com/iarcs.html; https://soundhunters.com/theme.html).

Year	Place	Winner of the Grand Prix	Country of the Winner	Title	Theme of the year (starts in 1968)
1952	Lausanne	Jan Mees, Guy Tavernier Pierre Christian	F	*À la poursuite de M. Sprunk*	
		Stefan Kudelski	CH	*Le bourdon de Notre-Dame*	
		Louis Mécavara	CH	*Improvisations*	
		Gabriel Lincé	F	*Folklore Polynésien*	
1953	Paris	Claude Cronier	F	*Bouquet de Songes*	
1954	Brussels	Joseph-Maurice Bourot	F	*Mille, dix mille, cent mille ?*	
1955	Lausanne	Ru van Wezel	NL	*Bleistift und Papier*	
1956	Paris	Monique Canon	B	*Variations sur instruments*	
1957	Brussels	C. Flury / E. Stark	CH	*Der Zauberladen*	
1958	Bern	Ru van Wezel	NL	*Limelicht*	
1959	London	Meeching Junior School (John Weston)	GB	*Journey so long*	
1960	Amsterdam	M: Norman Paul	GB	*The Rest Is Silence*	
		S: Daniel Gonin	F	*La stéréophonie*	
1961	Berlin	M: Willy Baumann	CH	*Variationen mit dem Ton A*	
		S: Jean Taverney	CH	*Ramona*	
1962	Strasbourg	M: Karl Heinz Wellinghoff	D	*Die Zeit*	
		S: Abbé Raymond Garnier	F	*Un Jour à Nuits*	
1963	Liège	M: Bernard Pichon	CH	*ATS-folies*	
		S: Emil Heer	CH	*Magnificat*	
1964	Lausanne	M: Ray Stanton King	GB	*Sink Symphony*	
		S: Emil Fellmann	CH	*Kontrapunktus*	
1965	London	M: Jürgen Sprotte	D	*Guitarra rapida*	
		S: Kurt Felix	CH	*Die Musikmaschine*	
1966	Amsterdam	M: Lucien Wasmer	CH	*Panorama of Popular Mexican Music*	
		S: Svend Nielson	DK	*The Magic Band*	
1967	Berlin	M: Fernand Paillard	CH	*Mini-mariage*	
		S: Ivan Tepán	CS	*Futur*	

1968	Heidelberg	M: Nilos Haase	CS	*Hommage à Albert Dürer*	The Country I Live In
		S: Françis Jeannin	CH	*H2O*	
1969	Copenhague	A: Lucien Wasmer	CH	*Valdemar Poulsen*	The inventions of Valdemar Poulsen
1970	Geneva	A: Peter L. Bastin	GB	*Not a Word*	Contrasts and Perspectives
1971	Mons	A: Peter L. Bastin	GB	*How to Make a Tape Recorder*	Pop or not Pop?
		V: M. Kaschubinski	NL	*It's a Pity*	
1972	Prague	A: Peter Christoph Haessig	CH	*Die Werbung*	The Concert of the Living
		V: H. Schiefer	NL	*Moved Motion*	
1973	Paris	A: Peter Dekker	NL	*Radio Piratolaterie*	My Country, My Town, My Village
1974	London	A: Jean Daudin	CH	*Angleterre*	England
		V: J.E. Houghton	GB	*Hand Ballet*	
1975	Amsterdam	A: Franticek Pokorný	CS	*Voyage de demain*	Amsterdam
		V: L. Brillemans	NL	*Catastrophy + Co.*	
1976	Lausanne	A: Colin Humphreys	GB	*Darling*	William Tell
1977	Wien	A: Roberto Santini	I	*Cabaret 45*	100 Years of Sound Recording
1978	Munich	A: Roberto Santini	I	*Bavière*	Bavaria
		V: J. Duez	B	*Le pays enchanté*	
1979	Basel	A: Bert van den Brink	NL	*Multiple voices*	The Rhine
		V: Dominique Calace de Ferluc	F	*Philippines*	
1980	Copenhague	A: Peter Rubin	CH	*Roman fährt Automobil*	Andersen
		V: Jean Daudin	CH	*Restructuration*	
1981	Amsterdam	A: Fernand Paillard	CH	*Chienchat fantaisie*	The Netherlands
		V: CRLOP	F	*Karumanta*	
1982	Parma	A: Nando Monica	I	*Giocattoli in Parata*	Parma
		V: Torben Baunsoe	DK	*Patent Nr. 2653*	
1983	London	A: Roberto Santini	I	*Radio*	Radio
		V: Hans Grimmig	D	*Vide(i)o*	
1984	Paris	A: Roberto Santini	I	*La fête de ma vie*	Festival!
		V: Lucien Wasmer	CH	*Tequila*	
1985	Bregenz	A: Daniel Mar & Co.	F	*Alice ou un...*	Homeland
		V: Sven Viole	D	*Schlepperballet*	
1986	Baden-Baden	A: Hörspielgem. Baunatal	D	*Zeitzeichen*	Europe - Dream or Reality
		V: Torben Baunsoe	DK	*Das Broten Von Amseln*	
1987	Lausanne	A: Peter Rubin	CH	*Musikalisches Wasser*	In My Forest... In The Year 2000
		V: Esra	F	*Vive la PUB*	
1988	Wien	A: Gottfried Bauer	A	*FICS-Rap*	The Blind and Their Problems
		V: Lucien Wasmer	CH	*Les confidences de Damien*	

1989	Prague	A: Ivan Stepan	CS	*Konzert für Schlagzeuge*	The Earth is a Wonderful Place for Life
		V: Hermann Baumberger	CH	*Bracher Tanne*	
1990	Hilversum	A: Daniel Buerkli	CH	*Acapella*	My Country, my Town, my Village
		V: Han Haanstra	NL	*100 Jaar Telefonie in Nederland*	
1991	Manchester	A: Roberto Santini	I	*La piccola fiammiferaia*	Candles in the Dark
		V: Jean-Marc Lamandé	F	*S.O.S. Nature*	
1992	Baden-Baden	A: Frédéric Prou	F	*La S.P.A. Stéphanoise*	Freedom...what is it?
		V: Carlo Vaccari	I	*Figaro*	
1993	Paris	A: Section Genève ASCS	CH	*Tout à fait*	Other People's Humour
		V: Gilbert Levy	F	*Dernier Tango à Java*	
1994	Parma	A: Roberto Santini	I	*Vendetta*	Melodrama, what Passion!
		V: Cardiff Tape Recording Club	GB	*Sound Judgement*	
1995	Prague	A: Roberto Santini	I	*Ein Floh im Ohr*	Only One Pair of Ears for a Whole Life
		V: Carlo Vaccari	I	*Psoriasis*	
1996	Bratislava	A: Ippel / van Turennout	NL	*Virtual Holidays*	When it rains, don't come out of your cave
		V: Cardiff Tape Recording Club	GB	*Virtual Reality*	
1997	Blanken-berge	A: Daniel Buerkli	CH	*The singing nutcracker*	Listen to Life, an Extraordinary World
		V: Filippo Lubiato	CH	*Die Volkshochschulen*	
1998	Hengelo	A:Heiner Schaub	CH	*Cat Dance*	From Wire to Magnetic Tape
		V: Jacques Lamande	F	*Rondes et chansons*	
1999	Bern	A: Pierre Flahaut	F	*Octet en modem mineur*	Change of Millennium
		V: Filippo Lubiato	CH	*The Beauty and the Beatle*	
2000	Ceské Bude-jovice	A: Roberto Santini	I	*Vino-Vino*	The Human Being: Operating Instructions and Maintenance Manual
		V: Filippo Lubiato	CH	*Standstill*	
2001	Cardiff	A: Pierre Flahaut	F	*Gallinaria*	It'll never work!
		V: Kurt Beuret	CH	*Ladybird / Marienkafer / Coccinelle*	
2002	Baden-Baden	A: Jean-Louis Dubois	F	*Amour Sacré*	Do I feel international?
		V: Kurt Beuret	CH	*Seepferden / Seahorses / Hyppocampes*	
2003	Paris	A: Pascal Ayerbe	F	*Charlotte*	Sound Hunters' Europe
		V: Daniel Auclair	F	*Les dents de la mare*	
2004	Piestany	A: Ru van Wezel	NL	*Seaside Rendez-Vous*	Stand Up and Walk
		V: Rodrigue Eckert	CH	*1602*	
2005	Lugano	A: Markus Mast	CH	*Der lachende Hahn auf dem Bauernhof*	The Magic of the Lake
		MM: André Hardensveld	NL	*Inverewe Gardens*	
		V: DSF	CH	*Blumen für Vater*	

Year	Place	Award	Country	Title	Theme
2006	Ossendrecht	A: Nico Warnaar	NL	*Liberate Tuteme Ex Infernis*	Vision of the Future
		MM: Sander van Hulsenbeek	NL	*Pitcher Tango*	
		V: Jan Kuska	SK	*Triangle*	
2007	Ceske Budejovice	A: Mike Dickins	GB	*A Transport of Delight*	My Ordinary Day
		MM: Jan Roeleveld	NL	*Mystic Colours of the Yellowstone*	
		V: Plevo Vredik	SK	*Desperado 2*	
2008	Saarbrücken	A: Nico Warnaar	NL	*The Big Train Ride*	Railway
		MM: Andr&eacuet; Hardensveld	NL	*Valley of the Hoodoo*	
		V: Cardiff Tape Recording Club	GB	*The Train*	
2009	Banbury	A: Haans Ippel	NL	*Carols of Death*	A Wake-up Call
		MM: Lubomir Patsch	SK	*Thanks / Pod'akovanie*	
		V: Ken Geen	GB	*A Wake-Up Call*	
2010	Chateau Smolenice	A: Milan Haering	CH	*Gimme That Old Time Religion*	Castles and Châteaux
		MM: Henk Hoedemaekers	NL	*Animal Spot*	
		V: Cardiff Tape Recording Club	GB	*The Quiet Return..?*	
2011	Bern	A: Ton Berkhout	NL	*Johann Sebastian Bach, Kantate BWV 150*	Laughing and Smiling
		MM: Edgar & Linda Gibbs	GB	*Talbot House*	
		V: Cardiff Tape Recording Club / Ken Geen	GB	*Elevating Descent*	
2012	Rotterdam	A: Hans Ippel	NL	*Kanon Pokajanen*	Game of Voices
		MM: Gerrit van Harteveld	NL	*Nature's Sculpture Park*	
		V: Ken Geen / Cardiff Tape Recording Club	GB	*A Game of Voices*	
2013	Baden-Baden	A: Roger Allen	GB	*Summertime*	Experience nature - Nature Experienced
		MM: Andre Hartensveld	NL	*Waanzin*	
		V: Cardiff Tape Recording Club	GB	*Nature Experienced*	
2014	Banská Bystrica	A: Marc Burdugo	F	*Trio Stereo*	... and the last one out close the door
		MM: Mark Rigler	GB	*Opening Orchids*	
		V: Pierre Flahout	F	*Ballade No.3*	
2015	Banbury	A: Ernst Schmid	CH	*Erinnerungen - Memories*	Memories
		MM: Linda & Edgar Gibbs	GB	*A Soldier of the Great War*	
		V: Margareth Stalder	CH	*Die "Grande Dame" erwacht*	

2016	Echallens	A: Simon Elliott	GB	*The Little Grebe*	Goodbye!
		MM: Mark Rigler	GB	*In Loving Memory*	
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