

Learning Culture Through City Soundscapes
A Teacher Handbook



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(Athens, 2013)

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This handbook is submitted in partial fulfillment of the requirements of the research project entitled *Learning Culture Through City Soundscapes – An Educational Tool*, funded by the John S. Latsis Public Benefit Foundation.

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To our students

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Acknowledgements

We would first like to thank the John S. Latsis Public Benefit Foundation for the financial support of this research project and the administrative staff of the foundation for the steady help and support throughout our collaboration. This project would not have reached its current form without the precious contribution of a number of colleagues and friends, to whom we are indebted: Georgios Agelopoulos, Dimitris Charlaftis, Loukis Chasiotis, Vilma Hastaoglou, Alexandra Karadimou-Gerolympou, Pelagia Astrinidou-Kotsaki, Evangelos Kyriakidis, Sapfo Notara, Yannis Papadopoulos, Paris Papamichos-Chronakis, Alexandros Efkleidis, Stelios Kymionis, Luisa Passerini, Katerina Pavlopoulou, Risto Pekka Pennanen, Nadia C. Seremetakis, Panos Theodoridis, Aspasia Theodosiou, Chris Williams and Theotokis Zervos. We are particularly grateful to Panayotis Panopoulos for triggering our interest in the study of sound through his work and through a number of long and thought-provoking conversations.

A number of researchers and members of staff offered valuable guidance and mediation at the various archives where we conducted our research. Special thanks to Eleni Ioannidou Maria Kazantzidou and Eirini Tellidou (Historical Archive of Refugee Hellenism - Municipality of Kalamaria); Sofia Akrivopoulou, S. Tzevreni, and Despina Makropoulou (Archive of 9th Ephorate of Byzantine Antiquities of Thessaloniki); Vasiliki Misailidou and D. Aktseli (Archive of 16th Ephorate of Prehistoric and Classical Antiquities); P. Skoudouroglou, K. Tsiboukas and D. Voutsas (Archive of Property Office, Thessaloniki Prefecture, Ministry of Finance); Elpida Daniil (Archive of National Map Library, National Center for Maps and Cartographic Heritage - National Map Library); Despina Ignatiadou (Archaeological Museum of Thessaloniki); and Dimitris Kamouzis and Varvara Kontoyanni (Centre for Asia Minor Studies). We would also like to thank Agra Publications and Makedoniki Publishing, for generously granting permission to use copyrighted material at their possession. Lastly, we are grateful to Zoi Glaveta, Elsa Karoulidou, Fotis Lazidis, Veta Stathaki, and the rest of the administrative staff of the Research Committee of the University of Macedonia, who efficiently assisted us in the administrative aspect of our research. Special thanks to Afroditi Papisimakopoulou for creatively solving bureaucratic problems.

We finally wish to thank our friends and family for their continuous support. Our gratitude goes especially to George Argyriou, Nikos Hatzipetros and Reguina

Hatzipetrou-Andronikou, Michalis Kallimopoulos, Evi Kaplani, Penny Korneti, Stratis Lagoumidis, Myrto Malouta, Elena Marsidou, Irene Noel-Baker, Katerina Pavlopoulou, Andreas Siadimas and Efi Theodorakopoulou.

Archives, Libraries and Research Centers consulted

- Archive of 9th Ephorate of Byzantine Antiquities of Thessaloniki
- Archive of 16th Ephorate of Prehistoric and Classical Antiquities
- Archive of Property Office, Thessaloniki Prefecture (Ministry of Finance)
- Archive of National Map Library (National Center for Maps and Cartographic Heritage - National Map Library)
- Centre for Architecture of the Municipality of Thessaloniki
- Historical Archive of Refugee Hellenism - Municipality of Kalamaria
- Archive of Makedoniki Publishing
- Centre for Asia Minor Studies
- The Hellenic Literary and Historical Archive
- Digital Library of the Hellenic Parliament
- National Library of Greece - Digital Library of Newspapers and the Press
- Greek National Radio Television (ERT) Archives
- The British Pathé Archives
- Private archive of George Kordomenidis
- Archive of A. Karamitsos International Philatelic Auctions

Teacher Handbook: Introduction

As the title states, the main aim of this handbook is educational; that is, to explain how one can study sound in the city and the city through sound. Described in technical terms, this handbook is an Open Educational Resource (i.e. an open-access digital publication in pdf format) that contains the technical guidelines, theoretical material and other supportive material needed for setting up and carrying out an ethnographic project on city soundscapes. However, being ‘an educational tool’ as it has been initially conceived, its planning and writing stages constituted themselves an educational experience for our research team. Some of the precious lessons drawn during the preparation process are worth sharing in this introduction.

Even if the very topic of this handbook—city soundscapes—may seem narrow at first glance, it is grounded in a highly multidisciplinary background, and consequently on a complex network of trajectories of thought within certain disciplines (e.g. history, anthropology, ethnomusicology, urban studies etc.) that is reflected in a fairly sizeable literature. In this respect, it only covers a very specific area where these disciplines overlap, dictated by the very research and teaching experience of the members of our research team. Therefore, this handbook—and particularly its section on theory—does not pretend to be covering every single aspect of the relevant literature. Instead, our work tries to provide a broad historical outline of the history of the field and map out some major trends in recent scholarship. Suggestions for further reading provided at the end of the text attempt to expand on the major topics that are primarily discussed in the course of the handbook.

Among the most challenging aspects in defining the framework and scope of our work was the ‘city’. A counterbalance in the difficult task of systematizing a highly theorized topic such as the ‘city’ was the applied aspect of the project, that is the study on the history of sound of the Old Archaeological Museum (Yeni Cami) of Thessaloniki. Our hands-on experience with a wide range of material concerning this fascinating building—initially built a Mosque that after a number of subsequent usages serves currently as an arts venue—gave us a good overview of the history of the city of Thessaloniki, which consequently turned into our methodological paradigm. Therefore, a great amount of material and perceptions presented in this handbook adheres to the example of a modern Greek city, with a fairly recent Ottoman past and a European

present, however vague this latter quality might be. In other words, our methodological paradigm is largely identified with that of 'a city in transition'. Nevertheless, throughout the course of this handbook we tried to link this local research experience to that generated by the study of a number of cities around the globe, which is documented in a very broad literature. Therefore, whenever applicable we tried to draw parallels with cases from the literature on city soundscapes that referred to entirely different localities. More than anything else, the concept of 'transition' that the recent history of Thessaloniki showcases is the predominant link of our study to a number of studies on various cities.

Despite the fact that the present handbook is formally entitled 'Teacher Handbook', it is not intended for a strictly teacher use. Its structure and content are relatively accessible to graduate level university students and it should ideally be used as a research reference text of a research team. The handbook follows a straightforward binary structure, divided into things to be carried out 'in the classroom' and things to be carried out 'in the field'. In either section, there is a number of exemplary material (terminology, notes etc.) in the form of tables (light-blue panels) as well as 'student tasks' (yellow background) that can be used creatively and freely by teachers and students alike.

As mentioned above, the handbook draws on our applied research experience and therefore it complements the Pilot Application on the Old Archaeological Museum (Yeni Cami) of Thessaloniki. A number of theoretical and practical aspects of the present text are further exemplified in the Pilot Application.

Finally, among the precious lessons that we gained as a team throughout the course of this project is to listen carefully to each other's diverse, and sometimes even contradicted, views and perceptions on a number of shared research issues. If anything, this is a good methodological kick-off for entering into the field of the cultural study of sound. This handbook seeks to become a useful text in the hands of students and teachers working on city soundscapes and a good 'first draft' for further work on the methodology and teaching of the history and ethnography of sound.

SOUND

The story of sound can be told from many disciplinary points of view. It is a non-linear narrative, whose plots and themes were increasingly explored especially from the 1960s onwards by a number of disciplines, most notably anthropology, history, ethnomusicology, philology, media studies and cultural studies and in several research fields such as orality-literacy, sound studies etc. Although the main motifs (questions, terms, research methods and techniques) were formulated independently by each field, there are also commonalities and points of intersection.

The scholarly interest in sound as a field of study and as an analytical category was concurrent with the critical turn in the social sciences, which saw the collapse of grand narratives. In this context, the study of sound often formed part of a broader interest in the senses and contributed to a general criticism of the well-documented intellectual bias for the visual, the literate, the modern, or for Eurocentric definitions of 'music'. In other fields, the study of sound helped in gaining understandings 'from below' and provided a means to listen to the voices of the oppressed, the 'common people', and the cultural Others. This section (Theoretical Discussions), tries to contextualize and historicize the aforementioned intellectual trends in the form of critical topics for presentation and discussion in the classroom. Subsections are supported by relevant resources (scholarly publications, websites etc.) for further reading (see 'Further Reading', pp. 119-126).

Soundscape: Genealogy of the Term

But what is a soundscape? The term was coined by Canadian composer and author Murray Schafer to describe 'the sonic environment' in its totality (1994 [1977a]: 274-5). This encompassed the whole aural spectrum: from natural, to human and mechanical sounds, from sound to 'noise' and 'music', and from consciously to unconsciously produced sounds. Schafer's declared goal in studying soundscapes was to determine in what significant ways individuals and societies of various historical eras listened

differently (ibid.: 151). This question was posed in the ecological terms of the post-WWII environmental movement, voicing concerns about noise pollution in the context of urbanization. Schafer's research was motivated by the realization that 'the soundscape of the world is changing' (ibid.: 3) and had an unmistakably applied character: it aimed to improve the acoustic environment of society through the outright orchestration of the world's soundscapes.

The nascent field of Acoustic Design conceived of the soundscape as a huge musical composition and invited scientists and artists alike to preserve important soundmarks, eliminate sounds perceived as noise, and even compose model soundscapes for the future through the imaginative placement of sounds (ibid.: 271; cf. Truax 1996). The World Soundscape Project, launched by Schafer and a team of researchers and composers in 1971 at the Simon Fraser University in British Columbia, Canada, bequeathed to sound studies an analytical vocabulary, a concrete methodology for recording, notating and analyzing contemporary soundscapes, several landmark publications and soundscape recordings (Davis 1977; Schafer 1970, 1974, 1977b, 1978a, 1978b, 1994 [1977a]; Truax 1978, 1984; World Soundscape Project [1974]), and was instrumental in the formation in 1993 of the World Forum for Acoustic Ecology (<http://www.sfu.ca/~truax/wsp.html>).

Soundscape Vocabulary: Significant Features of the Soundscape for the Soundscape Analyst (Schafer 1994: 9-10, 272-5)

- **Keynote sound:** a sound which is heard by a particular society continuously or frequently enough to form a background against which other sounds are perceived. For instance, the sound of the sea for a maritime community or the sound of the internal combustion engine in the modern city. Often keynote sounds are not consciously perceived, but they act as conditioning agents in the perception of other sound signals.
- **Signal:** foregrounded sound that is listened to consciously. Although any sound can be listened to consciously, thereby constituting a signal, some signals must be listened to because they constitute acoustic warning devices: bells, whistles, horns and sirens. Sound signals may often be organized into elaborate codes permitting messages of considerable complexity to be transmitted to those who can interpret them (e.g. train and ship whistles).
- **Soundmark:** the term is derived from landmark to refer to a community sound which is unique or possesses qualities which make it specially regarded or noticed by the people in that community. Soundmarks make the acoustic life of the community unique and should therefore be protected.

Student Task

Take a stroll in the city. Focus on listening.

Can you identify some main keynote sounds, signals and soundmarks?

Repeat the task in the village and the country. Compare and contrast your aural experience.

Another important concept developed in the context of the World Soundscape Project, is that of the acoustic community. In the words of Barry Truax, composer and researcher in acoustic communication:

Our definition of the acoustic community means that acoustic cues and signals constantly keep the community in touch with what is going on from day to day within it. Such a system is 'information rich' in terms of sound, and therefore sound plays a significant role in defining the community spatially, temporally in terms of daily and seasonal cycles, as well as socially and culturally in terms of shared activities, rituals and dominant institutions. The community is linked and defined by its sounds. To an outsider they may appear exotic or go unnoticed, but to the inhabitants they convey useful information about both individual and community life.

(Truax 1984: 58)

The work of Schafer and his team reverberated across, and occasionally brought in interaction, a range of applied and theoretical fields—scholarly, musical, educational, and technological—engendering new conceptualizations and practices of sound. A critical overview of the multiple lives of soundscapes from the 1970s onwards exceeds the purposes of this handbook¹. In *Learning Culture through City Soundscapes*, we pick up one particular thread in the rich and multiple course of sound and sound studies; a thread which unfurls in the cross-disciplinary field of the study of culture, in the rich sensorium of the city, and in the ethnographic encounter between present and past.

Therefore, the main questions echoed throughout this project are:

- Why, and how, is soundscape important for culture?
- Which, if any, is the particular contribution of sound to historical and ethnographic inquiry?
- How does one study sounds/soundscapes and what are the epistemological and methodological implications?

¹ Panopoulos (2005) and Samuels et al. (2010) provide critical and comprehensive overviews of the scholarly contribution of soundscape studies, especially in relation to anthropology.

Soundscape as a Gateway to Culture

The intellectual lineage from which our study grows is characterized by a dedicated concentration on the culturally constructed nature of sound. Following Schafer, scholars from a range of disciplines with an interest in the study of culture and cultural history took up the concept of soundscape as an analytical tool in order to understand the ways people listen to sounds (Thompson 2002), form acoustic communities, and relate to each other through the sense of hearing (Erlmann 2004b). Aural historian Emily Thompson, in her book entitled *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900-1933*, offers the following definition of soundscape:

...an auditory or aural landscape. Like a landscape, a soundscape is simultaneously a physical environment and a way of perceiving that environment; it is both a world and a culture constructed to make sense of that world.

(Thompson 2002: 1)

Thompson's definition firmly registers the study of sound in the cultural domain: the soundscape is a gateway to culture. If the pioneer work of people like Murray Schafer and Barry Truax marked a general 'sound turn' in the social sciences and the humanities, then this shift of focus to aural perception constitutes an 'auditory turn' within it. The term appears in the essay by Douglas Kahn (2005) who uses it with reference to the bulk of seminal and prolific publications by sound historians, media theorists and literary scholars (Carter 1992; Miller Frank 1995; Johnson 1995; Corbin 1998 [1994]; Smith 1999; Kittler 1999; Connor 2000; Smith 2001; Thompson 2002; Sterne 2003) that triggered further production of relevant scholarship. Along the same lines, Veit Erlmann employs the term 'auditory turn' as a theme of a conference organized in 2009 that reflected on the issue².

Thompson's definition draws on the work of Alain Corbin, a cultural historian whose pioneer study of the auditory landscape of village bells (1998 [1994]) provides a formidable account of French social history. Through his research on bells and

² Conference *Thinking Hearing: The Auditory Turn in the Humanities*. University of Texas, 2-4 October 2009.

campanarian sensibilities in nineteenth-century rural France, Corbin explores communal identity, social divisions, the conflict between secular and religious authorities, between the local and the national, and the urban and the rural. These issues are discussed in relation to the transformations in the meanings of bells within the context of the emergence of modernity. Here, as in much cultural work on sound, the importance of sound and of aural perception in the articulation of social, class and race identities as well as in processes of modernization and secularization is a recurring theme. In the words of ethnomusicologist Veit Erlmann:

Hearing Culture suggests that it is possible to conceptualize new ways of knowing a culture and of gaining a deepened understanding of how the members of a society know each other. It is not only by accumulating a body of interrelated texts, signifiers, and symbols that we get a sense of the relationships and tensions making up a society. The ways in which people relate to each other through the sense of hearing also provide important insights into a wide range of issues confronting societies around the world as they grapple with the massive changes wrought by modernization, technologization, and globalization.

(Erlmann 2004b: 3)

The cross-disciplinary interest in the cultural study of sound is also reflected in the current terminology. As you go through the handbook you will notice overlapping, and at times conflicting, terms, depending on each scholar's disciplinary and theoretical background: sound, soundscape, or aural landscape; sonic, aural, or auditory; hearing, listening, or aural perception; sound archaeology, aural or auditory history, or sound history; and so on. In *Learning Culture through City Soundscapes* we even contribute some more terms: the city of sound, the sonic threshold etc. This polyphony registers the multidisciplinary character of sound studies, but it is also important to think of the questions being asked. In this respect, the divergence may not be as paramount as would seem at first sight.

The Great Divide: Orality/Literacy

The importance of aural perception in oral cultures has been amply stressed by theorists of orality/literacy (Ong 1982) and communication theorists (McLuhan 1962; 1997 [1964]). In the *Gutenberg Galaxy*, Marshall McLuhan traced the ways in which 'the forms of experience and of mental outlook and expression have been modified, first by the phonetic alphabet and then by printing' (1962: 1). McLuhan's basic thesis was that new technologies give rise to new structures of feeling and thought (Lapham 1997: xii). Until the invention of alphabetic writing and subsequently the print revolution, people perceived the world through all their senses. With the invention of movable type, vision came to dominate western thinking. It encouraged people to think in straight lines and to arrange their perceptions of the world in forms convenient to the visual order of the printed page (ibid.: xi-xii). Along the same lines, Walter Ong in *Orality and Literacy* (1982) argued that the passage of western civilization from orality to literacy, accompanied by the increased importance of sight over hearing, had a definitive effect on human consciousness. 'Technologies are not mere exterior aids but also interior transformations of consciousness, and never more than when they affect the word' (ibid.: 81). The technologizing of the word through writing and print, he noted, has 'transformed human consciousness' (ibid.: 77-9).

The orality/literacy or 'great divide' theory, as it has been termed, has been of great import to scholars of media and history. As regards the study of sound, it brought attention to the oral and the aural modes of perception, marking a significant step towards the broader critique to ocularcentrism.³ It further pointed to the interrelations between the senses and technology. Despite this, the 'great divide' theory has also been criticized as too western-centric, implicitly identifying the oral with the simple/primitive and the literate with the complex: but a primarily oral culture can be as sophisticated and complex as a literate one. The theory has also been denounced as too binary a formulation, which identifies pre-modern cultures predominantly with oral/aural modes of experience and modern cultures with visual modes of experience (Finnegan 1992: 6). Many scholars have subsequently argued for the continued relevance of non-visual senses and non-visual ways of understanding the world under modernity. For historian

³ In this context, the overstated visual dimension of Michel Foucault's panopticon as opposed to all non-visual senses has been also critically discussed. For a brief overview of the topic, see Denney (2011: 604).

Mark Smith, the print revolution, rather than substituting an oral with a visual system of communication, initiated a shift in sensory ratios. What is needed, he argued, is a research model stressing the principle of intersensoriality, in which all senses, including vision, are interrogated and combined in order to provide understandings of the past and present (Smith 2007: 11-4).

Ethnomusicology is a field in which the intricacies between orality and literacy are well explicated. Musical notation is a visual means of encoding sound. Although many cultures employ musical notation, the information they choose to encode, the ways in which they do so, and the degree to which they rely on notation for musical transmission and musical performance vary. Thus, we may speak of different degrees and modes of musical literacy in different cultures and within the same culture over time. In the modern era, sound recording is an additional important factor that plays into the orality/literacy divide and further complicates any notion of an either/or approach. Improvisation and improvised musical traditions, in general, constitute an important field for the study and the theorization of the interplay between orality/literacy, focusing, in particular, on their intermediary states. Kenneth Prouty employs the notion of an 'oral-written' continuum and discusses the role of recordings in the learning process in jazz music as part of this continuum (2006: 328–30). Panagiotis Poulos (2011: 171-3), drawing on the work of Georgina Born (2005) on musical mediation, analyzes creativity in Turkish classical music in terms of an oscillating process in the context of an 'in-between orality'. This 'in-between orality' is largely constituted by the integration of recordings in the learning process.

The work of Bruce Smith, a professor of English, offers one more example of the complicated relationship between orality and literacy. His study of the acoustic world of early modern England reveals a mixed culture that was literate with a 'strong oral residue' (Ong 1965: 145-6), in which the dominant term was 'orality' not 'literacy'. Smith also points to various kinds and degrees of literacy (1999: 12-3). He reveals an intricate web of interconnections between orality and literacy, and also notes that orality and literacy were reciprocally defined in ways quite different from today (*ibid.*: 13). Further, the oral and the literate are also interwoven in our methodologies and modes of historical inquiry. The artifacts that survive from early modern England are textual. Yet they ask to be heard, not seen:

Our knowledge of early modern England is based largely on words, and all evidence suggests that those words had a connection to spoken language that was stronger and more pervasive than we assume about our own culture.

(Smith 1999: 13)

Sound among the Senses

The study of sound is registered on a wider turn in the social sciences and the humanities, particularly anthropology and history, towards the study of the senses. This 'sensual turn' in scholarship was largely a reaction against not only the hegemony of vision in western culture but also the incorporeality of conventional academic writing (Howes 2003: xii; Stoller 1997: xi-xv). In *Sensuous Scholarship*, anthropologist Paul Stoller describes the scholar's body, which yearns to 'restore its sensibilities' and reawaken as a sensuous body:

Adrift in a sea of half-lives, [the scholar's body] wants to breathe in the pungent odors of social life, to run its palms over the jagged surface of social reality, to hear the wondrous symphonies of social experience, to see the sensuous shapes and colors that fill windows of consciousness. It wants to awaken the imagination and bring scholarship back to 'the things themselves'⁴.

(Stoller 1997: xii)

In the last few decades, a number of pioneer studies focused on distinct senses (e.g. Classen et al. 1994; Corbin 1986, 1994; Feld 1982; Johnson 1995; Roseman 1991; Smith 2000) or their comparative investigation (e.g. Corbin 1995; Hoffer 2003; Howes 1991; Stoller 1989) have responded to this sensual call, thereby turning sensory studies into an established and promising field.

Especially in its early stages, this body of literature suggested that the modern era assigned an important role to vision; while, conversely, touch, sound, smell and taste continued to be significant bearers of meaning in the pre-modern era (Denney 2011:

⁴ Quoting Edmund Husserl.

604). By asserting the significance of the senses, other than vision, on a methodological and epistemological level, these studies enriched the critique to ocularcentrism (or visual bias) as a defining feature of modernity. Further, they indicated that ocularcentrism was perhaps not so much a salient feature of modernity as opposed to pre-modernity, or of western as opposed to non-western cosmologies or ways of ordering the world; rather, it was a result of the way in which researchers themselves looked at their past and at non-western societies.

Perhaps the most important contribution of scholarly work on the senses was that it confirmed the importance of an intersensory or multisensory approach in historical and cultural inquiry. Subsequently, discussion has moved towards more integrated approaches of the sensorium and of the history and anthropology of the senses in general. The recent theoretical discussion on intersensoriality or multisensoriality highlights the interconnectivity of the senses, which interact with each other 'in different combinations and hierarchies [...] of social importance' (Howes 2003: xi). Rather than conduct separate analyses of each sense in isolation, we should ask how the senses work together (or not) in particular times and places.

Along these lines, recent studies in the field of sensory history focusing mainly on pre-modern and modern western societies, have contemplated the relation between the senses and modernity, as well as the role of the Enlightenment in shaping the sensorium. Rather than a radical restructuring of the senses whereby the visual sensibility becomes the dominant mode of perception, what occurs is a 'shift in sensory ratios' (Smith 2007). This model draws upon and enriches the critique to Ong and McLuhan's 'great divide' theory, affirming the principle of intersensoriality. What is more, the change in sensory hierarchies varies over time and place, which suggests that the senses are historical constructs (ibid.).

The anthropology of the senses further elaborated this idea through a cross-cultural perspective that asked how different societies order their world through different sensory emphases that shape each society's conception of itself in the world. Extended ethnographic fieldwork unveiled local non-western epistemologies, thereby suggesting the limits of western perceptual models in accounting for different sensory sensibilities (Classen 1993: 10-1). Stoller's work with the Songhay peoples of Mali and Niger, for instance, revealed an 'embodied' epistemology in which smell, taste and sound were fundamental in the shaping of experience: Songhay sorcerers and griots, he noted,

'learn about power and history by "eating" it—ingesting odors and tastes, savoring textures and sounds' (Stoller 1997: 3). Likewise, Feld's fieldwork among the Kaluli of Papua New Guinea suggested that their experience of life in the rainforest was predominantly patterned through sound: spatial-acoustic metaphors structured Kaluli perception in other sensory domains, too, as well as the social sphere (Feld 1982; 1988).

Another contribution of the anthropology of the senses is the notion that the senses are cultural constructs. Hence, sensory experience is 'collectively patterned by cultural ideology and practice' and 'a field of cultural elaboration' (Howes 2003: xi). Anthropological work on the senses stresses the relation between a culture's sensory and social order (Classen 1993). According to Howes, every domain of sensory experience is also 'an arena for structuring social roles and interactions' (Howes *ibid.*) and for learning social divisions, distinctions of gender, class and race.

An important dimension bearing on the discussion on the senses is material culture and the human body. Bruce Smith highlights the centrality of the human body as mediator between the spoken and the written word, and as part of the continuum between speech and vision (1999: 19). Fields that emphasize the materiality of cultural practices also offer ways around the orality/literacy divide. One such example are (ethno)musicological studies that turn attention away from readings, to questions of sensuality and the materiality of musical communication (Erlmann 2004b: 2).

Anthropologist Nadia Seremetakis has offered important insights into the relationship between memory, the senses, and material objects. Her work explores how sensuous memory is stored in everyday items that form the historicity of a culture, items that create and sustain our relationship to the historical as a sensory dimension (Seremetakis 1994: 3). The embodiedness of memory and history (Stoller 1997: xvi) posits a methodological and epistemological challenge not only to the scholar and the scholar's body but also to the ethnographer and her body. In the words of Stoller again: 'it is especially important to incorporate into ethnographic works the sensuous body—its smells, tastes, textures, and sensations' (*ibid.*: xv).

Ethnography of Sound

Learning Culture through City Soundscapes is a research project firmly premised in the ethnographic approach. Defined as both a research product (in the form of ethnographic writing) and a research process based on participant observation and fieldwork (Barnard and Spencer 2002: 295), ethnography is a particularly suitable tool in order to understand human societies and elicit cultural knowledge. Locally situated ethnographies help us to understand particular groups of people in particular places, the processes through which cultural meaning is generated, and the importance of cultural memory.

The project also extends beyond the intimacy of the present to the historical past. In this light, the ethnographer of sound is also a sound historian. During our research on city soundscapes we encountered the past in two different ways.

Firstly, as an object of study per se. When we studied the soundscape of the Old Archaeological Museum (Yeni Cami)⁵ of Thessaloniki during the first decades of the twentieth century, for instance, our field interlocutors were people as well as archives, documents, material culture and objects from the past. Secondly, as a field of investigation that is mediated by cultural memory and therefore pertinent in the ethnographic present. The ways in which Asia Minor refugees recollected the soundscape of their homeland in oral interviews conducted in the 1990s, for instance, not only helped them construct a sense of continuity with the past but also constituted them in the present. In our engagement with the past, we draw upon the methods and concerns of historical anthropology, which aims not only to account for social and cultural formations in the past but also to explain 'the production of a people, and the production of space and time. This orientation engenders a critical interest in understanding the politics of living the ongoing connections or disjunctures of futures and

⁵ The Yeni Cami, an extraordinary monument of late-Ottoman architectural eclecticism, was built in 1902 by the Italian architect Vitaliano Poselli (1838-1918) to cover the religious needs of the Ma'min community (Judeo-Spanish-speaking Muslim converts) of Thessaloniki, known also as Donmedes (Tr. dönme; convert). The mosque, whose fascinating modern history has been marked by a series of alterations of usage (1902-1922: Islamic ritual space; 1922-1925: Asia Minor Refugee Camp; 1925-1962: Archaeological Museum; 1986-current: Municipality of Thessaloniki's Exhibition Gallery), has hosted an array of culturally and functionally diverse sound practices, ranging from the Islamic praying ritual to the concert activities of the European Capital of Culture (1997) (Kolonas and Papamatthaiaki 1980; Kolonas 1993; Sabanopoulou 2008). For the history of Thessaloniki in the Ottoman empire, see Anastasiadou (1997) and Dimitriades (1983). For a general history of the city, see Mazower (2005).

pasts in heterogeneous presents' (Axel 2002: 3). Another important element which renders our approach to the past ethnographic, is reflexivity, as will be explained below.

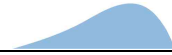
Learning Culture through City Soundscapes is also conceived as an ethnography of sound. It draws on the idea that an ethnography should include what people hear every day, as elaborated by anthropologist and ethnomusicologist Steve Feld and what he termed 'acoustemology': 'one's sonic way of knowing and being in the world' (Feld 1996, cited in Feld and Brenneis 2004: 462). This intellectual lineage explores the ways in which people relate to each other through the sense of hearing, and seeks the cultural and historical contextualization of auditory perception (Erlmann 2004b: 3). According to Bruce Smith, the ethnographer of sound needs to find a 'syntax for making sense of sounds' (2004: 33). In the case of past soundscapes, this involves extrapolating sounds from a variety of textual genres (e.g. maps, site plans, legal documents, travelers' accounts, literary allusions), surviving structures and landscape features, as well as from the findings of modern acoustics (e.g. decibel measurements, the effects of wind direction and humidity etc.) (ibid.: 17, 34).

As the recent discussion on intersensoriality suggests, sound forms an integral part of the sensorium. The ethnographer of sound explores sound in interrelation with the other senses and as part of a more sensuous approach to ethnography (Feld and Brenneis 2004: 466). 'Sensory fieldwork' is premised on an understanding of the ethnographic experience and knowledge as embodied and sensory (Pink 2006: 46; cf. Pink 2009). It is grounded in what Seremetakis termed a 'reflexive anthropology of the senses':

When the anthropologist first enters the field site the sensory organization of modernity, the perceptual history and commensal structure of the discipline direct her/him to first see dust. Without long-term fieldwork and sensory archeology the anthropologist may never come to know that this dust is a surface residue of the researcher's own acculturation that obscures depth: other sensory surfaces that embody alternative materialities, commensalities and histories. Without a reflexive anthropology of the senses, fieldwork, short or long-term, remains trapped in the literal, captive of realist conventions that are themselves unacknowledged historically determined perceptual and commensal patterns.

(Seremetakis 1993: 14)

Lastly, through its focus on city soundscapes, our research seeks to elucidate the relation between culture and space: how do humans form meaningful relationships with the locales they occupy? How do they 'inscribe' their presence and attach meaning to space in order to transform 'space' into 'place'? (Low and Lawrence-Zuniga 2003: 13) And which, if any, are the particular modalities of processes of place-making in the context of cities? The ethnographer of sound interrogates the way that questions of identity and cultural difference are spatialized in new ways (Gupta and Ferguson 1997). The fieldwork method, through its emphasis on the particular and the contextual, offers crucial insights in the interrogation of processes of place-making, the spatialization of culture, and the relation between locality and community.



The 'City of Sound'

The density of the intellectual heritage regarding the broader field that focuses on the theorization of the 'city' is the proof of the attractiveness of this challenging task but also of the notion of vivacity that is frequently employed as a means of capturing the very dynamic character of cities. This latter feature is responsible for the historical diversity that cities demonstrate around the globe and which is consequently reflected in the inexhaustibly multiple ways of conceptualizing and theorizing the city. This is what Burgess simply meant in his classical essay 'The Growth of the City...' when he described the city as a dynamic organism, a notion that succeeded in bringing together almost most contemporary theoretical approaches. Another such notion, which remains fundamental in defining the city, is the social basis of cities (Miles et al. 2004: 9).

Along these very broad lines, *Learning Culture through City Soundscapes* adds another layer on the dense assemblage of approaches and discourses on the city by employing the sense of hearing as a compass in the quest for those cultural processes that are situated in the dynamic character of cities. Navigating oneself in the city through listening is a means of mediating between sound and the cultural processes that produce it, participating at the same time in the construction and reproduction of the city as a 'city of sound'. In doing so, this approach does not aim to contribute yet another model in the long list of city typologies (e.g. the Islamic city, the metropolis, the modern city). Instead, it aims to offer an analytical tool that will function as a gate into the intersection between social activity, space and meaning and facilitate the study of the dynamic nature of the city. In this respect, this handbook is designed to draw an outline, in methodological terms, of the aforementioned navigating process.

Writing a comprehensive overview of the extensive critical literature on the city exceeds this project's scope and capacities. Yet, taking as starting point the active role of the ethnographer of sound in the construction of her city of sound, we borrow selectively and extensively from a number of preceding theoretical approaches to the city. The ethnographer of sound in her navigation in the city brings inevitably together the *flaneur* of Walter Benjamin (1999b; 1999c) and the myriad footsteps of the walking

practice of Michel de Certeau (1984). The architect and urban theorist Stavros Stavrides eloquently described the point where the two theorists meet:

The flaneur in ‘the chorus of [his] idle footsteps’ (de Certeau 1984: 97) has a feel for passages, a feel for thresholds (Benjamin 1999b: 416). He actually discovers and invents passages even when he recognizes them as points of rupture in the city’s fabric. The flaneur disturbs the continuum of habit as well as the fabricated coherence of the urbanistic ratio.

(Stavrides 2010: 77)

This merging of Benjamin’s and de Certeau’s analytical tools is realized within Stavrides’ theoretical arguments towards a ‘city of thresholds’ (ibid.: 56). More specifically, the author employs the widely theorized notion of ‘threshold’⁶ as a means ‘a potential (εν δυνάμει) spatiality of emancipation’ (ibid.: 13). It is the element of performativity embedded in the creation and social use of thresholds that constitutes them spaces of potentiality. This potentiality is identified by Stavrides with the notions of social struggle and social movements that in the context of urban life can actually bring about human emancipation (ibid.: 13, 33). In Stavrides’ own terms:

The city of thresholds, precarious and ambiguous as it is, could have been the cultural pattern through which modern cities would become performed spaces of human emancipation.

(Stavrides 2010: 56)

The element of performativity and political engagement is one feature of the theory of thresholds that resonates with the role of the ethnographer, particularly in one corpus of literature on performance which stresses the political and engaged potential of ethnography and calls for a ‘performative politics that leads the way to radical social change’ (Denzin 2003: 225; see also Wong 2008). The second feature is motion: the

⁶ For a broad review of the various conceptualizations of the notion of ‘threshold’ in social theory, see Stavrides (2010).

motion that the *flâneur* possesses in de Certeau's 'footsteps', which alludes to the itineraries that the ethnographer of sound follows, or rather draws in the city. Moreover, as will be further exemplified in the course of this handbook (see 'IN THE CLASSROOM: Theoretical Discussions', pp. 11-30), in the process of constructing the city of sound—that is doing ethnography of sound in the city—the ethnographer of sound crosses what we might call 'sonic thresholds', turning them into 'spaces of potentiality' (Stavrides 2010: 33). Sonic thresholds are identified with the socially and culturally meaningful sound practices that take place in the city and that the ethnographer very consciously observes, participates in, and attempts to understand. The intentionality of the ethnographer of sound is grounded in the reflexivity of the ethnographic practice.

The crossing of sonic thresholds by the ethnographer of sound evokes the potentiality for challenging a number of hegemonic certainties of modern sound culture. Only to list a few of them: music is not the only sound, vision is not necessarily stronger than hearing or any of the other senses and, most importantly, sounds are not only heard but also sensed. This potentiality that emerges in the crossing of sonic thresholds is grounded on the very idea that within a cultural system, sensory order is interrelated to social order (Classen 1993). As explained earlier (see Sound among the senses pp. 19-22), the senses and the experience of the senses is a field of negotiation of social roles and interactions (Howes 2003) and consequently a field for the negotiation of power relations.

The idea of a city of sound constructed out of sonic thresholds that await to be crossed', combined with that of 'an ethnographer of sound with "a feel for passages, a feel for thresholds"', however ambitious, only tells part of the story of cities. As already stated, far from being a study of cities as a whole (Hannerz 1980: 297-8), this study aspires to explore the analytical potentiality that sound can offer in a cross-cultural urban context.

Inhabiting the City of Sound

The ethnographer of sound constructs her 'city of sound' by following certain routes in it (see "The 'City of Sound'", pp. 25-27). These routes, or itineraries (see 'Maps and site plans'. pp. 80-84), are assemblages of encounters between the ethnographer of sound and the city's past or present sound practices. The sound practices of a city exist in the form of socially meaningful experiences which are there for the ethnographer of sound to engage with and also, in a number of material mediations like recordings, physical structures and texts. The challenge of figuring out and making sense of the 'syntax' of these sound practices (see 'Ethnography of Sound', pp. 22-24) entails making herself accustomed to the 'cultural poetics of listening' (Smith 1999: 8).

If one is to imagine a 'city of sound', she should think of crossing from the acoustics of private to that of public space and backwards, moving towards and away from various soundmarks, identifying with and differentiating herself from certain acoustic communities. These are transitory acts which are constituted of encounters with people who leave intentionally their sound imprints (musicians, public speakers, performers) and others who are unaware of their role as producers and guards of a city's sound imprints (clerks, archivists and other). The encounter with the various material mediations of sound, other than sound recordings, involves spotting the numerous visual imprints of sound practices that reside in physical structures, archives and texts. Following that, the ethnographer of sound has to think of the life-story of these sounds right before and straight after the very act that turned them into graphemes (Smith 1999: 121), thus adding another transitory act into the abovementioned sequence.

Therefore, constructing and 'living' in the city of sound is a synaesthetic experience, meaning that it involves the coordination of senses into an intense multisensory process. In this process, the ethnographer of sound trains herself to catalogue and decode the meanings sounds (see 'IN THE FIELD: Research Methods and Sources', pp. 43-98). At the same time, through her routes the ethnographer of sound further adds into the semantics of the city of sound.

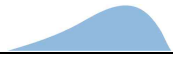
Ethnography of Sound as a Threshold Experience

A number of parallels are worth noting between the experience of the ethnographer of sound in the city on the one hand and the notion of threshold, as explained earlier, on the other. Firstly, the very act of doing ethnography of sound in the city—and thereby constructing the ‘city of sound’—can be understood as a threshold experience. In phenomenological terms, fieldwork is the experiential portion of the ethnographic process (Cooley and Barz 2008: 4). It constitutes a ‘transformative experience’ (Rice 2008; Titon 2008) whereby the ethnographer forms meaningful relationships with her interlocutors and with locales, new or familiar. The ethnographic encounter with Others in the field entails an act of cultural mediation, a ‘translative effort of “understanding” a different culture’ (Wong 1998: 84). The notion of difference is crucial here: the process of understanding that which is different presupposes or at least suggests the possibility of de-reifying, if not overcoming, difference. The ethnographer thus seems to operate in a state of liminality, a condition described by anthropologist Victor Turner (1977: 95-6), which Stavrides likens to the spatial notion of threshold (2010: 17). Similarly, fieldwork changes our spatial and sensory experience of the city. In the field, the ethnographer of sound follows known and regular routes or itineraries, discovers others and invents new ones, connecting them in ways that help her to ‘sense’ herself through the city and to ‘structure [her] spatial and temporal experience in the modern urban setting’ (Finnegan 1989: 137). Conversely, her own paths and sonic mediations give shape to the city of sound. As city dweller, her movements constitute spatial practices, pedestrian street acts that in fact make up the city through a process of constant appropriation and re-appropriation of urban space (de Certeau 1984: 91-110) and, we might add, urban sounds.

Cultural listening, too, can be understood as a threshold experience. Unlike seeing, which assumes a detached, objective spectator who can see the whole, listening assumes a subject who is immersed in the experience she is trying to describe (Smith 1999: 10). Sound’s ‘*hereness*’ and ‘*thereness*’ (Smith 1999: 7-8) thus lays a bridge between the ethnographer of sound and the world of sound, which facilitates a back and forth or towards and away movement. This, in turn, creates the condition of a potential crossing or symbolic passage from here to there, as articulated in anthropology through

the notion of 'rite of passage' (Gennep 1909) and in spatial terms through the notion of thresholds and bordering (Stavrides 2010: 13-20).

Thirdly, the ethnographic experience may lead to the questioning of binary hegemonies and clear-cut categories established in theoretical scholarship. Our own experience while carrying out ethnographic research in the context of *Learning Culture through City Soundscapes* endorses this. We started off with intensive research and background readings focused on sound and sound studies. As ethnographers in the city we were soon enmeshed in the full spectrum of the sensorium: in varied degrees and combinations, smell, touch, taste, and vision seemed to crop up and creep into our ethnographic encounters. Our physical, sensory contact with texts and oral sources brought into sharp focus and challenged in concrete terms the orality/literacy divide that we had encountered in the literature. Furthermore, holding in our hands the actual pre-WWII documents exchanged between the various state bureaus, fully engaged and aroused our sense of touch: the typewriter had made its imprint on the exceptionally thin and fragile paper, and evoked the soundscape of the public administration office (Kittler 1999). After having spent countless hours going through the transcribed life stories of Asia Minor refugees, when we eventually listened to the original aural records we were thrown into an amazingly nuanced sound world. The listening experience imparted in a sensory, embodied way the subtle, shaded variations that connect the written and the oral, a knowledge that texts alone could not impart. It is thus through the ethnographic experience that the ethnographer may find herself positioned in an epistemological threshold, where new cultural and scholarly understandings can be generated.



Spatial-oriented Visualization of Data: Introduction

The main purpose of the cartographic approach that the current project employs is the visualization of the collected data (ethnographic, archival etc.) within an interactive digital environment, through which users can obtain dynamic overviews of an area (i.e. a city or parts of a city) of interest and correlate data varying in space and time.

The selected chosen digital environment should provide adequate means of investigation, allowing the user to approach the urban space through a dynamic network of relevant cultural—historical—geographical information and audiovisual material. As a result, potential users are not only able to observe multi-temporal aspects of the area or city of interest formation, but also to obtain coherent overviews of the city's past and present sound practices. The final environment is intended to act as the intermediary communication environment between users and historical and current soundscapes, providing an alternative way to represent dynamically the cultural heritage of the city.

Spatial-oriented visualization of data:

- Is straightforward
- Reveals aspects of data that are difficult to be perceived in other ways

Internet mapping applications such as GoogleEarth – GoogleMap have made mapping an easy and accessible process

A step further in the proposed cartographic approach is transcending the generically stated function of 'visualization' of collected material, directing users via to the visual, audio or audiovisual cues for sound to the rest of the senses. In the case of *Learning Culture through City Soundscapes*, this process—rather than involving the reconstruction of historical sounds or their identification with contemporary equivalents—

is achieved through the foregrounding of discourse on sounds, sound producing practices and auditory experiences, signposting the vocabulary used. Building up a glossary of terms and expressions which form the meta-language used in describing the above-mentioned elements, is a step towards thinking about the “syntax” for making sense of the sounds’ (Smith 2004: 33).

This approach suggests that in order to understand what sounds mean, we often need recourse to speech. Besides positing a paradox in the broader field of the study of senses, this puzzle also points to the challenge of seeking alternative ways to make sense of the senses: of ‘sensing’ the senses instead of speaking/writing the senses. This is certainly an open field for future innovative and critical thinking.

Mapping Tools and Technologies

Within the last 15 years, there has been a step change in the number of users and in the nature of applications that are now termed ‘Geographic World Wide Web’ or GeoWeb (Haklay et al. 2008). As a result, a wide range of web-mapping tools and platforms are today available for experts or the public, opening up the potential of mapping to almost anyone. The main reasons for moving to the GeoWeb era can be summarized as follows:

- Increased availability of higher capacity domestic Internet connections
- Quick acquisition of locational information (GPS) and the reducing of costs associated with the relevant devices
- Increased computing power relative to price
- Development of Internet technologies (such as XML, AJAX, Javascript, API)

This new generation of web-mapping services allows a bi-directional collaboration in which users are able to interact with and provide information to central sites and to see that information collated and made available to others (Goodchild 2007). In other words, Internet users can today easily create, modify and share geographic maps, forming

communities, interacting digitally with their urban and natural environments and assigning meanings to particular locations (Fogli and Giaccardi 2008).

Variant type of contents are contributed and shared through web-based maps enabling the users to locate text, pictures and movies on provided base-maps. However, the important contribution of sound within such environments is still lagging behind compared to the prevalence of visual content data.

Web-based Cartographic Technologies: Overview and Evaluation

This section offers a quick overview of the above-mentioned trends, presenting the basic traits of some main mapping categories, seeking to identify the most suitable for the purposes of *Learning Culture through City Soundscapes*. For the needs of the current overview, we could identify three main web-mapping categories:

- Basic Web Mapping Services
- Customizable Web Mapping
- Web-GIS (Open source)⁷

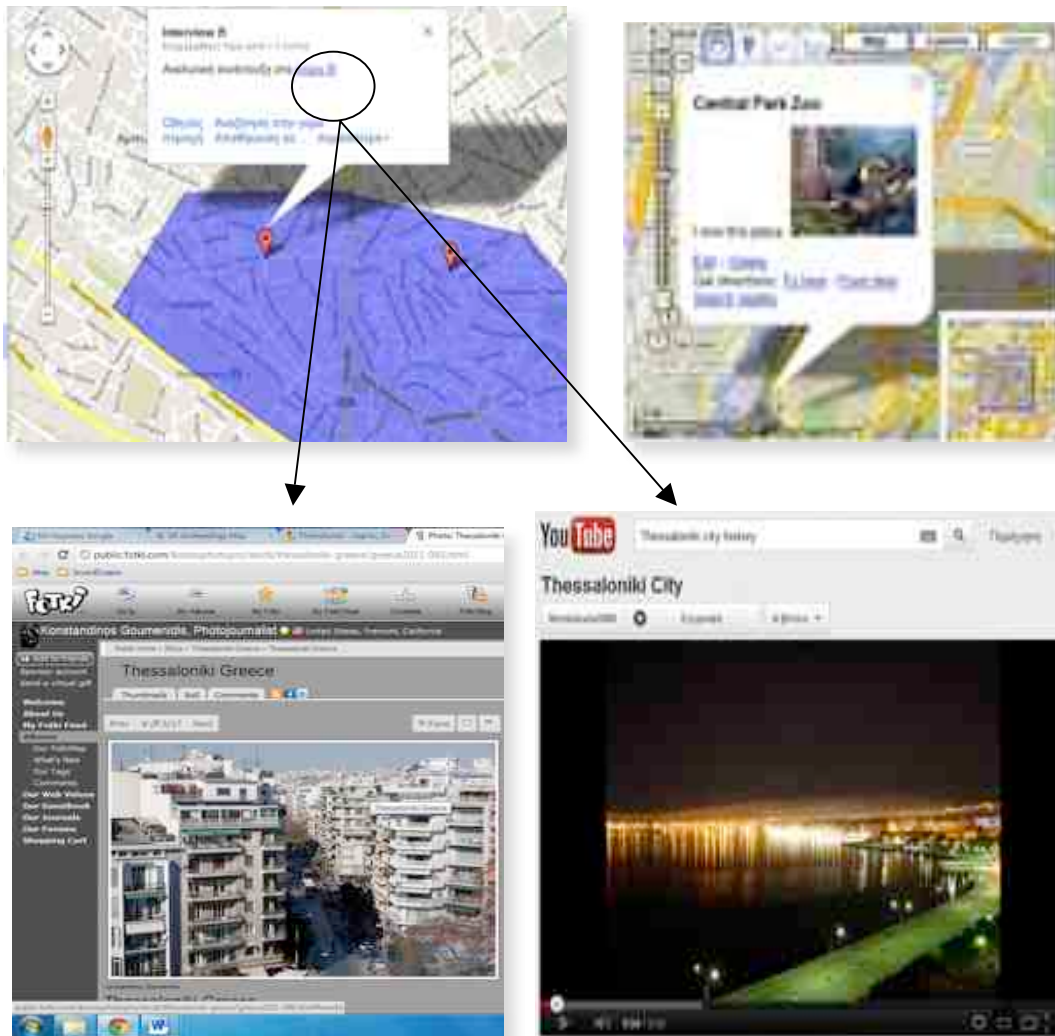
Basic Web Mapping Services

Basic web mapping services such as Google Maps, WikiMapia, Bing Maps, YahooMaps, and numerous others, are currently very popular services that enable any user with internet access to freely create personalized 2D and 3D maps and annotate them with texts, photographs and videos. Within the broad category of Basic Web Mapping Services we incorporate free map services that can be accessed by any web browser, provide basic tools for navigation along digital background maps and enable a basic level of functions for data managing and querying. The usage of such services is considered relatively simple and users do not need to be trained or to acquire any specific skills. Therefore, these features make them accessible to the wider public. In most cases, these services provide local information, including business locations,

⁷ Additionally, one could add the stand-alone or prototype Web-maps, i.e. those that use Adobe Flash and create maps from scratch. However, these are beyond the scope of the current teacher's handbook.

contact information, and driving directions. Furthermore, these maps can be often personalized by creating routes and highlighting places or areas of interest according to the special interests of each user. The personalized map output can be accessed by the public or by certain defined (by the map-creator) communities that can contribute in the final map formation by adding-tagging-uploading information.

Such maps can be Personal or Public, depending on the user's decision to make them accessible (or not) by the wider public or certain defined user communities. Any such custom point or area is clickable allowing all users to add descriptive information, establish links to other webpages (e.g. YouTube, Wikipedia), photographs or any other web-published file.



In addition to the above, Google maps offers the opportunity to import geographical data acquired and analyzed through various sources (File types: *.kml, *.kmz and GeoRss). These data can be highly diverse, ranging from digitized maps, current or historical, to databases describing and enriching various datasets, and thematic maps presenting various phenomena (i.e. migration flows, wildlife territories, commercial zones, distribution of archaeological material, or spread of musical trends etc.). Therefore, data processed by experts within sophisticated Geographical systems can be exported and accessed within any such personal map.

Advantages of Basic Web Mapping Services

- Easy to set up
- Simple interface and common terminology
- Accessed publicly without the need of any special skill or training
- Possibility to upload audiovisual, textual and geographical data

Drawbacks of Basic Web Mapping Services

Basic Web Mapping Services offer very specific ways of accessing and interacting with displayed data, enabling simple and static queries about locations and directions. In other words, these services offer very specific ways of managing and representing information that may not fulfill the needs of a sophisticated user, or may be considered limited for the needs of a project that has to correlate effectively complex spatial oriented information.

Customizable Web Maps

Customizable Web maps are Map Application Programming Interfaces (API) that can be customized and embedded into a personal or organization webpage. An API is a source code-based specification, intended to be used as an interface by software components to communicate with each other. An API may include specifications for routines, data structures, object classes and variables, ready to use or sample code. In this way, the developers can create and/or customize an existing user interface according to their own data specifications, application purposes and user specific needs.

Well known web-mapping applications such as Yahoo! Maps, Google Maps and Google Earth fall within this category. Maps created by these applications, while viewed on any personal webpage, are hosted by the servers of companies-organizations (Google Maps, Yahoo maps, Universities etc.). Every service has its own conditions and terms that should be taken into consideration (for example Google Map API reserves the right to include advertising as part of the service).

Google has developed a range of tools and technologies for disseminating cartographic web content. It is a widespread web-operating mapping software, offering quality visualizations and access to raw information through Google database. It is currently used in a wide range of applications and public users are familiar with its interface environment. That could be considered as a benefit as it could reduce the necessary training period of the potential users.

Through Google Maps API, the user-developer can customize the environment by reorganizing the information in specific categories, linking audiovisual data to space or designing custom visualization frames adding interactivity. Thereby, it is possible to design the interface through programming Java and Javascript. Digital databases can be imported through XML, and geographical and graphical data can be imported through *.kml files.

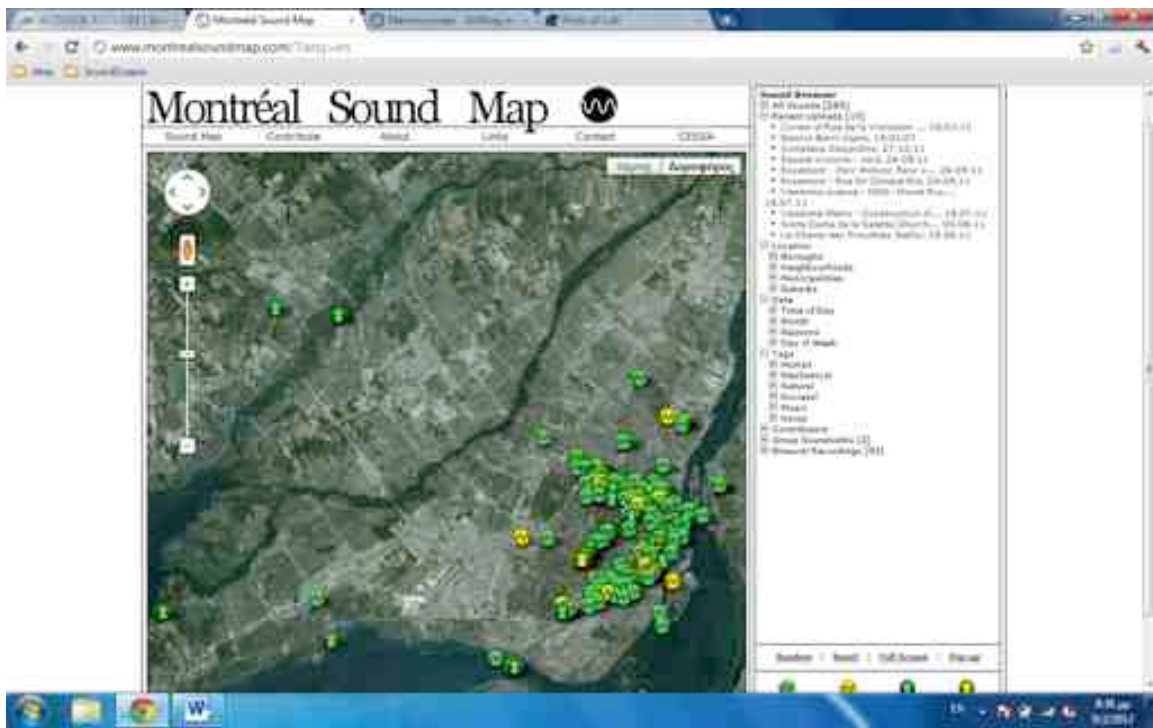
However, **Customizable Web Maps:**

- Lack specific tools of handling complex temporal information that in our case are in the core of the effort.
- In most cases, these applications focus on the spatial-orientation of sounds in two or three dimensional space.
- as it comes up with the necessity of effectively incorporate the temporal dimension and add interactivity to that end.

Recently, there is a trend towards the incorporation of sounds within these services. Most of these applications are based on the broad collaboration of certain communities or the wider public enabling them to upload sounds of specific places and construct soundscapes that range from human everyday activities to wildlife recordings. The sound is actually tagged by the user on a specific location and is usually accompanied by textual descriptive information and images. In this way, informal spatial-oriented sound libraries are structured following the interests of numerous communities.

Some Examples

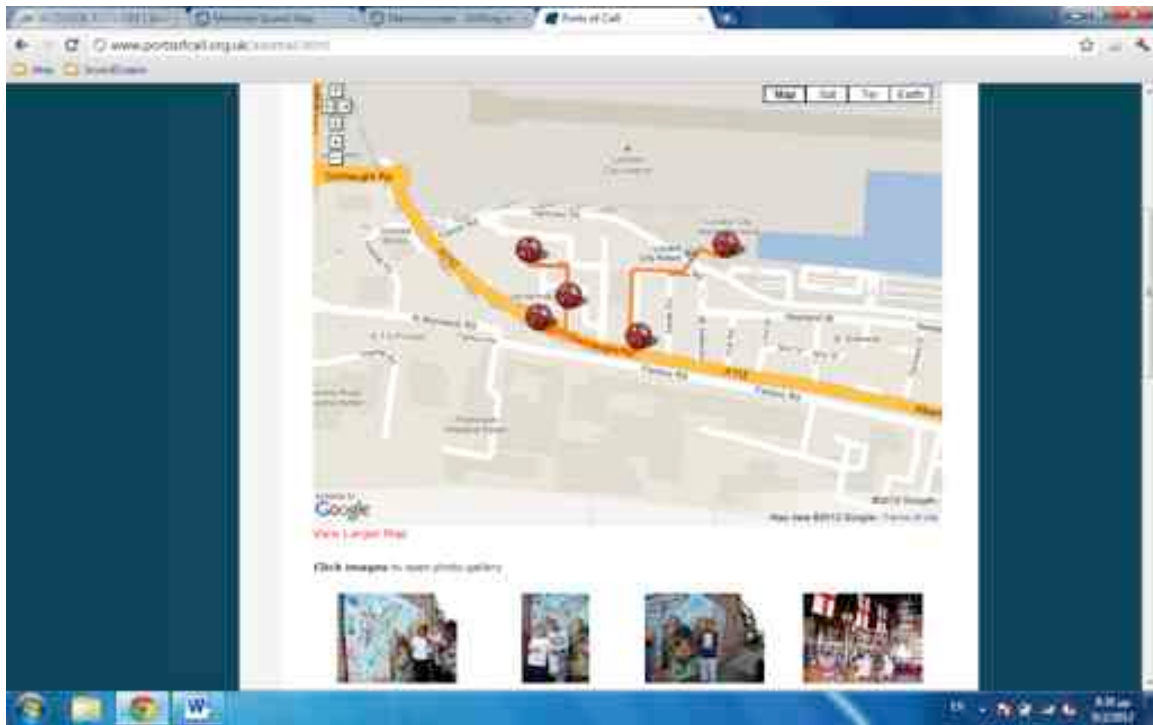
Montreal Sound Map, <http://www.montrealsoundmap.com/?lang=en>



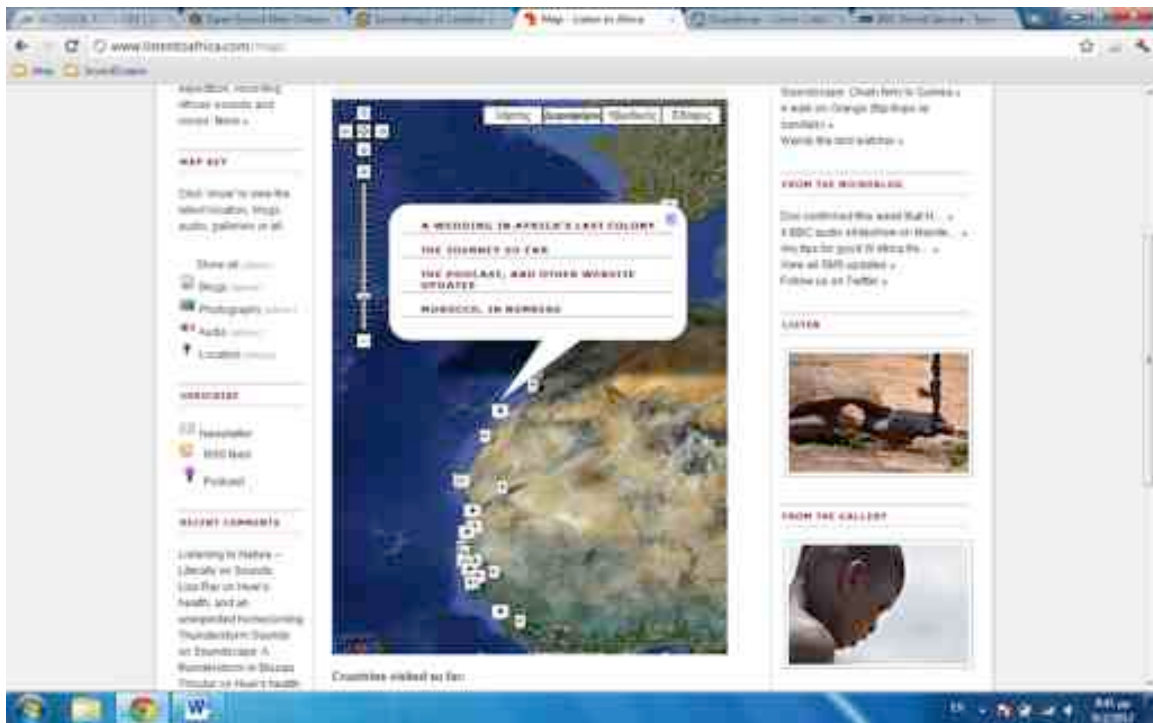
MemoryScapes Audio Walks, <http://www.memoryscale.org.uk>



Ports of Call, <http://www.portsofcall.org.uk>



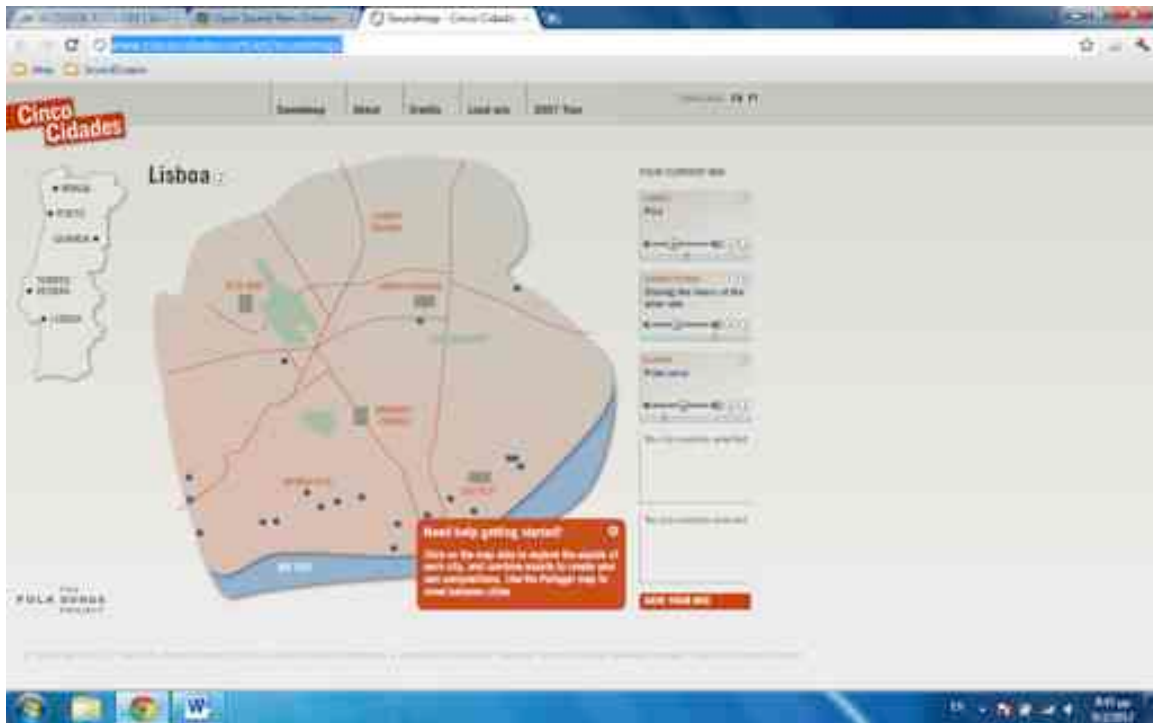
Listen to Africa, <http://www.listentoafrica.com/map/>



Open Sound New Orleans, <http://www.opensoundneworleans.com/core/>



Cinco Cidades, <http://www.cincocidades.com/en/soundmap/>



The main drawback of this type of applications lies in their inability to access data through a temporal perspective. Although every recording or integrated sound is time stamped (i.e. Recording date: 20.12.2012 20:35), it is not possible to organize the information according to time, set the data in temporal order, or group data according to their temporal values. The background maps are static and therefore cannot accommodate or represent in any adequate manner the transformations that occurred in urban space or landscape over time and in different periods of the past.

Web GIS (Open Source)

Geographical Information Systems present the most efficient platforms for storing, managing and analyzing complex spatial-centered information. Acting as analytical information systems, GIS offer a wide range of tools and operations that allow users to query and analyze spatial information, edit data, facilitating decision-making purposes.

Reliable open-source GIS (such as Quantum GIS and GRASS GIS) and Web-based GIS services (such as MapServer or Chameleon GIS) have been recently released and made freely available to the public, overcoming the significantly high cost of acquisition. GIS are currently used in a broad range of applications, such as population and demographic studies, environmental or public health planning, as well as marketing, logistics, statistical or military analyses etc. GIS are also applied in cultural/historical-centered applications such as Cultural Resource management approaches, managing in some cases huge databases and presenting the information to specific user-groups (in most cases specialists).

However, the effective use of current commercial or open source GIS packages presuppose a high level of user's expertise and familiarity with relevant terminology. The task of adapting GIS usability according to the specific needs of the target user group of *Learning Culture Through City Soundscapes* and of simplifying the interface, requires the extensive customization of the currently offered/available platforms. This is a complex and time-consuming occupation, which needs sufficient time for extensive usability testing. Even so, the users will not take advantage of the vast spatial analysis capabilities that these platforms offer, as these type of operations/user actions are not intended to be offered by the environment of *Learning Culture through City Soundscapes*.

Another drawback of Web-GIS, considering the needs of *Learning Culture through City Soundscapes*, is related to their inability to effectively incorporate in their environment the dimension of time, as this is still an open research field usually undertaken only by prototype GIS approaches.

In conclusion, GIS are more appropriate for applications whose users have a high level of expertise and which focus mainly on the analysis of extensive databases and are not dependent on the effective incorporation of time. For these reasons, they are rather inappropriate for the purposes of our project.

These applications borrow their interaction metaphors from desktop GIS and, therefore, users are expected to familiarize themselves with the application before they can use it. The terminology in GIS borrows from multiple disciplines and this creates a major obstacle for new users (Haklay et al. 2008).

IN THE FIELD: Research methods and sources

Drawing on Smith's methodological suggestion, this section covers two main themes. One concerns 'cataloguing' sounds, and the other 'decoding' them (Smith 2004). This distinction is made on the basis of identifying four major categories of sources (texts, sounds, images, buildings).

However, as will become apparent in the course of the following subsections, such a typology of sources is quite rough and rather serves the need for a broad framework of critical thinking on the question 'where do sounds reside?' As pointed out by Ruth Finnegan in the context of discussing the classification of oral genres, 'the units chosen for classification and analysis' are always 'in some sense abstracted from the flow of human action' (Finnegan 1992: 4). Along these lines, the types of sources presented in this section, and the methods suggested for their study, overlap considerably, highlighting the need for an integrated methodological approach and justifying the theoretical discussion on intersensoriality.

TEXTS

Introduction: Making the 'non-sound' archive relevant

The archive has been a privileged site for theorization both from the point of view of history and of anthropology. Historical anthropology in particular, through a number of prolific studies on the ethnography of the archive (Comaroff and Comaroff 1992, Stoler 1992; Dirks 1993, 2002), has underlined the need for historicizing the archive, thus stressing the importance of understanding the politics involved in the processes of its formation. Dirks (2002: 52), drawing on his archival experience in India, pointed to the strategic uses of archives in the colonizing process, particularly with regard to the manipulation of the image of the past as a tool for the legitimization of colonial rule. Historicizing the archive is a means of understating its structure and, consequently, how that structure, most of the times conflicts with the specialized research focus of the ethnographer (ibid.: 50-1); not to mention the ethnographer of sound.

Conducting archival research on the sound history of the Old Archaeological Museum (Yeni Cami) of Thessaloniki means introducing oneself to a number of important aspects of the historical formation of the modern Greek state related to the state's policy, legislation and the provision of institutional structures concerning the historical heritage of Greece (Hamilakis 2007).⁸ The accumulation of knowledge in the process of practicing ethnography of sound corresponds to another route in the city; this connects certain state institutions and offices and forms a network of city-sites, buildings, documents, and most importantly people, ranging from trained archaeologists, archivists and administrators to secretaries and porters. Certain members of this group of civil servants are the intermediaries between the archive and the unregistered research enquiry of the ethnographer of sound.

For the ethnographer of sound, the most uneasy moment in this encounter is the attempt to explain to the person in charge the focus of her research, which usually does not correspond to the taxonomic categories of the archive. Archivists and secretaries, upon hearing about an 'ethnography of sound' or even a 'history of sound' become perplexed. On applying for archival material regarding the Old Archaeological Museum of Thessaloniki at the 16th Ephorate of Prehistoric and Classical Antiquities the secretary was eager to provide us with all available material regarding the building, adding though that there is not much to be found with regard to sound in any of the banal documents related to the rental status of the building, the few photos and the folder related to the refurbishing works that took place in 1926 (Fig. 1). Yet, precisely the 1926 refurbishment constitutes a signpost in the history of the building; a year earlier, following the intense demand of local archaeologists for quite some time, the building – built and initially used by the Dönme⁹ community of Ottoman Thessaloniki – was assigned to the Ephorate of Antiquities of Thessaloniki by the General Office of Exchange for the purposes of hosting the city's first Archaeological Museum (Vokotopoulou 1986: 9). In this respect, the abovementioned refurbishment should be understood as the rite of passage from one usage to the other. Just like many other rituals this one included sound and silencing.

⁸ On the Greek archaeological institutional system, see particularly chapter two in Hamilakis (2007).

⁹ Judeo-Spanish-speaking Muslim converts (Tr. dönme; convert) of Thessaloniki, known also as the Ma'min (Baer 2004, 1999).

No. Sıra	Talebi-i İnce İşler	Mevzu	Talebi	Gözetim			
				Yıl	Ad	Al	Al
1	Yeni Cami-i Şerifin...	1	1	1	1	1	1
2	...	2	125	1	1	1	1
3	...	3	1	1	1	1	1
4	...	4	50	1	1	1	1
5	...	5	6	1	1	1	1
6	...	6	20	1	1	1	1
7	...	7	30	1	1	1	1
8	...	8	12	1	1	1	1
9	...	9	3	1	1	1	1
10	...	10	2	1	1	1	1
11	...	11	10	1	1	1	1
12	...	12	1	1	1	1	1
13	...	13	140	1	1	1	1
14	...	14	1	1	1	1	1
15	...	15	20	1	1	1	1
16	...	16	50	1	1	1	1
17	...	17	1	1	1	1	1
18	...	18	1	1	1	1	1
19	...	19	5	1	1	1	1
20	...	20	2	1	1	1	1
21	...	21	1	1	1	1	1
22	...	22	20	1	1	1	1
23	...	23	250	1	1	1	1
24	...	24	1	1	1	1	1
25	...	25	1	1	1	1	1

Fig. 1. Document listing the requested refurbishing works, Yeni Cami 1926 (by permission of the Archive of the 16th Ephorate of Prehistoric and Classical Antiquities)

This example highlights the need of the ethnographer of sound to produce alternative routes into the archive and develop navigating skills that allow her to trespass the formal institutional taxonomic rules.

Administrative documents

The aforementioned detailed record of the refurbishment during the conversion of the Yeni Cami into the first Archaeological Museum of Thessaloniki dated in 1926 lists, among other works, the 'removal' of the pulpit, the *minbar*, from where the *imam* of the mosque performed his sermons. The significance of this document for sketching the sound history of this particular building is far greater than the epilogue to the story of the Islamic praying practice in the city: it narrates the story of the major demographic shift that had taken place in the first quarter of the twentieth century in the city and consequently in this specific neighborhood, following a series of major political events. In other words, it tells the story of the major shift in the religious soundscape of the city.

In order for the document of the extraction of the *minbar* to make sense it needs to be read in relation to other types of documents. One is the *Convention of Athens*, signed by Greece and the Ottoman Empire in 1913, defining the legal status of the Muslim community of Macedonia after the latter's integration into the Greek Kingdom the previous year. This document describes the right of the Muslim community to exercise publicly its religious duties, as well as that of appointing its religious leaders, including the positions of the *mufti* and the *imam*. The document also testifies to the survival of the sound-life of the *minbar* after 1913. Yet, in the same document this privilege is being regulated through the issuing of another article (protocol no. 3, article 1) that states that the Ottoman state loses any right over mosques that had been historically converted Orthodox churches. In Thessaloniki, this applied to the major mosques of the historical center that right after the integration of the city to the Greek Kingdom were turned back to churches. This legal document implemented the marginalization of Islamic ritual in the public space and consequently in the religious public soundscape of the city. Therefore, the sound practices associated with the *minbar* should be considered as located in the margins.

Equally significant in order to understand the context of the extraction of the *minbar* are law number 2345 of 1920 on the administration of the property of the Muslim communities of the Greek state and the Treaty of Lausanne signed by Greece and Turkey in 1923, ending the Greco-Turkish war and proclaiming the exchange of

population between the two countries' Christian and Muslim communities.¹⁰ This put an end to the centuries-long presence of Muslims in Thessaloniki and consequently to their public imprint in the public religious soundscape of the city.

This cross-reading of administrative and legal documents aims to facilitate the understanding of how a specific sound practice, which is politically regulated and implemented, leaves its trace on archived documents and written texts. In addition to that, it points to further methodological issues regarding sound history and will be considered in brief later on in this section.

A question that one should ask in the above chain of texts is who is telling the story of the religious life and the praying practices of the Muslim community of the city and to what extent does it convey the full picture. There follows the question of what are the complementary sources to this enquiry. Legal documents offer a top-down narrative. In the context of practicing sound history this remark is of particular importance since sound has been viewed as a particularly privileged analytical tool for social history (Smith 2003). Therefore, the sound historian is challenged by the task of exploring that space in the full picture inhabited by those people who do not necessarily have a voice in legal documents. In the case discussed so far this challenge relates to how the members of the Muslim, and/or Dönme, community of Thessaloniki experienced this massive shift in their auditory world. This question takes more than legal documents in order to be answered.

Following this point, another issue that emerges from the example of the textual cross-reading discussed is how the interrelated documents that correspond to a network of state institutional structures are implicated in the experience of the city that the ethnographer of sound acquires. In other words, how this network of state institutions, when perceived as part of the ethnographer's assemblages of encounters that constitute her routes in the city, participates in the very formative process of her research field: the sound-city. Collecting the material that documents the legal status of the building of the Old Archaeological Museum of Thessaloniki meant following a route from downtown up to the hill, to the district of *Eptapyrgio* (Yedi Kule) where the *Ephorate of Byzantine Antiquities* is located, hosted nowadays at the premises of a historical prison, down to the city center to the *Bureau of Exchange Property* and towards east to the suburbs of

¹⁰ For a thorough overview of the relation and status of the Muslim communities of Greece and the Greek state and reference to the relative documents, Tsitselikis 2012.

the city where the *Ephorate of Prehistoric and Classical Antiquities* holds its premises. On the one hand, this route in the city of Thessaloniki reflects the various changes in the legal status of the building of the Old Archaeological Museum (Yeni Cami) throughout the twentieth century presented briefly above. On the other hand, this route, drawn out of a specific research enquiry, constitutes part of the very research field of the ethnographer of sound.

Finally, the experience of the archives on the 'local level' is complemented by that on the 'central level' that has to do with all major state legal documents that are centrally issued and published at the Government's Gazette, nowadays accessible via the web¹¹.

Inscriptions

In his pioneering study on the pre-modern state in southern India, Nicholas B. Dirks explores the notion of the 'archive' by engaging in a captivating comparison between the temple complex as a medium of epigraphic record to the contemporary institutional archive (2002: 48-9). Dirks, notes the vast contrast in levels of administrative processes and data stored between the epigraphic record of the temple and the modern 'paper archive' but also the public function of the inscriptions in processes of legitimization of polity and power in the Indian context. This analysis goes far beyond the plain reading of the epigraphic record as a permanent monument of historical facts. The powerful function of inscriptions stemming out of their transitional life-stories that extends far beyond their monumental status has been discussed in detail by Yannis Hamilakis (2007) with reference to the constitution of archaeology in modern Greece. Hamilakis points to the central role of the materiality of inscriptions in the process of the sacralisation of the classical past in modern Greece. In this process, inscriptions come at the centre of a ritual by archeologists and members of the national intelligentsia, invoking the multi-sensory and synaesthetic dimension of material culture (ibid.: 9).

Among the epigraphic components of the Yeni Cami that have been preserved there is an inscription of one of the two fountains from the courtyard of the mosque. The inscription consists of three lines and reads:

¹¹ Ethniko Typographio, <http://www.et.gr/> (accessed 10 December 2012).

Wa min al-mâ kulla şa-i ha
Selânik Telegraf ve Posta Baş-Müdürü
*sabıkı Sirozî El-Hac Agâh Beğ'in hayretidir*¹²

[We made everything from water
An endowment by the Thessaloniki's Telegraph and Post
ex-director Sirozî El-Hac Agâh Beg]

The centrality of water in the context of the fountain that the inscription underlines is something that is hard for anyone to ignore. Two foreign visitors in Thessaloniki in 1921 in their description of mosques do record the sound of the water in the fountain:

The ablution fountain, capacious and imposing, trickles with a refreshing sound and the wide open door shows the way to an interior which by its shade and cooler atmosphere affords a pleasing contrast to the glare and dust of the street.

(Goff and Fawcett 1921: 195-6).

To these two Englishmen the sound of the water of the fountain alludes to a specific sensation, expressed by the term 'refreshing'. This sensation carries on into their overall impression of the place. Yet, this perception of the sound of the water of a fountain outside a mosque is by no means unique or universal.

The abovementioned inscription was placed on top of the fountain visible to whoever was performing his ablution (*abdest*)¹³ before entering the praying hall. This is a multilingual inscription. The first line comes from the Qur'an (21.30) and therefore is in classical Arabic, and the next is in Turkish. The content of this inscription in its entirety is legible only to those literate inhabitants of the city who are able to read Turkish and are well versed in the Qur'an. Its highly intertextual nature lies in the juxtaposition of the 'word of God' in its visual form with elements of late Ottoman modernity represented by the naming of the donor—an ex-high rank officer of the communications' services of the

¹² Inscription photograph, transcription and translation in Demitriades (1983: 335).

¹³ For an anthropological account of the ablution in Islamic culture, see Makris (2007).

city. Intertextuality is intensified by the interchange of languages, including the loanword 'telegraf', all rendered visually by the Arabic script. The iconicity of the Arabic script and its operation on a level beyond that of the meanings it carries does not necessarily restricts access to the illiterate devotees (Street 1995: 173; Schick 2008). Anthropological studies on orality, literacy and the role of memory in Islamic context have pointed to the various levels one can associate with the script, that exceed the binary scheme orality-literacy (Eickelman 1978; Street 1995). Therefore, this inscription, for whoever performed the *abdest* and regardless of his level of reading and understanding the content of the inscription, constitutes the visual component of a bodily disciplining ritual of ablution with its repetitive cleaning body movements and recited lines, all situated within the soundscape of the running water.

While for the two foreigners the sound of water was something that attracted their attention and was considered worth including in their travelogue, this is not necessarily the case with local sources. From the perspective of those devotees using the fountain for the ablution the water and its sound is integrated into the multi-sensory experience of the ritual. Even in that case, it is questionable whether the sound of water corresponds with the sensation of 'refreshing.'

This particular inscription (in its rather short life-story) partook in another ritual; that of the conversion of the mosque into a museum. Among the works listed in the refurbishment of 1926 was also 'the destruction of the two fountains'. Considered from a broader theoretical perspective of the archive presented earlier, this ritual destruction equaled the 'hiding' or 'deleting' of the archive (Papailias 2005: 17). An even more precise description would be the 'silencing' of the archive, or the decontextualization thereof. As Seremetakis notes with reference to the late-nineteenth-century practices of collecting and displaying exotica in museums and urban parlors, what such processes achieved was to archaize the past and tame cultural difference through 'sensory neutralization': 'items of older periods and other cultures which had their particular aromatic, tactile, and auditory realities were desensualized and permitted a purely visual existence' (1993: 13). Despite all this, the inscription, was preserved—possibly in the premises of the museum—, in the form of a monumental plate, a relic of the Ottoman history of the building. Yet, even in its new displaced position 'within the archive', the inscription was subjected to all 'nontextual' or 'antitextual' acts that followed the turn to

the archive as it has been examined, photographed, transcribed, published and disseminated, to mention but a few of its subsequent treatments (Papailias 2005: 17).

Narrative genres

Travelogues

Cities in world history have been objects of desire of various conquerors and subjects of successive conquests. Yet, the most direct medium of capturing a city, metaphorically speaking, is text. Texts, as Edward Said and his intellectual heirs have elaborately demonstrated, do conquer cities. In western intellectual tradition textual descriptions of places, like in travelogues, simultaneously ‘discovered’ and ‘invented’ their subject (Todorova 2009: 116). The process of invention involves that of classifications based on ontological distinctions of binary nature (East-West etc.), which according to Said (1978) is a way of exercising power of one over the other.

However, as seen in the example of the fountain inscription in the previous section, ‘outsiders’—travelers in this case—, tend to pay attention to things that locals usually do not. Bruce Smith (2004: 22), discussing methodological issues in researching the acoustic world of London in the sixteenth century, notes that it is foreign visitors who ‘recorded’ sounds that local inhabitants of England took for granted. On this basis, travelogues have been suspicious of reporting things which rather than being there, belonged to the sphere of preconception of their authors. Yet, the critical question in this case is not whether a traveler lies or not, but how her perception of what has so enthusiastically captivated her mind differs from other people’s, and in particular locals. This question also enriches the ethnography of sound of the city with one more layer of analysis, by shedding light on the cultural experience and ideological background of the various literati, diplomats, and so on, who visit the city and often play an important role in mediating its image to their contemporaries back home. In this way, the ethnographer connects her city with its contemporary cities thereby tracing a broader network of itineraries.

The minaret and the voice of the *muezzin* is one of the most popular literary topoi in orientalist literature. The issue in this case is not whether minarets existed in places where Islam was a predominant faith, but how did they sound to different people and

what did this sound mean to them. In this respect, travel literature is precious, in that when read comparatively to other sources it addresses the central issues of sound history and ethnography that is the cultural construction of listening. The following three extracts will attempt to demonstrate this point. Goff and Fawcett (1921), following the tradition of ‘scientific detailed description’ of the orientalist Edward Lane (1836), treat extensively the minaret in the form of encyclopedic entry writing:

The minaret, as its derivation (Arabic : manârat = nâra, to shine; nar = fire) denotes, resembles a lighthouse in outline and, during the feast of Ramadan, in all Mohammedan countries, they are illuminated so that the word is particularly apposite. Varying in height from twenty feet in the villages to about one hundred feet in Salonika, built of rough stone and usually attached to the mosque, **the long circular column encloses a stone spiral staircase which leads to the gallery from which the ‘muezzin’ or priest, at sunrise and sundown, calls the faithful to prayer.**¹⁴ Upwards from the gallery, the tower is continued in a more narrow circumference for eight or ten feet to a leaden or zinc cone which is surmounted by the emblem of Islam—the crescent. As with the mosques, the minarets of Macedonia are simple in design and, in the matter of ornamentation, bear no comparison with those of Egypt or of farther East. Only rare cases of ornate effect have been noted a cross-gartered design on the column of a Salonika minaret, the gallery used by the muezzin carved in trellis-work pattern on one in Kavalla, and, here and there, in villages as well as in towns, the perpendicular fluting typical of Ionic architecture.

(Goff and Fawcett 1921: 197)

In this extract, the authors underline the functional connection between the minaret and the call to prayer of the *muezzin*. Almost a century earlier, around 1806-1807 in Athens, another celebrated traveler, François-René de Chateaubriand, listened to the call to prayer in the following way:

¹⁴ The authors’ emphasis.

Oppressed with fatigue, I had been for some time fast asleep, when I was suddenly waked by the tambourine, and the Turkish bag-pipe, whose discordant tones proceeded from the top of the Propylæa (sic). **At the same time a Turkish priest began to sing the hour in Arabic to the Christians of the City of Minerva.**¹⁵ I cannot describe what I felt; this imam had no occasion to mark so precisely the flight of time; his voice alone, on this spot, announced too clearly the lapse of age.

(Chateaubriand 1818: 151)

Chateaubriand, somewhere in the lower-town of Athens, listens to a mixture of the sounds of a *davul-gayda* ensemble, coming from the Acropolis (Propylaia) and the *ezan*. Despite the historical accuracy of the content of Chateaubriand's soundscape, to him the *ezan* marks the time. Chateaubriand is in a way conveying a 'Christian' understanding of the *ezan*, possibly shared by the members of the non-Muslim community of Athens of that time. Tong Soon Lee (1999) in his study of the call to prayer in Singapore treats extensively the issue of how the Muslim and the non-Muslim 'acoustic communities' of the city share the same acoustic space but perceive it differently according to the social meaning each attributes to the sound of the *ezan*. For the Muslim community of Singapore the *ezan* creates a sacred acoustic space, which is an important component in the process of defining its cultural and social identity in the city (Lee 1999: 91-2).

Yet, the conception of the *ezan* as a timer that Chateaubriand and many others share is not irrelevant to the Islamic context. Instead, it is perceived in a completely different manner. Anthropologist Carol Delaney, in her study of Islamic everyday practices in Turkish rural context, writes that for a Muslim who observes the daily prayer ritual the sound of *ezan* signifies a very specific way of division of the day, in in-between spaces that are progressively shortened in duration as day passes. Delaney, goes further into her analysis pointing towards certain cosmological parallelisms of the perception of time in this context (Delaney 1991: 293). In addition to that, for a Muslim devotee who observes the daily prayer ritual the sound of *ezan* is interrelated to the 'bodily knowledge' of performing their praying duties, all that structuring and disciplining their daily activities (Delaney 1990: 516). This synaesthetic aspect dictated by the

¹⁵ The authors' emphasis.

participation of the body is another important feature that differentiates the experience of the *ezan* between Muslim and non-Muslim listeners.

In the same vein, Alain Corbin notes in his study of village bells in nineteenth-century French countryside how bells marked three different levels of temporality: liturgical time, ceremonial time, and the everyday rhythm of the hours (Corbin 1998: 118). Village bells not only articulated 'a different relation to the world and to the sacred' but also structured and inscribed the community's daily experience in time and in space (ibid.: xix). Corbin's analysis also suggests the symbolic importance of the bell in rural societies as 'a unique object that serves as a natural symbol of a community's identity' (ibid.: 73), as well as in articulating their sense of locality in relation to neighboring communities: 'a bell that rings more loudly than that of the neighboring community is inscribed as part of a wider series of symbolic oppositions and contests between rival communities' (ibid.: 74). Similarly, the *ezan* of the particular muezzin, the muezzin of Yeni Cami, would participate in the structuring and articulation of the aesthetic sensibilities and communal identity of the acoustic community of Yeni Cami.

The comparison between Goff and Fawcett, and Chateaubriand's understanding of the call to prayer points to the dynamic nature of the process of listening even within the rather solid tradition of western travelogues. In agreement with what this research has consistently pointed out, Mark Mazower (2005), in comparing different travelogues from late Ottoman Macedonia and Salonica, observes that although their authors were usually justifying their preconceptions, travelers' perceptions and focus points seen in historical perspective were also changing. This feature in addition to the intentions of the author (literary, political etc.) is also related to the changes of the social experience of sound back at home. Notably, it is Victorian travelers in particular who, comparing to their predecessors, appear sensitive in issues of hygiene, smell and noise (ibid.: 190, 194). Mazower's observation resonates perfectly with the study of John M. Picker on the soundscapes of Victorian London, which eloquently demonstrates the rise of Victorians' awareness of their sonic environments and the interrelation of this to the way they perceived themselves. This increased sound sensibility of Victorians is largely illustrated in the way street noise effected the life of 'brain-workers' of the time like Charles Dickens (Picker 2003: 12).

In 1912, following the integration of Salonica to the Greek Kingdom, due to the major political and demographic changes mentioned earlier, the call to prayer addressed

a community smaller in size, and there is a steadily emerging dominant community for which the sound of the *ezan* sounded more and more problematic. In the years 1922-1923, the minarets and their fate constituted a favourite topic in the local press, notably the liberal newspaper *Makedonia*. Among a number of short articles that argued for the non-necessity of the minarets in the city of Thessaloniki, their poor architectural and aesthetic value and their 'barbaric' symbolisms, is a war chronicle referring to 1921. It narrates a Greek soldier's traumatic experience of listening to the *ezan* in Sivri Hisar (Asia Minor, Eski Şehir province).

Suddenly, a voice cuts through the infinite silence like a knife. It is a loud and sharp voice; yet, full of secretive harmony and grievance. It is a voice that comes from above and descends from the sky. Lai-lalai-lalahi.....[...]. The city echoes with the shouts of these hysteric barkers who, the more they climb up the stairs of the minaret towards the sky, the more they fall and squirm in a mire of an anti-humanitarian civilization.

(Makedonia 9 March 1923)

The publishing of this 'soldier's note' in the press of Thessaloniki in 1923, namely almost a year after the war was over, signified that, to certain sections of the local society, the call to prayer had started to sound very differently from the past. This abrupt and violent reconfiguration of the semiotics of prayer meant that cultural difference was now seen as cultural dissonance, and therefore should anymore be tolerated and respected. To the Greek soldier and the readership of this newspaper the *ezan* meant neither time for praying nor a daily timer. Instead it meant that time had come for the *ezan* to be silenced.

Memoires and Autobiographies

The obsession of western travelers in the Ottoman Empire with the minarets and the call to prayer feed in other genres of narrative writing like novels or memoires. Remaining at the same locality, that is cities of the late Ottoman Empire, Salonican Jew Leon Sciaky (1893-1959) placed his life memories in the city within the soundscape of the *ezan*.

Accordingly, he names the prologue and penultimate chapter of the book by the titles 'The Minaret' and 'The Muezzin calls no more', respectively. In a self-referential manner, the author gives in the text his literary sources by referring to his childhood explorations of the library of his father, where he familiarized himself with Alexandre Dumas and Alphonse de Lamartine, among other writers (Sciaky 2003: 78, 195). Nevertheless, due to their personal and subjective nature, memoirs and autobiographies can be quite rich in sensory and sensuous terms, similarly to literary fiction like novels (Picker 2003: 12). They can therefore be a valuable source for the ethnographer of sound to look at (Smith 2004: 23).

Memoirs and autobiographies are very challenging types of texts in that they address the territory of memory. They are important sources that link the past with present, as the latter very much affects the selectiveness and subjectivity of their authors. In transitional historical contexts, like the case of the late-Ottoman Empire, authors were faced with the challenge of how to make a 'consistent pattern appear from a life with all of its twists and turns, ebbs and flows' (Fortna 2001: 7). Leon Sciaky falls into this category, as he strived to come to terms with the collapse of the Ottoman Empire and the Jewish migration experience that followed. In this case, the choice of the soundscape of the minaret was obviously a nostalgic commentary on loss, going beyond the sound of the call to prayer itself. Here the minaret and its sound becomes a *lieux de mémoire* expressing the very moment of transition between memory and history articulated by Nora (1989: 11-2).

City guides and yearbooks

City guides usually bring together a mixed type of data forms, ranging from statistic figures and lists to images and narratives. They constitute, therefore, unique representations of cities that reflect the aims and choices of their editors and sponsors. A commercial guide, for instance, records very selective aspects of the city such as, for instance, demographic data, monuments and historical accounts of a city. In either case, sensuous data always resides somewhere between numerical figures and descriptions waiting for the acoustical archaeologist/ethnographer of sound to 'un-air' them (Smith 2004: 22).

Among a number of things that a city guide includes is ‘useful information’ for the city dwellers. The general city guide of Thessaloniki published in French by the bookstore Radium in 1918, records in detail all available means of transportation both for routes in the city and out of it in the relevant section (73-8). Means of transportation like trains and trams instilled a sonorous modernity to the city that did not go unnoticed. In fact, in many texts descriptions of the sound of trams competed with those of the call to prayer. In this respect, train and tram timetables are important sound sources as they capture the periodicity of those novel components of the soundscape of modern city that for quite a while was at the foreground of peoples’ auditory experience.

ITINÉNAIRE DES TRAINS DIRECTS SALONIQUE – ATHÈNES à partir de 14]27 Mars 1918					
STATIONS	Arrivée	Départ		Arrivée	Départ
Salonique	-	14.15		10.08	
Platy	15.26	15.44		8.33	9.01
Ekaterini	17.17	17.50		6.-	7.-
Larissa	20.29	21.30		2.23	3.20
Demerly		22.44			1.11
Skarmitsa	23.02	23.30		0.20	0.50
Lianocladı	2.10	2.10		21.03	21.33
Bralo	4.12	4.15		20.16	20.19
Dadi	1.39	5.09		19.21	19.51
Levadia	6.08	6.13		17.30	18.05
Thèbes		7.55			16.27
Skimatari	8.17	9.17		13.-	13.30
Atènes	11.13	11.35		12.30	13.
Le Pirée	12				12.05

Fig. 2. Train time-table Salonica-Athens (*Guide de Salonique* 1918)

Another source for urban history in terms of the Ottoman context are the yearbooks (Sâlnâme) published by the Ottoman authorities of different provinces. Varying in length and depth according to the publishing authority and locality, Ottoman yearbooks constitute a fascinating source reporting on a number of aspects of Ottoman cities, particularly from the point of view of their administrative centers. The depth of detail (which sometimes reached remarkable levels) was illustrated in the analytical listing of the authorities' personnel by name and post. In the Ottoman multi-confessional and multilingual context, this type of information provides access to the various speech communities and their overlapping spaces. An illustrative example is the information on the staff and curriculum of the school of the Dönme community *Yadikâr Terakki* provided by the Yearbook of the Province of Salonica (*Selanik Vilâyeti Salnâmesi*) of 1906. In the relevant table (fig. 3), one can find, in addition to Ottoman Turkish, courses in Arabic and Farsi as well as French and German. For the sound historian this is an example of a source that rather than being 'read' is being 'listened to'. The sounds of German and French, as well as of Farsi complement in density the polyglot soundscape of the community; in addition to the aforementioned differentiation between private and public denoted through the use of Ladino and Ottoman Turkish respectively, a further distinction is added by the use of French, which stands as a marker of social distinction within the community and in relation to the wider social stratification of late Ottoman Salonica (Dumont 1994).

Teaching Staff	
Director	Monsieur Paro
Director and history and language instructor	Suki Efendi
Religion, Arabic and Persian language instructor	Emin Efendi
Accounting, Geometry teacher	Abdülaziz Efendi
Science and Geography teacher	Osman Fehmi Efendi
Spelling instructor	Hüsni Efendi
Painting and Calligraphy instructor	Mahmud Ekrem Efendi
Ottoman language instructor	Ali Saib Efendi
Ottoman language instructor	Mahmud Saya Efendi
Sciences and German language instructor	Monsieur Kuhn
French language instructor	Isak Efendi
French language instructor	Sadi Efendi
French language instructor	Anjel Efendi

Fig. 3. Teaching staff and curriculum of the *Yadikâr Terakki Mektebi* (*Selanik Vilâyeti Salnâmesi* 1906)



Introduction: Sounding Out Sound

That the study of sound entails actual sounds is by no means a given. The ethnographer of sound conducting research on a soundscape of the past may in fact have no direct access to its original sounds. Hence, she delves into secondary sources, a silent undertaking that involves decoding sound in graphic and visual evidence as well as built structures. With the advent of sound recordings, sounds of the past are available to us. Recording technology enabled what has been described as ‘schizophonia’ or the split between an original sound and its electroacoustic reproduction (Schafer 1969). Along the same lines, Michael Chanan, echoing Walter Benjamin’s (1999a) thesis on the effect of the reproduction media on art, commented on the impact of recording technology on music:

...the technique of reproduction detaches the musical work from the domain of the tradition that gave birth to it [...]; [...] it also creates new types of musical object which do not belong to a particular domain, but rather anywhere that a loudspeaker (or earphones) may be found...

(Chanan 1995: 9)

The ‘new types of musical object’—recordings—which Chanan described, altered the ecology of music, shaping first and foremost the contemporary auditory experience. More specifically, recordings gave rise to the ‘intensely solitary listening’ (Clarke 2007: 67), which is a feature of the acousmatic character of recorded music. As Clarke (2007: 50) observes, acousmatic listening, defined by the detachment of the listener from the performer and the ‘uniqueness’ of the performance moment, emphasizes the ideology of music’s autonomy and absolutism.

The separation of sound from its source, a landmark auditory feature of modernity (Erlmann 2004b: 7), means that sounds can be stored and preserved for future reproduction and consumption. Yet studying sound is no straightforward matter. Firstly, there is hardly such a thing as ‘objective hearing’. All senses are culturally constructed,

which means that sensory perception is a cultural as much as a physical act (Classen 1993: 1-2). The ways in which we hear are conditioned by our enculturation: we tend to be more attentive to certain sounds while taking others for granted. Although the task is never fully attainable, the ethnographer of sound should thus endeavor to distance herself from her hearing habits, to open her ears and listen to the full range of sounds of a soundscape as if she heard them for the first time. For this reason, Murray Schafer proposed soundwalks that also contained ear training exercises (1994: 212-3).

Student Task: Training your ears...

Close your eyes and for ten minutes concentrate on your auditory perception. Try to distinguish the different sounds that you hear and locate them in space. Now focus on one sound at a time, and on its main attributes:

- Is it continuous, periodical, or did it occur only once?
- Is it mechanical, natural or human?
- Is it loud or soft? And so on.

After completing the task indoors, repeat it in an outdoor location and consider the differences.

Secondly, the cultural dimension of sound affects also the ways in which sound means to us. Like smell, sound is cultural, and hence 'a social and historical phenomenon [...] invested with cultural values' (Classen et al. 1994: 3). If she is to make sense of sounds, the ethnographer of sound needs to attend to the particular meanings these carry for particular people in particular places. Our archival research on the sound history of the Old Archaeological Museum (Yeni Cami) of Thessaloniki, revealed the intricate transformations in the webs of meaning attributed to the voice of the muezzin by the local communities before and after the incorporation of Salonica to the Greek Kingdom. Even if the ethnographer of sound could listen to the call to prayer as recited by the muezzin of Yeni Cami, she would need to 'tune in' with the ears of members of its acoustic community in order to understand the aesthetic, political, religious and cultural values and the information that it carried both locally and in the larger context. The

'ethnographic ear' (Erlmann 2004b) should thus attend to cultural poetics in the construction of the aural experience.

Student Task: Giving meaning to sound

Visit the SonorCities Pilot Project > 1902-1922 > tram.

- Whose voice is the text recording?
- Who publishes this text?
- How are the sounds produced by the tram described?
- Which are the different views expressed about the tram?
- How are they linked with broader perceptions about the city and the writers' experience in the city?

Recorded sound may further obscure rather than illuminate meaning for the reason that it is, by definition, mediated. The end product involves decisions about the technical aspects of recording, for instance, the spatial relation between sound source and recording device, the types, number and position of microphones, or whether to record in the 'natural' setting or the protected setting of a studio. It also involves decisions related with the question of representation: which musicians to select, what repertoires to prioritize, whether to intervene or not in musical matters, etc. Such decisions were made by the recordist who in the early twentieth century was usually an authoritative figure—a scholar (folklorist, anthropologist, etc.) or expert sound technician, usually a foreigner assisted by local agents—who exercised power over the subjects and sounds recorded. In recorded sound, the dual relationship between ethnographer of sound and her interlocutors in the field is mediated and shaped through a third agent, the recordist, who acts on the basis of her own aesthetic and cultural criteria as well as those of the company or institution providing technological or financial support.

Lastly, there is a paradox in that the ethnographer of sound relies for the most part on the (written) word for her analysis and interpretation of the material collected in the field. The recent 'sensuous turn' in anthropological and historical research was not coupled by a paradigmatic change of the ethnographic or historical text as the end result of the research process. Certain experimental attempts to theorize sound through sound,

such as Feld's 'anthropology of sound in and through sound' (Feld and Brenneis 2004: 468), have not received a broad consensus, although they sensitized/alerted scholars to the epistemological problems of theorizing the senses. Although using speech as the main medium for analyzing all senses establishes a degree of equality among them (Howes 2003), this hardly compensates for the fact that the passage from listening to speaking/writing about sound entails always an act of translation, transcription and transliteration whereby, inevitably, something is lost.

In short, studying sound means attending to all those mediations involved in the various stages of its production, reception, documentation and interpretation. The researcher of sound cannot erase these mediations in order to access sound in some primary, 'objective' form. She needs to take account of these mediations but also to be reflexive about those mediations that her own sensory experience with sound engenders.

The City in Sound: Typology of Sound Sources in the City

A city soundscape and its repertoire of sounds vary according to geographical location and climate, historical period considered, social and demographic fabric, urban design, the structural features and the materials of buildings, streets and public spaces, and so on. Within the city, all these may change from one district or neighborhood to the next, producing distinct and partly overlapping local soundscapes. City soundscapes are composed of industrial, mechanical and natural sounds, sound-producing objects and technologies of recorded sound, verbal and nonverbal sounds, speech communities and speech acts ranging from everyday to formal speech and from narrative to poetic forms, musical practices (concerts, recordings, lives etc.) and other, extramusical, sound practices. City soundscapes also comprise past sounds, preserved as sound records in public and private archives. A common thread to the immense diversity of the sounds of cities is that they are mediated—lived and made meaningful—by its inhabitants.

Sound Archives

Definitions...

Sound archives are repositories for recorded sound data produced or received by public or private entities.

New Grove (Post and Threasher n.d.)

Audiovisual Archive is an organization or department of an organization which has a statutory or other mandate for providing access to a collection of audiovisual documents and the audiovisual heritage by collecting, managing, preserving and promoting.

UNESCO (Edmonson 2004)

The First Sound Archives

- The establishment of sound archives followed technological advancements in the field of sound recording at the end of the nineteenth century—especially Thomas Edison’s launch of the wax cylinder phonograph which allowed both the recording and the playback of sound.
- Early sound recordings were often collected during European-led colonial scientific expeditions, by ethnographers, explorers and colonialists, and deposited at sound archives back home where comparative musicologists could study and compare them.
- The first sound archives were founded in European centers: in Vienna (Phonogrammarchiv – Akademie der Wissenschaften, 1899) and Berlin (Berlin Phonogrammarchiv, 1900). The British Institute of Recorded Sound, today part of the British Library Sounds, was first established in 1955 (‘National Sound Archive’ n.d.).

An Internet Ethnography on British Library Sounds

As I browse idly through the British Library Sounds collection my attention is caught by an item entitled ‘What is soundscape?’ According to the accompanying recording notes, it is an ‘introduction to the concept of soundscape, and the origins of the World Soundscape project’ that was performed/composed by Murray R. Schafer and recorded in 1973-4¹⁶. I click on the item, but it turns out that it is accessible for UK institutions only. Far from being in the British Library, seated in one of the tiny listening carrels in the Rare Books and Music reading room, or at the very least somewhere in the UK, I am connected online to the British Library website from my home in Thessaloniki.

I am checking out the ‘Acoustic Ecology’ section of Soundscapes, which in turn is under the category Environment & Nature ([British Library Sounds/BLS > Environment & Nature > Soundscapes > Acoustic Ecology](#)). Soundscapes can be searched by three criteria: type of sound, collection, and location. Besides ‘Acoustic ecology’, the other types of sound listed under Soundscapes are ‘Music & Environment’, ‘Sounds & Nature’, and ‘Sounds & Society’. Somewhat disappointedly, I exit ‘Acoustic Ecology’ and enter ‘Sounds & Society’, in the hope of discovering urban sounds ([BLS > Environment & Nature > Soundscapes > Sounds And Society](#)).

Recalling Wendy Bracewell and Alex Drace-Francis’s fascinating anthology of travelers’ encounters with toilets and local toilet-going habits (2012), I click on the item ‘Gents public toilet in Chagford. Dartmoor Soundings’, which promises ‘a general soundscape of a men’s public toilet in Chagford’¹⁷. Frustratingly this item too is unavailable and I click next on ‘Caught in the eye of the storm. Hungarian soundscapes’ seeking some consolation¹⁸ ([BLS > Environment & Nature > Soundscapes > Sound And Nature](#)). From the relevant comfort of my desk, sipping some—cold by now—coffee, I spend the next nine minutes trying with some agitation to clear my ears off all other sounds in order to get caught in the eye of the storm (as the recording’s title promises), at the same time pondering on the sensational consequences and predicaments of schizophrenic (see ‘Introduction: Sounding Out Sound’, pp. 60-63).

¹⁶ <http://sounds.bl.uk/Environment/Soundscapes/027M-W1CDR0001254-0200V0#> (accessed 22 November 2012).

¹⁷ <http://sounds.bl.uk/Environment/Soundscapes/022M-1CD0213243XX-1500V0> (accessed 22 November 2012).

¹⁸ <http://sounds.bl.uk/Environment/Soundscapes/022M-W1CDR0001560-1500V0> (accessed 22 November 2012).

Student Task: Online fieldwork / Researching online sound archives

Visit one of the Sound Archives listed at the 'Sound Recording Archives Links' of the National Recording Preservation Board of the Library of Congress:

<http://www.loc.gov/rr/record/nrpb/nrpb-archives.html>.

- What sound material is available?
- How is it presented and organized?
- Which geographical areas and historical periods are covered?
- Are any urban cultures/genres featured or cities highlighted?
- What additional information is provided and by whom?
- While you browse through the sound archive, take a moment to consider your own sensory experience of listening to various sounds.

British Library Sounds hosts some 50,000 recordings and their associated documentation, selected from the Library's extensive collections of some 3,5 million sounds of music, spoken word, and human and natural environments from all over the world¹⁹. The online catalogue provides access to these recordings which are organized around nine 'Case-studies'. Besides Environment & Nature, these include: Accents & Dialects, Arts, Literature & Performance, Classical Music, Jazz & Popular Music, Oral History, Sound Recording History, World & Traditional Music, and Sound Maps.

Succumbing to my ethnomusicological inclination, I click next on World & Traditional Music. The collection is organized by continents and can be searched according to language or country (other search criteria include date and map). Also available are several themed collections, mostly of post-WWII and later recordings (the most recent are dated 2005²⁰) made by anthropologists, ethnomusicologists, linguists, musicologists, and musicians during their field trips and reflecting their particular research interests. I visit an old time favorite, 'Ethnographic wax cylinders' (BLS > World & Traditional Music > Worldwide > Ethnographic Wax Cylinders). This collection hosts some amazing material of the world's first recordings of non-western music, songs and

¹⁹ <http://sounds.bl.uk/Information/About/> ; <http://sounds.bl.uk/> (accessed 22 November 2012).

²⁰ <http://sounds.bl.uk/World-and-traditional-music/Music-from-India/025M-RKDATX0072XX-0300V0> (accessed 22 November 2012).

speech, captured between 1898 and 1915. I select 'Australia' which redirects me to a list of recordings made in 1898 by the seminal Cambridge Anthropological Expedition to the Torres Strait. Some 38 items are listed, all accessible. The majority are songs sang by unaccompanied male vocal solo; but there are also unaccompanied vocal groups, some male vocal solos accompanied by percussion and two examples of solo male speech. I pick an item at random. Like a tourist yearning for the ultimate 'authentic' experience, I am once more taken aback by how unfamiliar what I listen to sounds to me.

Ethnography and The Archive

- The Torres Strait Expedition, headed by Prof A. C. Haddon, marked the emergence of fieldwork-based, British social anthropology (Clayton 1996: 69-70).
- Historical anthropology today investigates the links between anthropology and history, and ethnography and the archive in the context of the colonial enterprise. As Axel notes, early ethnographic enterprises 'not only supplied the archive with an ever growing number of texts but also, and concurrently, made possible the growth of the archive itself'. Ethnography and the archive were thus not only mutually constitutive but also complicit with colonial rule, as basic modalities of colonial knowledge production (Axel 2002: 15).

Sound Archives as Records of a City's Colonial Past

- Reflecting the early twentieth-century disciplinary aims and concerns of anthropology, folklore studies, and musicology, early field trips rarely focused on urban repertoires and sound practices. They thus are of little avail in the ethnographer's study of the urban soundscapes of countries whose traditions are documented in such collections.
- On the other hand, these early collections register the relation between imperial centers and colonial peripheries. Sound archives, as colonial archives, are implicated in the construction of the colonial subject through documentation and taxonomization. Housed in powerful urban centers, they document a city's trajectories in political and colonial histories of power and subordination.

I exit World & Traditional Music and browse through Accents & Dialects where equally tempting categories await exploration (these include recordings of WWI British prisoners of war held in Germany; a survey of English dialects; and a substantial oral history collection made by the BBC), but move on to my final destination for this evening, Sound Maps²¹. There, besides the staples of music and wildlife, other sound recordings uploaded onto interactive sound maps include: European soundscapes; English accents and dialects; oral interviews of Jewish Holocaust survivors; as well as an interactive map entitled ‘Your Accents’, on which visitors have uploaded recordings of their own voice reading Roger Hargreaves’ children’s story Mr Tickle (I select a recording made in Athens, and listen to Mr Tickle’s adventures recounted in a fast, rather flat, typically Greek accent); and, finally, a soundmap of various public soundscapes in the UK: I enlarge the map on London—it is full of red dots—and scroll with my mouse to Euston Road between King’s Cross and Euston tube stations²² ([BLS > Sound Maps > UK Soundmap](#)). I click on one of the red dots and listen to ‘Humanities 1 Reading Room, British Library’. My virtual journey has come full circle: returning to the library, I return home.

Sound Archives: Recent Trends

Today sound archives digitize and make their collections available online, aiming for the wider dissemination of their materials to audiences beyond the academic one. A special interest is shown in engaging with the cultural heritage communities whose traditions are represented in the collections through repatriation or redistribution of their sound materials. Nowadays, such initiatives are often accompanied by attempts to involve the cultural heritage communities also in the archiving process through ‘proactive’ and ‘collaborative’ archiving (Landau and Fargion 2012: 136-7; Brinkhurst 2012: 245-6).

²¹ <http://sounds.bl.uk/sound-maps/> (accessed 22 November 2012).

²² <http://sounds.bl.uk/Sound-Maps/UK-Soundmap> (accessed 22 November 2012).

Encounters @ King's Cross

- Emma Brinkhurst's research project sought to 'unite' the Somali community of King's Cross with the British Library's archival recordings of Somalia, also housed at King's Cross. The listening sessions which she organized for this purpose served to 'unlock embodied memories and reconnect those who have been subject to dislocation with aspects of their past identities' (2012: 243), and contributed to the continuation and renewal of Somali oral tradition in the diasporic context.
- Through the engaged cultural listening of their musical past, urban diasporic communities may redefine their relation both with the homeland and with their new home. Their renewed sound practices feed into the city's soundscape and help them reconfigure their community and themselves as inhabitants of the city.

Student Task: Discover Connections between Sound Archives & Communities in Your City

Locate the main sound archives in your city. These may be hosted in universities, museums, libraries, research or cultural institutions, while some may be private.

- Which oral/musical traditions do they document?
- Are any of these related with (ethnic, religious, linguistic, diasporic, refugee, etc.) groups living in your city, and how?

Consider the possibility of acting as a cultural broker between community and sound archive.

The Soundscape of MySpace Music

Besides providing a virtual home for the collections of prestigious sound archives, the World Wide Web and digital technologies are today fostering new possibilities for the formation of open fora of exchange and communication. Online social networking websites, as they are generically called, such as Facebook, YouTube and MySpace, are genuine internet fora in that they are born from and shaped by contemporary Internet structures and practices. Membership is free of charge and easy to get, setting-up requires only basic technical knowledge, and you can tailor your environment/page to suit your individual needs. Even so, and although it may be conducted from the comfort of your own house, an internet ethnography on a social networking website is no less demanding.

In 2007 I carried out internet ethnography based on participant-observation on MySpace Music (Kallimopoulou 2007), a branch of MySpace used by practicing musicians who wish to network and promote their work. I had to face a number of challenges: creating my own page, which almost brought my computer programming skills to their limit; spending hours on end surfing online; methodically building up and maintaining my community of MyFriends; holding informal, offline discussions with musician-friends who were also members of MySpace Music; formulating a questionnaire which I circulated online to my community of friends; and, above all, investing the energy needed to form relationships and win the trust of people on the other end of the screen.

Although quite different from sound archives such as the BLS discussed above, sites like MySpace Music are sound sources that can be productively studied by the ethnographer of the city of sound. Far from being virtual, online digital soundscapes form part of local soundscapes: they are the product of musicians' actual musical practices. Through these practices musicians evoke and assert their relation to cities and other places, local or faraway, real or imagined. The social networks and web communities created are equally 'real': they offer concrete opportunities for new collaborations that shape a musician's actual career and her live musical performances. As Lysloff and Gay have pointed out, technology is not culturally neutral—developing independently from its cultural context—but 'imbedded in cultural systems' (2003: 8). It is to these cultural systems that online social networking websites offer insights.

Oral Sources

- 'Oral' is contrasted to two different concepts: the written/literate, and the non-verbal (i.e. that which is not based on words) (Finnegan 1992: 5-6)
- Oral traditions, genres and forms are studied by a range of scholars, especially folklorists, oral historians, linguists, anthropologists, and ethnomusicologists.

Part of our archival research on the sound history of the Old Archaeological Museum (Yeni Cami) of Thessaloniki involved studying the Oral Testimonies Archive of the Historical Archive of Refugee Hellenism (IAPE) of the Municipality of Kalamaria. It contains oral interviews, conducted mainly in the late 1990s, of Asia Minor refugees who arrived and settled in Greece (especially northern Greece) in the period before and after the Greco-Turkish war (1919-1922). A few of them had found temporary shelter in Yeni Cami and other mosques, churches and synagogues between the years 1922-1925, and we hoped to discover references to this experience.

The IAPE is housed in Kalamaria, a former refugee settlement outside the city of Thessaloniki, which, with the outward expansion of the city, forms today one of its eastern districts that still retain a refugee identity. My regular trips on board bus 6, whose route traverses much of the district before reaching the area of the IAPE, my field destination, marked one more itinerary on our map of ethnographic passages across the city. The IAPE is an example of an archive with solid links to the community whose earlier culture it documents: I frequently found myself sharing the long, oval-shaped table of the reading room with people of Asia Minor origin, some of whom lived nearby; they would come to browse the shelves of the book collection or to locate historical, biographical, literary and other texts documenting life in Asia Minor and the subsequent 'Catastrophe' and uprooting. Many of the historians and staff working at IAPE were themselves of Asia Minor origin. Their personal stories as researchers, employees, interviewers, and the stories of their families and acquaintances (some of whom have been interviewed by IAPE) intertwined closely with the history of the archive.

The Oral Testimonies Archive of IAPE contains some 700 oral interviews in digital (wav file) or analog (cassette) form, with an average duration of one hour each. Around

400 of these are also available in written transcription, and it was these transcribed versions that I studied during the first stage of my fieldwork/research. Listening to the audio source, i.e. listening to the oral interview in real time, can be quite time-consuming especially if you are working on a sizable archive.

From Sound to Text: Transcription

Yet it is important to remember that transcription, like transliteration and translation, is a value-laden and contentious process: the transcript turns aural objects into visual ones, which inevitably implies changes and interpretation—and perhaps also an amount of invention (Portelli 1990: 47). Cultural assumptions about the ‘equivalences’ between audio-record and written document, or between specific elements within these, affect what you and others ‘hear’, and thus the nature of the interpretation and transcription (Finnegan 1992: 198; see also ‘Introduction: Sounding Out Sound’[objective hearing], pp. 60-63). When the researcher uses others’ transcripts, she should bear in mind that they are not simple primary data or definitive reports but provisional versions, themselves open to re-analysis (ibid.: 199). A focus on the archiving process—what Dirks describes as the need to historicize the archive by engaging in an ethnography of the archive (2002: 51, 58; see also ‘Introduction: Making the non-Sound Archive Relevant’, pp. 43-45)—brings to the fore the consequential character of the intermediary work of transcribing (Papailias 2005: 118).

Going through the transcripts, I soon became aware of the existence of different transcribing hands: some clearly aimed at an accurate reproduction of the sound on paper (e.g. by retaining idiomatic words and accents, or marking the points when the interviewee laughed or paused); while others adopted a looser approach to transcription that verged more on translation (e.g. idiomatic words were instead written in ‘standard’ modern Greek and little use was made of punctuation marks to indicate pauses, hesitation, etc.). Indeed, different transcribers had worked on the sound material: the transcripts were made at a later stage of the project and usually not by the interviewer herself.

The Subjectivity of Oral Sources

- Any text, but particularly those said to come from 'oral sources', has to be seen not as a neutral and a-social datum, but as inevitably related to its context of telling and subject to shaping and selecting by performer, audience, collector, transcriber and presenter (Finnegan 1992: 49).
- One important stage in understanding your sources [...], is to consider their genesis: that is, the decisions which the original collector or compiler took on these prior issues and their implications for the nature and form of what was recorded (ibid.: 71).

Far from being an intruder encroaching on the transcription process, subjectivity forms an integral part of the entire documentation process of oral (and, for that matter, textual) sources—from the interview and its recording, to its representation in writing and (where appropriate) its translation, to its deposit, circulation or publication. Oral historian Ronald Grele notes that oral history interviews are collective creations that inevitably carry within themselves a pre-existent historical ordering, selection and interpretation (1998: 43). 'The interview can only be described as a conversational narrative: conversational because of the relationship of interviewer and interviewee, and narrative because of the form of exposition—the telling of a tale' (ibid.: 44). Although one of the main critiques which have been leveled against oral history concerns the dubious adherence of its sources to 'fact', it is precisely the speaker's and researcher's subjectivity that enhances its value by bringing attention to the elusive quality of historical truth itself (Portelli 1990: viii-ix, 51). The insights of oral history into subjectivity have been conducive to the critique—so well articulated by oral historians such as Paul Thompson (2000) and Alessandro Portelli—regarding the subjectivity of written sources.

Decisions on the part of the researcher involving what questions to ask and how to ask them already predispose the narrator to particular verbal strategies, narratives and presentations of self. The themes foregrounded by the questionnaire of the IAPE Oral Testimonies Archive seem to be modeled on the themes, units and labels of classification employed earlier on by the Oral Archive of the Centre for Asia Minor

Studies (KMS). This research lineage, combined with the culture of refugee cultural associations that proliferated following the forced exchange of populations, has in turn contributed to the formulation in Greece of stereotypical representations of Asia Minor refugees which foreground, among other things, their music identity.

The interview context, too, is crucial and every detail matters: where you do the interview, when you do it—in the 1990s people said different things from the 1960s or the 1930s. There are many other variables including the class, sex, etc. of the interviewer/ee—for example women interviewed by women on issues like sexual torture may say different things than what they would say to men, and so on—that further add to the contingency of the interview.

From Speech to the Aural: The Oral History Archive as Sound Archive

- Oral forms may centre on words but they involve more than words (Finnegan 1992: 6). This dimension is highlighted in what Bruce Smith termed the ‘sounded word’ (ibid.: 22).
- In the context of performance there is more to words than just the voiced equivalent of written forms. Where and when they are pronounced, by whom and why may be highly significant for the meaning or quality of performance. [...] How they are delivered can transform the meaning and impact of the ‘same’ words almost out of all recognition (ibid.: 104).

When I eventually decided on around twenty interviews which I would ask permission to use, I requested access to the original aural sources. In this way, my research followed the opposite direction of that of the archivist: it moved from the realm of printed (and visual) record to that of sound, recovering the document in its full aural form. Being thrown from text to sound was an overwhelming sensory experience and an emotional moment of my fieldwork at IAPE: the pacing of words and sentences, the raising or lowering of the voice, the pitch, tone and timbre, intonations, interruptions, exclamations, pauses, silences, laughing, chuckling, and so on, imparted a sense of presence, of almost being there. The ‘sound world of the interview’ forms one more soundscape for the sound historian to uncover.

Student Task: Sound to Text and Sound in Text

Interview a relative or friend on a topic which is related to a past incident in his/her life. Record the interview and try to transcribe it as accurately as possible.

- What difficulties did you face?
- Which features of oral speech were particularly hard to convey on paper?
- Can you think of ways to restore the aural dimension of the oral interview into the written transcript?

Oral Interviews—and the Aural—in the Oral/Literate Continuum

Building on Bruce Smith's insights concerning the interconnections between orality and literacy which engender 'mixed cultures' with various kinds and degrees of literacy (Bruce Smith 1999: 12-3, see also 'IN THE CLASSROOM: Theoretical Discussions', pp. 11-30), Grele probes the 'complicated dialectic between orality and literacy within both literate and oral cultures' (Grele, unpublished manuscript) with reference to the oral interview. One thing that struck me when, finally, listening to the IAPE sound archive, was the interplay between these various kinds and degrees of literacy and orality from one interview to the other. Some narrators' performance adhered closer to an oral model. For instance, they would use onomatopoeic words or mimic particular sounds with their voice; their intonation, register and range of tone would be rich and expressive; or they would recount actual dialogues and in other ways adopt a personal/subjective stance. Other narrators adhered closer to a literate model, both in the sound of their story-telling—e.g. flat intonation and rhythm, lack of emotional peaks in the speech, etc.—and in its content—e.g. they would assume an 'official history' style, describing their homeland's history since ancient times, or enhance their narration with information evidently derived from folklore or history books. In the case of oral interviews, listening and the aural dimension are important tools in explicating the complexity of the relationship between the oral and the literate.

Student Task: Recovering the Aural in the Oral

Visit the Sonor-Cities Pilot Project > 1922-1925. Listen carefully to the audio excerpts from the IAPE Oral Testimonies Archive. Focus on the sound of interviews—whether you understand the language or not:

- Finnegan notes that in the context of performance there is more to words than just the voiced equivalent of written forms (1992: 104). Can you identify such auditory aspects and acoustic elements?
- Do you notice different kinds and degrees of orality and literacy? How would you describe these?

Commercial Music Records

The phonograph era engendered developments not only in the scholarly but also in the commercial field, marking the birth of the music industry. Ever since, the two fields have evolved in competition but also in synergy with one another, their paths marked by a history of—sometimes uneasy—overlaps, exchanges and appropriations. In the early years of the twentieth century, music scholars and musical entrepreneurs shared technologies, working methods, and recording destinations. The scholarly archive found its counterpart in the commercial sound archive (Shelemay 1991: 280-2); and the scholarly practice of taxonomization of sound was coupled by the labeling practices of record companies and retailers. What differed was motivation. While the scholarly work of collecting was aimed largely at the preservation and study of ‘ancient’ traditions (see ‘Introduction: Making the non-Sound Archive Relevant’, pp. 43-45), musical entrepreneurs recorded a broad spectrum of musical styles of which popular and urban musics formed a significant part, hoping to interest their primarily urban record-buying public (Gronow 1981: 274). In the Orient, for instance, record companies made numerous recordings of the main Oriental art music traditions (Gronow 1981: 274; cf. Racy 1976), while in India the music industry’s output was mainly commercial film music (Manuel 1991: 189-90).

Popular and urban musics not only formed an important part of the repertoires promoted by the record industry, but also were at times themselves a product of the

record industry's recording and labeling practices. An example of a genre largely created by the record industry and identified with a particular city is Smyrneiko. Under this label are subsumed 'a number of popular musical genres associated with the Greek Orthodox community, mainly of the city of Izmir (Smyrna), that developed within the culturally diverse and cosmopolitan context of the late Ottoman urban society' (Poulos forthcoming). Since its early days, Smyrneiko was defined and shaped by the expansion of the record industry both in the Middle East but also in Greece and in the Americas, where Asia Minor communities formed after the Greco-Turkish war. Smyrneiko and its descendant in Greece, rebetiko, are in this respect urban commercial genres of the early twentieth century of particular pertinence to the ethnographer of urban sound. They document not only an urban culture, but also the modalities that shaped the advancement and expansion of the record industry.

As seen in the introduction of this section, these novel 'musical objects' (Chanan 1995: 9) shaped the experience of solitary listening (Clarke 2007: 67), yet they also provided a new context for urban sociability and interaction. The record industry leaves its physical (and sonic) imprint on the city of sound also through the network formed around record collecting and its associated practices: record shops, music literature (popular music press, specialist magazines, musical biographies, websites of aficionados, etc.), reissues, remixes etc. of historical recordings, and dedicated sites of acquisition (second-hand and specialist shops, e-Bay, record fairs and high-profile auctions) (Shuker 2004: 313). The record collector is the protagonist of this network, linking its various sites through her everyday uses of space and acts of consumption.

The culture of record collecting overlaps in part with the archiving practices conducted in the colonial, scholarly and commercial context. Whether in the form of displaying exotica in museums, urban parlors, or the anthropological field, the process of collecting is a key mark of modernity, a way of domesticating cultural otherness (Seremetakis 1993: 13). In the case of urban dwellers, record collecting and sound consumption may be understood as part of the western project of colonizing space, place, and the 'other', a project which aims to recreate in one's image the spaces one inhabits (Bull 2004: 181). Record collecting has also been associated with a sense of escapism and creating a private refuge from both the wider world and the immediate domestic environment (Shuker 2004: 326). In this light, the record collector recalls to mind Benjamin's 'private individual' who, in contrast to the flaneur, creates in the domestic interior a private universe (Stavrides 2010: 61).

Student Task Of Shelves & Labels...

Visit a local record shop in your neighborhood and a big record shop in the city centre. Walk through the corridors and browse the shelves.

- What are the main labels used and which are their subcategories?
- Which criteria (e.g. geographic, genres, alphabetic, etc.) does the labeling method foreground or combine?
- How are records and labels organized in space?
- Do you notice inconsistencies between the labels and the actual records subsumed under them?
- What differences can you note between the two record shops?
- Repeat your research, this time by visiting a music e-shop. Do you notice more differences?

Introduction: Sound in vision

The use of images as historical evidence has gained significant ground in recent critical literature trespassing the hegemonies of the traditional 'document', and therefore that of the 'text,' which for a long time identified strongly with the notion of 'admissible evidence' (Burke 2001: 9-19). Peter Burke in his thorough study on this topic, through the examination of a very broad range of kinds of images addresses the challenges that images pose to the historian in her attempt to read them:

Images are mute witnesses and it is difficult to translate their testimony into words. They may have been intended to communicate a message of their own, but historians not infrequently ignore it in order to read pictures 'between the lines', and learn something that the artists did not know they were teaching.

(Burke 2001: 14)

Burke's comment points further to the cultural dimension of visual perception. Geertz long ago argued in favor of a semiotic theory of images, stressing the collective character in the experience of perceiving meaning in images (1976: 1488). Yet, whether one is a culturally informed viewer of an imageries' tradition or an external observer who reads 'between the lines', is image perception a solely 'visual' experience/business? If not, how is one to 'unmute' the various sensory dimensions of an image?

In doing ethnography of sound the use of any kind of visual (in the very blunt sense of the term) source has to be considered with regard to certain very specific constraints. The first one is that an image may depict somehow sound or sound-making but it cannot capture the sound itself. In this respect, texts are slightly different than images if thought as transcriptions of vocal sounds. The second one is that, in certain cases, the wide presence of any kind of imagery regardless of the medium disorients (desensitizes) the aural perceptiveness of the viewer. This second constrain has been among the central themes of theoretical discussion and debates in both the fields of anthropology and history of the senses (see 'IN THE CLASSROOM: Theoretical Discussions', pp. 11-30). Discussing at this point this aspect of visual sources does not

aim to evoke the 'great divide'. Instead, it aims to foreground the challenge that visual sources pose to the ethnographer of sound in practice. As in the case of texts, the ethnographer of sound needs to train herself to 'listen' to an image. Thirdly, an image cannot be considered independently from its medium (photograph, painting etc.). This is the very point that justifies the call for multisensoriality. In the section on Texts, this was well demonstrated in the case of Ottoman inscriptions. Apart from their materiality that qualifies them as organic components of the synaesthetic experiences that various rituals implement (i.e. *abdest*), it is also the context of Islamic literacy in which the Arabic script bears strong visual qualities that operate beyond the meaning that they actually convey (Street 1995: 173).

Maps and site plans

Michel de Certeau observes that maps in their historical trajectory and evolution erase the itineraries that initially produced them. In his terms, a map, from a 'memorandum prescribing actions' in medieval times gradually turns, from the age of scientific discourse onwards, into a 'totalizing stage on which elements of diverse origin are brought together to form the tableau of a "state" of geographical knowledge...' (de Certeau 1984: 121). This transformation in the history of maps reflects a gradual shift between descriptions of movements in the sense of spatialized actions and that of places, which 'describers' perceive through the faculty of sight. These two narrative elements, according to de Certeau, are interlocked and in oscillation (ibid.: 119).

An example demonstrating the predominance of the type of 'tour' (itinerary) description is the attempt, in section 'Administrative Documents', to 'map' the 'city of sound' that is produced by the ethnographer of sound out of his alternating visits to a city's archives. This is an attempt to document the assemblage of ethnographic encounters as 'spatialized actions' between various places in the city marked by the archives. Its ethnographic encounter triggers the next one ascribing to the process the element of constant move in the city. By contrast, a map obtained from one of this archives—the Archive of Property Office (Ministry of Finance)—is the precise example of a 'totalizing stage.' This map functions as a complementary visual tool to a sequence of documents related to the property status of specific sites in the broader neighborhood of Old Archaeological Museum of Thessaloniki. The sign system used to convey

information with regard to the property status of land brought together with those graphic depictions of sites of architectural and social history of the city, namely the Yeni Cami at the very centre, the Church of Agia Triada (Holy Trinity) on the left-hand side, the public bath at the top and the Synagogue at the bottom-right of the tableau. In addition to that site, the Fire Station and the Police Station are marked opposite the Yeni Cami, in the south towards the sea. In this case, itineraries are absent because they are eliminated by the colonization of space by the map (de Certeau 1984: 121).



Fig. 4. Map of Takis Simotas' childhood neighborhood (by permission of Agra Publication)

How is the ethnographer of sound going to relate his research inquiry to the map? *How does one listen to a map?* The ethnographer of sound needs to penetrate into the history (or archaeology) of the map and foreground the oscillating descriptions of itineraries and places. And also, *whose* itineraries? The answer to this question is constitutive of the entire research endeavor. In addition, she needs to consider the positioning of place in her descriptions (e.g. the Synagogue, the Police Station etc.) not only via sight but also through the faculty of hearing and in relation to the other senses.

The Thessalonian (popular lyrics) writer Takis Simotas in his novel entitled *O Lakkos* (The Pit) which is a dense autobiographical narrative, commences his text by describing the very setting of his story which is his childhood's neighborhood, sometime around early 1950s. Prior to his description there is a sketched map of the neighborhood (Fig. 4) (Simotas 1997: 12). The neighborhood of Simotas' childhood is cantered around Karaiskaki Street, couple of streets near the Yeni Cami. His description, in de Certeau's terms, is constructed by the juxtaposition of 'tour' and 'map' type narratives:

So Karaiskaki Street was a little road a hundred yards long from one end to the other. Beginning at Queen Olga Avenue and ending at Makedonias Street. Which was just where my school was, looking down at us as we walked on up: the Ninth Elementary School, its signboard shutting the road off like a tap. Which was highly unfortunate, since if it hadn't pushed its way in there, the wretched thing, then Karaiskaki Street would have continued on as far as Konstantinopoleos Avenue, to the Kyveleia Cinema, and maybe even further, to Papanastasiou Avenue, up by the Russian Maternity Hospital. Little or not, everyone knew about our neighborhood, not just because of the Konstandinidis bakery but because the first house in it—Karaiskaki 1—had been burned down, and the last—Karaiskaki 36—was haunted and lived in by ghosts.

(Simotas 1997: 14-5)

When Simotas' map is compared to that of by the Archive of Property Office it is only the names of streets that the two have in common. In their overlapping sections, the elements that have been chosen to be depicted are of completely different nature. In the first one the Synagogue is excluded from the tableau and in the latter the taverna 'Ta Kymata' and the house of Simotas' friend from childhood *Lolos* is of no significance at all. Yet, if the two maps were to be conflated, isolated from the very description that

produces them then they will turn into a 'tableau of a "state" of geographical knowledge' (de Certeau 1984).



Fig. 5. The map of the Archive of Property Office (by permission of the Archive) and the map from Simotas' novel compared

A landmark in Simotas' mapping of Karaiskaki street is the bakery of 'Konstandinidis' that was located right under their apartment. This is how the author perceived the bakery in sensory terms:

The bakery had an industrial kitchen full of machines for mixing the flour and kneading the dough. The workers would set to work long before dawn, and the clatter they made, three meters below the bed where I was sleeping, would wake me up. And then sooner or later they started singing, and it would reach my pillow in a murmur and I would try to make out the words but I couldn't. My mother knew all the words, but she didn't want to teach me them in case I got carried away and sang them outside in the street. God help us if they hear you singing them they'll send us into exile. No sooner was I about to catch one whole

verse than the friendly hum of the machines would start up and block it all out. At the same time, a gentle vibration would pass through the entire house like a shudder, and I would be lulled by it all back into a deep, sweet sleep.²³

(Simotas 1997: 14)

This is an example of how one remembers ‘sensing’ a building in his childhood.

Still images

The following photograph of the young soldiers of the Ottoman naval band (fig. 6) brings together two major transformations that took place in nineteenth-century Ottoman Empire and were related to the fields of sound and visual culture. The first one concerns the history of music in the Ottoman army and the second the introduction of photography in Ottoman public space. Both transformations are registered in the broader trend for modernization and westernization of the Ottoman state and society that characterize the nineteenth century and which, from the side of the state was implemented through specific state reforms. In practice, the adoption and institutionalization of the western style military brass band in the Ottoman Empire, like the one featured in the photograph, is attributed to the Italian musician Giuseppe Donizetti (1788-1856). This innovation followed the political decision of Sultan Mahmud II to abolish the outmoded Janissaries troops, their musical sections, *mehter*, included (Aksoy 1985: 1214-7).

²³ Both excerpts translated from Greek by Irene Noel-Baker.

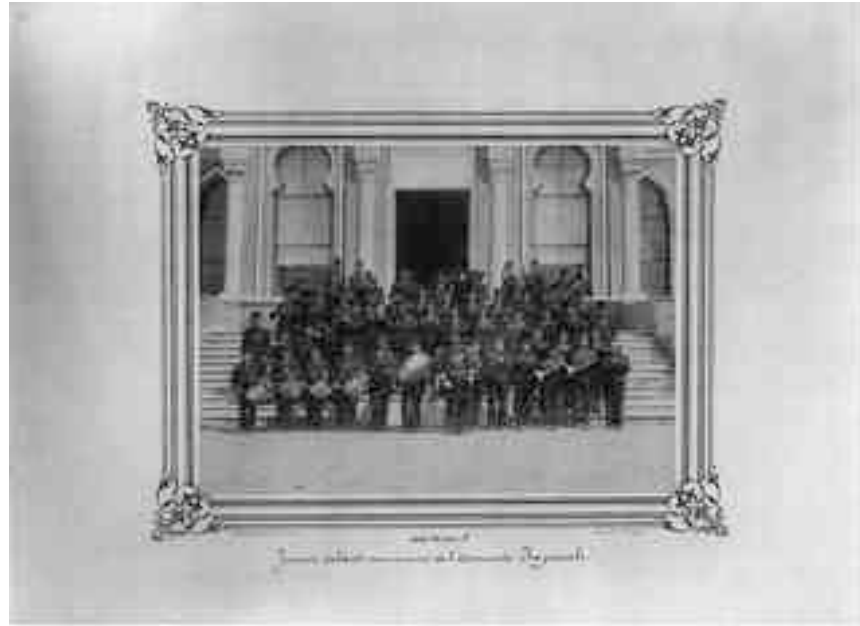


Fig 6. The young soldiers' naval band, LC-USZ62-81820

Like the case of the paintings of the Dutch artist Jacob Ochtervelt discussed by Burke (2001: 90, 186), this photograph provides evidence for historians serving different fields of inquiry (sartorial history, military history etc.). For the music historian and/or the ethnomusicologist this photograph provides a wide range of evidence, as detailed as the type and number of instruments comprising a military band of the time, the gender and posture of musicians, as well as indications about their musical training and performance discipline (i.e. use of musical notation, presence of conductor).

From the perspective of sound, this photo, when considered in conjunction with the polemic literature on the status and legitimacy of music in Islam (Shiloah 1995: 31-44), reveals very significant information about the shift in the cultural meanings of audition in the Ottoman context. Military bands, and the *mehter* in particular, as 'sound-producing devices' enjoyed immunity by the orthodox clergy (*ulema*) due to their association with the concept of 'holy war' (*cihad*) (Popescu-Judetza 1996: 58). The effect of the powerful and horrifying battle soundscape of the Ottoman *mehter*, generated from the combination of a range of percussion instruments (*davul*, *nakkare* etc.) and the loud

high-pitched *zurnas*, has been widely observed in a number of western sources. In the Islamic context, its admissibility relied on its employment in order to ‘incite to battle’ and ‘to inspire courage on the day of the battle’ (Shiloah 1995: 43-4), as argued by the theologian and mystic al-Ghazzâlî (1058-1111). Throughout the nineteenth century the Ottoman state strived to change, conversing with specific aspects of western modernity. It is within this context that the form, function, symbolism and meaning of military music was redesigned and reformed. The new military soundscape of the brass band, with its prerequisite formal literate musical training employing the aid of musical notation, acquired the meaning of ‘discipline.’ The need for the replacement of chaotic and undisciplined Janissaries, was further marked by the adoption of a disciplined performance medium. In this case, discourses on music modernization and westernization overshadowed those on the legitimacy of music in Islam. The role of Islam and Islamic identity remained at the very centre of political discussions and processes, yet the shift in emphasis was towards their relation to state citizenship and modernity.

The commentary on this photograph, so far, was an attempt to ‘unmute’ it, in the fashion that Burke described as ‘reading pictures “between the lines”’ (2001: 14). Yet, what was the message that was intended for communication in the first place, and how does that help us understand the history of sound? This photograph is taken from the photograph albums of Sultan Abdülhamid II (1842-1918). These albums were put together by the Armenian photographers ‘Abdullah frères’. By commissioning the celebrated brothers, Sultan Abdülhamid II was adopting and participating in the patronage of new forms of visual art, like photography, which had been steadily gaining ground in the Ottoman public space since 1850. As has been noted by cultural historians, the introduction of photography contributed ‘silently’ yet steadily to the secularization of Ottoman society (Faroqhi 2005: 258-9). In this light, the shift in the meaning of Ottoman military soundscape that this photograph silently narrates to the sound historian, as demonstrated earlier, is in direct relation to its wider social and political impact as medium.

Finally, as in the case of the advancement of sound recording technology which had a vital role in the formation and maintenance via reproduction of urban musical genres (see ‘Commercial Music Records’, pp. 76-77), photography contributed numerous visual representations of urban life and culture into the very site that produced

them, that is the social reality of a city (Stout 1999: 144). In addition, Frederic Stout observes, this generating process bound to the very nature of the medium of photography 'urged visual art generally away from landscape towards cityscape, from stasis to kinesis' (1999: 144).

Moving image: film and documentary

Time has changed since historians snubbed film as too empirical to use in an academic context. The analysis of film as a document (text) that provides a window onto the social and cultural concerns of an era is now generally accepted in the field. Film historian Robert Rosenstone points to the fact that film, a visual medium, subject to the conventions of drama and fiction, might be used as a vehicle for thinking about our relationship to the past: 'If it is true that word can do many things that images cannot, what about the reverse? Don't images carry ideas and information that cannot be handled by the word?', Rosenstone wonders (Rosenstone 1998: 5). It is precisely from this rhetorical question that one should start in order to apply it to sound too: Don't sounds carry ideas and information that cannot be handled by the word, or the image, we might add?

Naturally the issue of how to use film is a difficult one for the sound historian. First of all there are three different categories that she should have in mind when dealing with film as a source: the spectatorship, the cinematic institution and the cinematic 'imaginary' (in Lacanian terms) that is produced by it (Elsaesser 1984). In 'reading a film' one has to always have in mind all three elements. The plot, the subtext, the production values used, the concealed social mechanisms, the origins of the ideas expressed and the intended audience. In sum, the meaning of it all. On top of these three categories, one should also differentiate between two fundamentally different types of film material: fiction film and documentary film. Both, however, are extremely valuable. When renowned German philosopher Siegfried Kracauer concluded that 'film is uniquely equipped to record and reveal physical reality', he did not refer only to newsreels with a clear documentary purpose but also to fiction (Kracauer 1998: 28). If we ignore the plot and characters, Kracauer argued, we discover aspects of life which the camera has recorded all the more accurately because the cameraman did not even notice them,

including dress, homes, public places and relationships. This is what Kracauer famously termed the ethnographic aspect of cinema (Kracauer 1966).

Let us now focus on the documentary category (it is precisely the documentary and ethnographic capacities of film that are mostly useful to the sound historian) and in particular on newsreels—the ‘moving, talking newspapers’ of earlier times (Sorlin 1980: 10). First of all, how does one access them? Film archives are much more accessible today to the researcher than they used to be. Things have changed dramatically since the times in which archival film consultation was a difficult and extremely expensive enterprise. Present day researchers can consult the biggest archives on-line, by subject or by period, including the Slade Film History Register, the Bundesarchiv, the British National Film Archive, the Institut National d’Audiovisuel, the Istituto Luce, and the British Pathé. They all contain a vast amount of newsreels, most of which is digitized and can be watched on-line.

Newsreels dominated the program of many European cinemas in the beginning of the century. Cinemas functioned only a few hours a day—in contrast to the lavish American nickelodeons—and the entire film industry was dominated by a few companies (Edison, Biograph, Gaumont, Éclair, Éclipse and Pathé). Pathé, in particular, which was a large European cinema network that had bought the cinematic patents, dealt almost exclusively with newsreels producing the so-called *Pathé Gazette* (Cook 1996:51); in order to fulfill this task it had sent cameramen and acquired theater chains all over the world (Sorlin 1980: 11) [in fact in Salonica too, our case-study, there was a large *Pathé* theater, initially in the quay and after the fire in the Yeni Cami area]. Given the difficulties of the heavy cameras of the time, Pathé’s technicians typically filmed staged and pre-planned events (sports, festivities, parades) while they had problems with documenting impromptu occurrences; this does not mean that reels on political events could not render (part of) their historical or political complexity evident nor did it mean that carefully staged and choreographed events could involved highly unexpected and dramatic occurrences (such as the assassination in front of the camera of the Serb King Alexander in Marseille in 1934). While the documentary value of these newsreels for historians has been widely debated (just like all films they are highly subjective, involving clear choices regarding angle, cuts and edits) there is no doubt that they can be considered as extremely important ethnographic documents regarding the past (Lambrinos 2005).

Let us take a typical example of a (silent) newsreel produced by British Pathé, with the title 'Salonika and its Surroundings, 1915-1917'²⁴. We are in a period in which the city is under Allied occupation, with the predominantly French 'Army of the Orient' being stationed there in order to assist the Serb and hinder the Bulgarian army. Greece was divided into two, with Prime Minister Venizelos forming a separate government—to the one of Athens—in Salonika in 1916, in accordance with the *Entente*. It has to be noted here that the First World War was the first 'mediatized' conflict in history (Véray 2008: 28).

The film does not focus on political events—despite the clear presence of foreign troops—but is rather an ethnographic documentation of life in the city. The newsreel, linking together monumentality and everyday life, establishes a specific urban itinerary. It starts with a sequence at the city's quay, with caiques in the water and passersby (many in uniform) coming closer to look at the camera (the cameraman is obviously in a boat—so the view comes from the sea). We move on to see some of the city's main monuments, establishing its multicultural and multireligious past and present, including the Ottoman White Tower, the roman Galerius' Arch, an orthodox church with a minaret and the Byzantine fortresses—French soldier and writer Robert Guyont talks of “the forest of minarets and doms' of the city (Guyon 2012: 44). Throughout this itinerary we can only imagine the sounds, which are, however, more than present. When for example passersby next to the Galerius Arch look synchronically at the sky, they do so probably reacting to the sound of a passing airplane, or even a Zeppelin. French writer Marcelle Tinayre captured in her travelogue *A Summer in Salonica, April-September 1916* the enthusiasm that the presence of this German technological miracle would induce, despite the fact that it belonged to the enemy:

Inside the hotel the sounds of opening and closing doors and the hurried steps in the corridors were increasing. I thought: 'It must be the zeppelin!' And indeed... As I opened my window [...] I thought that I saw it almost right above the hotel [...] The 'entertainment' that I had been promised was right there in front of my eyes and I couldn't have imagined it more magical.

²⁴ <http://www.britishpathe.com/video/salonika-and-its-surroundings> (accessed 10 December 2012).

(Tinayre 2008: 55)

Even more aural than the plane/zeppelin is the image of a tram passing underneath the Arch, with both tramway and cinema functioning as powerful synecdoches of the spectacular technological evolution in urban industrial culture (as were, for that matter bicycles, cars, and trucks that we see passing throughout the reel). Another remarkably 'loud' sequence is the one in which French soldiers march through the narrow streets—one can basically hear the sound of the heavy boots. Other sequences of the newsreel capture the life of street vendors and salespersons at the Modiano Market; here once more we can imagine the sounds of the peddlers announcing their merchandise aloud, while at the same time the sequence is a very powerful commentary on class, with different strata being recognizable by the vast differences in attire, style and posture—all of them seem to find the new invention, the camera, amusing (in fact, we see them laughing). This commentary also runs through the alternation of muddy streets in the city's inner quarters and the grand 'rues' of the quay and the 'Δρόμος των Εξοχών'. Robert Guyon, a French writer who fought in the *Armée d'Orient* wrote in a letter to his mistress in France in March 1916:

The frantic circulation of bucolic carriages charged with vegetables and fruits and, ever since the arrival of summer, mountains of melons and water melons, the coolies burdened in two with inhuman cargoes. The vendors of *salep*, so picturesque in their heavy copper harness and the newspaper sellers in all languages, *Makedonia*, *Phos*, *L'Opinin* or *L'Indépendant*, since more than ever Salonica is a true Babel. The merchants pose hastily their merchandise on the pavement.

(Guyon 2012: 38)

Here, film contributes to our sense of the past, giving us powerful pointers on where and how social meaning was constructed in the city. This is what historian R.J. Raack has called the film's approximation of daily life, revealing 'images, preoccupations, distractions, sensory deceptions, conscious and unconscious motives and emotions' (Rosenstone 1998: 26).

This film captures a slice of life that can be useful for the sound historian, despite the apparent lack of sound. More importantly, it acts as ‘a historical agent’, according to historian Marc Ferro, as it structures people’s understanding of everyday life. Here one has to also mention Michel Foucault’s provocative conclusion that filmmakers can give back to society a history it has been deprived of by the institution of History (cited by Ferro 1988: 20, also see Foucault 1969), pointing at the fact that films can potentially record a less mediated version of events, which Foucault parallels to popular memory and oral traditions. It is precisely Foucault’s comment on oral transmission and cinema as an alternative institution of history that connects to the sound historian who looks for ‘alternative’ sources (even though Ferro warns not to seek in films the illustration, confirmation, or contradiction of ‘another knowledge’—that of written tradition, Ferro 1988: 29).

The film was probably shown in one of the big theatre halls of the city, probably *Pathé* itself. Guyon was reporting in one of his letters of March 1916 the existence of ‘the new cinematographs *Pathé* and *Olympia*’. However, he complained that they showed only films of ‘patriotic propaganda’: ‘Whatever happened to Méliès, Max Linder and Charlot?’, he wondered (Guyon 2012: 54). It is interesting that Guyon is referring to propaganda, as this was a relatively new technique, actually about to be perfected during the Great War, in particular through such films (Véray 2008: 30). The cinema journal *Hebdo-Film* in an editorial sustained that this was necessary in order to ‘maintain inside us the holy hatred against the barbarians and the assassins’ (Véray 2008: 32).

So, newsreels were the major spectacle, while fiction films seem to have been scarce at this point. What has to be noted here, in terms of the spectatorship of these newsreels in the theatres of the time, is that audiences were quickly and effectively trained to decipher the images into sounds, long before voiceovers existed. Whereas cinema as we know it today is conceived as the multisensorial medium, par excellence, in its early decades and until the appearance of the talkies, it was basically visual in nature, just like the newsreel we have seen. It is noteworthy, nevertheless, that even as early as in the screening of ‘L’arrivée d’un train en gare de La Ciotat’ by the Lumière brothers in 1895, whereby a train was moving towards the camera, the audiences were famously scared, thinking it was running off the screen towards them. No sound was needed to heighten the feeling of realism for the cinematically inexperienced audience;

the sound of the derailed train was superintended and overwhelming, swamping the spectators' senses.

Moreover, the fact that film screenings after a while started being accompanied by live music orchestras—or small ensembles, in smaller theatres in Europe—widened the sensorial interaction of the spectators within the cinematic experience. In this respect films were never really silent. Musicians played 'mood music basically, making the images more atmospheric, intensifying the emotional impact, heightening the drama, underscoring the climaxes, providing a sense of complicity. It was there to anticipate, confirm and reinforce' (King 1984: 2). Later on, of course, sound effects and inventions like the Gaumont Chronographe and Chronophone tried to provide the illusion of synchronized sound. Equally important was the presence of the 'Lecturer', who would explain and comment on the action, 'indicating how the audience should respond' (King 1984: 32). In times of war it remains unclear whether this figure was a state propaganda or cinema industry representative.

As far as the soundscape of early audiences is concerned, the late 19th century and prior to the codification of film watching as a standardized behavior the first audiences had the feeling that they were in a public gathering, witnessing and participating in the performance, interactively, singing along, talking and expressing their emotions. By the early 20th century film watching became 'less of a public and more of a group of mute receptors', according to Lawrence Levine (Levine 1988: 195). A similar point is made by James Johnson regarding the culture of listening to music and the fundamental changes in the way people listened between 1750 and 1850, in which he analyzed the ways in which French audiences gradually became silent; in Johnson's mind there was a pacification of the musical experience in the passage from the Old Regime to romanticism, resulting in growing silence (Johnson 1995: 2).

The instrumentation of the rule of silence in the motion picture shows not only imposed a middle-class standard of spectatorship, by suppressing a locally and regionally specific linguistic environment – foreign languages, accents, dialects- it contributed to the cultural homogenization of mass audience.

(Hansen 1994: 95)

Tinayre mentions in her travelogue an interesting scene with children being summoned by the Cinematographic Agency of the Army of the Orient in May 1916 in order to watch a film from the fronts of France and Macedonia.

An enormous film theatre full of small kids and adolescents who make enormous noise until they get seated in front of a stage that is decorated with the three colors of the French flag and a still dark screen. The kids laugh, make fun, tease each other. They are around five hundred. Greek, Jewish, some Serb, some Bulgarian, some Turks, pure races and mixed races, they represent in the best way the peculiar Salonicean populace.

(Tinayre 2008: 92)

Even though she talks about a specific kind of audience—children/adolescents—evidence regarding spectatorship at that time suggests that all this conviviality and expressivity were present during average screenings involving adult spectators as well. Hansen emphasizes that this spectatorial behavior ‘deviated from middle-class standards of reception—a more participatory, sound-intensive form of response, an active sociability, a connection with the other viewer’ (Hansen 1994: 95). One has to add here the practice of people’s ‘dialogue with the screen’—a practice that dates back to the early days of cinema (Staiger 2001). Since cinema was by a large a popular entertainment—close to the vaudeville—and a major means of socialization, one might talk of a transformation of the public sphere, in a Habermasian sense (Habermas 1991). It is not a coincidence that some people talked of a ‘proletarianization’ of the public sphere through the new medium and that the upper classes were initially highly diffident towards it. Ferro talks of the ‘cultivated’ circles viewing cinema as a vehicle of stupefaction and moral disintegration (Ferro 2001: 42).

The passage from silent to talkies of course was a major transition that rendered films multisensorial, whereby the aural and the visual became synchronized. As Emily Thompson has argued ‘The technology of the talkies both culminated and celebrated the modern soundscape [...] for sound motion pictures gave voice [...] to modernity itself’ (Thompson 2002: 191). This passage also indicated according to some literary critics a

transition from a 'feminine' to a more 'masculine' form of cinema, with the aural being traditionally associated to a more feminine, and the visual a more masculine quality. In discussing Michelangelo Antonioni's film *Blow-Up* (1966), for instance, evolutionary psychologist Kirley uses a semiotic analysis according to which women tend to use voice and silence as a metaphor for knowing (and in general the categories they tend to use come from speaking and listening) rather than seeing, which is more connected to men (Kirley 1995: 449). As the metaphors for knowing that are based on sound and ear are becoming more and more common (Kirley quotes points of view being called 'voices', exchanges of ideas being called 'dialogues', and the more and more common use of the phrase 'I hear you', meaning understanding) this implies a certain feminization of the semiotics of everyday communication (Kirley 1995: 449). In a famous essay with the telling title 'The Film Gone Male' Virginia Woolf's friend Dorothy Richardson indeed aligned silent film with an essentially female quality which, she claimed, the coming of sound brought to an end, introducing 'masculinity' instead (Richardson 1932).

BUILDINGS

In the section on Maps and Site Plans, the bakery of Konstandinidis was introduced as a recollection of an early-morning multisensory experience of a young boy whose bedroom was located right above it, at the same building. This memory commences sonically with the noise made by the bakers, followed by their political songs reaching the author's pillow as a hum, and finally the sound of the engines turning on. Then the hearing experience is transformed into a bodily experience, as the engines' vibrations resonated through the building structure, reaching the bed of the author. Although architectural features are hardly implied in this description one gets a sense that this is, at least, a two-story building that hosted a professional premise on its ground level and a family house on top of it. This might be a major cliché with regard to contemporary architectural thought, yet this example advocates that there is more in a building than its structures and materials. This section, attempts to highlight these aspects that are related to the sensory study of buildings, particularly their sound dimension. In broad terms, this section will be looking at buildings as 'sound-devices', that is as build structures that contain, among other things, sound (Smith 1999: 206), as well as the ways we perceive buildings through hearing.

Back to the young boy's recollection of the bakery, the narrative focuses on its inside, that is on the very activities a bakery hosts. The process of making bread in the context of a small or medium bakery business is a product of coordination of human and mechanical labor that, by definition, involves sonorous activities. The sound of workers' songs and the noise of the machinery are certainly not what defines a bakery, yet they are there inhabiting its inside and forming the everyday soundscape of this space that functions as soundmark of the very process of bread-making. By contrast to the daily sonic imprint of a bakery, sound in theatres and concert halls is intentionally produced and listened to when it is framed as such, i.e. framed as a performance or concert. One should not forget though that the theatre and the concert hall buzz with all sorts of other sounds too (restoration works, cleaning, porters, etc.). Bruce Smith with reference to the South Bank theatres observes that:

Theatres were built not to display but to contain. Inside, not outside, provided their very reason for being. What theatres contained, most obviously was spectacle [...] What the theatre contains, less obviously, was sound [...] The South Bank amphitheatres were, in fact, instruments for producing, shaping and propagating.

(Smith 1999: 206)

Besides content and intentionality, bakeries and theatres share the fact that they are 'sound containers' and as such they offer the possibility to be perceived by humans through the sense of hearing.

Buildings hosting spectacles, like theatres or concert halls, are evidently prevalent in the sound studies literature. Although approaches vary considerably, yet most studies, in one way or another, address the interrelation of the physical and material aspect of buildings to sound practices hosted in it, and the transformation of this relation in time with reference to those social aspects that shape it. Bruce Smith, for instance, compares the Globe as sound-producing device with the human body and theatrical sound with vocal sound. These comparisons are made in relation to building materials and the size and shape of the space (ibid.: 208-9). His analysis aims to reconstruct the auditory culture hosted by sixteenth-century London theatres. Along the same lines, following the transition from private concerts to the opera house in Paris, James Johnson attempts a cultural history of listening exploring the rise of individual experience at the Opéra and the formation of single musical public (1995: 92). In tracing the emergence of attentive listening within the opera house, Johnson offers an insightful analysis on the thin line between the stage and the hall and the shift of audience attention from equally divided between the two—the stage and the hall—towards the spectacle (ibid.: 49). This is a history of the auditory experience as 'contained' within the actual space of the opera house.

The reformulation of the relationship between sound and space with regard to the physical and cultural changes imposed by modernity is extensively treated by Emily Thompson (2002) in her seminal study *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900-1933*. Thompson, focuses on a

period marked by the inauguration of two music halls in New York, namely the Symphony Hall, on 15 October 1900, and the Radio City Music Hall, on 27 December 1932. At the center of Thompson's study are the politics of technology (sound-absorbing building materials and electroacoustic devices) with regard to claims over the control of sound (ibid.: 2). In this history of the modern music hall, aural culture becomes the field of negotiation between notions of modernity, such as control and efficiency, architectural acoustics and electroacoustics, and American social life (ibid.: 315).

Yet, how is one to study this complex relationship between space, materials and sound, particularly when the last has a while ago 'melted into air'? Emily Thompson offers a methodological kick-off towards the archaeology of buildings' soundscapes:

But if most sounds of the past are gone for good, they have nonetheless left behind a rich record of their existence in the artifacts, the people, and the cultures that once brought them forth. By starting here, with the solidity of technological objects and the material practices of those who designed, built, and used them, we can begin to recover the sounds that have long since melted into air. Along with those sounds, we can recover more fully our past.

(Thompson 2002: 12)

Although the above remark seems to be more applicable to the modern era which leaves behind relatively rich documents and other remnants of its sound practices, studies like that by Alain Corbin (1998) on the church bell of France, or Bruce Smith (1999) mentioned earlier have demonstrated the depth of research inquiry that one can pursue with much more elliptical sources.

In the course of this section on Research Methodologies and Sources, buildings have already been discussed as archives of their own social practices and as part of syneesthetic processes of perception. A further exemplary case of employing ethnography of sound as a method in the study of a specific building is featured in our web-based pilot mapping application on the Yeni Cami – Old Archaeological Museum in Thessaloniki. In this application, one can follow in detail the stages of bringing together an array of diverse material in order to narrate its history from the point of view of sound. This is achieved through the thorough documentation of all culturally constructed sound

practices contained within it: in other words, the study of its soundscape in historical perspective and a critical justification of the auditory culture that corresponds to this soundscape.

Student Task

Choose a particular period of the Yeni Cami in the pilot and navigate yourself through the various sonic options.

- Try and identify the type of sources used and classify them. How do they differ from each other?
- Compare your remarks on the sources of this period to those of another period. Which categories of sources exhibit continuity and which are replaced by others?

Choosing a Web Mapping Environment: Preconditions

As seen in the section entitled ‘**Web-based cartographic technologies...**’, there is a large number of free web mapping technologies already available online. Looking closely to the character of the proposed application, the needs of the potential users as well as the type and range of the primary data, it would be possible to identify a number of important factors in order to reach the proper mapping environment. Before that, pose and think the following:

Issues of Representation

Why did we choose to represent all data of the Yeni Cami Pilot on a digital web mapping environment?

- To experiment with alternative media, other than text, which forms the standard end outcome of ethnographic and historical research (see ‘Introduction: Sounding Out Sound’, pp. 60-63)
- Group activity: creating a map environment involves coordination and—with any luck—social interaction between the members of the team
- It also engages the team in a more ‘sensory’ activity in relation to sitting in front of a desk and writing an essay or ethnographic report
- Hopefully, it leads the research team (students/teacher) to reflect on the increased possibilities of such media (in relation to the text) for a multisensory representation
- At the same time, it leads students/teacher to reflect on the constraints that such media technologies impose upon the full sensorium

Student task: An exercise in reflexivity

Having familiarized yourself by now with the *Learning Culture through City Soundscapes* Pilot, reflect on the pros and cons of using the particular format for a sensory study. In which ways is it better suited and in which ways less suited than a text? Can you think of ways to make our Pilot more sensitive to the representation of the full sensorium? Can you think of alternative formats/media that would be even more suitable in this respect?

Characteristics and complexity of the primary data

We could classify the data as spatial, temporal and thematic. The broad category of thematic data includes:

- Textual information,
 - Historical archives
 - Legal documents
 - Memoires
 - ...
- Sounds
 - Fieldwork recordings
 - Oral testimonies (recorded)
 - Commercial music recordings
 - ...
- Still images
 - Paintings
 - Postcards
 - Photographs
 - ...
- Moving images
 - Newsreels
 - Documentaries
 - Films
 - ...

Background maps of the area of interest form the main *spatial data* of a project. The juxtaposition of these maps will help in the understanding of the changes in urban space effected over a broad period of time.

Each of the above thematic information is linked to specific spatial entities such as a building or an open space, or even broader entities like the city. In this way, it is possible to explore the characteristics of any spatial entity of interest or identify the spatial reference and extent of abstract information (such as an image or sound).

Each piece of information is also linked to a certain period of time. In other words, each thematic information and spatial entity is time-stamped, i.e. it is assigned with a temporal value like a certain date (if known) or a historical period (i.e. Ottoman period). Therefore, the proposed interface offers to the user the ability to navigate through time, exploring the structural changes of the city landscape.

Concluding, the effective incorporation of all this variant textual, audio-visual, spatial, and temporal information within the mapping environment forms the first important factor to be considered.

The potential users

The suggested user groups placed in the center of the whole design process, with the proposed cartographic environment shaped according to their requirements and needs are university students in the fields of ethnomusicology, anthropology, cultural history etc. This target group presents a low level of expertise regarding the usage of sophisticated geographical systems as well as a low level of familiarity with digital mapping terminology. For this reason, any proposed mapping environment should promote interactivity in exploring the variant information, enabling the users' easy navigation, through comprehensive tools and familiar terminology.

Our criteria in choosing an application for *Learning Culture through City Soundscapes*

Some important aspects of *Learning Culture through City Soundscapes* are stated below, forming a number of important factors that should be also taken into account while examining the potential solutions for the current context.

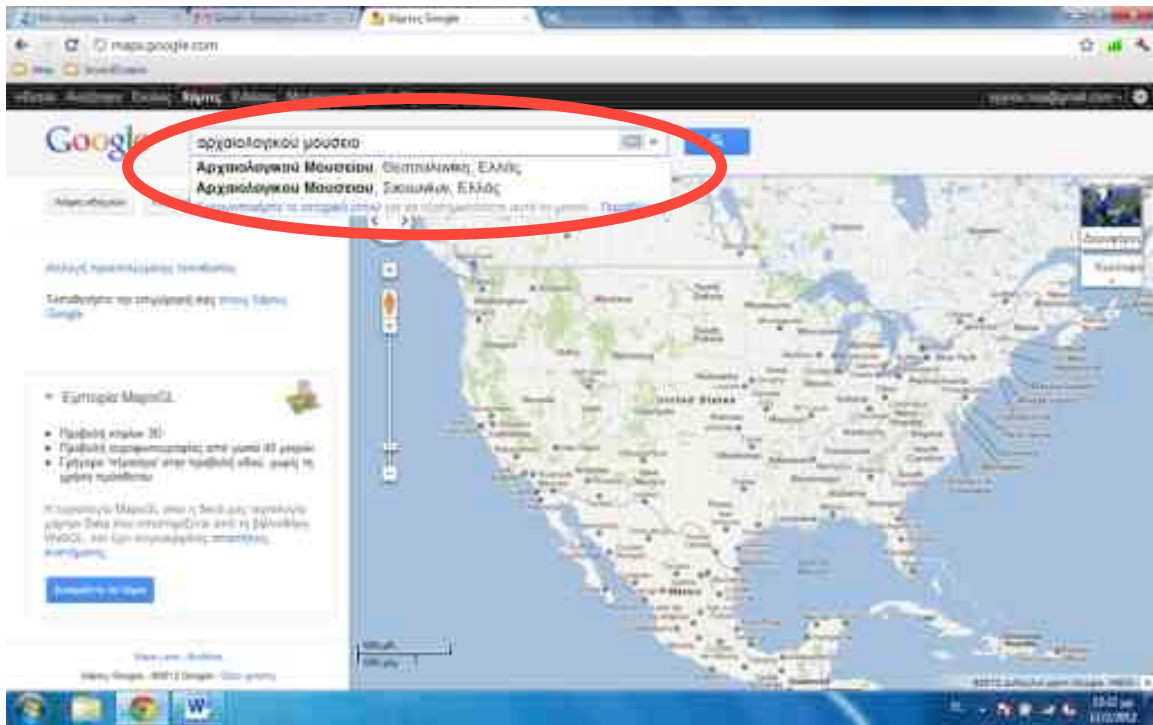
- The application will be Web based—enabling the free access through web, following the current trends of publishing and accessing data and promoting the establishment of communities interested in investigating city’s sound history.
- The whole design process should be cost effective in terms of money, design time and training time. All technologies, tools or software to be used should be freeware or open-source.
- Designing the environment from scratch is not considered reliable as the necessary design period would extend the limits of the *Learning Culture through City Soundscapes*, presupposing also a period of usability testing.
- The application focuses on visualizing broad and variant spatio-temporal and audio-visual information. Although maps will form the backbone of the application, there is no need for a fully spatially oriented design, as the users are not interested in spatial analytics such as keeping coordinate tracks, measuring distances, treating with spatial features geometries etc. Design should contribute more to alternative ways of representing and correlating the variant data in both axes of space and time.

In summary, the web mapping technology suitable for the propose of *Learning Culture through City Soundscapes* should:

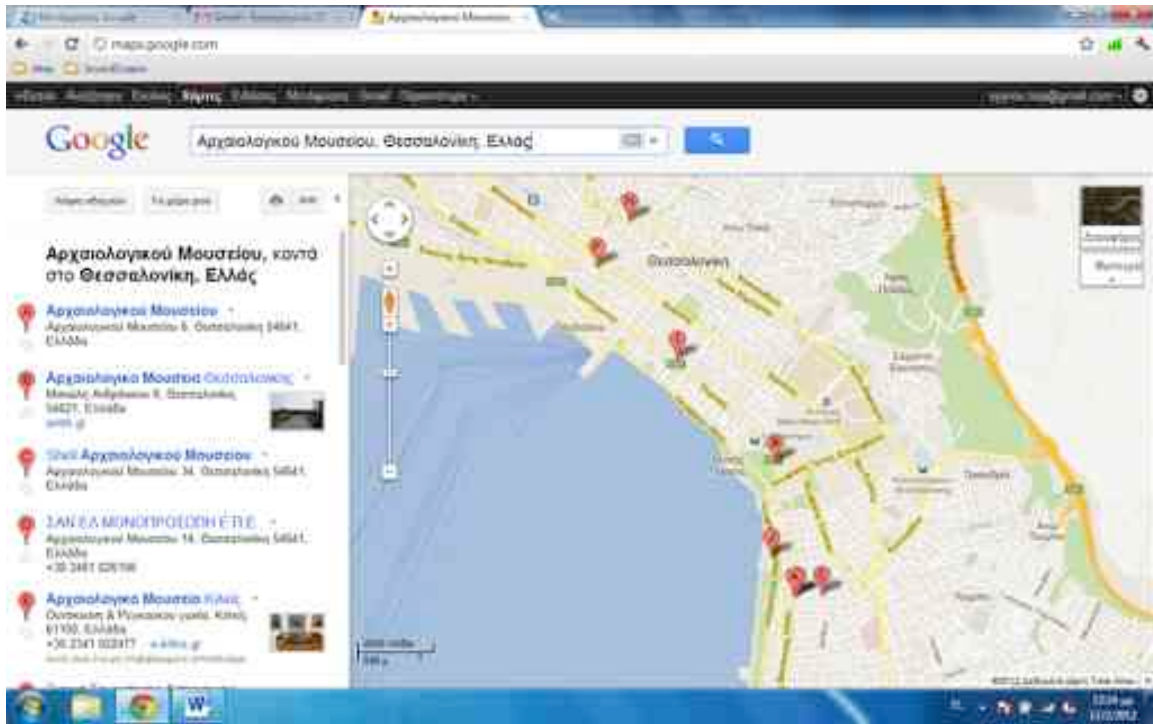
- Effectively incorporate textual and audiovisual information
- Provide average to high level of interactivity
- Be relatively simple in navigating through information, space and time
- If possible, provide tools for exploitation of temporal aspects of data
- Be tested in relation to the management of cultural information

Setting up a Basic Web Mapping Service: *GoogleMaps*

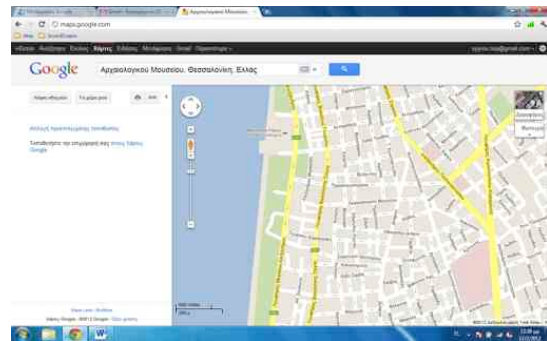
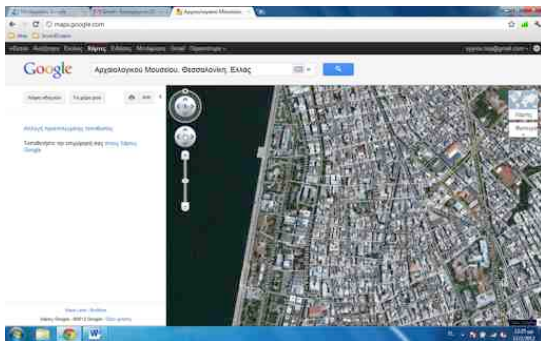
Let us have a closer look at GoogleMaps, as a typical and popular example of such services: Google Maps operates much like Google's search engine, in that a single input field is presented that requires simple keywords.



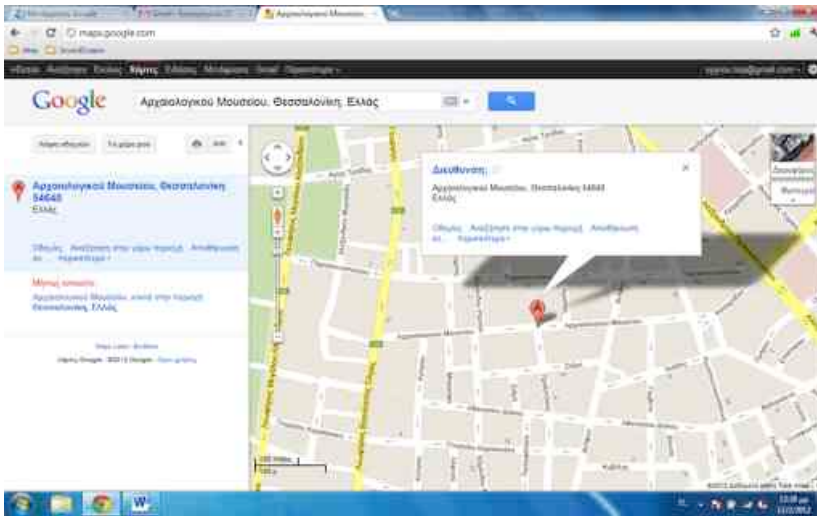
User-supplied keywords are processed and out comes an appropriate mapped set of results (Miller 2006).



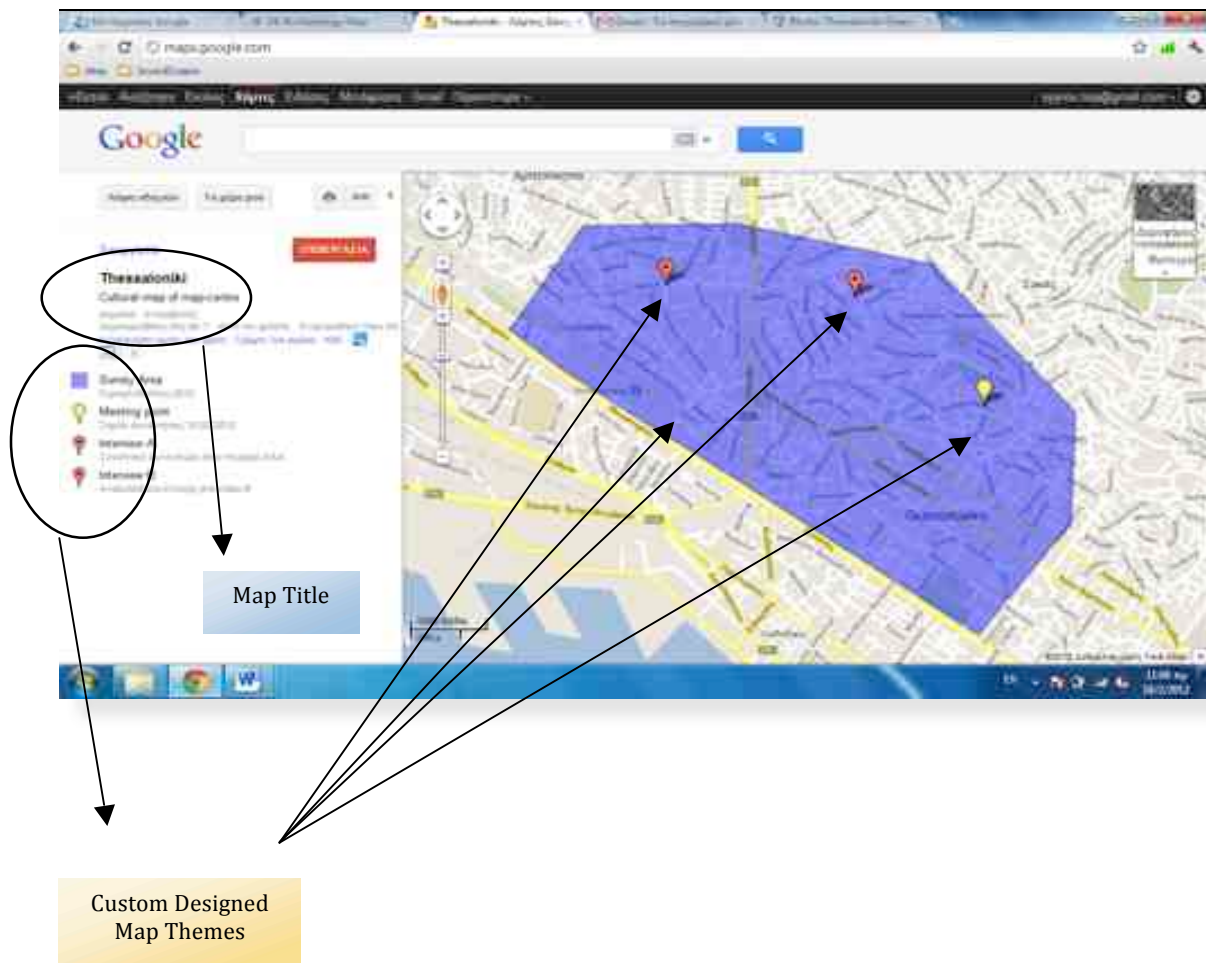
The resulting map can have different kinds of base data turned on and off. This is limited to three choices: digital *orthophotos*, symbolized street maps and a hybrid of the two.



Query's pick list are plotted on the top of these base map layers, in the form of point markers. When one of these results (points on map screen) is clicked, a small attribute box pops up, revealing additional information, as well as directions from or towards that point.



The maps can be personalized by employing the same background base maps (satellite, hybrid, terrain etc.) but additionally highlighting places, adding points, sketching routes or areas.



Teaching Resources

Online Resources

National Recording Preservation Board of the Library of Congress: Sound Recording Archives Links, <http://www.loc.gov/rr/record/nrpb/nrpb-archives.html>

National Recording Preservation Board of the Library of Congress: Other Archives (more extensive list): <http://www.loc.gov/rr/record/nrpb/nrpb-OTHERARCHIVES.html>

Online Library of the WFAE (includes an article and bibliography collection and an online collection of video titles), <http://wfae.proscenia.net/library/index.html>

Soundscape: The Journal of Acoustic Ecology,
<http://wfae.proscenia.net/journal/index.html>

Sensing the City: Sensuous Explorations of the Urban Landscape (Lectures presented at the Canadian Centre for Architecture, 2005 and Bibliography)
<http://www.david-howes.com/senses/sensing-the-city-index.htm>

Sensory Studies (includes up-to-date list of Books of Note, Sensory Curricula, etc)
<http://www.sensorystudies.org/>

The Concordia Sensoria Research Team (CONSERT)/ Concordia University Montreal Canada (Research on the cultural life of the senses since 1988) <http://www.david-howes.com/senses/>

The Senses and Society (Journal edited by Michael Bull, Paul Gilroy, David Howes, Douglas Kahn)
<http://www.bergpublishers.com/BergJournals/TheSensesSociety/tabid/523/Default.aspx>

World Forum for Acoustic Ecology (WFAE), <http://wfae.proscenia.net>

World Soundscape Project, <http://www.sfu.ca/~truax/wsp.html>

Indicative Research Projects on City Soundscapes

The Purdue Soundscape Ecology Project

<http://1159sequoia05.fnr.purdue.edu/>

Soundcities

<http://www.soundcities.com/info.php>

Soundscapes Rostock

<http://www.soundscapesrostock.de/?q=home>

The Listening Room. Modern adventures in listening

http://www.frakture.org/listeningroom/soundwalk_1.htm

City Soundscapes - A Sound Workshop at the Center of Contemporary Art – Tbilisi

http://sv-se.facebook.com/note.php?note_id=167880136608835&comments

Bibliography

References

- Aksoy, Bülent. 1985. 'Tanzimat'tan Cumhuriyet'e Musiki ve Batılılaşma'. In *Tanzimat'tan Cumhuriyet'e Türkiye Ansiklopedisi*, 1211–1136. Istanbul: İletişim Yayınları.
- Anastassiadou, Meropi. 1997. *Salonique 1830–1912: Une ville ottomane à l'âge des Réformes*. Leiden: E. J. Brill.
- Axel, Brian Keith, ed. 2002. *From the Margins: Historical Anthropology and Its Futures*. Durham N.C.: Duke University Press.
- Barnard, Alan and Jonathan Spencer, eds. 2002. *Encyclopedia of Social and Cultural Anthropology*. London and New York: Routledge.
- Benjamin, Walter. 1999a. 'The Work of Art in the Age of Mechanical Reproduction'. In *Illuminations*, edited by Hannah Arendt, 211–44. London: Pimlico.
- _____. 1999b. *The Arcades Project*. Translated by Howard Eiland and Kevin McLaughlin. Cambridge MA and London: The Belknap Press of Harvard University Press.
- _____. 1999c. 'The Return of the Flaneur'. In *Selected Writings, 1927-1934 (Vol II, part I)*, edited by Michael W. Jennings, Howard Eiland and Gary Smith, 262-7. Cambridge: The Belknap Press.
- Born, Georgina. 2005. 'On Musical Mediation: Ontology, Technology and Creativity'. *Twentieth-century Music* 2(1): 7–36.
- Boyer, Christine. 1996. *City of Collective Memory. Its Historical Imagery and Architectural Entertainments*. Cambridge MA: MIT Press.
- Bracewell, Wendy and Alex Drace-Francis, eds. 2013. *Where to Go in Europe. A Garland of Travellers' Toilet Papers*. London: University College London.
- Brinkhurst, Emma. 2012. 'Archives and Access: Reaching out to the Somali community of London's King's Cross'. *Ethnomusicology Forum* 21(2): 243-58.
- Bull, Michael. 2004. 'Thinking about Sound, Proximity, and Distance in Western Experience: The Case of Odysseus's Walkman'. In *Hearing Cultures. Essays on Sound, Listening, and Modernity*, edited by Veit Erlmann, 173-90. Oxford and New York: Berg.
- Burgess, E. W. 2002[1925]. 'The Growth of the City: An Introduction to a Research

- Project'. In *The City Reader* edited by Richard T. LeGates and Frederic Stout, 2nd ed. 153–163. London: Routledge.
- Burke, Peter. 2008. *What is cultural history?* Cambridge and Malden MA: Polity Press.
- _____. 2001. *Eyewitnessing. The Uses of Images as Historical Evidence*. London: Reaktion Books.
- Carter, Paul. 1992. *The Sound in Between: Voice, Space, Performance*. Kensington, NSW: New South Wales University Press.
- Castells, Manuel. 1996. *The Rise of the Network Society*. Oxford: Blackwell.
- Chanan, Michael. 1995. *Repeated Takes: A Short history of Recordings and its Effects on Music*. London: Verso.
- Chateaubriand, F. A. 1818. *Travels in Greece, Palestine, Egypt, and Barbary, during the years 1806 and 1807*, translated by Frederic Shoberl. Philadelphia: Moses Thomas.
- Clarke, Eric F. 2007. 'The Impact of Recording on Listening'. *Twentieth-century music* 4(1): 47-70.
- Classen, Constance. 1993. *Worlds of Sense: Exploring the Senses in History and Across Cultures*. London: Routledge.
- Classen, Constance, David Howes, and Anthony Synnott. 1994. *Aroma: The Cultural History of Smell*. London and New York: Routledge.
- Clayton, Martin. 1996. 'Ethnographic Wax Cylinders at the British Library National Sound Archive: A Brief History and Description of the Collection'. *British Journal of Ethnomusicology* 5: 67-92.
- Comaroff, John and Comaroff Jean 1992. *Ethnography And The Historical Imagination*, (Studies in the Ethnographic Imagination). Boulder: Westview Press.
- Connor, Steven. 2000. *Dumbstruck: a Cultural History of Ventriloquism*. Oxford and New York: Oxford University Press.
- Cook, David A. 1996. *A History of Narrative Film*. New York: W. W. Norton & Co Inc.
- Corbin, Alain. 1998. *Village Bells: Sound and Meaning in the 19th-century French Countryside*. Translated from French by Martin Thorn. New York: Columbia University Press.
- _____. 1994. *Les Cloches de la Terre: Paysage Sonore et Culture dans les Campagnes au XIXe Siècle*. Paris: A. Michel.

- _____. 1986. *The Foul and the Fragrant. Odor and the French Social Imagination*. Leamington Spa: Berg.
- _____. 1995. *Time, Desire and Horror: Towards a History of the Senses*. Translated from French by Jean Birrell. Cambridge: Polity Press.
- Cooley, Timothy J. and Gregory Barz. 2008. 'Casting Shadows: Fieldwork is Dead! Long Live Fieldwork!'. In *Shadows in the Field. New Perspectives for Fieldwork in Ethnomusicology*, edited by Gregory Barz and Timothy J. Cooley, 2nd ed., 3-24. Oxford and New York: Oxford University Press.
- de Certeau, Michel. 1984. *The Practice of Everyday Life*. Berkeley: University of California Press.
- Delaney, Carol Lowery. 1991. *The Seed and the Soil: Gender and Cosmology in Turkish Village Society*. Berkeley: University of California Press.
- _____. 1990. 'The Hajj: Sacred and Secular'. *American Ethnologist* 17(3): 513-30.
- Demitriades, Vasilis. 1983. *Topografia tis Thessalonikis kata tin tourkokratia 1430-1912*. Thessaloniki: Etaireia Makedonikon Spoudon.
- Denney, Peter. 2011. 'Looking back, groping forward: rethinking sensory history'. Review Essay. *Rethinking History* 15(4): 601-16.
- Denzin, Norman K. 2003. *Performance Ethnography: Critical Pedagogy and the Politics of Culture*. Thousand Oaks CA; London; New Delhi: Sage.
- Dirks, Nicholas B. 2002. 'Annals of the Archive: Ethnographic Notes on the Sources of History'. In *From the Margins: Historical Anthropology and Its Futures*, edited by Brian Keith Axel, 47-65. Durham, NC: Duke University Press.
- _____. 1993. 'Colonial Histories and Native Informants: Biography of An Archive'. In *Orientalism and the Postcolonial Predicament: Perspectives on South Asia*, edited by Carol A. Breckenridge and Peter van der Veer, 279-213. Philadelphia: University of Pennsylvania Press.
- Dumont, Paul. 1994. 'Ta gallika pano ap'ola'. In *Thessaloniki, 1850-1918: i 'poli ton Evraion' kai i afypnisi ton Valkanion*, edited by Gilles Veinstein, 225-44. Athens: Ekati.
- Edmonson, Ray. 2004. *Audiovisual Archiving: Philosophy and Principles. Commemorating the 25th anniversary of the UNESCO Recommendation for the Safeguarding and Preservation of Moving Images*. Paris: United Nations Educational, Scientific and Cultural Organization.
- Eickelman, Dale F. 1978. 'The Art of Memory: Islamic Education and Its Social

- Reproduction'. *Comparative Studies in Society and History* 20(4): 485 – 516.
- Elsaesser, Thomas. 'Film, History and Visual Pleasure: Weimar Cinema'. In *Cinema Histories, Cinema Practices*, edited by P. Mellencamp and P. Rosen, 47-84. Frederick, MD: UPA.
- Erlmann, Veit, ed. 2004a. *Hearing Cultures. Essays on Sound, Listening, and Modernity*. Oxford and New York: Berg.
- _____. 2004b. 'But What of the Ethnographic Ear? Anthropology, Sound, and the Senses'. In *Hearing Cultures. Essays on Sound, Listening, and Modernity*, edited by Veit Erlmann, 1-20. Oxford and New York: Berg.
- Faroqhi, Suraiya. 2005. *Subjects of the Sultan: Culture and Daily Life in the Ottoman Empire*. London and New York: I.B. Tauris.
- Feld, Steven and Donald Brenneis. 2004. 'Doing Anthropology in Sound'. *American Ethnologist* 31(4): 461-74.
- Feld, Steven. 1996. 'Waterfalls of Song: An Acoustemology of Place Resounding in Bosavi, Papua New Guinea'. In *Senses of Place*, edited by Steven Feld and Keith Basso, 91-135. Santa Fe: School of American Research Press.
- _____. 1988. 'Aesthetics as Iconicity of Style, or, "Lift-Up-Over Sounding," Getting into the Kaluli Groove'. *Yearbook for Traditional Music* 20: 74–113.
- _____. 1982. *Sound and Sentiment: Birds, Weeping, Poetics and Song in Kaluli Expression*. Philadelphia: University of Pennsylvania Press.
- Ferro, Marc. 1988. *Cinema and History*. Detroit: Wayne State University.
- _____. 2001. *Cinema and History*. Greek edition. Athens: Metaichmio.
- Finnegan, Ruth. 1992. *Oral Traditions and the Verbal Arts: A Guide to Research Practices*. London and New York: Routledge.
- _____. 1989. *The Hidden Musicians: Music-Making in an English Town*. Cambridge: Cambridge University Press.
- Fogli, Daniela and Giaccardi, Elisa. 2008. 'Capturing and Sharing Sonic Experiences through Web-based Acoustic Maps.' *DMS*, Knowledge Systems Institute: 202-207.
- Fortna, Benjamin C. 2001. 'Education and Autobiography at the End of the Ottoman Empire'. *Die Welt des Islams New Ser.*, 41(1): 1–31.
- Foucault, Michel. 1969. *L'Archéologie du Savoir*. Paris: Gallimard.

- Garrioch, David. 2003. 'Sounds of the City: The Soundscape of Early Modern European Towns'. *Urban History* 30(1): 5-25.
- Geertz, Clifford. 1976. 'Art as a Cultural System'. *Comparative Literature* 91(6): 1473-1499.
- Gennep, Arnold Van. 1909. *The Rites of Passage*. London: Routledge and Kegan Paul.
- Guide de Salonique*. 1918. Thessaloniki: Radium.
- Goodchild, Michael F. 2007. *Citizens as sensors: the world of volunteered geography*. *GeoJournal* 69(4): 211-221. Reprinted in M. Dodge, R. Kitchin, and C. Perkins, editors, *The Map Reader: Theories of Mapping Practice and Cartographic Representation*, 370–378. Hoboken, NJ: Wiley.
- Goff, A. and Hugh A. Fawcett. 1921. *Macedonia. A Plea for the Primitive*. London: John Lane and Bodley Head.
- Grele, Ronald J. 'Notes On Sound in Oral History', unpublished manuscript, courtesy of the author.
- Grele, Ronald J. 1998. 'Movement without aim. Methodological and theoretical problems in oral history'. In *The Oral History Reader*, edited by Robert Perks and Alistair Thomson, 38-52. London and New York: Routledge.
- Gronow, Pekka. 1981. 'The Record Industry comes to the Orient'. *Ethnomusicology* 25(2): 251-84.
- Gupta, Akhil and James Ferguson. 1997. 'Culture, Power, Place: Ethnography at the End of an Era'. In *Culture, Power, Place: Explorations in Critical Anthropology*, edited by Akhil Gupta and James Ferguson, 1-29. Durham and London: Duke University Press.
- Guyon, Robert. 2012. *Salonique, mon amour. Lettres de l'Armée d'Orient mars 1916-aout 1917*. Paris: Société des Écrivains.
- Habermas, Juergen. 1991. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Analysis*. Cambridge MA: MIT Press.
- Haklay M., Singleton A., Parker C. 2008. 'Web Mapping 2.0: The Neogeography of the GeoWeb'. *Geography Compass* 2(6): 2011-39.
- Hansen, Miriam. 1994. *Babel and Babylon: Spectatorship in American Silent Film*. Cambridge MA: Harvard University Press.
- Hamilakis, Yannis. 2007. *The Nation and its Ruins: Antiquity, Archaeology, and National Imagination in Greece*. Oxford: Oxford University Press.

- Hannerz, Ulf. 1980. *Exploring the City: Inquiries Toward an Urban Anthropology*. New York: Columbia University Press.
- Hoffer, Peter Charles. 2003. *Sensory worlds in early America*. Baltimore: John Hopkins University Press.
- Howes, David. 2003. *Sensual Relations: Engaging the Senses in Culture and Social Theory*. Ann Arbor, MI: University of Michigan Press.
- _____. ed. 1991. *The Varieties of Sensory Experience: A Sourcebook in the Anthropology of the Senses*. Toronto: University of Toronto Press.
- Johnson, James H. 1995. *Listening in Paris: A Cultural History*. Berkeley: University of California Press.
- Kahn, Douglas. 2005. 'Digits on the Historical Pulse, Being a Way to Think About How so Much is Happening and has Happened in Sound in the Arts'. Programmatic Key Text for *Refresh! First International Conference on the Histories of Media Art, Science and Technology* (Sept. 28 - Oct. 3, 2005), www.mediaArtHistory.org/ (accessed 10 December 2012).
- Kallimopoulou, Eleni. 2007. "MySpace": Tracing the Electronic Musical Geographies of Greek Paradosiaká'. Unpublished paper presented at the 'Ethnomusicology and the Culture Industries' Conference of the *British Forum for Ethnomusicology & the Centre for Contemporary Music Cultures*, Goldsmiths College.
- King, Norman. 1984. 'The Sound of Silents'. *Screen* 25(3).
- Kirley, Jacqueline P. 1995. 'Blow-Up: The "I" of the Camera' in *Psychoanalytic Review*, 82:443-453.
- Kittler, Friedrich A. 1999. *Gramophone, film, typewriter*. Stanford, CA: Stanford University Press.
- Kolonas, Vasilios. 1993. *I ektos teichon epektasi tis Thessalonikis. Eikonografia tis Synikoias Hamidie (1885-1912)*. Doctoral Dissertation. Thessaloniki: Aristotle University.
- Kolonas, Vasilios, Lena Papamatthaiaki. 1980. *O architectonas Vitaliano Poselli. To ergo tou sti Thessaloniki tou 19ou aiona*. Thessaloniki.
- Kracauer, Siegfried. 2004[1966]. *From Caligari to Hitler: A Psychological History of the German Film*. Princeton: Princeton University Press.
- _____. 1998. *Theory of Film: The Redemption of Physical Reality*. Princeton: Princeton University Press.

- Lambrinos, Fotos. 2005. *Ishys mou i Agapi tou Fakou*. Athens: Kastaniotis.
- Landau, Carolyn and Janet Topp Fargion. 2012. 'We're all Archivists Now: Towards a more Equitable Ethnomusicology'. *Ethnomusicology Forum* 21(2): 125-40.
- Lane, Edward W. 1981[1836]. *Manners and Customs of the Modern Egyptians*. London: East-West Publications.
- Lapham, Lewis Henry. 1997. 'Introduction'. In *Understanding Media. The Extensions of Man* by Marshall McLuhan, ix-xxiii. Cambridge MA and London: MIT Press.
- Lee, Tong Soon. 1999. 'Technology and the Production of Islamic Space: The Call to Prayer in Singapore'. *Ethnomusicology* 43(1): 86-100.
- Low, Setha M. and Denise Lawrence-Zuniga. 2003. 'Locating Culture'. In *The Anthropology of Space and Place: Locating Culture*, edited by Setha M. Low and Denise Lawrence-Zuniga, 1-47. Malden MA and Oxford: Blackwell.
- Lysloff, René and Leslie Gay. 2003. 'Introduction: Ethnomusicology in the Twenty-first Century'. In *Music and Technoculture*, edited by René Lysloff and Leslie Gay, 1-22. Middletown CT: Wesleyan University Press.
- Manuel, Peter. 1991. 'The Cassette Industry and Popular Music in North India'. *Popular Music* 10(2): 189-204.
- Mark Mazower. 2005. *Salonica, City of Ghosts. Christians, Muslims and Jews 1430-1950*. London: Harper Perennial.
- McLuhan, Marshall. 1997[1964]. *Understanding Media. The Extensions of Man*. Cambridge MA and London: MIT Press.
- _____. 1962. *The Gutenberg Galaxy. The Making of Typographic Man*. Toronto: University of Toronto Press.
- Miles, Malcolm and Tim Hall. 2004[2000]. 'Introduction to Part One'. In *The City Cultures Reader*, edited by Malcolm Miles, Tim Hall, and Iain Borden, 7-11. London and New York: Routledge.
- Miller Frank, Felicia. 1995. *The Mechanical Song: Women, Voice, and the Artificial in Nineteenth-century French Narrative*. Stanford CA: Stanford University Press.
- Miller, Christopher C. 2006. 'A Beast in the Field: The Google Maps Mashup as GIS/2'. *Journal Cartographica: The International Journal for Geographic Information and Geovisualization* 41(3): 187-199.
- Morris, Adalaide Kirby. 1997. *Sound States: Innovative Poetics and Acoustical Technologies*. Chapel Hill: University of North Carolina Press.

- 'National Sound Archive'. n.d. *Grove Music Online*. *Oxford Music Online*. <http://www.oxfordmusiconline.com/subscriber/article/grove/music/04012> (accessed 22 November 2012)
- Nora, Pierre. 1989. 'Between Memory and History: Les Lieux de Mémoire'. *Representations* 26: 7-24.
- Ong, Walter J. 1982. *Orality and Literacy. The Technologizing of the Word*. London and New York: Routledge.
- _____. 1965. 'Oral Residue in Tudor Prose Style'. *Publications of the Modern Language Association of America* 8(3): 145-54.
- Panopoulos, Panayotis. 2005. *Apo ti Mousiki ston Iho*. Athens: Alexandria.
- Papailias, Penelope. 2005. *Genres of Recollection. Archival Poetics and Modern Greece*. New York: Palgrave Macmillan.
- Picker, John M. 2003. *Victorian Soundscapes*. New York: Oxford University Press.
- Pink, Sarah. 2009. *Doing Sensory Ethnography*. London: Sage.
- _____. 2006. *The Future of Anthropology. Engaging the Senses*. London and New York: Routledge.
- Popescu-Judetz, Eugenia. 1996. *Meanings in Turkish Musical Culture*. Istanbul: Pan Yayıncılık.
- Portelli, Alessandro. 1990. *The Death of Luigi Trastulli, and Other Stories: Form and Meaning in Oral History*. SUNY Series in Oral and Public History. Albany NY: State University of New York Press.
- Post, Jennifer and David A. Thresher. n.d. 'Sound archives'. *Grove Music Online*. *Oxford Music Online*. <http://www.oxfordmusiconline.com> (accessed 22 November 2012).
- Poulos, Panagiotis C. 'Smyrnaïika'. In *Encyclopedia of Popular Music of the World, Part 3: Genres*, edited by John Shepherd, David Horn and Dave Laing. Continuum (forthcoming, 2013).
- _____. 2011. 'Rethinking Orality in Turkish Classical Music: A Genealogy of Contemporary Musical Assemblages'. *Middle East Journal of Culture and Communication* 4: 164–83.
- Prouty, Kenneth E. 2006. 'Orality, Literacy, and Mediating Musical Experience: Rethinking Oral Tradition in the Learning of Jazz Improvisation'. *Popular Music and Society* 29(3): 317–34.

- Racy, A. J., 1976. 'Record industry and Egyptian traditional music: 1904-1932'. *Ethnomusicology* 20(1): 23-48.
- Rice, Timothy. 2008. 'Toward a Mediation of Field Methods and Field Experience in Ethnomusicology'. In *Shadows in the Field. New Perspectives for Fieldwork in Ethnomusicology*, edited by Gregory Barz and Timothy J. Cooley, 2nd ed., 42-61. Oxford and New York: Oxford University Press.
- Richardson, Dorothy. 1932. 'The Film Gone Male'. *Close-Up*, 9(1): 36-38.
- Roseman, Marina. 1991. *Healing Sounds from the Malaysian Rainforest*. Berkeley: University of California Press.
- Rosenstone, Robert. 1998. *Visions of the Past. The Challenge of Film To Our Idea of History*. Cambridge MA: Harvard University Press.
- Sabanopoulou, Lila. 2008. 'Yeni Cami (aka Old Archaeological Museum).' In *Ottoman Architecture in Greece*, edited by Ersi Brouskari, 226-8. Athens: Ministry of Culture – Directorate of Byzantine and Post-Byzantine Antiquities.
- Said, Edward. 1978. *Orientalism*. New York: Pantheon.
- Samuels, David W., Louise Meintjes, Ana Maria Ochoa and Thomas Porcello. 2010. 'Soundscapes: Toward a Sounded Anthropology'. *Annual Review of Anthropology* 39: 329-45.
- Sciaky, Leon. 2003. *Farewell to Salonica: City at a Crossroad*. Philadelphia, Pennsylvania: Paul Dry Books.
- Schafer, Murray R. 1994. *The Soundscape. Our sonic environment and the tuning of the world*. Rochester, VT: Destiny Books. Reissue of *The Tuning of the World*, 1977a. New York: Knopf.
- _____. ed. 1978a. *The Vancouver Soundscapes*. Book and audiocassettes. Vancouver: A.R.C. Productions.
- _____. ed. 1978b. *European Sound Diary*. Book and audiocassettes. Vancouver: A.R.C. Productions.
- _____. ed. 1977b. *Five Village Soundscapes*. Book and audiocassettes. Vancouver: A.R.C. Productions.
- _____. 1974. *The New Soundscape: a Handbook for the Modern Teacher*. Scarborough: Berandol Music Ltd.
- _____. 1970. *The Book of Noise*. Vancouver: Price Print.
- _____. 1969. *The New Soundscape; a Handbook for the Modern Music Teacher*. Don

- Mills, Ont., BMI Canada.
- Schick, Irvin Cemil. 2008. 'The Iconicity of Islamic Calligraphy in Turkey'. *Anthropology and Aesthetics* 53/54: 211-224.
- Selanik Vilâyeti Salnâmesi*. On Dokuz Defa. 1324 Sene-i Hicriyyesi (Salonica: Hamidiyye Mekteb-i Sanayii Matbaası), 1324/1906.
- Seremetakis, Nadia C., ed. 1994. *The Senses Still. Perception and Memory as Material Culture in Modernity*. Boulder: Westview Press.
- _____. 1993. 'The memory of the senses: historical perception, commensal exchange and modernity'. *Visual Anthropological Review* 9(2): 2-18.
- Shelemay, Kay Kaufman. 1991. 'Recording Technology, the Record Industry, and Ethnomusicological Scholarship'. In *Comparative Musicology and Anthropology of Music: Essays on the History of Ethnomusicology*, edited by Bruno Nettl and Philip V. Bohlman, 277-92. Chicago and London: The University of Chicago Press.
- Shiloah, Amnon. 1995. *Music in the world of Islam*. Aldershot: Scholar Press.
- Shuker, Roy. 2004. 'Beyond the "high fidelity" stereotype: defining the (contemporary) record collector'. *Popular Music* 23(3): 311-30.
- Simotas, Takis. 1997. *O Lakkos*. Athens: Agra.
- Smith, Bruce R. 2004. 'Listening to the Wild Blue Yonder: the Challenges of Acoustic Ecology'. In *Hearing Cultures. Essays on Sound, Listening, and Modernity*, edited by Veit Erlmann, 21-41. Oxford and New York: Berg.
- _____. 2002. 'How sound is sound history? A response to Mark Smith'. *Journal of the Historical Society* 2(3-4): 307-15.
- _____. 1999. *The Acoustic World of Early Modern England. Attending to the O-Factor*. Chicago: University of Chicago Press.
- Smith, Mark M. 2007. *Sensing the Past: Seeing, Hearing, Smelling, Tasting, and Touching in History*. Berkeley: University of California Press.
- _____. 2003. 'Making sense of social history'. *Journal of Social History* 37(1): 165-86.
- _____. 2001. *Listening to Nineteenth-Century America*. Chapel Hill: The University of North Carolina Press.
- _____. 2000. 'Listening to the Heard Worlds of Antebellum America'. *Journal of the Historical Society* 1: 65-99.
- Sorlin, Pierre. 1980. *The Film in History. Restaging the Past*. New York: Barnes & Noble.
- Staiger, Janet. 2001. 'Writing the History of American Film Reception' in *Hollywood*

- Spectatorship: Changing Perceptions of Cinema Audiences*, ed. Melvyn Stokes and Richard Maltby, 19-32. London: British Film Institute.
- Stavrides, Stavros. 2010. *Towards the City of Thresholds*. Trento: Professional Dreamers.
- Sterne, Jonathan. 2003. *The Audible Past: Cultural Origins of Sound Reproduction*. Durham: Duke University Press.
- Stoller, Paul. 1997. *Sensuous Scholarship*. Philadelphia: University of Pennsylvania Press.
- _____. 1989. *The Taste of Ethnographic Things: The Senses in Anthropology*. Philadelphia: University of Pennsylvania Press.
- Stoler, Ann Laura. 1992. 'In Cold Blood: Hierarchies of Credibility and the Politics of Colonial Narratives'. *Representations* 37: 151-89.
- Stout, Frederic. 2002[1999]. 'Visions of a New Reality: The City and the Emergence of Modern Visual Culture'. In *The City Reader* edited by Richard T. LeGates and Frederic Stout, 2nd ed., 143-147. London: Routledge.
- Street, Brian V. 1995. *Social Literacies: Critical Approaches to Literacy in Development, Ethnography and Education*. London: Longman.
- Thompson, Emily. 2002. *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900-1933*. Cambridge MA and London: MIT Press.
- Thompson, Paul. 2000. *The Voice of the Past. Oral History*. Oxford and New York: Oxford University Press.
- Tinayre, Marcelle. 2008. *A Summer in Salonica, April-September 1916*. Athens: Asini.
- Titon, Jeff Todd. 2008. 'Knowing Fieldwork'. In *Shadows in the Field. New Perspectives for Fieldwork in Ethnomusicology*, edited by Gregory Barz and Timothy J. Cooley, 2nd ed., 25-41. Oxford and New York: Oxford University Press.
- Todorova, Maria. 2009. *Imagining the Balkans*. Oxford and New York: Oxford University Press.
- Truax, Barry. 1996. 'Soundscape, Acoustic Communication and Environmental Sound Composition'. *Contemporary Music Review* 15(1-2): 49-65.
- _____. 1984. *Acoustic Communication*. Norwood, NJ: Ablex Publishing Corporation.
- _____. 1978. *The World Soundscape Project's Handbook for Acoustic Ecology*. Vancouver: A.R.C. Productions.

- Tsitselikis, Konstantinos. 2012. *Old and New Islam in Greece. From Historical Minorities to Immigrant Newcomers*. Leiden: Koninklijk Brill.
- Turner, Victor. 1977. *The Ritual Process*. Ithaca, NY: Cornell University Press.
- Vokotopoulou, Ioulia. 1986. 'Ta prota 50 chronia tis ephorias klassikon archaiotiton Thessalonikis'. In Proceedings of the Conference 'I Thessaloniki meta to 1912. Symposio' (Thessaloniki, 1-3 November 1985), 1-65. Thessaloniki: Municipality of Thessaloniki.
- Wong, Deborah. 1998. 'Ethnomusicology and Critical Pedagogy as Cultural Work: Reflections on Teaching and Fieldwork'. *College Music Symposium* 38: 80-100.
- _____. 2008. 'Moving: From Performance to Performative Ethnography and Back Again'. In *Shadows in the Field. New Perspectives for Fieldwork in Ethnomusicology*, edited by Gregory Barz and Timothy J. Cooley, 76-89. Oxford and New York: Oxford University Press.
- World Soundscape Project. 1974. *The Vancouver Soundscape*. Burnaby: Sonic Research Studio, Simon Fraser University.

Further Reading

- Adler, Guido. 1885. 'Umfang, Methode und Ziel der Musikwissenschaft'. *Vierteljahrschrift für Musikwissenschaft* 1: 5-20.
- Appadurai, Arjun. 1996. *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis: University of Minnesota Press.
- Attali, Jacques. 1985. *Noise: The Political Economy of Music*. Translated from French by Brian Massumi. Minneapolis: University of Minnesota Press.
- Augé, Marc. 1999. *An Anthropology for Contemporaneous Worlds*. Stanford: Stanford University Press.
- Austern, Linda Phyllis. 2002. *Music, Sensation, and Sensuality*. New York: Routledge.
- Baer, Marc David. 2004. 'The Double Bind of Race and Religion: The Conversion of the Dönme to Turkish Secular Nationalism.' *Comparative Studies in Society and History* 46(4): 678–712.
- _____. 1999. 'Revealing a Hidden Community: Ilgaz Zorlu and the Debate in Turkey Over the Dönme/Sabbateans.' *The Turkish Studies Association Bulletin* 23(1): 68–75.

- Barker, Jennifer M. 2009. *The Tactile Eye: Touch and the Cinematic Experience*. Berkeley: University of California Press.
- Basso, Ellen B. 1985. *A Musical View of the Universe*. Philadelphia: University of Pennsylvania Press.
- Baumann, Max Peter, ed. 1997. 'Cultural Concepts of Hearing and Listening'. A special issue of *The World of Music* 39(2). Berlin: VWB - Verlag für Wissenschaft und Bildung.
- Baumann, Max Peter and Linda Fujie, eds. 1999. 'Hearing and Listening in Cultural Contexts'. A special issue of *The World of Music* 41(1). Berlin: VWB - Verlag für Wissenschaft und Bildung.
- Bijsterveld, Karin. 2008. *Mechanical Sound: Technology, Culture, and Public Problems of Noise in the Twentieth Century*. Cambridge MA: MIT Press.
- Bohman, Philip V. 2008. 'Returning to the Ethnomusicological Past'. In *Shadows in the Field. New Perspectives for Fieldwork in Ethnomusicology*, edited by Gregory Barz and Timothy J. Cooley, 2nd ed., 246-70. Oxford and New York: Oxford University Press.
- Brady, Erika. 1999. *A Spiral Way: How the Phonograph Changed Ethnography*. Jackson: University Press of Mississippi.
- Bragg, Lois, ed. 2001. *Deaf World: A Historical Reader and Primary Sourcebook*. New York: New York University Press.
- Bull, Michael. 2007. *Sound Moves: iPod Culture and Urban Experience*. London and New York: Routledge.
- _____. 2001. 'Soundscapes of the Car: A Critical Ethnography of Automobile Habitation'. In *Car Cultures*, edited by D. Miller, 185–202. Oxford: Berg.
- _____. 2000. *Sounding Out the City: Personal Stereos and the Management of Everyday Life*. Oxford and New York: Berg.
- Bull, Michael and Les Back, eds. 2003. *The Auditory Culture Reader*. Oxford and New York: Berg.
- Cavallo, G. and R. Chartier, eds. 1999. *A History of Reading in the West*. Oxford: Polity Press.
- Chow, Rey and James Steintrager, eds. 2011. 'The Sense of Sound'. A special issue of *Differences: A Journal of Feminist Cultural Studies* 22(2/3). Duke University Press.

- Chudinova, I. 2007. 'Songs, bells, ritual. The topography of St. Peterburg's Ecclesiastical Musical Culture'. *Russian Studies in History* 45(3): 31-59.
- Chuengsatiansup, K. 1999. 'Sense, Symbol, and Soma: Illness Experience in the Soundscape of Everyday Life'. In *Culture, Medicine and Psychiatry* 23: 273-301.
- Classen, Constance. 1998. *The Color of Angels: Cosmology, Gender and the Aesthetic Imagination*. New York: Routledge.
- Classen, Constance and David Howes. 2006. 'The Sensescape of the Museum: Western Sensibilities and Indigenous Artifacts'. In *Sensible Objects: Colonialism, Museums and Material Culture*, edited by Elizabeth Edwards, Chris Gosden and Ruth B. Phillips, 199-222. Oxford: Berg Publishers.
- Cockayne, Emily. 2007. *Hubbub: Filth, noise and stench in England, 1600–1770*. New Haven and London: Yale University Press.
- Cohen, Sara. 1995. 'Sounding out the city: music and the sensuous production of place'. *Transactions of the Institute of British Geographers, New Series* 20(4): 434-46.
- Connor, Steven. 2000. *Dumbstruck: A Cultural History of Ventriloquism*. Oxford: Oxford University Press.
- Cooley, Timothy J. and Gregory Barz, eds. 2008. *Shadows in the Field. New Perspectives for Fieldwork in Ethnomusicology*. 2nd ed. Oxford and New York: Oxford University Press.
- Cooley, Timothy J., Katherine Meizel and Nasir Syed. 2008. 'Virtual Fieldwork. Three Case Studies'. In *Shadows in the Field. New Perspectives for Fieldwork in Ethnomusicology*, edited by Gregory Barz and Timothy J. Cooley, 2nd ed., 90-107. Oxford and New York: Oxford University Press.
- Cox, Christoph and Daniel Warner, eds. 2004. *Audio Culture: Readings in Modern Music*. New York: Continuum.
- Degen, Mónica Montserrat. 2008. *Sensing Cities: Regenerating Public Life in Barcelona and Manchester*. London and New York: Routledge.
- DeFazio, Kimberly. 2011. *The City of the Senses: Urban Culture and Urban Space*. New York: Palgrave Macmillan.
- Dillon, Emma. 2012. *The Sense of Sound: Musical Meaning in France, 1260-1330*. New York: Oxford University Press.
- Drobnick, Jim, ed. 2004. *Aural Cultures. Banff*. Alberta: YYZ Books/ Walter Phillips Gallery.

- Ergin, Nina. 2008. 'The Soundscape of Sixteenth-Century Istanbul Mosques: Architecture and Qur'an Recital'. *Journal of the Society of Architectural Historians* 67(2): 204-221.
- Erlmann, Veit. 2010. *Reason and Resonance: A History of Modern Aurality*. New York: Zone Books; Cambridge MA: Distributed by MIT Press.
- Feld, Steven. 1996. 'Pygmy POP: A Genealogy of Schizophonic Mimesis'. *Yearbook for Traditional Music* 28: 1-35.
- _____. 1994. 'From Ethnomusicology to Echo-Muse-Ecology: Reading R. Murray Schafer in the Papua New Guinea Rainforest'. *The Soundscape Newsletter* 8: 9-13.
- _____. 1987. 'Dialogic Editing: Interpreting how Kaluli Read Sound and Sentiment'. *Cultural Anthropology* 2(2): 190-210.
- Fox, Adam. 2000. *Oral and literate culture in England, 1500–1700*. Oxford: Oxford University Press.
- Gronow, Pekka and Ilpo Saunio. 1998. *An international history of the recording industry*. London and New York: Cassell.
- Harvey, David. 1990. *The Condition of Postmodernity*. Oxford: Blackwell.
- Helmreich, Stefan. 2007. 'An Anthropologist Underwater: Immersive Soundscapes, Submarine Cyborgs, and Transductive Ethnography'. *American Ethnologist* 34(4): 621-41.
- Hirschkind, Charles. 2006. *The Ethical Soundscape: Cassette sermons and Islamic counterpublics*. New York: Columbia University Press.
- _____. 2004. 'Hearing Modernity: Egypt, Islam, and the Pious Ear'. In *Hearing Cultures. Essays on Sound, Listening, and Modernity*, edited by Veit Erlmann, 131-151. Oxford and New York: Berg.
- _____. 2001. 'The Ethics of Listening: Cassette-Sermon Audition in Contemporary Egypt'. *American Ethnologist* 28(3): 623-49.
- Howes, David. 2009. *The Sixth Sense Reader*. Oxford: Berg.
- Howes, David, ed. 2004. *Empire of the Senses: The Sensual Culture Reader*. Oxford and New York: Berg.
- Hunt, Arnold. 2010. *The Art of Hearing: English Preachers and their Audiences, 1590-1640*. Cambridge and New York: Cambridge University Press.

- Isay, Dave. 2007. *Listening is an Act of Love. A Celebration of American Life from the StoryCorps Project*. London and New York: Penguin Press.
- Järviuoma, Helmi and Gregg Wagstaff, eds. 2002. *Soundscape Studies and Methods*.
Turku, Finland: University of Turku.
- Jutte, Robert. 2005. *A History of the Senses: From Antiquity to Cyberspace*. Cambridge: Polity Press.
- Kahn, Douglas. 1999. *Noise, Water, Meat. A History of Sound in the Arts*. Cambridge MA: MIT Press.
- Kallimopoulou, Eleni. 'Ethnomusicological Student Fieldwork in the City of Thessaloniki: Cultural Difference and Cultural Politics in the Field and the University'. Proceedings of 'Crossroads: Greece as an Intercultural Pole of Musical Thought and Creativity' Conference, Aristotle University of Thessaloniki (Thessaloniki, 2011). Thessaloniki: Aristotle University of Thessaloniki (forthcoming 2013).
- Katz, Mark. 2004. *Capturing Sound: How Technology Has Changed Music*. Berkeley: University of California Press.
- Kruth, Patricia and Henry Stobart, eds. 2000. *Sound (The Darwin Lectures)*. Cambridge: Cambridge University Press.
- Labelle, Brandon. 2010. *Acoustic Territories: Sound Culture and Everyday Life*. New York: Continuum.
- Labelle, Brandon and Steve Roden, eds. 1999. *Site of Sound: of Architecture and the Ear*. Los Angeles: Errant Bodies Press.
- Lefebvre, Henri. 2000. *The Production of Space*. Oxford: Blackwell Publishers.
- Leppert, Richard D. 1993. *The Sight of Sound: Music, Representation, and the History of the Body*. Berkeley: University of California Press.
- Lord, Albert B. 2000 [1960]. *The Singer of Tales*. 2nd ed. Cambridge MA: Harvard University Press.
- Merriam, Alan P. 1964. *The Anthropology of Music*. Evanston, IL: Northwestern University Press.
- Mora, Manolete. 1987. 'The Sounding Pantheon of Nature: T'boli Instrumental Music in the Making of an Ancestral Symbol'. *Acta Musicologica* 59(2): 187-212.
- Moyle, Alice M. 1985. 'The Torres Strait phonograph recordings: a preliminary listing of contents'. *Australian Aboriginal Studies* 2: 53-7.

- Mirzoeff, N. 1995. *Silent Poetry: Deafness, Sign, and Visual Culture in Modern France*. Princeton, NJ: Princeton University Press.
- Mugglestone, Erica and Guido Adler. 1981. 'Guido Adler's "The Scope, Method, and Aim of Musicology" (1885): An English Translation with an Historico-Analytical Commentary'. *Yearbook for Traditional Music* 13: 1-21.
- Norton, Marcy. 2008. *Sacred Gifts, Profane Pleasures: A History of Tobacco and Chocolate in the Atlantic World*. Ithaca, NY: Cornell University Press.
- Ord-Hume, Arthur W.J.G. et al. n.d. 'Recorded sound'. *Grove Music Online*. Oxford Music Online.
<http://www.oxfordmusiconline.com/subscriber/article/grove/music/26294> (accessed 22 November 2012).
- Panopoulos, Panayotis. 2003. 'Animal Bells as Symbols: Sound and Hearing in a Greek Island Village'. *Journal of the Royal Anthropological Institute* 9(4): 639-56.
- Paris Papamichos Chronakis. 2011. *Oi ellines, evraioi, mousoulmanoï kai ntonme emporoi tis Thessalonikis, 1882-1919. Taxikoi kai ethnotikoi metashimatismoï se trohia exellinismou*. Unpublished PhD thesis, Rethymnon.
- Parry, Adam, ed. 1971. *The Making of Homeric Verse: Collected Papers of Milman Parry*. Oxford: Clarendon Press.
- Passerini, Luisa. 1987. *Fascism in popular memory: the cultural experience of the Turin working class*. Cambridge and New York: Cambridge University Press.
- Perks, Robert and Alistair Thomson, eds. 1998. *The Oral History Reader*. London and New York: Routledge.
- Pinch, Trevor and Karin Bijsterveld, eds. 2011. *The Oxford Handbook of Sound Studies*. New York: Oxford University Press.
- Rath, Richard Cullen. 2003. *How Early America Sounded*. Ithaca, NY: Cornell University Press.
- Rée, Jonathan. 1999. *I See a Voice: Language, Deafness and the Senses – A Philosophical History*. London: Harper Collins.
- Ritchie, Donald A. 2003. *Doing Oral History. A Practical Guide*. Oxford: Oxford University Press.
- Schafer, Murray R. 1993. *Voices of Tyranny, Temples of Silence*. Toronto: Arcana.
- _____. 1986. *The Thinking Ear*. Toronto: Arcana.

- Seeger, Anthony. 1987. *Why Suyà Sing: A Musical Anthropology of an Amazonian People*. Cambridge: Cambridge University Press.
- _____. 1981. *Nature and Society in Central Brazil: The Suyà Indians of Mato Grosso*. Cambridge: Harvard University Press.
- Seremetakis, Nadia C. 2007. 'I Alli Poli tis Siopis - Seismos kai ta Petrina Chronia tis Istorias'. *Nea Koinoniologia* 43: 37-53.
- _____. 1991. *The Last Word: Women, Death, and Divination in Inner Mani*. Chicago: University of Chicago Press.
- Smith, Mark M., ed. 2004. *Hearing History: a Reader*. Athens, GA: University of Georgia Press.
- Soja, E. 1989. *Postmodern Geographies*. London: Verso.
- Solomon, Thomas. 2000. 'Dueling Landscapes: Singing Places and Identities in Highland Bolivia'. *Ethnomusicology* 44(2): 257-80.
- Sterne, Jonathan, ed. 2012. *The Sound Studies Reader*. New York: Routledge.
- _____. 1997. 'Sounds like the Mall of America: Programmed Music and the Architectonics of Commercial Space'. *Ethnomusicology* 41(1): 22-50.
- Stobart, Henry. 2000. 'Bodies of Sound and Landscapes of Music: A View from the Bolivian Andes'. In *Musical Healing in Cultural Contexts*, edited by Penelope Gouk, 26-45. Aldershot: Ashgate.
- Stoller, Paul. 1984. 'Sound in Songhay Cultural Experience'. *American Ethnologist* 11(3): 559-70.
- Suisman, David and Susan Strasser, eds. 2010. *Sound in the Age of Mechanical Reproduction*. Philadelphia: University of Pennsylvania Press.
- Synnott, Anthony. 1993. *The Body Social: Symbolism, Self and Society*. London: Routledge.
- Tacchi, Jo. 1998. 'Radio Texture: Between Self and Others'. In *Material Cultures*, edited by Daniel Miller, 25-45. London: UCL Press.
- Taussig, Michael. 1993. *Mimesis and Alterity: A Particular History of the Senses*. London and New York: Routledge.
- Theberge, Paul. 1997. *Any Sound You Can Imagine. Making Music/Consuming Technology*. Middletown, Conn.: Wesleyan University Press.
- Van Leeuwen, Theo. 1999. *Speech, Music, Sound*. New York: St. Martin's Press.

- Véray Laurent. 2008. 'Le cinema de propaganda durant la Grande Guerre: endoctrinement ou consentement de l'Opinion?'. In *Une histoire mondiale des cinemas de propagande*, ed. Jean-Pierre Bertin-Maghit. Paris: Nouveau Monde Éditions.
- Woolgar, C. M. 2006. *The Senses in Late Medieval England*. New Haven: Yale University Press.
- Yamada, Yoichi. 1997. *Songs of Spirits: An Ethnography of Sounds in a Papua New Guinea Society*. Book and CD. Boroko: Institute of Papua New Guinea Studies.
- Zumthor, Paul. 1990. *Oral Poetry. An Introduction*. Minneapolis, Minn.: University of Minnesota Press.

Recordings

- Feld, Steven (soundscapes), Dick Blau (photographs), and Charles Keil and Angeliki Keil (texts). 2002. *Bells and Winter Festivals of Greek Macedonia*. CD. Washington, DC: Smithsonian Folkways Recordings.
- Feld, Steven. 2001. *Bosavi: Rainforest Music from Papua New Guinea*. 3 CDs. Washington, DC: Smithsonian Folkways Recordings.
- Feld, Steven. 2001. *Rainforest Soundwalks: Ambiences of Bosavi, Papua New Guinea*. CD. Santa Fe, NM: Earhear.
- Feld, Steven. 2004. *The Time of Bells, I: Soundscapes of Italy, Finland, Greece and France*. CD. Santa Fe, NM: Voxlox Documentary Sound Art.
- Roseman, Marina. 1995. *Dream Songs and Healing Sounds in the Rainforests of Malaysia*. CD. Washington, DC: Smithsonian Folkways Recordings.

Films

- Lumiere brothers, 'L'arrivée d'un train en gare de La Ciotat', 1895.