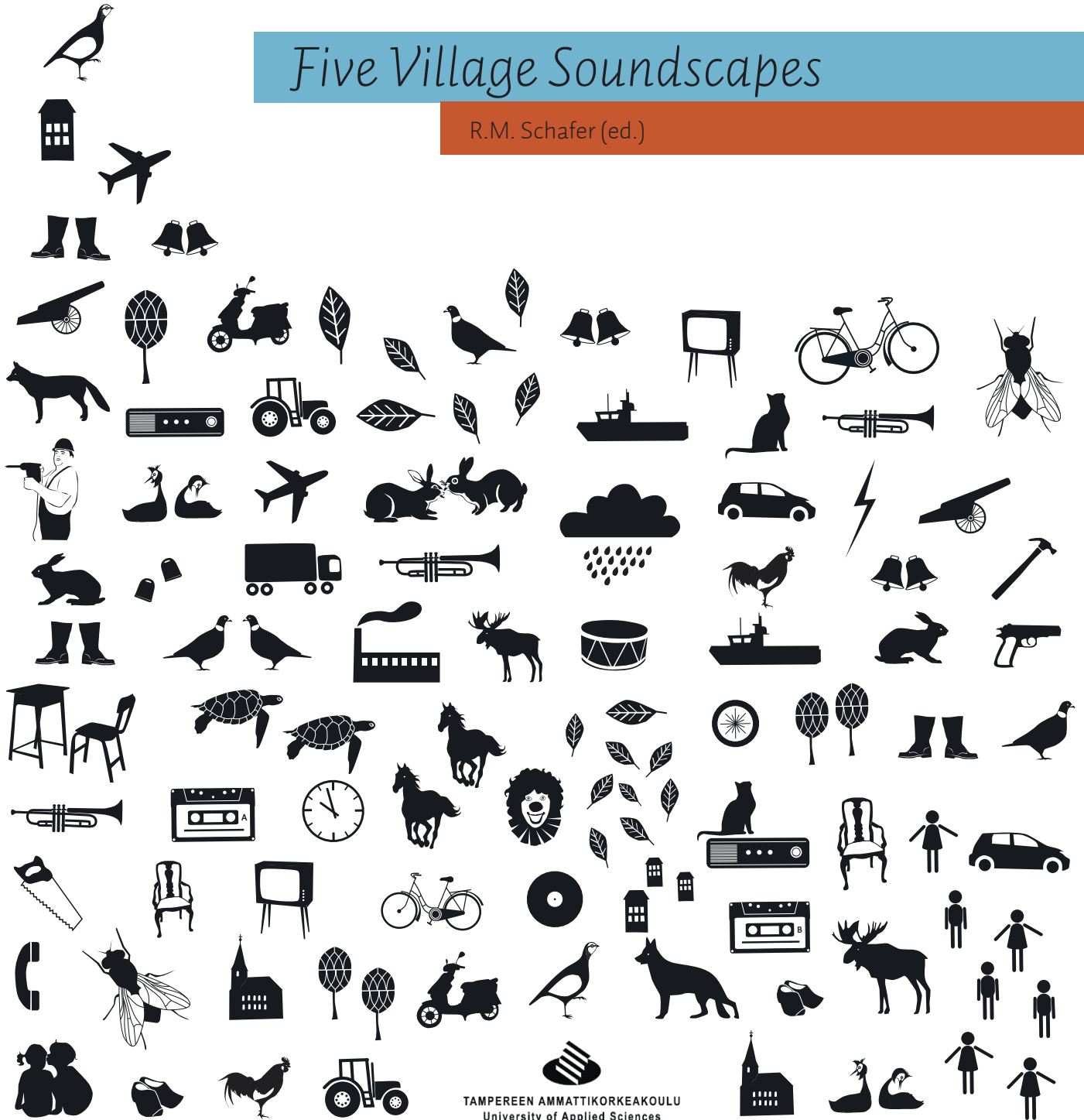


Acoustic Environments in Change

H. Järviluoma, M. Kytö, B. Truax, H. Uimonen & N. Vikman (eds)

Five Village Soundscapes

R.M. Schafer (ed.)



Acoustic Environments in Change
&
Five Village Soundscapes

“My most intense memory of childhood is staying in my grandfather’s house, waking in the dark and hearing with growing anxiety the noises of a night-time house creaks and sighs and burglars at the window. And then bird song and the milkman and I could relax and sleep again. I’m still made happy by the early morning sound of birds but now I’m waiting to have a hearing aid fitted, my ears damaged, the doctor tells me, by too many years of reviewing loud music, and sounds are increasingly jumbled, out there but somehow not in here. I think about listening and what it means more and more (we still know remarkably little about what people are doing when they are listening to music) and that’s why I found this book enthralling. It is about listening. Listening in everyday life; listening as a research method; listening as a way of making sense of the world and our place in it. It’s a book about social change (history marks the soundscape as profoundly as it marks the landscape, with silences as well as noise). And it’s a book about something enduring, our use of our ears to impose order on time and place, sonic order, moral order. It’s a reminder that human musicality is rooted in a universal but remarkable skill: our ability to turn sounds into stories.”

Professor Simon Frith, University of Edinburgh

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TAMPEREEN AMMATTIKORKEAKOULU
University of Applied Sciences

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Soundscapes in change – From 1975 to 2000

It was exactly ten years ago, in mid-October 1998, when a group of people was sitting at a large restaurant table at Gasthaus Adler in Bissingen an der Teck. The owner of the Gasthaus, Carl Reinöhl, had served them *Maultaschen* and sausages in curry sauce. The group worked their way through the agenda of their meeting, eagerly discussing the Project. 'Replication would only be an artificial narrowing down. We have to choose from an enormous richness. For doing a duplication we would even have to use a Nagra', laughs Justin. Catharina thinks they could combine the duplication and methodological development: 'We can either go deeper into the five villages, or use the knowledge of historical changes, then moving to other fields. I'm more interested in the urban situation, where I could use this information. These two could be compared.' Murray ponders what Helmi and her group could do: 'Now we are discussing what Helmi has started to do; others could be benefiting from it.' 'Identity could be a very usable point in Cembra,' says Albert, offering an ear-point from Florence. When Helmi, remembering their earlier discussion about the EU and funding possibilities, draws attention to the links between identity studies and tourism, Albert adds in a slightly sarcastic tone: 'Yes, sausages, wine and sounds. They are spending huge amounts of money on visual identity of European places, what about acoustic identity?'

The group around the table consisted of the architectural and music scholar Catharina Dyrssen from Chalmers University of Technology; the ethnomusicologist Helmi Järviluoma, then at the University of Turku; the composer and time designer Albert Mayr from Florence; the composer R. Murray Schafer from Indian River in Canada, the founder of soundscape studies; and the ethnomusicologists Heikki Uimonen and Noora Vikman from the University of Tampere, and the geographer Justin Winkler from the University of Basel.



Picture 1. From left to right: Helmi Järviluoma, Heikki Uimonen, Justin Winkler, Billy the dog, Albert Mayr, Catharina Dyrssen and R. Murray Schafer in Bissingen in 1998. (Photo: Noora Vikman)

The project then taking its toddler's steps in that meeting in Gasthaus Adler in the autumn of 1998 was *Acoustic Environments in Change* (AEC). The preliminary idea of AEC was very simple; it had first occurred to me in the mid-1990s: why not go 'back' to 'villages' studied by the World Soundscape Project in the mid-1970s, reported as *Five Village Soundscapes*, and hear how the villages are doing. In autumn 1998 I had been awarded funding for a post-doctoral research fellowship from the Academy of Finland. The international project group was figuring out the larger and more detailed framework of the undertaking. The book in your hands is one outcome, and perhaps the final one, of this multi-disciplinary, co-operative project. The participants in that discussion have continued to form a very central element in the AEC Project Group, and they deserve sincere gratitude for their tireless participation in and support for the project.

In fact, it is ear-opening to read the transcript of that meeting and to note that some of the crucial guidelines for the future were set then. They have been followed during the later progress of the project both consciously, and partly, I think, also unconsciously. One of these crucial aspects which the Finnish core group picked up from the discussion was the questioning of the idea of a 'simple replication' of the earlier study *Five Village Soundscapes*.

To start from the obvious, the titles of the projects are different. The concept of village alone would in fact have deserved a research project – it is packed with multiple layers of meanings, different in each of the six countries we visited; differently used in the situated accounts between the researchers and the people dwelling in the

places studied. In Western Europe, where all the settlements studied were situated, there is fairly general agreement that ‘a village’ is a community that is smaller than a town or a city. However, differences between countries and regions immediately begin to emerge when aspects of governance, for instance (usually a village does not have a mayor or a town hall of its own), or the existence of a church (villages have churches, whereas hamlets do not), are taken up as defining criteria. The size of the settlement does not really define a village; often it can better be defined as an idea or attitude than as a concrete area with a particular social or geographical format. It is clear that if more emphasis had been put on some of the criteria mentioned, Dollar, Cembra and Bissingen could well have been categorised as small towns rather than as villages. Both Cembra and Bissingen an der Teck have a mayor and town hall; Dollar is under the governance of Clackmannashire council, but has the spirit of a smallish, busy town. Dollarites mostly call their community a ‘town’, but it is also often mentioned as one of the six ‘Hillfoot villages’ which share the Ochil Hills as their backdrop. Skruv is clearly part of the Lessebo municipality, and both the authorities in Lessebo and the inhabitants of Skruv itself mostly use the term *samhälle* (i.e. ‘community’ or ‘colony’) about the village. The name of Lesconil is officially Plobannalec-Lesconil, which already shows the hierarchies – the village is part of a larger administrative whole, and the mayor’s office is at Plobannalec. Lesconil perhaps still best fulfils the traditional characteristics of a village. The sixth village, Nauvo in Finland, is the central village or *kirkonkylä* (the ‘church-village’) of an island municipality. It becomes clear that different localities may use apparently corresponding terms for rather different ideas, and thus build up and maintain specific and differentiated images. And this applies to us researchers, too, who mostly chose to continue to use the name ‘village’ for the six communities studied. In *Five Village Soundscapes* there are several criteria listed for choosing the villages included in the study. The following could still be said in the early twenty-first century of all the six places studied in the AEC project: their buildings were ‘fairly closely grouped so that sound-making activities of the village would constitute the largest events in the quiet countryside beyond’.¹

The term *acoustic environment*, rather than *soundscape*, has been used in the title of the new project, 25 years later. Now, ten years later again, it is quite possible that the name of such a project could be ‘Soundscapes in Change’. In 1998, the term *soundscape* was still relatively unknown in Finland, and I think this led to the use of a term that was easier to grasp both for the funding bodies and for the general audience. Now the case is almost the opposite, both in Finland and internationally. The World Forum for Acoustic Ecology and its regional affiliates, during the 15 years of its activities, have established themselves almost all over the globe, gradually implanting the concept of *soundscape* into both academics’ and sound artists’ usage. 40 years after it was first coined, the term now appears regularly in the media, at least in Finland, and has become widely known. It is true that the concept is still criticised for being ‘a visual metaphor’; but since more and more weight is now being put in cultural theory on

the assemblages that occur between different senses, materialities and collectives, it might not be such a bad thing that the concept is a multi-sensuous one.

Even within the AEC project there were different uses, and a lot of reflection, about the uses of the terms ‘acoustic environment’ and ‘soundscape’. In his doctoral dissertation, Heikki Uimonen refers to the definitions by the World Soundscape Project and Barry Truax, suggesting that using the concept ‘soundscape’ emphasises the ability of the subjects and communities to listen to their own acoustic environment.² However, he concludes that it would be equally logical to talk about ‘acoustic environment’, at least in the Finnish language, since the word *ympäristö* (‘surroundings’) refers precisely to the fact of being surrounded by one’s environment. The ‘scape’ term, for Uimonen, leads one too much into the idea of observing an object from outside. On the other hand, the central concept used by Noora Vikman in her doctoral dissertation is *the lived environment*.³ She finds interesting similarities between the current uses of the concepts ‘space’ and ‘place’, and her own understanding of the concepts ‘environment’ and ‘soundscapes’. For her, it is relevant to consider all of these concepts – ‘space’, ‘place’, ‘soundscape’ and ‘acoustic environment’ – as lived spaces, where bodily meanings, situatedness and constantly changing space are at the centre of attention.

The strict conceptual oppositions are thus dissolving, and it is in fact the discussion that emerges between them that offers the most interesting insights. Similarly, with the concept of ‘soundscape’, it is far more interesting to explore why some people want to distance themselves from the concept, and why others find it useful, developing it as a positive tool.

The structure of the project *Acoustic Environments in Change* was pretty well sketched out at that Bissingen meeting described above. The project was led by Dr Helmi Järviluoma together with a small Research Committee consisting of Dr Henrik Karlsson from the Royal Academy of Music in Stockholm, Dr Catharina Dyrssen mentioned above, and Timo Leisiö, Professor of Ethnomusicology at the University of Tampere. Henrik maintained contact between us, sending out comments and guiding letters, and was always available for meetings. The help and encouragement of the three last mentioned is warmly acknowledged.

Our research group was a collective in constant transition, except for the Finns Järviluoma, Vikman and Uimonen, who shared between themselves the preliminary research visits in 1998–1999 to the six villages under scrutiny. They attended the main field work in 2000 in all the villages and small towns under study, and have continued to visit the localities up to the present day. The third Finnish researcher during the 2000 ethnographic research period (except in Cembra and Dollar) was Tero Hyvärinen from the University of Turku. Junior researcher Meri Kytö from the University of Joensuu joined the project team in 2007. The Department of Art, Literature and Music of the University of Turku, the Department of Music Anthropology at the University of Tampere and the Department of Finnish Language and Cultural Research the University of Joensuu are to be thanked for providing fruitful working environments

and infrastructure for the project. We are profoundly grateful to the Academy of Finland, who awarded the main funding of this project. In addition, the Emil Aaltonen Foundation, the Finnish Cultural Foundation, Swedish-Finnish Cultural Foundation, and the Varsinais-Suomi Regional Fund of the Finnish Cultural Foundation provided individual grants for the postgraduate students who took part.

This research group was further complemented by art and media students from the Tampere University of Applied Sciences. The main co-operative figure here was Ari Koivumäki, Principal Lecturer in Sound Studies, who was responsible for an idea that caused the roaming fieldwork group some extra work, but also a lot of fun. In the late 1990s, it had not yet become at all typical for ethnographers to keep a diary in the Internet; we did not even know the word 'blog'. Koivumäki and his family had got hooked on following a field research group working in the Amazon Basin, who were sending daily reports and pictures to the internet, and he talked us into doing the same; you can still see snapshots and hear earshots of our field diaries, pictures and sounds at the site <http://www.6villages.tpu.fi> (go to 'News archives').

The realisation of the project was greatly helped by the award of a grant by the TAMK University of Applied Sciences to five of its art and media students: Emmi Tavela, Hannu Keränen, Jenni Kangas, Hanna Rantala and Anneli (Sini) Lindfors. They each spent a month at one of the five villages (Skruv, Bissingen an der Teck, Cembra, Lesconil and Dollar), helping with all the practicalities, including recording and other research assistance, and additionally furthering their own art study projects. Koivumäki and his students deserve our heartfelt thanks for their work – and for lending all the expensive equipment needed for the project. Without you, the project could not have succeeded as well as it did. TAMK has accepted this volume in its main publications series, as a joint publication together with the University of Joensuu series *Studies on Literature and Culture*. Warm thanks to both institutions!

Gregg Wagstaff, sound artist and researcher, was at one point an integral part of the project, and contributed as a co-editor in his valuable and constructive manner to the quality of one of the books produced within AEC, *Soundscape Studies and Methods*. He also carried out the Sound Preference test in Dollar in the year 2000. Thank you, Gregg! Other researchers who gave their valuable assistance in the field work in the localities or at the home end were Nicolas Tixier and Julien McOisans from CRESSON, and Jacob Remin, in Lesconil; the Cembra field workers and visitors, Cristina Orsatti, Eriberto Eulisse, Giovanni Kezich, Marco Geronimo, Luisa Morozzi, Anssi Männistö, and Christina Perin, Massimo Catalfo and Stefania Giametta who participated in the soundwalks in Cembra; Kimmo Miettinen in Cembra and Lesconil; Anders-Petter Andersson and Per Hedfors in Skruv; Steven Feld in Nauvo; Outi Koivisto, Anne Rissanen and Maria Paukkunen in Tampere and Maiju Parviainen and Jussi Virratvuori in Joensuu. Your help has been invaluable – thank you all.

The Project Group also included several other people not mentioned above: Hans-Ulrich Werner from the Westdeutsche Rundfunk; Professor Detlev Ipsen from Kassel;

Dr Ute Bechdorf, then at the University of Tübingen; and Anna Portosi and Christina Perin from Venice. The project organisation's consultants also provided a very important contribution: the composer Hildegard Westerkamp from Simon Fraser University; the composer Claude Schryer; sound designer, and chair of the World Forum for Acoustic Ecology, Nigel Frayne; Professor Barry Truax; Professor Jean-Francois Augoyard from CRESSON, and at the start, Thomas Gerwin from Karlsruhe. The Translation Editor of the current publication, Professor Emeritus Bruce Johnson, has been a marvellous collaborator. Many, many thanks to all of you, for your wonderful suggestions and for being available for consultations whenever needed. Hildegard deserves a special mention for pushing us regularly to report about the proceedings of the project in the journal *Soundscape*.

We were helped by quite a number of people in the six villages studied. It is impossible to list them all, but we here name a few: Giorgio and Luigina Nardon (Cembra); Jeannie and Serge Guilloux (Lesconil); Karl Reinöhl (Bissingen). The warmest thanks of all go to all the helpful and co-operative villagers in the six villages, who gave their time and energy and thus made this research possible.

Joensuu, Finland: November 11, 2008

Helmi Järviluoma

NOTES

1 Schafer R. Murray (ed.) (1977) *Five Village Soundscapes*. The Music of the Environment Series. Vancouver, A.R.C. Publications, page 1.

2 Uimonen, Heikki (2005) *Ääntä kohti. Ääniympäristön kuuntelu, muutos ja merkitys*. Acta Universitatis Tamperensis 1110, Tampere: University of Tampere, page 18; see also Uimonen's first article in the present collection; Truax, Barry (2001) *Acoustic Communication*, 2nd edn, Westport: Ablex Publishing, pages xvii–xviii.

3 Vikman, Noora (2007) *Eletty ääniympäristö. Pohjoisitalialaisen Cembran kylän kuulokulmat muutoksessa*, Acta Universitatis Tamperensis 1271, Tampere: University of Tampere, pages 25–9.

Helmi Järviluoma, Heikki Uimonen, Noora Vikman & Meri Kytö

ACOUSTIC ENVIRONMENTS IN CHANGE

Introducing the study of six European village soundscapes in transition

INTRODUCING THE PROJECT

At the end of last century, from 1995 onwards, the approaching millennium excited people's imaginations. For decades science fiction stories had been set in the early 21st century; now this magical time was within earshot. All kinds of collectives were contemplating and planning millennium projects, and after planning, many of which were realized.

Even this publication is related to the series of millennium-projects. The wave of soundscape studies had reached Finland by the late 1980s and, particularly through the early 1990s, ethnomusicologists at Tampere University had been working on small-scale soundscape field studies (for example Järviluoma & Kurkela 1991; Junttila 1991; Järviluoma 1994; Vikman 1994, 1999; Pöyskö 1994, Peltonen 1998; Uimonen 1999; see also Schafer & Järviluoma 1998). As the year 2000 approached, Helmi Järviluoma remembered a remark she had heard from a member of the Canadian World Soundscape Project (WSP). In 1975 WSP was conducting field research in five villages, each in a different European country. In that year the project members had heard some criticism amongst what were generally positive comments: why couldn't the Europeans study their own villages themselves? Indeed, it would certainly not be among the more absurd millennium projects to return to those self same villages that the Canadians had studied – Skruv in Sweden, Bissingen in southern West-Germany, Cembra in northern Italy, Lesconil in Brittany, France, and Dollar in Scotland. How are the villages doing? What might be heard 25 years after the first field research?

Skruv, Bissingen, Cembra, Lesconil and Dollar had always sounded exotic places to us Finnish soundscape researchers. After all, the idea of an ethnographic 'field' is as much a matter of attitude as of physical place (Turner 1989), as reflected in the

fact that ethnographers often do not return to a ‘field’ even though it might be in their own neighbourhood. The more Järviluoma and the group of young soundscape researchers thought about the possibility of visiting the five villages, the ‘closer’ the villages seemed to be situated to Tampere, as was confirmed when they began precisely to locate them on the map of Europe.¹ (See picture 2.)



Picture 2. Six villages studied.

FINDING NEW RESEARCH PATHS

The Finnish research collective of Acoustic Environments in Change has an ethnomusicological training at the University of Tampere, which in Finland has constituted an interdisciplinary approach combining music studies and anthropology. Thus we were all educated as cultural scholars with an emphasis on ethnography, but without neglecting theory. Because of this, none of the project members was satisfied simply to reproduce mechanically the methodologies of the World Soundscape Project of 25 years earlier – and even had someone wished to do so it would not have been possible.

Our aims were twofold from an early stage. On one hand each of the doctoral researchers could develop their own interests and work on the projects according to

the research questions, methods and theoretical ideas which each found relevant to the work. On the other hand, we wanted to repeat at least some of the WSP tests and data collection methods in the five villages, to identify continuities within changes. ‘Comparing the results’ sounds a bit too pompous here. One has only to realize how very different, for example, the actor networks between human beings, objects, and other materialities were in 2000 as compared with 1975 to understand that obtaining easily comparable data would be an almost impossible task. However, we feel that at least something of value may be said about the relationships between the 1975 and 2000 European village soundscapes by scrutinizing tests that have been conducted along similar lines.

What have we then, in fact, replicated? Perhaps, more than anything else, the enthusiastic attitude towards the microanalysis and micro-history of sonic life. Some historians have suggested that the best way to contest the ethnocentric abstraction of modernist theories is through substantial ethnological work. We have certainly deployed ethnology, and in that respect we have followed the World Soundscape Project – mixing with people and keeping our minds and ears open. It is instructive to remind ourselves of Paul Feyerabend’s words ‘a little brainwashing will go along in making the history of science duller, simpler, more uniform, more ‘objective’ and more easily accessible to treatment by strict and unchangeable rules’ (Feyerabend 1993: 11). There are no procedures that can be detached from specific research situations and then applied to others with any guarantee of success. Many of the quantitative methods that worked in the research situation of WSP in 1975, proved less useful for us in 2000: ‘procedures that paid off in the past may create havoc when imposed on the future’ (Feyerabend *ibid.*: 1).

The research themes and frameworks of each individual researcher in the project – Heikki Uimonen, Noora Vikman, and Tero Hyvärinen, as well as Helmi Järviluoma – are set out in detail in the eleven articles in this collection. In this introduction we now proceed to sketch the six villages in transition, followed by a preliminary introduction to the articles and some of their basic frameworks. The final chapter, called ‘Soundscapes in Change – From 1975 to 2000’ which follows the eleven articles, explores the empirical results of the study of the relationships between the soundscapes of 1975 and 2000 in the villages studied. The traffic calculations, sound preference tests, and listening walks of both years are discussed further. We will now, however, briefly introduce the villages and refer to some of the changes in the soundscapes.

HOW ARE THE VILLAGES DOING?

The Skruv soundscape has experienced its share of these changes. Among the most significant ‘vanished’ sounds (circa 1980) were the factory hooters, which in 1975 still defined the daily rhythms of the villagers (see article ‘Soundscape and social

memory in Skruv' in this publication and *Five Village Soundscapes*). One could still hear the signal of the brewery, but only once a year, when it was used to signal a holiday. A newcomer was the belfry, which was erected right in the centre of the village. It was generally agreed by the villagers that its sound was harsh and ugly.

A definitive change in the soundscape was caused by the dramatic reduction in the number of cyclists. In the 1970s the bicycle was a very common sight and sound. This is also related to the fact that the village centre was still very lively in the 1970s, with many kinds of shops and services. Now there was one shop and one bank, and the railway station building had been converted into a flower shop. The only sound heard from the express train was as it sped past the village, since the trains had not stopped at the village since the early 1980s. The villagers now tended to think that it was too silent, and they especially missed the voices and sounds of children playing outdoors, which they used to hear in the 1970s.

Small industry was still prospering in the village in the year 2000. The glass factory had built good facilities for tourists, the wood factory and brewery were still functioning. The noise regulations had become quite strict, and instead of the tinkling from the glass factory it was more common to hear sounds from the glass-recycling container, which was a distinctive new sound in the village. The environmental consciousness of the Swedes was proclaimed by this clinking of the glass jars or bottles dumped into the container.

It was obvious from talking to people and observing traffic in Bissingen that changes had taken place in the village space as well as in the means of livelihood. A new residential area had been built, forcing people to drive right through the centre of the village. Farming had lost its importance and a total of 1,700 inhabitants out of 3,000 were commuting daily either to Stuttgart or the nearby towns in order to earn their living.

Since the 1975 visit of WSP the village of Cembra has changed a great deal. In 1975 the researchers characterised the Cembran soundscape as primarily human. Today Cembra offers a diversified rather than unified soundscape. To begin with, Cembra's geography and topography give the village a distinctive sound profile. The village lies in the shadow of the surrounding mountain peaks. Moving around different parts of the village discloses different sonic ambiances. In Cembra's old residential area (the oldest parts of which are medieval) the acoustic horizon is narrow. After 1975 the open collectively cultivated fields were turned into a residential, square-gridded area with open but private gardens. From the outskirts and vineyards of Cembra one can see and hear over great distances, and these open spaces on the margins of the village completely change the auditive character. The echo is characteristic of all the precincts of Cembra, but is very different in narrow alleys of the old part of the village, in the new residential area and in the wine slopes and the forest hills above.

At the edge of the village the feeling of space opens up differently for the eyes than for the ears. The scars in the landscape caused by the porphyry mine activity

which post-dates 1975, are visible from a few kilometres away. The mining activity produces loud and sudden sounds but they enter the ears softly from the other side of the valley and local people say they are not startled by the noise. The road between the old and new parts of Cembra continues further to Val di Fiemme and Val di Fassa. Cembra's hills are too steep for skiing, which is why Cembra valley is spared most of the tourist traffic. In spite of continuous repairs the winding road discourages drivers. The row of villages in Cembra valley appears to exist in medieval isolation and one can still imagine the medieval way of life in many of the villages. In the heart of the village even the smallest and most intimate sounds and their echoes have an insistent presence that affects the coherence of social life. The yearly and daily collective rhythms imposed by nature and the climate clearly regulate the ambient changes of Cembra. The smell of burned wood still welcomes anyone walking in the village in the early evening. This – together with the slow motion of the smoke from chimneys and the softly echoing distant everyday sounds – offers an impressive timeless, synaesthetic experience.

The centuries old stone house interiors are slowly being repaired to fit modern demands.² Many exteriors of the houses have also been changed into flat and pastel coloured facades. This process is slow but continuous and continuously audible: the sounds of renovation are the most prominent among the loudest sounds in the morning and during the day. Cembra is slowly being transformed into a suburb of busy Trento, which can be reached by car in little more than half an hour. The highlands, which are difficult to travel, have retained the many different languages and dialects of the area. There are German, Italian, and Retoroman-speaking valleys and villages. The inhabitants of Cembra say that the inhabitants of Faver, living only one kilometre away, already speak in a completely different way – they shout while speaking. There are new arrivals in the form of the foreign workers in the porphyry mines. In 2008, 300 out of 1,700 inhabitants are foreign workers. This influx was often mentioned by the people. In the bar of the hotel Al Caminetto the presence of these arrivals could be heard during the card games, as men commented loudly in languages other than the strong Cembran dialect.

The population of *Lesconil* (the number was 1,510 in 2000) doubles in the summers, when the beaches attract tourists. Fishing became the most important source of income after 1879, when a proper harbour was built for the village. The fishing fleet has been seriously reduced however: from fifty in 1975 to twelve in 2004. In 1999 there were nineteen (in 2000 there were fifteen), so that within five years the number of boats was reduced by seven. In the meantime the port in Guilvinec, five kilometres away, has grown to become the centre of the regional fishing industry with its 120 boats. Lesconil belongs nowadays to a network of fishing co-operatives (Guilvinec, Lesconil, Loctudy, and St-Génole), which is one of the most important fish producers in France.

In the early twentieth century many of the villagers were left-wing supporters, who gave their boats such names as *Rosa de Luxembourg*, and *Le petit socialiste*. Now

the boats had names written in the Breton language. Times have changed, and Helmi Järviluoma's article 'Lesconil' in this collection argues that the regional, 'Celtic' movement has replaced the workers' movement as one of the basic aspects of the villagers' group identity. Celtic music, *fez noz* -events (folklore dance clubs), the construction of antique ships and boats after old models, are ubiquitous in the life of the region. The changes in the Lesconil soundscape since the 1970s are perhaps not so extreme as in some of the other villages studied. It is interesting however to notice that even though the number of boats leaving on the morning of the particular day of our traffic count had diminished from 31 to eight – which meant that there were fewer fishermen coming by car to the harbour – the number of private cars had risen significantly (see the discussion on traffic counts in chapter 'Six European village soundscapes in transition'). The soundscape of the residential areas was still very much a hi-fi one in 2000. The most pleasant sounds were still the same for the school children: the sea and the birds came first on both 1975 and 2000 tests.

The Acoustic Environments in Change project added a sixth place, the Finnish village of *Nauvo*, to the chain of five villages studied in 1975. As in the rest of Finland, there is a change in the sources of livelihood in Nauvo. The level of agriculture, fishing and manufacturing is diminishing and other sources of living, like tourism, are being developed. This made the maritime profile of Nauvo interesting in terms of its similarities with Lesconil, apart from its convenient proximity to the city of Turku, where half of the AEC researchers lived (Hyvärinen 2006: 8). Nauvo (Nagu in Swedish) lies in the Turunmaa region archipelago in south-west Finland. The municipality consists of two main islands (Iso Nauvo, that is Large Nauvo, and Pikku Nauvo or Small Nauvo) and thousands of smaller islands and islets. The distance by land to the nearest larger city, Turku, is 65 kilometres. There is at this time no direct connection to the mainland; the inlet between Prostvik and Lil-Mälö is crossed by ferry. The ride takes only a few minutes except during the busiest summer weekends when one can



Picture 3. Nauvo lies in the Turunmaa region archipelago.

be delayed in a queue for hours. The population of the Nauvo municipality at the end of 2002 was 1,424 of which 80 per cent were Swedish speaking. In summer time the cottage population grows very significantly.



*Picture 4.
Saaristotie runs
across the centre
of Nauvo village.
(Photo: Meri Kytö)*

Nauvo village is located in the shore of Iso Nauvo island next to the inlet it shares with Pikku Nauvo. When approaching the village along Saaristotie road one crosses the Norrström bridge, built in the 1980s. Before entering the village there is a short section bordered by forest and a tiny brook-like inlet to be crossed, after which one arrives at the centre. There is a bank, two shops, post office and a gas station followed by the village church built of grey granite in the fifteenth century surrounded by a graveyard. Turning right before the church takes you to the marina. Continuing the road past the church you'll pass the local government office and village schools. After that the most populated centre ends and Saaristotie road continues to Pärnäinen from which there is a ferry to the neighbouring village, Korppoo.



Picture 5. The gasoline station with its cafe is centrally located in Nauvo. (Photo: Hannu Keränen)

The Dollar Academy Pipe Band is still the distinctive characteristic of the *Dollar* soundscape. As in 1975 the Dollarites are still enthralled by the rehearsals taking place at the Academy yard during the summer months. The band was nominated when the preferred sounds of the community were being canvassed. According to the Academy Pipe Band Instructor, Mr. Hood, the music can be heard three miles away depending on the wind. The town and gown connection is audible not just in the rehearsals but also when the band is contributing to the annual Dollar Gala, including the parade march along the main street. Regarding the acoustic rhythms and densities of the village, the biggest changes in the community are the Dollar Academy daily assembly times and breaks. This was noted already in the FVS study. It certainly seemed that there were a great many private cars dropping and picking up students near the Academy in 2000. This was confirmed by the locals, who criticized the poorly organized public transport. The sounds of car engines are also very prominent in the leisure activities which can be heard from the nearby Knockhill racing circuit. The sounds of leisure activity also include those of late-night youth ‘hanging out’ in the centre of the village.

Acoustic materials in the village have not changed a great deal as compared with the 1970s. The sound of the Dollar Burn is still the same, with its acoustic profile changing with the seasons and the ebb and spate. However, the Dollar Hills are not unchanged. The forest-industry has altered the acoustic community because the new plantations have affected the avian habitat in the hills. One of the distinctive community sound signals ceased in 1988 when the voluntary fire brigade was closed down for economic reasons. Infra-structural change can also be heard in the cessation of

the sound of the blacksmith's anvil. The last village blacksmith closed down in 1997. The Royal Air Force Base in nearby Leuchars has been sporadically part of the Dollar soundscape for nearly a century. The sounds of the aircraft were especially intrusive during the Gulf War (1990–1). More detailed information regarding the sonic changes in Dollar can be found in Heikki Uimonen's article 'Stories of sounds'.

RESEARCHING ACOUSTIC COMMUNICATION
AND CULTURAL MEANINGS IN EUROPEAN VILLAGES

The Five Village Soundscapes project was conducted by the scholars based in the Department of Communication Studies in 1975. 25 years later the methods of anthropology and cultural studies were deployed to supplement the methodology of soundscape research. The starting point in both FVS and AEC studies was to research acoustically and culturally diverse sonic environments.

Communication scholar James W. Carey (1994) has introduced the transfer and the ritual models of communication. According to them, communication is shaping the relationship between the environment and the members of the community and creating a social commonality (see Ridell 1993: 10). This in fact is what acoustic community is all about: 'any soundscape in which acoustic communication plays a pervasive role in the lives of the inhabitants (no matter how the commonality of such people is understood)' (Truax 2001: 66).

When the acoustic profiles of the Dollar Pipe Band and the church bells of Ljuder were outlined in 1975, the social commonality was also defined. Especially in Skruv, the villagers estimated that the sounds of the bells of Ljuder were the loudest signals of the district although the other local signals outsounded them (Schafer 1977). A more extensive and somewhat controversial commonality was created acoustically in Dollar in 1990 when RAF aircraft changed the soundscape of the village during the Gulf War. These historical changes to the village sounds are presented in more detail in the article 'Stories of sounds'.

It is not just the explicitly communicative and social aspects of sounds that need to be taken into account in research. The meanings of sonic signs are conditioned not only by what a sound denotes, but also by what it connotes. A sound might be agreed to 'denote' an aircraft or rain, but what it connotes is dependent more or less on the soundscape competence as well as the personal history of the listener.

Denotation is *what* you hear, connotation is *how* you listen and what are the emotions awakened by these sounds. This was clearly noticed in Skruv when the recent newcomer, the loud bell of the local chapel, aroused mixed emotions among the villagers. These issues are addressed in Uimonen's article 'Soundscape studies and auditory cognition'.

Notwithstanding the importance of conspicuously beautiful or ugly or ear-striking sounds, the less noticed sound events should also be included in the research.

These sound events are often associated with the everyday habits and daily rituals that define and circumscribe the community. There are particular times and places where experiences are shared and the sense of communality is experienced (Varto 2006: 25). These everyday activities are signified by sounds and can be heard in, for example, the daily rhythms of the acoustic community. Dollar Academy pupils are not just visible but also very audible during the school breaks in the centre of the village. The traffic to Skruvs Trä (local wood factory) defines acoustically 'the social and economic base' of the community (see also Truax 2001: 69).

These everyday sounds may be categorized as negatively beautiful, meaning that they are beautiful in that they are not ugly (Miller 1997: 91). Like keynote sounds they are seldom noticed but they are still part of the acoustic communication and meaning-making process.

Another way to approach the sounds of the community is to apply anthropological concepts to the subject by using Mary Douglas' concept of 'dirt' as a starting point. (See also Bailey 1996; 'Stories of sounds' in this book.) Douglas defines dirt as a matter that is out of place or something we find inappropriate in a given context. By analogy, 'noise' is a sound in a wrong place and/or at the wrong time. Temporality needs to be added to our definition since the same sound can have a completely different meaning depending on the time of the day when it is heard. This was clearly evident in the nocturnal activities of Dollar's local youth. The nuisance was noted especially by the residents living in the centre of the village.

Whenever and wherever the idea of dirt exists there is also some kind of cultural or communal order. Cultures have their conceptions of dirt and the desirable order of things. (Douglas 2000: 85-6, 236.) In addition to those members of the community who wish to preserve order and equilibrium, there are also those who disrupt the sonic order, as in Dollar. Defining pleasant, unpleasant and even bearable sounds is not just about the individual preferences but also about community values and the dominant power relations: who has the right to define the pleasant and the unpleasant and to make these preferences audible by passing and enforcing laws. (See also Johnson & Cloonan 2008.) When the soundscape changes, the definitions of pleasant or unpleasant sounds are liable to change. This means a constant re-definition of Douglasian dirt. Conventionally, this is monitored by quantitative noise measurements. With the help of a decibel meter scale the subjective and reprehensibly 'dirty' sounds can be rendered as objectively measurable noise. Thus the problem of loud undesirable sounds is assigned to specialist organizations that are characteristic of modern society.

However the state- and corporate-appointed specialists are not the only ones seeking to control the sonority of the members of the acoustic community. Individuals are enculturated to the society and to its norms and thus spontaneously, willingly or unwillingly control their own sound-making. The cultural dirt and its anathematization still remain: the local elderly couple pointed out in 1999 that the voices of the young

women during the night in Dollar would have been unthinkable a few decades earlier because it was against the community norms for the girls to behave in that manner.

SOUNDSCAPE STUDIES AS THE STUDY OF MATERIAL COLLECTIVES

The linguistic turn of cultural studies and anthropology since the 1980s placed the study of language, texts, symbols and meanings at the centre of scholarly interest. *Five Village Soundscapes* (Schafer 1977; reprinted in this publication), however, clearly predates that linguistic turn. In spite of differences, there are also similarities and continuities between the work of Schafer, Truax, Broomfield and Davis, and the ideas that are now current within the theoretical and methodological fields of art, communication and sociological studies. In particular, continuity is to be found in the emphasis on the importance of materiality, what could loosely be called ‘new materialism’ (Kontturi & Tiainen 2004; Parikka & Tiainen 2006).

In *Five Village Soundscapes* (1977: 37–48) for example, the building materials and street surfaces are centralized as crucial components in the formation of soundscapes.³ It has been important for us also to realize that the collectives we studied in Europe and those we inhabit in our home countries are fundamentally *material* (see Lehtonen 2008: 35). Both the ways in which we are bonded in our communities and the ways in which we exclude others are based on something that is not purely linguistic but has to do with stabilized collections of many kinds of material elements, objects, practices. Materiality does not exist only as ‘the environment’ enfolding human beings. The human being and human habits are part of materiality. (Lehtonen *ibid.*)

To speak of the rise of interest in materiality is not to imply a revival of traditional theories of materialism. Rather, researchers of science and technology have attended closely to the interplay between human and non-human materiality in the production of new knowledge and technology. (Latour 2005; Serres 1994; Lehtonen 2008) The new materialist research fields subscribe to the idea that materiality is not a passive context against which the human interaction can be explored as a separate process. Rather, materiality is in the foreground: it is crucial in those interactions. Human collectivities involve and are conditioned by interactivity *with* the non-human. In this respect materialities and uses of language are interwoven, offering different forms of stability, resistance and change. (Lehtonen *ibid.* 22–4.)

In relation to our project the ideas set out above mean that is not fruitful to consider the village soundscapes simply as reflections of the community structures and relations. Soundscape studies also clearly share with the new materialist fields of study the somewhat controversial objective of bringing the non-verbal characteristics of phenomena into the linguistic realm.⁴ The relationship between human and non-human materialities is important in our study of village soundscapes, as for example in the study of different spatialities, dynamics of memory, nature and tourism.

In the context of cultural change the global process of commodifying places and culture can be heard at the local level. Increasingly, the values of the every person's rights or the 'homespun' are the subject of collective utilization and institutionalization.

The articles in this collection on the Northern Italian village of Cembra focus on its changing points of listening as ways in which the villagers relate to their place and environment. In her contributions to this collection Noora Vikman examines the lived acoustic environment or 'soundscape' of Cembra. Her analyses of the village describe how the ways of listening and sound making are related to conceptions of culture, society and construction of knowledge about locality. In the case of Cembra the concept of the 'lived environment' is situated in the binary model of a collision between Nature and Culture. However, all the thematically disparate writings deal with locally current issues and practical examples, especially two sonic phenomena – silence, and sounding folklore.

The movement of people in and out of Cembra has changed its character over time. In the meantime the world has contracted and the audiovisual impact on local cultural change has increased. During the twentieth century the poor of Cembra were the ones travelling to work to foreign countries. Now, by contrast, a large contingent of foreign workers comes to work the porphyry mines of Cembra valley. In addition tourism is expected to become the conduit that moves people to Cembra as well as becoming an increasingly important economic base in the village. Vikman explores the question of whether or not, and how, the villagers are willing to open up to the outside world and tourists, their new potential 'patrons'.

The main acoustic components of the Cembra soundscape are presented in 'Changing soundscapes of Cembra village' along with the aims and methods of research based on both listening to and evaluating its sonic phenomena. 'Silence depends on muscle power – An ethnographic pilgrimage into a cultural interruption' investigates the *silence* of the village not only as a shared experience but as subjective perception. The essay also describes the role of various participants in the process of becoming more aware of silence in the soundscape. The notion of 'quiet' expands our point of view – or rather, our point of listening – regarding a changing Cembran culture. Through the phenomenon of silence we hear about Cembra's relationship with nature, ecology, tourism and commercialization. This also raises issues regarding the roles of different actors and of acoustic ecology in future town planning.

The rhythms of place reveal a dynamic rather than a static silence. The rhythmic fluctuations in the everyday life of Cembra are described in the article 'Soundscape shutters: rhythmicity and cultural interruptions in the soundscape'. Central to this discussion is the relationship of hearing and listening to time and movement. The rhythm of the soundscape is realized by locating various acoustic details within a series of regular timeframes, as for example daily or annual. The cyclical nature

of everyday life discloses itself, for example through periods of quiet or 'lapses' in the active sound-making by the villagers. Studying the rhythms of the soundscape assists in understanding the rhythms of the place, providing *rhythmic keys* to local soundscape comfort.

Noora Vikman's interest in acoustically diverse spaces grew out of hearing how the local male choral singers in Cembra selected different echoic spaces as suitable for singing. She wished to explore the way in which space can become an inspirational influence on the members of the choir and thus sustain the joy and spontaneity of singing as a leisure activity. 'On the mountains, from the mountains, to the mountains – Polyphonic pasts, spaces and places of singing in a north Italian village Cembra' is also a description of how the singing relates, both physically and emotionally, to the mountainous and stony soundscape of Cembra. Vikman also discusses the past and future of this way of singing – as an enduring heritage and as a potential folklore product.

STUDYING SONIC REMEMBERING IN EUROPEAN VILLAGES

For us as cultural researchers it became self-evident that we were not just objectively recording 'earshots' of past experiences. We focused also on the meanings, impressions and feelings that these experiences have included. One of the central themes of *Acoustic Environments in Change* gradually emerged during its early stages – we had to take into account the cultural study of memory and nostalgia. This publication includes five articles on these themes.

First, in the chapter 'Soundscape and social memory in Skruv' Helmi Järviluoma explores the concept of social memory, and applies it to the study of sonic memories in the light-industrial village in southern Sweden, using as her material a group interview. The second article 'Scythe-driven nostalgia: agricultural ambiances in Bissingen' is a venture into Schwabia, where the AEC group met the farmer Hans Ederle, whose intriguing interview led the writer into an investigation of the concept of nostalgia and emotions, and the old as compared to the new sounds of farming. The last of Järviluoma's three articles, 'Lesconil, my home – memories of listening' is a more poetic dilation based on a script for a radio feature. She focuses on the memories of middle-aged and elderly women in this Breton fishing and tourist village, asking, 'How did the senses construct the understanding of place for women and children in Lesconil in the 1950s? What of those places now, and what about the ways in which the women create shared understandings of past places, not only through verbal recollections, but as they move as flesh and blood through the streets and fields that used to be important to them?' It is arguable that it is not only the present materialities that are the actors in this situation in which a group of women walk on the streets of Lesconil. The past is also 'present', its smells, sounds, road materials, wooden shoes and metal-covered carriage wheels come across vividly to both the listener and the reader.⁵

All these pieces were written originally for different purposes, and their styles

are thus diverse, but they have something in common: the concepts of memory and sound. Järviluoma's articles reflect the belief that the past is always mediated and being produced through memory work, acts of remembering in which we present ourselves both to ourselves and to others. In the project *Acoustic Environments in Change* Järviluoma primarily focuses on sonic memories (Järviluoma 2002, 2005a, 2005b). In a later project, *Sonic Memories and Emplaced Pasts in European Villages* (2004–5) she developed further the same topic.

In the analysis of sonic memories she believes it is important to focus on the ways in which memories are being produced in the processes of telling and writing both personal and shared stories. In addition she has tried to clarify and define the overlapping concepts of social, collective and cultural memory (Järviluoma 2005; see also Assman 2006). In her view the most basic definition of social memory is that it consists of the memories that are shared by a group. Even personal remembrance often has shared frameworks. (Boym 2001; see also Misztal 2003). In any case the memory work is always active and dynamic: the memories acquire new elements in the active process of understanding over time (cf. Misztal *ibid.*). This understanding is in crucial ways intermingled with narration, a point that also emerges in Heikki Uimonen's article 'Stories of sounds: the narrated past of the Scottish village'.

Järviluoma, and Tero Hyvärinen in his article "Putt putt' and 'mur' – Old inboard engine and nostalgia', share an interest in the two different varieties of nostalgia that Svetlana Boym, a renowned nostalgia scholar, has described. These are *restorative nostalgia*, which does not consider itself as nostalgia but rather as truth and tradition; and *reflective nostalgia* that at the same time refers to different times and places and at best offers ethical and creative challenges instead of the melancholy of the restorative nostalgia.

Hyvärinen compares the latter concept with the nostalgia model presented by Christopher Lasch (1991). Lasch draws a parallel between nostalgia and the uncritically idealistic belief in progress. The spirit is same, though nostalgia directs its uncritical admiration to the past. Hyvärinen ponders the nostalgia that the Nauvo people seem without exception to feel towards the calming sound of the old inboard kerosine engine. The old-fashioned inboard engine is becoming rare but it is considered as a part of the identity of the archipelago. Hyvärinen concludes that is not useful to dismiss nostalgia either as simply irrational or as merely an emotional phenomenon. It should be seen in broader terms and perspectives.

NOTES

¹ The only problem was to find the right Bissingen among the many bearing the same name in Germany – the right one was Bissingen an der Teck, situated in the valley near the Teck-mountain,

thirty kilometres south of Stuttgart.

2 On a visit to Cembra in April 2008 Noora Vikman observed that many of the old Cembra houses were currently being renovated. Some of the houses have been empty for some time, since for a Cembran with average income it was much cheaper to build a new house on Campana Rasa ('vacant land') than renovate the one in the old town.

3 Listen to CD's 1 & 2 accompanying this publication.

4 It may also be said that this written reporting can interact with other materialities when listening to the enclosed CD:s and letting the sound waves affect the tissues of our ears and brains.

5 It is true that for example Latour's writings show no interest in the concept of memory. This has been noted as one of the flaws in his theory (Lehtonen 2008). Latour gives no explanation for his neglect of memory.

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Heikki Uimonen

SOUNDSCAPE STUDIES AND AUDITORY COGNITION¹



Picture 6. Listening test at Skruv. (Photo: Heikki Uimonen)

My fellow ethnomusicologists have frequently harassed me with the question of whether soundscape research really can be filed under a discipline which is mainly known for its interest in music in different cultures. My somewhat provocative standard answer has been ‘Not necessarily but you can file ethnomusicology under soundscape studies’.

The subject is a matter of definitions and connotations. Multidisciplinary soundscape studies is difficult to assign to any conventional discipline: in Canada it is

placed under communications, the French have coupled it with architecture and the Finns with musicology. Musicologist Henrik Karlsson (2000: 12) estimates that at least 20 disciplines have been involved in studies of acoustic environments. Among other disciplines it has been the subject of human geography, philosophy, psychology, acoustics, and political science. Cultural studies have contributed articles for example on questions of sound and power. The pros and cons of studies of the acoustic environment are found in this multidisciplinaryity: on the one hand it allows a combination of different scientific approaches under the same comprehensive title but on the other hand there are no clear boundaries to “New Age philosophies”. The multiple meanings and connotations embedded in the term *acoustic ecology*, which is closely related to soundscape research, might also be the reason why Karlsson (2000: 13) is not very enthusiastic about it.

I shall try to shed some light on the matter by surveying briefly predominantly empirical soundscape research. Various studies referred to in the first part of the paper extend from 1920s Finland to French studies of the sonic environment in the year 2000. The survey is by no means exhaustive; it is focused on Canadian and European studies, though it must be noted that soundscape research has also gained popularity in Australia and in Japan. I will also deal with various approaches from cognitive studies and consider if and how these could be applied to the study of sonic environments. Cognitive musicology, for instance, has been interested in processes that take place in an individual’s mind while interacting with music. Musicologists have applied computer-based modelling, while ethnomusicologists rely on qualitative methods like observation and interviews (Moisala 1993: 50). Some aspects of cognitive ethnomusicology are presented briefly as well as some principles of auditory cognition.

In addition, I will introduce a case study which I carried out in the Swedish village of Skruv in autumn 2000. The study is a combination of ethnographic observation and listening tests which consisted of villagers recognizing the sound samples recorded from their living environment. It must be noted, however, that the study is only exploratory; it does not propose a method.

Since the tensions between context-oriented field studies and auditory cognition studies accomplished in laboratories remain unresolved, I do not seek to reconcile them either. I am concentrating mainly on interfaces between different cognitive-related disciplines and their possible future contributions to soundscape studies.

ACOUSTIC ENVIRONMENT

Geographer Johannes Gabriel Granö (1930) was the first to pay systematic attention to the sonic environment when he studied the island of Valosaari in eastern Finland in late the 1920s. Granö’s starting point for his concept of *Pure Geography* was the environment as perceived by human senses. This was contrary to the approaches of other geographers at that time but it would also enable the cognitive element of

geographical research to be taken into consideration. He distinguished between immediate and distant environments which he called *proximity* and *landscape*² respectively, although it must be noted that terms are not based on the researcher's own intuitive experience but on physiologists' empirical observations. (Granö & Paasi 1997: xvii). Auditory phenomena are considered 'highly relevant factors in proximity' and because hearing provides more temporally-oriented information when compared to other senses, there is a good reason to call it the *sense of time*. To quote Granö (1997: 125–6; emphasis in original): 'Things that occur are of a greater significance in the auditory complex, of *field of hearing*, than things that exist, for everything that is heard is an occurrence: tones, sounds, noises, harmonies, and discords'.

Granö's Finnish terminology was influenced by the linguistic preferences and trends in the science of his time. Because of the relatively short history of Finnish as a literary language, scientists considered that it was important to invent original Finnish terms instead of using words borrowed from Latin. (Kurkela 2001.) *Pure Geography*, too, was influenced by this policy. It caused Granö to develop a terminology which is almost poetic in its eloquence; not just scientific, but also an aesthetic pleasure to read.

Granö's work was later continued and his methods refined by his compatriot Birger Ohlson, who deals with changes in the sonic environment of rural Finland (Ohlson 1976). Ohlson calls the sonic environment of a sound source a *sound field*. The sonic environment of the receiver of the sound is called *sonic landscape*, *anthropocentric sonic landscape* or *soundscape*. Drawing on Granö's visually-based division Ohlson remarks that the limit between immediate and distant soundscape is not clearly defined, because of weather and ground conditions. Therefore he suggests that the term *transitional zone* should be introduced into the study of anthropocentric sonic landscape. Ohlson included sound measurements and analysis, atmospheric effects and ground attenuation in his study. As a result he noticed that the masking noise of agricultural machinery, chain saws and tractors have become a central sound in the country, alongside the more traditional church bells which can still be heard in many villages. He also suggests that the recreational environment should provide the absence of disturbing noise to counterbalance the city life of urban dwellers.

In an earlier account Ohlson also writes about noise and sounds in a city (Ohlson 1975). He argued that traffic can be considered as a 'scenery of background sound' that masks and drowns less prominent sounds. Places of different 'sonic identity' were also observed from different parts of the city, e.g. in a harbour area, railway station and in the school yard. Ohlson thus paid attention to different sonic identities within one city but he included only areas of high sound levels. The background noise of regional sounds was penetrated only by a few sounds from distant sources like thunder or aircraft noise. On the other hand when a pedestrian mall was introduced in the centre of Helsinki, Finland in 1970 its renewed human soundscape was soon covered with piped music.

Ohlson's work was influenced by a psychologist Michael Southworth, who studied

the urban sonic environment of Boston (Southworth 1969). His interests were the perceived variety and character of city sounds and their influence on the perception of the visible city. Subjects participating in the study wore either blindfolds, ear protectors or nothing and were thus called auditory subjects, visual subjects and visual-auditory subjects respectively. Through the separation of different perceptions from each other the study of the interaction between vision and audition was facilitated. According to Southworth's research the 'visual experience of cities is closely related to the sounds that accompany it' and that the strategic design of a soundscape could make a city more informative and less stressful to its inhabitants.

Apart from its 'beautification' suggestions, Southworth's research is significant because it is probably the first study that takes the perceptual and cognitive aspects into consideration instead of concentrating solely on objective measurements (Truax 2001: 73). According to the study the evaluations of the sonic environment are also dependent upon the meanings of the sounds, based on such factors as informational content and where the sound occurred (Ballas & Howard 1987). The sonic environments of cities also reinforce Granö's ideas, summarized above, about hearing and its connection to temporal information: one of the psychological effects of sudden deafness is that a person is less conscious of the passing of time (Knapp 1948: op.cit. Southworth 1969: 51; see also Ohlson 1976: 40). Southworth's research was pioneering in that it was the first to pay systematic attention to urban soundscape. Artificially impaired reference groups highlighted information of a kind that might have otherwise gone unnoticed.

The most comprehensive and in-depth studies of the sonic environment in the 1970s were conducted by the World Soundscape Project (WSP) at Simon Fraser University, Vancouver, Canada. The WSP was coordinated by a composer and a professor of Communication Studies, R. Murray Schafer, and included several national and international studies, radio programmes, educational booklets, publications of soundscape issues and a vast number of recordings. The terminology and concepts are presented extensively in the *Handbook of Acoustic Ecology* (Truax 1978 and 1999).

Soundscape can be defined as 'an environment of sound (or sonic environment) with emphasis on the way it is perceived and understood by the individual, or by a society. It thus depends on the relationship between the individual and any such environment. The term may refer to actual environments, or to abstract constructions such as musical compositions and tape montages, particularly when considered as an artificial environment' (Truax 1999). Schafer launched the term in 1967 and made it widely known with the WSP. It must be noted however that Michael Southworth used the term at almost the same time (Winkler 2001: 12). Closely related to soundscape studies is also the term acoustic ecology, which stresses the imbalances in soundscape 'which may have unhealthy or inimical effects' (Schafer 1977a: 271). The major differences between traditional noise measurements and soundscape oriented studies are that the latter does not confine itself just to the negative aspects of sound,

nor to physical measurements of noise levels. Rather, it pays attention to the 'full spectrum of human acoustic experience' (Smith 1993a: 67–8).

Schafer (1977a) gives an overview of historical and present day soundscapes and introduces concepts and methods for soundscape analysis. Terms like *keynote sounds* and *signals* are based on a figure-ground relationship: the keynote sounds are those which are heard 'frequently enough to form a background against which other sounds are perceived' for instance sounds of motors in cities.³ Keynote sounds (the equivalent of 'ground'), are not necessarily listened to consciously, unlike signals which are foreground sounds ('figure'), such as bells, whistles and sirens. They may even become *soundmarks*, which are community sounds especially noticed or regarded by the people of community. (Schafer 1977a: 10, 272.) It must be noted, however, that any sound can be listened to consciously and therefore categorized as a figure instead of a background sound. Therefore the listener's attitude or the meanings attached to either keynote sounds or signals can change their role in the sonic environment (see also Truax 2001: 25).

Listeners' attitudes are also crucial in WSP's *soundwalk*. According to composer Hildegard Westerkamp (1974: 18), a soundwalk is 'any excursion whose main purpose is listening to the environment' and thus makes a listener more aware of everyday sounds. Environmental listening was used as a research method in the WSP empirical studies. Schafer (1974: 17) himself makes a slight distinction between a *listening walk* and a *soundwalk*. According to him a listening walk is a walk with the concentration on listening, whereas a soundwalk refers to a more or less guided tour or exploration of sounds heard along the way. The WSP methods were applied to two studies. In the first one (Schafer 1977b), soundscapes of five selected villages in Europe were researched and compared. The villages were located in Sweden (Skruv), Germany (Bissingen), Italy (Cembra), France (Lesconil) and Scotland (Dollar). The latter research (Schafer 1978) focused on the soundscape of one individual city (Vancouver). The gradual loss of soundscape diversity and identity because of modern technological sounds was reported in both studies (Smith 1993a: 71).

An interdisciplinary approach to the sonic environment was developed by Porteous and Mastin (1985). Drawing on geographical and acoustic disciplines they studied the soundscape of the South Fairfield urban neighbourhood in Victoria, B.C., Canada. The area was documented both subjectively and objectively, the latter by recordings, sound level measurements and expert listenings which were then analysed. In that respect the method of analysis was similar to those used in World Soundscape Project. The subjective element of the research consisted of a questionnaire-based study concerning inhabitants' general impressions of the soundscape. The classification system of sounds used in Victoria was found to be inadequate because of the wide range in individual perceptions. The study also indicated that the motor sounds, which are the most frequently heard sounds in the urban environment, can function as both a figure and a ground component. In addition to this, motor

sounds can mask other sound sources. (Porteous and Mastin 1985: 184.) According to Porteous (1990: 61) the objective-subjective approach values the individual elements of soundscape rather than 'treating it as a single measurable object'.

Isolated smaller studies have been conducted, for instance at The Institute of Sound and Vibration in Southampton, U.K. Hawkins' research consists of interviews of the villagers in Southern England on their acoustic experiences (Hawkins 1980). Hawkins concluded that residents use environmental and specific sounds as sources of information (op.cit. Smith 1993a: 73). Kariel studied the response to selected sounds within the outdoor recreational environment, and found that 'it is a combination of the physical characteristics of sounds themselves and their socio-psychological aspect which determines their evaluation as pleasing, annoying, or acceptable' (Kariel 1990: 148). Hamayon (1980) and Pocock (1987) have charted sonic environments of the cities of Paris, France and Durham, England, respectively. Hamayon provided detailed and graphic information of streets and soundscapes of the city while Pocock presented a sound portrait in audio-cassette form (Smith op. cit. 1993a: 73).

Numerous ethnographical studies and interviews have also been carried out by researchers and students from the Department of Music Anthropology, University of Tampere, Finland (see e.g. Kurkela 1991; Järviluoma 1995; Uimonen 1999; Vikman 1999) including the *Acoustic Environments in Change* research. After 25 years the same five European villages (plus a Finnish village called Nauvo) were revisited by a research group in order to make a comparison between contemporary and previously documented soundscapes and villagers' attitudes towards them.

Christopher J. Smith (1993a) covers geographical as well as soundscape issues, and because of its scope it warrants particular attention here. Smith's main interest is to find out how sounds are involved in residents' understanding and attachment to places. His research methods are based on soundscape studies and geographical humanism, the focus of which is 'on the individual as a thinking being with human qualities, rather than as responder to stimuli' (Smith 1993a: 29). Smith documented three different residential areas in Vancouver both qualitatively and quantitatively. Data from acoustic environments were collected by measuring the sound levels, soundwalks (Westerkamp 1974) and recordings. The tradition of Granö's 'anthropocentric sonic landscape' (Smith 1993a: 68) was continued by short listening periods of different sound events which were carried out to complement the sound level measurements. Local residents were interviewed and the answers recorded. Interviewees were also asked to identify different sound samples recorded from the neighbourhood. Residents' ability to decipher their acoustic environment can be explained by *soundscape competence* (Truax 2001, 57) or isolation of *acoustic streams* (Bregman 1978: 1990)⁴. The former means the tacit knowledge of the structure of environmental sounds while the latter refers to 'human predisposition to identify and define the presence of individual sounds and their subsequent association with particular events'. Drawing on Bregman, Smith states that environmental sounds are

interpreted by *generic* and *non-generic* rules. Generic rules originate from our experience of regularities in the auditory world and can be compared to *Gestalt* principles of visual organisation. For instance, tones, as they converge in time and/or frequency, tend to be grouped together. (Ballas & Howard 1987: 93.) Non-generic rules include the knowledge of specific sounds and therefore relate to local experiences and situations (Smith 1993a: 401). Both rules are involved in sound recognition.

Smith perceives generic rules as being consistent with *general* soundscape competence and non-generic to *specific* soundscape competence. The latter refers to shared meanings attached to distinctive sounds of local activities or events. Smith writes that new residents become familiar with the complex local acoustic environment or nuances of many local sounds only after an extended period of residence. This also holds true for the researcher himself, especially when dealing with different places and cultures: meanings on a specific level are not necessarily easily understood by an outsider (Uimonen 2000). It is these shared but more or less local meanings that make certain sonic environments unique. Smith (1993b) divides the dimensions of residents' acoustic experience into four groups: *sound as context*, *sound as information*, *sound and feeling*, and *sound and memory*. Sound as context refers to implicit and explicit awareness of sounds, the former of which can be considered as a type of 'automatic pilot' that the residents use to orient themselves in the sonic environment. Sound as information includes more conscious identification of individual sounds, whereas the sound and feeling category includes the sounds with a meaning or emotional resonance that elevates them above their role as context or information. Sound and memory link individual sounds to past time and 'far beyond the physical characters of sound themselves'.

Environmental sounds have thus mnemonic qualities and they may refer to places geographically and temporally remote (see also Järviluoma 2002). Smith's typologies parallel the idea that environmental sounds carry *denotations* and *connotations* simultaneously; that is they can have both general and personal meanings (Uimonen 2002). At the level of denotation we are able for example to recognize buildings through established and shared ways of thinking in our culture (Aura 1982). Different kinds of activities are thus connected to the railway station or church. There are also connotations that constitute secondary meanings that can be attached to different kinds of objects on a personal level (Aura 1982). This might bring a third dimension to soundscape competencies or to the use of generic and non-generic rules. The meanings also exist on a highly personal level along with general and shared local meanings. These personal meanings cannot be shared with other people. Otto Laske's term *sonological competence* (Schafer 1977a: 274) might also be used in this context, since it 'unites impression with cognition and makes it possible to formulate and express sonic perceptions'. Sonological competence may vary from individual to individual and from culture to culture.

Architects and environmental psychologists have studied the environment and

how it is perceived, although such studies have dealt primarily with the visual aspects of perception (e.g. Lynch 1960). However, some of the methods and theories have also been applied to auditory perception (e.g. Dyrssen 1998; Hellström 1998; Hedfors and Grahn 1998). Björn Hellström (2002) describes the work of Swiss-French architect and geographer Pascal Amphoux. Amphoux gives detailed guidelines for carrying out research in cities. He deals with methodological questions instead of empirical facts although the method has also been tested in practice (Hellström 2001). Parallel to WSP principles, Amphoux's work concentrates on promoting 'favourable conditions of an actual and specific sonic quality in space', rather than restricting himself to the protection of inhabitants from annoying sounds by means of regulations and control. He suggests that the actual study and analysis be conducted through three different approaches. First, by selecting places that are representative of the sonic identity of a city, and eliciting ideas and opinions of different demographic groups. The second approach focuses on carefully planned sound recordings, people's perceptions of sound and their reactions to sonic fragments. Finally, the third approach assimilates, classifies and assesses the results by incorporating the data gathered in the first and the second approaches in a *sonic identity chart*.

The sonic identity chart consists of four different modes of representation which are called *specifications of the sequences* (for example, description of sound levels and description of sonic fragments); *synthesis of the hypothesis and comments* (analysis of the content of the completed questionnaires and interviews); *semantic niche and remarkable expressions* (completely verbatim quotations from the interviews and questionnaires); and finally *objectification of qualitative criteria* (a description of sonic identity).

The Centre of Research on Sonic Space and Urban Environment (CRESSON) in France has studied soundscapes since the 1980s. Their multidisciplinary approach revolves around the concept of *sound effect* which takes measurable environmental factors, cultural meanings and the 'inner space of any individual' into consideration (Augoyard 1999: 123, emphasis in original). According to CRESSON Sound Effect is not just a physical phenomenon: it incorporates the conditions within a precise context and set of interpretations, including social and cultural factors. (Augoyard 1999: 123.) For instance, auditory perception in complex sonic environments of cities has been explored with a method called *qualitative listening in motion* (Tixier 2002). It includes objective measurements, ethnographic observation and a walk with the informant, who handles the directional microphone to record the environmental sounds. The comments about the soundscape are taped with a small lapel microphone. The method resembles Schafer's (1977a: 212) listening walk in the sense that listener attends to his or her sonic environment in a more heightened way than in ordinary life. It must be remembered, however, that listening is concentrated during both walks and therefore it differs from everyday perception.

A couple of recent research projects concerning silent precincts in populated areas have been carried out in Sweden as well as in Finland (Strömmer 2001; Sulander 2001).

A study conducted in the Swedish towns Mullsjö and Habo concluded that the qualitative aspects of sound should be taken into account in further studies. In the Finnish town of Hyvinkää the study incorporated subjective opinions of local inhabitants in order to identify silent and relatively silent areas of town. Relatively silent areas are meant to be places that are experienced as silent, that is, 'silent enough' for recreational purposes. For instance places like sports fields are included as relatively silent areas since their 'noise is legitimized' by the announcements and encouraging shouts. Furthermore, a recent Finnish study published by Ministry of the Environment (ME 2001) took both sociological and psychological aspects into account while environmental health issues in seven residential areas in Helsinki and Espoo were studied.

AUDITORY AND CULTURAL COGNITION

Parallel with qualitative soundscape studies and quantitative sound level measurements carried out in the field, environmental sounds have been of interest to researchers of auditory cognition. Studies have been targeted, for instance, at qualities in sound frequencies that aid in the recognition of different sounds (e.g. McAdams and Bigand 1993). Tests have been carried out in controlled laboratory settings and these have often focused on the everyday sounds of everyday life. Etymologically the word cognition derives from the Latin word *cognoscere*. The English word knowledge originates from the same word (Karvonen 2000: 85). Information mediated by hearing and other senses shapes this knowledge. Sensory information is interpreted with information already acquired which means that both sensory and symbolic processes are involved (McAdams and Bigand 1993: 1). Generally speaking cognition is related to thinking and memory as well as perceiving information and processing of knowledge (Moisala 1991: 17).

The psychologists Ballas and Howard (1987) studied perception of environmental sounds and compared it to perception of speech. Drawing on Bregman (1978) and Vicario (1982) the writers suggest that a listener is able to make sense of the complex sonic environment by separating different acoustic events to subpatterns called *streams*. According to Bregman (1978) this segregation involves the use of *generic* and *non-generic* rules. The complementary *bottom-up* and *top-down* processes which are used to parse speech are also involved in interpreting environmental sounds. In the bottom-up process features are extracted and grouped into patterns for interpretation whereas top-down processes involve the listener's expectations of a sequence of events (Truax 2001: 57). Subsequently, Bregman (1993: 11) has refined his generic and non-generic rules. He suggests that the auditory system creates individual descriptions from the mixture of sounds. Descriptions are based on 'those components of the sound that have arisen from the same environmental event'. This process is called *auditory scene analysis*.

In auditory scene analysis the auditory mixture can be broken down in three

different ways: by using *schemas* and *general acoustic regularities*. Firstly analysis can be conducted by activating learned schemas in an automatic way, as when people imagine they hear their names mentioned in a noisy environment. When incoming sound is close enough to the schema's acoustic definition, it becomes active. Second, the schemas can be used in a voluntary way, which happens, for instance, when we are listening for a specific sound such as our name being called. These two ways of analysis require that schemas – which can be described as 'knowledge of the structure of particular sounds or sound classes that are important to us' – have already been formed by prior listening (Bregman 1993: 13). In a new environment when sounds are not familiar, auditory mixtures can be dissected by using *general acoustic regularities*. Unrelated sounds, for instance, seldom start or stop at exactly the same time. Another characteristic of general acoustic regularities is the gradualness of change, which means that a single sound or sequence of sounds from the same source is prone to change its properties slowly. However, it must be remembered that one should not rely on a single regularity throughout, but should use many regularities at the same time in order to arrive at the right conclusion. (Bregman 1993: 14.) For instance, grouping by spatial origin is not effective in a reverberant environment. Continuity should also be taken into consideration; for example, if changes in the pitch of a voice are too sudden it is no longer considered the same voice. (Bregman 1993: 32–3.)

Stephen McAdams (1993) has examined aspects of auditory representations and the processes involved in the recognition of sound sources and events. He divides auditory processing into five stages: *sensory transduction* (representation of the acoustic signal in the peripheral auditory nervous system); *auditory grouping*; *analysis of auditory properties and/or features*; *matching auditory properties to memory representations*; and *activation of the verbal lexicon and associated semantic structures*.

Sensory transduction is a process which includes the transmission of vibrational information to the cochlea. In the cochlea the signal sets different parts of the basilar membrane in motion depending on its frequency content. Properties of sound cannot be analyzed until its components have been integrated as a group and segregated from other sound events. This is called auditory grouping. It can be done by *primitive* (or bottom-up) processes, which consist of the analysis of incoming information. On the other hand, top-down or *schema-driven* processes possibly contribute to recognition in noisy environment where more familiar sound events are separated more easily. (McAdams 1993: 152.)

Analysis of auditory properties and features is accomplished after the sensory information has been grouped into representations. This analysis of perceptual features or properties that are relevant to listening is done with the help of *micro* and *macro-temporal* properties. Microtemporal properties are concerned with simple sound events, whereas macrotemporal ones deal with the rhythmic and textural aspects of a whole environmental event like 'dinner plates sliding, tumbling and crashing on the floor'. After this the auditory properties are matched to memory

representations, that is, to classes of similar sound sources and events in memory. If no category is matched – or if too many are – no recognition occurs. (McAdams 1993: 152–3.) Recognition is then followed by activation of the lexicon of names, concepts and meanings associated with a certain class of sound events. However, the listener can act appropriately without having to verbalize what he just heard. This is proved by the fact that children can recognize sound sources and respond to them even if they have not mastered language skills. Nevertheless, with language it is possible for a listener to describe the event verbally. And as McAdams puts it ‘at and beyond this stage the processing is no longer purely auditory in nature’ (McAdams 1993: 154).

Different stages of processing do not work independently but are in interaction with each other. In addition to bottom-up processing, top-down processing is also exploited while recognizing different sounds (McAdams 1993: 155). Top-down processing can be compared to Bregman’s schemas and it is used in auditory organization along with bottom up process, that is, from sensory transduction to recognition. It is important to bear in mind, however, that similar sounds in different surroundings differ on a semantic level. For obvious reasons the significance of a sound of the car horn would not be the same if a person was crossing a street absent-mindedly or sitting in a cinema (McAdams 1993: 147). Therefore contextual matters should be taken into account when researching auditory cognition, and especially culturally constructed meanings shared by a community.

Ethnomusicologist Pirkko Moisala (1994: 186) takes the view that cognitive musicology has not paid enough attention to contextual or cultural factors. Her observation parallels research in auditory cognition, although in this case we are talking of the perception of sounds and how this information is processed, rather than music or performance practices as in musicology or ethnomusicology. However, the context is crucial in soundscape, thus necessitating different kinds of research methods. This is not to say that results obtained in auditory cognition research do not contribute to soundscape studies. Different methods based on different research traditions can be combined in a multidisciplinary way to research sonic environments – this, after all, was the starting point of soundscape studies.

According to Lev Vygotsky (Moisala 1994: 190) cognition can be divided into *elementary processes* and *higher psychological functional systems*. The former processes are unchanging aspects of human thinking and can be described as universal and genetic-biological. Higher psychological functional systems change owing to socio-historical factors. Different aspects of cognition are interactive and therefore inseparable. The mental functions in the cultural development of a child appear first at the level of social interaction as an *interpsychological category*. The beginning of human consciousness is thus in processes of social life and the interpsychological category is a beginning of a child’s inner *intrapsychological category*. Social and individual action is mediated by semiotic mechanisms, among which language is of major importance. With language and other semiotic processes the meanings taking place in social

interaction are internalized by a human being. This also holds true for music.

Anthropologists agree that biological-cognitive capacity is universal albeit moulded by different cultural environments. Likewise psychologists separate the aforementioned elementary processes from socially and historically influenced higher systems (Moisala 1993: 66). Therefore it can be assumed that the processing of a sound is independent of cultural influence and thus universal. However, the interpretation of soundscape is affected by factors within a given place and culture. Therefore a development of local soundscape competence is a part of the enculturation process and parallel to the construction of musical competence where social meanings are being created.

Truax (2001: 49–53) writes that there are three systems of *acoustic communication: speech, music and soundscape*. All three consist of organized sound – even soundscape if we consider the sonic environment as something ‘understood’, made sense of. Three major systems of acoustic communication can be placed on a continuum along which the sounds increase in variety when moving from speech towards soundscape. At the same time the strictness of syntactical structure decreases since in order to be produced or understood natural languages or musical styles have to be more organized than soundscape. In soundscape the information is spread out over a longer period of time, that is, the temporal density of information decreases. What is also decreasing is the specificity of meaning: environmental sounds acquire their meanings through their context unlike the spoken word, which can be taken out of its acoustic context in print and can still mean something. A *sound object* that is an environmental sound taken out of its context by recording does not mean anything except an aural sensation, whereas *sound event* communicates if we can interpret it.

According to cognitive psychology and ethnomusicology, music is shaped by genetic and cultural factors. These factors have an effect on how music is perceived, analyzed and produced. (Moisala 1993: 58.) This also holds true for environmental sounds except for the fact that, unlike a musical performance, a soundscape is not consciously produced. The perception also differs in the sense that soundscape is seldom listened to as music or that this listening involves the same kind of communality as a musical performances. However, this is not to say, that music cannot be part of a soundscape. In the case of soundscape studies one has to organize a situation where the construction of social and cultural meanings for environmental sounds can be studied.

MEANINGS AND RECORDED ENVIRONMENTAL SOUNDS

Shared and individual meanings attached to the environmental sounds of the community can be studied with the help of group interviews supported by recorded samples of environmental sounds. Regarding shared meanings, the discussion after listening to the samples can be used to clarify what sounds are recognized easily and considered pleasant or unpleasant in a community. It must be noted, however, that

the listening test is not comparable to a psychological test by any means. Instead it is supposed to activate the thinking connected to sounds and sound memories. The sounds that have been recognized and commented upon together can catalyze a discussion about environmental sounds in general. A somewhat similar method was used with the Acoustic Environments in Change project when environmental sounds were played to villagers in Cembra, Italy. The sound samples were accompanied by slides photographed in the immediate surroundings. (See Järviluoma 2000.)⁵

An experimental study was also carried out in the village of Skruv in Sweden (Uimonen 2000). The villagers took part in a sound location test in a local movie theatre in November 2000. Their task was to recognize or identify environmental sounds of the area⁶. Three different groups of people were involved one at a time: ten children, seven people of working age and nine retirees. Sixteen samples were recorded from the village and its surroundings during the same year and in 1975 when the Canadian research group visited the area (Schafer 1979). The samples were played as often as the participants wanted.

The samples were selected on the grounds that the sounds could be heard in Skruv and that they were typical for the area. Some of the samples were *narrative*: instead of just being isolated single sounds detached from their contexts they referred to local events. In this respect not all of the samples were exactly sound objects recorded from the environment, but auditory samples of acoustic events or incidents in a village that could be recognized by the listeners participating in the test. More cues on the sonic environment were provided by the *reference sounds* in the samples: in this way the intensity of the foreground sounds could be compared to those in the background. The samples with more than one sound were selected on the basis that individual sounds are seldom heard in a soundscape.

Adult participants were asked to plot the sounds on a map, while child participants were asked to raise their hands and answer questions posed by the researchers. The villagers completed the questionnaires before the sound samples were played. The last task was to participate in a test based on a *semantic differential* in which the pleasantness of the environmental sounds was estimated by polar oppositions with different adjectives (Uimonen 2002). After the tests there was a discussion. One of the samples consisted of ringing of the church bells. The sample was selected because of the relatively loud sound of a local church bell upon which village opinion is divided. The bell is located at a central place in a village and it rings louder than 80 dBA measured from Storgatan, which is the main street of Skruv 30 metres away from the belfry. The reactions of the participants varied. Immediately following a sample a subdued comment *det räcker* ('that's enough') could be heard from the audience. One member of the audience made a joke by putting his hands over his ears. When the participants were asked if they needed to hear the sample again somebody answered *aldrig mer* ('never again'). The comments of the participants are of special interest in that the sound of the bells heard on the recording were not those of Skruv, but

of the nearby church of Ljuder, which can also be heard in Skruv under favourable weather conditions. Despite this the reactions to the sound were immediate and the sample was mistaken for a bell of a local chapel.

According to Ballas and Howard (1987: 108), top-down processing of sound exploits the use of expectations, strategies or rules for interpreting the sound stimulus. However, McAdams (1993: 152) writes that top-down processing has little influence while isolated sounds are being presented to listeners. The situation, of course, differs from everyday listening. This does not exactly hold true concerning the field experiment in Skruv. If listeners are asked to recognize the sounds of their own environment, it seems that top-down processing plays a more significant role since the samples are supposed to be familiar to the listeners. The sound of the church bells, for instance, was thought to originate from the local chapel. On the other hand both processes are utilized together. In a bottom-up process the auditory properties are matched to memory representations which lead to the activation of a lexicon of names. This is affected by knowledge already acquired of the properties of the sound heard. In addition, listeners may 'mishear' sound samples, such as when they think they hear their names mentioned in a noisy environment.

It must be remembered that the Skruv experiment is not comparable to controlled tests conducted in a laboratory. Therefore it would be inadequate to use only auditory cognition to explain how people relate to the sounds of their environment. Moreover in Skruv not only single sounds were presented but the samples were narrative in nature. In this case the experiment in a way approaches an everyday listening situation when compared to laboratory tests since both top-down and bottom-up processes are involved. The ideas and images of the sonic environment of locals also played a crucial role while recognizing sound samples in Skruv. The overall meaning of a signal was more important to locals than listening to the sound sample in an analytical way. More precise listening would have revealed that the sound of the bell in a sample differed from the local bell. It is also noteworthy that there were several bells ringing simultaneously in the recorded sample, whereas in Skruv there is only one bell, which nevertheless rings very clearly in a quiet village.

Local meanings were also strongly present when it was time for the children to recognize local environmental sounds. The clinking sounds caused by the dropping of glass jars or bottles into the recycling container were connected to local industrial activities (glass blowing and a brewery) rather than the village recycling centre. Familiar and daily sounds affected listeners in such a way that analytical listening was replaced by the sonic image of the home village or how the place is experienced. This could even be deemed to approach *sonic identity* which is supported by the fact that Skruv is located in a district which is considered a centre of Swedish glass industry.

According to Ballas & Howard (1987: 105), a *sound homonym* is a sound that cannot be identified without contextual clues; for instance, a loud bang can be caused by a gun being fired or an engine backfire. It would be tempting also to think of

environmental sounds as homonyms since sounds that sound alike in a same area can be mistaken for something else. This raises an interesting question about the development of sonic identity. Like soundscape competence, it is part of the process of enculturation and nowadays affected by international mass media (see also Schafer 1977b; Uimonen 2002). Although our experiences of the sonic environment differ from one another and are dependent on our childhood milieus, the media culture has standardized its listeners. On the other hand, shared images refer to a common cultural background – especially in the way television and movies have affected mental images. (Koivumäki 2001: 56, 63.)

Like meanings in general, personal and collective meanings of sounds tend to change. This also holds true in Skruv, since the sounds of the community have not remained the same compared to what they were twenty-five years ago. At that time the villagers estimated that the acoustically less powerful sound of Ljuder bells was spreading over a greater area than the factory whistle signals. One possible explanation for this is the cultural values attached to bells (Schafer 1977b: 50). Today there are no factory whistle signals in the area except for the brewery whistle which is used every now and then by some good-natured prankster to mark the beginning of summer holiday (Järviluoma 2001: 80). The meaning of the sound that could be heard every day has now been consciously transformed into a seasonal sound. More precisely this transformation of the function of an environmental sound can be called *transcoding*. According to Stuart Hall (1999: 270) it is re-appropriating existing meanings for new meanings. Transcoding of sounds on a personal level is here extended to the whole community.

Despite the fact that top-down or schema-based recognition can mislead a listener in a test, it is good to bear in mind that there are no ‘right’ or ‘wrong’ answers, nor are ‘correct’ answers the definitive goal of the test in the first place. Samples of environmental sounds awaken meanings and it seems that the relation of sound and meaning is referential. Although the meanings change and they are not fixed to sounds this is not to say that the previous meanings disappear. They may even become *sound-romances* and ‘thus evoke the past context and idealize it’ (Truax 2001: 29). For instance, the factory siren will evoke memories for older villagers that are beyond the reach of a younger generation. This kind of *generational memory* may also include unpleasant meanings like the sounds of war, which were mentioned in both Lesconil, France and Bissingen, Germany when the elderly villagers were interviewed during the Acoustic Environments in Change research (Järviluoma 2002). Although environmental sounds are temporal in nature they often refer to events that are detached from time and place.

According to Moisala (1994: 59), cognitive ethnomusicological research should develop methods that ‘study cognition in real-life situations in different cultural contexts’. This is closely related to cognitive social psychology. Cognitive and soundscape studies have not yet converged closely enough to face this challenge although a

combination of the two can be used to research the perception of sounds and cultural meanings embedded in them. However, the experimental method presented here can be used to make the interviews more pleasant for the interviewees, who often find it difficult to articulate the sound-related experiences. It seems that the listening test helped participants to verbalize personal and collective meanings related to environmental sounds. The research material acquired in this way can be combined with an interview or/and questionnaire. Testing different demographic groups can be used to research soundscape competence and how the meanings of local environmental sounds are constructed. The testing process can be altered if necessary. For instance, it is not meaningful to test the visual perception or drawing skills of children by asking them to mark sound sources on a map. They can indicate in some other way that they have recognized the sound. The experiment might turn into a game as in Skruv, and thus become a pleasant experience for the listeners as well as for the researchers.

DISCUSSION

The field research method briefly outlined above is one possible way to map personal and collective notions of the everyday soundscape. Future challenges to improve this method will be to decide what kind of sounds would be most suitable for the test. Narrative samples tell stories about the environment and offer clues concerning different sound events. However, the use of these samples directs research towards more or less sonically diverse or quiet areas, since in urban environments sounds tend to be overcrowded. Auditory information received from these environments is rather one-dimensional: narrative aspects are lost at the same time as reference sounds are drowned by the noise of traffic.

On the other hand the strongest reactions were caused by the sample of a single sound event, as in the case of the church bells. It seems that in order to evoke strong emotions in local listeners the sound does not necessarily need to be the specific one that is located in a given district. This is also reflected in the case of the sounds of glass from the recycling centre which were thought to have originated from local industry.

While plotting sound sources to a map it must be noticed that a map is a representation and a rather limited one considering the environmental sounds. Visual representation provides the basis for the location but at the same time it may restrict or direct the mental images of a listener. If a task included a short written description it would allow participants to express their personal feelings and connotations more freely. In this way the limitations of visual representation would be avoided, and, for instance, the sounds of the past would be included in research.

It seems that schemas and top-down processes are not equivalent in all respects. It is true that in top-down processing an 'underlying structure enhances learning of environmental sounds' (Ballas and Howard 1987: 111) and also schemas fit this

description. According to Ulric Neisser (Uimonen 2002), information can only be picked up by an appropriately tuned schema. Since new incoming information changes schemas, it also changes the meanings embedded in environmental sounds. However, it must be remembered that Neisser wrote about cognition on a rather general level. Therefore it might be better to use top-down or bottom-up processes when describing auditory cognition on a personal level. Nevertheless schemas can be useful while researching cultural meanings which are shared. Another notion borrowed from cognitive anthropology, which could be applied to soundscape studies is a *script* which means that in a given situation people tend to act in a certain way and obey certain rules (Kamppinen, Jokinen and Saarimaa 2001: 181). This holds true with sounds too, although a human being does not react to sound on the grounds of a simple cause-and-effect relationship, but on the basis of culturally learned patterns, excluding loud and sudden sounds, which elicit direct physiological reactions.

A listening test can assist in shedding light on the meanings attached to environmental sounds by different age groups. The method introduced in this paper incorporates contextual matters into research. It does not try to replace the controlled tests because the testing situation in Skruv was quite different. It was influenced by the comments and opinions of the participants. However, collective identification of sounds and comments can help a researcher to chart sound preferences and the important environmental sounds of a community.

NOTES

1 Part of this article was previously published in Finnish in *Musiikin suunta*, 4/2001.

2 Terms are from 1997 from *Pure Geography*.

3 For the phenomenological aspects of some Schafer's terms see Winkler 2001.

4 Bregman 1978, 1990; op.cit. Smith 1993a: 400.

5 Regarding sound samples used in field work see also Feld 1990 and Smith 1993a.

6 In this case recognition means that a listener has heard the sound before. Identification can be considered as more narrowly focused recognition which includes the naming of a sound or a source of a sound (McAdams 1993: 148).

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In this article I intend to present an overview of an acoustic study of Cembra village, Trentino in Northern Italy. These observations were made during three ethnographic fieldtrips there; in March 1998, two months in autumn 1999 and one month in spring 2000. This was part of a Finnish led international research project *Acoustic Environments in Change*¹.

My aim was to gather information about the various aspects of Cembra life through listening to the sounds of the village and also to the stories of its inhabitants. I was interested to learn in what ways their stories construct the soundscape of Cembra, and also what changes (e.g. social, economic) might have affected the acoustic environment of the village.

Cembra is situated on a steep mountain slope. It is clearly divided in two parts. *Campana Rasa* is the newer part, built on a flat field facing the other side of the Cembra valley. It consists of relatively new single family houses (built mainly during the last 20 years). The old part of Cembra climbs up the slope and has many high stone houses, several hundreds of years old, which form the sides of very narrow alley ways. Generally, from the open and upper parts of the village it is possible to see and hear far, whereas in the labyrinth of narrow alleys of old Cembra the sounds echo and multiply.

My first acoustic impression in Cembra was quite similar to that which first met my nose, which was a pervasive smell of fire wood. The sounds of the village floated up to my ears, softened by the distance. Walking in the fruit tree fields just behind the *Campana Rasa*, there was no movement to be seen. I heard mostly occasional human and everyday life sounds coming from the open windows, and animal sounds from the other side of the valley. In the context of this ‘multi-sensory-scape’, ‘acoustic crime’ was an even more aggravating welcome. When passing me in a narrow road a



Picture 7. Children playing football at Campana Rasa. (Photo: Noora Vikman)

porphyry truck acknowledged me with a ‘klaxon’ (a terribly loud sound of its horn), deafening my most important acoustic-anthropological tool – the right ear – for a while. Later, a regular but unrecognisable rhythm spread through the environment. It turned out to be coming from in front of the local brewery where the last vines of the autumn were being weighed, cut and mashed by different machines.

The Cembra Valley has undergone many changes within a relatively short period of time. Even in the 1950s, people still walked from the village to the city of Trento, over 20 kilometres away. Tractors first appeared about this time, working on the steep cultivated slopes above the village, and frightening the locals with their loud, roaring sound. However, it would be wrong to characterize the Cembra of today as an isolated or backward place. A new main road divides the old and new parts of the village.

Cembra is not without modern forms of communication and information technology like the Internet and the mobile phone. Here, in this kind of ‘urban village’, modern day influences (and their sounds) are also part of life, even if their rhythms and volumes might differ from those of the city. Also, many of these new sounds are by-products of the continuing rapid technological change.

AN ACOUSTIC VILLAGE?

Depending on one’s point of view and the field of study, definitions of ‘a village’ vary. They can be geographical, institutional, ethnic, historical, etc. As a new field, soundscape studies is not independent and has borrowed its methods from several directions – geography, architecture, aesthetics, communication studies. Looking for my

place then in this map of paradigms as a humanist, 'ethno' and 'music'-ologist, it is certainly unique and interesting to study the 'village' *ethnographically*.

When chosen as subject of study in 1975 Cembra was a compact subject of study because it is geographically small. The village simply doesn't include the environmental range and variety that a city environment supposedly offers our senses. However, the general paradigm in ethnosciences has changed. One way of grasping the diversity of social life in contemporary cultural studies is to split the subject of study into smaller and smaller cultural units, like communities or subcultures defined in various ways. (See Grossberg & al. 1992.) My approach is also closer to those of contemporary cultural studies². The subject is understood as consisting of different texts and various representations³.

In soundscape studies this diversity is accommodated by describing the village as perceived through only one sense rather than any of the definitions mentioned above. Also, methodologically, relying on a rigid theoretical model would mean creating a stricter, 'laboratory-like' situation in the field. I'm not testing a chosen theory, but conducting the fieldwork that makes it possible to construct a relevant one (see Vikman 2002). Technically, the goal of defining an 'acoustic village' ultimately reveals many other meaningful data that emerge from such a study. This way sound defines a meaningful working space for an inductive ethnographic study.⁴

The physical sound-world is, on the whole, a product of the way people act in their environment. Their actions are, in turn, informed by the meanings and values they attach to the environment and its sounds. Actions and attitudes also reflect the local politics of power. That is why my study focuses on the diversity in the descriptions of Cembra's soundscape. In this article my focus is primarily on a simple question: What was happening in Cembra during the fieldtrip periods in 1999-2000 and how did the various livelihoods and activities sound in the village?

In the research method itself, sonic phenomena are used as a tool. In my analysis the separated 'cultural units' will be the different ways people express themselves in relation to their environment. How do they define their own village and the environment in their talks about their acoustic experiences? My study as a whole, then, is more concerned with the active ways in which village locals and researchers construct and interpret meanings, both in terms of the environment and its sounds.⁵ Following the ideals of the original soundscape studies this 'listening point' (Vikman 1994) tries to be 'positive' rather than 'negative' – not defining the increased noise levels as a problem. Because the environment needs to be managed in terms of quality rather than quantity the 'aesthetic' observation is a good starting point.

Concepts in general are for making distinctions and helping to unload old ones. 'Village' here is understood as a sonic space, as in Barry Truax's description of the soundscape of a place (see Truax 2000). The acoustic definition arises in the course of the soundscape research, a construction by the researcher. The 'village' is not fully defined beforehand, but finds its form and definition during that inductive

process of study. The village is a sonic environment, the soundscape not a 'sound system' in relation to its environment.

In addition to being 'phonocentric', creating a 'purely' acoustic image of the village, I use the subject of talk – sounds – as a tool and the expressions of the acoustic experiences, as a step to move further. The meanings of the environment are constructed starting from sounds, acoustic experiences. But also important in the analysis is also *how* these are described and contextualized by the people. The goal is to recognize discourses and describe them in the study. Thus, I don't take the geographical, institutional, ethnic and historical contexts as theoretical starting points, but as possible contexts to which people refer in their 'soundspeech'.

Later it is interesting to make comparisons between the subject positions of the people themselves in relation to different morally charged discourses presented in contemporary cultural studies. The aim of the study is not to test what ideas have 'won' in the field but to describe more how they are interpreted locally, connected to the everyday life of that particular place/environment through the experiences and the ways the people want to present them and make them meaningful.

In this article, and indeed in the research method itself, the definition of a village is *acoustic*. Sonic phenomena are used as tools, and sound defines a meaningful working space for an inductive ethnographic study. Technically, the definition of an 'acoustic village' makes it possible to limit the many other meaningful variables that one observes in such a study. One is able to describe the dynamic soundscape as a continuous process of change inside and *in relation to* this manifold 'system'.

ACOUSTIC DEFINITION OF CEMBRA – NOTES OF AN OBSERVER

This chapter is primarily a description and interpretation based on my observations using the concepts of R. Murray Schafer (1977a) and Barry Truax (2000). As described before, in *Five Village Soundscapes*, the study made 25 years ago, the sounding entity was called an *acoustic community* and the description of it *acoustic definition*⁶. A 'good' acoustic definition of an acoustic community was the ideal objective, described in terms of the general properties of the soundscape using concepts like *variety*, *complexity* and *balance*⁷.

In soundscape studies it is generally accepted that a high fidelity environment is an ideal. This criterion is not only applied to the ideals of concrete architecture and urban planning (Dyrssen 1998) but also to the political economy where common space is considered a site of social power and the construction of knowledge (Harvey 2000).

Truax (2000: 66) writes that an acoustic community has a good acoustic definition when sounds are heard clearly within it, when they reflect community life, and when they have distinctive and varied acoustic features. Good definition means that sounds are easily recognized and identified, and the subtleties of meaning they convey are readily available to the listener.

The village's *acoustic horizon*⁸ is defined by the most distant sounds that can be heard from the village. For example, sounds from mining activity in distant villages might be heard continuously in Cembra. The acoustic horizon can therefore extend beyond the geographical boundaries of the village, sometimes further than the visual horizon. In the case of Cembra, the nearest porphyry mine, in the area of Cembra is located one kilometre away from the village behind the ridge of a mountain. This means that the noise of the activities there cannot be heard in the village centre or residential areas. The sound signals indicating the beginning and end of the working day, lunch and coffee breaks, are heard only in the mining area itself or in the forests above the mine. These *acoustic borders* of the village give an interesting point of view/ear to observe the community and its interaction with the others.

A farmer from Lisignaco (a village four kilometers in the direction of Trento) told me he had to pass by four villages to pick up his hay from the land he had inherited on the other side of the valley. On a quiet day his whole 18 km tractor journey could have been heard from a certain listening point at Cembra village edge. (NV/FD/C1199.)

As these examples show, the mountaineous landscape around Cembra has its effects on the acoustic definition of the village. The geographical forms of the village area give a visual impression of narrowness and wideness at the same time. Climbing the slopes above the village, the whole variety of activities of the village below could be heard. On the other hand the sounds from the narrow and deep Cembra valley below the village could only be heard when listening on the edge of the new residential area, Campana Rasa.

Periods spent listening to the soundscape at the village's various boundaries revealed how one's auditive perception was also directed by the landscape. It was possible to find places of quiet and places from where to follow the whole polyphony of activities. Also, the steep slopes above the village reflected the sounds in various ways, especially those produced and heard in the still undeveloped and open field area behind Campana Rasa. In this sense, the acoustic definition of Cembra can be said to be good hi-fi⁹.

Stones

One of the most important forms of livelihood in the area is the porphyry mining. These mining sounds are characteristic of Cembra and help to define it acoustically. According to acoustic terminology they can be categorized in the following ways: the continuous hum of the different kinds of porphyry mining machinery, as well as the rumble of the truck traffic, clearly form the *keynote sounds*¹⁰ in Cembra village. Many other sounds, such as warning signals of rock explosions or a truck reversing can be defined as *sound signals*¹¹.

When I asked people to describe the acoustic rhythms of the village, they pointed out that working in the porphyry mines was a seasonal activity. During the coldest



Picture 8. The porphyry stone mine of Cembra produces its noises behind a curve of a steep mountain slope. (Photo: Noora Vikman.)

winter time the porphyry mines are closed and many villagers travel away during these months. The sounds from the porphyry mines also define the annual rhythm of the acoustic environment. When referring to the meanings given to these sounds of the porphyry mines, they can be defined as *soundmarks*¹². They were more often described by the villagers as an inseparable part of village life and, as such, not disturbing.

In contrast, the mining sounds were described as foreign and annoying only by the visiting tourists. These acoustic elements, as ‘foreign’ in the soundscape of Cembra, could also be called *acoustic intrusions*¹³.

Traffic

One of my first acoustic impressions in Cembra can be defined an intrusion. A group of motorcyclists were on the way to their meeting place north of the Cembra valley at the same time as I arrived. Some of the bikers passed by but some of them wanted to see the village and drove through with their rough, roaring engines. Part of their fun was to show-off and be seen – one of them had an inflatable puppet woman in his backseat – and to be heard. During this short moment, in the middle of this unexpected carnival atmosphere, the village itself seemed very vulnerable to me and led me to wonder if this is also how the villagers experience the passing traffic. Do they accept it as an inevitable part of the village life along with the mining sounds? (NV/FD/C1099.)

Apart from the main road traffic and porphyry mining, there were not many sources of pervasive steady sounds in Cembra. The most common acoustic

observations by the villagers were associated with the traffic, probably because of the comparative high decibel level of these sound events. The sounds of traffic are clearly the most obvious sound sources disturbing the good acoustic definition. Also, naturally, the presence of steady or continuous sounds close to the listener reduces what is called the acoustic horizon of the environment.

Earlier, I mentioned the main road dividing Cembra into two sections. This also has a fundamental effect on the village soundscape. The road is wide, with broad sidewalks, edged by horse chestnut trees which act as a partial sound barrier. The location of the main road keeps the sounds of traffic away from both residential areas and protects them from the loudest noises of the passing vehicles. In the old part of Cembra even the quietest sounds could be heard echoing from the walls of the narrow alleys. This acoustic impression continuously reminded me as a listener that the village was built out of stone, architecturally as well as economically (the quarrying providing the main income to the village). The traffic sounds in the labyrinth of stone streets of the old part of Cembra occurred very abruptly.

During my first visit to the next village Faver, which lies one kilometre away on the same road, I noticed the fundamental influence of the village's architecture on its soundscape which also led me to explore this aspect of Cembra. I had wondered at Faver's distinctive atmosphere. I started to listen and observe its structure more carefully. I noticed it consisted of many echoes. The main road was just a narrow alley passing through the old part of Faver and the sounds of the traffic echoed from the house walls on both sides. This experience also accentuated very clearly the importance of listening for orienting oneself in relation to the traffic. In the narrow and echoing alleys of Faver the direction of passing traffic could not be heard and so the proximity of the approaching traffic could not be estimated in advance by the listener. Because of this, the pedestrians had to be alert all the time and had to continuously look to check when to back into the next gateway to let the cars pass. This, I would argue, significantly reduces the common space available to the pedestrians and reduces the social life within it. This is confirmed by the 'everyday' descriptions of the villagers, who report that the noise of traffic has reduced the social life in the streets of Cembra (NV/FD/C1099). In the 1975 study, Cembra was said to be the 'most human soundscape' compared to the other four villages. Nowadays, people mention the absence of human sounds. Many villagers were nostalgic for the repeated 'ciaos' and voices of children in the streets of Cembra. Children are taken to school by car. This is because the parents are afraid of what would happen to their children in the traffic. Today, more and more leisure activities seem to happen indoors.

This evidence discloses how the traffic, with its high volume, wins the battle over the common acoustic space in two ways: Firstly the increased movement of traffic within public spaces has physically displaced such human activities and moved them indoors. Secondly, the *noise* of the traffic drowns out any human sounds do still occur outside.

An interesting exception to this general observation is where the villagers commonly meet – a park area with benches and plants located in the centre of Cembra. Visited by researchers in 1975, the place today, with its benches and restaurant, still offer a place for socialising, even though that corner is now the busiest and noisiest traffic intersection. It remains a paradox that people still socialize or are led to socialize in places that have become noisier and as such – for that purpose – seem unpleasant for an outsider.

THE VARIETY OF METHODS

In addition to our own first impressions and observations, what kinds of methods were used to build a more precise definition of Cembra's soundscape?

25 years ago in the Five Village Soundscape study the researchers used traffic counts, a 24 hour recording, listening walks and sound preference tests. The current AEC research group spent periods of time counting and categorising the passing traffic during one day. The '24 hour recording' was made in Cembra during Easter night (in actual fact sound was recorded from five minutes before to five minutes after each hour). This was conducted in the piazza in front of the municipal building, the same place as 25 years ago. Listening back to both recordings in more detail may later give an interesting point of comparison as to how the social life around this community festival has changed during these two points of history.

The acoustic variety of a village was mapped through systematic listening which took place during a series of 'listening walks'. The village was divided into five sections. Each researcher was allocated an area and walked a fixed route through it five times a day. The brief was to write down every sound that one hears. The researchers' observations were arranged into broad categories, the same as those used in Five Village Soundscape study¹⁴. However, because the aim was to develop these methods, we decided to act more flexibly in the listening situations. During the walks we noticed how time-consuming it was to place the individual sounds into these categories¹⁵. It distracted from concentrating on the environment itself.

Rather than just listing as much contextual information as possible, we found it more fruitful to pay more attention to our perceptions. For example, we distinguished between the distances and directions of the sound sources, or the order in which a cluster of sounds were heard, so that the chains of perception of each listening walker could be constructed later.

The project group conducted a sound preference test in the schools of every village, which replicated those undertaken 25 years ago. The children were simply asked to write down their five most pleasant and unpleasant sounds heard in the village¹⁶. Their responses also gave us a basis on which to formulate more specific questions for our future engagement with the public. The method was useful considering the participatory aim of the AEC-project. Collecting this type

of information also makes it possible to compare the various acoustic aspects of Cembra to the other five villages in the study.

For example, in Cembra, there was a clear division: the children disliked technological sounds the most (76 of the 190 answers) and nature sounds (51 of the 190 answers) were mentioned as the most pleasant sounds. This was a common division in other villages, too. If the natural sounds are appreciated and the technological sounds are the most disturbing ones what is the information value of the answers?

To be more precise, interpreting these answers is not possible without the contextual information and studying the cognitive processes by which people 'refine' their acoustic perceptions. For example, the children may just answer like this because 'natural' is commonly conceived as being 'good'. I interpret these kinds of results as being valuable for revealing the possible *ideals* and attitudes people have about the qualities of their environment. As such, the method was a good way to discover some general tendencies in the ways people engage with their immediate environment through listening, and a guide as how to develop more focussed interview questions.

During my longer stay in Cembra, research took the form of continuous participatory observation that I have utilized in this article. There was also a continuing development of the interview process. The questions being asked were continuously re-evaluated rather than being predetermined and slavishly repeated in the same form. (See Järviluoma & Wagstaff 2002, Vikman 2002) In the interviews, acoustic phenomena were taken as a separate topic of discussion. Although this differentiation of hearing from our multi-sensory way of perception can be described as artificial, sound nonetheless proved to be a fruitful starting point for the interviewees to recall their past experiences. This process allowed them to deepen the descriptions of their acoustic memories and elaborate upon the meanings of these experiences.

TOURISM AND THE IMAGE OF 'QUIETNESS'

I realized tourism was an important issue in the village and I chose to analyze it in my study. The biggest growth industry in the world, tourism has replaced the former main livelihood of agriculture in many rural areas. This turned out to be an important issue in Cembra. Tourism is a large scale project in Italy. Italian TV programs promote these rural settlements as 'exotic, original places' to visit. The people in Cembra, probably as in hundreds of other villages in Italy, were eagerly hoping that one day their village would appear on this kind of TV program.

A magazine called 'A year of felicitations. Pine Cembra news'¹⁷ presents tourism as a project in which the whole village is participating. It lists the benefits of the local tourist business (NV/FD/C220300). The Commune di Cembra has also made a presentation video promoting tourism. The text and pictures mostly praise the natural beauty of the area and also highlight opportunities to ski, skate, play and buy the local agricultural products. From this point of view, it is interesting to see the village

as if it were a community corporation, where different livelihoods are subordinated to the common project. Many local activities and interests, such as wine cultivation and marketing, folklore, accommodation services, architecture, facade planning and traffic arrangements, have become involved with the tourism project.

Laurence Cole (2000) describes the history of tourism in the Tyrol area in relation to religious-ideological objections towards crude commercialism. Since the end of the nineteenth century there was an ideologically charged political atmosphere. Conservative Catholics felt that peasants could accumulate income from tourism with comparative ease. Tourism provided the means for the farmers to be able to stay on their farms, and it thus put a brake on the general flight from the land. He claims that peasant images were used as a marketing device, the role of tourism being a conduit to modernity in the Tyrol area. The real goal of developing tourism was to develop road and rail networks.

Nowadays the growing tourism business has a need to develop these new networks for its own purposes. At the provincial level there were two major projects



*Picture 9.
Porphyry stone work in
front of San Pietro church.
(Photo: Noora Vikman)*

planned to promote tourism that would affect Cembra. During my autumn visit there was an interesting discussion going on about the building of a new airport for passenger traffic to Trento. One of the main motives to build it is certainly to get more visitors into the area. (NV/FD/C1000.) There were preliminary plans to build a *strada del vino* ('a wine road') at the bottom of the Cembra valley in order to promote a rustic, agricultural vision to the eyes of the tourist. (NV/MD/0400.)

There are also many examples of how peasant or traditional images are clearly used as marketing devices in Cembra. 'New traditions' like the annual donkey race in the main street each summer were developed from old folklore. It clearly affected the annual acoustic rhythms of Cembra and spread to everyday life: I had the opportunity to follow the donkeys and proceedings in the form of a video. This was also considered a way of promoting tourism in the village. Many of the annual festivals were still regularly celebrated as they had been 25 years ago, although they were said to be fewer nowadays, and the events less spontaneous. The local folk choir had a manager who wanted the choir to perform for commercial purposes. Most of the people singing in the choir however were sceptical of the idea and felt that the pleasure they derived from the activity was enough. (NV/FD/C1099.)

In this article tourism is understood as a way of commodifying a place. One way of defining a village is to create an image of it for this purpose. Its uniqueness attracts people, but at the same time the village has to represent itself as safe and quiet, flexible and modern. In reality, of course, not all places can offer all the facilities a tourist is expected to need.

What is interesting here is that *quietness* is promoted as one of the village's assets. I ask the question of how silence can be commodified, and on what conditions.¹⁸ To approach this, it is necessary to create a difference between 'silence' as a physical phenomenon and 'silence' as a created image. What are the unique and universal features of the 'tourism project' in Cembra? How is this image of quietness constructed as part of the commodifying process, commodifying the immaterial?

No doubt the 'remote village of Cembra' could be marketed as a 'quiet place' without major difficulties. The ecological image of 'quietness' as a sign of 'naturalness' is already used for economic purposes. Tourism promoted as a community project, a place as product, appeals also to the emotions of the local people as though the village was a homogeneous community. Certainly there is something in shared in these hopes but there is also a diversity of opinions and hopes. If people living in Cembra considered it a silent village, a totally opposite point of view was given by the tourists who came to wander to the valley.

The tourists listened to the place through their expectations and heard the disruptive elements of the environment, comparing it to the *ideal* scene of their 'ecological imagination'. In their answers there was a fear of compromising the distinctiveness of the place, or the fear of the material changes being ecologically irreversible. (NV/FD/C1099.)

The processes of improving tourism and the attitudes of the people are complex, intermingled in all kinds of everyday activities. As such, tourism is a framework within which to approach the paradoxes of change at the local level. The impacts of tourism on village life certainly affects the relationship between the villagers and their immediate environment.

CHANGE AND THE FUTURE

The 'home' and the 'village' are still places to which people want to belong. 'Outdoor life', 'quietness' and 'peacefulness' are given as reasons to stay in Cembra, by both older and younger generations. Stereotypes live and enforce the traditions. These reflect the attitudes people have in relation to their land as the most physical and concrete part of their 'environment'.

In this article, I have stressed the importance of subjective hearing and listening experiences as a means of engaging with the villagers and their environment. The Cembra presented in this article was watched, listened to and interpreted mostly from a privileged position of an outsider – from one 'listening point' (see Vikman 1994). In the later analysis, when forming an image of the place, all discussions based on acoustic experiences are considered as stories of equal validity, both the 'villagers' and the 'outsiders', including also people visiting the place.

Listening to the stories of the villagers has so far revealed that the local community's voice is polyphonic. As one might expect, their acoustic experiences, stories and wishes for the future are varied and different, revealing numerous varied hopes and expectations for Cembra's future.

Both an interesting and yet problematic aspect of studying the sounding environment is its *diversity*. The sonic approach, as described in the beginning of this article, is a limiting factor when studying the diverse and even chaotic social world. Avoiding the soundscape as a perilous and subjective construction, I needed some firmer anchors from the larger cultural context.

In the wider perspective it is clear that tourism guides the direction of change and offers a future livelihood for some. Tourism also works as an essential framework for questions about acoustic changes in the village of Cembra. Interestingly, through participating in the common tourism project, people talk more concretely about the practical matters of village life. The participatory idea of this study is to stimulate discussion about sounds and change among the people in the village.

From my privileged position as the one who describes (or defines even) the soundscape of Cembra, the preliminary observations and test answers inspired me to reconsider people mean when they talk of the cherished 'quietness' of their 'remote village'. This kind of appreciation of their own village is manifested at the very least in the desire to preserve 'quiet' in a form of a commodity.

Sometimes good questions are already good answers. These acoustic experiences

of the villagers can help me to write my ethnographic narrative. What people actually hear and listen to in the same shared environment is, such as for example the hum of traffic, is contextualized very differently in their conversations. Perception of physical sound is always connected with its interpretation, and our 'sound talk' is a concrete expression of this process.

The study of change in this article means focusing on the multiple processes of continuing small scale 'adaptation processes'. The 'soundspeech' itself manifested micro-nature/culture paradoxes in its evaluation of sounds. The objective is to take these paradoxes as a basis for further exploration of 'possible future dreams' in Cembra.

In the interviews some people do not mention the noisy terrace they have just been sitting in. This encouraged me to follow a more 'ecological' approach, i.e. understanding that 'environment' exists both as a cultural construction as well as an objective phenomenon outside them. Then references to differently ecologically valued qualities connected to sounds made me wonder how much of this documented 'noise' or 'silence' is enough or too much. We may wonder, how long the older locals, the younger generation and the visitors to Cembra can go on chatting in the noisy terrace without hearing each others words. We may also ask how this process of cognition and verbalisation affects our own feelings towards the environment and our ability to change or not to change it concretely.

NOTES

1 See the project's webpage Six villages 2000.

2 Here I am making a reference and comparison to acculturation theory used widely in ethnomusicology. It is much criticized as being incoherent and mechanistic in its use of concepts like 'own' and 'foreign' influences unproblematically, and in its belief in 'pure' cultures as racist and ethnocentric. (See Rautiainen 2001: 49–52; Herskovits 1958; Murdock 1956; Laade 1971; and about critics Kartomi 1981.)

3 See also ethnomethodological ideas represented in Heritage 1984 and Marshall 1998: 203–4.

4 In comparison, in both academic and non-academic fields there are tendencies to see Acoustic Ecology as a commonly shared approach, a working space, a 'movement' or even a social philosophy. 'There is a lot more to acoustic ecology than recording a sound from the environment and investigating its latent musical virtues in the studio. Acoustic ecology in the nineties is a social philosophy which is spreading world wide. It draws allegiances with other environmental groups and also with animal rights groups in so far as acoustic ecology is trying to preserve the favourable 'hi-fi' characteristics of the natural world, and the bio-diversity contained within it acoustically from being masked or entirely obliterated by vehicle traffic and other tedious man-made noises. Much of the acoustic ecological research is in other disciplines than music. For some it is in education, which is a very sensitive area because it is wrapped up in unwrapping deeply layered social habits and preconceptions. These preconceptions are what allow for the cacophonous build up of extraneous and unwanted noises in current technological societies. Thus, the advocacy work of acoustic ecology lies in reaching out to the general public and educating them about the psychological and physiological hazards of noise as well as opening them up to the fascinating and intriguing world of sound.' (Copeland 2001.)

5 Geographer Yi-Fu Tuan wants to establish a connection between the basic opposition of 'nature' and 'culture'. His perspective is to see 'culture' as different forms of escaping from 'nature' but not filling the concept escapism with 'fashionable pessimism' and as such negative connotations as made so often in continuously sceptical scientific thought. (Tuan 1998: xvi-xvii.)

6 'Definition is the term we have used to describe the set of relationships between the environment and members of the community, both individually and collectively, as created by acoustic information. Thus, definition is a mental construct based on what is perceived and understood. The information on which it is based may derive from the properties of a sound itself, such as that coded or represented in a sound signal, or from the statistical pattern of groups of sounds. It is always conditioned by both the ambience which is background to the perception, and by the social and psychological experience of the individual.' (Schafer 1977a: 75.)

7 'The three main criteria that emerge in our attempt to describe such change are variety, complexity and balance. The former two refer not only to the range and quality of individual sounds, but also to the kinds of information perceived in both the sounds themselves and in the patterns they form. Balance refers to the co-existence and interaction of such sounds in the environment with particular reference to the stability of the soundscape.' (See more Schafer 1977a: 76-80.)

8 Acoustic horizon is defined as the farthest distance from which a sound can be heard (Truax 2000: 26).

9 'In terms of soundscape studies, hi-fi environment is one where all sounds may be heard clearly without being crowded or masked by other sounds and noise' (Truax 1978: 60).

10 Keynote sounds are those which are heard by a particular society, continuously or frequently enough to form a background against which the other sounds are perceived (Truax 1978: 68).

11 A signal is any sound or message which is meant to be listened to or measured or stored. In soundscape studies, sound signals are always treated in relation to their ambient or key-note context, since they complement that context in the same way figure and ground are related in visual perception. (Truax 1978: 127.)

12 Soundmark is a term derived from landmark to refer to a community sound which is unique, or possesses qualities which make it especially conspicuous in that community (Truax 1978: 111).

13 An 'acoustic intrusion' could be defined as a sound that is experienced violently, suddenly, or as a disturbance.

14 Domestic animals, Electro-acoustic sounds, Signals, Other transport sounds, Planes.

15 In some soundscape approaches only 'skilled listeners' are used to describe the place they are not familiar with (see Hedfors 2002). In addition, in this study, the description of acoustic phenomena of Cembra will be formed through consultation with 'experts' as well as 'inerts' (see Soneryd 2000). I also used the 'first impression method' to reveal different aspects of ways of acoustic perception. The only instruction given to the participators was to write free and as exhaustive descriptions as possible. The categories deployed were: Motorized Traffic, Human Traffic, Voices, Indoor human sounds, Outdoor human sounds. They were written by soundscape researchers from different fields, as well as tourists and other visitors. Comparing the descriptions revealed mostly the different interest areas of the writers. (NV/FD/C99/00.)

16 In Cembra 38 children answered the test.

17 'Un anno di auguri. Pine Cembra turismo notizie'

18 About hearing as dwelling see Ingold 2000: 155; Soneryd 2000.

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Noora Vikman

SILENCE DEPENDS ON MUSCLE POWER

An ethnographic pilgrimage into a cultural interruption



Picture 10. 'Nothing really happens'. (Photo: Noora Vikman)

After I had come down from the church tower of San Pietro, the first thing that caught my attention were the enormous calf muscles on the legs of the man standing in front of my *pensione*. Then I became aware of his short shorts and enormous head of curly hair. He must be a tourist. He introduced himself as Gerhard, and explained that he had heard in the café that there was a researcher living in the village; he asked if I would be willing to talk about my experiences to a group of tourists who were

hiking through the village and the Cembra Valley. He was an activist for alternative tourism, who wanted to offer his group of visitors, exhausted from the rhythms of city life, an opportunity for a peaceful and free, but suitably organized vacation.

In the cultural analysis of soundscapes, silence is an intriguing phenomenon. At first impression, silence is associated with absence of events, somewhere beyond everyday life and the culture which is its expression, linked with ‘that which was before, and after’. But ‘silence’ is not the private concern of philosophers and meditators; here, we will explore what possibilities there might be to weave a rhythm in the midst of life between culture and silence, and ask in what ways silence has been commodified, and what that process involves.

In this article, my intention is to demystify our understanding of silence, by means of some examples taken from everyday life. In a whole range of everyday practices, silence is continuously invested with meaning, and is allocated an active function as a form of ‘cultural interruption’. From the perspective of my own research, what is of particular interest is to identify when and how the ‘silence of nature’ is seen as encroaching on the ‘noise of culture’, and vice versa.

A second aim is to identify some of the factors involved in what I see as the commodification of silence. In addition to asking how one can process silence conceptually, I also wish to explore the ways in which it is subject to control and exploitation, and to being bought and sold. In the situation from my fieldwork cited in this article, what was happening was that a place of silence was being converted into a consumer item. The study of silence, from whatever perspective, can contribute to whether and how silence can constitute a recurrent cultural interruption for us to read within the musical score of everyday life.

FALLOW MOMENTS

The caption on the picture postcards in the local shop says: *Trentino – colori nel silenzio* (‘Trentino – colours in silence’). In these postcards, cows browse in misty meadows, the colours of the fall are reiterated in the trees on the hillsides, and sailing boats slide across the lake.

This article is based on my experiences during 1999–2002 in the village of Cembra, in Trentino Province in northern Italy. I am constructing an acoustic portrait, an ethnography of the soundscape of this location, as part of the ‘Acoustic Environments in Change’ project directed by Helmi Järviluoma, in which the acoustic environments of six different European villages are being explored (Six villages 2000).

My starting-point is located in my experience of the silence in Cembra, which proved to be a highly relative concept. Having become aware of the ‘fallow’ moments and places in the village, I set out to explore the various expectations associated with this silence from three different acoustic perspectives: of those who think of themselves as living in a quiet village; of tourists in quest of silence; and in relation to the advertising

which highlights the image of silence in this province (e.g. the postcards).

All of these acoustic landscapes refer to the same geographical Cembra. The physical conditions imposed by the landscape effectively exclude Cembra from more efficient economic development or exploitation. The steep slopes of the Cembra valley are suited neither for downhill sports, nor for high-efficiency agriculture, whereas only a few dozen kilometres further along the valley to the north, there are opportunities for both on a totally different scale. The promotion of an image of the 'silent village' thus emerges as the most viable feature for the tourism industry to exploit. In practice, at the strictly local level, this resource has not yet been developed. When she heard of my research project, the lady in the Cembra tourist office was excited about the potential this offered; but after talking with her, I was left with the question as to what the real potential benefit might be.

Both sound, and silence, require space, and do not readily submit to the temporal and geographical limitations imposed on them. The rhythms of the Cembra soundscape are not written down in a fixed score, but are continually re-read and re-composed. In my fieldwork, my task was to encounter acoustic signs and to analyze them; since I was interested in the way local perceptions operated, I was happy to leave the interpreting of the sounds to the local people. Although I made use of provocative methods, I was listening for people's 'language of sound', for colourful accounts of the drama of the world of sound (Vikman 2002). Yet in fact they all spoke constantly of the 'silence' of the village.

When I asked them how the sounds of Cembra had changed, they would say things like: 'Well, Cembra used to be like somewhere in the Third World' (NV/FD/200300). When I asked about the economic potential for tourism, they would point to the established way of life in the village, where – in comparison with the buzz of activity on the nearby ski slopes – 'Nothing really happens'. They explained this quietness (or 'silence') in terms of the 'backwardness' of the village, its eventlessness, and its traditionalism, which on the other hand – despite the limitations which it imposed – they also respected and valued. If so many of them identified 'silence' as a defining characteristic of the village, then that silence must have some significance. This recognition led me to reframe my question: what could be the meaning of this powerful perception of their own everyday lives and of the village itself as 'silent', and what implications might it have for the future of the village?

On the other hand, the promotion of an image of silence or quietness would of course interfere with more conventional plans for the development of the village. There were proposals to build an airport at the nearest town, Trento, 23 kilometres from Cembra, and in the debate organized on the local television channel, one of the strongest arguments put forward by supporters of the scheme was that it would make it easier for tourists to reach the area. There were plans to construct a *Strada del Vino*, a 'wine route', which would take experience-hungry tourists to enjoy the landscape and vineyards along the river Avisio which runs through the Cembra

valley. Such plans to expand the volume of tourism, however, were clearly in conflict with the local acoustic realities. I had uncovered a simple, but delicious paradox: If the local communities, outside the main commercial image-building project, constructed their image around 'authenticity', what impact on that authenticity would be achieved by the commercial image?

THE RHYTHMIC ALTERNATION OF ABSOLUTE AND RELATIVE SILENCE

Each year, on St Peter's Day, 29 June, and only then, the bells in the church of San Pietro are rung. The bell ringers are four men, hanging on the ropes, wearing ear-plugs. The boy who is showing me the church, and has taken me up the tower, sings me the tune which the bells ring. He reads out the inscription round the bells, and cautiously knocks on them with his hand, hunching up his shoulders as he does so, to acknowledge that he has done something forbidden. St Peter's Day is still over three months away.

'Silence' is a word which leaves a lot of open space for interpretation. Both the act of referring to it, and of not doing so, tell a great deal. In the language of semiotics, silence is never a blank; it cannot, in any context, be devoid of significance (Koivunen 1997, 16). The human experience of being is based on the stimuli received through the senses, which define the outer limits of our existence. In deprivation tests, it has been shown that humans have an extremely low tolerance for situations in which the senses receive no stimuli at all (Koivunen 1997, 37). If people who talk about their quest for silence knew this, they would surely not seek for real, absolute silence; but 'silence' can also be a relative concept.

For the psychoanalyst Thorbjörn Stockfelt, all human silences are sounds. Sound in the auditive no-man's land below 20 dB, which is inaudible to the human ear, has been defined as silence; yet we know that these sounds do exist (Stockfelt 1997). Silence may have as much content as sound. In order to understand our relationship with our environment, it is also important to listen to the intervals between sound, or interruptions. If we fail to hear the silences between the beats of the rhythm, we cannot understand or construct the new rhythm needed for survival (Stockfelt 1997, 32–42). The acoustic rhythms which we experience contribute to determining how pleasant we find our environment. A sound which is sufficiently constant may be experienced as silence (see Winkler 2002, 133–43); on the other hand, 'noise' may also be welcome, if one is expecting it and prepared to accept it. What all of this refers to is the recognition of rhythms and their intervals of silence, a rhythmical acoustic competence. The rhythmical organization of our lives, and our choice of pleasant locations, will be more successful in an environment which one has been taught how to 'read'. For researchers exploring human shared experience, what is interesting is the ability to adapt to change.

I assumed that the villagers in Cembra knew their village, and would know when

and where to find such intervals. The enjoyability of life in Cembra is, in part, dependent upon the predictability of its rhythms. Cembra lives according to the rhythm of the seasons – not only because of agriculture, but also because of the quarrying of Porfido stone and of tourism. In winter, the soundscape went into hibernation: buses ran less frequently; the sounds of building, and of the Porfido quarry, went quiet; the mewling of a cat was generally recognized as a sign of spring. The sound of the bells of San Pietro was the very specific sound of St Peter’s Day, punctuated by an interval of almost twelve months; and when that sound was heard, then the locals knew that they should close their windows and fetch their earplugs (NV/FD/0300). In their parties and celebrations, the people of Cembra traditionally make a lot of noise about themselves and their way of life; every annual celebration included making noise with a range of varied percussion instruments, rattles and cannons, over and above the regular very loud singing and shouting (Schafer 1977a). Indeed, some of these practices were so noisy and dangerous that they had been forbidden.

There are many parallel possible representations and ways of experiencing silence in the acoustic landscape. Within the soundscape of Cembra, I came to know various places and times in the daily and yearly acoustic rhythm. I discovered places of silence, places of activity, forgotten places, places of privacy; places, for example, where and when it would be quiet enough for me to take my siesta. I chose to make one of my visits during harvest, because I wanted to record this important event, and to take part in the wine harvest. My highlighting of the noise of the tractors offended the local officials, yet many of the harvest workers became highly excited in the midst of the tractor noise about the joyfulness of the harvest, when people are working together; something was happening. (NV/FD/0902.)

As a result of the interruptions in the soundscape, people were better able to read the irregular and unexpected variations in the acoustic rhythms, the signs of life and death. For instance, air traffic regulations of the Province of Trentino restricted leisure helicopter flights over the steep narrow valley; when a helicopter flew over, therefore, one knew that there had been an accident somewhere nearby. Sounds which were heard less often were easier to recognize. These acoustic signs would sharpen people’s hearing: after an ambulance helicopter, would the church bells ring? And older people, at least, could tell from the way the bells were rung whether the deceased was a man or a woman.

SOUNDSCAPE RESEARCH: CAPTURING THE SILENCE

Having seen two people high up in the tower of San Pietro, two women tourists said that they would love to go up the tower themselves, since from there one would be able to see over the whole valley where they had been hiking and would be coming to hike again the following day.

The pioneer of soundscape research, R. Murray Schafer, was a composer, and



Picture 11. Washday at neighbouring village Lona, where water faucets were still in use.
(Photo: Noora Vikman)

gave this research field a persistent musical character by using a musical metaphor in his book *The Tuning of the World* (1977b). The illustration for the book shows a hand tuning strings stretched over the world, suggesting the quest to control (tune) the acoustic world. Our soundscape researchers can be thought of as sitting high up in their respective villages, listening to the entire village at once. The origins of soundscape research in Canada in the late 1960s arose from critical dissatisfaction with the existing research school, which relied entirely upon scientific quantitative measurement, measuring the decibels but making no attempt to interpret the world of sound in its cultural context.

Barry Truax (1978, 2000), writing from a perspective of acoustic communication and from the 'height' of communication theory, is perhaps the theorist who has most thoroughly defined the concepts with which the ambient acoustic environment can be categorized, organized and described. The purpose of the term *soundscape* is to focus on how human individuals and communities experience sound in their surroundings; the term may be used to refer either to factual environments, or to abstract constructions such as pieces of music or audio tape montages.

The creative development and modelling of acoustic environments is called *acoustic planning*. The systematic investigation of the relationship between individuals and their acoustic environments is then called *acoustic ecology* or *soundscape ecology*. Its distinctive objective is to draw attention to imbalance in these relationships and to the resulting unhealthy or harmful effects.

Soundscape research thus raises the question whether the balance in the landscape

between sound and silence could be controlled and shaped, like that other form of organized sound, music, which is more easily commodified. The origins of muzak (also known as elevator music) arose from attempts to reduce people's anxiety and pain levels in elevators and at the dentist's (Lanza 1994: 39; Koivunen 1997:44-5): to 'soften reality', and distract people from awareness of the conflicts in their lives. In muzak, the extremes of volume are toned down, and strong contrasts are reduced, in the belief that by this means people can be kept quiet.

The commodification of immaterial items raises many cultural and ecological questions. Acoustic landscape research of the type described in this article stems from the desire to engage with a situation where the values of human culture interface with the physical environment. Since the communication-theory definition of the soundscape is constructed around the figure of an active listener (see Truax 2000: 23), cultural researchers face the description of a complex process in the physical environment (on the methodology of soundscape research, see Järviluoma and Wagstaff 2002).

The goals of the current research go beyond protecting people from 'surprise attacks' in their concrete physical surroundings. By appropriating the immaterial idea of the construction of nature, the aim in this research is to explore how ideas constructed from nature can be utilized in human activity for good. As stated at the beginning, I want to insert both the researcher and the environmental protectionist into the process of the commodification of silence, as agents, and explore how the image of silence as 'holy' can be demystified. Scientific research carries out the first active step in the complex process of appropriation and commodification; therefore it also bears responsibility to evaluate the outcomes of its own actions, and to ask how silence is reflected in the hall of mirrors constituted by science, politics, ecology and the market.

Specifically, we shall explore what happens when the ideal of 'silence' becomes entwined in social praxis, and begins to be exploited in the design and manipulation of the landscape.

NATURE POLICIES

The rustle of leaves is evidence of the silence, and of how the human world could be quieter. These sounds arouse memories of human activity and are symbols of impermanence. Unpleasant noises reveal how civilization has penetrated everywhere, and homo faber's angst and sprawl are signs of our spinelessness before nature, and expose the horror of habit. (Interview response by the tourist group leader on vacation in Cembra, NV/FD/0300.)

Humanity has not only appropriated nature through technology, but also aims to colonize and control it intellectually. In the unending modernist game of the imagination, people recast nature as culture to sleep well in, but nature resists, and keeps them awake. Donna Haraway suggests that western thinking is based on the default assumption of a primeval state, which generates sets of fundamental binary oppositions by

means of which the world can be organized and a 'natural' system of meanings can be established (cf. Haraway 1991: 151; Schuman 1993). This division of concepts into binary oppositions, if unchallenged, then justifies or reinforces specific research practices. I myself was working with the hypothesis that I would be able to define major 'nature-culture paradoxes', in which the opposition of elements in the soundscape would provide a means to identify the Other. Yet although the strand of Western thought for which Haraway argues may be attempting to recognize and escape from reliance on binary oppositions, in everyday life and activity their usefulness persists.

The logic of late modern consumer society also determines the ethics of research and the current modes of operation of environmental protection. Sounds, and silence, become analogous to natural resources needing to be conserved. Modes of operation driven by these questions also recur in soundscape ecology. The immaterial yet pervasive nature of sound links it with other environmental questions and with the difficulty of defining the 'value of nature', and the protection of silence is grounded on concepts like Everyman's Right (the traditional Nordic law which permits anyone to move around in and gather natural fruits and fungi in the forest).

Traditional rights alone, however, are not adequate to resolve the conflicting interests regarding sound and noise in a late modern society¹. In the practices of nature conservation, nature speaks through the medium of regulations restricting culture. Noise is a by-product of a functioning culture, whose presence in the acoustic landscape can be controlled by amending the laws and norms which regulate our way of life. Noise can not be allowed to blanket out the silence that exists around us, even in our urban surroundings. It is by means of such regulations and sanctions that a hierarchy of values can be constructed.

The mystification of silence as holy, on the other hand, means refusing to name it, since for in this way of seeing the world, only through the silence of not naming it can the secret and indeed the existence of silence be preserved. Silence vegetates in its solitude somewhere far away from civilization, while our technological culture provides us with remedies against noise such as earplugs, quiet asphalt, sound baffles, sound insulation, or quieter music as a refuge from louder music. Environmental conservation, however, posits the ethical perspective that there must also be a place for silence in the places where people live.

Phil MacNaghten and John Urry (1998: 15–16) have emphasized how scientific research programmes continue to operate on the basis of highly Modern assumptions that there is an readily-accessible rational way into the physical world, assumptions in which, moreover, a fundamental distinction is drawn between human culture and the physical environment. It is the conclusion of one of these agendas – specifically, that of the scientific discipline of ecology – that nature itself imposes measurable limits to what humanity can achieve.

Urry and MacNaghten draft their nature policies precisely by critiquing those ideals and values which steer our thinking. In the discourse of binary opposition

mentioned above, a policy of delimiting and conserving natural areas perhaps speaks to us in a more understandable language. The message in the critique, however, is that nature should not be seen as imposing limits and restrictions; it should be seen not merely as an Other constraining human life, but as a resource which enables us. Its enabling and positive aspects can be seen most clearly in that world of living where we live our social lives. The sounds of nature, for instance, are part of the utopian goal of a better environment in our everyday lives; in sound preference tests, they are frequently mentioned as pleasing forms of sound.²

Optimism may itself be comforting escapism from the reality to which our expectations are addressed. Nevertheless, in practice – if the acoustic environment is defined as terminating at the outer edge of the cultural soundscape, since the sounds of nature are not culture – then the cultural acoustic world is easily perceived as a place of failure and monotony.

In a deliberate deployment of binary oppositions, Schafer’s (1977b) definitions of ‘noise’ can be playfully reversed to provide a definition of its opposite, silence. The undesirable criteria thus generate the features of a desirable soundscape, for which silence becomes a synonym (see figure 1).

Figure 1: Noise and Silence

NOISE	SILENCE
Undesired sound	Expected and desired sound
Unmusical sound	Musical sound
Any loud-level sound	Sounds not too loud
Sound without meaning (interference in a signalling system)	Meaningful sound (communication)

If, on the other hand, we choose to respond to the critique of binary-opposition thinking, we can set a goal that silence should not merely be taken for granted, always present but somewhere far away, or a nostalgic phenomenon, doomed to extinction in the implacable progress of (cultural) revolution. In offering potential models of critique against the prevailing techniques of scientific management, I do not wish to exclude forms of action taken outside these technical processes of appropriation; yet conceptualization and processing are essential tools for drafting policies which will enable negotiation on the content and practices of ‘sustainable development’. It is not fruitful to treat the black-and-white ‘balance’ often referred to in soundscape research as permanent; rather, what is involved is an on-going process of achieving balance.

G mentioned, with a laugh, that he had come across statistics which indicated that Germans were no longer visiting Scandinavia in such large numbers; they were looking for places where one would not hear German spoken.

Although the soundscape has sometimes been depicted as the last romantic frontier in our environment, which not even a Cartesian gaze can govern, in cultural terms sounds do 'belong' to someone: depending upon one's perspective, either to the person who produces them, or to who interprets them. The right to silence has not so far been defined. Protection of the rights of the producer has led to the privatization of the soundscape (Franklin 2000: 16): the only sound and noise subject to attempts at control is that which occurs in communal surroundings (Westerlund 1995; Stockfelt 1993). All one can do with unwanted sound, argues Westerlund (1995: 44), is to learn to love it, or to restrict it; in the face of disturbing sounds, suggests Wagstaff (2002: 121), one has three choices: to tolerate them, to escape from them, or to attempt to control or change them.³

There have been several attempts to understand the activity of tourism in terms of the motives underlying the tourist's experience (Jokinen & Veijola 1991; 1997; Selänniemi 1998). In her exploration of the private aspect, Franklin (2000: 15) suggests that what we encounter in silence is the 'unprogrammed, unplanned and unprogrammable'. Franklin identifies two concepts of silence which are compatible with the modern understanding: firstly, silence can be interpreted as an 'enabling condition', within which the unexpected and unplanned can occur. One instance of this is contemplative silence, where individuals engage with their inner self. As the soundscape becomes privatized, however, the space previously been seen as communal is reduced, and with it, the potential space for unexpected events. The other modern understanding of silence identified by Franklin is becoming silent in order to allow someone else's voice to be heard. Silence is not necessarily voluntary, and where it is not, then it leaves no space for the unexpected. Are tourists active individuals who constantly set off in search of new attractions simply because they have opted for freedom of choice?

As a mass movement, the cultural history of tourism on a large scale dates from the late eighteenth century, as a conquering crusade to the east by paralyzed European culture. In Orientalism and its aftermath, for example, we can learn to recognize similar motivations to those of tourism. Napoleon's troops sailed to Egypt with serious intent, taking with them a ship filled with scientists from various disciplinary fields. Was the noise and smoke of European cities, combined with dissatisfaction with one's own side of the fence, a reason for this active flight to the Other?

Tourism encourages fascination with alterity – the pursuit of the exotic, both at home and abroad. In this respect, it is also the art of encountering the Other. James Clifford (1997) blurs the distinction between the experience of the researcher and the tourist: from an anthropological perspective, a foreign culture can be a challenge.

Initially, confronted with a foreign culture, the researcher does not yet have the acoustic competence to 'read' it, since the environment does not provide the keys for its interpretation.

What happens, therefore, when a group of German tourists sets out in search of a promised experience of silence in the midst of on-going ordinary lives? Gerhard, the leader, had developed a realistic ecological business idea which fused features of cultural and nature tourism. What he was selling was his time: what he provided was a vacation opportunity in a location to which in fact anyone had the right of access. As group leader, Gerhard could impose demands regarding the group and the location. He criticized bad planning in the Trentino hiking trails: in one area, the tourist authority had published a four-colour map and installed signposts pointing to the hiking trail, but the hill to which it led no longer existed, having been quarried and shipped out as cubes of Porfino stone. The crux of his criticism, therefore, was that tourism was made possible, but that visitors were not given information about what to expect (NV/FD/0300). What he wanted from his group was well-educated tourists, not looking at their watches all the time as they walked, and potentially interested in the stories that he liked to tell.

For a short time, I joined this group as they hiked through Cembra, and through their experience of the place, I acquired new keys for reading the surroundings. One of the questions I asked was which sounds had been the most pleasing and the most displeasing. The 'pleasing' answers included birds singing (5), the rustle of leaves (3), silence, water, wind, church bells, dogs barking, and a chainsaw in the distance; the 'unpleasing' sounds included traffic noise (5), the sounds of building (3), dogs barking (2), the chain saw, a motor bike, and the clatter of their own metal walking poles on the asphalt.

Since I was particularly interested in their expectations with regard to the soundscape, I then asked why they found these sounds pleasing or displeasing. Unpleasant sounds were described as too loud, hectic, threatening, or disturbing; they were suggestive of stress, of city life and of work, and they made people feel aggressive. Pleasing sounds, on the other hand, were not too loud, and were experienced as tranquillizing; they had meaningful content, and were associated with positive memories; they were sounds of nature, or 'natural', and moreover were pleasant because the hike itself was overall a pleasant experience.

In addition, I asked why the members of the group had chosen this excursion. Reasons that they mentioned included the opportunity to go walking in the hills at the right time, without danger, and without needing to be able to speak Italian. They were looking forward to experiencing nature, and to learning about the local cultural history; to exploring a new area of Italy; or they were returning to Cembra because their previous hiking holiday with Gerhard had been a good experience. So, I wondered, would Cembra remain in their memories as a place of silence?

The experience of silence was in fact spoilt for many of the tourists by their

own 'internal voice', an abrasive interpreter incapable of refraining from attributing meaning to their surroundings. One was irritated by the click of the walking poles – just one sound, which conveyed a sense of efficiency, but which rendered it impossible to interact with the immediate acoustic environment. They tended to become aware of the backdrop of natural peace and silence only when it was broken. Responses to my interview questions also indicated disappointment that although they were on holiday, they could not escape the sounds of everyday working life in Cembra village: sounds such as the barking of dogs, traffic, excessive speed, street noise; sounds of metal, of the crushing and loading of rock; the cars, trucks, traffic and the streets, the voices of people at work; or the church bells, although reactions to these changed after I had told them the interesting story about them. The only sounds of everyday life in Cembra which were typically experienced positively were those of children playing and laughter.

THE LOGIC OF THE DREAM SOCIETY AND THE EXPERIENCE ECONOMY

The hiking itinerary follows the route taken by the German painter Albrecht Dürer in the late 15th century on his way from Austria to Italy. Dürer passed through Cembra on his first trip to Venice, in 1494, and en route he painted his 12 famous watercolours of the Trentino landscape, five of which were painted in the Cembra valley. (Azienda per il Turismo 2003.)

Although the experience of silence cannot be sold, nevertheless silence has buyers. But what are we really buying, when we purchase 'silence'? What is the anatomy of this commodity?

Following the logic of the consumer culture, one possible outcome of an economic investment could be entitlement to being at peace. There are, for instance, various religious bodies which offer their members mythical narratives about an objective, divine source of internal silence (Koivunen 1997: 18). Ursula Franklin (2000: 15) suggests Quaker meetings as one example of the collective generation of silence. The journey may be compared to a pilgrimage in quest of experiences of the holy or the natural (Tenho 2003).

But silence in the surroundings may not necessarily provide the healing which some seek through internal silence. Withdrawal from ordinary society may merely intensify feelings of alienation. Retreats, on the other hand, where the experience of silence is structured and supervised, can meet the felt need for healing, since they integrate the need for individual experience with the need to share that experience with others.

In marketing silence, what may be sold is an image of silence, carrying with it no more than a promised possibility of the personal experience. However crude it might be to describe supervised retreats, for example, as 'touting' silence, there are many who are willing to pay for the opportunity to escape from the stress of

everyday life. The contextual framework for our experiencing of silence can be purchased: an opportunity, a trip, a time-saving service; the advance depiction of a promised experience; instructions how to attain the paradise of silence. In this way, the traveller can enjoy the experience of a location or situation which for some reason or other is perceived as adequately characterized by silence (cf. Böhme 2000). The business idea behind the managed consumption of silence is a reinforcement of the assumption that private, intimate experiences become more noble, or profound, or authentic, when we pay for them.

In his book *The Dream Society*, Rolf Jensen (1999) argues that this is the next phase now emerging in our culture. He describes the sale of mental tranquillity as a precaution against future shock. In an insecure and unstable world, there is a need for mental tranquillity and enduring values, just as there is a need in a static world for innovation and change. From a marketing perspective, Jensen is optimistic: fortunately, we have plenty of past to turn to, which can supply stories to meet both kinds of need (Jensen 1999: 97–98, 106).

Just as on the one hand our fundamental needs of water and air can be bought and sold, and on the other the financial markets trade with virtual money, never actually materialized, similarly, a myth of silence is easy to convert into a market commodity. A story about silence does not necessarily need to be true, and anyone can tell it. Therefore, as consumers, we ever more urgently need better knowledge of this mode of marketing. The Dream Society has already arrived; the entire history of economic progress, from one perspective, is based on asking a price for what previously used to be freely available (Pine & Gilmore 1999: 67).

The construction of an Experience Economy commodity relies on the balancing of various recognizable contradictions. Even where the ideal silence may be something so remote and utopian that its achievement is impossible, what the marketer needs are eager potential consumers. Where there is demand for opportunities to step aside in search of inward tranquillity, the supply will follow. For this kind of consumption theory, there is no ethical problem in the marketer selling what the consumers wish to buy (e.g. Lury 2001: 14–15).

The marketing philosophy in Joseph Pine and James H. Gilmore's handbook *The Experience Economy* (1999) is premised on the argument that all human experience is authentic: even the act of consumption can itself be an experience. At the same time, marketing is about differentiation. Places of silence, or quiet places, for instance, can be marketed as rare items, as status symbols, and thus as luxury commodities. Money will buy one distance from noise (Franklin 2000: 16; Ahmad 2001). In Finland, experience tourism is predicted as a growth area, relying on attractions such as clean air, the forest, and silence. As the competition intensifies between rival tourist destinations, the highlighting of supportive aesthetic conditions – e.g. the presence of silence, rather than the absence of noise – may well become a feature of travel brochures (Leveälähti 2001).

Resources are shifting to the Experience Economy, because goods and services no longer satisfy the needs of the market. From this perspective, once the experience of silence has been reified, there is no experience which is merely 'artificial' (Pine and Gilmore 1999: 16, 37). The marketers are acutely conscious of how consumers can be steered towards experience consumption: these handbooks include advice on how to harmonize experience through positive presentation. A wide range of expectations also must be taken into account. The experience must make an impression. The more sensory sensations an experience incorporates, the more memorable it will be. Too many random suggestions may spoil the experience. The creation, cherishing and enhancement of shared memories is a way of socializing the experience (ibid., 46–59).

The hiking trail through the Cembra valley follows the route which Dürer took, and information boards have been erected beside the trail recounting the history. Of the marketing methods focusing on silence, the visual ones are the most striking. The postcards caption mentioned at the beginning – 'Trentino – colours in silence' – primes the visitor to submit to the 'colours' of silence, by creating the image of a balance in the soundscape. In addition to these postcards, the Province of Trentino also runs a poster series with the caption *Emozioni nel silenzio* ('emotions in the silence'). In one of these pictures, a colourfully dressed skier is coming downhill past undulating, white snowy slopes. In the language of the postcards, the silence permits the enhancement of the skiing experience to a higher level, detached from its ordinary features. Evaluated in terms of the marketing guidance offered for the Experience Economy, the message of these postcards and posters is cunningly designed, and well targeted. The advertising slogan of 'silence' points simultaneously to authenticity, security, freedom, tranquillity, and spaciousness. In the middle of an untamed, yet safe emptiness, the landscape is a clean and unconquered stage for a positive experience of solitude, refreshed by which, the tourists can make their unhurried way back towards civilization. In highlighting the silence of the setting, the slogan also suggests that the individual visitor will be enabled to appropriate this silence entirely to his or her own enjoyment.

The marketing of a commodity does not, of course, *ipso facto* make the commodity ethically suspect. But where the marketing expert sees in this elusive idea a challenge and an opportunity, the humanist may well be concerned about the way in which such slogans erode meanings. The focus in this current research is thus on the banalization of experience, and the accelerating trivialization of accelerating product innovation. The goals of soundscape research, and especially of overt participation, have been to promote the emancipation of the listeners, to encourage reliance on their own sensory perceptions in the perception, recognition and construction of the meaningfulness of their own lives in their lived surroundings. Ideally, people should be satisfied with clean water, clean air, and silence; but it is evident that in practice, the frenzied constant innovation of the consumer culture makes it difficult to rest content with such simple slogans. Although it is not the

role of the researcher to go around sticking consumer warning labels on the commodities of the 'experience economy', which in themselves may be environmentally friendly, I do note that my reading of the marketing advice in *The Experience Economy* was divergent. Is this really how we allow our experiences to be manipulated?

IN CONCLUSION

One older man from the group of tourists notes that it is up to the tourists to decide where they go: if they don't like church bells, they won't go to places where they ring. I point out that the church bells weren't mentioned in the brochure. Gerhard suggests I should become an acoustic adviser in the tourist business. (NV/FD/210300.)

Empty space has a tendency to become full. The modes of marketing for silence are still developing, and we can expect new forms of experience services and commodification. The purpose of this article is to point to a place of silence which did not exist until it was created as such. Silence means cleaning up, and to survive, it requires definitions, muscle power, adaptation, concentration, and wealth.

In the complex world of 'culture', different meanings can encounter each other; yet even within a small village, different mental landscapes may well live out their entire life span without intersecting. In order for meeting and dialogue to take place between the very different readings of silence adumbrated by the three groups of actors described in this article – the locals, the tourists, and the advertisers – yet one more agency was needed, that of a (partial) outsider.

Today, consumers are in many cases highly aware of the need to read advertising imagery critically and with discretion. ('Postmodern' tourists watch and listen to the 'authentic' experience of their surroundings perhaps shaking their heads from side to side rather than nodding up and down.) Yet from the standpoint of the environment, the impact of the uncritical or of the ironic gaze is the same.

The examination of silence from the perspective of commodification raises the whole phenomenon to a higher level of abstraction. Its immaterial nature exposes particularly clearly the 'experience' aspect of these latest market commodities. The various attempts to define silence can be seen as a nature-culture paradox out of which the whole idea of silence as a defining characteristic of Cembra village emerged. This nature-culture paradox exists in the researcher's head, far from the location of impact of its materialization – but not only there.

If silence retains its position as a means of withdrawal in the unending cycle of market trends, then in the future a decibel meter may well become a popular piece of equipment for consumers to check whether the commodified silence which they have purchased lives up to its promises.

A commodified silence equipped with meaning pointers might well be experienced as a more 'real' form of silence than the mere absence of sound, or a silence experienced with no guidance on how to read it. If, for the consumer, extreme silence

is in fact too 'extreme', should at least one lift be built on the slopes of the Cembra valley, complete with tranquillizing elevator music?

In our everyday lives, all of us make countless little moral decisions when we are confronted with the contradictions between our own hopes and behaviours. In Cembra, locals and tourists alike oscillate between respecting silence and breaching it. It was commented, for example, that the young people in Cembra used their cars to turn tourist and escape the silence of the village, yet drove the same cars to return to it. For older people in the village, the sound of traffic meant that the conditions necessary for the continuance of life in the village were being fulfilled.

Every attempt to exercise control over one's life rests on the search for recurrent patterns and the need to manage one's experiences. The image of Cembra as 'silent' implicitly incorporates a temporal dimension: the inexorable assumption that silence and slowness belong to the past, and may cause fear; that in the course of time and economic development, Cembra, too, will become a place like any other, as the unique tone contrasts of its soundscape blur into the standard lo-fi hum. There is no final outcome to this perpetual, ubiquitous tug-of-war today, nor on any other day. A question which strikes to the heart of the issue is: How long can those who long for silence continue to shout on its behalf? In the end, the experience of silence rests on the individual's own shoulders; yet it is the nature of the surroundings which determines whether this adaptation will require a lot of muscle power in order to exclude the distractions of the environment or to escape the threatening changefulness of society by fleeing back to 'nature'.

NOTES

1 The first soundscape mapping projects in Finland were carried out in the small towns of Hyvinkää and Ylöjärvi in 2001–2; more recently, the 'HiljaPisa' regional project has been launched in the Satakunta area. In the Ylöjärvi project, the guideline values for 'silence proper' and 'relative silence' were 30 dB and 40 dB respectively. New criteria for categorizing soundscapes have also been proposed by various different researchers (see Itkonen 2003, and Kide 2003; Leveälähti 2001, 63).

2 E.g. the method used by the Five Village Soundscapes research group (Schafer 1977b), in which people are asked which sounds in their surroundings they find pleasant or unpleasant.

3 The incidence of various kinds of complaint about noise can be taken as an indicator of environmental acoustic quality. Letters to the editor in the press have been studied as a measure of trends in public attitudes in terms of the changing perspectives in different decades on good citizens' behaviour, and indicators of 'correct' socialization in different periods (Jokinen 2002). Over a period of two years, only two complaints were filed about noise in Valle di Cembra (the provincial regulations, which apply equally to 223 municipalities, are somewhat more strict than the Italian national legislation). Paolo Simonetti reports that 20–80 complaints are filed in the Province of Trentino annually, 50 per cent of which relate to noise in public premises. Acoustic mapping (*zonizzazione acustica*) had been carried out in 70–80 municipalities, in which the region was divided into several sectors of activity. In response to complaints, acoustic measurements are taken and the findings compared to normative values; the generation of excessive noise is punished by fines. (NV/FD/99.)

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SOUNDSCAPE SHUTTERS

Rhythmicity and cultural interruptions in the soundscape

Time and the sounds of the environment are relatives in a certain sense. Both raise ambivalent, two-fold thoughts: whether people consider them as interesting research subjects or, alternatively, as being self-evident. (Cf. Adam 1990: 1; Rehn 2002: 80; Julkunen 1989: 10.)

In this article I am asking, how does one structure the things sensed through hearing in relation to time. Besides the soundscape and time, the other main focus here is *movement*. I am describing and analyzing rhythmic variation of the soundscape of a northern Italian village Cembra. My interpretation is based mostly on observations made through listening to and watching the everyday actions and speech of the people living in Cembra during my 1999–2004 visits to the village.

In order to be able to talk about ‘scape’ instead of describing only individual sounds, one has to find a net of relationships between sounds and the ways they are experienced. Often the purpose of the cultural studies of soundscapes is to elicit the dynamic nature of events within the soundscape. In order to pause at least momentarily the constant movement, I have been looking for methods which enable the linking of the audible elements of the soundscape to the ways in which the listeners discern or perceive time. That is why I anchor my analysis mostly to the traditional theoretical division between cyclical and linear time, and to ideas about the nature of change.

The ways to organize and explain the stream of acoustic details in the outside reality are primarily bound to physical phenomena. I examine how the possible temporal regularities can be heard in the soundscape. One has to be present in the soundscape comprehensively in order to be able to observe it. The rhythmic waves of the soundscape are wide, not pulsating and as such readily waiting to be devoured with one sense only. That is why, when scraping out the ‘buried’ rhythm and making it

audible, one has to be open to several kinds of questions: local norms concerning the passing of time and soundscape, and the ways in which people either go along with them or do not follow them. Sketching the rhythmicity of the soundscape is linked to the idea of a listener who is actively looking for and seeking his or her way into alternative environments. Active crossing of borders of time and space is an integral part of the process of looking for and navigating suitable environments – not only the observation of movement. A sharp-eared listener recognises lapses, ‘quiet waters’ in the rhythms of the soundscape. I have called them cultural breaks, when wanting to stress my perspective: no soundscape is exterior to culture. (Vikman 2003.)

ABOUT RHYTHM

The idea of rhythm has long been a loose guiding factor for my soundscape observations.¹ The point of my observations has been that all environments do have something rhythmic that can be connected to time and its movement, and to which it is possible to anchor the individual human experience. *The Oxford English Dictionary* defines rhythm as movement in which the regulated successiveness of strong and weak elements is typical (Simpson & Weiner 1989, op. cit. London 2001: 277). By regulation the definition is referring to the internal order of the elements that the composer brings into the composition.

The rhythm of the soundscape is regulated by social life. From the point of view of soundscape studies, sounds are not just the inevitable by-products of the collective life style. They also affect, preserve and change the ways we hear, listen and, in the end, act in the physical environment. The idea of rhythm as such does not include any claim about the form of time – its periodicity or its linearity. Conceptually it is a phenomenon which patterns time: it can be characterized as successive, regular or irregular, an element that increases or decreases understanding, repeating or interrupted, flowing or shattered, systematic or unsystematic.

Rhythmic patterning is often understood as a positive thing. To find out if written texts have a ‘good rhythm’ it is suggested to read them aloud. When analyzing poems it is asked, whether the rhythm is dependent on the ear or the eye.

Rhythm (*rhythmos*) is etymologically from the same root as the word that means flowing (*rhein*); it refers to the ‘regular movements of waves of the sea’. Emile Benveniste (1971) has pinned down the duality of the concept *rhythmos* – it refers both to time and space: it reflects its formation [–] The ending ‘mos’ in the Greek word *rhythmos* does not refer to a finished action. *Rhythmos* gets its form as being in the state of *emerging*, ‘without organic stability’. (Viikari 1989: 89–90.)

Thus, even if rhythm creates form, I would not associate it with the stable and static but with the flowing and variable. Sounds are not repeatable in the same sense as cultural products. What has passed cannot anymore be shown to the audience. Because of that slipperiness – the impossibility of repetition – many people have

ended up studying captured sound worlds and their life as cultural products. They have chosen methods of cultural studies and read the acoustic manifestations of everyday life as texts.

My purpose is not to prove the existence of a stable cultural structure by using the term rhythm. Even if there were an equal physical possibility for all the people in Cembra to experience the same soundscape, I would not want to claim that a 'shared rhythm' would exist. That would be over-rationalization. Still, one crucial question remains: how to make sense of the rhythmic polyphony of the soundscape, its regularities and the overlapping of sounds? In this sense speculating about rhythm becomes philosophical: how to name and value the weak and the strong elements of the soundscape?

By referring to rhythm I want to remember and be reminded how lived sounds and their meanings are mediated by tradition. The aurally experienced is part of folk history which – as historian Jorma Kalela puts it – 'grasps onto one's clothes'. He writes:

The folk history is maintained by the community. The community also guards oversees the folk history: what is accepted and how things are presented, is not self evident. The control is different in different communities: in some of them things are spoken out, in some of them people are afraid to say anything.

(Kalela 2000: 38.)

As with any variable multiform social reality, sounds are also connected to memories and meanings. They include sensitive, private, everyday and transient areas that people may want to leave outside and inaudible – consciously, or as too strange a subject to talk about. However, the sounds are made meaningful in many ways other than by talking. The individual time experience of people is made meaningful in relation to the rhythm of the outside reality.² That is why I also ask how people create the audible rhythms of their everyday life against the commonly shared rhythmic background. What did the people in Cembra 'take for granted' (cf. Kalela 2000: 40–1) or regard as tradition? When and in which situations did the people in Cembra feel they submitted to or were comfortably floating on the rhythmic waves of the environment?

SHUTTERS IN CEMBRA

When I was spending my first night in Cembra there was a big thunderstorm. I listened to the enormous thunder wide awake. After a while I opened the shutters and windows to see the flashing and hear the thunder better, but the house opposite interrupted the sky and the view. The sound was masked by the downpour which had begun and was echoing in the stone alleys.

I could not foresee that the movement of the shutters would become the guiding element of my observations. I became socialized into the rhythms of Cembra through its shutters. First of all I had to learn to live with them technically. They had to be locked with a little, metallic human figure, *uomincillo* or *omenet* in local dialect, so that the wind would not have hurled them open. When one opened the shutters during the daytime and wanted to attach them against the wall, the mysterious metallic holder³ had to be turned upside down and locked.

In the world of triple glazed windows where I come from we try to insulate the inside from the cold of the outside. In Cembra the triple barrier of curtains, windows and shutters clearly served many other purposes too. During the day the thin lace curtains stopped the view from outside to inside, but only when it became dark did the wooden shutter close out the view from the outside world entirely. The village life leaked in despite the different filters. When I happened to be at home, I peeped out once in a while during the day to the street to check the sources of the outside



*Picture 12.
A noon moment in Cembra.
The shutters of the rooms where
nobody lives are also shut during
the day. The sharp sounding Vespa
is waiting for the end of the lunch
break. (Photo: Noora Vikman)*

sounds I did not recognise. I interrupted writing in order to be able to concentrate on listening to the most wonderful, spontaneous *ciao*-concerts of the laundry customers. I set my face into a grin when I heard a Vespa approaching. I knew it would have an ear-smarting, loud clatter when passing by through a narrow, echoing alley. The strident sounding Vespa, 'the wasp', was an appropriate name for that vehicle. As the first thing to do in the morning, I set up a microphone to record the sounds that had woken me up. There are tracks of the barking dogs, the metallic clicking of the construction racks, as well as an idling tractor recorded inside the echoing staircase.

Because the shutters did not insulate sounds, they also did not isolate me into my own rhythm and peace. Instead the typical morning began with the clicks of heels, the clattering of the Vespas, and repeating *ciao*-shouts from down in the alley. From inside the house I could follow the outside life as an outside observer. Similarly outside in the street I could – like anybody else – listen to the sounds that came from inside the houses. The neighbours walked past the house, hands behind their backs, sharpened their ears and then sent their greetings up to the apartment when they recognized a familiar, invisible voice. Even if I did not move, the moving of the shutters moved me.

I was dependent on public services. I had to go out to the library, to the shop and to the tourist office. The opening times and times of the break around noon were all different. I ran to read my mail, call in at the museum, negotiating, interviewing, recording on the mountain slope at 6.30 p.m. when the evening bells were ringing. Before lunch I had promised to say hello to old lady Silvia who had thirteen cats and thank her for the listening walk we made together the previous day. Just before going in I had time to pop into a shop to buy some fresh bread because the one from the previous day was already too hard for the teeth. The shop was not open on Wednesday afternoons – or was it mornings? Something new to remember and keep in mind appeared everyday. You could not have chat with a passer by if you wanted to follow the program carefully designed for that day.

PRIVATE AND COMMUNAL TIME

I was continually colliding with the rhythms of the village. Even if I did not wake up at five o'clock in the morning to have breakfast or wake up again to prepare for the second breakfast at seven like the landlady, the shutters had to be opened early. They had to be open at the latest when the downstairs laundry opened its doors at eight o'clock. Day after day I was reminded if I had not participated in this ritual. If I forgot my duty the landlady came to close or open them for me.

The term landscape is often connected to the (visual) idyll which tries to be maintained by including or excluding something from it. The soundscape pioneer R. Murray Schafer in his writing 'The Glazed Soundscape' describes the history of the use of window glass and the division of soundscape into the private and public

spheres that it caused. When window panes were installed the contact of people to the audible, moving and touchable world disappeared. After that the physical world was 'there' and the thoughts and experience of the people 'here.' (Schafer 1992: 4–5.) The unsuitable surplus of society's worldview is often silenced to death when named as cultural noise.⁴ Schafer warns that without participating in the 'other side', the nature of it may change. It can become empty, dirty, or romanticized. It is probably an eternal question if rhythm as a concept could be elastic enough (cf. Winkler 2002: 134)⁵ that it could explain the dynamics of the soundscape without having to classify essential parts of it as dirt.

The concept of acousmatics as developed by composer Pierre Schaeffer refers to the relationship between the sound and its source. Acousmatics can be described as a kind of 'objective', simplified listening process (reduced listening). The target in listening is the sound objects themselves, not the source or the environmental contexts of the sounds. Lacking any visual aids to determine the source of the sound, the listener starts to look for references, for example to personal experiences from the past.⁶

Schafer also pays attention to how the glazed window affected the segregation of the senses: after the change people could see through the glass but no longer hear. When it comes to the shutters of Cembra the issue was not dualistic to that extent: the outside world could be heard through the thinly glazed window, but through the wooden slat shutters one could not see it. The border formed by the windows and the shutters did not lead to total sensory deprivation, since behind the blinding shutters one could still be a participant in the public life of the village.

Even though it is hard to choose the most significant from the various explanations for the moving shutters in Cembra, they became a concrete example of the existence of social rhythms and visual communication. To move the shutters was an active way to define the borders of one's space. This practice could be read as a sign of the local way of making difference in defining one's own space and rhythm of life. After getting familiar with the local routines, I found that the rhythm of everyday life started to look repetitive and perhaps this repetitiveness overly accentuated the static nature of village life.

The border of the windows made the realities beyond the border interesting in a different way. The movement forced me to pay attention to the dynamics of life that the research cannot respect when it pauses the movement – limiting the research object by categorising or slicing it up into pieces. If there have been attempts to organise or categorise soundscape, they have been concerned with the practices of soundscape studies and the possibilities to apply the ideas in practice. (Clouter 2003.)⁷

The complex phenomena of the soundscapes of today cannot be considered as shared rituals or functional model (see Rainio 2005). The study of modern society is not interested in the production of sound as if the producers were reconciling good and bad moral forces. More often the research focuses on acoustic manifestations of satisfying the individual needs that maintain the dynamics of everyday life.⁸ The

community and its ethical aspects remain marginal. The researcher comments instead on the questions of bordering the individual and collective ways of producing and experiencing sounds – at least between the lines. More commonly individual likes and dislikes are studied, the main focus of the research aiming at understanding and explaining the imbalances of the factors causing comfort and discomfort.

Also the acoustic world is sometimes understood roughly as a playing field of different virtual and fantasy worlds, where the so-called entity ‘physical world’ does not have a role. When the quality of audible phenomena is considered, the subjective experiencing of time defines its weaknesses and strengths: there is no sound that can be experienced similarly even if heard at the same time in the same space. What is relevant as well in research and in the stormy everyday realities is how the meanings of the environment are read. The skill of reading the environment contains not only hearing the things that are audible but, as well, knowing *when* certain sounds can be heard. Soundscape competence⁹ also includes the competence to read the rhythms of the environment.

Opening and closing the shutters was a self evident everyday activity to the landlady. It created regular rhythms in the history of her personal life. By not participating she would have escaped into the world of invisibleness, becoming inaudible. The right position of the shutters indicated that the ones who lived behind them respected the community’s rhythms. It was polite to indicate one’s own role, preferences, and working timetables in the community. By reading the sign language of the shutters the landlady got a feeling of security: the others were also following the norms and rules. The shutters were clear signs of the fact that both the nightly rest and the daily bustle had their definite blocks of time. During the daytime the working morals needed to be visible and audible. At night the rest had to be respected by silence and not by indulging in singing in the streets. The language of the shutters taught me how the ‘insiderness’ and ‘outsiderness’ were defined, and how the private and public spaces were shared and made rhythmical.

THE PERMANENCY OF CHANGE – THE LINEARITY AND CYCLICITY OF TIME AND THOUGHT

The habits described above constitute one frame of our thinking and acting. People’s coexistence with the rhythms of environment is connected to a cyclical conception of time. This conception derives from nature’s daily and annual rhythms whereas thinking through linear time is not determined by the rhythms of nature. Linearity includes the idea of future moments as something new, better and possibly unique. However, another interpretation is the image of mechanical and clock bound time as enslaving.

What is of interest to me here is the idea of change in the soundscape. Linear and cyclical time conceptions include characteristics that refer to change and

unchangeability. The changes in the soundscape can be understood as cyclically repetitious or linear, continuously creating new instances or recreating past ones. However, the cycle also has a beginning and a direction. Time can also be thought to proceed in a linear fashion within cyclical periods and repetitive rhythms that evolve from cycle to cycle.

The soundscape lives and changes, it repeats and it continues. It is negotiable as to which elements are valued and which of them are considered suitable subjects for change. How people experience certain sounds as 'new' depends on their ability to integrate new sound perceptions into their soundscape worldview and construct their meanings.

Even if the division between linear and cyclical is rough, it helps to distinguish the changing rhythms, repetitious change, in different fields of life. These conceptions of time can guide in practice the ways in which the rhythms of a particular place are constituted by listening. Individuals use their own life cycle as a yardstick when relegating the reality outside their own understanding and control to a huge storage place of possibilities. On the other hand, the development of modern society represents such modes of development that – when compared – may make everyday tasks seem repetitious.

Raija Julkunen writes about how our experiences of everyday life are inevitably connected to our sense of time and temporal relations. She sees the routine and stagnation as necessary structures of everyday life. (Julkunen 1989: 16.) The desire for rootedness, the reproduction of individuals, can be seen from this cyclical conception as a basic resource for the social reproduction of continuity. As a result of the Western cultural self-criticism that began in the 1970s, the appreciation of this 'original and immediate' everyday sphere increased. Researcher Alf Rehn writes that the dualism of time conceptions easily forms a theory of time: cyclical time is valued as good, linear time as bad. Rehn warns about degrading the linear conception of time: linear time is not bad or false but only insufficient for what one can do with time research as a method. (Rehn 2002.)

Western culture and especially the modern conception of time have been criticized for their commitment to linear thinking (about time) and clock time. Valuing time has led for example to a tendency to simplify, to categorize and compare different cultures by categorizing their dominant time conceptions as cyclical or linear. Based on this view the time conceptions of different cultures are interpreted rather ethnocentrically as standards of 'progress'. (E.g. Kamppinen 1989: 189–201.)¹⁰ In Cembra I continually found a strong attitude that self conceptions interlocked with ideas of an historical continuum. Many people described the characteristics of the place in relation to the development of technology: they remembered for example when the first tractors arrived in Cembra and when the first tunnel for cars was built, only at the end of the 1950s. These impressive changes also evoked personal sound memories. One of the interviewees laughingly described how the women screamed

when they got frightened on hearing the first tractor approach the village.

When describing the social nature of times and places, researchers often make a distinction. They want to describe social change or social reproduction. As a research method the division between cyclical and linear time is meaningful if there is an interest in social change or not. For example, sociologist Anthony Giddens admits that everyday life is streaming and has duration but he does not see it leading anywhere. As a portrayer of social life, Giddens is not interested in the production of social action but in social reproduction. (Giddens 1984, *op. cit.* Adam 1990: 25–9.) The metaphors of reversible and irreversible time used by Giddens are comparable to cyclical and linear time conceptions. Barbara Adam who has written about time and social theory wants to understand a wider concept of rhythm: it contains tempos, durations, clear fragments, tunnels, passages, directions, seriality (Adam 1990: 19). These configurations of time borrowed from music vocabulary are essential elements of even the most repetitious social phenomena. The direction and the inevitability of events become relevant only if the periodical events are disconnected from their contexts. With this statement Adam makes a difference to the Giddensian conception of time. According to Adam the nature of change itself is an interesting target of description. The starting point of Adam's thinking includes the assumption that it is exactly the soil of everyday life where new thoughts and experiences become 'real', and where the seeds of new ideas are sown.

HI-FI ATTITUDE – TAMING THE SOUNDSCAPE IN PRACTICE

One aim of culturally oriented soundscape studies is to understand the reasons for the increase of noise and disturbing sounds. Even if the 'sound mass' – defined in technical terms – explodes 'only' exponentially, more sounds are always more sounds. Still, only the most disturbing noise becomes a figure on the self-evident ground of the soundscape, and as such a subject of discussion. Independent of the problems caused by the quantitative increase of sounds, existing laws are the only practical buttress representing public opinion or 'common good'. The researcher can share his or her responsibility about searching for the solutions with sound designers of the public spaces.

Release from this aural congestion in the midst of the quantity and quality of sounds is also a goal in the field of theory. Instead of treating only the symptoms of the noise – one of the symptoms being indifference – the answer of soundscape researchers has been to produce and maintain the traditions of alternative ways of seeing and hearing. Traditionally, theoretically oriented researchers have concerned themselves with the question how the soundscape could be presented as a solid and more controllable entity rather than a collection of separately lived anecdotes.¹¹ Today the assumptions of the research are different than in the beginning of soundscape research. A common belief at the end of 1960s was that the emancipated listener

would not relinquish his or her control of life and take outside change for granted, but instead could act for the quality of his or her own environment.¹² It is true that by making people conscious of noise and unwanted sounds the researcher can make the environment seem even noisier for its listeners.¹³ The ones who have trouble understanding soundscape as complex remain optimistic by keeping alive the romantic idea about a state of innocence where only those ignorant of noise and its causes can reach peace of mind. In looking for a model of the history of soundscape longer than one human life cycle, linear thinking feeds the belief that there existed a pre-modern happiness at the roots of the line. When trying to predict changes in the soundscape, the concern of the research has been that the balance of variety and complexity may disappear (see footnote 12). That is why it has been considered important in studies to underline the variety present by describing it.

Also in this context the division of cyclical and linear time leads to the roots of thinking: what and how should we think about change? The analysis of the smallest elements of soundscape as well as visions about a unified soundscape theory causes



*Picture 13.
The changing tempos of
the rhythms of personal time
clash in many different ways.
(Photo: Noora Vikman)*

problems in applying the results in practice. Where is the space for research based on the description of cyclical time conception of everyday life? There is a constant tug of war going on: is the critical thinking understood as giving a basis for new models of design or as a brake on the development that has already began?

One modernist obsession is that the stabile state of things has to be actively changed. If the dynamics of everyday life does not have a clear direction or goal, what kind of intentions can one find for the action? Qualitative studies can introduce those local meanings that would not be realized without participatory and listening methods. It is true that one can read the presuppositions and perspectives of soundscape research by reading the concepts that it has created, as Outi Ampuja summarizes (Ampuja 2005). The concepts are analytical but also reflect the theoretical ideals behind them. To understand soundscape studies one can lean on the definition of the commonly used concept 'hi-fi soundscape'. The pair of concepts hi-fi and lo-fi are used in categorizing the 'mass of sounds'. In the latter case the meanings of the sounds it includes vanish when the simultaneous appearance of those sounds leads to an unclear sound picture. The opposite concept hi-fi should not be understood as a neutral concept. Since its beginning the aim of soundscape research was to question the developments that would inevitably lead to the lo-fi soundscape. As R. Murray Schafer describes it, the research began with the belief in the potential to affect those developments (e.g. Schafer 1977: 181). The World Soundscape Project research group started its research by mapping the noise legislation in different countries (Truax 2001). One cannot deny the social technological attitude of the research in its beginnings. The intention in addition to the 'objective' research is to influence change. That could be called hi-fi attitude.

The changing soundscape is often understood as following the modernist model of a linear axis leading from silence towards a richer and richer soundscape. It is easy to define the weak and strong aspects of the rhythms of a soundscape by measuring its decibel-bounded elements. The more delicate way is to sort out the different meanings. The appearance of all kinds of extremes creates clear rhythmic variation in the soundscape. However, the definition of silence as the ground of a living culture and society is weak. The nostalgia based on the myth of silence follows the linear thinking about time. We willingly place silence 'beyond', to a nature that is opposite to culture. From this point of view it is easy to realize that the interplay of sound and silence is not a fair play: describing the change of the soundscape from hi-fi to lo-fi creates the spectre of inevitable change. Many researchers have objected to these teleological and deterministic ideas.

The soundscape has often been interpreted according to linear visions about change. The items highlighted have been emphasized in different ways: sometimes the increase of the tempo of modern life has been stressed, sometimes the diminishing of the conditions for variety (see footnote 12). The heard, ambiguous reality easily escapes the analysis. In particular, the Cresson research centre in Grenoble, France,

has produced new concepts to analyse soundscape and its more delicate definitions to facilitate the descriptive analysis of this slippery object. Björn Hellström has presented them in his book *Noise Design* (Hellström 2003). The concept ‘metabolic effect’ deals with rhythm and time.¹⁴ Because the sound object is continually changing into another form we have no time to observe all its aspects. The slipperiness of the soundscape as a research object depends on this temporal aspect. Because the place of soundscape research is on the border of the questions of time and place, it makes the mapping of meanings of the soundscape an inexhaustible research subject. (E.g. Mayr 2002: 33.) Culture researcher Ben Highmore describes the everyday as the posting of modern dynamics. He highlights the dual nature of everyday: it can be understood as the most routine or as a field of qualities opposite to quantitative evaluation and as such a field of intrinsic value. (Highmore 2002: 2.)¹⁵

Thinking through rhythms I seek a possibility to see everyday repetition as a positive thing. The image of an ideal soundscape is a place where everything is available all the time. We do not have earlids and it is not easy to break the umbilical cord to our environment. One can learn to live in the environment and understand it by sorting out its temporal regularity and variety. In spite of this psychological agility in the search for a pleasant environment – where the skill to read rhythms matters – readability is also required from the environment. It depends on the quality of the built environment, what hi-fi means in a particular place. The purpose of creating an ideal hi-fi soundscape is to offer a model for the simultaneous existence of a multiplicity of sounds. Environmental community design is determined by the fight for space, increasingly also for acoustic space. That is why understanding acoustic rhythms can be considered as important as measuring decibels. And that is why it is worth talking about rhythms.

DAILY RHYTHMS

Any kind of existing, predictable cycle unquestionably defines the local conditions and life style. In Cembra the myth of Italian sociality (e.g. Hänninen 2001), the habit of getting together at the same time at the same place to follow and comment on everyday life, was actively maintained. That’s why there was a common indignation evoked by the fact that the traditional meeting points were being changed into parking places. Specifically the old men used to gather at five to six o’clock in the afternoon to sit on the benches of a certain square. They were following that rhythm regardless of the fact that it was at the same time the noisiest traffic junction of the village. (See Vikman 2002a: 217.)

After listening to the acoustic details connected to the daily and annual cycles, I was convinced that it makes sense to analyse the soundscape in terms of the cycle of the year and the day. ‘Hearing’ the slow rhythms of the soundscape is not only hearable but also connected to memory.



Picture 14. Men on the square. (Photo: Noora Vikman)

Remembering sounds brought to light the audible rhythm of the environment. The question about the rhythms of daily and annual sounds was included in the question list of the AEC project. When we asked how one can hear that it is summer or evening, we got to know the sounds that were considered typical by people for a particular time of day or year. They often referred to the repetitive processes of annually changing natural phenomena.

Night, day, evening and morning all had their own acoustic profiles in every place. Usually the night is the time to be silent which most people spent in their own in private places, at home, in a safe corner sleeping. Because the best way to lead the discussion to questions of the acoustic environment and anchor them to practical life was to participate in it instead of sleeping, the observer had to get to know the nocturnal life and become aware of the irregularity of its rhythms. In Easter 2000 we were recording the soundscape of Cembra around the clock. The primary purpose of doing this was not to prove the inevitable fact that the early mornings are the quietest moments of the day. Instead we were attempting to find the basis for communication and new, essential questions about the local soundscapes.

After midnight the ones who celebrate their free night govern the piazza and arrive and return from the piazza with their cars. In the recording made at four o'clock in the night one can hear that even the last hang-arounds have left the place. The first bird concert begins and gets louder at five o'clock. On the tape one can hear that night is a time of few sounds. When not much is happening I listen carefully to the smallest sounds. The nocturnal soundscape of Cembra is marked by automatic ventilation, refrigeration sounds, and the clicks of thermostats. They regulate the temperature of

the fridges inside. The hum is interrupted only by a cat moaning in the background. I can't identify the existence of the hum before it stops the first time. It is also not easy to pay attention to the regular singing of the birds. The church bells' faithful rhythm punctuates the soundscape every hour. At eight o'clock the morning sounds start to occupy the piazza. People pass by even if the shops are closed. Cars start to pass. The first human event – people's fuss when walking towards the church – can be heard on the tape. (Comments in the tape report, NV 2000.)

The exceptions in the rhythm outline the rhythm, also in people's speech. The sounds that are not considered part of the rhythm hit the ear most easily. The annoying sudden noises of the cars passing in the night were often mentioned in the interviews. One interviewee explained the reason why it is even noisier in the small alleys than in the main street: late at night experienced drunk drivers choose the small alleys to avoid the police on duty in the main roads. (NV/FD/C2000.)

THE ANNUAL CYCLE AND HARVESTING THE SOUNDS

The main source of livelihood of Cembra village is porphyry mining, even if people still believe in the vitality of agriculture. The old wine cultivation is still being developed. In springtime in the hilly fields of Cembra people talked about the position of the moon and sun defining the rhythm of the natural cycle. People read the sun to time their work and negotiate the best time to plant the tomatoes and asparagus. They heard from each other when spring had come. In R. Murray Schafer's book *The Tuning of the World* (1977) there is a description of Cembra. The village is described as the only one of the five villages studied where the amount of human sound was more than the sound of motorized traffic. Many sounds are described as following a certain annual pattern, sequenced mostly by religious festivals. (Schafer 1977: 231–2.)⁶

In the annual cycle of Cembra there were repetitious stages connected to everyday activities and livelihoods. One of them was the time to harvest grapes. Even if wine cultivation was no longer the main livelihood of many of the people in Cembra, it marked the rhythm of life clearly. The work had to be done following the rhythm dictated by the weather. Harvesting time was the high point for even amateur wine growers. In August and September bringing the grapes from the field to the winery of the village cooperative created a rhythm that had to be followed. This demanded freedom from other activities and full-bodied participation in the event. The event also created a special soundscape where everybody was present. The most governing sound in the village during the harvest time was the massive drone and buzzing of the idling tractor engines in the queue in front of the winery. The tractor drivers were not restless and frustrated while queuing but thought being present was the high point of the ritual. The villagers showed photographs of the event taken from the bell tower. Also by describing sounds it is possible to try to recreate the atmosphere which the villagers wanted to return to outside of the harvest time.

People rarely described the typical harvest sounds separate from their functional or operational context. That would have required the work of a poet. In the field where the grower could be the master of himself and his wine, the people often took me to ‘see’ the sounds they had found. Guided by the smell of the wine mash we peeped into the plastic wine tub and I got to know what the tempo of the audible bubbling told about the level of completion of the concoction. The winegrowers clearly carried the aural memories of the atmosphere of the wine harvest time in their heads. Only when remembering and describing the different phases of the harvest did the grower realize its vast multiplicity. He started to laugh at the endlessness of the details: *siempre lavoro* (‘always so much work’)!

The sounds produced by everyday activities form an interesting soundscape. Cutting the branches of the vines, burning the branches and strapping were part of the work routines in springtime. The sounds of the scissors and the branch pyres created a soft soundscape that spread far out around the open valley. Also in the autumn the clatter of the scissors and the rustle of the vine leaves were part of the



Picture 15. *Grapes of a fork.*
(Photo: Noora Vikman)

working soundscape. The bunches of grapes were cut, carried, poured and spaded onto the tractors' platforms and tubs and one could hear the smack of the rubber boots trampling them. The tractors of the other growers passing by far away were present with their sounds.

When the harvest was over the village fell into hibernation. The winter started a new era in the village soundscape. The tinkling, exploding, and the sounds of the signals heard from the surrounding slopes were dampened during the coldest time. The people moved inside.

The experiencing of the sounds and their explanatory mastery was connected to people's age. I wanted to ask about the rhythms of the soundscapes from the older people because I had found clear differences in the tempo of life when spending time with different age groups. Talks about the sounds were often connected to a temporal frame of reference. To avoid being too abstract with my questions I asked the people to imagine the past and future sounds in Cembra. The retired women of Cembra gathered together twice a week to read the Bible and play bingo afterwards. During my visit some of them were inspired to list some sounds of the past between listening to their bingo numbers. They dramatized the differences with the past: all the sounds they mentioned as having disappeared from the Cembra soundscape were probably just fewer in number than before.

While soundwalking with two ten year old girls I asked them to relate the soundscape of Cembra to a segment of a timeline. I got a quick answer of how they imagined Cembra to be after 25 years. The girls described what there would be more of in the landscape, what less: more cars, more noise, more houses, more smog, less peace, less space. They imagined they would still live in Cembra after 25 years and said the ideal place to live would be like the Cembra of today.

In the context of a linear time concept, the younger as well as the older people pieced together a jigsaw puzzle of sounds. In their images of past and future they leaned strongly to the present moment and the elements sensed in it. Even if the young girls did not have the same perspective about time as the older ladies they also anchored their answers in the quantity of the sounds in their present everyday life. When thinking about their future the girls multiplied the sounds they experienced in their everyday life and described it as accumulating. The older women presented the soundscape through the vanishing elements that are listed below.¹⁷ Both described the history as a slow but irrevocable and unavoidable process.

- Cocks
- Church bells
- Cats
- The choir singing less
- Water wells where the women used to wash the clothes
- The racket of the wood brought from the woods by the men
- Wooden shoes

- The songs of the nature
- The sounds of the children
- The call of an owl
- The rustle of corn
- Serenade accompanied by accordion
- The carriage pulled by a horse
- The songs of conscription
- Rattle
- The ring of the church bells for the memory of the suffering of Christ
- Sirens that announced fires
- The transport of the old tree leaves to the village
- Funeral bells – two for women and three for men
- The jingling of the plates of women

ACCENTING AND LAPSES IN THE BELL TOWER

By studying the rhythms of the soundscape it is possible to present interpretations of the outward circumstances even if the rhythmic pattern in its entirety is more difficult to piece together. The expected balance reveals itself in comparison to lapses that deviate from the script. (See Viikari 1989: 88.) The lapses and exceptions reveal something about the self-evident everyday life. The descriptions provided by the people in Cembra reflected the austerity of the time and on the other hand how one can affect time and create rhythms by producing sounds oneself.

Concepts as tools for research also structure the image of the soundscape and guide the researcher to look for typical elements in the soundscape, such as sound-marks and signals.¹⁸ Signals often structure the time and activities of places. For example school bells or sirens can still be heard everywhere. They not only accent the soundscape but also structure activities.¹⁹ Even if church and school bells sound all over the world, their meanings and effects are born locally. The pupils and the caretaker of the school in Cembra knew and explained by heart the exact ringing times that I considered complex.

Taking one's own space in the common soundscape demands initiatives. It is not a passive but an active following of the timetables. One day after lunch a retired man in Cembra wanted to hurry back to the field to be in peace and so joined the long queue of tractors leaving the village. At first I felt that hurrying to peace was funny: instead of continuing to be in peace at home, he changed places within the flow of social rhythms. Finding the suitable soundscape wasn't about changing the conditions but using them and adjusting to them.

Social norms partly regulate what is usually happening in the soundscape and when. People accent the soundscape. They create figures and improvisations on the repeating rhythms. These ornaments vary and make the background more distinctive.

In the queue of tractors described above, people took over the situation and the noises by playing with its qualities. Some of the men broke and animated the slow rhythm by 'misbehaving'. All of them knew how much effort shouting over the noise of the tractor demanded. By starting the engines of their tractors at the wrong moment they teased the policeman who conducted the traffic in his neon yellow suit and whose role it was to represent order. The policeman had to yell his orders again and again. This carnival style mockery was a momentary disconnection from the monotonous repetition.

The villagers started to resurrect the annual rituals and patch the gaps in the cycle with the elements from local folklore that had already dropped off. The singers of the local choir, for instance, started to record their singing that had been a more important part of social situations in the past.

In summer I got by post a cassette which was recorded full of music and soundscapes from a local event called *coscritti*. It had been done with a Dictaphone owned by one of the singers and it included the *coscritt* song recorded nine times in different situations. *Coscritti* is a tradition where young men celebrate annually in the streets singing and making noises after the recruitment procedure. During the day they write the year all around the house and mountain walls. In spring 2003 this happened for the first time after a 40 year break. At that time only one 20 year old boy was participating. The purpose of organizing this was to tell other people both in the village and outside about the sound making habits connected to the annual cycle. The people had followed the travel programs about different villages in Italy on Italian TV and hoped to be able to participate one day themselves. The fulfilment of this dream was when RAI television came to record this moment in Cembra.

We found a common way to communicate through the traditional research tool of recording, looking for and documenting the special features of Cembran environment. The villagers took care that I would get a whole picture of Cembra's annual cycle. In addition, they recorded the soundscape while I was away and told stories about the 'absent seasons' I had not had the chance to experience. There were indications of what was thought to be valuable and worth documenting. The saving of an acoustic moment can be interpreted as a sign of a more conscious relationship to the soundscape. I could not make a technically accurate time travel to an idyllic past by listening to the amateur recordings. However, these recordings still had a purpose as refreshers of memory and tools for arousing nostalgia.²⁰

The nostalgia also had utility value. People were accenting the soundscape by situating the old habits back into the historical time line. A group of men were actively defining their locality by recovering old soundmarks – such as the tolling of the church bells. Regular ringing of the church bells was still part of the everyday soundscape in Cembra, and with a suitable wind they could be heard in the next village. The ringing of the church bells was a typical example of how a rhythm heard in the environment has been a tool to define and govern everyday life in the area over which they could be heard. Alain Corbin documents the history of hearing

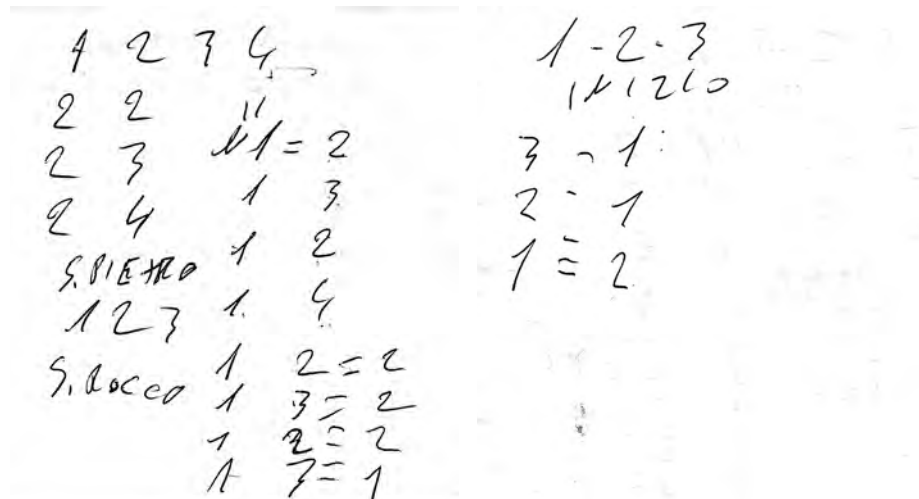
in his book *Village Bells*. He stresses how historical changes have been a result of a negotiation between the people who have sensed the environment. He describes how people listened to bells in the nineteenth century French countryside and the countless disputes that arose between different actors. (Corbin 1994.)

In his article 'Do scents and smells have a past?' Hannu Salmi mentions how in Western culture sensitivity is connected to corporality as distinct from spirituality. According to Salmi the sensuous is part of the private and as such commonplace and opposed to what is considered sacred. (Salmi 2001: 339–41.) Society has discouraged presenting the sensual publicly because it is specious and untrustworthy. In many occasions rhythm refers to sensing the pulsing sound stream physically.²¹ In this article I'm not answering the question whether there are elements repeating over a short period of time in the soundscape of Cembra that, if missing, the local people would sense as a bodily change. I try to see the phenomena normally present as biologically or socially constructed and their nature as cultural constructions. (Salmi 2001: 340–1.)²² One can read from Corbin's descriptions how the clerical authorities seldom liked the ringing of the church bells that announce everyday activities. For example the bishop of Coutances thought it was prostituting the bells to announce the arrival of the street cleaner. (Corbin 1998: 182.) Corbin documents the history of secularizing and sanctifying the church bells that is linked to changes in the local society. The people in Cembra also constructed their history linked to the different uses of the churches. They described how the troops of Napoleon used the *San Pietro* church as their kitchen and turned the frescoes black. They also remembered how the village bishop had used the church hall as his garage in the 1960s.

The times and habits of ringing the bells had their own meanings connected to the past and many could still read them. They were read as regular invitations to daily, weekly or annual happenings. Earlier they had been read as invitations to eat and as an indicator to stop working out in the forests and fields. 'Once upon a time' (*una volta*) – as one retired farmer wanted to express all his memories – the farmers ate seven times a day instead of five like today. The past was an inexhaustible source of stories and some were expressed as amusing because of the excessiveness they included. However, the farmer gave a rational explanation to this over-eating: the farmers were eating vegetables often because no meat was available and the work was hard. Eating still created a rhythm for daily life even though the habits of eating were also changing. A sign of segregation was that some people following tradition still ate their lunch at 11 instead of 12 when the church bells' ringing ended the forenoon. The church bells were still rung as a sign of newsworthy and unexpected events. The bells of Cembra told about weddings, deaths, and funerals. One day our lunch was interrupted by a silent moment: on hearing the death bells ringing in the forenoon my landlord knew that somebody who had been born in Cembra but who had moved away from the village had died. From the way the bells were rung one could also read if the person was a woman or a man. The church bells also warned about avalanches

and rock slides. Nowadays this task was taken over by the siren of the local volunteer fire brigade which one day also interrupted the enjoyment of the lunch pasta. The duration of the siren sounding told the firemen about the nature of the accident so that they would know how to equip the fire engines.

The church bells of Cembra were still ringing every day on the hour and four times more.²³ In Cembra the ringing of the bells was not part of the past even though they were rung less by request of the Cembran populace. Before 1970 the bells were rung the whole day during a festival day in San Rocco church (16 August) and San Pietro (29 June) and also two hours daily during the whole preceding week. This practice was discontinued because of the resulting complaints. After the change the machinery of the bells was automated. Recently a group of men started to ring the bells by hand on those festival days following the old manner. They remembered how they had been rung. Now the ringing was limited to fifteen minutes. In summer 2003 the men climbed up into the bell tower, rang the bells themselves and videotaped and recorded the whole event. They wanted to describe in detail how they played the bells. Because there was no way to notate the pattern they had to create one.



Picture 16. The bell ringer's notation on how to play the bells of San Rocco and of San Pietro. (Photo: Noora Vikman)

The men used to compete in ringing the church bells in the past. The ringing of the bells was a kind of control in relation to their own past, not so much to the listening audience of today. By exploiting the sounding potential of the bells they could bring the sonic past into the present. They now had the power to take over the public space.

The aim of this article has been to open the shutters onto one local soundscape. I described the durable or remembered, activity accented rhythms of Cembra. I wanted to point out the simultaneity of linear and cyclical time conceptions and the tension between them in the interpretation of the soundscape. I presented thoughts about the 'direction' of the change of the soundscape in Cembra and its qualities. The more neutral term for this quality would be 'essence' which slightly artificially wriggles out of the scale of values. However, I searched for local values.



Picture 17. From time to eternity. People go to listen to the past sounds in silent places particularly reserved for that. (Photo: Noora Vikman)

Rhythmic harmony requires continuity in the common polyrhythms. When one goes to swim in the culture one gets wet. If one wants to get dry again one has to find a suitable place to land. I named the time and space bounded transitions aside from the social noise or cultural fullness as 'cultural breaks'. By the places of cultural breaks I meant the concrete spaces of the built and social environment where it is possible to achieve the feeling of time and space. What if a person needs these breaks for his or her own voice? The idea of an ideal landscape includes a wish that there is some predictability in the environment. How do people 'trust' their present soundscapes in that sense? Not many of us want to dry off completely, but does our culture offer enough harbours for us to land?

The temporally well structured soundscape could be called a rhythmic hi-fi

soundscape. The multiplicity of the soundscape means that there are clear breaks and still waters in it, and that their duration can be predicted, trusted and waited for. Cultural breaks have their prerequisites connected to the physical world because in the end the environment offers frames to the well-being of individuals.

Nowadays a certain bi-centrism characterizes soundscape thinking. Ideas about the changing world caused by continuous micro-level conceptions and creativity do not have much to do with the macro level fantasies of governing and changing the world mentioned above. There are certain images of inevitability in the background of soundscape research that act as a negation of the variation happening in the gentle processes of homing cycles. The purpose of cultural analysis can be understood as presenting the multiplicity as a big cycle within which people act. Researchers are not understood as exterior to its cycles of meaning making. They have a professional role in documenting and explaining the tug of war that maintains the dynamics of the soundscape. I have asked myself if I was building a utopian ideal. Did the people only think about the sounds when I was asking about them? Did I underline the uniqueness of the local soundscape as being idyllic and interesting so that it brought some imaginary surplus value to the place? At the grass roots level I had experiences that suggested how they could recycle the acoustic elements and the new ideas connected to them. How the people could – by collecting a little fee – satisfy those with a need for a cultural break. (Vikman 2003: 18.)

In an escalating tempo it is harder and harder to find a break. It is not necessary to try to bend the direction of the lines of development if one can read the rhythms of the soundscape. Then the break can be found even from close by. The questions about how easy and quickly people adjust to new situations remain the presuppositions for all action. Even if the one who can read the rhythms can sidestep them more easily, the hi-fi attitude leaves one alert. In Cembra I learned little by little to close the *scuri*, the shutters in the evening when it grew dimmer. The rhythms were shut out but I wanted to be in peace because keeping to my own timetable made living inconvenient. It was difficult to be inside and outside at the same time, to live two rhythms simultaneously. The rhythm of Cembra was not a matter of course and I never adapted myself to it completely. I did not prepare my food and start to eat every evening at seven o'clock, because I was wandering in the alleys listening to the ear breaking scrapes of chairs against the stony kitchen floors. However, because of the fact of being an outsider I knew that this rhythm existed.

NOTES

1 In my PhD thesis about the Northern Italian village of Cembra the idea about rhythm is only one theme. The work presents and situates sound phenomena and experiencing sounds in other contexts as well.

- 2 Anthropologist Alfred Gell (1992: 231) writes: 'Instead, subjective time arises as an inescapable feature of the perceptual process itself, which enters into the perception of anything whatsoever. Time as an abstract dimension has no perceptible form, and in this sense there is no such thing as time-perception. There is only perception of the world in general, in all its aspects, which, whether it changes or not, is perceived via a cognitive process consisting of the endogenous 'perceptual cycle', or the 'retensional modifications' of Husserl, i.e. via a cognitive process which consists of changes or cumulative differences occurring over time.'
- 3 In the old part of the village where I lived nearly all the windows had wooden shutters and *omenets*. I still don't know why the *omenet* figures were as they were. Those who I asked had not heard or thought about them. During the day the *uomincillo* ('little man') was a male figure. At night, when it was hanging downwards, one could clearly recognise the features of a woman on the reverse side of the man.
- 4 Mary Douglas presents the background to her thinking in the preface of the Finnish edition (Anttonen & Viljanen 2000) of her book *Purity and danger: an analysis of the concepts of pollution and taboo* (1966). Her starting point is that dirt is *materia* in a wrong place. It is the by-product of the systematic categorization of things. Behind organizing there is always a concern for order. Organizing is creative action that strengthens reality. Purity and morals are tightly connected first of all to each other and secondly to time and place. Douglas' approach has been criticised as reinforcing the categories of cultural facts, instead of formulating new categories.
- 5 Soundscape researcher Justin Winkler has made an analysis leaning on the concept of rhythmicity borrowed from music terminology. He understands rhythm as an approximate repetition of a cycle – thus standing out from a precise, identical repetition of a cycle. Winkler is aware that even if rhythm implies a kind of elasticity and resilience, it is actually a structure of extreme robustness. Rhythm is concrete worldly time, rhythmicity is its systematic aspect.
- 6 The term *acousmatic* has its roots in the Greek language and refers to a situation where the sound is separated from its source because the source is invisible. In ancient Greece the event was *acousmatic* when a lecturer (most famously Pythagoras) hid behind a curtain to focus the attention of the listeners only to his or her voice. (See Hellström 2003: 44–5.)
- 7 One can realise the difficulty of categorizing soundscapes in different social practices, where soundscapes are documented and categorised in different ways. For example in sound archives, the 'sound objects' cease to exist as complex soundscapes when split into various categories.
- 8 About privatizing see Kilpiö (2005) and Kurkela (2005). Research about advertising through sound and opinions about different genres of music offer interesting material for studying the phenomenon of privatization.
- 9 Truax has created the concept of *soundscape competence* analogous to *linguistic competence* and *musical competence*. It is tacit knowledge that manifests itself in behaviour (Truax 2001: 57). Schafer has earlier used the term *sonological competence* borrowed from Otto Laske (Schafer 1977a: 153).
- 10 According to Adam the *timeful* cosmological thinking in some cultures should not be interpreted as *timeless* (Adam 1990: 127–38). Therefore this kind of temporal thinking cannot be reduced to any other time conception.
- 11 R.M. Schafer and the co-authors of *Five Village Soundscapes* analyzed community soundscapes using the concepts of variety, complexity and balance, where balance consists of the interaction of these sonic properties through continuous feedback. Also in their research they considered the informative elements and their meaningfulness to members of the community, not just the physical properties of the sounds (Schafer 1977b: 75–9). Later, Barry Truax (2001) presented a model of the complex connections between sounds, their appearance and ways of experiencing them. In Truax's model, the balanced (ideal) soundscape is a *hi-fi* soundscape.

12 In his communication theory Truax offers a model for dynamic soundscape behaviour as a system. He argues that the information mediated by the soundscape changes if the feedback is amplified instead of being counter-checked. The result of this phenomenon, colloquially called a *vicious circle*, is instability of the soundscape (for example, people's adaptation and desensitization to noise in noisy environments that leads to tolerance for increased noise). (Truax 2001:82-3.)

13 For the definitions of noise see Truax 2001: 93 and Schafer 1977b: 75-9.

14 'Metabolic effect is a generic concept concerning the perception of sound, featuring two fundamental criteria: the instability of the structure (the sound objects) discerned in time and the distinctness of the parts of the whole (the sound landscape) in a given sonic composition. Metabolic effect is elusive since it sheds light on structures that by nature are both stable and transient i.e. a space that is made up of configurative units, which are in a kind of continual change, but where the overall configuration is received as being the same over time. The 'imprecise' here functions as a catalyst for aesthetic expressions, which, thus, is a central motivation for undertaking this investigation. To better understanding the effect, one thus needs models that illuminate such complex patterning - in fact, one may say that understanding of the effect is concealed in its own examples, and in accordance with methodological design principles the effect requires that one puts it into operation. In other words, the effect demands reciprocal action between theoretical and practical methodological positions.' (Hellström 2003: 110.)

15 In cultural studies the balancing role of the dynamic elements of the entity is not in focus - as distinct from the models of complexity of Truax mentioned earlier.

16 The active and self-sustainable life of the village is described in more detail in the chapter *Rhythms and Tempos*.

17 There were also nostalgic comments among the answers of the women, but I am not including them in this article.

18 *Soundmark* is derived from the term *landmark* and refers to a unique sound in the community that has noteworthy properties as valued by the members of the community. In the Finnish translation, *soundmark* has been interpreted as a remarkable sound of the community that is worth protecting (Schafer 1977: 10, 274. Trans. Honkanen ja Junttila 1991: 9).

19 *Signal* is a foreground sound that is paid attention to especially because of its pitch and loudness. *Signals not only punctuate village life but their advent precipitates chains of other sounds in quite orderly recitals.* (Schafer 1977: 10, 231, 275. Trans. Honkanen ja Junttila 1991: 9.)

20 About nostalgia see Hyvärinen 2005.

21 In the CD-ROM of Barry Truax's *Handbook for Acoustic Ecology* (2001: 92) there are sound examples in which the rhythms consists of remarkably shorter-term variation than the ones I describe in this article. They are footsteps, horses, blacksmith, milking a cow, oil pump, windmill and clocks.

22 Also Steven Feld writes how the cultural connotations connected to rhythmicity and corporeality have been stressed, for example by using the term *world beat*. The term has maintained a cultural difference between the Western gaze looking for exotics and erotics and the natural sense of rhythm of the 'other'. (Feld 1994: 266.)

23 The village of Skruv was the only one of the AEC villages where the bells were not chiming. The chiming was stopped at the request of the inhabitants: they had a very unpleasant sound (see Uimonen 2002: 21-40). In the German village of Bissingen, people were negotiating if it was really necessary to hear the sound of the bells every fifteen minutes.

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Noora Vikman

ON THE MOUNTAINS, FROM THE MOUNTAINS, TO THE MOUNTAINS

Polyphonic pasts, spaces and places of singing in a North Italian village Cembra

When conducting my first soundscape activities in the field I wanted to ask the interviewees where they would draw the line between music and soundscape.

Initially I asked the question only half seriously, thinking it would be amusing to the interviewees. For a fresh and inexperienced ethnomusicology student I was a little self-conscious about shifting away from the topic of music, and I thought it would deflect my own self-consciousness to pass the responsibility of defining the field to my interviewees.

Finally and surprisingly however, the interviewees did not interpret my question in a very abstract or conceptual way. I noticed that it was possible to talk about the subject with the people in the midst of the soundscape, so that abstraction was concretized in specific sounds we were hearing. They were able to describe their experiences of the sounds of the raindrops and the early morning foggy soundscape 'as music' (Vikman 1995).

In soundtalk one can romanticize soundscape as well as pleasant music as something longed for, the atmosphere of a place. In a city one can meet noise freaks who experience the city hum as background music necessary to their lives.

I will investigate the local lived environment produced by singing and the places of singing in Cembra village.¹ I describe briefly how the local male choir singing was situated in the soundscape of the village in its public spaces and occasions at the beginning of the twenty-first century. How did the singers create and control different spaces of the village? During our meetings the singers of the local male choir produced their environment by talking as well as singing. By setting goals they shaped the conditions of local acoustic communication. When singing they produced 'cembrannes'.

The building material for this construction of identity was the immediate



Picture 18. An invitation to sing: a Sunday morning at the baita. (Photo: Noora Vikman)

physical environment, the mountainous landscape and the stories connected to it and the different layers of the history of Northern Italy. In the conversations about singing they anchored the soundscape to the world of meanings of the symbolic landscape, a site of subjective meanings of shared sounds, but not always necessarily heard by everyone in the same way.

I felt especially challenged to interpret the term ‘organized spontaneity’ that the choristers applied to their singing, and why they felt it was so important to maintain this ideal of spontaneity. I was also interested in the idea of cultural production as a new livelihood alternative, and its possible impact. I will conclude by placing the practices of singing in the theoretical framework of folklore process as defined by Lauri Honko (1990; 2002) and consider the future possibilities of singing as a ‘product’ designed by the local people.

THE PLACE OF ORDER

Over thirty years ago John Blacking (1973) introduced into ethnomusicological discourse a definition of music as humanly organized sound. The rational understanding of research is that it is about making sense. The idea of order carries a positive suggestion of establishing control.

Blacking’s sentence might be taken to imply that music is organized in relation to its sonic context. As a research subject music is often felt to be more organized than soundscape, partly because there are established methods for the study of music.

Music can also be organized in relation to its sonic context, the soundscape. It is this connection which is of most interest to me in the following discussion. This is logical because music is often controlled by its creators, performers and listeners, and this in turn will depend on the sonic context in which the musical event occurs.

Blacking's description of music as humanly organized sound raises the question of how and why people make cultural choices in their cultural system. It should be easy for any soundscape researcher to accept the above definition, since he or she recognizes that a soundscape is not just a disordered and random entity, but has its own order and logic.

Soundscape researchers also seek to hear the soundscape as humanly organized. There they distinguish signals, soundmarks and special places and rhythms (see Schafer 1977). Soundscape research as such offers an opportunity to analyze the experienced world using multiple principles. The methodological distinctions between various research approaches depend on who is felt to be creating the meanings of sonic phenomena: is it the researcher, the interviewee or both?

Furthermore, in Blacking's definition music acquires its meanings only in human interaction. Along with his definition he suggested that the field of music that is understood as folk music should be widened because all music is structurally as well as functionally folk music. (Blacking 1983: x-xi.) Using the same logic soundscape research has widened the field of ethnomusicology. In a narrow sense the 'musicality' of acoustic reality depends mostly on whether the listener is active or passive, listening to or hearing the environment (Truax 2001: 15-19). Both music and soundscape research take as their premise that the human being – music maker or listener – makes sense of his or her activity by actively controlling his or her environment. What is experienced as music depends on the listening point chosen by an individual or collectively adopted.

The culture offers several alternative models by which to control the environment by listening. Concentrated listening is only one of them. When rethinking the level of agency of those participating in the music event, an important question arises in soundscape research: how do we share our acoustic experiences with other people? 'Sharing' here does not mean participating in a discussion group but sharing the meanings of the sounds consciously as well as unconsciously. Even if the acoustic signals are wordless they are audible. There are major differences both within and across cultures regarding the tacit conventions of listening.

One way to construct order when doing music research has traditionally been to think of the text and context as separate. Among ethnomusicologists, however, there is a wariness about this distinction that is also encountered in other research fields. Researcher of religion Teemu Taira (2003: 22-3) has summarized aspects of the 'context' debate in cultural studies. Researchers generally agree that the distinction between text and context is extremely problematic. Taira writes that the context should not be understood only as situational context or locality. Context does not

pre-exist as a historical or cultural background, into which the text can be situated without difficulties: it has to be constructed by the researcher.

These observations have partly guided my analysis of singing in Cembra. The attempts to define the conceptual border between text and context drew me to the study of the contemporary practices at the interfaces of music and soundscape.² So I have smuggled these abstract ideas into the wine cellar where the Cembra male choir sings amid smelly mould and wine mash.

CHORAL ACTIVITIES IN NORTHERN ITALY

A large male choir Coro della SOSAT (*Seccion Operaia Societa Alpina Tridentina*) was founded in Trentino in 1926. Singing was one of the activities associated with the alpinism movement, others including mountain climbing and cave expeditions. SOSAT, founded in 1872, was part of an association established to encourage tourism in the area CAI (*Club Alpinista Italiana*). The SOSAT choir was part of the local leisure activities formed by the working people and the ideal was to include all levels of society (SOSAT 2005.) After the First World War, in 1919 when Trentino became part of Italy after Austrian rule, the choral activity understandably had a different political orientation from today. The First World War was an important event that strengthened North Italian identity. The Italians occupied the Northern provinces Trentino and Alto Adige from Austria during “nationally spirited, desperate battles” (Lintner 2004); finally, after the First World War, in the Treaty of Versailles, the Italians gained the Northern provinces Trentino and Alto Adige from Austria, promised to them in London Treaty in 1915.

1861 is the date that marks the unification of Italy as a whole kingdom (with Turin as its capital). This led to the formation of the first Italian parliament. However the 1960s are regarded as a peak period in the unification of Italy. Economic growth made the television a common item in many households, the main reason that the Italian language became standardized. Prior to that it was often the case that people in different parts of Italy did not understand each other. It was only when economic growth arrived in the area of Trentino that television affected the life style of this relatively isolated mountainous place. Various forms of mass culture and secondary level education spread through the region. (Lintner 2004.)

The wartime government sought to shift capital investment to Southern Italy in the interests of economic balance. However, national economic programs produced political frustration and, partly because of partisan activity, largely failed in implementation. This conflict even toughened the pride of the Northern Italians, and strengthened their wish to maintain a distinct identity from the South. (Lintner 2004; Peltonen-Rognoni 2005: 40, 46.)

The cultural activities that preceded the Second World War barely reached agrarian Italy on any significant scale. Before the war the choirs worked under pressure.

One of the direct influences was the fact that during the most rigorous years under fascist rule choral singing was controlled. The authorities for example gave an order to change the first part of its suspect name *seccion operaia* ('workers' department') and the name was shortened to SAT (*Societa Alpinista Trentino*).

The robust hobbies of singing and sports were well suited to the objectives of the fascists. They wanted to harness popular songs even more firmly to the service of fascist ideology. Special leisure centers, *dopolavoros*, were founded in cities, offering 'ideologically clean' popular music to the workers. After the war, tight regulation of choral singing was relaxed, allowing it to flourish. Today there are many organized choirs. The most famous currently are SAT and SOSAT, which no longer carry strong political connotations. (Filippi 2005; SAT 2005; SOSAT 2005; Lintner 2004.)

BACK TO CEMBRA – GIORGIO NARDON, THE CHOIR
AND THE SONG REPERTOIRE

Initially in my field work in Cembra I had thought to exclude music from my work, which was intended to describe soundscape and concentrate only on non-musical sounds. During the first journey to Cembra in 1999 I did not hear live music at all. In autumn of the same year I got to know an active local singer, Giorgio Nardon, with the help of two students from Trento University. Since then I've always stayed in his house and the polyphonic male choral singing has become a major element of my acoustic experiences in the village.

Giorgio Nardon was the central figure in choral singing in Cembra. He called himself an artisan. In 2002 he finished his work as a laundry keeper. He had already partly retired, but still cultivated wine and apples, forested and made woodwork. The other choir singers also had had local occupations, mostly farmers and miners of porphyry-stone.

Some of them had experience as immigrant workers in Switzerland and Austria in the 1960s. The other singers called Nardon a 'computer' and often redirected me to him for answers to my questions about singing. At the same time Nardon sought to avoid the position of leader. This 'leader' of the leaderless choir had read from cover to cover Paolo Zanettin's book about the local folklore, *Cembra e suo folklore*, published 1930. He had great patience in practical matters, such as compiling the repertoire of the choir and its lists of songs, writing down the words with his mechanical typewriter, collecting sheet music even though many of the singers could not read it. Nardon recorded the songs with his Dictaphone and dreamt about performing.

He was also interested in the distinctive ways of Cembran singing. I was present at arguments where this leader figure directed the singers to behave in a more orderly way when the researcher and recorder was present. As a preserver of folklore he fondly remembered the old times and the situations in which they had sung. He had a nostalgia for many other things too, like the old working methods. He was

proud of the fact that he did not read the newspapers and follow the outside world. I often listened when consultant Alfonso Lettieri³ made some corrections to the descriptions of 'Trentinian' songs.

In cultivating his hobby Nardon was well organized. He had created his own way of categorizing the polyphonic song repertoire and classified the songs into five groups. The system was based on the origin of the song, the atmosphere it mediated and the lyrics. 1) The 'old' songs (*canzoni 'vecchie'*) which Nardon claimed had their origin in Trentino. These were mentioned in Zanettin's book, but their writer was unknown. 2) Serenades (*serenate*) were written in the form of a letter as a way of declaring love and they were sung under the window of the beloved. 3) The songs of the Alps (*canzoni alpine*) were of two types. Some were dedicated to the mountains and their mood was sad because they recalled natural catastrophes in the beautiful mountains. In the others from the First World War the soldier defending his country in the more remote mountains remembered his home. 4) The choral songs (*corali*) were arranged for four-part choirs, so that other choirs of Cembra were also involved in singing the same songs. The words often had generalized human themes and they were filled with metaphors drawn from nature. 5) The category of *allegre* songs were meant to evoke happiness.

Although Lettieri³ disputed the exact origins of the songs, the singers themselves were not interested. I saw this as a preference for interpreting their folklore in their own independent way. The elements that might be considered sentimental and nostalgic evoked different moods in the singers, and the pleasure thus found in singing was more important than the 'authenticity' of origin and style.

ANATOMY OF SPONTANEITY

In the spring of 2004 when visiting Venice I saw an advertisement on a wall and found my way to a concert to rest my feet. I sat down and waited without knowing what was about to happen. After a while twenty or so men dressed in white, checked shirts marched to the stage from the side door. They organized themselves in the form of a half circle and set their hands behind their backs. The ritual lasted a few seconds. The singers were pivoting on their heels seeking a good position. They coughed and cleared their throats silently. Gradually they settled and directed their eyes towards the conductor standing in front of them. A Venetian male-voice choir was performing their repertoire of mountain songs. Between the songs the conductor briefly described the story in the song. In the background a sequence of pictures of mountain scenery and villages of Dolomites were projected onto a screen.

During a short holiday away from Cembra I learned how the forms of presentation of the Northern Italian love for the mountains and home region had spread everywhere. It provided a new way of thinking about locally-oriented singing in Cembra.

Alpine romanticism offered a model for male choral singing also on the banks of

the world famous canal in Venice. It was one instrument for constructing Northern Italian identity even though the mountains were not part of the immediate environment of the choir's home district, Venice.

The ways the Venice choir performed resembled certain descriptions of typical performative gestures of choirs in Cembra, as for example in the video and description of the Cembra male choir by the ethnomusicologist Ignazio Macchiarella (Macchiarella 1999b). The introductory text for the video says that normally the singers stand still staring ahead. Their hands are normally stiff, sometimes touching each other behind the back. Sometimes two singers beside each other may sing hand in hand, and rarely does anybody show any expression, gesture or movement of his head.

However, in my own experience, the informal, everyday singing occasions are not so rigid at all. For example, among the furnishings in the wine cellars (*canevas*) as well as in the mountain huts (*baitas*) there was a huge table around which the people gathered together to talk, eat and drink. Even while singing the singers sat around the table and the singing was very animated. These differing experiences cannot be explained simply through the differing ways of interpreting by Finnish and Sicilian researchers. Rather, it was the longer time spent in the village that offered me an opportunity to get to know the unofficial moments of music making. Singing in *baitas* and *canevas* was not accompanied by the same social protocols of public singing, and one could listen to improvising and vocal experimenting.

In addition to their strong connection to the village, one of the identity markers for the male singers was an emphatic presentation of themselves as 'the choir singers'. In the video as well as in my own experiences the singers grounded their self-understanding to the village and its places in a way that could be summarized as: 'We live in Cembra. We are spontaneous. And this is how Cembra sounds.' My analysis of singing in Cembra has been framed by the term, 'organized spontaneity' that the choir singers themselves employed in describing their singing to Macchiarella (2005). I also became interested in that definition and took the paradox seriously. I ended up asking why the singers relied on this kind of definition to describe their self-understanding. What did the singers really mean when they talked about the spontaneity of their singing? How could the paradoxical combination of spontaneity and ordered organisation be heard in their singing practices? I felt that their inspiration behind their sustained dedication to singing was partly comprehensible through this paradox.

The Cembran singers did not see any contradiction in juxtaposing the ideas of the spontaneous and the organized. Many of the elements considered to be spontaneous or organized can be understood in relation to the Trentinian choral tradition in general. SAT and SOSAT choirs were exemplars for the Cembran singers. The choirs organized large popular concerts and the singers of Cembra listened to and appreciated the music. Nardon had recorded one concert in the *teatro* of Cembra in 1993 when the SAT choir performed there. The choir of Cembra took the mountain songs composed and arranged for the big choirs as part of their repertoire. Nardon also collected the

recordings of the other choirs of the neighbouring villages. Local institutions had organized opportunities to compete with each other for the SAT- and SOSAT-connected local choirs and the other types of music amateur groups, like brass orchestras – there were over seventy of them in Trentino. Around the province they had competitions at the village level that had become a new tradition, part of folklore. There seemed to be an abundance of keepers, users and developers of tradition.

The local choirs seemed to have several shared ideals with the organized SAT and SOSAT choirs. Both underlined a love of nature, mountains and were outgoing in their life style ideals. However, the choral singers of Cembra had no wish to imitate the practices of the organized choirs even though they admired their presentation. They defined their spontaneity in an indirect way by describing what their singing was not. It was typical for the big choirs to practise regularly and to have a conductor. The choral singers themselves pointed out this aspect of spontaneity: they did not need a conductor whose main purpose was to signal when the song should begin. Nardon described the rigorous tests conducted by the organized choirs for those wishing to join, and was very pleased and proud of the fact that their choir did not have strict rules. It can be argued that it was partly due to the political history of the area that the choir did not want to articulate political goals for their activities, nor to subject themselves to excessive regimentation. The members of the choir wanted to maintain their singing as something they do voluntarily and for pleasure.

The choir singers reflected the duality of folk music research in an interesting way. Macchiarella (1999a: 166) connects the question about the spontaneity to a form of romanticism that has nothing to do with ethnomusicological research. In my view, ethnomusicologists are themselves not free of romanticism – the research frame and research questions often reflect romantic attitudes. To ignore the importance of romanticism in conducting research may occlude elements of singing that, if recognized, could advance one's research fruitfully. It is most likely that Macchiarella wished to caution against credulously taking the nostalgic remarks of the choir singers at face value. Nevertheless, music ethnographers have an obligation to treat people's interpretations seriously in relation to their immediate contexts. In that sense the expression of nostalgia is never 'untrue'.

THE SINGING PLACES OF CEMBRA

When I asked where the choir is singing, Giorgio answered laughing: 'You know it already', but he answers anyway: 'In the church, *baitas*, bars, streets, everywhere'. (NV/FD 2002.)

There was a saying about Cembran singing: Those who do it, love it. The same singers sang regularly on Saturday as well as at Sunday masses, in various religious ceremonies, at the annual festivals, as well as at weddings and funerals. The singers gathered together in *baitas* and *canevas* in the evenings after the various village

meetings. After the Sunday masses, a few glasses of wine and lunch, they often left to sing at the *baitas*. Food was an essential part of those meetings. There was a huge table in the middle of the room with places for about 20 people eating, drinking and singing around it. It was a matter of pride for the families to make their *baita* available to guests when given an opportunity. Otherwise the singing was not meant to be performed on stages. The choir never performed for example on the stage of the local theatre where some of the villagers prepared a play every Christmas.

In September 2002 I spent a month in Cembra during the harvest time. On 15 September they celebrated the most important religious festival, *Madonna's*, Virgin Mary's day. The choir participated in the events over the whole day, which began with a mass in the church of *Santa Maria* at 9 o'clock. The choir sat on the right side in the front of the church and sang in particular sections of the mass. The singers, together with the congregation, answered the prayers and singing of the priest.

The procession started to assemble at 3 o'clock in the afternoon. The villagers gathered together in a square in front of the *Santa Maria* church, the brass orchestra and choir taking their places at the head of the procession. On tape I recorded soft conversation; the scuffling of sand and continuous hissing 'sch, sch, sch' can be heard. The player of the big kettledrum started beating the background rhythm. The prayers of the priest, the prayers and singing of the participants in the procession, the brass instruments and the drummers took turns. The drum beats echoed, disappeared and reappeared from the gaps between the house walls along the narrow alleys. The choir had its own part in the choreography. There was no audience following the procession on the roadsides, because nearly all the people out in the streets participated in the procession.

On the same day Nardon organized a welcoming party at his brand new *baita* on the wine slopes near the village. Nearly all who came were men from the choir, many bringing their wives. They also knew many songs and sang the whole afternoon together with the men. One of the men played accordion and all the songs were sung to its accompaniment. The people called out their suggestions to the accordion player and the repertoire of the gathering was determined by what he could play. The house offered cold cuts, cheeses, wine, sparkling wine, and cream cake on which the baker had iced a figure of the new building as a decoration.

In the evening we left hastily for the *capitello*, a special chapel for *Madonna* where the choir was supposed to sing again. The evening hour of devotion was held outside in front of the *capitello*. The chapel was used only once a year on the day of *Madonna*. Because the weather was windy I could not record the occasion. On the same slope, after the choir had sung its parts in the ritual, the congregation offered food, drinks and more fellowship in the cellar of the congregation building. The lively waitress literally filled our mouths with cold cuts and shouted: *Manga, manga!* ('Eat, eat!') *Nero o bianco?* ('Red or white wine?') They offered also lots of chocolate that melted in our fingers. In the middle of it all the choir mainly kept among themselves – and sang.

The term soundscape can refer to an accidental acoustic environment or a consciously created one (Schafer 1977). The singing soundscape could be understood as an actively created component of the soundscape of Cembra as a whole (Böhme 2000).

Space produces and maintains ideas and habits. The built environment affects the ways its users create social meanings and articulate the relationships between people. Different organizations of space are an essential part of the shared life-world. The idea of the lived space underlines the corporeality, situatedness, and constantly transforming nature of the spatial meanings. Spaces are unceasingly in the process of shaping, and the fragments of the past exist in layers in lived space. (Saarikangas 2002: 54-5.) This led me to examine how much 'open' space there is Cembra – that is, space lying outside deliberate planning – and how it invites the people to fill it with their activities.

The people telling stories about their past lifestyles were 'ear-witnesses' who testified to changes in the lifestyle, singing traditions and soundscapes of Cembra. People also wished to preserve some elements of the past soundscape for the future. The imagined world of the younger people in Cembra was not centred on the village in the same way. However they also liked the smell of mould and considered that the preservation of the older life styles was an opportunity for the future to become also a 'platform' for the representations of the past.

The acoustic context of the Cembran singing was the spacious mountain scenery. The main livelihood of the village was porphyry mining, which produced a continuous, high pitched, metallic tinkling. Part of the work also involved explosions and their warning signals, and a continuous rumbling of the trucks transporting the stone. It was softened by the open space and the echo. The sounds were for most of the time discrete and bounded 'lived side effects' of the mining. The sounds dissipated evenly into the surroundings, but naturally there was no danger that they would accumulate and 'contaminate' the scenery. The mining structures, however, were permanently present. The sound of the movements of the stone in and out of the mines kept the stony landscape in the minds of the villagers constantly. The villagers were considering alternatives to mining as a livelihood, mainly for reasons of visual aesthetics: the scars that it left on the landscape could be seen from a distance and they wanted to preserve some pristine alpine landscape for the eyes of tourists.

Without falling into environment determinism, Steven Feld has presented some interesting connections between familiar local materials and local music, and the formation of local aesthetics. For example The Kaluli people of Papua-New Guinea talked about their music making by describing it as a 'waterfall in their heads' (Feld 1994: 6). The echo is an essential part of the soundscape in Cembra. For that reason the sound space of the village is layered. The sound is reflected both from the mountain slopes as well as from the stone walls of the houses framing the narrow alleys

in the village center. The echoing mountain slopes clearly defined the space called *acoustic horizon* in soundscape terminology (Truax 2001: 26, 67–8; Winkler 2001). In the village center the horizon is narrower. The buildings of the village were built from the stone of the surrounding mountains. The streets and alleys were covered with stones. The sounds of the traffic caused complex reflections from the walls and made it difficult to anticipate when to give way to passing cars. Some of my outdoor recordings from Cembra could easily sound as though they were made inside to someone who has not been in the village. I have been asked, for example, why a car drives suddenly so fast inside a building. Furthermore the interior walls, floors and ceilings were of stone. The absence of soft materials affected the general impression of indoor spaces. I have mentioned in my notes how I suffered from the sounds of the scraping of the chairs with metal feet on the stone floors (NV/FD 1999).

In Cembra the acoustic materials and the echo were also strong influences on the human acoustic environment in singing situations. The men preferred the arched, stony *canevas* for indoor singing. The arched ceiling of the *caneva* of Nardon's house was built of stone 500 years ago. The other favourite places to sing were the *baitas*. On the way from *baita* to *baita* the singers tested the volume of their singing in the open spaces and the mountains answered clearly. The same phenomenon encouraged the soundscape researchers to holler into the air unselfconsciously and clap their hands in front of them towards the mountain walls.

Our relationship with an environment mediated acoustically is referred to as idiosyncratic (Leisiö & Niemi 2004: 10). The relationship of the singers to the environment of Cembra manifested through the acoustics of the spaces encouraged and contributed to spontaneous sonic expressiveness that was also collectively lived. They lived adjacent to more regulated ways of performing. The singing was expected to be heard as background music in the shared rituals of the village. The singing environments varied. In the *baitas* they had more scope to create an atmosphere they liked.

They took over the space by adapting to its acoustics by singing. The material conditions defined by the space made it a special kind of instrument, the echo adding new aesthetic dimensions to the basic harmony. In the echoing space the singing enveloped its producers more intensely. Singing was simultaneously communication within the group and interaction with the immediate physical environment.

PLACES OF MEN, PLACES OF WOMEN

Spaces, situations and atmospheres and the conventions related to them create conditions for music making. The singing group of men had a defined position in the community because of their audible public role. Singing was a pleasure as well as a social duty. The singers never directly mentioned the social rules connected to the traditions of the village as being constraining.

Macchiarella writes that singing in Trentino had belonged to men only. The

women sang in their own groups and privately. In the 1960s women could also participate in public singing, such as in masses and in processions of the annual religious festivals. Nowadays they sang in the church choir with the men. But in practice, singing other than on church occasions was a male activity.

Christina Orsatti (1997) has studied women's spaces in the valley of Cembra. She writes that the traditional collective places and concerted, collective activities were connected to housework. The women worked and met each other in fields and laundry places. She has also written about the friendships between the women and mentions that relationships between the women were primarily confined within the family. They often needed a reason to go outside the house for example to meet a sick person. The church did not accept, for example, dancing.

The male choir of Cembra often clearly dominated the public space of Cembra. When the men went to drink a glass of wine in a bar after the mass, the women went home to prepare lunch. Most of the women were not interested in 'men's hobbies'. They were invited to the *baitas* when planning the Sunday gatherings. Some of them participated in the celebration but took care mostly that the *polenta* and chestnuts were cooking well and that there was always enough to eat and drink on the table. Some women complained that the men did not let them participate in the singing. One local woman was especially active in encouraging other women to participate in singing. She organized a group of women to sing when she had heard that Ignazio Macchiarella and video makers were coming to the village. The women had created the situation, and decorated the places, stage and choreography as what they understood 'traditional'. In addition they were standing in the half circle choral setting. One of them was treading a spinning wheel and another sat winding thread (Macchiarella 1999b).

According to local memory singing had been both a differentiating and connecting factor between the sexes. Both men and women remembered how singing had been linked more closely to everyday life situations. Both sang when they were carrying wood, picking corn and wine grapes, and filling the mattresses with dry corn leaves. The divisions between sexes were not ignored in nostalgic recollections. The tradition of women singing together stopped when the collective laundry activity was discontinued. When I asked about the change in the soundscape of Cembra, the older women in particular remembered and missed singing, especially the serenades sung by the men under their windows.

RIGHT AND WRONG PLACES

According to the choir, respectful behaviour towards the women had been part of everyday life in the past and they still wanted to recognize it by singing. The words and the stories in the songs suggested that the past had been a time of innocence. Then the men 'sang wistful serenades under the windows of the ladies at the same time protecting their heads from the falling flower pots thrown down by the most

temperamental ones'. The singers also played with the division between the sexes. By singing in their own male groups they established distance as well as trying to reach out to the alien world of the women. The devotional aspects of *Madonna's* day faded away towards the evening and the norms of disciplined behaviour were tested. For their part the singers created a boisterous atmosphere of a carnival. Nardon interpreted in detail the words of a song called *Brutta donna* ('ugly woman') when they had sung it with passion, describing how ugly a woman can be. The choir wanted the listeners to participate in this testing of decent behaviour to the limits of courtesy.

Madonna's day was an example of a ritualistic curve of drama involving singing. The singing moved from place to place with the singers changing its form in different situations and atmospheres. As the evening progressed, we found ourselves as if in the middle of a Bakhtinian carnival, where the sublime images are being contrasted and attenuated by bodily gestures and mischievous pleasure (2002: 270-7) immediately adjacent to a sacred ritual.

Gradually the atmosphere dissipated. Most of the singers returned home before midnight and were humming, whistling or singing the songs on the way. Some of them seemingly felt a little embarrassed doing this so late in the middle of the street. However it was difficult leave the gang so the rest of the group still popped in to the nearest bar *Rosalpina* – to sing.

The repertoire sung in different spaces and situations varied. Even though the singers could not articulate the unwritten protocols, these were still important. For example once I was humming a song they had sung in *Luvio's baita*. When I told them this they denied it. It was a religious and devotional song *Signore delle chime* ('the lord of the peaks') which was not meant to be sung in the *baitas* but at funerals. The same happened with some other songs.

In the house-warming party I asked the men to sing a Neapolitan song *Maruzella* to find out if it was known also in Northern Italy. They admitted they knew the song of the fishermen of Southern Italy but became a little indignant. I got the impression that the song about a girl who was flirting with men was considered inappropriate even in the boisterous *baita* party. Previously many of the men had unfavourably compared the loose morals of the Southern Italians to their own.

I was attracted also to a song called *Villanella* because of its rhythmic arrangement which included interesting backbeat rhythm and division between the voices. The singers sang it with concentrated faces. Sometimes they refused to sing it and I began to suspect it was appropriate only for certain occasions. It also told of a beautiful dancing girl. However, the singers explained that that kind of polyphonic arrangement would have been too difficult to sing for some group combinations of the choir that were present. The nature of the repertoire changed also depending on the place and who was present. When I requested this song we were sitting in a wine shop where people from outside the village were also present. Later in the evening in the *baita* they gladly sang this song. In private they didn't care so much

about the technical purity of the singing. The atmosphere was more relaxed and encouraged more spontaneous ways of expression.

FISHING FOR SARDINES

The survival of the local singing tradition depends upon other local activities. While the singers were concerned about the future of their choral traditions, they disagreed as to how to develop them in the future. They had a lot to negotiate. The singers did not think of performing as the main goal. Occasionally they had performed in public outside the village in the local ethnographic museum, but otherwise 'formal' public performing remained only a minor consideration. They had made some initiatives regarding concert performance, as for example organising a small scale choir festival in Cembra in summer 2004 for which they invited five choirs from the nearby provinces. They also expressed a wish to perform outside the village, applied for some funding from the municipality and hoped for an invitation to Kaustinen folk music festival in Finland. They had some lively discussions about where and why the choir should perform, but I sometimes felt I should not enquire too far into these. They thought the singing could raise awareness of local identity and would therefore help in marketing local cheeses and wines to the Sunday tourists passing by and listening to it as background music in the village. They were a little suspicious about this kind of promotion and wondered if they should also advertise the local *Cassa rurale* as they were asked to do.⁴

Cembra already had a folklore product, *Canti dei mesi*, that was advertised in four-colour brochures. This is a musical play that connects everyday life to the rhythms of the annual cycle of nature. The local cultural activist Paolo Zanettin was collecting local traditions in the 1930s and published a book *Cembra e suo folklore* ('the folklore of Cembra'). It was published as a book in 1970 by the local folklore group *Gruppo folkloristico di Cembra*. The book describes *Canti dei mesi* and the correct ways to perform it. Over 30 years later the publication remains something in which the village takes pride. A local paper and bookshop had decorated its windows with copies of the book, in addition to plastic toys, bird cages and colourful erasers.

Folklorist Lauri Honko (2002; see also 1990) explores the process by which a tradition makes the transition to a folklore product⁵. This model was originally developed in the early 1970s to develop more rational heritage policies, and especially to clarify copyright entitlements in relation to the spiritual heritage of the third world peoples. The model was also meant to remind the academic community of the widespread public interest in folklore materials. (Honko 2002.) The commercialisation of folklore was one interesting phase in the second stage the folklore process. It could be argued that the Cembran singing was following this trajectory. I myself was not so much interested in defining the phases of these theorized categories, but rather sought to describe in more detail the habits of simply using and consuming culture,

as well as the possible attempts and processes of cultivating folklore. In addition I was interested in the 'metabolism' of the soundscape in all its forms.

Honko also points out how the uniqueness of the tradition is in the performance itself, which disappears to make way for the next, and different, performance. Only interventions from 'outside' in the form of documenting can conserve, even if only imperfectly, the uniqueness of the performance. In its way the documentation both kills and preserves folklore. It freezes it, and makes the particular documented performance a model for all others. (Honko 2002.)

In the liminal spaces of cultural change, for example in one living room in Cembra, the habits of different generations lived side by side. During the early evening I was tasting *schiaava* wine and talked about the different methods to spice *grappa*. When the older people went to sleep early I continued the evening at the table with the 27 year-old son of Giorgio and Luigina Nardon, Manuel and sipped some Swiss lemon liqueur and beer. Manuel told gossips about the quiz-master stars and discussed the music in various formats of Italian TV programs.

A popular model of the commodification of a village in Italy was to be found in the various television travel programs. Villagers, including Manuel, made comparisons and drew distinctions between their own village and the ones presented in these programs. This led them to speculate vigorously about the possibilities of Cembra and its local singing finding new audiences. There was discussion in the village as to how to find new markets for its product – and Cembra itself as a product.

These discussions reflect an anxiety about a future in which Cembran singing would no longer find a natural audience in the shared everyday life of the local people. The women and the older men avoided each other's spaces. Young people got together in Bar Vigo or in Bar Virus by wrapping themselves in the decibels coming out of the jukebox. The traditional manifestations of belonging together are already being superseded by small units of socially separate spaces.

Consuming can be a sign of separating and standing out as well as of interaction and communication through which one can identify with wider communities. The people in Cembra were increasingly producing everyday life through the commodities of international mass culture. The singers realized fully that the standardisation of products often exhausts and degrades them. What would happen, if the singers were to be bulldozed into extensive rehearsing? Would it kill the amateur joy of singing? Were the sons aspiring to be the managers of their fathers?

The communal ties and individual tasks that guarantee one's own continuity are connected in many different and fine-grained ways. There are many kinds of communal ties. In a society which has multiple communities, community can be understood as something that an individual can 'use' for his or her purposes (Holmila 2001: 12–13.) In that event, what role would unity play in Cembra?

One significant discursive strand within studies of contemporary life conceptualizes everyday practices in terms of re-interpretations of the past. This kind of

reevaluation is particularly conspicuous at moments of transition between epochs (Knuuttila 1994: 9). I argue that Italian cultural life in general and the village research in particular seem to be at exactly that kind of cusp. I was able to trace this mostly at the local level, studying the singing in Cembra and its context.

According to the researchers I met in Italy, documenting the live singing cultures was an important part of the local ethnomusicological project. The researchers documented and planned publications, while the municipalities of the villages of the Italian alpine region produced popular illustrated publications of their singing groups (e.g. Chiari and Vinati 2002). Singing together, at least among the older generation, was thriving in Cembra. In many annual festivals the participating groups prepared shows representing the whole village rather than separate hobby groups.

The North Italians called themselves sardines because they lived very tightly in a relatively small area. It was hoped that the so-called Sunday tourists passing through the villages, tasting and buying local cheeses and wines, would also be potential audiences for the singing. For the ones fishing for those tourist sardines, hoping that more of them would stop in Cembra, singing appeared to be a lucrative product. The singing was believed to be exotic for someone who came from afar, and familiar for those who came from nearby areas.

The aspirations of the singers were part of a trend in cultural production in which everyday life is brought into the public sphere, rather than remaining private and personal. The experience of a consumer is always personal. It is more and more often the case that the marketing process utilizes the personal feelings and experiences of consumers when creating and promoting commodities (Rautiainen-Keskustalo 2005). The connection between music and everyday life is central to the question of how singing is changed by this process. The consumption and marketing of culture relate to questions of the quality and meaning of life.

As an affective form of expression music has a role in addressing these questions. (Rautiainen-Keskustalo 2005: 26–8.) The commodification of music requires that personal experiences and feelings be made public. However, in Cembra the ambition to market the music is not the main purpose of the choir singers, who sit in their mouldy wine cellars enjoying themselves. However, it was outsiders who raised the profile of their originality, thus confirming the importance of singing in the eyes of the singers themselves. And it was their pride in their own culture and in their hobby that gave them faith in the survival of their singing tradition.

Analysing the steps in the commodification process suggests similarities to the folklore process described by Honko. The concept of ‘work’ (of art) includes the idea of a unique and lasting creation or construct. Honko takes this further, asking whether the objective of protection is the *idea* of the ‘work’ (or product) of folklore, or is it the *work* itself, the *presentation* of the work, or the *documents* that produced from that performance. (Honko 2002.)

In a way the singers wanted to leave evidence of their everyday life for posterity

and feared that their singing in its recent form might disappear with the memory of their generation. Food, drink, women – and men, were part of everyday communal life in Cembra. In that sense they were ready to ‘surrender’ to some degree of commodification. But there remain questions. What kind of elements are needed to create a local, attractive ‘experience product’ out of singing, particularly since the product has to combine material and immaterial elements. This was something that the people living in Cembra were deliberating over: how could their make their ‘local singing machine’ work.

FRUITFUL FALLACY OF PERSPECTIVES

As pointed out in the previous chapters different meanings given to the living singing tradition in Cembra in those different contexts guide the singers’ relationship to their own practical music making. The many contexts of singing enfold many different areas of life. In the end – all movement through a medium generates sounds. All human activity which includes movement also includes the production of sounds. (Stockfelt 1994, 29)

Obviously, by sound-making people can inspire and invite other people to produce sounds. Here we come back to paradox of acting spontaneously, which I have referred to earlier in this article. The paradox between conscious and spontaneous acting as such can fruitfully help to maintain activity and motion. The singers in Cembra make good use of the strength and energy of the following paradox, which is a kind of *perpetuum mobile*: it is hard to transform the practices of spontaneity in music making (or in any performances) into products, because spontaneity is immaterial; spontaneity as a phenomenon keeps on escaping its hunters. Cultural production is becoming more and more ahead as a new, alternative source of livelihood for Cembra dwellers, and thus they have a reason to keep up the ideal of spontaneity.

Cultural continuity depended on both order and spontaneity, as the singers in Cembra had realized. Spontaneity was not merely a rhetorical term but a recognition of the hazards of becoming formulaic. Contemplating change always raises the question of continuity. As a researcher I shared the important questions, aspirations and anxieties about the future of singing and the common sense optimism that singing can’t be extinguished. That’s why I was curious about what kinds of disguises are needed in the future in order to make it possible for the everyday singing to survive?

In the life of Cembran folklore there were elements from each step presented in Honko’s folklore process. To some extent the presence of researchers increased the pride of the villagers in their own culture. The movement in the liminal space between the usage and consumption of culture is vivid. These different functions of singing – on the one hand, singing for the community, and on the other hand, using culture by buying it – are both tools for adaptation to the prevailing sounding environment and moral climate. It recounts the coherence of the village and rituals of everyday life. At

the same time the singers were moving towards new areas of culture: individualization, commodification and the world of culturally conscious ways of reading.

The organisation was connected to several different goals: 1) The desire for pleasure and communality 2) Aesthetic and technical development, and the demonstration of skills in organisation and self-regulation 3) The wish to perform and to document the singing 4) The wish to benefit from it financially.

I directed my attention away from the cities as cultural centers believing it is interesting to study the effects of globalization also in the geographical margins of Western culture. Possibly, in these margins the local tunes and sound phenomena are differently affected by the global trends of commodification and increasing consumption. In the global distribution of work Cembra concentrated on quarrying stone for the flaneurs in the cities. Even if the singing wasn't that substantial an alternative to the stone mining it was seen as an important part of invigorating the village life.

In the way the singers projected a sense of tradition I was struck by the expressions of 'authenticity' in the spontaneous singing, where even a tuning fork was not needed. The folksy way of singing seemed to have an easy relationship to modern, mediated forms of performing. This made the speculations about the effects of sound reproduction on the local acoustic environments and its interpretations less relevant, and as such it is not a subject of my study. (about schizophony, see for example mm. Lopez 1997; Truax 2001; Schafer 1986).⁶ It is impossible to list definitively all the features in their culture that the people of Cembra sought to foster, but the intense joy they derived from singing was palpable to an outsider.

The age difference between me and the singers may have affected the message that they wanted to send to me in own attempts to interpret the singing. When the men were singing they were in the role of older people. Many of them had already finished their working life and were therefore not directly affected by the practical challenges that modernization presented to the economy of the village? (Vikman 2002, 2003, 2005). However, even as amateurs they continued the task of developing the future formation, 'architecture', of the village life. Taking care of the future direction of the village was part of their public masculinity. The ideal of an active man could also be heard in the words of the songs, which thus mediated traditional values and role models. When present at singing situations I was certainly a receptive audience for their performance of the past.

The ways of hearing the world arise from interaction with it. Hearing is also connected to the appreciation of the environment and how people feel it to be their own. Everybody who has walked in alpine scenery knows how difficult it is to estimate the distance to the distant mountains. One who has set the goal of reaching one of the peaks knows that the journey can take longer than expected. The aged people of Cembra had obviously become accustomed to the mountainous landscape and its deceptive perspectives. At the same time they called upon a mythologized past to embrace them and construct a meaningful present. Having already walked for

so long they knew how far it was to the mountains. However, they did not have to travel any further to achieve those sweet feelings of home sickness. They knew how to invite the mountains to visit them.

NOTES

- 1 The village of Cembra was one of the villages studied in the Finnish Academy funded project Acoustic Environments in Change (number 47441).
- 2 The desire to describe sounds in more detail has grown, along with the attempt to develop concepts that describe sonic phenomena. For example Hellström (2003) describes the melodies of electronic music and extends the range of concepts used in soundscape research. In his book, however, there is no concept that would help in articulating the liminal space between music and sound and that would describe the graduated process of soundscape changing into something else over time.
- 3 Alfonso Lettieri was an amateur historian who returned to Cembra to spend his retirement. His activities included the publication of a CD of old photographs from Cembra (*Ridordi di Cembra* 2004) studying local land rights in the twentieth century.
- 4 The linking theme of the articles that are part of my PhD work is construction of local futures, the ways by which the inhabitants themselves act or do not act to preserve or modify what already exists, and how they want to present the village to outsiders. One of the ways to market the village was to build an image based on a positive image of the place, like 'silence' (Vikman 2003).
- 5 The folklore process can be presented schematically as follows: The beginnings of folklore involves the birth of a consciousness of the traditions, the analysis of folklore by outsiders, the defining of folklore, the description of culture, collecting and archiving, the collaboration and human relationships between the folklore community and academic community. The second stage includes the awakening of the traditional community, the use of folklore, commodification, protection, and teaching and international exchange. (Honko 2002.)
- 6 In soundscape study the concept of schizophony 'refers to a split between an original sound and its electroacoustical reproduction. Original sounds are tied to the mechanisms that produce them. Electroacoustically reproduced sounds are copies and they may be restated at other times or places'. Schafer employs this 'nervous' word in order to dramatize the aberrational effect of this twentieth-century development. (Schafer 1977b: 273.) The use of the term has created some value-laden analysis: the electronic documenting of sound has made mediating sound possible in different environments and it has been felt to form a threat to soundscapes born in their 'original environments'.

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Helmi Järviluoma

SOUNDSCAPE AND SOCIAL MEMORY IN SKRUV



Picture 19. Jan Erikson (left), Ove Franzén, Asta Ottosson, Kalle Ottosson and Emmi Tavela in a group interview situation in Skruv. (Photo: Helmi Järviluoma)

For the researcher of culture and music the subject of memory is central, linking both individuals and human groups with history, culture and society, and inviting the exploration of how the local and subjective specificity of memory is connected to the larger societal contexts. In our Acoustic Environments in Change project one of my main interests has been in studying sonic memories, and they were my main focus during interviews. In this article I begin by reflecting upon the concept

of social memory, then proceed to the analysis of a group interview made in the small industrial village of Skruv. I will raise questions that are important from the perspective of social memory studies, soundscapes and societal transition. We will hear how our interviewees draw the map of the past into the present and thus bring their own bodily, localized past into their present experience.¹

THE SOCIAL AND THE COLLECTIVE MEMORY

In many parts of his book series *A la recherche du temps perdu* Marcel Proust describes the meeting of incompatible memories. Even though the main character Marcel and the Duchesse de Guermantes have lived in the same social world, it is impossible for them to discuss it because Marcel detached himself from that world 25 years earlier and before the Duchesse became part of it. Different generations have different memories, which are often present in the communication situations as unstated background narratives. (Connerton 1989; 3.) Even if each generation were physically present in the same location, they can be isolated mentally, emotionally and at the level of their memories.

The social memory might be considered as a common landmark – or, as well, a ‘soundmark’. Such landmarks consist of the reminiscences of individuals within a shared social frame of reference. (Boym 2001; 53.) The national memory aspires to a shared narrative. The everyday frames of reference of shared social memory however relate to our individual memories in ways that may be vague and ambiguous, leading to several disparate narratives. They resemble pleats in the fan of memory, rather than the plots for story lines towards which the ‘national memory’ so often aspires. This is why the social memory is not the same as the national memory, although they may share images (or sounds) and references. (Ibid.)²

The older sociological collective memory theories³ have often been criticized because they deal with the societal and group memories in an unnecessarily static fashion. That is, the methods are static, and they configure the memories as static. It is impossible by such means to grasp the dynamism and transience of our media-soaked modern culture, lived time and forgetfulness, the clashes between different social and ethnic groups, and the ever fragmenting politics of memory. (Huysen 2003; 17.)⁴ Correspondingly, the psychological theories of memory are blamed for overemphasizing the individual consciousness, leading to an overly atomized concept of memory (Cosser 1992/1950).

It is also increasingly recognized that memory cannot be completely manipulated by those ‘in power’ in the society. A new research tendency places emphasis on the dynamic nature of memory. In this school social remembering is not reduced to the level of a manipulative tool of the elite, whose purpose is merely to keep the ‘lower classes’ under control (Misztal 2003). The dynamic school originated both as a reaction against and a continuation of two particular directions in memory research: the

‘invention of tradition’, and ‘popular memory’. The discussions of collective memory have thus moved in a direction which emphasizes agency, temporal dimensions of memory, and the fact that social identities are formed throughout history. Thus collective memory is researched, as Olick and Levy put it, as ‘an active process of sense making through time’ (Olick & Levy 1997: 922).

Barbara Misztal makes no distinction between collective and social memory. For her, both are defined as ‘a group’s representation of its past, both the past that is commonly shared and the past that is collectively commemorated, that enacts and gives substance to that group’s identity its present conditions and its vision of the future’.⁵ This definition is well suited in my purposes in this article.⁶ I am using as my data an interview, which very concretely involved a group of people who lived in the vicinity of each other (Skruv) and who have been active in the same (workers’) associations and circles.

METHODS AND DATA

The World Soundscape Project in the 1970s studied the past and (then) the present soundscapes of Vancouver and five European villages. The Acoustic Environments in Change group also traced vanishing sounds, but we also had additional goals relating to the construction of the past and memories.

The FVS book includes a very interesting experiment in method, when it comes to the study of past sounds. Late in the book there is transcribed a long extract from the interview with the lawyer David Graham, who lived (and still was living in the year 2000) in the village of Dollar. A notable feature of the interview is the fact that he was actually taken to several places in Dollar, for example the railway station area which had ceased functioning in the 1960s. Graham talked with exceptional sensory expressivity about those past soundscapes. (Schafer 1977.)

It is as if WSP had anticipated the acoustemological ideas of the anthropologist of sound Steven Feld, who talks about the intermingling of senses, places and knowing. According to him people who live in different places and soundscapes know them differently, since ‘as senses make place, places make sense’ (Feld 1996). When moving through a certain place our body brings its local past into the present experience (ibid.; Casey 1987).

Researching memories of sensory events and inducing their remembrance is easier said than done. In this article I am using data which have not been produced by using ‘walking as a method’.⁷ Instead I’m introducing another method – the group interview – which has proved successful in ‘hunting down the social memory’⁸.

If and when I perceive the social memory as a dynamic phenomenon, I understand it as meaning that the group, through remembering, creates a relationship with some historical event or totality. Through the group interview it is possible, in my view, to achieve an understanding in which a small group, as the interview

unfolds, is in the process of understanding the past.

I carried out the group interview analysed here in connection with the AEC-project in February 2000, along with Emmi Tavela in Skruv. Four villagers were involved. We gathered at the house of a retired couple. The wife, Asta, had worked in health care, and her husband, Kalle was a glass- and metalworker. Jan had moved from Stockholm to live in the area in the 1970s, and at the time of the interview worked as an excavator operator. The oldest member of the group was Ove, a retired railway officer.

The group interview poses its own interesting challenges for the researcher. In this case the group was assembled 'naturally', in the sense that the couple with whom we had arranged the interview had themselves asked their friends to join in. All the interviewees were active in the associational life of the area, especially the workers' associations. Although the matter was not discussed, I had the impression that this was not the first time that the group had gathered together chatting.

It is said that a group interview enables the study of factual information as well as norms and ideals, the mutual interaction and communication of the groups as the interpretive community (Sulkunen 1990: 265; see also Kvale 1996: 101, 293). I will take into account the internal interaction of the group, and the different ways in which the members of the event participated in the interview. My main focus, however, is on the ways in which the group remembers and constructs the sonic past of the village Skruv: how is the polyphonic reality negotiated and structured through both emotion and reason? How do the group members give definition and substance to the identity, present and future, of the group? Often the group does in fact achieve a consensus, but on the other hand, the subtle devices used in negotiating differences are also interesting. The members of the group also clearly hear differently from each other.

When remembering, the group creates a relationship with a past event or entity. Narrativization refers both to the telling of a story about the past, and to the narration about the relationship of past with the present: it concerns an attempt to understand, interpret and tell a story, which both makes sense and is interesting at the same time. (Miztal 2003: 70.) Thus, the same material can be woven into different narrations. Remembering becomes a processual activity, in which people constantly transform the memories they produce. (Miztal *ibid.*; see also Zelizer 1995; Schudson 1995; Wood 1991.)

Some useful suggestions about how to analyse the encounter between personal and collective memory can be found in the work of the film scholar Annette Kuhn. For her ethnohistorical study of the meanings of moviegoers in Britain in 1930s, she interviewed a large number of people. Kuhn examines the production of memory within the process of narrating stories that are both personal and shared.⁹

From the memory interviews it is possible to find different discursive registers, which enable one to study how the narrators situate themselves into the story or narration. Kuhn lists the registers as: (1) repetitive, (2) anecdotal, (3) impersonal, and 4) past/present (Kuhn 2002). For this essay I have concentrated on the last mentioned

register. It has to do with the organisation of time in the memory discourse: how the ‘informants’ constantly travel back and forth between past and present listening points, in a patchwork of often sudden shifts between them.

In addition it is interesting to look or hear at the ways in which people move between the registers. Gender, class and regional differences are important. Anecdotes for example are only told by a few good story tellers. In our Skruv group interview the female narrator Asta seemed to have a story to tell at each ‘resting place’ of memory. Kuhn argues that the impersonal way of narrating is more common amongst middle class men than other categories – at least in her British ethnographic materials. The Skruv group we interviewed is more working class based, and I noticed that as the interview proceeded, the men started to tell more anecdotes and jokes. The railway officer Ove seemed initially quite timid, but added small humorous comments throughout, and towards the end of the interview he told lengthy anecdotes about the dreadful sound of the recently installed Skruv church bells.

SONIC MEMORIES OVERLAP PAST AND PRESENT TIMES

I have always reacted with fear and anger and an odd kind of gnawing melancholy to that brutal siren, whose sound blared out over the town every morning – for it was not only violent, but also sad, and ended its wailing every time with the same downhearted descending complaint. Its ear-splitting threat awoke in me an early protest against everything which is supposed to happen punctually. It still affects me, in that my first reaction, even to a courteous request, is in the negative.

(Aksel Sandemose 1933/1997, translated from the Finnish version.)

In the group interview at Skruv, as elsewhere in the AEC material, one common mode of speech is a comparison in which past and present situations are contrasted. In our example, a framework of themes has already been laid out for the interviewees. These themes repeat and arrange themselves in different ways at several points in the interview. The past is compared with the present, and, surprisingly often throughout these interviews, the dialogue ends by highlighting the positive significance of the sounds made by children.

In what follows, the alternation of ‘listening points’ in the group interview is typically polyphonic. The discussion begins with the present, makes a fleeting trip into the past, and then returns to the present (see also Kuhn 2002: 10; Portelli 1991: 59–76).

Extract 1

- 1 Helmi: What for you are the most pleasant or unpleasant sounds in Skruv?
2 Jan: (laughs)

3 Kalle: (to Jan) bird song
 4 Jan: [Ye-ah
 5 Kalle: [Absolutely, that's it
 6 Jan: Ye-ah
 7 Asta: Before it was the signals from the brewery and the glass factory.
 8 They have both ceased, haven't they?
 9 Kalle: They have both stopped. But we also had the steam-driven saw mill, the
 10 glass factory, the brewery (--)
 11 Asta: That, I must say, was lovely hear, yes=
 12 Kalle: =And we even had [the school
 13 Asta: [Yes, then we knew they were on their way
 14 home to eat. Then we knew
 15 Kalle: You cannot hear it today even though we live next to the school. And the
 16 kids are there
 17 Asta: We do actually have the children here, we have the school yard right here
 18 at the back
 19 Kalle: Yes
 20 Jan: The school is right here at the back, over there
 21 Asta: Back here
 22 Kalle: It is really fantastic
 23 Jan: Yes
 24 Asta: It is really the best of all. I don't think I would have stayed in Skruv if we
 25 hadn't had kids here

This example is from the beginning of the interview. Once the sounds of nature, the forests and the lakes, have been praised, I ask what are the most pleasant sounds in Skruv. Kalle begins with birdsong (line 3), but – without a break – the discussion takes a new turn. Asta, Kalle's wife, switches away from the theme of birdsong (line 7) and begins to speak of the sound signals of the factory hooter. Her husband begins to list various places from which signals could be heard: the steam-driven sawmill, the glass factory and the brewery (9–10). Asta calls the experience of hearing the signals 'lovely' (11) and the polyphonic dialogue with her husband continues. Asta speaks of the importance of hearing the factory hooter. Kalle has already moved on to the ringing of the school bells, whilst Asta explains that by the sound of the hooter, one could tell that the men were on their way home from work to eat.

In the latter part of the interview, I check that I have understood correctly: Did Asta like the sound of the factory hooter? The answer is in the affirmative: *Det gillade jag, det gillade jag* ('Yes, I liked it, I liked it,') and Kalle continues directly from this point *Ja, det var, det var mycket liv* ('Yes there was a lot of life'). In other words, the couple's co-operation was reinforced by sound, which confirmed that there was a lot of life in the village at that time, and that 'then you knew there was a break – now they start working again – then it was time to drive home for lunch' (see further Järviluoma 2002).¹¹ It was possible to follow the everyday life of the factory workers closely.

The citation at the beginning of this section is the Northern Danish writer Aksel Sandemose's recollection of the sounds of the factory hooter. As in Asta's description it is exceptional, since few people seem to be conscious of such sounds. They are a routine and natural part of everyday life. The disappearance of the wailing hooter,

and the forgetting of its sound have become just as natural.¹² It seems as though few people listened to the hooters, they just *heard* them.

Sandemose's last sentence is also interesting. His reaction is specifically against the use of 'aural control' and the socio-acoustic hierarchy in a small industrial community like Skruv, which the factory hooter (resembling an emergency-warning siren), must have represented. One can only guess why none of the inhabitants of Skruv remembered the factory hooter as a sound to be dreaded (Järviluoma 2002).¹³

Asta, Jan and Kalle tell a tale from the past, but at the same time it is about the relationship of the past to the present, and the whole discussion is an attempt to simultaneously understand, interpret and relate to a story which makes sense and which is also captivating. Thus one comes to understand that many a tale can be woven from the same material. Remembering becomes a process-activity, in which people constantly alter the memories they retrieve.

'WHAT I MISS MOST ARE THE SOUNDS OF CHILDREN IN THE EVENING'

At first glance, nostalgia is longing for a place, but actually it is a yearning for a different time – the time of our childhood, the slower rhythms of our dreams.

(Boym 2001)

In the first interview extract (Ex. 1) Kalle moves smoothly, in one sentence (line 9) from the past to the present: the school bell cannot be heard anymore even though the family lives next to the school. The whole group switches to talking about the positive meanings of the voices of children. Asta considers the fact that there are kids in the neighbourhood so meaningful that she says that she would not have stayed in Skruv if there would not have been kids around. We can hear Asta talking about an alternative present or hinting about a possible future: perhaps, if the 'the best of all' sounds, the voices of children, disappear she will not stay either.

The theme of the disappearance of the voices of children in the village recurs throughout these interviews. When at a later stage of the interview I ask Jan about the sounds he hears daily at work as an excavator operator, Asta assumes that Jan finds it agreeable to come home after all the buzz and sounds at work. Jan agrees somewhat ironically, laughing (Ex. 2, line 1): yes, it is nice to return home when the community¹⁴ is silent. He returns to the missing sounds of children (lines 3–4):

Extract 2

- 1 Jan: Yes, it is, it is nice to come home when it is silent in the community (laughing)
2 Helmi: Mm
3 Jan: It is so (--) but obviously¹⁵, certainly one misses them. The

as caused by the children sitting inside at home (lines 4–5), and Kalle leaps into the discussion, adding the computers and TV-games (line 6). Jan continues to describe the dark nights, until Asta (line 10) returns to the 70s. She describes vividly her recollection of the youngster Willy driving along the road and back (line 13).

Here and on several other occasions Asta makes a *direct reference to her own remembering*: she refers to her own recollections on the previous evening ('I was pondering last', 'remembered Willy'). In this case she was probably preparing herself for the interview already scheduled for the next day, memorizing meaningful events. In the next extract (Ex. 4) she refers to the history and present of her own family, when she compares the past and today's soundscape of Skruv: 'I remember how the boys grew up' (line 1). Following Bergson, Gaston Bachelard has observed that what people remember best are the occasions that co-incident with the meaningful events in the course of their own lives (Bachelard 1950). People perceive time in this way, he says. It is rare to remember things in any other way than by relating them to one's own life.

Extract 4

- 1 Asta: Yes, but I remember (--) the boys grew up, the oldest one is already forty
 2 now and the other thirty seven, and the youngest one thirty, but in those
 3 good times, they played here and with Eva, and it really was life and
 4 animation up to ten o'clock in the evenings. Now there are never any sounds.
 5 Kalle: [Mm
 6 Ove: [Ja
 7 Jan: No
 8 Ove: The other thing was that one was at the sport field [and went on to
 9 Jan: [yes, yeah sure
 10 Ove: play track-and-field and football and all that in the evenings
 11 Asta: Yes and one heard the children's voices, those wonderful sounds, they
 12 laughed and (--) yes.

Asta remembers how the boys grew up playing, and relates this to the present, sharing with the listeners the knowledge about how old the boys are now (lines 1–2). She moves from the present into the past using an interesting phrase 'but in those good days': in those good old days their boys were playing outside with friends and the environment was full of life and sounds. Again, she returns to the present, and the others join in with a confirming feedback. Now Ove takes his turn and continues about sport, a theme he had tried to introduce into the discussion earlier. It seems that he moves into his own childhood ('one was at the sport field'), but the story about the vividness of the sport place in 1930s seems to fit well with the discussion about its liveliness in the 1970s. Asta takes over again from Ove, still describing perhaps the time when her sons were kids; she goes deeper into her own experience, describing the sounds with feeling: 'those wonderful sounds, they laughed' (11–12). In the interview Asta uses the anecdotal discursive register more than the other members of the group.

'NO, IT IS REALLY A PITY THAT ALL SOUNDS DISAPPEAR'
– THE SILENCE OF THE VILLAGE ROAD

Often the discussion focuses on the remarkable silence gradually falling over the whole village when the 1970s are compared to the beginning of the 2000s. This is raised as the most important theme of the whole interview in the course of the memory work of the small group. We interviewers do not so much link our soundscape questions with the societal change: it is the interviewees themselves who do it spontaneously.

From sounds of the village they move on to discussing the diverse activities that used to occur in the small village: factories, shops, cafeterias, movie theatres, dance places, banks and other services are listed in detail and even located on the map of the village from memory. Jointly, the group tries to recall the periods at which particular services disappeared from the village. During the periods that the interviewees are able to remember, there had functioned in Skruv three butcher's shops, three grocery stores, three confectioneries, one bakery, hotel with a bar, blacksmith, a watchmaker, toy shop, paint shop, a wagon maker, two or three banks, a post office, two shoemakers, TV- and radio shop, fashion boutique, dentist, regional nurses, a midwife, and the railway station which had ceased operation in 1984 and which had hitherto functioned as an important goods transport station. In the year 2000 the village was left with only one supermarket, one bank, and a florist operating at the former railway station. By that time the hotel was only just functioning.

Regarding the sound of the train, the interviewees also comment that it is not easy to hear the new fast X2000 train hissing by; as Kalle says: 'There's a little wind in the top of the tree and then it is silent. Within three seconds it has passed.'¹⁶ Formerly the train whistles had also marked the time and rhythm of life: 'Up in the bedroom in the summer, if the window was open, (--) one could hear the signals at midnight. (--) No, it really a pity that all sounds disappear' (MD 3:9), claims Asta. The sounds of the trains have also diminished because the rails have been renovated and the train types have changed.

Jan moved into Skruv in 1976, and immediately after that, in the late 1970s and early 1980s there were a lot of visitors in the local hotel and bar. Jan remembers that 'there was hell of a lot of swing in the hotel (--) during the Friday and Saturday evenings it was incredible, yes it was, you know, what it looks like in the bar of the hotel. It was so crowded that you could hardly move around' (MD 3:5). Travellers, such as those doing business with the brewery, were much more numerous around that time.

During the interview almost every shop and business premises are located on the remembered map of Skruv. Often the interviewees also negotiate the period during which the business was functioning, and the exact moment of its termination. Annette Kuhn has described how people in the interviews build up a detailed and accurate topographical map of the places, where movie theatres were located and the route to those theatres. In Extract 5 our interviewees locate the TV- and radio shop on the map of Skruv.

Extract 5

- 1 Kalle: We had also a TV- and radio shop here on Storgata [street]
2 Asta: Yes, that we had as well, yes
3 Helmi: Aha
4 Kalle: Yes
5 Asta: So it has happened there=
6 Jan: =the white low house that lies over there
7 Kalle: the white one up there=
8 Jan: =the low white over there, there on Storgata [street]
9 Asta: Precisely here
10 Jan: Precisely there where you go in here, so there lies the low white, yes, it is in fact a bit, a bit further down
11 Ove: But one did not hear any sounds there
12 Jan: No, there were none
13 Asta: No, but it was really very different crush here then, one went and did one's shopping, practically everything inside the community. You could buy your things from the shops, you could go to the Viking and buy your linen and buy your, that's what you did, your washing machine, your TV-machines and stuff, isn't it so?

Jan, Kalle and Asta are locating the TV shop on the map of Skruv as if for the interviewers, so that the latter can form a clear picture of exactly where the shop was situated (lines 6–10). There is more going on, however. It is as though we would be making an imaginary journey together, during which the interviewees map out the past Skruv, bringing it into the present. We are not literally going out for a sound memory walk¹⁷ the trip is made while sitting at Asta's and Kalle's dining room table.

Ove's comments underline the purpose of the interview (line 11) the interviewers are interested in sounds, and the TV shop is silent. Jan agrees, but Asta refers to why they are talking about the shops in the first place: they deeply affect the soundscape and the number of people roaming in the streets. She reminds us that then (in the late 1970s) there were a lot of people moving on the streets specifically *inside the village*, doing their shopping within its boundaries. Asta seeks confirmation from the others, and they agree. The group continues to describe how people rode their bicycles busily during the peak hours after the working day had finished: they rode home, to the shop, and back home again.

Skruv is between 50 and 60 kilometres inland from the Southern coast of Sweden, and Malmö. This means that it is in fact possible to reach Skruv quite quickly from Berlin and some other parts of Germany. The county of Småland has several municipalities, where a growing number of empty houses are being sold to the Germans as holiday homes. Towards the end of the interview the group starts to ponder the effects of this: what will be the impact on the village of so many Germans arriving from the late 1990s. The Germans have bought holiday houses in Skruv, and some retired families have moved there permanently. Somebody calculated that 25 houses had been already sold to Germans in Skruv. Kalle especially talks somewhat negatively about how quiet the village has become during winters, when so many houses

are empty. Jan, however, talks more neutrally and tries to point out that some of the Germans already live all year round in Skruv; at least he tries to communicate with the newcomers mixing his slight knowledge of German and English languages. Thus, already in this one group interview we learn that the villagers relate to this change in various different ways.

LOCAL REFLECTIVE MEMORY

Memories, Sundays, mass, what a pleasure they were; a strange time, lost yet still with me, and which I shall never forget, because it was a part of me. The absurd diagonal of possible feelings, the sudden squeaking of tram wheels amongst the boisterous hush of the cars, a sound which, as the motherly paradox of time, is in some way still in the here and now, alongside that which I am, and which I have lost.

(Fernando Pessoa 1999, translated from the Finnish language version)

Reminiscence is full of a sense of loss. The writer Pessoa delicately conveys the experience of sound memory in past localities and in our bodies. Pessoa was able to walk the streets of Lisbon, but, as the film researcher Annette Kuhn has noted, when elderly people are interviewed they are often physically disabled, so that they have lost the ability to move around in their cherished landscape – a landscape charged with meanings (Kuhn 2002).

The interviewees in the group interview at Skruv were not disabled, but they too spoke often of loss, of sounds which have vanished, and of the fading away of a vibrant village life. They indeed drew the map of the past into the present, bringing their own bodily and localized past into the present experience.

Can this longing, then, be called nostalgia? To Svetlana Boym nostalgia mediates collective and individual memories (Boym 2001).¹⁸ The conservative *restorative* nostalgia and on the other hand, the *reflective* nostalgia, which itself draws on individual and social memories, both dine on the same petite Madeleine cake, but tell different stories about it. I argue that the type of nostalgia the interviewees in this study are engaged in is reflective. The Skruv people understand perfectly well that it is not possible to restore the past exactly. They do not claim that they should still hear the factory hooters every morning. The village road has quietened, but the places and their sounds still can be heard in the memories of these villagers born from the 1920s to the 1940s. The road with its soundscape is vibrant in their memories. At the same time the interviewees live in the present and enjoy all its positive aspects as well. When the school has its spring fete, they listen with pleasure to the spring songs sung by the children outdoors, while at the same time they also reflect upon the disappearance of the sounds of the children from the village soundscape.

The mode in which they spoke of the past has meaning. They might actively *say*

that they remember something, and recall a memory. Following on from this, they construct a narrative. Remembrance brings out the reflective knowledge of the past, and, when that which has passed is contrasted with today, critical reflection follows. (Misztal 2003: 10; Young 1988.) Andreas Huyssen (2003: 27) has argued that we need productive remembering far more than productive (Nietzschean) forgetting. Local memory may well challenge those myths of cyber capitalism and globalisation: the denial of time, place and space. One can also argue that memory extends our choices, because it has to do with the shared knowledge about the shaping of our own history and culture (Radstone 2000: 13).

One of the important aspects of memory work is that there is always a suspension between the subjective and objective (Radstone 2000: 12; cf. Misztal 2003: 10). It remains the task of memory research to analyse the links between the memories of individuals and groups, between history, culture and society. The starting point however is always in the local and the subjective – the specificity of memory. For instance, we, the interviewers do not link our questions about sound with changes in society – the interviewees do it themselves, spontaneously. They are able to make use of their experiences, shared discourses and social memories. They speak of the presence of technology and its effects, for example upon the everyday life of the child. They speak of a shrinking world and of globalisation when discussing the Germans buying houses from Skruv.

Asta returns to the topic of children's sounds right at the end of the interview. I am asking the 'joker question', which we asked practically in all our AEC interviews: 'what sound would you choose to take with you from Skruv if you had to move to a desert island?'¹⁹ Asta said she would like take the sounds of children. In the shrinking and quietening village they represent life, continuity and the future.

NOTES

1 On social memory, see Radstone 2000; 12; Misztal 2003; Kuhn 2002.

2 Boym's 'pleats in the fan of memory' refers to Walter Benjamin's 'fan of memory', which keeps on revealing new layers of forgetting without reaching the truth; the truth lies within the pleats themselves.

3 Maurice Halbwachs, who was active in the 1920s and 1930s, is widely regarded as a pioneer of the sociological theory of memory. Halbwachs extensively researched human memory as a collective phenomenon. According to him, people remember only as members of a group: in the family, the religious faction, or the workplace. (Halbwachs 1994/1925; 1992/1950.) Halbwachs' Durkheimian approach to memory has subsequently been charged with being too socially deterministic.

4 Modern culture is indeed media-saturated, but we still seem to need social memory. Media memory alone, according to Andreas Huyssen, is insufficient.

5 Those researchers who followed Halbwachs have attempted various ways of solving the problems of

compatibility between social and individual memory. Barbara Misztal, in her recent survey of social memory theory, has outlined an approach which is 'inter-subjective', or between individuals. According to this approach, the individual is not completely confined within the 'collective strait-jacket'. However Misztal does not agree with the idea of a completely atomized system, in which the interactions between people and their social foundations are not comprehended. While the inter-subjectivity of memory is foregrounded, it is also stressed that the collective memory of a particular social group is not composed of the combined sum of its individual members' personal memories, but it contains solely the memories which are shared by the members of the group.

6 Alessandro Portelli (2004) has recently declared a preference for the terms 'shared memory' or 'shared social frames of reference', rather than the term 'collective memory'. Since his arguments have their foundation in the critique of the ways in which the concept 'collective memory' was used by Halbwachs, however, I regard the latter term as still useful, as redefined by Misztal.

7 See further in my 'Lesconil, my home' essay in this collection.

8 Using the expression of Fentress & Wickham 1992.

9 The term Annette Kuhn (2002) uses in her book is 'cultural memory'. However, she does not discuss its connection to terms of collective or social memory. Another important memory researcher Barbara Misztal (2003) initially separates the concepts of social and cultural memory. According to her, cultural memory is constructed using 'cultural forms', and so it refers to the remembering of events of which we do not necessarily have any direct knowledge. She says such cultural forms are engendered by social institutions and cultural artefacts, for example through films, monuments, statues and souvenirs. In her opinion, the cultural memory may exist independently of its bearers. (Misztal 2003: 13). Such objects can also be analysed after the manner of Huyssen as the 'culture of memory' (Huyssen 2003). Misztal's position is open to critique. The autonomous existence of independent works of art is certainly not easy to prove. Misztal also clearly wavers in her standpoint, when, at the same time as she mentions the cultural memory present in ceremonies, festivals and rites, she shifts her attention almost imperceptibly to deal with cultural memory as if it were a subtype of collective memory. This may be a better solution than dealing with cultural memory as somehow a remarkable and exceptional type of general social memory.

10 Basic transcript symbols:

[[indicate overlapping speech
=.....= immediately continuing speech
underline loud voice relative to the surrounding speech

11 See further Järviuoma 2002. Alessandro Portelli (2004) has reported that in his Italian home town the factory hooter signalled that it was time for him to go to school; elsewhere it let the wife of a worker at steel factory know that it was time to put the spaghetti water on – her husband would be arriving home within ten minutes.

12 I have earlier (2002) written about the interesting fact that the Skruv people were unable to recall when the hooters were installed. Some people guessed the 1960s, some 1990s. In fact it was at the beginning of the 1980s.

13 Interestingly, in the 1975 Sound Preference test in Skruv nine school children out of 22 mentioned factory signals as an unpleasant sound.

14 Jan uses the expression *samhället*, which could also be translated as the 'society'. It is difficult to find the exact translation to this word in this context.

15 In Swedish: *det är klart*.

16 *Det bara blåser uppi en trädtopp bara en liten stund så är det tyst. Det tar, det tar inte mer en tre sekunder så är det förbi här.* (MD 3:9.)

17 See my article 'Lesconil, my home' in this collection.

18 See further on the concept of nostalgia in the articles, in this collection: 'The scythe-driven nostalgia' by Järviluoma and 'Putt putt' and 'mur' – Old inboard engine and nostalgia' by Hyvärinen.

19 Noora Vikman developed this question in order to make it easier for people to describe meaningful sounds, and perhaps also to consider the relationship between the present soundscape with the hoped for sounds of the future.

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Helmi Järviluoma

THE SCYTHE-DRIVEN NOSTALGIA

Agricultural ambiances in Bissingen

I visited recently the little French town Illiers-Combray. The town can be reached by train from Paris via Chartres, after passing through broad agricultural landscapes. So few were the signs showing the way to the Museum of Marcel Proust or the House of Aunt Lèonie that, rather than searching for lost time, the trip nearly became ‘searching for the lost museum.’

The museum guide explained in his voluble French the history of almost every object in the house. The house and its interior had been restored in as much detail as possible to the condition it had been in late 1870s, in the years when Proust spent his childhood summers in the house. The ‘oriental’ ceramic tiles had been reconstructed from an old photograph. A coffee machine similar to the one used during that time had been purchased; Marcel’s room and sleeping corner with its long white curtains were still in their place at the top of the ‘terrible staircase’ so much detested by him as a boy.

The baker, who advertized herself as the maker of Petite Madeleine cakes, had just returned from her holiday; so it was possible to buy a bag of cakes from the museum and dip them into coffee in the local café – but not into the calming tea made of linden tree blossoms, which the locality had not yet commodified.

Proust, who during his life-time^a is said to have been fifty years ahead of the researchers of memory (Schacter 2001), had paradoxically received as his monument a home turned into a museum which sought to reconstruct the past in minute detail. One could describe this as an attempt to spatialize time, rather than temporalising space (see Boym 2001: 49). According to Svetlana Boym these represent two different types of nostalgia: the former is typical of the restorative nostalgia, the latter, of reflective nostalgia. Reflective nostalgia stresses *algia*, longing, or the ambivalence



Picture 20. The residential area built in Bissingen after the 1975 FVS field visit.

of longing and belonging, sometimes ironically and desperately at the same time (ibid; also Feld 2003.) Restorative nostalgia emphasizes *nostos*: it tries to build a trans-historical replica of the home once lost.

The concept of nostalgia has suffered something of the fate shared by many other fashionable scholarly concepts: over recent decades it has begun to mean almost anything in the past with which we have some kind of an emotional bond (Knuuttila 2007: 9.). However, the profound explorations of the concept by Boym (2001) and Karin Johannisson (2001) help us use the concept as an analytical tool. They both consider nostalgia to be a creative and reflective emotion, which organizes the subject's time and space for the future. Nostalgia can also be understood in the way exemplified by Anni Vilkkö in her study on 'Longing for home' (Vilkkö 2007: 14.), as the expression of a kind of utopic relation to place, based on an experience of either lived, lost or imagined home. This perennial concept offers a means of analyzing even the postmodern constructions of spatiality. In our lived everyday life we attach images and symbols to physical spaces and objects, thus forming a site of identity politics in which various nostalgic feelings find a 'natural' resonance (ibid. 18.).

In this chapter I am dealing with the changing soundscape aesthetics and ambiences of agriculture in Bissingen, focusing especially on one particular interview: that of the farmer Hans Ederle. The concept of 'nostalgia' is not the exclusive property of researchers – it belongs to the vocabulary of the interviewees as well. What can we say about sonic remembering in this particular case, when the farmer himself occasionally describes his own thinking as 'nostalgic'? How are we to interpret his notion? Is it useful

to analyze his 'nostalgia' in terms of Svetlana Boym's restorative and reflective nostalgia? Svetlana Boym is also deploying with great effect the concepts developed by theorists Hans Robert Jauss and Reinhart Koselleck (Koselleck 1985; *op.cit.* Boym 2001:10), specifically 'space of experience' and the 'horizon of expectations' in her definition of nostalgia: 'Thus nostalgia, as a historical emotion, is a longing for that shrinking 'space of experience' that no longer fits the new horizon of expectations. Nostalgic manifestations are side effects of the teleology of progress.' Is it possible through the interview with a farmer to say anything about the changes in his 'spaces of experience'?

Let me start by taking a short bypath. I will take a look at some general claims about the connection between memory and emotion by David Schacter and Marcel Proust, and refer to the critique of Freud written by Avishai Margalit. I will then move to a discussion of the memories of vanished sounds and the agricultural ambience in Bissingen, focusing finally on the interview with the farmer Ederle and his notions of nostalgia, pleasure and time.

MEMORY, EMOTION AND NOSTALGIA

We only remember something we have coded, and the things we have coded are connected to who we are, says the memory researcher David Schacter (2001) In this article I am assuming that the past is always being mediated and produced through memory work, a process of remembering in which we present ourselves both to ourselves and to others.

A review of some of the most pervasive themes in the literature on memory suggests the idea that we remember an event most clearly when it is connected with a strong emotion experienced at the same moment. This connection has been acknowledged since the late nineteenth century, when psychologist W. James argued that emotions cause memories to be impressed so deeply into people's minds that they scar the brain tissue (*op.cit.* Uttl & al. 2006). Freud famously argued that unpleasant emotions can be actively repressed into the unconscious. Philosopher Avishai Margalit, who specializes in the ethics of memory, attaches the metaphor of a 'prison' to Freud's memory theory. Margalit thinks of the prison of memory as possessing three components, like the hereafter of Dante: Hell, Purgatory and the Heaven of consciousness. (Margalit 2002: 4-7.) The subconscious ('Hell') with its repressed memories is being guarded by one guardian, while another, a little less carefully, is monitoring the pre-consciousness ('Purgatory'). Margalit would like (in the spirit of Wittgenstein) to slacken off the bonds of Freud's prison metaphor. He is inclined to question Freud's assumption that the evocation of repressed memories into the 'light' of consciousness always would inevitably be therapeutic.

Seventy years ago the radical behaviorists considered 'emotion' to be such a useless concept that they predicted that it would vanish from 'scientific' use within psychology (Uttl & al. 2006: 1). Developments have moved in a completely different

direction, however. When Uttl, Siegenthaler and Ohta recently assembled the keywords from psychological publications, the frequency of ‘emotion’ and ‘memory’ had risen exponentially since the mid-1980s. (Ibid.)

The idea that there is a connection between event and emotional state at the time of experiencing the event, has recently been supplemented by a further factor. There is increasing evidence that the emotional state and memory are also complicit *at the subsequent moment of recollection*. That is, our emotional state at the time of recalling an event already invested with the original emotion, will have a further effect on how that event is recalled. The past and the ways in which it is recalled are always affected by one’s current situation and state of mind.

However surprising this may appear to be, there is considerable concrete evidence for it in memory studies (Schacter 2001)². David Schacter exemplifies the idea using a distinction originally made by Sigmund Freud. Sometimes when we remember, we observe ourselves acting, detaching ourselves from the event and observing it. There is also another category of remembering in which we do not observe ourselves within an event, we *are* actually immersed in it, seeing the event from within. As a soundscape researcher I must add that if we remember in this way, re-experiencing the event, we not only see the environment with our own eyes but also hear it with our own ears. This can also be called remembering from a ‘hearing-point memory’. Hearing has, after all, always been a central feature and a ‘symptom’ of nostalgia. Music of home – and I would add other sounds, like the Alpine cowbells mentioned by Rousseau – is indeed ‘the permanent accompaniment of nostalgia’ (Boym 2001: 4)³. It is well known that writer Marcel Proust drew special attention to the role of the senses in remembering, especially taste and smell. For him, taste and smell live like souls, remembering, waiting, hoping, when everything else is already collapsing: they unfailingly support the massive structure of memory. (Proust 1984: 55-8.) For soundscape researchers it is not only smell and taste that live like souls – a sound heard or listened to can support the great construction of memory.

REMEMBERING SOUNDS IN BISSINGEN

It was impossible for the Canadians coming to Bissingen in 1975 not to notice that they had arrived in a rural village. A large pile of dung stood in front of many houses – and the size of the urine tank under the pile was considered a sign of wealth amongst the farmers in the province of Swabia (Schafer 1977). At that time this village, situated 35 kilometres south of Stuttgart, still had 40 farmers. In the year 2000 there were only three or four cattle farmers left.⁴ Bissingen’s occupational profile has changed radically, and there are few full-time farmers left in the village. In the year 2000 there were still some domestic farmers, fruit farmers, some raising chickens and lambs, and even then big dung piles proliferated in front of many houses. Heinz Reinöhl, a biologist, who has moved back to his home village

from where he was living close to the Stuttgart airport, told us that he and his wife would much rather be awakened by roosters than by airplanes⁵. The roosters still woke each other as well as the people at six o'clock.

When our research group visited Bissingen in 2000, 80 year-old Else Ederle kept a guest house. She appeared to be an ear-witness: not only could she remember sounds but also verbalized the memories eloquently. She told us about her sound memories, such as the nightmarish booming of the bombs falling on Stuttgart (30 kilometres away), which made the houses shake even in Bissingen⁶. Else Ederle's Gasthaus Lamm was built in the seventeenth century. The constant sound of the old fountain nearby is so deeply rooted in her memory that when it disappeared during road works, she could not sleep. When the road works were finished and the sound of the fountain resumed, Ms. Ederle was able to sleep again.⁷

What kinds of vanished sounds, then, did the people in Bissingen miss? The biologist Reinöhl said he had not been conscious that he missed the sound of the Bissingen church bells until they moved back to the village. These church bells are still the clearest soundmark, important to the identity of the village – at least for the middle-aged and elderly population. The bells chime brightly every fifteen minutes, and four times a day for a longer period. When the bells were replaced in 1969, a serious quarrel erupted. This was recalled by the villagers in several different versions to Noora Vikman in the spring of 2000, as they had also recalled to researchers 25 years earlier. The villagers had been promised that new bells would be re-cast from the old ones. However, the villagers became angry when they noticed that the old bells were still down in the church when the new bells had already been installed in the steeple. According to the narrative recounted by the current priest, somebody stole the smallest of the bells, ran across the village and threw the bell into the lake. Another villager told us that somebody kept that bell at his home for years before giving it back. In 1970 the villagers got a fourth bell which has the text: 'May peace be with you'. This benediction didn't save the priest, who was dismissed.

It is not important to find out which of these stories is true. The point is that the memory of this important event is presented as a narrative, which is a natural medium for social memories. When the Bissingen people remembered, they represented themselves to themselves and to us – the researchers and listeners. (Cf. Fentress & Wickham 1992: 7.) When talking about sound memories, it is instructive to investigate how and when a certain sound is remembered, since the memory is not a given but is the outcome of hard 'memory work' (Candau 1996: 5).

The farmer Hans Ederle said that the sound of a scythe in a wet field in the morning is a very special sound, which can no longer be heard. But later during the interview he denied that he actually missed the sound, and dismissed his feelings as 'nostalgia'. I will examine what he might mean in describing his memory as nostalgia, later in this chapter. First, we need to contextualize his comments within the changes in the agricultural technologies and ambiences in Bissingen.

The fruit trees are not yet in blossom, with the exception of cherry trees. People were bustling feverishly in their gardens. In the fruit garden facing towards Ochsenwang one can hear a concert of motor saws. This is probably the last opportunity of the season if one wants to prune the branches.

HJ, Bissingen sound diary 2000.

One of the owners of the fruit gardens mentioned in the above quotation is Hans Ederle. His family has cultivated land and grown trees in Bissingen for generations. He was born in the year 1945, six weeks before the end of World War II. He has studied in several agricultural institutions, and also visited the US as an exchange student when he was young. He was one of the few full-time farmers still remaining in Bissingen in the year 2000.

Agriculture has been massively mechanized during the years Ederle has been involved in farming. This has influenced the village soundscape, which has changed a great deal since the 1950s. Hans Ederle lists many different machines used in his childhood – from hay lifter to the circular saw – all of which had the same motor as their power source. Nowadays it is the tractor that fulfils the same agricultural function, with other machines connected to it.

Ederle recalls that during his mother's youth it was still possible to make detailed and precise observations about nature and its sounds. His mother was born in 1912 and she kept a diary for her future generations, a notebook that has now been bound into a book by her children. By contrast, Hans is unable to hear any sounds of nature while working in the field. The soundscape of nature is muted by the cabin of his tractor. Undeniably the cabins have had a significantly positive effect on agricultural work safety. At the same time however the cabin diminishes the possibilities of sensing and perceiving nature when the farmer is working in the field. Using the discourse of technological rationalism, Ederle says that during the time he has been a farmer, the soundscape within the tractor cabin has much improved: previously the noise level was 90 dBA, now the measured hum is only 75 dBA.

Philosopher Gernot Böhme has argued that the converging of certain characteristics and qualities of objects and subjects can be best described using the term *atmosphere* (Böhme 2000: 15)⁸. Atmosphere can invite a subject to feel and behave in particular ways. For example, Ederle often sings in the tractor cabin, and we may assume that the steady hum of the motor creates a good drone or keynote sound as the background for singing. For Ederle the creation of his 'own' soundscape and atmosphere in the field also involves *choosing the radio channel* that suits his needs and mood at any particular moment. In the interview, he gives a detailed description of his reasons for choosing a particular radio channel. In his tractor cabin Hans

Ederle helps in creating a certain atmosphere which is seldom related to what happens in the fields. He can only listen to the sounds of nature when he arrives back to his home yard. At home he does not always like at all the ‘noise’ of certain types of music that his children play on their stereos. For example, he does not like rock or any other music using a lot of percussion. But classical music and trumpet music (his daughter’s hobby is playing trumpet) are dear to his heart.

In 1993 we were working in the Finnish village Liedenspohja at Virrat as a preliminary study for the current project on six European villages. Maru Pöyskö (1994) wrote an article about the soundscapes of cowsheds in Liedenspohja, in which she reported that she started her fieldwork expecting mainly to hear the tranquil sounds of chewing cows in the sheds. She found, however, that the cowshed soundscapes were much more complex. The keynote sound was the hum of the ventilator. Furthermore one of the farmers expressed the opinion that the most important machine in the whole cowshed was the radio: it is turned on as soon as one enters the shed. Pöyskö also refers to an expression used by a female farmer in another village. The farmer called the horrible sound of the dung scraper a ‘blessed noise’, because the machine made the farmer’s work so much easier. In keeping with the practical aesthetics of farmers, however, the same sound does not always create the same ambience, or atmosphere, to use the terminology of Gernot Böhme. It can mean something completely different from situation to situation and according to different states of mind. (See also Ipsen 2002; Augoyard & Torgue 2006.) The sound of rain can create a beautifully calming atmosphere if it is pattering at the window, but if you happen to be collecting hay in the field the sound of rain is awful.



Picture 21. Karl Reinöhl, the keeper of Gasthaus Adler, and Helmi Järviluoma. (Photo: Noora Vikman)

Memory researchers unanimously reject the simplistic idea that memory is a static warehouse located in a person's head, from which the hardworking 'storeman' fetches units of data whenever needed. If the social dimension of remembering is foregrounded, then memory can be studied as a form of communication. Indeed, as folklorist Seppo Knuuttila (2007: 8) has argued, even though the past may be 'planned' and negotiated retrospectively in the greatest detail, it is quite possible that at some future point it is again reviewed and reconstructed. It so happens that the sonic past of the farmer Hans Ederle (A) came under discussion in an interview in Bissingen in March 2000 by a colleague from Germany, cultural researcher Ute Bechdorf (C) and myself (B). Ederle changes quite fluently between the German and English languages, and the same can be said of the interviewers.⁹ Here, I am asking Hans Ederle to go deeper into the subject of 'vanished sounds', which we had been discussing earlier in the interview.

- B: (in German) And could you please mention sounds, other sounds, that one cannot hear any more in Bissingen
 A: You mean these sounds that we have been describing=
 B: =yes yes
 A: or the one when somebody is mowing grass with a scythe
 B: [what (astonished)
 A: [() erm
 B: erm
 A: (changes into English) when somebody is cutting grass
 B: O-oo
 A: with (P) by hand
 B: Erm

Hans Ederle is introducing a new vanished sound – mowing grass with a scythe. My astonished 'what?' makes Ederle realize that I didn't catch his German, and he changes into English: 'when somebody is cutting grass (- -) by hand', and my 'erm' is meant to convey that this time the message got through. Ederle does *not* speak of mowing in the morning in the wet grass solely as his personal *memory*. He is *remembering* or rather, together we construct the remembering. The matter is recounted in passive mode: both in German and English languages he is using the expression 'when somebody is', which I hear as a detachment from personal discourse.

- (--)
 A: =in the morning (P) in the early morning
 B: oh yes
 A: and the grass has been wet it makes a different noise by mowing than a, a few hours later on
 B & C: Oh, oh
 A: Very different

After the opening Ederle elaborates on the special quality of the sound one hears when using the scythe in the early morning. In the analysis of memory discourses it is usual to pay close attention to the interplay of tenses, but one needs to be careful about drawing too many conclusions on the basis of tense in this case because the interviewee is not using his mother tongue. So, it *might* be significant that he speaks in the *present tense*: ‘it makes a different noise’ in grass that is wet from the early morning dew, as compared with later in the day. The fact that noise is very different in the wet grass has not vanished, even if the sound itself has become – practically – non-existent.¹⁰ The sound of it in the morning in the wet grass is still present *in memory* and this is emphasized by the use of the present tense, which somehow makes the sound more immediate and real. In any event, the way Ederle differentiates the various sounds of the scythe gives me, the listener a sense of the vividness of his lived and remembered experience.

- C: (in German) It’s not possible to hear any of those these two sounds any more
(with empathetic voice, dropping in pitch) Both sounds
B: (continues in German) And was it nice when it was wet
[Interruption approximately 5 minutes]

The German interviewer marks the topic as emotional with her empathetic voice. Her contribution to the discussion is more like a summary than a question, conveying in both words and tone her regret that it is no longer possible to hear the scythe. Her personal regret is also compounded with empathy for the interviewee’s sense of loss. To a great extent it would be entirely natural for us, Ute and myself, the strangers, to feel nostalgia for a vanished sound. It has often been observed that it is ‘the romantic traveller who sees from distance the wholeness of the vanishing world’ (Boym 2001: 12.). It is the journey and the perspective of the outsider that generates the native idyll.

As the second interviewer I push on, seeking a clearer statement about the nature of Hans Ederle’s aesthetic experience. I am trying to ask in German, whether it was ‘nice’ to mow and listen to the sound in the early morning dew. However, there is a lengthy interruption¹¹, after which I try to formulate the same question in English: did he like that particular sound?

- B: (in English) But we were in the middle of the (P) because you said the sound was different when there were rain drops, no, the early morning drops
A & C: The early morning drops
B: Did you like that sound [because you said
A: [wwweeell it’s kind of (P) Nostalgie.
B: OH YES.
A: Today I have to get done several
B: erm, erm
A: so very soon, everything has to go faster
B: oh yes
A: and so I can’t do it like this

The interviewee (A) had had some time to reflect during the interruption. We also hear a shift in his perspective so that he is now observing his own remembering from outside: he is able to categorize something that, a moment ago, he was describing in very delicate aesthetic terms as a 'kind of (pause) Nostalgie'. Here, he is certainly not within the 'hearing-point-memory' but more in the position of hearing and looking his own practice from outside, as an observer. As Svetlana Boym has noted, nostalgia is still often a taboo, since it seems 'like a waste of time and an unaffordable luxury' (Boym 2001: xv). It 'inevitably reappears as a defence mechanism in a time of accelerated rhythms of life and historical upheavals' (ibid; xiv). And the more nostalgia there is, the more hotly it is denied.

- B: yes, yes. But do you sometimes do it just for
[the pleasure 'cause you remember
A: [erm erm I don't have time for the pleasure (laughs, B joins the laughing)
B: Really? (laughing)
A: No (laughing)
B: Okei (P) But you can very clearly remember the sound?
A: Sure, sure.

The meaning of the activity of mowing is well understood by Ederle, and in this case it is constructed as no longer having much importance. To my question about whether he liked the sound, he answers that the sound – or remembrance of the sound – is nostalgia. Ederle is moving here very interestingly and instructively between the short moment of 'abdication of personal responsibility' (Boym 2001)¹², of immersing himself in the unforgettable sound of the scythe early in the morning dew in the past, and returning to the present, from which position the idea of actually trying to replicate the past by mowing by hand would represent folly, though he recognizes this with good humour. It is indeed as Boym (ibid: xv) says, the nostalgia taboo makes people feel that 'looking back might paralyze you forever, turning you into a pillar of salt' like Lot's wife.

ABOUT BEING VIRTUOUS, PRODUCTIVE AND TOLERATING NOISE

At the beginning of this article I referred to some hypotheses regarding the crucial effect of meanings and emotions on what we record into our memories. In addition, however, our situation at the moment of remembering is also decisive. During Hans Ederle's remembering (with the assistance of the researchers Ute Bechdorf and myself) the discourses and repertoire of cultural meanings of using the scythe were very different from at the time he had coded the sonic memory of yesterday's early summer mornings, when the dewy hay was sparkling in the sunrise.

At that moment of recollection he had to talk to two strangers and an uninvited guest from the neighboring town. For Ederle, that situation is not conducive to the undisguised manifestation of emotional involvement. Rather, it encourages a more

detached discourse of technological rationalism and ‘mature’ acceptance of progress. Even though the interviewers might have seemed inclined to ‘relinquish critical thinking for emotional bonding’ (Boym 2001: xvi) as often happens where nostalgia is involved, the farmer Hans Ederle does not significantly relinquish critical rationalism to any significant extent. The sound of the scythe has been incorporated, and can be remembered, as ‘present past’, which can be said to be Ederle’s state of experience. He is making a living out of farming, and expects to continue to do so. This horizon of expectation precludes the possibility of reverting to a scythe even if only briefly for pleasure. He is a rational, modern farmer, and as such does not have time to indulge in such pleasure. Ederle refers to the ‘fact’ that it is economically impossible to return to the time when scythes were hissing in the wet grass in the mornings. He fully appreciates the fact that today’s workload makes it impossible for the sound of the scythe to exist as anything but a cherished memory. But this does not mean that the sonic memory has *no* meaning for him. As one side of his identity, it fortifies his sense of who he is in the world.



Picture 22. *In the fruit gardens of Bissingen.* (Photo: Noora Vikman)

Today people suffer from time-poverty. We dream of different chrono-topes, time-spaces, and in Finland for example, people commonly realize this dream through periodic retreats to their summer cottages (Vilkko 2007). Mowing hay with a scythe, even if only on one summer morning or only in the lost time of memory, can, for some people, sufficiently counteract the restrictive rhythm and ambience of noisy modern agriculture. It can in addition counteract one of the greatest transitions in European

agricultural soundscapes, which has been in the modes of communication between nature, animals and people. Today a human being working in the fields, as in the case of farmer Ederle, has to a large extent insulate her/himself from nature.

We can even go further and, like Avishai Margalit, ask provocatively: do we *have to* remember past people and events? What is the nature of this exigency? The question leads Margalit to consider the ethics of forgetting as much as the ethics of remembering.¹³ As Svetlana Boym has argued, non-reflective, restorative nostalgia produces ‘monsters’ (Boym 2001) by presenting itself as the Truth. There is the possibility of a different, self-conscious or reflective nostalgia, however, which enables us to inhabit and explore multiple places at the same time. Self-reflective nostalgia is a crucial part of social memory. I consider Hans Ederle’s nostalgia to be more reflective than restorative. The farmer is nostalgic, but self-consciously so. He is making a rational statement about not having time for pleasure.

Perhaps the next step will be, like Walter Benjamin, imagining a world, in which ‘things are liberated from the drudgery of usefulness’¹⁴. The meaning of memory is also defined by the future of the community; the value of remembrance is defined by the hope that in the future it will be possible to act well. One could make an assessment of agricultural machines that corresponds to that of the German sports sociologist Henning Eichberg (1987)¹⁵ regarding the comparative costs of cars and bicycles. Eichberg calculated that the average speed of the car is as little as 14 kilometres per hour, taking into account the time that an average German uses in driving and refuelling, plus all the other car expenses. This means that the car owner has to put in many working hours to recoup costs. The cyclist reaches a speed of 15-25 kilometres per hour which is counter-balanced only very slightly by the low cost of buying and maintaining the bicycle. But as Jonathan Sterne (2003) has noted, it is a simplification to assume that technology has any effects *in itself*. We need to think about the kinds of values and ideas that underpin the acceptance of noise as an inevitable effect of the functioning of society. The arguments about the utilitarian benefits of technology might be exaggerated in relation to their cultural and material costs. These rational and technological discourses enable us all too easily to underestimate the consequences of noise.

NOTES

1 Marcel Proust, 1871–1922.

2 The idea has close affinities with the Koselleck-Boymian understanding of ‘the present space of experience’ (see the beginning of this article) and its relation to past and future.

3 See also Murray Schafer’s term ‘sound romance’.

4 See also the introductory article in this collection.

5 The statement is curious, for the noise from aircraft is almost constant in Bissingen. On the other hand, according to Tero Hyvärinen, the aircraft decibel level in Bissingen is now almost 10 decibels less than it was 25 years ago.

6 In fact the sound memories of bombing are shared by many members of the Second World War generation. In Lesconil I met a seaman whose most intense sound memories were from Brest during the bombing. The sounds of war are an example of generational sonic memories in Western Europe.

7 According to Justin Winkler (2001), it has been noticed that 'the phenomenology of falling asleep' often includes the ear's search for a familiar sound when one is waiting to fall asleep. (See also Järviluoma 2006a; 2006b.) It is unsettling if that sound vanishes. Often, however, people only notice the sound when it's gone.

8 Böhme writes: 'What is unique and also theoretically complex is that the term describes a typical in-between phenomenon. Atmospheres stand between subjects and objects: one can describe them as object-like emotions, which are randomly cast into space. But one must at the same time describe them as subjective, insofar as they are nothing without a discerning subject.'

9 See the original transcript in the appendix.

10 I say practically, since, in fact, this same sound was brought up as well in the discussion with Else Ederle, whose relative said she still uses the scythe when mowing up some parts of the yard in the vicinity of Gasthaus Lamb.

11 A man knocked on the window of Gasthaus Adler, since the door was locked. He was let in and it appeared that he had come from nearby Dettingen to meet us Finns, since he was married to a Finnish woman. He stayed, listening to the interview, which was conducted sitting in the deserted restaurant. He kept interrupting the discussion until Ute told him to stop, all of which of course influenced the tone of the interview.

12 Cf. above the reference to nostalgia as 'unaffordable luxury'.

13 Soundscape listeners and researchers are not to be confused with the traditionalists representing the brutal governments of the world. Margalit comments instructively on the latter in a way similar to Svetlana Boym's (2001) critiques of the representatives of restorative nostalgia and both take it very seriously, if the conservatives of the brutal governments try to create legitimation for their acts by anchoring the justification of their acts to past events.

14 Boym (2001: 27) cites Benjamin's essay 'Paris, the Capital of the Nineteenth Century', which has been translated by Quintin Hoare in *Charles Baudelaire: A Lyric Poet in the ear of High Capitalism*.

15 Eichberg is also referred by Jokinen. Outi Jokinen (2001; see also Ampuja 2007) has analysed the letters to the editor of Finland's main daily newspaper, Helsingin Sanomat, from the 1930s to the present day. In her thesis she found out that tolerating noise seems to be considered a virtue which every modern city dweller or citizen should possess. When somebody wrote to the newspaper complaining about noise they received a prompt answer from another correspondent. 'Noise belongs to the city and if you don't like the fact, you may as well move to the countryside.'

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APPENDIX

The original transcript of the interview. A: Hans Ederle; B: Helmi Järviluoma; C: Ute Bechdorf. Here you can see the fluent changes between the German and English languages.

- B: und könnten sie Laute andere Laute (.) das man (.) nicht mehr in Bissingen hören kann (..)
- A: Also gerade diese die wir beschrieben haben
- B: ja, ja
- A: oder wenn jemand mit der Sense mäht (P)
- B: [Was? (astonished)]
- A: [mit erm]
- B: erm
- A: when somebody is cutting is cutting grass
- B: O-oo
- A: with (.) by hand
- B: Erm
- A: Sense was ist does (--) you know it's a
- C: a-a
- A: special
- B: Ya
- A: not the little one with the bow
- B: [but the long=
- A: [but the long (shows)]
- B: Yes (.) Nowone does it anymore (.) und (--)
- [INTERRUPTION]
- A: And (.) In the morning when the (P) thau? (P) has been
- C: the dew?
- A: the thau has been
- B: the dew? early dew, in the morning=
- A: =in the morning (.) in the early morning
- B: Oh yes
- A: and the grass has been wet it makes a different noise by mowing than a few hours later
- B&C: Oh, oh
- A: very different
- C: Beide gehört man aber gar nicht mehr (with emphatetic voice) Beide geräusche.
- B: Und war es schön, mit, with the water (Interruption.)
- B: But we were in the middle of the (.) because you said the sound was different when there were rain drops, no, the early morning drops
- A&C: the early morning drops
- B: Did you like that sound [because you said

A: [(w)[wwwell it's kind of (.) Nostalgie.
B: OH YES
A: It's easier to mow with the machine
B: Yes.
A: Today I have to get done several,
B: erm, erm
A: so very soon, everything has to go faster
B: oh yes
A: and so I can't do it like this
B: yes, yes
B: But do you sometimes do it just for the [pleasure ('cause you -- remember)
A: [erm erm I don't have time for the pleasure
(laughs, B joins laughing)
B: Really? (laughing)
A: No (laughing)
B: Okei. (.) But you can very clearly remember the sound?
A: Sure, sure

Helmi Järviluoma

LESCONIL, MY HOME

Memories of listening

Tie joka kuulee ei jää kuuntelemaan.
(‘The road which hears doesn’t stop for listening.’)

Eeva-Liisa Manner

On the beach of a village in Brittany, at half past eight in the evening, the wind hits my face with a strong smell of salt. The dry trees are rustling their leaves, a lonely bird of autumn. As I walk towards Lesconil, the centre of village, it is completely dark.

The houses become more frequent, the televisions are gleaming. Maybe, before, the houses did not so much pulsate in colours and lights. Through the thick house-walls only a distant woman’s voice can be heard coming out of the television. The dinner-ware tinkles inside a home with large windows. Walking through a street in which many houses are under renovation, I hear a sound like someone running. From inside an uninhabited house, a bang.

After the dark alleys the betting bar is tempting. From the open door American rock is flowing into the street. The light is flooding out of the windows, but the corners of the bar have a suitable twilight atmosphere where one can sit peacefully at the dark tables. A couple of men stand at the bar desk. Hard, non-French music. On the walls horseshoes and calls for betting – no, this place is not meant for a woman on her own.

In the dark harbour pool there are fewer and smaller boats than five years ago: only twelve, I heard earlier in the day from the hostess of the Guest House, water-colour painter Jeannie Guillouz Larzul. In the year 1975 there were fifty fishing boats; in the year 1999 there were nineteen, and in 2000 fifteen. Now it is the autumn of 2004, and I calculate that only little more than one fifth of the number of boats is



Picture 23. Sea is an ubiquitous sound presence in Lesconil.

left, compared to the situation twenty-nine years ago.

However the shops and restaurants in the harbour are still functioning. At the bar *Au Descent des Marins* the customers are all men. The whole bar is filled with murmur of the refrigerated wine storage cabinets. The *Bigoud café*, on the other hand, is closed today. Four years earlier the name of that bar was *l'Abyssé*, and it was the place where young people gathered on Saturday night. Then they were listening to Anglo-American rock classics on the juke-box, like 'Everybody needs somebody' by the Blues Brothers, joining loudly in the singing, but also Celtic music with bagpipes, fiddles, guitars. During the weekdays the bar *l'Abyssé* was closed at midnight, and in the weekends at one o'clock in the morning. That moment was louder than any other time in Lesconil harbour – not even the return of the fishing boats in the late afternoon caused such a buzz.

In the morning at the guesthouse Jeannie has prepared a breakfast for me at 8.30 am, and on her way to her morning duties she comes into the breakfast room and puts a Celtic music CD into the player, without me specifically asking for music. She says the music is from a big concert held quite recently in France; the CD package has a map including Brittany, Wales, Ireland and Gallic regions. Serge Guilloux, a retired captain of a fishing boat and Jeannie's husband, has brought fresh croissants and bread from their son's *boulangerie*; Jeannie has put out *café au lait* and her home-made jam. The nails of the small dog Tom patter when it comes in to say hello.

We are ready to plunge into the sonic memories of the Lesconil of Jeannie's youth in 1950s.

I'M WALKING, THEREFORE I'M REMEMBERING

- Jeannie: Donc il y a une émission qui a été faite en 75 avec une autre équipe, hein?
Helmi: Oui, et
Jeannie: et puis un, un, euh, compositeur canadien.
Helmi: Oui
Jeannie: Monsier, monsier...
Helmi: Schafer
Jeannie: Schafer, hein
Helmi: Oui
Jeannie: Qui écrit de la musique, euh internationale, je crois, il est très connu, je crois, hein? Donc il a préparé une émission et en 2000, en 2000, donc 25 ans après ils sont revenus dans les mêmes villages, pur refaire, voilà.

In the excerpt above, Jeannie Guilloux Larzul is explaining to a group of Lesconil women that in the year 1975 a group of Canadian soundscape researchers was visiting five European villages, including Lesconil. They were led by *monsieur* Schafer, who composes music, an internationally recognized composer, she thinks. After 25 years, in the year 2000 another group of researchers came to the same villages in order to study the changes in the soundscapes. The field group was led by Finns, and it included eight researchers and art students from Finland, France and Denmark. The village was visited also in 1999 by R. Murray Schafer and two Finns.

I myself came back again for ten days in September 2004. I had a special purpose. I wanted to develop further the idea of sonic memory walks, which I had first come upon in the book *Five Village Soundscapes* (Schafer 1977a; see also later in this publication). Twenty-five years ago researchers took the solicitor and town clerk David Graham to various places in Dollar. The method appeared to be very effective when trying to get people to remember the sounds of places. Places are saturated with memories, and the knots of memories gradually loosen up when a person enters into a dialogue with the place.

I had taken notice that since the village of Lesconil had the identity of a fishing village, the researchers' interests naturally revolved around the fishermen. Not much notice was paid to women and children. I decided to focus on the memories of middle-aged and elderly women, asking: how did the senses construct the understanding of place for women and children in Lesconil in 1950s and early 1960s? What about those places now, and what about the ways in which the women create shared understandings of the past places, not only through verbal recollections, but as they move, in flesh and blood, through the streets and fields that used to be important to them?

I recruited two groups of women, who agreed to walk together with me, the researcher, through an important path of their childhood in Lesconil. I wrote on a piece of paper with my imperfect French the request: 'I would like you to choose a path that has been important to you when you were children. Can you please take me for a walk along that particular path? Can you tell me about the smells and sounds you sensed there when you were children?' After quite a lot of pondering upon the subject

I had concluded that it would be too difficult to try to differentiate specifically the ‘sonic memories’ out of the fuzzy field of sensory memories. Thus, I expressed myself in my request more in a way that would encourage them to open up to the realm of sensory memories in general, but especially to olfactory and sonic memories. If the theorists of embodied sensory memories like Casey (see 1987; Feld 1996) were right, bringing people back to the paths they used to walk 50 years earlier could act as an evocation. I was like a provocateur bringing people back to ‘the crime scene’.

There are very few methodological models for conducting gendered analyses of soundscapes. In the reading of genders, spaces and soundscapes, however, there are methods and conceptualizations developed by writers on architecture (see e.g. Dyrsen 1995). Feminist architectural scholars have long emphasized that it is the sensate users of space who need to be at the centre of scholarly attention (Saarikangas 2002). The meanings of space are confirmed only in use, in the relationship between the user and the space. Kirsi Saarikangas (2002) takes the idea further by asking: who is actually the ‘author’ of the space? In one sense, the subjects using the space become the makers of it. The meanings of lived space are created in the relationship between the way it is used, and its past and present cultural contexts.

It is not enough to study the experience purely in terms of visibility. It is the multisensate bodies moving in the space which confirm it, but at the same time the space encourages and discourages certain forms of conduct, many of which are gendered acts, positions, gestures, sounds. For example, the betting bar space and soundscape, with its overtly masculinist features, described in the beginning of this essay, discouraged my sitting in the bar alone. How are sounds, lights, and smells moving in the space? How does the user moving through the space perceive the spatial perspectives? (Ibid.) A useful concept here is dialogue. Space can be seen as a system of places: a place is space that has become something special through the meanings connected with it. When we move, the places become activated: we enter into dialogue with the places (Stenros 1992). Sound and music are important elements in this dialogue. When studying gendered lived spaces, it is thus necessary to interpret the sounds situationally. (See also Järviluoma, Moisala & Vilkkö 2003; 102–4.)

The new methodological developments in soundscape studies stress that we need to study the subjective and shared meanings of sounds, *in situ*, and dynamically (Tixier 2002). The method used in this article was first developed together with the other AEC and CRESSON researchers in Lesconil, and then used again in Dollar. We conducted listening walks, applying a kind of *écoute resituée*, adapted from the term *écoute située* used by Nicolas Tixier and other CRESSON sound researchers (Tixier 2002). Tixier and his colleagues have developed their method on the basis of commentaried city walks by the sociologist Jean-Paul Thibaud.

It can be said that in this case the sensuous memories really do not reside independently inside the person’s head; there has to be a dialogue with the environment. Here different perceptions, such as visual pictures, awaken auditive memories. In

this connection we can apply certain aspects of Bruno Latour's Actor Network Theory (see for example Latour 2005) to the study of sensory memory, given that the sensory memory walks clearly involve the multiple mediations between objects, houses, roads, people moving and creating situated collectives. The senses produce a 'corporate communication between the body and things, the person and the world' (Seremetakis 1994; 6) – they are firmly located into the social-material field as the sociologist Turo-Kimmo Lehtonen has pointed out (2008), however Latour does not show any interest on memory in his writings.

Next, I am asking you, the reader, to join the sensory memory walks with Lesconil women, and thus, to join the creation of shared understandings of past places. I will then make a short excursion to the ways in which the Celtic identity was presented and actualized to me, the researcher, during my 2004 visit in Lesconil in local *fez noz* dances. The fishing boats in the region nowadays have names written on them in Breton: they are no longer named after leftist revolutionaries. This is discussed towards the end of this essay in the section on the fishing industry and large scale tourism in the region. Finally, I sail home in a boat built on an eighteenth century Celtic model.

SONIC MEMORY WALKS THROUGH LESCONIL

Two small groups of middle-aged or elderly women who had been born in Lesconil, walked with me, the researcher, through the special path they had chosen. We roamed slowly through the landscape, which was for them heavily charged with meanings. The women drew the map of the past into the present (cf. Kuhn 2002), telling stories and recalling sounds and smells.

The first lady who agreed to my request was, unsurprisingly, my hostess Jeannie who talked her sister Yvette into participating as well. Yvette has retired from her job as a psychiatric nurse and moved back to Lesconil from Rennes, where she had spent most of her working life.

These two sisters, both born in the 1940s, took me on a walk on an ordinary weekday afternoon. We started from the backyard of Jeannie's home – which also was my temporary home, *Chambre d'Hôte*:

- A: Je suis ici, je suis Helmi Järviluoma et ici est Jeannie Guilloux et Yvette
 B: Plouzennecc.
 A: Oui
 B: Jeannie Guilloux Larzul, Yvette Plouzennecc Larzul
 C: (rire) \$Larzul\$
 B: \$Deux soeurs\$
 A: \$Oui\$
 B: Voilà
 A: Oui et nous promenons dans le, euh, est-ce que c'était que celle rue
 B: Euh, ça s'appelle le Lotissement de Kerloc'h
 A: Aha oui
 B: Voilà. Et là, nous traversons un champ (P) pour aller vers les fermes =
 C: = de Kerloc'h

B: de Kerloc'h
B: OÙ autrefois, quand nous étions petites, nous venions chercher notre lait

We start from the area of Kerloc'h and walk on a small path surrounded by corn fields, heading towards the remains of an old farm, where Jeannie says the sisters were fetching their milk in the early 1950s, when they were young. Every evening around six, half past seven they would be waiting for the milking. In summer, if the weather was fine, they would go to the farm much earlier in order to be able to play in the hay; they took their mates with them. But in the winter the darkness fell early and none of the siblings fancied to take their turn in fetching the milk. They were afraid of crossing this particular field we were walking, and as Jeannie says, it felt that someone was all the time behind one's back: 'For me it was an imaginary man figure Pen Carré, who had a four-square head. We were really scared to death on this path. There were no houses here at that time, the place was full of fields. Especially in the winter the sounds could be heard hundred times more powerfully. The imagination made them louder, it felt as if Pen Carré was constantly behind one's back.'

'There was a group of farm houses, three wooden houses there, and three there', Jeannie says. 'Then all the houses were made of wood. None of the farm houses exists now.' Up to this point we three women had been walking on a simple path and had arrived at a place that in its present condition did not seem very attractive. Bushes, dry hay, a field now growing high corn, but in the 1950s it had been a wheat field. As Jeannie said, none of the houses existed at the spot anymore. To me the place seemed and sounded more like a 'non-place' (see Augé 1995), but the sisters paint the landscape, smellscape and soundscape very vividly when we stop 'at the yard' of one of the Kerloc'h farms, as they had sensed it 50 years earlier. For me the start of the memory walk reminded of the great importance that agriculture still held at that time as a livelihood in Lesconil; Lesconil was not only a fishing village.²

'Now we're coming to an alley, this was a dirt road then, not a blacktop road. There were a lot of smells indeed! Here in the corner there was a large pile of dung. It had a strong smell. Here there was a farmhouse and the smell of cows floated in the air. The cows were making sounds, their cloven hooves were thundering on the floor, and the milking by hand made a sound of pshh, pshh, pshh when the milk came into a metallic bucket. The horses were neighing. And the milk was put into a separator, the motor of which hummed. In this spot it smelled of potato. In the same barn where the separator was kept, the female farmer boiled potato for the pigs and other animals.'

Jeannie: Il y avait, il y avait beaucoup de chevaux hein ça, tout ça faisait les,
l'agriculture, tout ça, le, le, les champs, ça se, ça se retournait avec le, les
chevaux, tout ça. Ah, on, on se rappelle bien de tout ça, les cris du, du paysan
qui criait après, euh: ouh ouh uh uh ouh =
Yvette: = \$Marc'h\$ =
Jeannie: = \$Uh, marc'h\$. (rire) Oui oui, tout ça oui oui

The sisters are telling me about the large number of horses that were used in the agricultural work at that time in Lesconil, all the soil in the fields was turned over using horse-power. They remember well the cries of the farmers: 'ouh, euh, march!' Yvette points to a well and says that when she was a child, the well seemed to enormously big. When she came back to the same place 20 years later on, it was very, very small. Now she can hardly notice it at all. This illustrates how far the spatial perspectives of a memory from childhood can differ from the point of view of an adult returning to a remembered spot. This is probably related to a point on which memory researchers are close to unanimous: memories are not copies of the past events. If one were to try to depict a memory in, for example, a painting, as a scrupulous copy of the original experience, it would be very imprecise, since memories are constantly in transition (Schacter 2001). What have the experiences meant to us? What kind of emotions have they aroused in us? These are the kinds of questions that are important in the process of recording the past in our memory. Pen Carré, the well, the fear, and the joy of playing in the hay in the summer with mates are good reasons for the choice of the sisters – they have had an abundance of emotional experiences as children on this path, and this is why they still relate to them after more than fifty years.

We leave the Kerloc'h farm area and keep on walking, arriving at a residential precinct. According to the sisters, there was not a single house in the area fifty years ago, only wheat and potato fields. In the late 1980s ago a new residential development was built in the fields. A female neighbour is being greeted on the road:

- B: Ça va ?
 Neighbour: () promenez un peu ?
 B: Oui (---)
 B: Ah bien oui, oui, tu vois, on, on, on vient aux chemins de notre en fance avec une amie qui, qui, qui veut nous, euh- (P). Il y a une amie qui veut qu'on nous racont- qu'on lui raconte un peu notre vie d'autrefois.
 Neighbour: Certainement
 B: Alors voilà tu vois.

Both this greeting and the way Jeannie introduced our AEC project to village women, suggest that she was something that an earlier ethnologist would have called 'a key informant'. She was interested not only in accommodating our group on our successive visits but became fascinated with the subject itself. This may partly be due to her second vocation as an artist, a painter, someone who was open to new impressions. She was also a very helpful person. In this greeting she tells her neighbour that we are going along the paths of their childhood with a friend who wants them to talk about their life in the past.

We are approaching a broader street, the main street of Lesconil, as the sisters call it. Its name is now Jean Jauré's street, but it used to be La Grande Rue. More and more cars are driving past us and their 'vrooms' can be heard on the tape. A dog is barking.

Jeannie: Ici y a avait un forgeron. (P) Un forgeron.
Helmi: Aha.
Jeannie: \$Poum, on l'appellait Tom-tam-poum-poum.\$ (rire)

'Here there was the blacksmith's forge', says Jeannie and smiles: 'Poum, we called him Tom-tam-poum-poum.' 'Poum' could be heard at a long distance especially when it was a beautiful evening and no cars around. In the spring the tinkling of the blacksmith carried a long way.

Jeannie and Yvette begin to reflect upon the joys of the past, and childhood. Jeannie says that even if the times were hard, they enjoyed life. Yvette reminds Jeannie about some of the reasons for childhood pleasures: 'But we were young then, Jeannie, and there was much less traffic and we children were always outdoors. We were free, completely free, and our parents let us go where ever we wanted to. They did not need to be afraid, they knew that we were level-headed. We went to the rocks at the sea side, we went to the beach, we went everywhere. Everywhere you could hear people talking, not so much sounds of cars, since there were not many cars. Instead we had horse carriages and bicycles.'

Marcel Proust knew well fifty year before the scholars of memory that the state of mind at the moment of remembering something – the ways and situations in which events and places are recollected – have a crucial impact on, for example, the strength of the affects in memories of events. (See Schacter 2001; Järviluoma 2006.) Jeannie is telling more from the perspective in which she is almost inside the past event, using 'ear-point memory' (Järviluoma 2006). Yvette is reflecting the past more as an observer, listening and seeing the sisters moving in the past soundscapes and landscapes. Yvette is pointing out that part of the change in life's satisfactions now and then is due to the fact that the two sisters have grown older, and are perhaps more burdened with heavy responsibilities than they were as kids.

However, even Yvette hears the past soundscape as more human than motorized. The traffic was not as dangerous as it is now for kids. The description of the past traffic soundscape sounds indeed very different from the one in which we are walking. The soundscape is still hi-fi, we can still separate easily one sound from another, but the constant flow of cars is still present.

It is, as well, interesting that the children's past freedom and outdoor life were brought up in so many of the villages that AEC visited. In Skruv people really missed the sounds of kids playing outdoors; in Cembra even the Mayor said he would like to maintain for the future the sounds of children playing on the squares; in Bissingen the motor transport had reduced the walking of children to schools.

Somebody moved the dust of my memory
into which time drew its symbols
and opened up the scroll which
partly had crumbled like an old fragile book dispersing into water

Eeva-Liisa Manner

We walk towards the Lesconil church, and as we approached it the sisters become involved in a long discussion about the Sundays and how the children were dressed up for the church. We pass a small square where there used to be a washing fountain, and Jeannie remembers very vividly the endless sound of women talking whilst washing the clothes.

We stop when in front of a house with two storeys, a house where the Larzul family lived on the second floor two room flat, when the kids were small. 'We had two rooms, kids were sleeping in the back, and father and mother in the front room. We did not have any toilets, we had to go into the out-house in the backyard and of course there were distinctive smells. And I can still remember the clicks of the covers of the toilet seats. Clic-clac', remembers Jeannie.

She shows a house on the other side of the street and says that there lived Mr. Guiriec, 'a really charming man who was making woollen jumpers. That machine was huge that he used for weaving the seamen's jumpers for going to the sea. I don't remember how the machine sounded, however. He always kept his window closed.' Jeannie points out a house nearby, which was the grocery store: 'Firstly I remember the odour of fresh butter! The lady sold us pieces of butter from a wooden barrel. She had a cow behind the store. She also sold wine, there was a small bar inside the shop.' When Jeannie starts to recall the smells of the shop's backyard, she also remembers the smells that were not so pleasant:

Ah ouais c'était pas très agréable. Parce que c'était tu sais du vieux () et des bouteilles, des grandes bouteilles d'un litre là, de les bouteilles renversées, tout ça, bon, il y avait les fruits, des fruits pourris souvent, tout ça

The big one litre wine bottles and rotten fruit were the dominant smells there. In the back yard of the childhood home of Jeannie and Yvette there were often fishing nets drying and being aired. The cotton nets had distinctive smells, the smell of old fish and a certain tincture, a coloured fluid which was used for colouring and protecting the nets.

The sisters remember the wall near their home which always had a row of old women crocheting lace. They had their *coiffés*, even 30 cm long lace headpieces on. The grandmothers brought their chairs outside and watched their grandchildren

who played on a piece of common land, a field in between the houses. The crochet hooks and needles were jingling, but the sounds of talking, nattering away was even louder, the women's tongues did not let up for a second.

We continue our walk past one of the Lesconil schools, the old catholic school, which the sisters did not attend. They went to the secular one. Passing the school, however, brings to Jeannie's mind the spring days at school. When the windows were open, she could hear the clop of horses and sounds of carriages. People were still at that time clattering around in their *sabots*, their wooden shoes, and talking in Breton very very loudly. In the neighbourhood of the school there was a shipyard. Ships were built in the docks and one could hear nailing, loud talking and sounds of saws. 'I do not remember any particular smells but I remember very well the sandwich which had butter on it, I got it always when getting at home from school. It had a really wonderful smell! I loved that bread', Jeannie says.

The memory walk with the Larzul sisters ends up by the seaside, close to a channel one needed to cross before getting to a pleasant beach with white sand, which was the safest swimming place for children. That was why mother happily gave the kids a small coin when they wanted to go to the beach, called *Sables blancs*. The coin was to pay a guy called Etienne who canoed people over the channel to that white sandy beach. On a summer Sunday the whole family might make a picnic to that particular area.

We do not go to the white sands but stay on the small beach behind the fishing port. As we approach the place we can already hear from afar the shouts of the



Picture 24. Fishing boats at Lesconil harbour in 2000. (Photo: Noora Vikman)

adults calling to their dogs, and to their children as well, and the heavy sounds of the waves washing onto the sands, and the voices of children enjoying their play at the beach. It is September but there is still a family having an afternoon picnic on the shore: grandmother Jeannie Le Pap, her daughter-in-law and grandchildren from Paris, and a dog. The sisters introduce me to the family and another woman, who happens to join us, Martine le Faou.

It appears that after a brief conversation I have managed to recruit the next group of women for a sensory memory walk for the following day: grandmother Le Pap and Martine le Faou, both of whom were born in Lesconil.

THE SOUNDSCAPE AND SMELLSCAPE OF THE QUARTER OF FOUR WINDS IN LESCONIL

We have a rendezvous at the very same beach we ended up the previous day near the harbour. Grandmother Le Pap was born in 1937 and Martin le Faou in the early 1950s. Mrs Le Pap says she speaks half Breton, half French. Recalling her past she describes how, as a young girl she got herself a job at the Lesconil fish factory, against her mother's will, and worked there right up to her marriage, a common pattern amongst the young women of Lesconil. Martine le Faou does not talk much about herself, except that now she was no longer working. Jeannie Guilloux Larzul joins us on this second memory walk.

The first place we stop at for long discussions is the *Quartier de quatre vent*, 'the Quartier of four winds' which used to be one of the most important precincts of Lesconil. Five decades ago the streets had no names – places were recognized according to quartiers. The conversation is like fireworks, the comments flying thick and fast, with Martine the most energetic and vivid. Right behind the harbour is a street now called *Victor Hugo*, where Martine immediately remembers a paintshop run by Marie Quiniou. Her son was a handicraft maker, and Marie made him all kinds of paints in every possible shade. When the canisters were open the house smelled of paint. The smell of putty was also very strong. 'You don't find these kinds of smells anywhere nowadays', says Martine.

Martine's memories move on to her grandfather Bernard, who was a shoemaker. At his place there was a smell of leather pelts and tinctures. There were several shoemakers in Lesconil, and repairing shoes was very important, since shoes were really expensive. One wouldn't go and casually buy new shoes, and it was Bernard who sewed the old shoes together. At this point Mrs Le Pap adds that she used wooden shoes when she was a child, and they were made by another shoemaker, Jean-Yves.

We are still walking slowly along the streets of the *Quartier de quatre vent*, the wind is quite harsh and the cars sometimes make it hard for us to hear each other; the wind can also be heard a lot on the MD-tape. Martine has gone deep into her memories of the smells in the shops of the quarter; next she describes the 'bazaar'

shop of Jeannie Bargain, which was full of very strong smells. Ropes were sold there, certainly not made of nylon but of pure linen. Tar and resin were also sold there. 'I have never experienced such smells anywhere in my life since then', says Martine. 'There were things that smelled very very strongly.' Seamen went to the shop, buying *sabot* shoes, covers, mattresses, and ropes.

She moves on from the smells to the sounds of *sabots*, wooden shoes: 'I remember well the sound of *sabots* when the seamen were on their way to put the tincture on the nets. The seamen's carriages made a lot of rattle behind our house, and their *sabots* made a dragging sound, my mother recognized the men according to their individual gaits. Indeed, the horse carriages made a lot of sounds as well as the loud conversation in Breton.'

The women discuss the fact that seamen tended to talk in very loud voices since they were accustomed to shouting over the rumble of the boat motors. The *quartier* under discussion was situated right behind the harbour, so there was a lot of activity going on continuously, and a lot of noise – not the sounds of cars but of *sabots* and horse carriages with wooden wheels covered with metal, clattering against the stones.

The sound of the wooden shoes is a European workers' soundscape which has made a permanent mark into the minds of many former generations. One of the descriptions of the sound of wooden shoes has been written by the Aksel Sandemose (1933/1997) who describes the march of the early workers, while the main character of the book, a small boy in a Danish factory town, was still lying at home in bed. The workers always passed his home, walking on the road in the same order. After a little while the rest pass and the noise of the wooden shoes gets louder, then the volume drops, but at the same time the rhythm of the sound gets quicker and quicker: the last ones were in a hurry. Similarly, the group of Lesconil women during our memory walk talk about the very strong clack of *sabots* of the army of women on their way to work in the sardine factory, a sound which came down La Grande Rue. 'That's a sound we will never forget', they say.

Now, why is that? We stand on a street and the women show me where the sound could be heard from. In the present, they enter into a dialogue with the space, and it becomes activated. La Grande Rue is brought into the present as a gendered place, where the score upon score of pairs of *sabots* – theirs and their mothers' – are still clacking in their memories. In their talk with me they have constructed the *sabots'* sound as a social memory, shared by this group of Lesconil women with working class roots. A momentary collective is being formed just as we stand at a particular Lesconil street corner. Both Jeannies had worked at the fish factory when they were young. The factory was an important means of livelihood for the families, but not something that mothers wished for as the only future for their daughters.

Martine brings up another memory, which is at the same time very personal and connected to strong emotions, but which also has shared frameworks and can thus be said to be a social memory shared by the walking group of women. She says that it

is *the sounds of storms* that have ‘left a label’ on them: ‘When I was a child I remember the rocks came right up to the wall, and there was even another piece of land and a higher wall after that. However, during the storm the breakers came right up to my home, my home was situated on a hillside. We were really scared. Finally there comes a wave which... Oh la laa, what a night!’

Martine: La nuit quand tu es dans ton lit, tu, ca peur, ca faisait la sensation qui (P) me reste, à chaque fois qu’il y a un tempête, je me rappelle quand j’étais petite pour ne plus entendre le bruit puisque c’est, fatigant, et c’est mais c’est un bruit qui est qui nous a marqué.

She tells us that the *fear* she felt then, as a child, has left its mark still inside her: every time there is a storm, and she lies on her bed, she still remembers when she was small and hoping that she would not hear the rumble anymore; it was so exhausting. The fact that men were in the boats, even though in the harbour, guarding their boats night and day so they would not crash against the cliffs. This is where all the women join in agreeing about how horrible it was.

Jeannie: Ca c’était terrible, hein?
Martine: C’était affreux, et (P) et , ca, c’était toute la nuit

Mrs Le Pap remembers still, about the ‘calf of Saint Peter’, a particular sound connected to the sea. When the winds were shifting, one could hear a sound they called ‘mooring of the calf’ from the lighthouse of Saint Peter:

Jeannie Le Pap: Et la vache de St. Pierre
Martine: Oui, que le, les [vents sont
Le Pap: \$ [quand les vents tournaient on entendait
Martine: On [entendait MEUH

Even today the children of Lesconil have a very close yet ambiguous relationship with the sounds of storm, wind and the sea (see the introductory article in this book). On the one hand, the sounds of the sea are among their very favourite sounds; on the other, they still mention the storm as one of the most unpleasant sounds they know. The horrendous sounds of storms are not generational sound memories: they are social memories probably shared by a large group of Lesconil inhabitants of all ages. However, the fact that fishing has almost disappeared as a livelihood, and the improvements in the harbour, both mean that the basis of their fear – associated with the fishermen struggling to keep their boats from crashing against the rocks – has largely vanished.

We continue our walk to the upper roads, away from the harbour, to inner Lesconil. The women and I ended up standing for quite a while in front of Mrs Le Pap’s childhood home, and the women keep on remembering. The old lady talks about how the kitchen was the warmest – and most favoured – of the rooms of the house in the

winter. It was kept warm with a wood fire. She recalls below how her grandmother always fetched pine needles when she made crepes:

- D: = Oui, et [puis, ça faisait du bruit
C: [C'était bon, hein
D: Ça crissait
B: Ça crissait
D: Et ç'avait (.) un petit odeur de résine
C: Oui, [en plus
D: [Elles étaient à quatre pattes à faire ça [dans la cheminée
C: [Oui, on se mettait à genoux =

They were put into the dew batter which made a very distinctive taste and smell she has not experienced since. Eating the crepes also made a sound, crunch – which Jeannie repeats (*ça crissait*), and also mentions the light smell of resin. When women made crepes they were on their knees in front of the fireplace. This is confirmed by Martine as well, who has the same memory.

The group disperses, thanking each other. I thank the group and promise to send the transcripts of the interview, and remind them that I am planning to make a radio program out of the materials. They say that on the contrary, I am to be thanked, since the sensory memory walk had been such a good experience for them. On the negative side however, my hostess Jeannie told me that on the night following the first memory walk, with her sister Yvette and me, she was unable to sleep. The memories kept coming, and gave her no rest.³

CREPES AND DANCING – VISITING THE FEZ NOZ

Expliquer un bruit, c'est pas, hein, facile, non, c'est pas facile.
Nous, c'est dans notre (.) memoire, dans notre tête.

Martine Faou

When the AEC research group arrived in Lesconil in 2000, it was shortly after a bomb had been exploded at McDonalds restaurant in a big city in Brittany, as an anti-American act. Inevitably the question came to our minds: are there are people in France who are activists for Celtic sovereignty, a bit like Basque separatists?

I was sitting at the breakfast table at Larzoul Chambre d'Hôte drinking *café au lait* from a large bowl decorated with hand-painted pictures of women of Pays-Bigouden county in their national costumes. Celtic music was playing from a CD. The shelves were filled with small decorative objects with women in their lace headgear and national dresses. However, Jeannie the hostess is really astonished when I ask whether there exists any kind of Celtic separatism. 'Je n'sais pas', 'I don't know, I don't think so – people just want to bring things into consciousness'.

As a researcher into identity I have always been interested in the ways in which

identity is constructed and performed – in Brittany and Lesconil I was struck by how, when, and where the Pays-Bigouden identity was actualized (cf. Järviluoma 1997). As mentioned at the beginning of this essay, it was clear that ‘pan-Celtic’ music existed in Lesconil in the café jukeboxes and was also genuinely liked by, for example, our host couple, who vividly described their experiences of listening to the music, attending and even taking part in organising concerts. They also had a collection of Celtic music on CDs and showed us a video of a big all-Celtic concert in Paris. Lesconil was also a tourist city, trying to reconcile its different identities as a ‘fishing village’ and a ‘tourist city’. Our hostess, for example, was explicit about her wish that Lesconil not lose its identity completely as a fishing village, to become simply a picturesque tourist town. The two things were intertwined, as well, since the tourist want to come to ‘an authentic fishing village’, and if there are no fishermen arriving to the port of Lesconil in the afternoon, and the exotic fish auction is being stopped, the tourist will perhaps stop coming.

I saw a notice on the wall of a shop wall advertising a *fez noz* dance event in the Loctudy municipality, a seven kilometre drive from Lesconil. When I asked about what this might mean from my guest house landlady and landlord, they kindly offered to drive me there and also to fetch me back in the evening. At first the L.A.C (Loctudy’s cultural association) hall feels bleak. The floor of the hall reminds me of a school gymnasium, the bright lights in the front room are like a *pelimanni* folk music evening at a local sports hall in Finland.

Two young men sell tickets. They stamp the back of my hand with a Celtic figure. Ten out of the young men and women hanging around in the front room wear T-shirts advertising a special sailing boat carefully built to an old model. It is not the *Spered ar Mor*, however, the pride of Lesconil and Guilvinec. Strangely enough, I have already become rather attached to the *Spered ar Mor*, in the lighthearted battle between the localities over who builds the best old boats. I cannot bring myself to buy the T-shirt or a poster advertising the ‘competition’.

In the hall there is a table with at least three crepe cookers, and three or four young women waiting behind the table waiting to attend to crepe customers. The music starts in the dance hall just before half past nine. A band called Tod is the starter; three men and three instruments, saxophone, accordion and a guitar. The sound bears an extraordinary resemblance to the ‘new folk music bands’ trained in Finland’s Sibelius Academy; even the chord changes are similar. Can it be that within this global folk music network the sounds move so easily from one country to another? Who is the innovator, Sibelius Academy, or are they using the sonic and chord worlds of the Celtic and Swedish bands? Probably both.

When the band starts most members of the audience – consisting of around 40 people – go to the floor and form a circle. The dance is being led by a tall, middle-aged man with broad shoulders, wearing a kilt. Some others are adorned with Celtic symbols, jewellery, and images on their T-shirts and one lady has a Celtic knot on

the leg of her trousers. The audience covers all ages. Groups of the young, 20 years old or so, form their own dance circles or lines, likewise a very talkative group of middle-aged couples.

The music is played very loudly. The circle at the same time enlarges and tempts me, observing the situation from where I am sitting on a bench at the side of the hall, with my recording equipment on the next chair. I gather my courage and join the circle. It is hard to find the right grip between a lady in red and a man in all black clothes. The woman moves her hands with a fierce expression on her face, while the man is drifting hopelessly far away from my hand. The sections of the dance which have to be done arm in arm are the most difficult. Little fingers get a workout, with people attaching themselves together by their fingers. The same movement is being repeated hundreds and hundreds of times. Now and then people go wild. They stamp their feet and shout and scream, dancing to the next band, *Yad*, which sounds like medieval jazz. Even so, the people sitting on their tables at the sides of the dance hall never stop their talking. Constant, ceaseless social noise is unquestionably the soundmark of Lesconil.

THE CHANGING FISHING INDUSTRY

The diver working at Lesconil harbour, talking to the AEC researchers, compared the fishermen to human dinosaurs enclosed in a museum.⁴

Jeannie Guilloux Larzul considers fishing to be an important symbol, and the villagers are certainly not willing to give up. When we visited the village in the year 2000, and again in 2004, the traditional fish auction was still being held at half past four in the afternoon at Lesconil harbor. But during that second visit it was announced that the time of the auction would be changed to the morning. We discussed this plan with Jeannie and her brother Etienne. We all felt that changing the time was not a good idea, since the afternoon auction was such an integral part of the village life. Jeannie said, 'It brings people to the centre, it brings movement, it brings color. The restaurants, pubs and shops in the harbor would certainly suffer from the change. Lesconil would be closed in the evenings'. So many people opposed the change that when I made a short visit to the village in spring 2005, the auction had already been moved back to its traditional time in the afternoon.

Between 2000 and 2004 another big change occurred in relation to the tourism and fishing industry. At Guilvinec, five kilometres away from Lesconil, a tourist centre called Haliotika was built.⁵ One afternoon during my 2004 visit in Lesconil Jeannie drove me to Guilvinec, and we climbed up to Haliotika's panoramic viewing terrace.

The building was constructed on the pier, and hundreds of people had come to see the return of the huge fleet of fishing boats returning to the harbour from their fishing. The Guilvinec harbor was flourishing with its 120 fishing boats.⁶ On the platform there was still a large group of tourists taking photographs of the boats returning. Some of the tourists were in the midst of the fishermen who were busily

throwing the fish boxes out from their boats, and I was afraid that some of the more elderly people would fall into the sea. One boat after another was returning to the harbour. In the early twentieth century the boats were still named after leftist revolutionists: *Rosa de Luxembourg*, *Karl Marx*, *Lenin*, and even *Karl Liebknecht*. Now the boats had names written in the Breton language. Times have changed, and a regional movement has replaced the workers' movement. In their yellow and green rain dungarees, the fishermen quickly raise the fish boxes to the platform and onto the trolley. The derrick groans. The men have to hurry to get the catch to the big fish auction. What were the men thinking, when hundreds of people with clean hands and clothes were watching them at their work? Is this the last link we have with the life of hard manual labour, of men working in the natural environment? The faces of the fishermen are weather-beaten and red, the day has been harsh. The spectators are neat and tidy with their cameras, and I am warm and dry with my recording equipment. The men smell of fish, and they are soaking wet. Jeannie is standing next to me and I ask her what the fishermen think of all these tourists. She tells me that it is much better now that there is a special viewing platform for tourists that keeps most of them out of the way of the work going on, watching down from the gallery. Previously they seriously disrupted the work of the fishermen.

The welcoming greetings to the returning sailors and fishermen was a tradition. The villagers have always gone to meet them because it is always something of a miracle that they have returned. In earlier days they would give a big fish or some other piece of seafood to their wives. The men themselves would gather in the harbour bars, sitting and discussing the day's catch and their earnings, but usually only for



Picture 25. Fishing boats have arrived to harbour.

a little while before going home and eating. Of course, there always were a few who liked the drink too much, especially in wintertime when the men did not go fishing. Still, today, one can find quite a few gambling bars and other temptations in the neighbourhood of Guilvinec harbour. Jeannie and I are not going to any of these this time. Instead, Jeannie chats with one of the bosses of the port. We go inside together and see and hear the auction going on – a much more industrially efficient and electronic soundscape. There is no manually shaken rattling instrument that was still used in Lesconil harbour. Everything is computerized; the boss shows us how some of the buyers follow the fish auction from Paris via internet. He tells us, ‘This is the direction that the fish auction is going to move in the very near future. The buyers do not have to come to the actual point of sale. They see and hear everything via their computers. You will be able buy Lesconil fish right on the spot, from Finland!’

I leave the industrious atmosphere pondering all this, thinking about the ingenious articulation of the fishing industry with large scale tourism in Guilvinec harbour. Experiences, meeting retired fishermen ‘who tell you about the history of sea fishing in Brittany’ (Haliotika 2008) and selling fish have been woven together in ways which make the linkage of the industry and tourism in Lesconil seem and sound much less efficient in scale.

RETURNING HOME

Spered ar Mor, the ‘Sprit of the Sea’, is the pride of the region. It is an ‘admiral boat’ built on a model of 1780, with orange sails. Ten people meet at the yard of the local maritime college preparing themselves for the sailing excursion they make every Saturday. I join the group together with the sisters Jeannie and Yvette, and a third from the same family of sisters, Clodine. The Captain, Guy, a teacher at the maritime college, calls me to take care of the helm, since I am the least experienced of the group. The rowers raise and lower the sails, a dangerous task for the uninitiated and especially for those who are not fluent in the language – I would have been a danger to all of us. The wind catches the sails and the boat is flying, making a roaring sound. The masts squeak and bend. The trip is going beautifully.

‘This boat is a queen,’ says Guy. ‘Once you get it moving, it travels fast and steady. But it is much more difficult to sail with than the modern boats. You have to keep track of a thousand things at the same time.’ We have to trust him, no matter how nervous we are. The wind grows and shifts, the boat heels over almost on her beam ends and feels as though it will capsize. It is unnerving to watch the splashing, fast-moving rim of the hull, when it skims the waves. ‘C’est normal, it’s perfectly normal,’ says Guy, seeing the anxiety of his crew. Finally the boat comes about and approaches the harbour. But just as we reach the red-and-white home lighthouse, Guy turns the boat and it surges back towards the open sea. ‘The boat did not want to go back to the harbor,’ said the captain, astonished. ‘One must listen to what the

boat says: if it does not want to return, one cannot return. You have to have a goal. It is not possible to learn how this boat handles unless you choose a difficult goal. And you have to approach the goal very delicately.’

The goal Guy has set for himself is the open sea. The passage to that freedom is guarded by a pair of rocks, a wolf-headed Cerberus beyond which the open sea is visible.

What does the captain want? What does the boat want? No-one asks what the sailors want.

Stage by stage the captain reaches his goal. He is pleased. The boat luffs between the rocks. Guy takes a look at his watch and says, ‘Now it is clear that I could have reached the open sea. Let’ return to the harbour.’ e is in a good mood. The heavy oars are no longer needed. *Spered ar Mor* sails as if by itself past the red and white home lighthouse.

In the evening I am enjoying the cosy atmosphere in the attic room of the *Chambre d’Hôte*. The door of my room is open. It’s seven o’clock in the evening, I can hear sounds from the kitchen TV downstairs. Jeannie is frying crepes in a large pan – not on her knees in front of a fireplace, but with modern equipment. Grandfather Serge is playing with the 6-year old Romaine girl, arm-wrestling. The little Lukas boy is shouting, the dishes are clattering.

Is it appropriate to set up my recording gear right now and record this passing moment? A time in life when grandmother and grandfather were still healthy, and could have their grandchildren to stay for a night, because the parents had a busy Sunday morning coming up in their bread shop, because all the Lesconil people wanted their Sunday pastries and cakes.

I hear the voice of Jeannie from the stairs: ‘Elmi! Do you want crepes?’ ‘Porquoi non? Why not?’

NOTES

1 This ‘radio essay’ is largely based on an earlier manuscript, of a feature which was first performed by Finnish Broadcasting Company Radio 1, *Radioateljee* in May 2006 (*Lesconil, memories of listening*). Some of the sounds can be heard on the CD accompanying this book. Most of the materials used here were collected by Helmi Järviluoma on a field trip in September 2004 in Lesconil. A version of the sections on methodology has appeared in the soundscape section I wrote to the book *Gender and Qualitative Methods*, Chapter 5 (Järviluoma, Moisala & Vilkkö 2003). I have tried to keep the atmospheric quality of writing, adding only remarks which serve the purposes of the book at hand.

2 In 1946 there were 544 farmers in Plobannalec-Lesconil area; the numbers rapidly declined from 164 in 1960 through 105 in 1980 to 32 in 1990. (Plobannalec-Lesconil 2008)

3 Nonetheless she did not want to miss the second walk. As an artist she was perhaps also interested in the procedure as a stimulus to her imagination as a painter who is specializes in representing Lesconil.

4 In the diver always entered l'Abyesse bar wearing the traditional wooden shoes, *sabots*. Once he also brought with him a bagpipe, but he said he restrains himself from playing it inside – otherwise the bar would be empty in a few seconds. He prefers to play it outside. He was a member of a band which had made an important record with a group of musicians from Lesconil and the neighboring area. One of the songs on the CD describes the problems of the fishing industry – *Du bois qui craque*.

5 Haliotika is described in the Internet, as follows: 'In the heart of the first French traditional fishing port, Haliotika will take you into the world of sea fishing. Meet the fishermen and discover the reality of their work. They will tell you about their history and their daily life.' 'From the panoramic terrace, witness the return of the colourful coastal trawlers bringing back the daily fish and crustaceans.' (Haliotika 2008.)

6 'Le quartier maritime' that includes four areas of the region of 'Pays Bigouden', and the information from year 2001 (Guilvinec 2008) reports that there are 130 fishing units in Le Guilvinec, 20 unites in Lesconil, 92 unites in Loctudy, and 101 in Saint-Guénole. At that time the whole Bigouden area produced 17,5 per cent of the French fish, which according to the internet source makes the area one of the most important, if not the most important Quartier Maritime in France. One has to remember that the fishing industry also employs a large number of workers other than fishermen.

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Heikki Uimonen

STORIES OF SOUNDS

The narrated past of the Scottish village

The article deals with the changes in sonic environment in the Scottish village of Dollar. The research was inspired by the story of the retired blacksmith of the village told in spring 2002. The story was concentrated on the village's past, the profession of the blacksmith and the reactions of the villagers to the sounds of the blacksmith shop. Personal recollection awakened the past soundscape of the Dollarites, which can no longer be heard. The narration can be connected to the change in the sonic environment in general. It also encourages one to reflect on how the everyday soundscapes of the villagers have changed over the decades.

The change in the soundscape needs to be approached with the help of the various sources. Since the issues of everyday sounds are seldom part of written history, the research needs to draw on to oral tradition. The experiences of the villagers are constructed from the personal and group interviews. Because the information concerning the environmental sounds is based mainly on the spoken word, the research focuses on the changes in the twentieth century. The first decades of the century have been reconstructed also with the help of printed and digital sources, especially the changes in infrastructure and the technological innovations.

The story of the retired blacksmith is a special one. It stands out from the rest of the interviews because it deals with one of the central sonic events of the village. It needs to be stressed that the story is about common and everyday sound which is usually shaded by more striking sonic events such as signals and other sounds actively listened to. It is the ordinariness of the sound of the blacksmith's anvil which makes it interesting for the research. Because of the everyday nature of the anvil sound it is not the first one to come into the narrator's mind and thus is seldom characterized in a stereotypical way. If, for instance, one is asked to tell about beautiful or ugly environmental



Picture 26. *The A91 and Dollar Academy students.*

sounds the answers often include birdsong or traffic noise, respectively. This is not to say that these sounds should be excluded from the research, but there is much more to study in soundscape than just the most obvious sonic phenomena.

BACKGROUND OF THE RESEARCH

The Scottish village of Dollar was one of the five villages that were researched by the Canadian Five Village Soundscapes (FVS) team in 1975 (Schafer 1977). The Academy of Finland funded a continuation of the research, called Acoustic Environments in Change (AEC), which was conducted in 2000. Field work was extended to six villages, the sixth being Finnish Nauvo, located in the Turku archipelago. As a member of the AEC group I collected research material in three phases. The preliminary research was carried out in 1999 and the actual AEC field work in 2000. The third phase of field work in Dollar was concluded in spring 2002.

The FVS and AEC research utilized various methods of documentation such as observation, interviews, recording the environments and measuring the sound levels. In addition the AEC placed emphasis on interviews as a data collecting method in order to gather information on how the villagers experienced the changes in their sonic environments. There are a couple of interviews from 1975 for comparison, including the interview with former town clerk Mr. David Graham as transcribed in the FVS publication (Schafer 1977: 71–3). Mr. Graham was also interviewed by the AEC research team, so with the help of his experience of life and village of Dollar it is possible to make a small scale comparison between the sonic phenomena from the 1920s until today.

What was the sonic environment Dollar like and how has it changed during the years? And what are the opinions of the villagers concerning the matter? I sought the answers by selecting twelve personal and group interviews from the AEC data. Because of the historical orientation of the research the interviewed villagers are middle-aged or elderly Dollarites, the youngest of them being born in 1954. Some of the interviewees were selected using the snowball method; that is, utilizing the social network of the informants (see further Moring 1998: 239). During the discussions villagers nominated those locals who would possibly contribute to the research through their knowledge of the history – and the past sounds – of Dollar.

The blacksmith's role in the community justifies more detailed scrutiny of his story. He can be described as a key informant since he had information regarding the primary sonic event of the soundscape. His predecessor's work was described vividly in FVS research by Mr. Graham, which confirms that both blacksmiths had a major effect on the village's soundscape. The past soundscapes of Dollar are approached by dividing the sonic phenomena into three categories: *traffic sounds*, *signals* and *sounds relating to the economy*. These are also the titles of the following chapters in which the sounds and the changes are presented in chronological order. The chapter is followed by the appendix which we hope makes it easier for the reader to track the past soundscapes of Dollar since the last quarter of the nineteenth century (see Appendix).

DOLLAR

Dollar is located in Clackmannanshire, Scotland. To its north lie the Ochil Hills, on top of which is Castle Campbell, founded in 1400. Dollar Burn runs from the hills along the Dollar Glen, finally dividing the village in two. The university town of Stirling is located fifteen kilometres away and the nearest airport is in Edinburgh. The A91 is one of the main roads of Clackmannanshire and it runs through the village.

Dollar Academy was founded in 1818 with the help of Captain John McNabb's endowment. The school was for the 'poor of the parish of Dollar and shire of Clackmannan' until 1975, when the Academy became independent (Dollar Academy 2004), rather than becoming a local comprehensive. The pupils in their school uniforms cannot go unnoticed in the daily street scene. Pedestrian and vehicular traffic are multiplied during the school's starting, closing and lunch times. According to the census of 2001 there are 2,877 people living in Dollar. The biggest employer in Dollar is education (Scrol 2003).

Traffic sounds

One of the major changes in the Dollar soundscape was the opening of the rail line to the nearby village of Tillicoultry in 1869. This new means of transport brought not just the sounds of steam trains to the village: it was reported that a popular local character

Peter Dudgeon's loud announcement *Do-lar!* carried all the way up to the Dollar Hill located 1,5 kilometres from the railway station. The new rail line meant that now it took approximately two hours to travel to Glasgow and Edinburgh, which also meant that the number of visitors in Dollar increased considerably. The passenger traffic was discontinued in 1964 but the railroad was used for coal transportation until the closing of the Dollar mine in 1973 (Schafer 1977: 73; Baillie 1998: 88–90.)

With the closing of the railway station the sounds of the rail yard also disappeared: the sounds of the signal box announcing the arriving train, the slamming of carriage doors, the station master calling instructions, and the guard's whistle. On a hot day there had been sounds of the working men resetting the track damaged by the sun. Some of the trains could be recognized by their sound. On the hills north of Dollar you could hear the train whistles six miles away from the Alloa and also distinguish the different whistle codes, as for example when the train was trying to get onto the mainline or when the driver needed assistance. (Schafer 1977: 73.) Alex Johnston remembers the sounds of the locomotive whistles from the 1930's at 9 am and 6 pm. As a boy Johnston used to carry the newspapers delivered by the train. (DsVI.)

The economy of Dollar Parish was based on agriculture and the changes were rather slow at first. The Parish gradually became dependent on internal combustion engines after the turn of the nineteenth century. Horses were shipped to the continent during WWI and tractors began to replace them in agricultural work. The first tractors appeared in the 1920s and Dollar Academy bought its own in 1936. Despite the mechanization of agriculture there was a lot of farm work that required manual labour. (Baillie 1998: 94,135). The radio broadcasting and the installation of the telephone exchange in 1928 were both significant changes in acoustic communication. In February 1942, Town began its own broadcasting service. (Baillie 1998: 97–8.)

David Graham also remembers the sounds and signals connected to various delivery services. In the thirties milk was delivered twice a day and the clanking of the bottles was accompanied by the milkman blowing his whistle if you were not waiting for him at the stairs. The coal was delivered in bags, and if not, it was weighed on scales that made a distinctive sound. Subsequently the coal was replaced by other forms of heating such as gas, oil and electricity when Dollar became a smoke free zone some twenty years ago. Thirty years ago the shouts of the street criers were heard, but nowadays the street traders have all disappeared apart from the fishman who uses the car horn to summon the customers from their houses. (AECIV.)

According to Ron Sutherland there were butcher's and baker's vans with their distinctive horns, operating on ten mile radius. In addition, the grocer and the fruit and vegetable merchants would deliver goods twice a week not only to Dollarites but to the outskirts of the village as well. Even the radio receivers were dependent on these deliveries, since there was no power on the country districts and the radios were battery-operated. The batteries were recharged in the garage in Dollar, and in Mr. Sutherland's case the baker delivered the recharged batteries and took the



*Picture 27. Heikki Uimonen
at a sonic memory walk
with David Graham.
(Photo: Helmi Järviluoma)*

empty ones back to Dollar. Mr. Sutherland thinks that there are not many signals nowadays because supermarkets have superseded these deliveries. It is easier to get in to your car, drive a few miles and get everything you want in one shop. (DsVII.) Before cars became common people used public transport and you could get a bus to Stirling every half an hour. Motorcycles were also a cheap form of transport. They were one-cylinder motorcycles which tended to produce a lower note than today's two or four cylinder engines. (DsVII.)

According to Dollar historian Bruce Baillie the private cars have converted the village to a sleeping suburb. The poor bus connections are also making it difficult for elderly and young people to move from one place to another. (1998: 94, 99). Since the Academy went private 75 per cent of commuters and pupils have come from outside. Baillie observes that people are getting afraid of letting pupils to walk to school¹ (DintI). The daily rhythms of the village are clearly signalled as private cars drop and collect pupils in the mornings and afternoons. Today's motor sounds are

also connected to leisure time activities. In 1974 the Knockhill race track was opened in the vicinity of Dollar. Visitors travel the A91 to get to Knockhill and thus can be heard all over the village. (AEinCII, Knockhill.)

The changing values of the community can be heard in environmental sounds. The night time sounds of the young were noted by Mr. and Mrs. Graham, who consider today's girls noisier than boys. In the old days the teenagers were not even allowed go out, let alone indulge in drinking. Twenty-five years ago a woman drinking was a social taboo. It was not considered proper for a woman to go to a pub and order a drink since pubs were reserved for men only. She could only have a drink in the company of her husband. (AECIV.)

Other Dollarites also mentioned the youngsters and the noise they make during the nights. Some people living in the centre of the village could no longer enjoy a proper sleep and there was some anxiety about damage to property. However, the nuisance was temporary, or as Alan Jamieson described it, 'brief spells of this kind of thing... until youngsters become a bit more responsible...or move away to university (laughs) and we wait for the next crop of awkward youngsters to come on the scene.' (DintVI.) From 1997 in Dollar there were 15 noise complaints, including domestic disturbances, noise from refrigerated vehicles, car repairs, household repairs, musical instruments and noise from duck shooting but none from the young people (Gow 2002).

In addition to vehicles and pedestrians the other traffic sounds in Dollar are from aircraft. There has been a heavily used airline over Dollar since the planes began to fly over the North Pole to the United States. (DintVI.) The Royal Air Force base was founded in 1911 in Leuchars, fifty kilometres away from Dollar (Royal Air Force 2003) which becomes more or less active depending on international politics. During WWII an American Liberator bomber and three Spitfires crash landed on Ochil Hills. During the Gulf War the soundscape was altered profoundly by jets and propeller-driven planes practising along the valley so low that the green lights in the cockpit could be seen from the ground. Airforce flying used to be more active because of the fear of Russia. (Baillie 1998: 97–98; DsX; AECIV)

Signals

According to David Graham his father could hear the bells from the four churches around Dollar. By 1975 the bell could no longer be heard over the cars passing the listening place every fifteenth minute. The audibility of the signals has declined because of the increased traffic. (Schafer 1977: 71.)

The church bell in Dollar used to ring for three or four minutes at six am and six pm until the Second World War. The tradition was stopped because of the costs. (DsVI.) David Graham's story is slightly more dramatic. The ringing was stopped because during the war the bell sound was the signal for invasion and after the war the ringing was never restarted. Some people wanted the bell back but it was thought

to be too expensive and a few villagers got up at six o'clock by that time. (AECIV.) The daily rhythms were no longer indicated sonically because of economic reasons and the changes in the economic structure.

The only church bells in the village are now located in the belfry of the Parish Church. According to Steven Lambert you could hear the sound all over Dollar. The bell ringing is performed manually and if it happens to be done accidentally only once, it is usually commented on by the parishioners. The bells are rung before services on Sunday mornings or for Christmas and Easter services for five minutes, fifteen minutes before the service begins, and then again for a few minutes just before the sermon starts. Sometimes the church is asked to ring the bells for weddings, but it is not done on a regular basis. (DintII, Fletcher 2007.)

The bell indicates not just the beginning of the sermon but it also maintains the social hierarchy. Mark M. Smith writes that in the 20th century United States only those who are at the top of the social hierarchy could ignore the first ringing. This gave an opportunity to emphasize one's influence by timing the entrance to the later bell ringing (Smith 2001: 58). Thus the supposedly sacred bell ringing tradition was intertwined with quite secular impulses of the parishioners.

Not only the daily rhythms, but also community order was maintained sonically by the bell ringer of the Dollar Academy. David Graham remembers that the school janitor rang his bell for a minute at nine a.m. and again at 1.35 pm so you could get to school on time if you started to run as the bell stopped. When the bell became electric you had to start your running as soon as they began. Andrew Smith recalls that the 'quite melodious tone' discontinued after the fire of Dollar Academy in 1961 (AECIV; DintIV).

Historically the characteristic sounds of Dollar are the signals echoing in the golf course. There is a bell at the second hole which is rung after putting. The bell has been there as long as the golf course, which was founded in 1890. On the fifteenth hole there is a metal tube with a very piercing sound when it is struck. The tube was made by the local blacksmith and has been used for thirty years. Once players have played the hole they use the bell since they cannot be seen by the players coming from behind. Its distinctive sound can be heard all year around. (DintII/IV.)

The Dollar Fire Brigade was discontinued in 1988 (History of Scottish Fire Brigades 2004), although Steven Lambert remembers that the siren had already become quiet by the 1970s. It was obviously operating in the first half of the decade, since the sound was recorded by the Five Village Soundscapes in 1975 (see WSP 2004). Before that those members of the Fire Brigade who were away from the phone were summoned by the loud siren. The fire-engine was equipped with the bell. (DintII; WSP 2004.) According to Alan Jamieson the Fire Brigade was moved six miles away to Alloa for economic reasons. Luckily, alarms in Dollar have been quite rare. (DintVII.)

The Dollar Academy Pipe Band was founded in 1913 (Baillie 1998: 124). On summer mornings the orchestra rehearses in the Academy grounds. The band consists

of twenty-five pipers and twelve drummers, and they can be heard three miles away depending on the wind. The outdoor practising has been going from the beginning of the century and it is appreciated a lot by the villagers. The repertoire is composed of traditional tunes such as *Scotland the Brave*, and the *Highland Laddie*, that are memorized before going to the parade or to the public performances in the nearby Stirling Castle. (AECII.) The orchestra marches and plays also in Dollar Gala which is organized once a year (Baillie 1998: 97).

In its characteristic Scottishness the Dollar Academy Pipe Band carries on a tradition almost one hundred years old and thus connects the past to present sonically. The band makes *town and gown* – the intertwining of the village and the Academy – audible. Like any pipe band they have their military dimension as well. Dollar Academy provides opportunities to train in military skills and some of the pupils have followed a military career after their schooling (AECII). From 1904 to 1912 The Academy had their Open Shooting Range in the vicinity of the village at Hillfoot in (Baillie 1998: 135).

Scottishness is sharply differentiated from Englishness by some of the villagers. When asked about unpleasant sounds, a male Dollarite answered ‘English accent’. A member of the Scottish National Party stated that to him the accent symbolizes the colonization of the village and rest of the Scotland as well. (DsIX.) In 2000 the Scots clearly outnumber the English since 71 percent of Dollarites are born in Scotland, and in Clackmannanshire the percentage is 89. England is the country of birth for 20 per cent of the Dollarites, and in Clackmannanshire the number is seven.

SOUNDS RELATING TO THE ECONOMY

Baltimore Quarry Company leased a hill for quarrying in Dollar from 1935 to 1947. A large crushing plant provided material for the roads (Baillie 1998: 2, 53). Two quarries were operating on Castle Road: the top quarry was opened first and bottom quarry later. Alex Johnston remembers the quarries being pretty noisy in the 1930s because of the blasts. At four pm the warning was shouted and the horn was sounded to signal the blasting of the rocks with dynamite. The last blast signalling the end of work was at 4.30. The quarry used steam-driven lorries called Steam Fodens that were operated on steam boiler and coal. The quarry was closed just after the Second World War. (DsVI.) David Graham recalls that the steady bumping sound of the crusher could be heard in the village and that the stone was blasted also in the mornings. (DsIII.)

According to Bruce Baillie the decision to establish a power plant for Dollar was made in 1901. From 1906 until 1932 two gas-operated engines were running during the daytime. One of them kept going during the night and caused complaints from the villagers living nearby. (Schafer 1977: 72; Baillie 1998: 95.) In 1937 the saw mill was founded in Dollarfield below the village when the bleachworks were closed. The bleachworks did not make much sound apart from the water turbines. The factory whistle was stopped a year earlier because of the retirement of the man

who used to get the steam going. (Baillie 1998: 50; AECIV.)

Dollar mine was closed in 1973 (Baillie 1998: 90). Until then the keynote sound of the ventilation system could be heard continuously in the village. According to David Brown you got used to it, as you get used to the traffic in towns. The sound of the ventilation was also dependent on weather since you could hear it better when the wind was blowing from the east. In a west wind you hardly noticed it. (DintVII.) Steven Lambert also remembers the mines in the sixties and the sounds of the machinery in Dollar Mine. The horn was used to mark the end of the work shift. (DintII.)

The changes in the economy can be heard also on the hills near Dollar. The planted spruce trees and blanket forestry have changed the habitat of the birds, so the singing of the skylark can no longer be heard in the area. (DintVII; DintVIII.) Other economy-related sounds of the village come from the agriculture and from the cattle and sheep farming. The latter in particular can be heard during the summer months when the lambs are taken away from the ewes. In the early days the animals were taken to the railway station and transported to market (Schafer 1977: 61). In the fifties the animals were shorn by hand with the distinctive-sounding clippers. The shearers had a specific work song not sung anymore, and electric motors replaced the manual clippers (DsVII). The work-related signals of sheep-herding are the various whistles that are used to give orders to the dogs (DsII).

Agriculture gave work also to the village blacksmiths. The last blacksmith of the village, Albert Mylne, worked in Dollar in 1964–97. Instead of shoeing the horses he wrought iron for Dollarites and was employed by small farms and Dollar Academy on a regular basis. (DintX.) When the nature of the blacksmith's work changed, the work-related sounds in Dollar were also altered. The anvil sounds can no longer be heard, as they could be in the twenties when you listened to the two unsynchronised hammers at the same time. (See Schafer 1977, AECIV.)

Albert Mylne's shop was in the middle of the village so the the anvil rang clearly throughout the village. When asked about the reactions of the neighbours Mr. Mylne provided an interesting story about the soundscape competence of one of the villagers.

Q: Did you get any complaints?

A: I got compliments on it ...but no complaints. There was two sisters in the main road, miss Wilsons, and one of them was an invalid in her latter years. I can always remember her sending her housekeeper around [to] tell me how she enjoyed [...] because she knew that I was a proper trained blacksmith with the noise of the anvil, it was just like her grandfather. The one previous to me wasn't really [...] a trained blacksmith but she knew the difference between him and me. [...] She had her come running [to] say how she enjoyed it because, well she was confined at the house. That's what she said that. It was so much better to hear a proper blacksmith on anvil.

As a grandchild of a blacksmith miss Wilson could tell by ear the difference between an untrained blacksmith and the tradesman. Her comment indicates that

soundscape competence is part of her life experience and is not necessarily shared by other members of the community.

The ability to interpret the meaning of sounds is tied to the changes in soundscape. With the disappearance of the sounds the soundscape competence of the community is also altered. Albert Mylne's reminiscence clearly reflects how the personal, the communal and the historical dimensions of sound are intertwined.

Among other definitions, noise is often described as an unwanted sound. The definition is analogous to the anthropological definition of *dirt* as matter out of place. (See Bailey 1996: 50; Douglas 2000: 85). Consequently, a sound in a wrong place can be described as noise. Clearly Mr. Mylne's anvil is not to be defined as noise since the status of the sound is defined by the compliments of the neighbours, especially the compliments that are related to his professional skills.

Intoxicated youngsters were mentioned in several interviews. This suggests that the analogy between dirt and noise needs to be reconsidered. Because of the temporal nature of sound, not just the sound in a wrong place but also at the wrong time is regarded as noise. Whereas the daily anvil sounds were pleasant, the nightly shouts of the teenagers were not considered as such. In addition, the disturbing night time sounds seldom annoy during the daytime. Furthermore the sound or noises are cyclically temporal since the same sonic phenomena are recurrent.

REMINISCING AND SHARING THE SOUND EXPERIENCE

Memories are often triggered by the sensations relating to taste and visual and auditory phenomena. The sensation-related memories are valuable in reconstructing the past soundscape. However, it must be remembered this narrative is just one approach to the subject and that cannot explain everything, especially when the research is dealing with everyday phenomena that often go unnoticed. Every now and then the interviewees find answering difficult or even impossible since hearing and interpreting the sounds and talking about them are two different issues. Small children can recognize sounds and act in appropriate way before they have developed the skills to describe what they have just heard (see McAdams 2001: 154).

The development of the soundscape competence is part of the enculturation process when social meanings are being constructed. Interpreting the meanings of the sonic environment and reacting to them are culturally learned, as much as recollecting the past and representing the sound events (see Uimonen 2003: 32). Memory is heterogeneous and multilayered and it appears as an ongoing dialogue between the old and the new. Old phenomena are never completely replaced by the new ones because the phenomena always retain a residue of the old. (Peltonen 1999: 115.)

The interviewees brought forth not just the sound events of Dollar but also their personal sound memories. Unique and general experiences are interdependent and they should be approached as such, not as two separate elements (Peltonen 1999: 120).

This leads to the question of what is remembered collectively and what is forgotten (Peltonen 1999: 117; Järviluoma 2000: 77) although it might be challenging to find a collective or community with completely similar values or identical social memories.

Researchers of mentalities have also emphasised this. They have abandoned the idea of unified culture and stressed the parallel existence of simultaneous mentalities. Thus the mentalities and worldviews express various social classes, genders, religious or ethnic groups. (Peltonen 1999: 116.) Sound memories reflect various worldviews, as the slight dislike of the English accent of one of the Dollarites indicates. However, this should not lead to the reductive conclusion that there are as many reminiscences as reminiscents. The individual and collective memories of the people living in the same district are unsystematically entangled with each other in spite of one's social group.

Narration and story-telling situation are also constructed by cultural discourses. The story-tellers summon up the past in the way they wish to. Furthermore the interviews vary; for example in group interviews the interactions of the participants continuously shape the overall dynamic. The story-telling situation and the narration are structured collectively. The roles and the genders of the participants also play their part: some of the stories are left untold since they are considered as 'men's or women's stories'. This *audioamnesia* is partly explained by the fact that the members of the community treat one another differently from the outsider interviewer.

Historian Jorma Kalela argues that the tensions between the personal and the general, the private and the public are 'keys to memory'. Distinguishing a personal story from the stereotypical one may prove to be difficult. Gender difference also needs to be taken into consideration. (Kalela 1999: 145.) However one should not jump to conclusions simply on the basis of gender since the experiences are affected by other factors such as ethnicity, schooling, age, social group and profession, not to mention the fact that memories of the same gender can differ a lot depending on such factors as age and social group. One should also remember that the past is evaluated from the present. What is considered important today does not necessarily reflect the values of the past.

CONCLUSION

The twentieth century soundscape of Dollar was affected mainly by technical innovations and the changes in economic life. The railroad brought new connections not just to Scotland but also to the rest of the world. Horses were gradually replaced by combustion engine powered machinery from the time of WWI. Changes in acoustic communication were noticeable, as David Graham testified in the 1970s. Globalization and environmental politics are also changing the soundscape. These are indicated by the blanket forestry implemented by the multinational forest industry in the Ochil Hills, and changes in heating systems in the houses of Dollar when the village became a smoke-free zone.

On the other hand some of the local loud sound sources have been silenced during the years. The explosions from the quarry, the sirens and the sounds of the crusher are gone. Or is it just these loud sounds were the most convenient and easiest to recall? They were part of the village's economy, just as the sounds of the traffic are part of the economy related to the Dollar Academy.

The increase of traffic has narrowed the acoustic horizon of the village. Poorly organised public transport reduces motorcar sounds but the proliferation of private cars overrides the advantages. The motor sounds from the Knockhill race track are connected mainly to the race seasons and to leisure time. The impact of the sounds is thus different, since the commuter traffic and the lorry transport of daily goods are connected to everyday activities and necessities of the village.

Five Village Soundscapes argues that when a village loses its independence to a larger social system it also loses its distinctive soundmarks and sound events (Schafer 1977: 49). This holds true in Dollar in two ways. First, the Fire Department was merged to a larger unit because of the costs of maintenance. At the same time the distinctive fire alarm – luckily recorded and archived by the WSP team – was silenced. It should be noted that in all probability the village would have lost the signal later anyway because of technological innovations. The alarms would nowadays most likely be replaced by the beeper or the mobile phone. Second, the Royal Air Force base at Leuchars alters the soundscape of the village drastically and connects the village life to the geopolitical issues of the world, as during the Gulf War. In this case the matter is not straightforwardly about losing one's independence unless the United Kingdom being a member of NATO can be considered as such. In addition, the changes in the climate of power politics has reduced the aircraft sounds from Leuchars, especially following the demise of the Soviet Union.

Habituation and the attachment may cause people to endure the disturbing environment if they find the other qualities of the district pleasant (see Wallenius 2001: 116). The relative peace and quiet reveal the cultural values of the community. The peaceful and bourgeois Dollar is prone to pay attention to sonic phenomena that are strikingly out-of-the-ordinary. The nightly rumble of the young is not necessarily considered pleasant in a village whose reputation is connected to its celebrated school. According to historian Alan Corbin (1986: 5) research into social tensions is futile if it ignores the senses. The social tensions in Dollar are audible reflections of disorder caused by the local teenagers at night.

Different cities or precincts appeal to different senses so one can talk about sensory identities of the cities (Sepänmaa 1998: 11). Needless to say, the soundmarks play their own essential role in constructing sonic identities. In Dollar the most prominent audible signifier of its identity is the Dollar Academy Pipe Band. In *Five Village Soundscapes* the sound of the Pipe band was considered to be more functional than artistic or aesthetic because the bagpipes were used traditionally to lead soldiers to the battle (Schafer 1977: 19). However, the music is an aesthetic

presence, as underlined by various performance occasions and ceremonies and in the comments of the villagers.

NOTES

¹ One of the reasons may well be the sad incident in the nearby village of Dunblane where Thomas Hamilton attacked a school and killed sixteen pupils, a teacher and himself on 13 March 1996 (Scottish Executive 2003).

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Appendix

	TRAFFIC	SIGNALS	ECONOMY
1869	Railroad to Dollar		
1904		Dollar Academy Shooting Range opened	
1906			Power plant opened
1911	RAF base founded in Leuchars		
1912		Dollar Academy Shooting Range closed	
1913		Dollar Academy Pipe Band	
1920	First combustion engines		Two blacksmiths working
1928	Telephone exchange opened, Radioreceivers		
1932	Home delivery signals		Closing of power plant
1935			Quarry founded
1937			Bleachwork closed
1942	Town broadcast was started	The morning and evening ringing of the church bells were stopped	
1947			Quarry closed
1950			Worksongs of the shearers
1961		Handoperated school bell was replaced by the electric bell	
1964	Passanger trains discontinued		Albert Mylne starts to work in Dollar
1973	Trains discontinued		Dollar Mine closed
1974	Knockhill race track opened		
1975	Shouts of the street vendors		
1988		Fire Brigade discontinued	
1990	RAF practicing over Dollar		
1997			Albert Mylne retired

Tero Hyvärinen

‘PUTT PUTT’ AND ‘MUR’

Old inboard engine and nostalgia

INDUCTION STROKE: INTRODUCTION

When describing the functioning of the four-stroke engine the induction stroke is usually presented first. During the induction the piston moves downwards, away from the lid of the cylinder and absorbs through an open induction valve a mixture of air and vaporized fuel into the cylinder. When an old-fashioned kerosene motor is started, the suction causes a small stir.

In my childhood the sound a motorboat made was ‘putt putt’. ‘Putt putt’ is an onomatopoeic word which imitates the sound of the old engine of the boat.¹ In my childhood and early youth at the turn of the 1980s there seemed to be a constant gabble of inboard engines in the waters of Reposaari in the west coast of Finland. No sooner had a boat disappeared under Kappeli bridge than another was already ‘putt-putting’ into sight from behind Ripakari. Now and then a fast powerboat equipped with an outboard engine, shrilled along the channel but I remember that the gabble of the inboard engine was constant.

The principal theme of this article is the set of values attached to the sounds of the old inboard engines. I examine these values on the basis literary sources and interviews made in the year 2000 in Nauvo by the researchers of the AEC project. I am particularly interested in the question of whether or not the sound of the inboard engine is to be regarded as a nostalgic phenomenon.

While discussing boating over the years I have noticed that the types of motors used in boats are not as familiar to everyone as one who has grown up on the coast would imagine. In the first part of the article I therefore define and introduce this motor, the subject of my research. The historical information relating to the motor is based on my own knowledge. There has been scattered and occasional writing



Picture 28. A December morning at Nauvo harbour (Photo: Meri Kytö)

about the history of boats and engines but a comprehensive historical study of them is conspicuously missing. Nonetheless, I hope that this will not compromise my discussion of my principal theme, the nostalgia of the sound of the inboard motor.

TYPES OF BOAT ENGINES

Because many kinds of engines are used in boats, I will first clarify the type of engine that makes the sound I examine. In boat literature and magazines boat engines are divided into three types according to the way they are installed. Inboard engines are installed over the machine cover at the bottom of the boat. In addition to the engine, the coupler, gearing and other auxiliary devices are inside the boat. The propeller shaft goes through the sternpost of the boat and outside the hull there are only a part of the axis and the propeller. The outboard engine, however, is fastened to the back board of the boat and in which the engine with its auxiliary devices are in the same casing. Often the only part of the outboard engine that is inside the boat is the fuel tank. A combination of these two systems is a stern drive in which the engine itself is inside the boat but the power is conveyed to the propeller through a pulling device that has been fastened outside the back board. The stern drive is usually the source of power for rather big powerboats whereas the outboard motors are generally for smaller boats, although the biggest of them rate at more than 200 horsepower.

Stern drives are used mainly in slow boats and in big vessels.

The traditional motorboats used in fishing on the coasts of Finland and in the archipelago descend from sailing boats that have been used in the region. What they have in common is a wooden structure of pine or spruce, either fully open or with partial decking. The smallest fishing boats were open, while the biggest ones had a cabin for the protection of the crew in the rear or in the bow – sometimes in both. The maximum speed of a boat with a displaced hull depends mainly on its length.² The maximum speed of a six metre long motorized fishing boat with a moderate engine power is about six knots, i.e. relatively slow, about 11 kilometres per hour.

I believe that the open structure of the fishing boat significantly affects the sound of the engine. For example nowadays slow running engines with rather low efficiency are also used as auxiliary engines in sailing boats. These are usually diesel engines. The sailing boats usually have fully enclosed decks made of reinforced plastic, and an attempt has been made to sound-proof their engine bays as carefully as possible. Their sound therefore does not necessarily resemble the sound of old fishing boats.

THE ERA OF THE KEROSENE ENGINE

Finland's first motorboat was brought to Kotka in 1889 and it was owned by Consul Bülow. However engines didn't become common on our coasts until the 1920s when the standard of living was rising. The first engines were kerosene-driven and they were expensive to buy and to use, but also indispensable to participation in an increasingly competitive industry. Alcohol prohibition was in force until 1932, which also contributed to increases in potential sources of profit: boats were also used in the archipelago for smuggling. Fishing became only negligibly more productive even though purchasing power perhaps rose generally with the economic boom of the 1920s.

Compared to the sailing boats then in use the motorboats were not always significantly faster. Engineer Lasse Wahlroos who has examined fishing boats of Luvia mentions a *rääkipaatti* (i.e. seven meter long two-masted sailing boat that has been meant for the fishing with a drift net) which has reached the speed of ten knots in favourable conditions. Compared to the five to six knots of the old motorboat this is a considerable speed. The advantage of the motorboat was its ability to maintain a reliable speed. Generally sailing boats could not approach a speed of ten knots, but would be closer four to five knots in usual weather conditions, and of course even less in light winds. Furthermore, the lower visual profile of the motorboat was a further advantage in smuggling, compared to that of the sailing boat. Even in twilight the twenty or so square metres of sail are far more conspicuous than the motorboat, the sound of which is not always distinguishable from the wind and the sounds of a patrol boat.

The 1960s were again economic boom times. In the same decade the fibreglass and reinforced plastic boats with a competitive price came into the market. The traditional wooden fishing boat was slow and expensive to build and its durability

for professional fishing was limited. In addition to being liable to damage, fish oil, scales and other dirt accumulating in the boat accelerated corrosion. In due course the wooden boats suffered wear and tear, and so even fishermen began to buy boats made from the reinforced plastic. And when the boat was of a new type so was the motor. The sales promotions in *Vene* ('boat') magazine of the 1960s emphasize that the small reinforced plastic boats were designed to be driven fast, mainly with an outboard motor and more for leisure use or as commuting craft than as fishing boats or work boats (Vene 1968). An outboard motor was bought for small reinforced plastic boats. In bigger full cabin boats the kerosene engine was gradually replaced by the diesel engine which was expensive to purchase but cheap to operate. Diesel fuel is cheaper than kerosene and petrol. When the number of kerosene engines in use decreased, the sale of kerosene also became unprofitable. During the first years of the 1990s I worked in Reposaari at the Shell sea depot and remember that the demand for motor kerosene had been very low. Today kerosene for old motors is unavailable from service stations, and aviation kerosene cannot be used in old boat engines.

SOUND OF THE KEROSENE ENGINE

The characteristic sound of the old-fashioned inboard engine is caused by its low running speed, its structure and the way it is installed. These at low RPM running four-cycle engines, usually with single- or twin-cylinders have a modest power output. A more usual power source for the present boater is an outboard engine, obviously considerably faster running than an old petrol engine. Until quite recently these have been two-stroke engines. The sound of the relatively small outboard engine resembles that of the lawn-mower or a moped. The rattling sound of the low RPM running inboard engine is caused by the fact that one can distinguish the individual exhaust stroke sounds. It is easy to distinguish the pulse and the rhythm, evoking the onomatopoeic descriptions as presented in the opening of this article. Furthermore, the construction of the exhaust system is significant. In an old kerosene engine the exhaust pipe was made of iron or steel whereas in today's engines the exhaust system is made partly of rubber for reasons of fire safety. Rubber dampens vibration and also reduces operating noise. The sterndrives and the big diesel engines, however, often have four or more cylinders and their growling resembles the sound of big cars. It is easy to distinguish them acoustically from an old kerosene engine.

COMPRESSION STROKE: ENGINES IN FICTION AND IN INTERVIEWS

During the compression stroke the piston moves upwards in the cylinder. Both the inlet and exhaust valves are shut and the gas compression inside the cylinder increases. Just before the piston reaches its uppermost position in the cylinder the spark plug gives the spark and the fuel ignites.

In the book *Ulkosaaristossa* ('in the outer archipelago') Benedict Zilliacus mentions the boat engine on several separate occasions. The work of Zilliacus is not a scientific study but a chronicle based on the stories of the people of the outer archipelago, which extends to the municipalities of Nauvo, Korppoo and Hiittinen. It is quite possible of course that the narrators of these stories have deliberately coloured their stories somewhat but that is actually an advantage than a drawback for this article, since it emphasizes the value they attach to their subject. Furthermore, one must remember that Zilliacus himself has assessed the reliability of the stories he has heard.

Zilliacus reports that the first boat of the outer archipelago to have been equipped with an engine had been in Österskär in Korppoo – the municipality lying south next to Nauvo – in 1912. On the same island of Österskär there also lived one Artur Henriksson who delivered the post for 27 years on the western waters of Korppoo. Only once did the motor of his boat fail him. Zilliacus does not mention which year but it was between a Christmas and New Year, when the sea is particularly dangerous in any weather for a traveller in a small wooden boat. The various hazards arise mainly from freezing. Henriksson was only saved from hypothermia only because his distress call was seen from the shore in time. Above all the motor had to be reliable, one of the typical characteristics of a kerosene engine. Other features such as performance effectiveness were of secondary importance.

Zilliacus recounts several excellent examples of reliability. In 1927 an engine model called Pyrkijä ('candidate') which was made in Turku was bought into the Näsgrannas household in the island of Gullkrona which belongs to the municipality of Nauvo. After 42 years, in 1969 Zilliacus reported that the engine had run as reliably as a clock for all the past years, never once needing any repair. Its owner acquired a newer engine in order to add a reverse gear to his boat. A twin-cylinder Wickström was brought to the island of Helsingholm in 1917. The power rating was eight to ten horsepower, the running speed 600 RPM and it ran for 30 years without any need for repairs. Compared to the present power units these engines have reached a very respectable age. Even allowing for some possible embellishment by the narrators and the possibility that some minor repairs were made over the years, they can still be considered to have been reliable equipment. One must remember that they were continuously in heavy use. The secret of the long engine life is probably a robust structure and modest output. The wear and tear has been very slow and the stress has been small compared to the structural strength.

In the account of Zilliacus the appreciation accorded the engine is based on practical and rational views. The basis for the high quality of the engine is seen to be its operational reliability and low maintenance requirements. However, in Lars Huldén's lyrics (originally in Swedish and carefully translated into Finnish by Jukka Virtanen) to Lasse Mårtenson's composition *Morgondimma* (*Aamu-usva*, 'morning

mist'), we can find quite a different view on the running sound of the engine.

In the morning the mist has risen –
in the middle of the emptiness alone you stay.
Is that an engine that beats there somewhere –
or is that the beat of your heart so loud?
The birds do not sing, the wind either blows,
the silence could not be quieter.

The sound of the engine is compared with the pulsating of the heart which, when the unhurried nature of the pulsation is concerned describes rather the ignition bulb or a glow plug motor that has been used in small ships than the engine of the fishing boat. In the lyrics of the song the sound of the engine is, though, presented as an essential part of the peacefulness of the archipelago: the sound is part of the quietest silence. A rhythmic pulsation is characteristic of the running sound of both engine types mentioned above.

I described the sound of the outboard engine earlier by comparing it with the sound of the moped, and bigger modern boat engines to the sound of cars. The former characteristic of sounds of the ships and boats seem to be disappearing. As late as in the 1970s when *Morgondimma* had been composed and written, the kerosene engines were part of the everyday life of the archipelago. However, even then there was already a romantic connotation in their sound. The pulse of the engine was the pulse of the archipelago – an emblem of continuity, reliability, calmness and smoothness of life.

The inboard engine in interviews

The researchers of the Acoustic Environments in Change project interviewed nine Nauvo residents in the spring and summer of 2000. The purpose of the interviews was to gather material to four researchers' work so the principal focus was not in fact the engines and their sounds. It is therefore interesting that the kerosene inboard engine is referred to in five out of the nine interviews and its sound is regarded quite favourably.

Huldén's lyrics can probably be considered as a form of archipelago romanticism. In the chronicle written by Zilliacus there is also a sense of strangeness and 'outsiderness' of the archipelago, even though the stories are those of locals. They have been told to a writer who has been regarded as a guest or a tourist. The interviewees' point of view is, on the other hand, local. The concept of the archipelago is not romantic to them in the same sense as it is to the boaters and to other tourists. In spite of the everyday familiarity of the old motors, it appears in the interviews that they are still thought of with great fondness and appreciation. The times have changed a lot between Zilliacus's work and my interviews. Over the 25 years or so

separating his written sources and the interviews the kerosene engines have gradually been superseded by other engine types, with a few individual exceptions. The kerosene engines have been totally withdrawn from professional use and it is felt that professional fishing itself is now under threat.

The following transcriptions are of those sections of the taped reports in which the sound of the inboard engine is mentioned. It is not my purpose here to conduct a detailed discourse analysis incorporating all possible spoken inflections and nuances in the interviews. I have contented myself with summarising the key references to particular themes in the taped reports. The inverted commas represent verbatim quotation.

It is mentioned that the old boat engines have disappeared and their sound was a part of the fishing activity and the identity of the whole archipelago. One can no longer obtain the fuel used by the engines and most of them have been changed to diesel. The sound of the old slow running inboard engines has stayed in the memory as, already in childhood, a pleasant sonic association as it carried them around, 'banging'. The



Picture 29.
Loading the Satava
(Photo: Meri Kytö)

sound of the contemporary high RPM engine is a drone, whereas the old slow running engine sound seemed better suited to the seascape, as were the short-stroke motors. The interviewee laughs and says that ‘there was always time to think between the bang of each stroke’. The sounds of a moped, outboard motor and chainsaw, however, are so sharp and penetrating that the interviewee didn’t have the patience to listen to them for a long time. The sounds of nature, birds and boats are typical of Nauvo and higher ‘putt-putt’ sounds of the inboard and outboard engines are easy to identify.

The sound of the motorboat is recalled as a ‘wonderful sign of spring’ and the sound of the old-fashioned motorboat which the interviewee longingly recalls is connected to the sounds of seasonal change in Nauvo. The sound of a modern motorboat has no such vernal associations and it does not emotionally ‘move in the same way’. One hears Wickström and Olympia engines (which are usual old inboard engines) only once or twice during summer.

The interviews confirm the distinctiveness of the voice of the kerosene inboard engine, as well as the fact that particular forms of significance are attached to it: as the sign of spring it arouses special emotions. People know and reflect upon the reasons for the disappearance of the old engine sound, therefore it is entangled with knowledge, the epistemic. Obviously aesthetic significance is assigned to it through such descriptions as ‘pleasing’ and appropriate to a ‘seascape’. The fact that one doesn’t have the patience and determination to listen to the sound of other engines may be interpreted as a form of moral attitude towards the engine sounds, which makes the sound of the inboard engine more acceptable. Furthermore, it is declared that the old-fashioned inboard engine is becoming rare but it is considered as a part of the identity of the archipelago. The fact that the sound is sought-after also is important. Some people have in fact retained old motors in use, in spite of the maintenance required. I consider that these kinds of associations and significance are making the inboard engine and its sound locations of nostalgia.

DRIVE-STROKE: NOSTALGIA

During the drive-stroke the piston descends in the cylinder, driven by the pressure of ignited gases. The motor runs. In expanding fast enough the gases cause a strong vibration. The engine coughs as attempts are made to start it.

Abstract nostalgia

Svetlana Boym defines nostalgia on the basis of the etymology of the word and on established usage. She divides it into two parts: *nostos* and *algia*. ‘Nostos’ means home-coming and ‘algia’ suggests a form of longing. She suggests that nostalgia is a romantic attitude towards one’s own fantasies, and that earlier, from the seventeenth to the nineteenth century nostalgia has meant homesickness which was even treated

as an illness. Only in the twentieth century did nostalgia come to be regarded as a feeling or yearning that could not be medically treated.

In her lengthy *The Future of Nostalgia* (2001) Boym adheres to a view of nostalgia based primarily on place and time. Her principal interest is in the literary representation of nostalgia. Although it has its place in literature, the kerosene motor does not fit comfortably into her modelling. Boym divides nostalgia into two different types, restorative and reflective. Restorative nostalgia (evoked in 'nostos'), the emphasis is on the idealisation of the longed for, far-away home which is more a fantasy than an actual memory. Reflective nostalgia, (emphasizing 'algia') is the longing itself.

Boym adds that the restorative nostalgia does not consider itself as nostalgia but as truth and tradition. Reflective nostalgia does not examine the past as a simple linear process, but at the same time it refers to different times and places and at best offers ethical and creative challenges instead of the melancholy of the restorative nostalgia.

In his work *The True and Only Heaven* (1991) Christopher Lasch parallels nostalgia with the idealistic, blind belief in progress: the spirit is same, even if nostalgia means uncritical admiration of the *past*. This resembles the restorative nostalgia of Boym. Lasch characterizes it as a straightforward, unreflective and emotional attitude towards the past, and especially towards country life. Pastoral romance and idyll are nostalgia at its most typical form according to Lasch. To him, nostalgia includes irrationality and inconsideration. Nostalgia according to Lasch, or the restorative view of Boym, is not constructive or considered, but gratuitous and uncritical sentimentality. To me it seems that their views are underpinned by the rationalist distinction between reason and emotion.

Both Boym and Lasch see nostalgia as a form of resistance to modernistic progress optimism and of accelerating change. Time has been thought to be the central point of nostalgia even if the phenomenon idealized, i.e. the object of nostalgia, inhabits a place as well. Place can therefore function instead of time as an obstacle to the fulfilment of nostalgic longing. Still more universally applicable would be to claim that it is the invincible obstacle that is essential for nostalgia, an obstacle, which prevents the filling of longing.

Remembering also seems to be central in the materialising of the nostalgic attitude. Helmi Järviluoma (see 'The scythe-driven nostalgia: agricultural ambiances in Bissingen' in this collection) notes that the special and the distinctive are easily remembered: the remembering of ordinary things requires a special stimulus. Therefore I conclude that things which have distinctive features are most likely to become sites of nostalgia. In the case of the old boat engine it is just a sound. Boym also states that the experiences coloured by emotions are best remembered. Both Boym and Lasch distinguish nostalgia from other kinds of remembering, a distinction confirmed in our everyday thought processes. Most memories are not idealized. Vice versa, nostalgic attitude to some matters prevails even though there is more than just memory from them left.



Picture 30.
A collection of
Åke Sandvall's
miniature boats.
(Photo: Meri Kytö)

For example a rural idyll has been interpreted as nostalgia. One should not talk about the countryside in a past tense except perhaps in a highly topical political context. The countryside exists also nowadays and it has further to offer, such as peace and clean air, to be idealized – at least when the busiest fieldwork is not going on. So time should not be seen as a necessary condition for nostalgia.

Boym's distinction between reflective and restorative nostalgia also corresponds to the distinction between rational and emotional remembering. Already the name 'reflective' refers to consideration. On the basis of the views of Lasch reflective nostalgia is not a type of nostalgia at all but rather a type of remembering. So estimating restorative nostalgia as unnecessary and reflective as sensible is a rationalist action. It has no place for emotions. I will still later return to the contextualization of rational thinking. I want however, to mention as my own view that for example from the point of view of emotional welfare restorative nostalgia may be very valuable. Perhaps it also can have its effect on the aesthetic decisions which later can be estimated without knowing about the nostalgic foundation. In such a situation aesthetic evaluation

can be very favourable regardless of earlier rationalist-moralistic reasoning.

Compared to the everyday use of the word nostalgia the ideas of nostalgia of Lasch and Boym seem very abstract. The view of Lasch is even in conflict with it. Perhaps the nostalgia in the everyday meaning of the word is not considered negative and unnecessary. The Finnish dictionaries – I suppose that dictionaries try to explain the contents of the word as widely as possible in its ordinary use – explain that nostalgia means a longing for the past. However, I do not see that longing is thus unnecessary, wrong or useless in the practical-moralistic sense of the word even in the case that it would be impossible to fulfill it. Furthermore, the results of the interviews give a hint of the fact that in addition to the feelings other attitudes are also connected to nostalgia.

Nostalgia for the kerosine engine

In Huldén's *Morgondimma* the comparison between a motor and the pulsating heart is an exceptionally beautiful and apposite parable. Both are necessary to life – or at least to the dominant way of life of the time and place of writing – and both are perceived by hearing. From the point of view of the present it is categorize them both as signs of a generalized peace of life and mind. The movement of the heart can be felt through the pulse, just as the vibration caused by the running of the motor can be felt through the structure of the boat.

In the bustle of contemporary life the rhythm of the boat engine has accelerated. The old, long stroked and gently pulsating engines have been replaced with frenziedly buzzing outboard engines and with the growling outboard engines so that it would be faster than ever to get to the summer cottage, to the trolling spot or just to 'get away from it all'. If those old motors were so inextricably tied up with a way of life be, it is not too fanciful to suggest that the busy engine of the hyperactive holidaymaker resembles a ventricular fibrillation of the death struggle of a whole way of life.

This traditional way of life based on fishing and seafaring is coming to an end. There are not many professional fishermen left, and when it comes to seafaring, larger ships have been flagged to countries of cheap labour. The number of pilots has also fallen from 865 in 1917 to 370 at the beginning of the twenty-first century (Laurell 2003). As a local source of revenue the fisherfolk have been replaced by tourism and 'the archipelago experience' theme packages. The latest development is a project on the island of Utö seeking to attract new residents as 'off-site' workers remote from their physical workplace, using fast Internet connections that are now available on the island (Utö 2002). The gusts of the winds, the rowing and the rhythm of the heartbeat, are being replaced by gigahertz or megabytes per second. Perhaps the pulsation of the heart is indeed a metaphor of the motor of the past, its peacefulness and vitality. The pace of contemporary life is better described as fibrillation, with motors running at high RPM and its increasingly efficient computers.

Zilliacus's work as well as the interviews I conducted, suggest that the kerosene

engine has become the site of nostalgia. The significance of the sound gradually evolved from being a source of power important to the life of the archipelago, to the wonderful sign of spring, an element of local identity and a source of aesthetic pleasure. Even though there are some kerosene engines still in use, the passing of time in itself is an important factor in the emergence of this nostalgia. In the light of the sources examined in this essay, it seems too narrow an understanding of nostalgia to dismiss it as a longing that cannot be fulfilled. Kerosene engines do still exist and their continued construction is still technically feasible.

The idealisation of the sound of the kerosene engine calls into question the simplistic opposition between reason and emotion, if, by reason we refer to the solutions directed solely to economic and social interests. Its sound is considered to be both beautiful and therapeutic in spite of the rationalist economic advantages of other engines coming into use. Its admirers are not confined to tourists or 'archipelago romantics' who may be regarded in a way as outsiders. In addition, those who have switched to other motors for practical reasons seem to appreciate the kerosene engine. Those who have wanted to make a rational argument against the kerosene engine, could also talk about their high-polluting unfiltered exhaust emissions. However, this is not especially convincing since low emission boat engines are just beginning to be produced.

Jaana Venkula (2003) has made an interesting comment about the formation of knowledge and contents of mind. She says that these seem to form an organisation consisting of five components, each of which participates in the cognitive processes: ethical, aesthetic, empiric, epistemic and emotional. Obviously the same mental subsystems participate in the production of all kinds of contents of mind, not only knowledge. Venkula's model is reinforced by that of Alicia Iwánska (1994), according to whom four fundamental relations with the environment are found in communities: mental, moral, functional and aesthetic. There is considerable overlap between these models by Venkula and Iwánska (although of course one should be careful in juxtaposing typologies of environment relations and mind contents).

All in all, I suggest that both of these models encourage us to treat nostalgia from broad perspectives, not only as an emotional phenomenon. Nostalgia for the inboard engine is a longing for the good things it signifies such as earning a living, or the beginning of summer. Of course it can be a sad and futile yearning for a disappearing sound. However, at its most fruitful, nostalgia for the sound of the old engine opens up possibilities for sensible acts from the point of view of the soundscape, such as the aim to acoustically design engine sounds.

EXHAUST STROKE: NOSTALGIA FOR THE EVERYDAY

During the exhaust stroke the cylinder again moves up and forces the exhaust gases through the exhaust pipe, through a silencer and out from the motor. This produces an audible pressure shock.

The failure of reforms in the first place often causes the longing to things that have gone. Even though the old kerosene engine itself has become rare, the attitudes and phenomena related to it are still very important. To the Nauvo residents kerosene engine does not represent 'the good old past'.

The sound of the kerosene engine is of course only one small example of the many things that can nowadays generate nostalgia. There are numerous similar examples available just from the seafaring way of life: windjammers and steamships, the long narrow archipelago boats of the early twentieth century, bootlegger boats and even smoky harbour pubs. From other walks of life there are cars such as the retro design vehicles commonly seen in traffic, like the VW Beetle and the Mini. In these cases nostalgia has been commercialized as a marketable commodity, appealing to a retro spirit.

It indeed seems that the definitions of nostalgia of Lasch and Boym can be considered almost too heavy weapons when it comes to studying individual cases. No wonder, since often theories that wish to be universally applicable tend to be so abstract that their application becomes difficult. Thus, one should keep thinking and paying more philosophical attention to the ordinary, significant nostalgic phenomena. On the basis of the evaluations presented by the Nauvo residents I consider that attention should be paid at least to the following points if in the future:

- 1 Nostalgia seems to be an attitude which in addition to emotions comprises information, sense perceptions and enjoyment and a moral (I believe good) value.
- 2 The object of nostalgia has certain characteristics or qualities which facilitate remembering.
- 3 Nostalgia is not necessarily a mere abstract attitude. It also can appear as an activity, for example as renovation of old objects, or as searching of influences from stylistic features of old things.

NOTES

1 'Putt-putt-putt-putt-putt ja tä-tä-ko-ko-ke-sä-tä-tä-ko-ko-ke-sä-tä-tä...'. This is a rhyme describing the repetitive sound of the engine: whole summer this same 'putt putt'.

2 The boats have mainly had a displaced hull which means that they have not been able to rise to glide to their own bow wave.

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SOUNDSCAPES IN CHANGE – FROM 1975 TO 2000

The idea that truth is concealed and even perverted by the processes that are meant to establish it makes excellent sense.

Paul Feyerabend

The early methods of the *World Soundscape Project* (WSP) were both quantitative and qualitative, but the book *Five Village Soundscapes* (FVS) includes mostly ‘hard’ data and quantitative test results.¹ As one can clearly see from the eleven articles included into collection preceding this concluding section, the methodology of *Acoustic Environments in Change* (AEC) has clearly had a qualitative focus.² This is something we have been struggling with continuously during the project. One thing has been self-evident: we did not want to build a high wall between quantification and qualification. Right from the start we borrowed some more or less quantitative methods from the WSP. There is no need to throw out the baby with the bathwater: it is instructive to use those elements of the earlier methodology *which remain effective*, and not to discard the whole methodology just because more fashionable trends have entered the paradigm. However, the ways in which we used those methods were not the same as in 1975, for the simple reason that “intellectual situations are never exactly the same” (Feyerabend 1993: 10). We need historically informed, but flexible methodology.

Jean-Francois Augoyard (1999: 116) has used a very apt metaphor in describing the research into environmental ambiances – the cricket effect: ‘With the return of springtime, the countryside re-echoes with an abundance of sharp rustles. If you approach to see the musician insect it doesn’t seem to be there and yet it is again nearer, louder or slightly out of its place.’ The reason for this is that these insects, crickets, can emit very long-distance high-pitched sounds but *only* in one direction. In order

to cover more territory they rotate themselves like a radar dish and in so doing sweep an extensive area. The lonely cricket researcher, the sound researcher, also sends out strong messages but only in one direction because she or he doesn't even know how to rotate. The theory behind many scientific and technical studies on sound is almost always based on traditional behaviorism (ibid.). So, Augoyard is asking: how to be an efficient cricket? How to study not only the mechanics of insulation techniques and mastering reverberation but also the qualitative properties of sound, social and cultural listening values, or intelligent organisation of sonic life in different places?

Ann Oakley (2000) has expressed serious reservations about the validity of the schematic distinction between qualitative and quantitative methods. One of the early advocates of qualitative methods, she is now however rehabilitating experimental and quantitative methodology, and relating this to gender problematic: 'What we have here are two contrasting accounts of how it is that people 'know'. While researchers in one camp think they are studying the real world, which consists of things it is feasible to try to find out about, those in the other dispute the idea that there is a single reality to be known, and regard the pursuit of 'hard data' as impractical and unachievable' (Oakley 2000: 25).

When reading the books in which the basic results of the FVS project were presented, one is struck by how imaginative the methods were. When we AEC researchers worked in the field it became clear that they had been well chosen, particularly taking into consideration the fact that in many of the villages, the FVS researchers did not speak the local language or dialect³, and that the period spent in each village was short (Schafer 1977b: 2). The methods, which we borrowed from the earlier research included, for example:

1) A sound preference test. We again enlisted the co-operation of the village schools, conducting a similar 'sound preference test' as in 1975, in which young people were asked to list the sounds they found pleasant and unpleasant. We also talked with the children and conducted sound exercises with them.⁴

2) A traffic count. This is a method that relates to one of the basic ideas of the earlier project, namely observing the rhythms of sounds in relation to the rhythms of the social and economic life of the village. Counting traffic might sound somewhat tedious and perhaps slightly superficial at first glance, but in fact one learns an amazing amount about village life by simply standing at a central spot counting, listening and observing what people are up to and what vehicles they use when moving around, or what the gender and age balance is at different times of the day. Many of the theoreticians of the observation method have claimed that the routine practices of everyday life are far more important to an observational study than the more exciting and singular events in life (Silverman 2000). We conducted this exercise as far as possible in a manner similar to that used in 1975. However, since none of us took a deeper interest in the method and the kind of rhythm analysis that was present in FVS, the results are presented differently here.

3) A day of listening walks. The residential areas of the village were divided into five parts. Each area had its own listener, a researcher who took five half hour walks in this area at certain times of the day. In the earlier research, this exercise was reported mainly in the form of quantitative inventories.

This final chapter of our book is dedicated to the results of the study of the relationship between the soundscapes in 1975 and in 2000 in the villages studied, using these three methods: sound preference tests, traffic counts, and listening walks. The section concludes with reflections on the question of what it actually means that we have been studying acoustic environments and people's environmental relationships *in change*.

THE SOUND PREFERENCE TESTS IN 1975 AND IN 2000

Methodological remarks

In the 'sound preference test' children or youngsters were asked to list (1) five sounds they found pleasant, and (2) five sounds they found unpleasant in their own environment (see Schafer 1977b, chapter 'Community sound attitudes'). Making this kind of test in a school environment with pre-teens and other young people raises many interesting methodological questions. These are compounded even further when we compare the new test results with those of 1975.

Let us start by thinking about some of the main problems. First, in most cases these kinds of data cannot be analyzed statistically for the simple reason that the samples are too small. The 'quantitative' material thus has to be interpreted qualitatively. However, we have come to the conclusion that it is much easier to compare the results if they are presented in the form of tables and percentages – but *when reading the tables, one must bear in mind, that the percentages are not meant for statistical analysis, but to arrange the figures more clearly.*

The next important question is that we noticed the decisive importance of how the testers in the school present the project.⁵ We were acutely aware of this question, one reason being that the head of the AEC project is an ethnomethodologist, and as such, followed the basic methodological principle of attending closely to the ways in which people collectively construct the nature of each situation at hand using everyday methods. This is related to a kind of moral order that underpins the responses to questions – the children consider some answers more 'right' than others. The more 'disciplined' the children are, the more they probably try to construct what they think is an acceptable list of sonic preferences. This is a question that has been discussed in, for example, media studies, when people are asked to list the kinds of programs they most often watch on television or listen to on the radio. Strangely enough, a great many people seemed to watch nature documentaries instead of soap operas, and this is associated with our basic tendency to try to construct ourselves as morally good people (cf. Alasuutari 1992). It is not a question of lying – the answers

are situated accounts, as the ethnomethodologists would term it. When the media researchers then look at the media diaries in which people provide more detailed lists of the programs they watch, the results are very different. It is clear that in sonic preference tests, like the ones at hand, we have to take into consideration the situated character of the answers to our questions.

This 'situatedness' is of course determined by more factors than just the moral imperative of 'right' answers. These include the importance of emotional states and levels of frustration in the positive or negative perception of sounds.⁶ It is thus possible, and even likely, that sounds generating ambivalent responses (for instance rain or wind) were more often omitted out from rather rigidly categorized lists.

In quite a few schools we had crucial help from the people, who knew the language. They came from different professions and had different ways of articulating the project. In Cembra, for example, a dedicated soundscape person and music teacher Claudio Lagomarsini from Milano was present in the testing situation (a description of which is provided in example 1, hear also CD 3, track 24). In Lesconil we had help from the CRESSON architecture and at that time doctoral student Nicolas Tixier, who helped with the translation in the testing situation. In addition, after the test he presented the 1975 sound preference test results to the children. In Dollar we were unable to get permission in May 2000 to visit the famous school, Dollar Academy.⁷ A few weeks later the Scottish member of AEC crew, Gregg Wagstaff, visited the Strathdevon Primary School in Dollar, and was able to administer the test effectively. The testing situations were recorded.

Example 1. Sound preference test at the secondary school in Cembra.

1. Claudio Lagomarsini explaining the both the FVS and AEC projects.
2. Noise and negotiations in English between the researchers.
3. Helmi introducing the researchers Noora, Heikki and Anssi, and Finland and Turku. Noise. Shh... Claudio translating literally, then explaining the term soundscape in different languages and talking about sounds that disturb the environment. Claudio lists the villages studied.
4. Helmi advertising the internet page <http://www.6villages.tpu.fi>, where field news is posted daily. Claudio translates.
5. Noora introduces the test: "We want to ask questions, how do you hear Cembra? Maybe the same questions that your parents have answered 25 years ago... Write on the paper five pleasant and five unpleasant sounds that you can hear in Cembra."
6. Claudio explains that the same test was done 25 years ago: "[in Italian] This is a very simple test. What are your ways of hearing sounds in Cembra. How do you experience them? What sounds are pleasant, what unpleasant? You need imagination, concentration but not co-operation."
7. Claudio quietly asking advice from Noora. Children murmuring and talking together.
8. Claudio proscribing co-operation again. He explains that because of statistics it is important to work alone and mention five sounds per person. He promises that after the test the pupils will hear the test results from 25 years ago, and says that the students have still three minutes left for finishing their writing. Helmi whispers that three minutes is not enough, they have just begun. Claudio: OK, five minutes left to finish their writing. Youngsters still chat continuously together.

9. Claudio: "Allora, time is up." Asks a student to collect the papers. Noise
10. Reads the results of 1975 test from the book.
11. Noora asks if it was difficult to answer. Were the sounds heard 25 years ago the same [as now]? Pupils reply that they were similar. Noora checks in Italian if it was difficult to think about sounds. Pupils: No.
12. Noora introduces the *diario dei suoni*, sound diaries. "You can fill this in tomorrow and on Monday, bring it back on Tuesday." Papers delivered.
13. Claudio explains the same in Italian. "Ecco, perche due ladi?" Claudio lists examples of sounds. Some children ask if it matters that they are not from Cembra. No, as long as they write in the sound journal where the sounds come from. Noise.
14. Claudio: "Allora." Gives information about sounds and listening. The rest of the class is spent doing different kinds of sound exercises under the direction of Claudio.

As can be heard from the recording, and seen from the description of the recording in example 1 (7–8) the Italian youngsters never stopped talking to each other during the test. At some points what is received is a 'group opinion'.⁸ By contrast, Lesconil pupils were well-behaved, and one can only hear a few occasional whispers.

School tests were not the only means by which we collected research data about sonic preferences. In six villages children and even other villagers wrote *sound journals* or *sound diaries* at home, following our guidance. The sound diaries had two parts (see example 2). First, children could freely describe sounds they had heard throughout the day; second, they could list the first, the last, the most pleasant, and the most unpleasant sound they had heard during each of the two days of diary writing. It is interesting to notice how the diaries – written at home – enlarge the range of the pleasant and unpleasant sounds mentioned, including many sounds heard at home. This shows that the fact that the sound preference test (as in example 1) is done within the school environment is likely to bias the results in favour of sounds actually heard at school. This is why in one case of the six schools (Lesconil) we compare here the sound preference test results to the sound diaries the kids wrote, just to see if the comparison makes the sonic world seem different. However, because children spent most of their time awake either at school or on their way to the school, the school soundscapes really do matter.

One aspect in the presentation of the test is that sometimes teachers had prepared the children for the job. They had time to do so, since we contacted the schools a few months before arriving to the village, and asked for permission to make the tests. It was obvious that the teacher in Skruv, either coincidentally or after hearing of our coming visit, had taken the trouble to present some noise education – the pupils mentioned tinnitus as the most disturbing noise, together with the various sounds of traffic, both 18 per cent. In none of the other villages was tinnitus mentioned. We have to also bear in mind the seasonal change when we travelled from the coldness of early February in Skruv to late spring or rather early summer of Dollar and Nauvo. When it comes to a comparison between the field trips in the five villages 1975 and 2000, the times of the year spent in each village were the same on both tours.

All these considerations do not diminish the value of the testing. When looking at

JOURNAL SONORE

Nom Alexandrina Ynes

Date Jeudi 4 mai 2000

Activité CM2.
Classe

Dixième

Décrivez avec les mots nécessaires ce que vous avez entendu aujourd'hui. N'en effectuez pas qu'une liste, mais discutez sur ce que vous pensez – vos sentiments et pensées – de ces sons!

Quand on écoute c'est bon ce qu'on peut entendre. Je viens d'aller dans le jardin et j'ai entendu un merle chanter puis j'ai vu des cis mes contents et d'emblée quand mon petit chien Régis s'est mis à aboyer après lui. Mon voisin a demandé sa moto avec beaucoup de Vacuum Vacuum très fort. Puis c'est une voiture qui est passée devant la maison en ralentissant. Au fond du jardin le bruit de la scie de mon grand-père qui coupait du bois. Je rentre dans la maison et là j'entends le bruit des pages que tourne maman en lisant un livre. La musique que la radio donne dans la cuisine.

Quel est le premier son que vous avez entendu aujourd'hui?

Le gémissement du plancher quand ma sœur s'est levée

Quel est le dernier son que vous avez entendu aujourd'hui?

Ma sœur ronfle

Quel est le son le plus agréable que vous avez entendu aujourd'hui?

Le sifflement des oiseaux dans le jardin

Quel est le son le plus désagréable que vous avez entendu aujourd'hui?

La craie sur le tableau qui a fait un bon signe

Example 2. Sound diary written by a 10 year old girl in Lesconil.

the results one cannot but be grateful that in spite of reservations and difficulties, we did after all visit the schools. The situation is suggestive of the question about the reliability of interviewing. Even the most critical discourse analysts (including ourselves) examining the joint construction of knowledge by the interviewer and interviewee in the interview situations, concede that people in general talk about matters that are significant. They might switch from one discourse to another, but they do not construct their talk out of nothing. The same applies to the results of the sound preference tests. Certainly, these are as hazardous as any semi-quantitative method, but it does tell us about some major trends in the sonic likes and dislikes of young people in European villages. The comparison also provides interesting extrapolations. For example, one can identify certain changes in the societies and soundscapes when reading the results. The results provide interesting food for thought for anyone seriously interested in acoustemology (Feld 1996), acoustic ways of knowing the world.

Lesconil

“Je viens d’aller dans le jardin et j’ai entendu un merle chanter (...)”⁹
Girl, 10 years old, Journal Sonore May 2000¹⁰

The following discusses both the sound preference test at the École Dr Fleming, and the sound journals written over two days (32 journals in all) by the children in the same school. For this reason the discussion on Lesconil differs from and is perhaps more multi-faceted than those of the other villages.

If one has spent much time in Lesconil, one is not surprised to discover that there are two sound preferences above everything else: the sea and the birds. Which of these has priority depends on how the calculation is broken down. If we include the seagulls – very much liked, but sometimes also disliked in Lesconil – with other avian life, it is the birds that top the list both in 1975 (32 per cent) and 2000 (22 per cent).¹¹ If, however the seagulls are categorized separately, the sea is clearly the highest preference in both years, 1975 (28 per cent) and 2000 (19 per cent). (See table 1.)

Seagulls represent a very characteristic sound in Lesconil. One school child particularly mentions in his sound diary listening to the boats returning to Lesconil harbour, and the seagulls *following* them. The birds¹² were still very much a presence in the not-so-silent spring soundscape of 2000, even if some diminution was still evident arising from the tanker *Erika*’s disaster in 1999.¹³

In qualitative research it has been observed that posing questions from certain angles has a clear effect on the discourses people deploy when answering the questions. When it comes to Lesconil, there is the likelihood that certain ‘editing’ was done by teachers or the students themselves, where the sound journals are concerned; at least in some journals, in the listing of the most pleasant or most unpleasant sounds of human voices had been crossed out, and a non-human natural sound

Lesconil: Most Pleasant Sounds

	1975	2000	1975	2000	Examples
sea	37	25	28%	19%	
birds	35	18	27%	14%	
boats	16	6	12%	5%	
wind	13	6	10%	5%	
rain	7	1	5%	0.5%	
fire crackling	7	0	5%	0%	
seagulls	7	11	5%	8%	
music	3	7	2%	5%	
cats	3	1	2%	0.5%	
animals	3	9	2%	7%	Year 2000: dog barking (2), horse (2)
other		50		37%	
of which:					
signals		6		5%	telephone (3)
human voices		7		5%	children (3), languages (English, German and French, one mention each)
nature		14		10%	leaves (5), nature / countryside (4)
objects and action		15		11%	opening / closing a pencil box (2), doing sports (2)
technology and motor traffic		8		6%	computer (4), car (3)
Answers total	131	134	100%	100%	

Table 1. Lesconil: Most pleasant sounds – comparison between the years 1975 (see Schafer 1977b: 69) and 2000. Year 1975: 40 students tested, 9–10 years old, year 2000: 35 students tested, 9–10 years old.

was written above it.¹⁴ While it is necessary to recognize this kind of intervention in the sources, they do not totally invalidate the overall research finding, that the sounds of nature are still very much appreciated amongst the young. In 1975, 75 per cent of the pleasant sounds mentioned were connected to nature, and this remained the case, although the percentage had dropped to 56.5 per cent.¹⁵ This is consistent with the findings of the One Hundred Finnish Soundscapes project: young people, especially those living in the countryside, still very often enjoy and seek out places where they can rest and gather strength from natural soundscapes.

However, the sounds of nature have also become more prominent on the lists of

Lesconil: Unpleasant Sounds

	1975 (1)	2000	1975	2000	Examples
cars	27	15	26%	12%	Year 2000: this category also included other traffic (airplanes and lorries)
motorcycles	25	5	24%	4%	
boats	10	5	10%	4%	
door slam	7	1	7%	1%	
wind	7	1	7%	1%	
gunfire	6	0	6%	0%	
door creak	6	0	6%	0%	
children crying	6	1	6%	1%	
storm	5	9	5%	8%	
construction work	5	0	5%	0%	
other		83		69%	
of which:					
signals		8		7%	clock (2), telephone (2)
human voices		13		11%	shouting (10)
nature		7		6%	rain (6)
objects and action		16		13%	
technology and motor traffic		12		10%	saw (2), vacuum cleaner (2), lawnmower (2)
animals		26		21%	dog barking (6), seagulls (5), birds (4), rooster (3)
uncategorized		1		1%	noise in general
Answers total	104	120	100%	100%	

Table 2. Lesconil: Most unpleasant sounds – comparison between the years 1975 (see Schafer 1977b: 69) and 2000.

unpleasant sounds. In 1975 storm and wind were mentioned in 12 per cent of listings, falling to nine per cent in 2000. In addition, rain was represented in six per cent of the ‘unpleasantness’ votes. The sounds of the storms have also been frightening for children in the earlier decades. In the sonic memory walks (see ‘Lesconil, my home’ in this publication) the women who had been children in the 1950s reported that storms and their sounds were horrendous to them, especially in the night time. In the late 1990s there were some very serious storms in Europe, one of which hit Lesconil – as well as Bissingen – inflicting much damage. Although climate change was not yet much discussed in 2000, it now appears that even during that period it was already having an impact.

Climate change has arguably caused stronger and harsher winds – especially evident at the seaside – and more storms as well. At the very least, we can say that the children were also conscious of these sounds as an unpleasant presence in the year 2000.

On the other hand, the sounds of nature are not the only ones that were listed as pleasant. In Lesconil in 2000 human voices and activities have increased on the positive list (16 per cent).¹⁶ Sounds of the boats and ships are still mentioned, but perhaps the decline in the number of fishing boats is reflected here too (dropping on the list of pleasant sounds from 12 per cent to five per cent). When we consider solely the human voices, they have not only increased on the list of pleasant but also unpleasant sounds. While in 1975 only the crying of children was noted as a source of discomfort, in 2000 12 per cent of unpleasant sounds are shouts and cries. Again the siblings are high on this list. One can say that our sound journal task gave one young boy a heuristic idea. When his brother's voice started to annoy him, he went out in the garden and listened: 'From now on, every time my brother starts to cry after me, I will say that I am going out to listen to the birds.'¹⁷

Girls often mention the birds and the sea as pleasant: *Quand je rentre manger à la maison j'entend la mer et le vent ce qui fait ensemble un magnifique bruit* ('when I go back home at lunch break I hear the sea and the wind which together make a magnificent sound (noise)') (girl, CM 1 class, 10 years old). An 11 year old girl describes vividly her sensations in her sound diary: 'The sounds of the sea and the waves make me think about the storm. The noise of the traffic, cars and mopeds makes me think about the pollution. The sound of the birds wakes me up into spring and love.' The boys like the sounds of the sea, and also the birds. One of them says they make him think about swimming; the same boy also mentions the sound of the boats returning to the harbour as pleasant. However, he does not like the sounds of the fish auction – and he is not the only child – since the noise makes him think about the noise in the school yard. In general the school noise is not liked. Indeed, the loud shouting through the fish auction megaphone is rather hectic and busy, and may irritate the tired nerves after school noise. Obviously, the youth does not always have quite the same connection to the livelihood or the aspirations of the older fishing village citizens, who consider the auction and its sounds to be something of a soundmark of the village. The same boy also likes the sound of Breton being spoken or sung: *Le bruit des biguoudenne est agréable... j'aime les chanson bretonne*. One boy identifies the birds he likes, since they remind him of the holidays and being in the countryside.

Totally vanished from the sonic preferences is the crackling of the fire, which in 1975 was still considered pleasant by young people. This may simply have to do with the fact that houses are now warmed up by other means. In our interviews it was mentioned that in earlier times the houses could get very cold in the winter, when people often had a fire only in the kitchen. At that time the room with the fireplace was very popular. In the Finnish material gathered for the One Hundred Finnish Soundscapes competition there was frequent reference to the positive recollections

Dollar: Most Pleasant Sounds

	1975	2000	1975	2000	Examples
birds	19	11	26%	14%	
the Dollar burn	13	6	18%	8%	
rustling leaves	13	6	18%	8%	
water	10	1	14%	1%	
clinking coins	8	0	11%	0%	
rain	5	0	7%	0%	
wind	5	6	7%	8%	
other		49		62%	
of which:					
<i>signals</i>		6		8%	<i>school bell marking the end of the day (6)</i>
<i>human voices</i>		9		11%	<i>laughing (4), teacher's laughing voice (2)</i>
<i>music</i>		5		6%	
<i>nature</i>		5		6%	<i>silence (2)</i>
<i>objects and action</i>		7		9%	
<i>technology, media</i>		13		16%	<i>TV (4), cars / engines (4), radio (5)</i>
<i>animals</i>		4		5%	<i>cat purring (3), sheep (1)</i>
Answers total	73	79	100%	100%	

Table 3. Dollar: Most pleasant sounds – comparison between the years 1975 (see Schafer 1977b: 69) and 2000. Year 1975: 23 students tested, 10–12 years old. Year 2000: 19 students tested, 11–12 years old.

of being under the bed covers, about to wake up or to fall asleep, and hearing the sounds of preparing or stoking the fire. This was a sound concretely connected to being taken care of, being kept warm (see for example Järviluoma 2006).

As far as unpleasant sounds are concerned, in 1975 by far the most detested sounds came from *motor vehicles* (cars, motorcycles, boats together 60 per cent). Now 25 years later the sounds of motor vehicles are regarded as annoying in only one fifth of the answers. Furthermore, the range of annoying sounds broadened, and almost 70 per cent of the sounds are of a kind not mentioned at all in 1975. One can speculate on the reasons of such change. The traffic of the harbour has decreased and this particularly affects the level of car and lorry noise in the mornings and in the afternoons; fewer trucks arrive at the harbour at 4.30 p.m. for prompt collection of the catch for transport to Spain or to Paris.¹⁸

The sounds that have totally vanished from the list of unpleasant sounds include among others the slamming and squeaking of the doors, and gun shots. New

Dollar: Most Unpleasant Sounds

	1975	2000	1975	2000	Examples
traffic	5	6	14%	8%	Year 2000: cars (5), co-op lorry (1)
chair scraping floor	5	2	14%	3%	
screeching brakes	4	0	11%	0%	
chalk on blackboard	4	1	11%	1%	
door slam	3	1	8%	1%	
desk banging	3	0	8%	0%	
rain	3	2	8%	3%	
screaming	3	0	8%	0%	
squeaking	3	0	8%	0%	
styrofoam	3	0	8%	0%	
other		59		83%	
of which:					
	nature	3		5%	water running
	objects and action	9		16%	the screeching of the paper cutter (4), rubbing out (2)
	technology, media and motor traffic	6		11%	TV (2)
	animals	3		5%	dogs barking (2), cats (1)
	signals	7		12%	school bells at 9 a.m. (4)
	human voices	31		54%	coughing (4)
Answers total		36		71	

Table 4. Dollar: Most unpleasant sounds – comparison between the years 1975 (see Schafer 1977b: 69) and 2000. Year 1975: 23 students tested, 10–12 years old. Year 2000: 19 students tested, 11–12 years old.

additions to the catalogue of unpleasant sounds include those of animals (other than birds), which account for 21 per cent. One can understand that the sound of dogs barking (six mentions) or the early morning roosters are annoying (three mentions) but birds and seagulls (9 mentions) are also on the negative list. This might have to do with the increase in the number of birds, to the point at which they become annoying to the populace (see Schafer 1977c).

Dollar

In 1975 the pleasant sounds for children in Dollar were mostly those of nature. After 25 years, birds were still favoured, although the percentage had fallen from 26 per

cent to 14 per cent).¹⁹ In the 1970s the small river Dollar burn and rustling leaves were second, and the sounds of water were also appealing, for example in the form of the rain (five mentions).²⁰ In 2000 the rain had appeared on the list solely as an unpleasant sound, while in 1975 it was mentioned as both unpleasant and pleasant. This could be associated with a change we noticed in all the other villages as well: the children no longer played outside as much as they used to.²¹

The sound of wind has maintained its popularity in Dollar. Silence is a newcomer, with two mentions in 2000. In the 1975 test technological and media sounds were not mentioned at all in the list of pleasant sounds; in the year 2000 however TV, radio, cars, and other motors were on the list. These sounds belong clearly to the cases eliciting the more ambivalent responses; they are on the list of pleasant sounds 13 times, while 12 mentions categorize them as unpleasant. In 1975 Dollar sounds of brakes were not liked. They were not included in the category traffic sounds, but, if they were added to the other traffic-related sounds the percentage on the list of unpleasant sounds in 1975 adds up to 25 per cent. Although the traffic has not diminished in Dollar, for some reason the sounds of cars are not mentioned so often as unpleasant in 2000 (eight per cent). It is useful to speculate as to why this is so. Are the children accustomed to these sounds; is it a keynote that goes unnoticed in the background? In addition, children themselves are more often *inside* the car than they used to be – they are more frequently brought to the school by car. In some cases the time together in the car is the longest period during the day that the parents spend with their youngsters. This might have an effect on the way car sounds are experienced; that is, heard from inside the car, perhaps accompanied with music and an opportunity to chat (or argue) with a parent.

In 2000 62 per cent of the pleasant sounds differ from those listed in 1975. However, it is hard to believe that the children were not listening to music 30 years ago; perhaps they just did not consider it as a sound that would belong on a list of sonic preferences. In the year 2000, on the other hand, radio and music were included on the list of pleasant sounds.

The broader spectrum of replies is also evident in the inclusion of human sounds, ranging from the voice or laughing of the teacher, to the barracking at a football field. New objects or practices are also mentioned, the latter often relating to something that is also otherwise pleasing to the child, like drinking or eating (candies), or jumping on a trampoline.

It is worth noting that in 2000 54 per cent of the unpleasant sounds mentioned are human voices, while in 1975 it was only screaming that received eight per cent of the mentions. By 2000, children disliked human sounds including neighbours, mother's voice or singing, a shouting teacher, and snoring (coughing is also disliked). The sounds of the family – swearing, yelling and weeping – seem to annoy youngsters. In 1975 the WSP researchers concluded that the high presence of human voices both on list of pleasant and unpleasant sounds in Cembra meant that

Dear intrepid Sound Travellers,

Time to hang up your weary ears for a while. I read from Helmi that you are all back home now. You made it! Well done on your hard work. I am sure the sound of a Finnish Sauna will be one of your 5 'most pleasant' of all the villages.

Today I visited the Strathdevon Primary School in Dollar and I have the results of the Listening Preferences below. I also asked them about sounds they heard since they woke up this morning and we listened silently for 3 minutes, writing down what we heard. Four children wore earplugs during this listening period as an experiment and listed more personal sounds. Surprisingly, 5 of the class had worn earplugs before. One boy said he wears them when he does the hoovering ☺ Another when he goes to the motor-racing. All the 19 students have a Sound Journal, which I will collect at the end of the week. I have recorded all of the class on MD should you need it for further reference. I could also post you photocopies of the forms. The children seemed to enjoy the class. I took a group photo at the end — one girl stuck the ear-plugs up her nose which was hilarious, but I suppose not to be encouraged!

I have listed all the responses in order of popularity. Looking at them, I start to question how the '75 WSP group conducted their questions. There seems in the '75 results very little diversity in replies for 23 students. (--) There is a noisy paper-cutter in the class which several children and their teacher noted. Also it is evident that children are thinking more associatively with these sounds. For example, the same school bell is liked at home time and disliked at the beginning of school. Also, the children mention the sound of individuals who they like or dislike depending on a particular situation.

The Dollar Gala is this Saturday. Alas, I don't think I can make it this year. Let me know what you think and if you will want any further material.

Teacher's Most Pleasant Sounds:

Birdsong
Sheep/lambs
Pipe Band practice in mornings
Wind chime (neighbors)
Laughter

5 Most Unpleasant Sounds:

Loud Music – daughter's room
Neighbors cars starting early morning
Lawnmowers
Noisy Classroom
Paper Cutter (guillotine)

Best wishes

Gregg Wagstaff

Example 3. A letter from Gregg Wagstaff to the AEC group (5 June 2000).

the soundscape of the village is very humanized. Can we form the same conclusion about Dollar in the year 2000? If we consider the situation in the very humanized archipelago soundscape of Finnish Nauvo however, we notice that children do not detest human sounds on such a large scale as in Dollar. It is hard to distinguish between cause and effect in Dollar and Cembra: it is possible that the raised level of stress in school children makes them feel irritated by human noise, but it is also well-known that noise causes stress.

The school bell signalling the end of the school day is mentioned often on both lists. In this case the agreeable feelings about the beginning of free time generated by the bell places it high on the list of pleasant sounds. This is a typical example of a sound that is located on the list according to the situation and time of its hearing: at nine o'clock in the morning the school bell is referred to as unpleasant (four times).

It is paradoxical that the well-known sensitivity of young people to high-pitched sounds is used against them, while little appears to be done to make their lives acoustically more agreeable, at least when one looks at the lists of unpleasant experiences children still have in schools all over Europe.²³ Perhaps, however, the disappearance of class-room chalk throughout Europe is a move in this direction – the classic screeching of the chalk on the blackboard has radically diminished! There is still some scraping of chairs in Dollar. The nasty noises and bangs of desks have vanished, but a new acoustic nuisance has entered the classroom: the screeching paper cutter is mentioned both by many children and the teacher (see also example 3). Styrofoam has completely vanished from the unpleasant sounds in Dollar, as compared with eight per cent formerly.

One final detail: the flushing sound of a toilet was considered unpleasant by one child in Dollar. This might be interpreted as a symptom of a low threshold of embarrassment; one of the results of the 'civilising process' (Elias 1978) has been the lowering of this threshold as compared to earlier times, when even kings could receive visitors while sitting in the privy. At the same time, it is difficult to make a distinction between what is actually disliked in this case, and the reluctance to write it down.

Skruv

One particularly significant item has disappeared from the list of unpleasant sounds: the factory hooters are not mentioned in 2000, and for good reason: when they stopped hooting in the early 1980s, these children had not yet been born.²³ Nor is the factory noise mentioned any longer, and indeed, when talking to the noise inspectors and factory owners during our visit to Skruv, we formed the impression that the regulations have become much more strict, and the authorities were particularly intent on reducing nuisance noise coming out of the small factories that might disturb the life of the citizens.

In Skruv the same two sounds have maintained their popularity: music and birds.

Skruv: Pleasant Sounds

	1975	2000	1975	2000	Examples
birds	18	18	21%	30%	
music and instruments	17	20	20%	33%	
water	11	1	13%	2%	
horses	11	0	13%	0%	
wind	6	0	7%	0%	
rain	6	5	7%	8%	
cat	4	4	5%	7%	
leaves rustling	4	0	5%	0%	
sea	4	0	5%	0%	
motorcycles	3	1	4%	2%	
other		12	0%	20%	
of which:					
	<i>animals</i>	3		5%	<i>dog barking (3)</i>
	<i>objects and action</i>	3		5%	<i>mentioned once: firecrackers, rockets, bicycle</i>
	<i>technology</i>	2		3%	<i>mentioned once: car, tractor</i>
	<i>human voices</i>	2		3%	<i>mentioned one: crowd cheering, commentator</i>
	<i>nature</i>	1		2%	<i>thunder and lightning (1)</i>
	<i>uncategorized</i>	1		2%	
Answers total	84	61	100%	100%	

Table 5. Skruv: Most pleasant sounds – comparison between the years 1975 (see Schafer 1977b: 69) and 2000. Year 1975: 22 students tested, 11–33 years old. Year 2000: 24 students tested.

School children's lists of pleasant sounds contain 33 per cent mentions of music (in 1975 it was 20 per cent) and bird song receives 30 per cent (21 per cent in 1975). Music, however also accounts for eight per cent of the mentions on the list of unpleasant sounds in 2000. The sound of water has fallen in popularity. Horses are not mentioned at all in 2000, while 25 years ago they shared third place (13 per cent). This is rather surprising in view of the substantial level of recreational riding in Skruv even today. The rain and cats are still on the list. Wind, leaves, and the sea have given way to sounds of animals, firecrackers and bicycles. This last is interesting given that in the interviews we made in Skruv the bicycle was mentioned as having been a central presence in the past. It was in fact a very popular vehicle in the 1970s, but no-one mentioned it then, perhaps it was too familiar to be noticed.



Picture 31. Counting traffic at Skruv.



Picture 32. Children at day care.

However, on the list of unpleasant sounds in Skruv one stands out: tinnitus.²⁴ In 2000 it accounts for 17 per cent of ‘votes’ so that it rises to approximately the same level of unpleasantness as traffic.²⁵ Technological sounds are still on the ‘unpleasant’ list. The chain saw is less prominent than earlier, but vacuum cleaners, for example. Human sounds are not perceived as negatively as in some of the other villages we visited.²⁶

Skruv: Most Unpleasant Sounds					
	1975	2000	1975	2000	Examples
traffic, cars	18	5	26%	10%	Year 2000: motorcycle (4), car (1)
thunder	12	0	17%	0%	
factory noise	10	0	14%	0%	
factory sirens	9	0	13%	0%	
chalk on blackboard	4	3	6%	6%	
power saw	4	1	6%	2%	
gunfire	4	0	6%	0%	
crying	3	1	4%	2%	
screaming	3	4	4%	8%	
insects	3	0	4%	0%	
other		38		73%	
of which:	<i>uncategorized</i>	11		21%	<i>tinnitus (9), noise (2)</i>
	<i>objects and action</i>	9		17%	<i>screeching (4), explosion, firecrackers (3)</i>
	<i>other technology</i>	8		15%	<i>vacuum cleaner (4), airplane (3)</i>
	<i>music</i>	4		8%	<i>opera (2), drums (1), music from horror film (1)</i>
	<i>animals</i>	4		8%	<i>dog barking (2)</i>
	<i>human voices</i>	2		4%	<i>audience booing (1), bellowing (1)</i>
Answers total	70	52	100%	100%	

Table 6. *Skruv: Most unpleasant sounds – comparison between the years 1975 (see Schafer 1977b: 69) and 2000. Year 1975: 22 students tested, 11–33 years old. Year 2000: 24 students tested.*

Bissingen

The appearance of church bells on the list of unpleasant sounds is something that Bissingen, Cembra and Nauvo have in common. In Bissingen, church bells are mentioned six times (eight per cent) as unpleasant in 2000. Secularization is perhaps a reason, and it is notable that while in 1975 church bells were cited as the most pleasant sound in Bissingen (13 per cent), in 2000 they received only one such mention. In the FVS book there is reference to a businessman staying at Gasthaus Adler who reported to the WSP research group that the two reasons he visited Bissingen were the church bells and apple cider. Now, the owner of the very same guesthouse told us that some visitors complain about the bells since they would like to sleep longer in the mornings.

Bissingen: Most Pleasant Sounds

	1975	2000	1975	2000	Examples
church bells	9	1	13%	1%	
motorcycle	8	1	11%	1%	
voices	8	2	11%	3%	
music	8	9	11%	13%	
birds	8	13	11%	18%	
cars	8	1	11%	1%	
kissing	5	0	7%	0%	
water	5	1	7%	1%	
siren	4	0	6%	0%	
leaves rustling	4	6	6%	8%	
silence	3	0	4%	0%	
other		37		52%	
of which:					
<i>nature</i>		17		24%	<i>wind (7), stream / river rushing</i>
<i>other objects and action</i>		3		4%	
<i>technology, media and motor traffic</i>		4		6%	<i>tractor (3), TV (1)</i>
<i>signals</i>		9		13	<i>school bells (3), school bells at the end of the day (3)</i>
<i>human voices</i>		4		6%	
Answers total	70	71	100%	100%	

Table 7. Bissingen: Most pleasant sounds – comparison between the years 1975 (see Schafer 1977b: 69) and 2000. Year 1975: 26 students tested, age 14. Year 2000: 15 students tested, age 11.

The development is interesting indeed, and invites speculation that the socio-acoustic order of ‘uncriticizable’ sounds (i.e. those that you simply are not supposed to criticize) has changed. In 1975 children seem to have genuinely liked the sound, and the ones who didn’t respected the socio-acoustic order proclaimed by church bells, either because of fear of authorities or divine punishment, and thus filtered the sound out of the list of what they disliked. However, by 2000 some of that respect for authorities has dissipated in a pluralistic milieu that allows even children to express a dislike for church bells.

Why were the sounds of motorcycles and cars so positively received (22 per cent of pleasant sounds) in 1975 in Bissingen? One possible clue is their connection with the idea of ‘modernity’.²⁷ In 1975 Bissingen was still largely an agricultural

Bissingen: Most Unpleasant Sounds

	1975 (1)	2000	1975	2000	Examples
cars	9	4	16%	5%	
alarm clock	9	7	16%	9%	
brakes screeching	7	0	12%	0%	
airplanes	5	2	9%	3%	
screaming	5	1	9%	1%	
high pitched sounds	5	0	9%	0%	
dogs barking	5	2	9%	3%	
thunder	5	8	9%	10%	
other		46		60%	
of which:					
<i>animals</i>		2		3%	<i>pig squeaking (2)</i>
<i>nature</i>		2		3%	<i>wind blowing (2)</i>
<i>objects and action</i>		11		14%	<i>chalk on blackboard (5)</i>
<i>technology and motor traffic</i>		15		19%	<i>tractor (4)</i>
<i>signals</i>		11		14%	<i>church bells (6), telephone (3)</i>
<i>human voices</i>		5		6%	
Answers total	57	77	100%	100%	

Table 8. Bissingen: Most unpleasant sounds – comparison between the years 1975 (see Schafer 1977b: 69) and 2000. Year 1975: 26 students tested, age 14. Year 2000: 15 students tested, age 11.

village. It is not so long since much of the road traffic was horse- and even cow-driven, and so the motor vehicles sounded appealingly progressive to youthful ears. The residential precincts and the means of livelihood in Bissingen have changed considerably over 25 years, so that in 2000 there is a high level of motor vehicle noise in the centre of the village at peak traffic hours. (see also figure 3, Bissingen traffic count). When we look at the list of liked sounds in 2000, sounds of cars and motorcycles have fallen significantly.²⁸

However, when we try to assess the level of unpleasantness of traffic sounds in 2000 in Bissingen, it depends on how we extrapolate as to whether it has risen or fallen. If one considers only cars, it appears that the traffic no longer annoys people as much as it used to (a drop from 16 per cent – or 28 if we consider the screeching breaks as well – to five per cent²⁹). On the other hand, if we also take into account other forms of motorized vehicular traffic, such as mopeds, tractors, motorcycles, then 19 per cent of respondents in Bissingen consider traffic sounds

to be unpleasant. Aircraft are listed as less disturbing than in 1975, even if they fly frequently over the area. Indeed, some of our decibel readings suggest that these noise levels are now lower. (See figure 4 and 5.)³⁰

The telephone is a newcomer to the list of unpleasant sounds. In the interviews in 2000 a number of people spoke very negatively about the public use of mobile phones. At that time in Southern Germany it was still considered ill-bred to use them unless in an emergency. Ring tones receive three mentions (four per cent) as a negatively experienced sound even by school children. When it comes to technological sounds other than traffic it is interesting that the chain saw is mentioned only twice as an unpleasant sound – and of course, it is the neighbour's saw. Since we visited the village in the spring when the fruit trees were being pruned, we were very conscious of the sound of motorized saws in 2000.

The sounds of nature were rated highest on the list of pleasant sounds in Bissingen by a considerable margin in 2000. If we include the wind, stream, lake, sounds of birds, and the rustling of leaves the percentage rises as high as 50 per cent. There is an attractive recreational area built around the lake in the village, much frequented by the villagers and the hills also offer ample opportunities for nature walks.³¹ Music comes in as a strong second, so that it has improved its position from 11 per cent in 1975 to 13 per cent in 2000.³²

Amongst natural and animal sounds thunder remains a strongly negative sound. In 1975 barking dogs were conspicuously unpleasant, with the screaming sound of pigs now added. Human voices find a place on the lists of unpleasant sounds in Bissingen, and in particular voices related to negative social situations, such as fighting between siblings, conveying bad news, or hearing one-self being abused.

Cembra

The clearest change in the profile of unpleasant sounds in Cembra is associated with traffic. In 1975 car noises accounted for eight per cent of the unpleasant sounds, while traffic sounds³³ accounted for 35 per cent of the sounds on the 'unpleasant' list in 2000. On our AEC visit, technological sounds including traffic are sometimes considered pleasant as well – especially motorcycles. Furthermore the slamming and creaking of doors (25 per cent in 1975) left the Cembra children indifferent in 2000. As mentioned in FVS, in the 1970s Cembra and Lesconil had heavy wooden doors, which did annoy children; presumably the materials and construction of doors have changed in the twenty-first century.³⁴ A parallel change probably accounts for the disappearance from the list of disagreeable sounds of the scraping of chairs on the stone floor.

In 1975 the sounds of the church bells in the catholic village of Cembra were integral to everyday religious culture even for children. By 2000 they occupied the same status as in Bissingen, as discussed above. In 1975 none of the children either

Cembra: Most Pleasant Sounds

	1975	2000	1975	2000	Examples
birds	46	33	28%	18%	
horses	9	4	5%	2%	
cock	7	0	4%	0%	
church bells	25	14	15%	7%	
voices calling	16	0	10%	0%	
laughter	8	1	5%	0.5%	
water	15	28	9%	15%	
wind	12	15	7%	8%	
hammering	11	0	7%	0%	
clocks	8	1	5%	0.5%	
fire cracking	7	2	4%	1%	
other		91	0%	48%	
of which:					
<i>animals</i>		25		13%	<i>dogs (6), cuckoo (5), cats (5)</i>
<i>music and media</i>		19		10%	<i>radio (3)</i>
<i>nature</i>		14		7%	<i>rustling of leaves and grass (9)</i>
<i>signals</i>		5		3%	
<i>uncategorized</i>		28		15%	
Answers total	164	189	100%	100%	

Table 9. Cembra: Most pleasant sounds – comparison between the years 1975 (see Schafer 1977b: 69) and 2000. Year 1975: 55 students tested, 11–14 years old. Year 2000: 52 students tested.

experienced the bells negatively, or were unwilling to admit that they disliked the sound. In 2000 there were 17 references to church bells as being unpleasant, and they ranked much lower as pleasant sounds (from 15 per cent to eight per cent).

In the 1970s many of the unpleasant sounds were associated with certain human sounds: shouting (11 per cent), scolding (eight per cent) and insults (seven per cent). The WSP project concludes that this has to do with the fact that the Cembran soundscape is human in all respects. Those dislikes persisted in 2000 (6 per cent). It is notable that among these dislikes are to be found a couple of languages other than Italian (German and Arabic). In other European villages, foreign languages can be found listed among the pleasant sounds, which raises the question of xenophobia in Cembra. The porphyry mines have attracted large numbers of immigrant workers to the area. Furthermore, Cembra belongs to a region that was still being disputed

Cembra: Most Unpleasant Sounds

		1975	2000	1975	2000	Examples
door slam		15	2	14%	1%	
crying		14	0	13%	0%	
screaming and shouting		12	12	11%	6%	
chair scraping floor		12	0	11%	0%	
door creak		12	1	11%	0.5%	
chalk on blackboard		11	0	10%	0%	
scolding		8	0	8%	0%	
cars		8	72	8%	35%	Year 2000: all traffic related answers included
insults		7	0	7%	0%	
gunfire		6	1	6%	0.5%	
other			115		57%	
of which:	animals		24		12%	dog (9), chicken (5)
	nature		16		8%	storm (4), wind (4)
	signals		29		14%	church bells (17), school bells (3), alarm clock
	objects and action		11		5.5%	sounds of the porphyry mine (10)
	human voices		11		5.5%	Arabic (1), German (2)
	technology		16		8%	different machines
	music		3		1.5%	
	uncategorized		5		2.5%	
Answers total		105	203	100%	100%	

Table 10. Cembra: Most unpleasant sounds – comparison between the years 1975 (see Schafer 1977b: 69) and 2000. Year 1975: 55 students tested, 11–14 years old. Year 2000: 52 students tested, 7–16 years old.

with Austria 90 years ago (see Vikman, ‘On the mountains’ in this collection), and there are still German speakers in the immediate neighbourhood.

The birds topped the list of pleasant sounds both in 1975 and 2000. There is, however, a significant change in the list of unpleasant sounds. Sounds of animals and nature were absent from the list in 1975, but in 2000 they stood at 12 per cent and eight per cent respectively. Hens, roosters and dogs are the most disliked. On our listening walks we noticed that private properties were very often protected by guard dogs, or at least displayed signs warning of ‘dangerous dogs’. It is not surprising that

dogs are identified negatively by children. The sounds of horses have received fewer positive references, and roosters have disappeared completely from the positive list. In 2000 hens were rated as unpleasant.³⁵

Natural sounds that are disliked include storms, wind, water, and rain; two children refer to their stay in the middle of countryside as an unpleasant experience. It is not clear if they include Cembra in the countryside; if not, however, one may assume that the rural soundscape and landscape can be experienced as empty and unpleasing to someone who is either accustomed or, as a teenager, longs to enter, a lively urban or even village buzz. At the same time however, the same person may yearn for either the complex urban soundscape or the countryside silence depending on her or his psycho-physical condition (cf. Ipsen 2002). The experience of noise and silence is situational.

In Skruv it was the lively village ambience of the 1970s that was recalled with nostalgia in 2000, with people wanting to increase the voices of children playing outside as a sign of life. In Cembra the mayor expressed concern that the voices of children playing in the squares would vanish from the soundscape.

A newcomer on the list of unpleasant sounds in Cembra is related to an important new source of wealth in the village: the mining of porphyry stone. Seven answers included the explosions at the mine as unpleasant and other sounds that were disliked included the other stone-related sounds at the mine. In fact however the total percentage (five to six per cent) was not very high. One explanation is that the sounds are relatively soft when heard in the village centre. And perhaps even the children realize that it is the porphyry that has brought them new toys, clothes and a rising standard of living. The volunteer pensioner ('the lollipop man', with a stop sign for the cars) who helped school children in 2000 to cross the busy street in Cembra expressed the opinion that 'the increase in wealth increases the noise level'. In one succinct sentence he thus summarizes one of the main findings of the 1975 study of FVS.

In 2000 other technological sounds, including a vacuum cleaner, received a rather high negative rating (eight per cent). Interestingly, mobile and other phones are not mentioned, either as unpleasant or pleasant. They were just coming into everyday use in Italy in 2000 and it is probable that the result would be already quite different by 2008, at the time of writing.³⁶

In 1975 the human voice calling out received 10 per cent of the citations of pleasant sounds. FVS reported that in the Cembra evenings the voices of women were prominent. It was not made clear what 'calls' the children meant and it is possible that the voices of mothers, as well as others, echoing in the old stone town walls are included here. However, they are no longer mentioned in 2000, although they have by no means disappeared from the still human soundscape of Cembra.

Sounds of water were among the favoured sounds in 1975 (nine per cent). Albert Mayr has reported that the constant murmur of fountains had vanished from Cembra by 2000, and this loss has perhaps been noticed with regret, since by then water

accounted for 15 per cent of the pleasant sounds, ranging through rain to stream, to *fuschio de acqua*. Among music preferences the *Spice Girls* and Bruce Springsteen are mentioned together with the drums and flute.

Nauvo

Nauvo is an archipelago village, which means that the school children live in the central and smaller islands completely surrounded by water. As described earlier, a distinctive feature of the village is the fact that the amount of motor traffic in the village centre is largely dependent on the arrival of the ferry, and, in the warm seasons, on the number of cyclists.

Nauvo's sonic preferences are therefore similar to those of Lesconil: birds, boat sounds and the sea. It is obvious that some of the pupils who mentioned the sounds of water also meant the sea. Taken together, water/sea is the most liked sound in Nauvo. Furthermore, it is not simply the 'sea' that the children mention as their favourite sound, but often something more specific like 'the waves against the shore'. There is even one boy who uses two out of his five options for, first, 'the waves against the cliffs' (the shoreline of Nauvo has small cliffs) and second, 'the waves against the side of the boat, when it is standing still'.³⁷ It is obvious that the children here have a finely discriminated vocabulary for articulating the crucial material elements of their life.

Birds have an especially strong presence in early June when there is an interruption in the flow of the cars from the ferry. One particular feature is the sound of the jackdaws that nest and assemble around the medieval stone church in the village (as on the accompanying CD 4, track 28).

Boat sounds are high on the list, and as Tero Hyvärinen reports in his article in this collection, it is the sound of the old-fashioned inboard engine that has become a cherished soundmark of the archipelago. There are also a couple of mentions of ferry sounds, even though they probably signify something different from the old-fashioned boat sounds. Again, ferries are crucial in the everyday logistics of the island, and the way their sounds are experienced is situational. One boy responded by including the ferry sound in both the pleasant and unpleasant sounds, noting that the latter is the sound of the ferry 'when it has just left the pier'; that is, when that you might have to wait twenty minutes for the next one. When interviewing people we found that one of the most loathed sounds in Nauvo was the sound of motorized jet-skis, which are totally useless to the villagers. One boy lists among unpleasant sounds the motor boats in the summer when they rapidly approach the shoreline too closely.

None of the children particularly singled out the sounds of the visitors' marina, even though there are many loud voices and music there in the summer time (as on the accompanying CD 4, track 31). Antipathy towards tourists however emerged in one answer in which a boy expressed his dislike of the drunken shouting of people who holidayed in the summer cottages. Human voices are high on the list

Nauvo: Most Pleasant Sounds		
	2000	
birds	31	15%
boat / boat motor / ferry	25	12%
sea	21	10%
wind	20	9%
animals	15	7%
music	13	6%
cars	13	6%
talking / human sounds	11	5%
moped	11	5%
water	11	5%
laughter / child laughing	7	3%
rustling of leaves	5	2%
TV	4	2%
radio	3	1%
other	21	10%
Answers total	211	100%

Nauvo: Most Unpleasant Sounds		
	2000	
car	16	9%
screaming, shouting	14	8%
moped	11	6%
fire, ambulance,		
police sirens	10	6%
thunder	8	4%
voice of a girl / girls	9	5%
boat / ferry	8	4%
barking dogs	6	3%
alarm clock	5	3%
church bell	5	3%
airplane	5	3%
clock, ticking	5	3%
tractors	5	3%
telephone	4	2%
music	4	2%
teacher	4	2%
other	58	33%
Answers total	177	100%

Table 11. Nauvo: Most pleasant sounds. Year 2000: 44 students tested, 14–15 years old.

Table 12. Nauvo: Most unpleasant sounds. Year 2000: 44 students tested, 14–15 years old.

of unpleasant sounds, and most often mentioned by boys, who obviously at 14–15 years are having their particular love/hate relationship with girls and their voices.

In Nauvo traffic sounds are reasonably high on the list of both pleasant and unpleasant sounds. If we include cars, mopeds, and two mentions of tractors (for one boy, the sound of the tractor ‘describes the countryside’), land vehicles rate 12 per cent on the positive listing. On the negative list cars, mopeds and tractors add up to 18 per cent. One boy loves technological sounds and has included on his list of favourites the car, TV, radio, moped and the boat, while on the unpleasant side he has put cars, mopeds and girls’ voices. The erratic responses to traffic sounds are likely to be connected with the characteristically irregular rhythms of the traffic flow to the village. Sound is also important for the boys as a way of enhancing their young masculinities by driving in the empty village centre in the evenings, where



Picture 33.
Sonic nostalgia at
Martha's Inn, Nauvo.
(Photo: Meri Kytö)

the piercing moped sound resounds in the high cliff walls near the centre. Again, the rating depends on the situation and whose moped it is that is heard; one boy mentions as positive 'the sound of my moped when I start it'.

TRAFFIC IN SIX EUROPEAN VILLAGES

The AEC project adopted the traffic count methods from the FVS. The traffic was counted and categorized in the centre of each village, not just to find out how many different vehicles passed the observation site, but also to evaluate the overall character of the soundscape together with the other research information. (For more detailed description of the method see Schafer 1977b).

In Skruv the daily rhythm of the traffic is similar to that of 1975. The morning and evening hours are the most active because of commuting, and the evening reading

was probably also inflated by the fact that the traffic count was carried out on Friday. There is also likely to be some weekend-related activity such as shopping. The factory sirens no longer exist, so the traffic sounds are no longer related to them as had been the case 25 years earlier.

The amount of traffic has diminished notably, especially during the peak hours, as compared to the year 1975. However, the percentage of motorized traffic is slightly higher in 2000, rising from 50.4 per cent to 66 per cent of total traffic (see figure 2). The actual percentage of traffic sounds connected to the economic life of the village is probably even higher. Some of the commercial delivery vehicles were not included in the traffic count because not all of them passed the observation site. However, their sounds were clearly audible coming from the direction of the cardboard factory and *Skruv's trä* timber factory. The percentage of cyclists has dropped significantly, from 19 per cent to five per cent of total traffic. This is surprising since in 2000 the weather was significantly warmer than when the measurements were carried out 25 years earlier, and the lack of snow made the road comfortable for cycling.

Rather than the harsh winter weather conditions of Scandinavia, one could seek the answer in the increase of pedestrian traffic and passenger cars. As suggested in 1975, the latter is a sign of a relatively high standard of living. The only means of transportation for longer trips are buses and cars since the passenger train traffic was discontinued in Skruv in 1984. Furthermore the soundwalks, as opposed to the measurements from the stationary base, indicated that the sounds related to motor traffic exceeded all other sounds. The sounds of ignition and the slamming of the car doors are highly conspicuous in the stillness of February; the new sound connected with motor vehicles in Skruv, as well as in other villages, was the bass-booming car stereo.

The transphonic³⁸ equipment has changed the soundscape of the German Schwabia too, since the car stereos were noticed in Bissingen traffic count. During the peak hour at 6 p.m. the level of traffic was significantly higher than in 1975. The number of pedestrians and vehicles in the 1970s was 80, 25 years later the number was 145.

The engines and tyres were quite audible because of the closely grouped buildings of the village. The proportion of passenger cars and trucks has increased by ten and three percent respectively. The level of pedestrian traffic has remained the same but the number of bicycles has fallen to four percent. Presumably the more convenient passenger cars have replaced the weather dependent bicycles. In addition, as mentioned in the introduction, 1700 out of the population 3000 in Bissingen earn their living from working in the larger cities in the area, and this has clearly had great impact on the traffic. In discussions with the villagers they complained that in order to reach the new residential area they were forced to drive through the old centre of the village.

It should be pointed out, however, that in Bissingen the means of transportation is also connected to the age group. The teenagers on their bikes were clearly audible in the evening when they were riding to the youth centre located on the main street.

Figure 2

Skruv traffic 2000

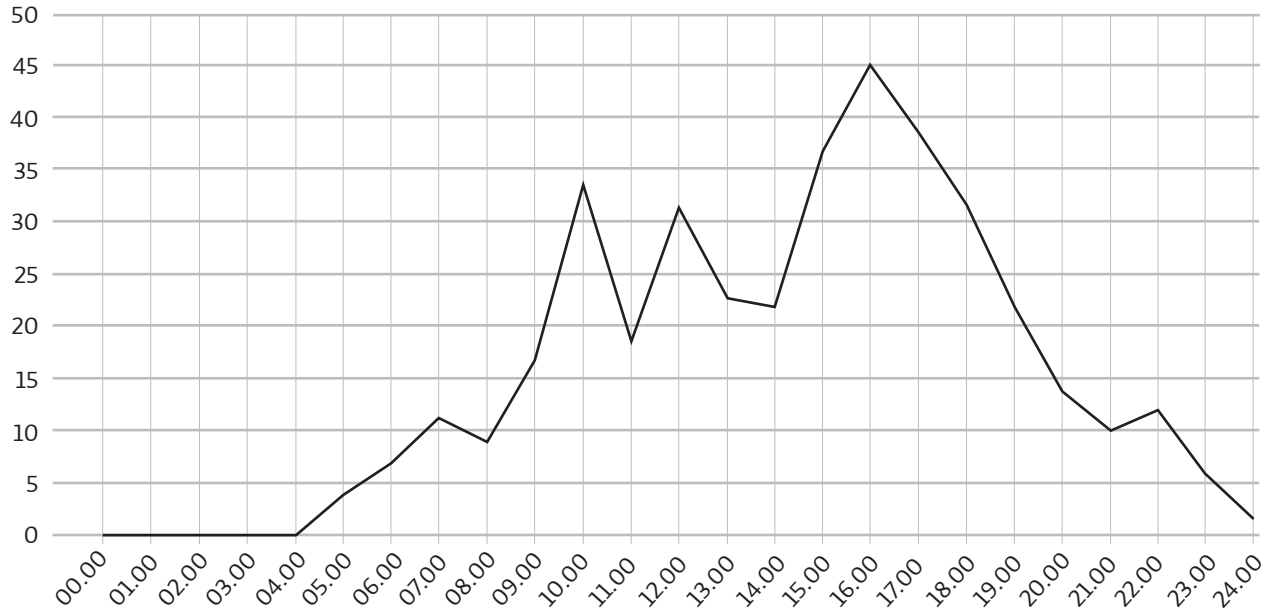


Table 13

Skruv traffic percentage

Cars	61 %
Pedestrians	28 %
Bikes	5 %
Motorbikes	5 %
Trucks	1 %
Tractors	0 %

But the children are taken to the school by car. In a vicious circle, this produced so much traffic in the morning that it seemed dangerous for the kids walk to the school. The people of Bissingen feel that people no longer walk, commenting in interviews: ‘What has happened to kids, when parents have to bring and fetch them from the school only half a kilometre away?’ Perhaps one should also ask what has happened to parents when they agree to do so.³⁹ These rides to school might be one reason that the locals feel the number of pedestrians has decreased.

Compared to the FVS group’s 1975 observations in Bissingen, aircraft in 2000 were continuously audible. The sound of at least one aircraft could be heard throughout the entire one hour observation from the lower hillside of Tech above Bissingen. The

Figure 3

Bissingen traffic 2000

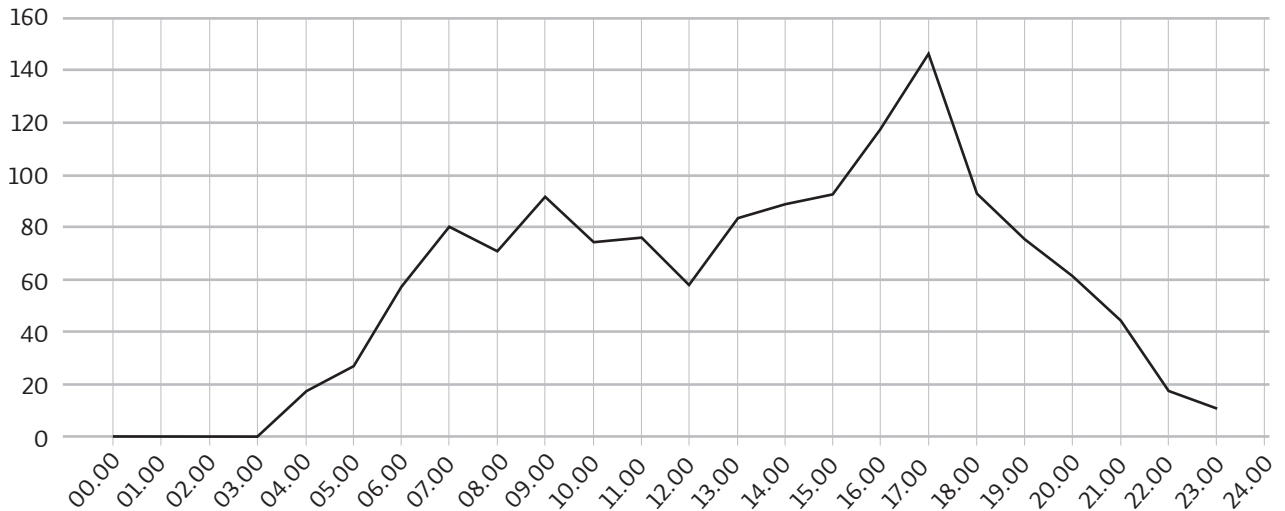


Table 14

Bissingen traffic percentage

Cars	61 %
Pedestrians	26 %
Trucks	6 %
Bikes	4 %
Motorbikes	2 %
Tractors	1 %

peak sound levels measured at A-scale did not exceed the 1975 level of 68 dB (A) levels, but stayed moderately under 48 dB (A). The peak levels were generated by propeller aircraft and jets but also the occasional tractor, chainsaw and church bells.⁴⁰

In Cembra the 1975 traffic count was carried out near Easter, so there were no workers or schoolchildren who could help the researcher to define the acoustic rhythms of the day. In 2000 the early morning traffic was clearly registered. The biggest demographic group according to the traffic count consisted of young people and children, 222 in total. The local ‘lollipop man’ (the man with the stop sign for the cars) helped school children across the road. During the day the rumble of the lorries exceeded 80 dB (C).

Figures 4 & 5

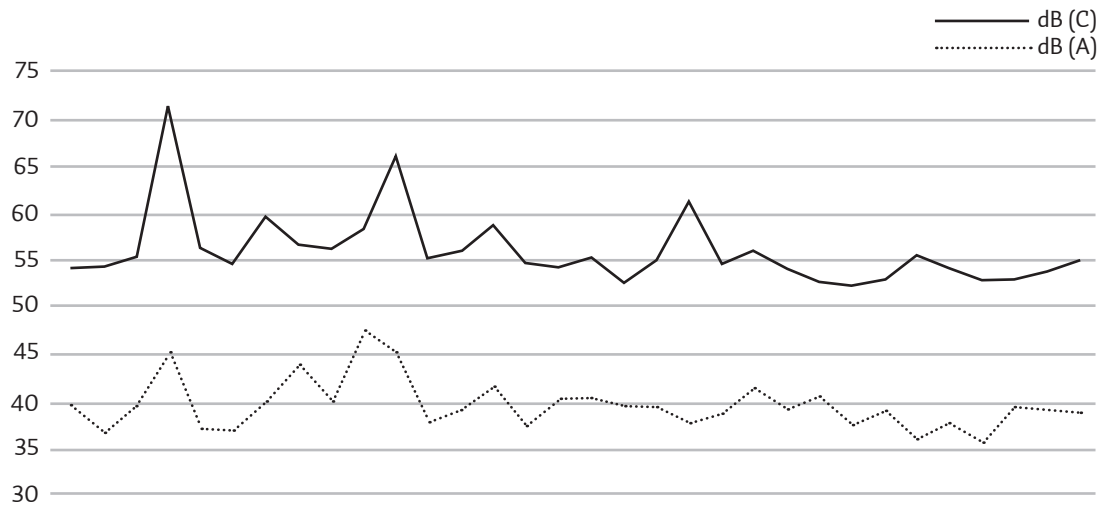


Figure 4. Bissingen aircraft noise observation 5 March 2000, 3.20 p.m. to 3.50 p.m.: ambient noise level. Peak: 45,2 dB (A)

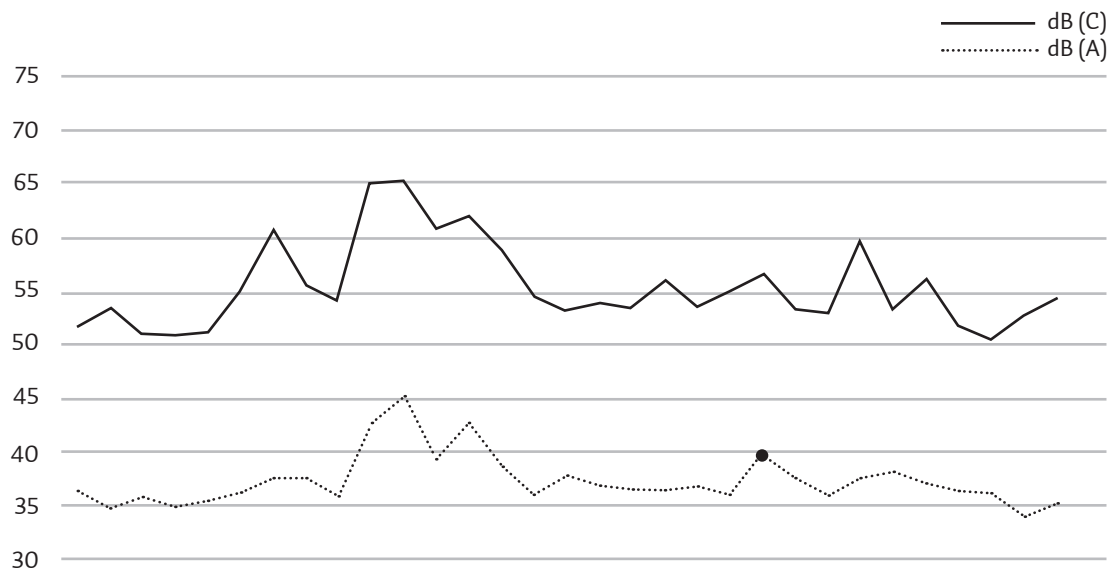


Figure 5. Bissingen aircraft noise observation 10 March 2000, 1.50 p.m. to 2.20 p.m.: ambient sound level. Peak: 47,3 dB (A). A MD 82/83 jet airliner was also visible flying over the valley at point (●).

Figure 6

Cembra traffic 2000

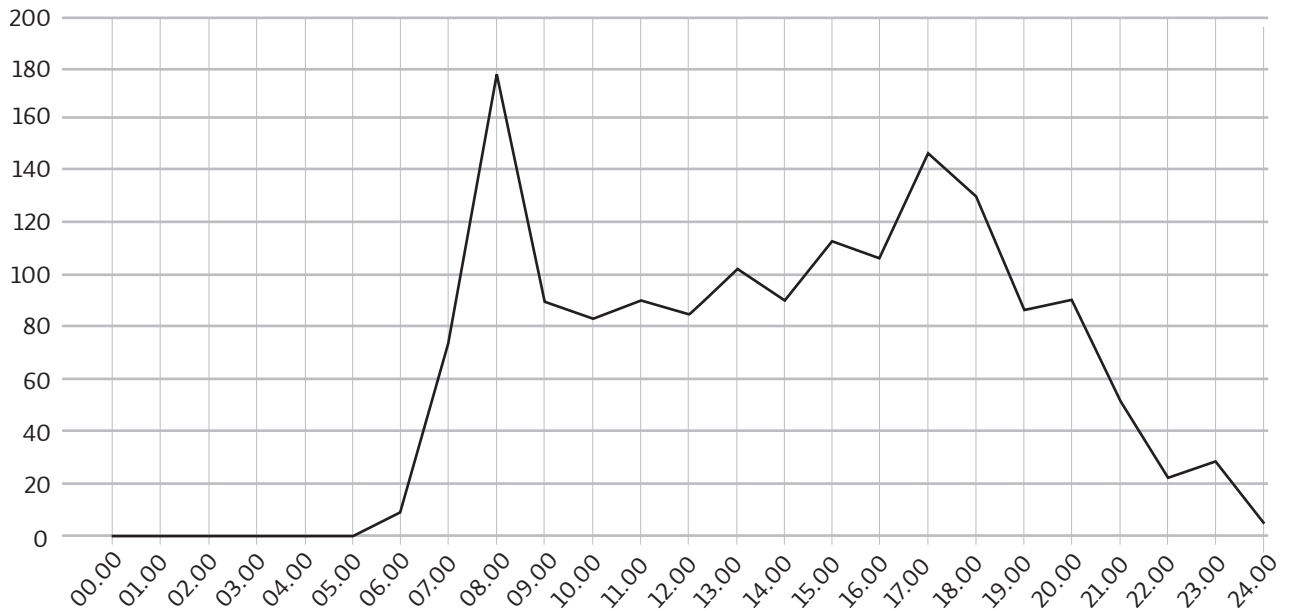


Table 15

Cembra traffic percentage

Cars	47%
Pedestrians	34%
Trucks	10%
Bikes	5%
Motorbikes	3%
Tractors	1%

It seems that Cembra is no longer a ‘pedestrian-oriented village’ as it was called in 1975. The overall soundscape of the village has been increasingly motorized in 25 years: the proportion of passenger cars has increased by 13 per cent and trucks by four per cent, whereas the number of pedestrians has decreased by 12 per cent.

Indeed, in 2000 the piazzas in this North-Italian village were very often filled with cars, while in 1975 they had often been filled with children playing.⁴¹ People drove as little as two hundred metres by car within the centre of the village. The concern of the mayor about the disappearance of children and their sounds from the piazzas

Figure 7

Lesconil traffic 2000

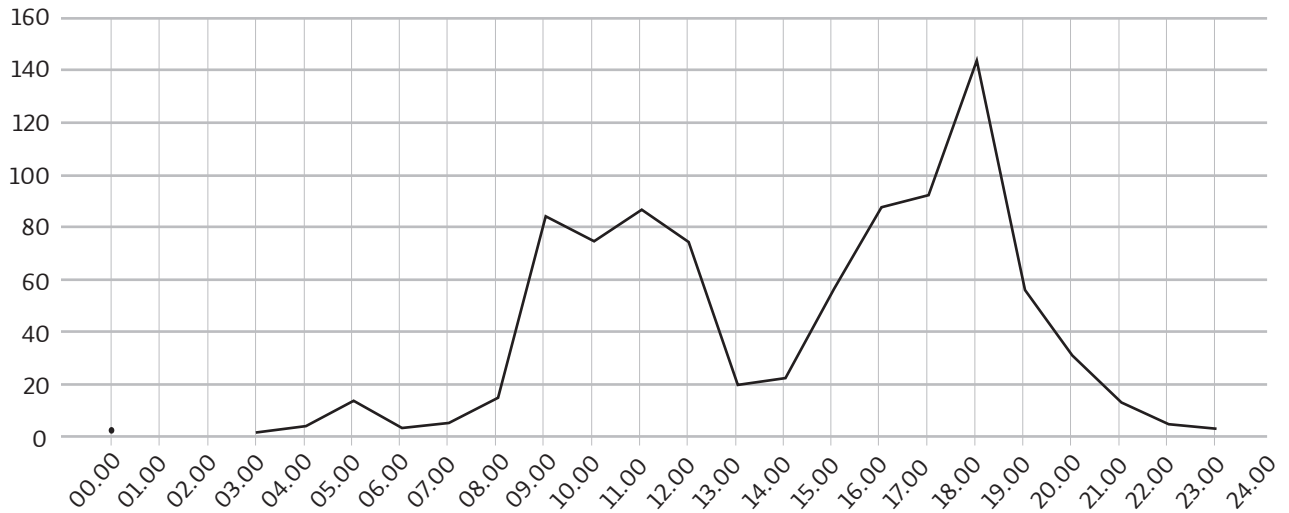


Table 16

Lesconil traffic percentage

Cars	49%
Pedestrians	34%
Trucks	8%
Bikes	5%
Boats	2%
Motorbikes	2%
Tractors	0%

in the year 2000 turned out to be fully justified.⁴²

Despite the dramatic reduction of its fishing fleet, the characteristic sound of Lesconil was, and still remained, the warming up and setting out of the fishing boats in the early morning hours. The eight fishing boats made a constant morning keynote sound before sailing out from the harbour. The return of the boats, and business hours, increased motorized and non-motorized traffic in the centre of the village in the afternoon. Another ‘pedestrian-oriented village’ of the 1975 was turned into a motorized one because of the cars (49 per cent) that came to outnumber the pedestrians (34 per cent). The proportion of bicycles in 2000 was much the same as it had been 25 years earlier; the long straight alleys of the village are probably

Figure 8

Dollar traffic 2000

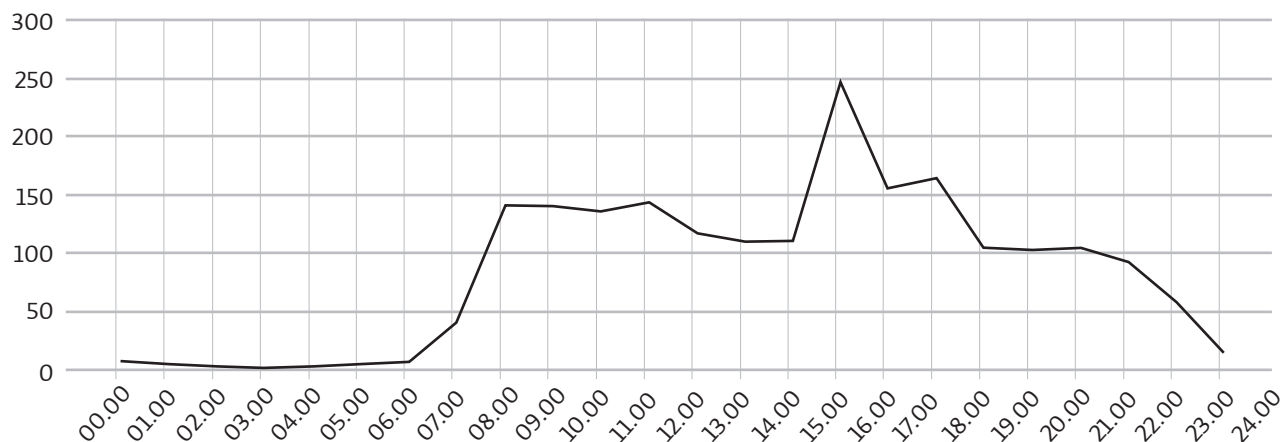


Table 17

Dollar traffic percentage

Cars	58%
Pedestrians	34%
Trucks	6%
Bikes	1%
Motorbikes	1%
Tractors	0%

more convenient for bicycling than walking. The listening walks demonstrated that sounds associated with motor traffic predominated in Lesconil. Human traffic (footsteps, bicycles) and voices taken together made up the second most common group of sounds with an 18 percent share, while in 1975 it had been 31 percent.

In 1975 the traffic was considered to be the ‘acoustic basis’ of Dollar. This was also the case in 2000, since the number of private cars had increased by ten percent. A lady in her fifties recalled that as a child she used to record car number plates for a hobby: ‘Only got ten or so in an hour – now you get ten a minute.’ The number of cars is significantly higher than in any of the other villages, especially after four o’clock because of commuting. Loud car stereos were also noticed in Dollar. However, the

Figure 9

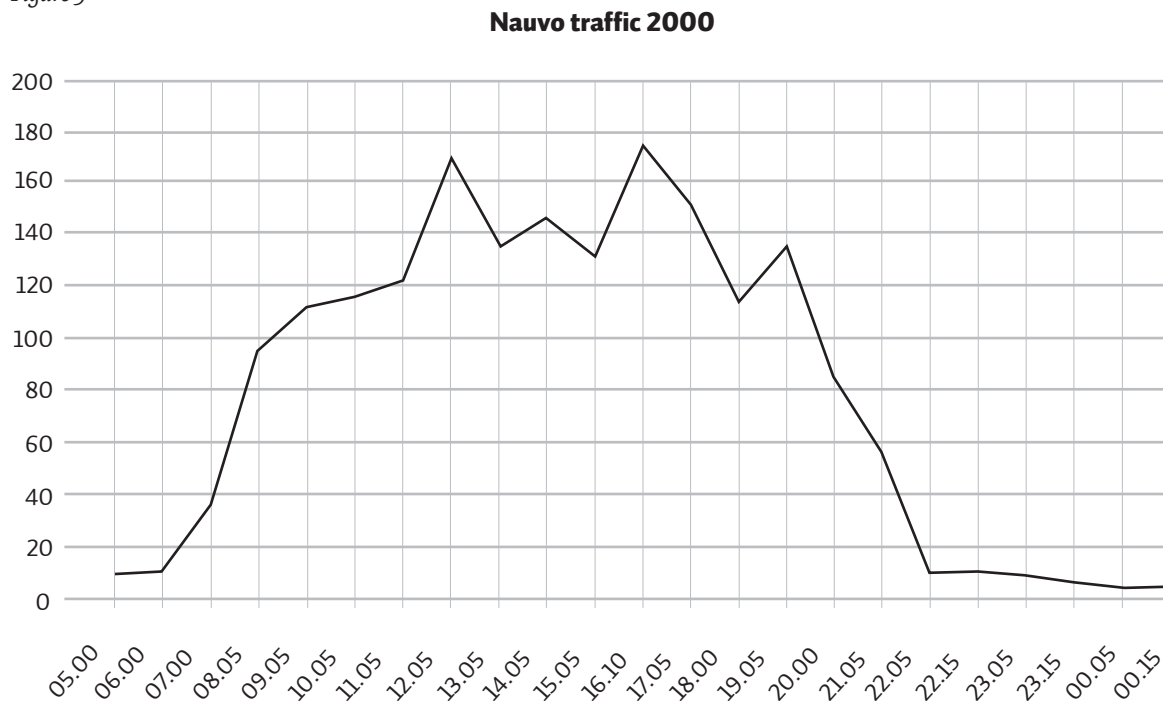


Table 18

Nauvo traffic percentage

Cars	61%
Pedestrians	15%
Trucks	16%
Bikes	6%
Motorbikes	1%
Tractors	1%

proportion of cars is lower than for example Bissingen, because the Academy students raise the proportion of pedestrians in relation to the motorized traffic.⁴³

Nauvo is situated in the archipelago in South-West Finland with ferry connections to the mainland and to the town of Parainen. The ferry port is approximately fifteen kilometres from the village, so the cars arriving in small groups acoustically activate the main street twenty minutes after the arrival of the ferry. The traffic counts lasted twenty-minutes in order to take account of the flow from the ferry's arrival in the research findings.

The high percentage of the cars and the low number of pedestrians is probably due to the long distances to be covered in the archipelago. Probably because of the cold weather and the time of the year, bicycles were favoured over motorcycles – bicycles accounted for six per cent of the traffic, as compared with one per cent for motorcycles. The through traffic to Korppoo and further into the archipelago also increases the motor sounds in the village, not to mention the pickup vans that make up almost ten percent of the motor vehicles. The subwoofer car stereos, the constant travelling companions of the research team, were also a presence in Nauvo.

LISTENING WALKS

The sound preference tests were conducted in enclosed spaces, mostly in the classrooms of the village schools. People were remembering the sounding environment outside, and also listening to it from inside the school. Traffic counts were conducted from stationary positions, registering moving objects as they passed by. Listening walks were a means to approach the environment literally step by step.⁴⁴ By moving one can cover a wide area and experience the multiplicity of the sound world by stepping into the middle of it.

There are many ways to conduct the walks. The AEC group followed the 1975 FVS group listening walks approach. Each village area was divided into five sections. Each listener went for walks through one of those areas for half an hour, five times a day: at seven and ten o'clock in the morning and one, three, four and half past six o'clock in the afternoon. This was carried out the same way in all the villages. The walkers listed all the sounds they heard.

In 2000 it was decided not to adopt the quantitative approach as the primary working method. Participants in both the FVS and AEC groups encouraged each other in the application of creative listening, and gave considerable attention to the question of what kind of knowledge the listening walks might reveal about the environment. One can also vary the relative levels of systematized and descriptive reports. The reports also include descriptions of the various pre-analytical processes activated during concentrated listening.

It was, after all, part of the objective in the AEC project to develop and test a range of documentation methods. During listening walks we simply reflected on acoustic phenomena and concentrated on collecting all possible details that might feed into those reflections. Sufficiently detailed descriptions can also bring the perspective of the listener or a group of listeners into focus for analysis. The benefit in this is that we perhaps managed to some extent to ensure that neither the subjective modes of listening nor the special contexts or 'stories' of certain sounds were lost when documenting the sounds. The disadvantage of course is that it is then difficult, and in some cases impossible, to present the results in the form of strictly quantitative inventories. However, as an example of the latter approach a more statistically

	7–7.30 a.m.	10–10.30 a.m.	1–1.30 p.m.	4–4.30 p.m.	7–7.30 p.m.	Examples
Motor traffic	110	277	158	241	209	
Human traffic	30	31	17	46	31	<i>One pair of sabots, bikes</i>
Voices	5	28	29	57	28	
Indoor human activity	5	4	7	16	9	
Outdoor human activity	21	38	23	33	31	<i>Garden activities, recycling bins</i>
Domestic animals	7	13	14	6	20	
Electro-acoustic sounds	3	16	7	20	4	<i>Lawn mowers</i>
Signals (non-regular)	4	–	2	–	3	<i>Church bells, car horn</i>
Other transportation sounds	4	9	7	8	11	<i>Brakes, doors, ignition</i>
Planes	8	5	3	2	3	<i>At 7 o'clock: same planes heard by many researchers</i>
Other	1	3	1	–	1	<i>Sewer, window shutter clacking, wind towards the sea</i>
Boats	3	5	–	3	2	

Table 19. Lesconil walks. Sounds heard throughout village (3 May 2000).

oriented table of sounds heard in Lesconil is provided here.

Music researchers, especially ethnomusicologists, have argued for decades over the question of whether the human ear is able to document the nuances of the most infinitesimal intervals in the sung melodies. The aim of ‘objectivity’ has driven researchers to rely on microphones and mechanical transcriptions. In any inductive approach it is important to develop and improvise fruitful descriptive ways of documenting the enfolding sound world in each individual situation. Ultimately each choice of method depends on the purpose and goals of the study. It is well understood that it does a form of violence to the soundscape if it is too schematically broken down into categories.

We also developed another method that was slightly more flexible than listening walks, collecting our own first acoustic impressions as visitors to the villages. That first contact already establishes the new environment as a soundscape. It is a well-established axiom for anthropologists that the very first moments in the new fieldwork community are crucial. It is during those first moments that we are most aware of the distinctive characteristics of a place as compared to our own backgrounds. At this stage listening walkers spontaneously focused on the specificity of the place, listening to the village for the first time. This immediately disclosed some of the important characteristics of the village. Some of the listening walkers perambulated acoustically awake for the first time. Some had already

become initiated to the process through experiments on other occasions. On the ‘first impression’ walks the latter group could already construct interpretations and attitudes, because of, and in comparison with, the models created through earlier listening experiences and knowledge.

Listening is a special way to approach the environment. In the context of soundscape research we often hear the assertion that musicians are not good listeners because they have such a fixed frame – the musical frame – which they use when listening. It depends on one’s own methodological approach as to whether or not one considers this to be a limiting prejudice, or just another way of experiencing sound: ‘This is how musicians often listen to the environment’. The ways of listening, ‘listening points’, vary from individual to individual, and sometimes simply come down to the diversity of backgrounds of the listeners. In Cembra, in the ‘first impression’ listening descriptions by Stephania Giametta it is easy to recognize her architectural background. Recording engineer Massimo Catalfo’s first walk in Cembra focused on acoustics. He describes how he stopped in places where he expected different echoes and tested them. One such place for example was the stone porch leading into the main front door of Santa Maria church. Soundscape researchers Luisa Morozzi and Marco Geronimo, on the other hand, attended to the distinctions between sounds of humans and machinery, particularly evident in Cembra. They explained the phenomena and accounted for the silences and sounds on the basis of their knowledge of the rhythms of everyday life of the village.

Towards results – from impressions to categories and back

It is interesting to read the lists of sounds of the listening walk reports. Some generalizations offer themselves immediately. The areas themselves varied geographically and architecturally, and the listening walk results gave an opportunity to acoustically compare the *different areas* of the villages. Some were open spaces, some adjacent to a seashore, some at the foot of a high hill, some situated in various labyrinthine alley ways or among houses of different sizes, structures and materials. All these factors very clearly affected the acoustic ambiances of each place. Our descriptions of them resembled the corresponding accounts in FVS.

Walks at *different times* of the day also told their own stories of everyday life. The rhythms disclosed the atmosphere of different times of the day. The atmosphere of a given location changed completely, as for example when rush hour traffic was building up. These life style related ambiances can be expected to be recurrent.

Often the listener was unaware of the sources of the sounds, their intentions and the messages they sought to communicate. Unexpected sounds can lead us to new paths. Often one had to move nearer the target in order to *see* and recognize the puzzling sound disturbing one’s mental equilibrium. Only after visually identifying the sound source it was possible to name the sound, the “acoustic magnet” that had

drawn us to the source. During the listening walks some sounds leaked out from private to public spaces (see further 'Soundscape shutters' in this publication). Many of the private sounds were beyond the visual horizon and therefore remained non-categorizable. The loud, high-pitched sounds of chairs scratching the stone floors and the tinkle of plates in the interiors of buildings were described as heard only from outside. The sound of the espresso machine – slightly exotic for a Finn – had particularly attracted the listeners' attention.

These comments remind us of the importance of interplay among the senses – how the sense of sight for example plays an important role in making acoustic phenomena intelligible. In addition, points of listening and points of viewing differ from individual to individual. Approaching the environment through the gaze the observer is aware of being at a given distance from the object, and brings to bear a well-focused perspective. In many interpretations of soundscape thinking the listener without earlids is often understood as being immersed in the midst of her/his environment. Following this view the listener is also susceptible to the total field of sound. Listening is then supposedly an interesting and different way to focus on one sound and screen out others and – also supposedly – reveals things differently as compared to looking.

What do we make of a half hour walk in the village during which one person hears nine aircraft and the others only four or five? In what category would we put a complex soundscape heard from a distant schoolyard? The source and direction are easily recognized. The sounds of the children emerging from the schoolyard are described as omnipresent. But how many sounds can be heard? Faced with the flood of acoustic detail, the demands on the documenting listener can be frustrating. When quickly listing a torrent of sounds we often use a spontaneous shorthand. In one report the sound of the aeroplane, 'roar', was written in quotes when it had receded far enough. Another option was to invent a new word describing the sound as it was dimmed by distance. All the lists of the core AEC-group were written in Finnish, so there is then the problematic of translation. Answers like 'car' and 'dog' are more common than 'smooth motor roar of the car' or 'howling of the dog'.

The fact is that we do not know if the categories mentioned in the FVS book were decided before, or created after the listening walks. That is to say we can only roughly estimate how far the categories of the earlier study might have determined our way of listening to the village environment. From the methodological point of view the question of whether the categories were formed beforehand or afterwards is crucial.

The taxonomy articulated in the FVS study was basically dualistic in that it divided the sounds into 'human' and 'technological', with 'domestic animals' as a separate category. It was interesting however how the AEC listening walkers 'over-rode' the categories. One listener put his comments about activities that can be seen but *not* heard into a category 'other sounds'. Another used the same category for comments about sounds that simply did not fit into any of the others. The listening walk reports and their comments suggest that some have been actively listening to a range of hums

and categorizing them all as ‘electro-acoustic sounds’. Another has categorized various clatters and hums as ‘outdoor’ or ‘indoor’ human activities, since they were produced by people, even if mediated by forms of technology developed by people. For one of us the sound of a mail box was listed under ‘other transportation sound’. These details and *interpretations* disclose interesting things about the complex connections between the sounds and their sources, causes and effects. They revealed various ways of perceiving and taxonomizing the environment. When proceeding towards an analysis it is fruitful to understand soundscape as a sum of dynamic activities rather than stable elements of a relatively static space or a text (cf. Cusick 1994: 14–15).

A listening walk report from Skruv included the words ‘the sound of the lawn mowers fill the space’. The space wasn’t empty before, but a dominating sound began to colour it and mask the rest of the soundscape. Obviously sound events become especially noticeable and meaningful in different ways when something happens to destabilize the pre-existing acoustic field.

In some reports the listener suddenly or gradually changed the reporting style. Sounds of wind, rain and birds, for example, were excluded from FVS categories. At some point however, a few of us AEC researchers began to find it fruitful to observe and separately document both the background and foreground of the soundscape. Noting separately what were clearly ambient and constant sounds made the listing much easier, for example by providing more space dedicated to describing the sound events in the foreground. In Cembra, the soundscape was flavoured with an ever-present echo. This was separately mentioned in only one comment however, when the reporter wanted to record the fact that the echo made it difficult to recognize the direction from which sounds emanated. As an example, sometimes the continuous hubbub of harvest time, or male choir singing (a typical winter sound in Cembra), could reasonably be identified simply as a ‘drone’.

In their small villages people mentioned that they felt they lived in a stable atmosphere of ‘silence’. What is the anatomy of a silent atmosphere? Everyday acoustic dramas can’t be described solely with a decibel meter; nor can the microphone answer all the questions about perception. For a human ear the soundscape may sound like ‘the birds are trying to get their voices heard’, as one of us wrote to on a listening walk in Cembra. The idea of a continuous competition for acoustic space adds something that technological calibration can not, and also reminds us that listening is not passive, but is also a process of imaginatively constructing the environment. It situates the birds as background, audible only when something louder in the foreground is not overwhelming it.

Making sense of listening – strategies for grasping the complex sound world

Surprises make the environment interesting. It is easier to listen to the foreground than background because the foreground is full of events. Often the events can

also be seen. When in a listening walk report it is mentioned specifically that the sounds were an unexpected coincidence, this suggests an expectation about what is typical, predictable and 'forehearable'. But the surprises should not be too surprising. Often what is understood as pleasant is equivalent to comprehensible and at least some extent within our control. An interesting question to explore further would be what kind of combination of sounding elements makes for a pleasant sound environment.

For example, standing still and listening for only 30 minutes in Cembra and Bissingen revealed that a place that on first impressions seemed 'dead' was in fact extremely lively. One had time to follow up little sonic hints and discover their sources, to ask questions of oneself and answer them by focusing on more contemplative listening in stillness, rather than moving away from the sound sources. If we are in motion ourselves we cannot establish the durations of the sounds because they disappear beyond the acoustic horizon. Such attentiveness is necessary, for example, when trying to distinguish sounds as pleasant and familiar, or as signs of threatening intruders; it is essential to separate those that come from nearby or far away. Sitting still on a hill one can hear both sounds of nature and technological sounds generated by human actions. It depends on the individual, her or his situation and state of mind whether the soundscape is experienced as cacophonous or as orderly. (See example 4.)

Actually writing a description simultaneously limits listeners' attention and inevitably excludes a certain amount of sounds from the account. The descriptions and strategies reveal different ways of focusing as listeners. What sounds do we exclude from active hearing? Which do we include in order to create a meaningful mix of the surrounding sound world? When listening freely we had to develop and select different principles to organize our accounts. Each of us had different strategies to test or to organize our perceptions.

What, then, happened in the observers' minds during the walks? What were our strategies to describe the heard phenomena? One method was to situate and mould the heard sounds into the pre-existing categories adopted from the FVS book. In composer and time designer Albert Mayr's listening walk reports one can see clearly the signature of a time designer. His method was to draw a point or a line that followed a time frame. On the other side he would write more in detail about sound events. His report is a list of details on a meter long, old-fashioned printer paper, on which different sounds heard simultaneously are written down side by side.

In Skruv, Helmi Järviluoma also emphasized that it is important to follow the chains of sounds. For example, it made no sense to her to write: a car, bangs (two times, human action), slam of door (two times), steps on sand (two times). Instead, her story went as follows: 1) car (postman arrives); 2) bang of the mailbox; 3) car leaves; 4) slam of the door of a house; 5) steps of a woman fetching the post on the sand; 6) bang of the mailbox; 7) steps of a woman going back to house; 8) slam of the door after she went in. Now we can hear this as a typical sonic narrative in Skruv on



Example 4. Cembra soundscape listened from the mountainside 20 April 2000, 11.10–11.40 a.m. Picture by Kimmo Miettinen, sounds listed by Helmi Järviluoma. (Another version of this picture with the sounds located within the map can be found in the AEC archives at the University of Tampere.)

Continuous sounds ~~~~~

Intermittent sounds ●

Cars 11.10, 11.16, 11.21 (honk!), 11.35, 11.39 ●●●●

Honk ●

Rooster 11.15 ●

Child's voice from inside 11.30, from outside 11.37 ●

Male voice 11.29 ●

A whistle 11.35 ●

Male voice ●

Three wheeled car 11.26 ●

Child shrieks 11.29–11.32 ●●●●●

Dog 11.17 ~~~~~

Lorry 11.18 (honk!), 11.20, 11.22, 11.27 (honk!), 11.28, 11.30 ●●●●●●●

Dog 11.20, 11.25 ●

Child crying 11.37 ●●●

Dog dialogue 11.31 ~~~~~

Three dog triologue, 11.35–11.40 ~~~~~

Radio 11.24 ●

Unclear (dog?) 11.25 ~~~~~

Motorcycle 11.25 ●

Cuckoo 11.25, 11.34 ●●●●

Children's voices 11.14

Dog 11.11, 11.16 ●

Dog 11.13–11.15 ~~~~~

Honk! 11.34 ●

Lorry backing up 11.33 ~~~~~

Crash 11.12, 11.33 ●

Sounds from the mine 11.10 ~~~~~

Church bell 11.28 ●

Dog 11.22 ~~~~~

Children's voices 11.10–11.17, 11.21 ~~~~~

Bang 11.22, 11.36 ●●

Cuckoo 11.33 ~~~~~

Honk! 11.28 ●

Moped 11.14 ●

Woodwork sounds 11.27 ~~~~~

Clacks from a construction site 11.27

Crashes 11.23 ~~~~~

Chain saw 11.16 ~~~~~

Jet 11.30–11.32, 11.33

Bang 11.08 ●

Rattle 11.32 ●

Platform of a lorry banging ●

Hum of traffic ~~~~~

a February morning at ten o'clock in the morning in the peaceful residential area. Thus, two of us have written our notes in numbered order during the walk, believing that we would then be able to reconstruct the order in which they appeared; we continued this practice in the remaining villages that we visited.

One example of the interesting phenomena in everyday human life was related to the domestic animals. Their sounds were a revealing and interactive element of the soundscape. For many dogs it was impossible to ignore the presence of an olfactory and communicative entity – the walking human being. A further interesting supplement to the walks was that Albert Mayr was walking and listening with his own dog. In his report the points signifying dog barks had their own separate line. In Skruv the dogs were kept inside. According to our notes, in Skruv many dogs seem to have made noises after four o'clock. We could not necessarily see them through the fences, but we were acoustically informed of their presence. It seems that after the conclusion of their school and working day people let their dogs out. In Cembra dogs and cuckoos were mentioned much more often than elsewhere. It is doubtful whether this tells about the actual numbers of these animals, but simply that they clearly communicated in open spaces, reacting to each other's voices. The provocative barks and cuckoo calls caused a chain reaction, and in an open space the radius of sounds reaching the ear was much greater.

It was often the forces of nature that created impressions of a kind of randomness by making otherwise hidden objects audible. During a late evening listening walk in Cembra for example, the wind dominated the soundscape. It carried sounds from a particular direction, and also moved rubbish and leaves that none of us would otherwise have noticed. It created an unpredictable rhythm to the soundscape by forcing the listener to pay attention to elements and events that, during the earlier listening walks, had not moved and therefore had made no sounds. The weather changed the environment radically, and consequently affected the ways we translated perceptions into documents. In Dollar the listening day was stormy. It made the writing difficult and the telephone box became a haven from the weather. Noora Vikman's half hour walk ended up in a red English telephone box where only at the end could she write down all the experiences, details and impressions into a listening walk report.

Albert Mayr had visited Cembra 25 years ago, and again in 1999 and 2000. What struck Mayr clearly in the soundscape of Cembra during the 1999 visit was the absence of a steady drone produced by the many fountains in the village still in 1975. It is present also in the recording from 1975. In 2000 these fountains were dry. Because of the lack of running water important social outdoor activities like collective laundry washing in the old village fountains had disappeared.

Mayr's first impressions after 25 years include the feeling that the old part of the village was no more the main agora of the city. Children no longer played informally outside. These points were also made by the mayor in his presentation when he listed ways to improve the soundscape of Cembra. Mayr also points out how certain

changes had affected the soundscape of the old part of the village. A completely new residential area, *Campana rasa*, had been built after the FVS visit, meaning the residential area of the village had doubled. This naturally affected the level of human sounds in the old quarter from whence the people had moved. (Mayr 2002: 147)

These are some of the ideas and impressions that Mayr articulated after his new listening walk experiences in 2000, comparing them to his memories from 1975.⁴⁶ What we other researchers could not hear during our formal listening walks were people's memories and impressions.⁴⁷ Alas, we learned that the local people in present day Cembra still remembered with regret the same lost sounds. For example, in the interviews made in 2000 and later, people still remembered the fountains: the water drone was one nostalgic reminder of the times they worked together. One lost sound which touched the whole collective was the rustling as people filled the mattresses with dried corn leaves.

Layers of time and change

The successive historical periods live in layers in the villages. People's interpretations of 'things of the past' change continuously. We concentrated on the idea of change that manifests itself more as states of mind than as concrete acoustic phenomena. In some areas of life the visual aspects can more easily be memorialized in fixed and concrete forms that encourage and remind people to respect their history. But people's minds and memories do not have the fixed and stable form of a statue or a painting.

A contemplative attitude opened our ears to an indefinable complexity of sounds. Informed by the lists of sounds collected during listening walks, we were able to ask questions about everyday life. These sounds could also be the basis for further questions about the acoustic environment. Persistent and manifold questioning by the curious researchers unveiled a lot of detailed information. We learned that different local people had spent time carefully listening to the forest sounds, porphyry mines, railway stations, birdsong and other soundscapes. This kind of local competence, developed over so much time, has inspired more prolonged reflection than the listening walkers could ever sustain during their short interventions.

This also told us as researchers that people still do live with their ears open. When they describe their experiences, there is a glowing richness of meaning attached to their sonic environment. In spite of what we sometimes suspected, their enthusiastic accounts had an intensity that suggested something much more than merely a politically correct way of expressing their sense of beauty.

The soundscape cannot easily be reduced to some unified discourse about how people listen. The long term changes in a sonic environment cannot meaningfully arrive at our ears without cultural knowledge. It is instructive to pay attention to variations in the way people perceive and describe their soundscape, since through these variations we can learn about how they live in and through their culture.

In her book *Mig äger ingen* ('Nobody owns me') Åsa Linderborg (2007: 10) describes her childhood as the daughter of a dedicated metal worker at a factory in central Sweden in the 1970s. When the factory hooters signalled the end of the working day at four o'clock, the gates opened and a large group of factory workers rushed out on their bicycles, heading home first as a thick mass, then gradually separating in their various directions, only to meet up again next morning at seven o'clock. The book captures a moment remembered by many of the interviewees in the much smaller Swedish industrial community, Skruv, as they reminisced about life in the 1970s. By the year 2000, the sound of factory hooters had vanished in Skruv, and the number of bicycles heard in the village had radically diminished.

But what in fact does it mean to say that we have been studying acoustic environments *in change*? It is easy to hear and see that during the last third of the twentieth century, the time that this book mainly deals with, Western Europe has changed. It can be said that now we live in a post-industrial society, and that all six of the localities studied now belong to the formation called the European Union. When we started our fieldwork in the six localities at the turn of the millennium, talk about climate change was practically non-existent. Now, in 2008, only the financial crisis sometimes drowns out the constant discussion about climate change as the ultimate question facing the entire world.

Mostly, we have studied the ways in which people describe and construct changing soundscapes as part of their everyday lives. This does not mean that we are not interested in 'structures' – we just do not think that is fruitful to hear changing soundscapes as direct reflections of change in societies. Following Truax, Järviluoma (2003: 349–50) has stressed the contextuality of acoustic experience: contexts are not something that affect phenomena like art and music in any direct way, neither do these phenomena directly reflect their contexts. For acoustic environments, we find it interesting to study how contexts are co-constructed through our sonic experiences. Our sensuous worlds become each other's contexts.

As we said right at the beginning of our project, we have studied the soundscapes at the micro-level, with 'an enthusiastic attitude'. However, as Heikki Uimonen has emphasized, the micro-, meso- and macro-levels operate in ceaseless interaction. If changes in the soundscape are read simply through the changes in societies, there is a danger of the explanations becoming macro-reductionist. Or – as Margaret Archer has claimed – actor, culture, and structure offer different perspectives on social reality. None of these three can be studied as being caused by any of the others. (Archer 1996; Saaristo & Jokinen 2004: 143–4; Uimonen 2005: 49–53; cf. DeWalt & Peltö 1985: 3; also Hall 1992.)

As Heikki Uimonen (2005) has pointed out, societal macro- and micro-levels

were also discussed in the earlier, FVS study. It has been argued that when communities lose their independence to larger social organizations, they at the same time lose their unique soundmarks and sonic events (Schafer 1977: 49). This argument refers more generally to the fact that changes in western, industrialized society tend to diminish the degree of acoustic definition (Uimonen 2005: 51). However, Uimonen also points out that one needs to ask what are these structural and cultural aspects that change the soundscape, or the intertwined soundscapes of a particular place. We should think about the multi-layered ways in which economic and social factors, and changes in these, occur within the sonic environment, and on what conditions these changes take place.

The solutions adopted by the various AEC researchers both resemble and differ from each other. Noora Vikman (2007: 15) suggests that all the different, experiencing persons in the villages hear their physical environment in ways that differ greatly from each other. She has chosen to understand 'the village in change' in the following manner: she concentrates on studying how soundscape phenomena are made meaningful in relationship to beliefs about changes in culture in general. This is strongly dependent on the context local people themselves create to express their acoustic experiences. This view stresses that studying sounds in detail reveals aspects of the structures and current issues of social life on a larger scale. What is most important is that people's attitudes construct them as possible agents for active change. She studies actors: for her, as they mould their soundscape, the villagers are simultaneously producers and audience. In her articles she describes both the attitudes of the actors, and the challenges being posed on the locality of Cembra from outside.

Helmi Järviluoma argues that the modes in which people spoke in the six localities are ways of telling about how the changes and the past have meaning. Remembrance brings out the reflective knowledge of the past, and, when that which has passed is contrasted with today, critical reflection follows (Misztal 2003: 10). Following Andreas Huyssen she claims that productive remembering can challenge myths of cyber-capitalism and globalisation: the denial of time, place and space (*ibid.*). Memory extends our choices, because it deals with shared knowledge about the shaping of our own history and culture (Radstone 2000: 13).

One of the important aspects of memory work is that there is always a suspension between the subjective and objective (Radstone 2000: 12; cf. Misztal 2003: 10). It remains the task of memory research to analyse the links between the memories of individuals and groups, between history, culture and society. To Svetlana Boym, nostalgia mediates collective and individual memories. The starting point, however, is always in the local and the subjective – the specificity of memory. For instance, as interviewees we do not link our questions about sound with changes in society – the interviewees do it themselves, spontaneously. They were able to make use of their experiences, shared discourses and social memories. They speak of the presence of technology and its effects, for example upon the everyday lives of children. When discussing the Germans buying

houses in Skruv, they speak of a shrinking world and of globalisation. The secondary housing phenomenon divides opinions amongst the villagers. In the shrinking and quietening village, the sounds of children represent life, continuity and the future.

Transnationality can be heard in all villages studied. In Nauvo, Lesconil, Cembra, and to a lesser extent in Bissingen, tourism has become an important source of income, leading to different ways of developing an 'experience economy'. Dollar advertises itself as a suitable base for hill trekking and mountain biking.⁴⁸ Cembra has an influx of migrant workers from abroad, and sometimes the local inhabitants have a hard time coping with their different accents; Bissingen was a home for Kurdish refugees.⁴⁹ In Lesconil, on the other hand, nothing like this is happening at the moment, and the school children did not express negative attitudes towards foreign languages.

When speaking of change, it is worth keeping in mind that the research group visiting the villages was not the same as in 1975 (except for Albert Mayr in Cembra). Even if it had been, the researchers would most probably have had some completely new approaches in their minds and hands as compared to 25 years earlier. In the preface, Justin Winkler's apt comment is quoted about the impossibility of replication, saying that we would even had to use Nagra or Uher equipment, which were the two makes of recording machine used by the FVS researchers, in order to do things in the same way. He was on the right track: already during the 10 years' duration of AEC, we have moved through a range of recording techniques. As recently as 1998 and 1999, during the preliminary visits to the localities studied, we sometimes used Sony Walkman cassette recorders. In 2000, the 'quality' recordings were made on DAT, and the handy pocket-sized MiniDisc was used for interviews – even though we knew that it was a problematic machine in terms of the quality of sound.⁵⁰

Gregg Wagstaff also drew our attention in 2000 to the Dollar Museum's *Millennium Project*, in which all the houses in Dollar had been photographed. These pictures were then given future archival significance by putting them into a time-capsule in the attic of the Museum. A public debate then arose in the town about what other material should go into the time-capsule, and whether it should be kept shut for 50 or for 100 years. Wagstaff wondered whether Dollar sounds should be put into the capsule as well. But as he says, then we would have to put in a DAT and MiniDisc recorder as well, because in 50 years they will probably have altogether vanished from the globe.⁵¹ Probably not even he would have expected that already by 2008 both of these machines are giving way to more sophisticated recording technologies.

WHAT ABOUT NON-CHANGE?

It is also highly relevant to ask how it is possible that some things have *not changed*. How is it possible that the top sonic preferences amongst schoolchildren have stayed so amazingly similar for 25 years? Top preferences are quite similar when compared between the villages. There is no simple answer for this, but as said earlier in this

chapter, even the most remorseless discourse analysts (including ourselves) looking at the joint construction of knowledge admit that people in general talk about important things. It is true that people, both young and old, have increasingly isolated themselves from being exposed to sensory experiences outdoors. For example, farmers work in their fields in their insulated tractor cabins, and children are driven to school by car. In spite of this, it is clear that children and young people still give a high priority to the sounds of nature, and look out for enjoyable natural soundscapes, where they can collect strength and rest. In Bissingen, the sounds of nature are very high on the list of pleasant sounds: if we add the wind, stream, lake, sounds of birds, and the rustling of leaves together the percentage rises to 50 per cent. In Lesconil there are two sound preferences above everything else: the sea and the birds. In 1975, pleasant sounds for children in Dollar were mostly sounds of nature. Twenty five years later, birds are preferred to music and media, although the percentage had dropped (from 26 per cent to 14 per cent). In Skruv, the leading two sounds have kept their popularity: music, and birds. Birds were at the top of the list of pleasant sounds both in 1975 and in 2000.

There is also still a lot of silence experienced in the villages. Even in decibels, it is evident that airplane noise has diminished in Bissingen. Often silencing is also sad, as in Skruv, where the quietness means that community businesses have diminished radically. There is also a generational difference at play here. As Vikman has noted, older people tend to think about their future soundscapes through 'loss', sounds that vanish, while younger generations look to the future as something produced through the accumulation of different elements of the environment.

CHANGES IN THE LIVED SPACE, TOURISM, AND THE COMMODIFICATION OF SILENCE

Noora Vikman has identified two major transitional processes that are present both in contemporary European societies in general, and specifically in Cembra: the culturalization of the economy, and the commodification of culture. In Cembra, environmental experiences are being dressed up, staged, in order to be commodified. Indeed, *changes in tourism and the commodification of silence* is one of most intriguing themes that emerge from our research findings as a relevant question for further studies. Silence has become an increasingly valued element in the environment, even at the bureaucratic level. The EU noise directive (EC 2002) provides, for example, that member states must reserve silent areas for their citizens. Silence is also one of the trends in commodifying the immaterial in tourism (Vikman 2007; Veijola 2006; cf. Englund 2004; Laitinen 2005).

In spite of the traffic noise, the inhabitants of the AEC villages Cembra, Skruv, Lesconil and Nauvo all described their places of residence as 'silent'. This was so pervasive as to puzzle the researcher searching for contrasts. In her article about silence in this publication, Vikman analyses the phenomenon from three ear-points:

the inhabitants who say they live in a silent village, the tourists searching for silence, and the advertisers and promoters who set out to project an image of the silent Trentino valley.

As mentioned above, Cembra, Nauvo and Lesconil can be classified as important tourist targets. In Nauvo, tourism produces a significant 20 million euros yearly income (Hyvärinen 2006). Nauvo is a municipality of summer cottages, and it is well-known that Finns seek peace and quietness from their cottages. What happens, therefore, when the local hotel entrepreneur establishes a water scooter rental business to entertain the tourists? How can the silence desired by cottage owners be maintained, when this small municipality has plans for over 600 new cottages in the near future?

Noora Vikman calls the discrepancies between ecological values and action 'nature-culture' paradoxes. At the same time they are the dynamic force in local everyday life. Surely it should not remain the task of researchers alone to raise questions about people's home villages being transformed into marketplaces.

On the other side of the coin, cars were overwhelming the pedestrians in Cembra, Dollar, Bissingen and Lesconil. The squares in the North Italian village of Cembra were filled with cars. In the medieval centre of the village, people would use the car to drive as little as two hundred meters. The concern of the mayor in 2000 about the disappearance of children and their sounds from the plazas was well justified (see Järviluoma 2002). The sounds and voices of children were also vanishing from the outdoor environments in Skruv. In Dollar and Bissingen children were often 'car seat children' (Kytä 2003), and brought to school in cars, which caused so much traffic in the morning that, in a vicious circle, it was in fact dangerous to walk to the school. In Bissingen, the noise in the centre of the village from car engines and tires has increased very significantly.

It seems reasonable to assume that everybody is entitled to a place in the world, in which they can decide what sounds are to be heard. Sonic power and physical space are unevenly distributed in our societies, and this imbalance frequently matches gender (see for example Järviluoma, Moisala & Vilkkö 2003) and age demarcations. We consider it important in the future to carefully analyse the spatial practices and sounds heard by young people and children, in order to enhance their multi-sensate dialogue with their own environments. Resisting the roar of traffic provides a way of challenging the hierarchies of authorship of space.

TOWARDS THE MOVEMENT BETWEEN NOW AND FUTURE

It is absolutely clear that even during the past eight years, since the 'grand tour' of AEC in spring 2000, the world, the acoustic environments, and people's relationships with their environments, have all changed radically. People talked to us about rising material prosperity, noticing, like the children's traffic warden, that increased wealth – brought by for example by the porphyry mines in the village – had also increased

noise. People now had money to buy cars and other machinery. Now, in 2008, when it is no longer possible for anyone to close their ears to the news about climate change, it becomes more plausible that people in Skruv, Bissingen, and Dollar might wipe the dust off their bicycles and start to talk seriously about doing something to reduce pollution; and as a side-effect, this will also change the soundscape.

The quality of life had not increased to the same extent as material prosperity had risen: very noticeably in Skruv, but also in Lesconil and Cembra, middle-aged and elderly people remembered with reflective nostalgia the times when children were 'free' – when the traffic was not threatening, and the kids were able to play outside. Their sounds were missed in the plazas of Cembra and the streets, yards and fields of Lesconil and Skruv. This was certainly something people still hoped to hear in the future, wherever they might be living 25 years from now.

This book started by describing the initial planning meeting of the project that later was named 'Acoustic Environments in Change'. It is also appropriate to finish by quoting from the minutes of the Bissingen 1998 discussion at the *Stammtisch* in the Gasthaus Adler. Karl has just served us coffee and a sweet apple dessert. As the group starts to ponder possible funding for the project, Helmi comments that she is not very confident about getting EU money – they are so very 'practical'. Catharina replies: 'We need concrete means to help local people; this project is close to action, and has do with identity and health issues.' The idea of 'action research' catches the others' attention: 'Often findings just mean that we do a book, and nobody is putting the research into action. Would you like to do it? If yes, how far should this go?' asks Justin. 'I think the action research thing is a good angle,' says Murray. It is only now, a decade later, that we are ready to move to the action research phase.⁵² We have now conducted the project of cultural analysis planned in 1998, and the research group has the foundations on which to construct the strategies for local action to improve sustainable qualities in acoustic environments across Europe.

For us, it is important to understand the tensions between active subjects and the societal structural frames. Environmental scholars and philosophers have argued that if researchers over-stress the structures, globality and relationships between states, the environmental questions become 'too big for a human being'. In such a model, the possibility of even reflecting on sensible local solutions is lost (Lähde 2005: 152; see also Kinnunen 2006; Ingold 2000). When soundscape is heard only as such a massive, unwanted noise that the local communities and acting subjects cannot in any way affect it, people become indifferent. They don't even try to act.

Thus, sustainability demands local solutions, as is evident from the arguments of the landscape architectural researcher Joan Nassauer (1997). In the context of manufactured landscapes, she has discussed her notion of 'cultural sustainability', arguing that landscapes that attract human admiration may be more likely to survive than landscapes that do not. This may be achieved through aestheticians working in co-operation with, for example, nature conservationists, architects, ecologists, restorers,

builders, and foresters, so that their knowledge remains linked with practical skills (Sepänmaa 1993: 157; see also Saito 2005).⁵³ We have to take into serious consideration the local meanings of soundscapes, both positive and negative. Knowing and becoming aware of local interpretations is the first step towards the possibility of sustainable soundscapes. In 'Acoustic Environments in Change', we have studied the soundscapes of European villages primarily from the 1970s to the year 2000. We concentrated on the past, the present and the movement between them. Our next point of audition will focus on the movement from present to future. But that will be another story.

NOTES

- 1 Something about the scientific spirit of the 1970s is perhaps reflected in the fact that the more 'subjective' sound diaries of researchers from the WSP journey to Europe were made into a separate book, *The European Sound Diary* (Schafer 1977a).
- 2 AEC has earlier published the book *Soundscapes Studies and Methods* (Järviluoma & Wagstaff 2002) exploring the subject of methodology in greater depth.
- 3 In fact it may be the case that the Finnish research team was in a better position in this sense. Finland has two official national languages, Finnish and Swedish, which has meant that all we have a good knowledge of Swedish. Not only English is taught in the high schools, but also French and German. Italian was perhaps the language that Noora Vikman had to study most while working on her PhD on Cembra. However, we also had invaluable help from native speakers in all countries.
- 4 The materials from 2000 discussed in this chapter have been collected jointly by the writers and other members of AEC project. In reporting the results of the study here, the division of labour has been as follows: Helmi Järviluoma is responsible for the section on sound preference tests; Heikki Uimonen for writing up the traffic count findings and Noora Vikman has written about listening walks.
- 5 We do not know how the FVS project presented itself in the schools.
- 6 This has been aptly described by Detlev Ipsen (2002) among others.
- 7 During the visit of 2000 this was a bit difficult. The memory of the killing of young children in a school in nearby Dunblane was still very strong in Dollar, and the regulations about visiting schools were extremely restrictive. Perhaps of course this was used as an excuse to avoid spending the precious spring time for this test; Heikki Uimonen on his later visit to Dollar had no problems in visiting the Dollar Academy. One point also to bear in mind, however, is the fact that by then the idea soundscape study had perhaps become a more familiar to some Dollarites.
- 8 One possible example of this is the rather strange consensus on 'tinkling coins' in Dollar in 1975. One can of course speculate whether the spring had just brought along coins into yard games.
- 9 "I go for a walk in the garden, and I've heard a nightingale singing."
- 10 Her story as a whole vividly describes the peace of a Lesconil residential area.
- 11 That is, 32 per cent of respondents in this particular survey included birds on their list of pleasant sounds. All percentages cited in this chapter refer to the percentage of respondents in the equivalent survey either in 1975 or 2000 in each particular place.

- 12 In the year 1975 the WSP research group was so impressed by the birds of Lesconil that they published a 30 minute long bird concert on the cassette series on FVS.
- 13 Oil spots could be seen still on the shores, even though much effort had been put into cleaning the beaches.
- 14 For example, a child had at first mentioned that the most pleasant sound of the day was the voice of his friend; this had been crossed out and replaced by 'birdsong'.
- 15 The new ones on the list of pleasant sounds are not only technological sounds (and silence), but also such natural sounds as 'nature', 'leaves', 'water flowing' etc.
- 16 Including categories 'human voices' and 'objects and action', for example sports sounds, human voices (including three mentions of foreign languages), 'sharpening a pen' and 'pages of a book turning'.
- 17 In general children enjoyed the experiment of writing sound journals; one of them wrote in the middle of the diary: 'So I was thinking that it's magnificent to listen to the sounds.'
- 18 See further in the 'Lesconil, my home' in this publication. See also the webpage containing decibel meterings and other field material collated by Julien McOisans and Nicholas Tixier (24h of Lesconil 2000).
- 19 A difference between the old and new results is the fact that in 1975 the only 'animals' mentioned were birds, while in the year 2000 cats, dog and a sheep also enter the list, although as both pleasant and unpleasant sounds. Distant sheep sounds could sometimes be heard in the village from the slopes of the Ochil hills.
- 20 One interesting inclusion among the unpleasant sounds is running water, mentioned three times; it is not clear however whether the children were thinking of a river or, for example, the running of the bath water.
- 21 This could be pursued in greater detail if we had more space. Helmi Järviluoma has analysed the materials of the One Hundred Finnish Soundscapes project and noticed that one of the most favoured sounds in the data was the sound of the rain, especially if one is inside, hearing the rain pattering on different roof materials (Järviluoma 2006). Furthermore the building materials might have something to do with the fact that the sound of the rain tapping on roofs is not heard as being as pleasant as it used to be, although according to notes of Heikki Uimonen the building materials had not changed significantly over 25 years.
- 22 The unimpaired auditory acuity of children up into their teens of has been exploited in England through the use of high-pitched sounding devices, 'ultrasonic teenage deterrents', called Mosquitos to drive teenagers away from particular locations (Mosquito 2008). The unpleasant high frequency sounds are heard only by the young. Understandably, there is opposition to their use by many parents and children's advocacy organizations. At the same time, however, teenagers have turned the device to their advantage, by using it as a mobile ring tone that their parents or teachers are unable to hear (Free Mosquito Ringtones 2008).
- 23 See Järviluoma 2002 for discussion on Skruv's factory signals.
- 24 See the methodological discussion at the beginning of this chapter about the possible reasons for this result.
- 25 As far as traffic is concerned, whether it is much less unpleasant than 25 years ago depends on how we extrapolate. In 1975 traffic accounted for 26 per cent, in 2000 it was 10 per cent but if references aircraft and train are incorporated under 'traffic', it rises to 18 per cent.
- 26 However, crying, screaming, and burping are mentioned. Mosquitos (the insects) were on the list

of unpleasant sounds in 1975, which raises the question of why they are not mentioned 25 years later. Perhaps children simply do not stay outside as much as they used to (see further in 'Soundscape and social memory in Skruv' in this collection). Camping has also gone out of fashion.

27 Steven Feld has drawn attention to the relationships between cars, horns and ideas about modernity (discussion in December 2007).

28 However, it is interesting that tractor was mentioned as a pleasant sound three times. Since farming is losing its significance in the village, it is possible that now even the sound of the tractor is moving into the category of nostalgic sounds (see 'Scythe-driven nostalgia' in this collection).

29 Repeating a point made earlier, we emphasise that the percentages cannot be assigned too much statistical precision, if the total number from which they are calculated is under 100 mentions. The percentages simply indicate tendencies.

30 Sirens are distinctive to Bissingen and Nauvo, and scarcely mentioned any longer in the other places studied.

31 The castle on the top of the mountain Teck, for example, received a lot of hiker visitors, many of whom either stayed or dined at 'our' Gasthouse Adler.

32 School bells were also enjoyed in 2000 (eight per cent). Terms like water, kissing, sirens and silence have disappeared from the list, by contrast with 1975.

33 In 2000 the other motor vehicles were also included in this number. In 1975 other motor vehicles were not mentioned among unpleasant sounds.

34 Listen to the two CD recordings of the WSP 1975 trip to Cembra, for example towards the end of track 1, hear the squeaking doors of the village. Noora Vikman still observed almost nostalgically some very beautiful heavy old-fashioned doors in the old part of Cembra during her most recent visit in April 2008.

35 If we assume that children mix up hens and roosters, this finding may have to do with the same kind of discrepancy of timetables as we have noticed in Finland. Roosters crow considerably earlier than the school children are supposed to wake up. In Finland it is the summer visitors spending holidays in cottages who complain about early morning community signals like factory hooters at 6.30 a.m. (Järviluoma 2006), not the permanent inhabitants, for whom the signal is of utmost importance. It is notable that the range of pleasant animal sounds is very extensive in 2000: apes (presumably heard through the media), wolves, rabbits, goats, cats and dogs.

36 The computer and TV however are mentioned a few times as pleasant sounds.

37 The category 'water' here also includes two mentions of rain drops falling on roofs.

38 A term describing recorded, edited and played back sounds. Intended to replace the heavily connotated term of schizophonia. (see also Schafer 1977c: 90)

39 The Finnish community design researcher Marketta Kytä (2003) has launched the term 'car seat children' for this phenomenon.

40 Tero Hyvärinen used TES 1352-A for sound level metering.

41 Listen to the first two tracks of accompanying CD number 2. It is important to bear in mind however that the 1975 recording was made over the Easter holidays. The sounds and voices of children were also disappearing from Skruv, to the great concern of its inhabitants.

42 See further regarding the mayor's sonic concerns in Järviluoma 2002. The densely clustered stone architecture and narrow streets had not been intended to be experienced at 50 kilometres an hour.

43 A relative newcomer combining natural and transphonic sounds is the karaoke from the nearby Railway Tavern, which could also be heard at the site of the traffic count.

44 In general the term soundwalk (Westerkamp 1974) refers to more or less planned walks whereas listening walks refer to listening to the unplanned everyday life as it comes to our ears. (see also 'Soundscape studies and auditory cognition' in this publication). Schafer's definition from 1974 is a guide: 'A listening walk is simply a walk with a concentration on listening' whereas 'a soundwalk is an exploration of the soundscape of a given area using a score as a guide' and 'might also contain ear training exercises'. The former requires that 'privacy for reflection is afforded'. The objective of collecting research material by walking demands systematic planning and conduct of the walks.

46 In 2000 the listening walks in Cembra were realized in 19 April. It was Easter time like in 1975.

47 However, this is possible in another type of a listening walk, 'sensory/sonic memory walk', see 'Lesconil, my home' in this collection.

48 In fact, Dollar was one of the targets of the first travel book written about Europe by a Chinese scholar, Wang Tao, who lived in the village in early the 1870s, invited by the future Professor of Chinese at Oxford University, James Legge.

49 In Bissingen, the Kurdish refugees were sometimes noticeably breaking the acoustic order. There were some children playing noisily outdoors on the quiet side roads, when a man living nearby came out shouting: *Es ist Sonntag, ein Ruhetag!* ("It is Sunday, a day for resting!")

50 As often happens, the interesting recording situations often occur unexpectedly, and then the MiniDisc turns to be worth its weight in gold: everyone had one in their pocket, and many of the situations we can now listen to on the publication's CDs would never have acquired the form of 'a material memory' without MiniDiscs.

51 Here we are dealing with the intriguing question of the externalisation of sound memories. In a way, when we made our DAT and MiniDisc recordings – and in this project we did indeed make a lot of them – we are already externalising memories. Fentress and Wickham, who have examined social memory, have pointed out that we may be quietly conferring on our subject a 'thing-like character in the enthusiasm to collect 'memory', and to assemble archives of oral testimony' (1992: 64; cf. Howes 2003: 5–6; Feld 1994: 282). On the other hand, externalised memories can also support social memories, since, for example, writings circulate amongst the villagers and support oral traditions.

52 The project 'Soundscapes and Cultural Sustainability', funded by the Academy of Finland, will start in 2009.

53 Compare De Caro 2008 on R. Murray Schafer's the idea of connections between the Bauhaus and acoustic design.

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Five Village Soundscapes

R. Murray Schafer (ed.)

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Barry Truax

INTRODUCTION TO FIVE VILLAGE SOUNDSCAPES (1977)

In my opinion, the importance of the World Soundscape Project's study of the five European villages in 1975 is embodied in the model of the 'acoustic community' which emerged from that study. Prior work by the WSP about the Vancouver soundscape (1973) had identified the typical urban dilemma of an imbalanced community soundscape that most of the time was characterized by noise, or what Schafer termed the 'lo-fi' condition. Although community signals and soundmarks still played an important role in Vancouver's soundscape, their impact and audibility was often highly localized. The sounds that pervaded the entire city were largely those of traffic and aircraft. Moreover, there was evidence that electronic communication links were replacing their traditional acoustic predecessors, and that background music, both in public and private use, was a common form of acoustic design used to ameliorate the soundscape.

After the cross-Canada recording tour in 1973, Schafer obtained a commission from the CBC to create 10 one-hour radio programs collectively called *Soundscapes of Canada*, and as part of that project, he suggested a 24-hour recording during the summer solstice, 1974, on the grounds of a local monastery near Mission, BC. The hourly recordings were edited into a continuous one-hour program with no commentary other than an identification of the time of day. Since the recording took place by a small pond on the abbey's grounds, the sounds of the natural habitat of frogs and birds dominated the soundscape, with any technological sounds far away in the background ambience. Not surprisingly, this natural soundscape appeared dynamic and balanced as the daily cycle brought different species to the fore. Bernie Krause and others have documented similar acoustic habitats where each species appears to occupy a unique section of the acoustic spectrum of frequencies and have

its own temporal cycle. As inspiring as this experience was for the WSP group, it represented a natural soundscape, and thus the question remained as to whether human communities had ever or could ever match this form of acoustic ecology.

Schafer and the WSP group sought an answer in the context of the traditional European village, one in each of five countries that were visited in 1975, which were chosen because of their acoustic character as well as for other reasons outlined in the text. Each was an example of a viable acoustic community, that is, one where sound played a significant and positive role in the soundscape and the lives of the inhabitants. And yet, each was as varied as the culture in which it was situated. Each community also showed differing degrees of modern technological impact as well as the continuity of lengthy cultural traditions. Together they presented five models of acoustic communities that were in states of change, but still functional.

The relatively modern village of Skruv in Sweden was an example of how even a manufacturing based community could retain a balanced, even sparse soundscape, whereas the more traditional Italian village of Cembra, even though it had declined in population, retained much of its traditional acoustic character based on a human scale with far more acoustic activity than its Swedish counterpart. The 24-hour recording done in Cembra confirmed the richness of its daily cycle of activities. The German village of Bissingen, located in a bowl-shaped valley, also retained much of its traditional character, but the frequent aircraft overhead and the factory with its 24-hour working shifts illustrated the threat of urbanizing forces in degrading the soundscape. The small fishing village of Lesconil in France, still centred on the fishing industry, seemed slower to accept modern influences and contained the sonic intrusions related to its economy (the trucks that hauled away the daily catch after it was auctioned) to a relatively short period of the day. Finally, the Scottish village of Dollar with its famed academy showed the conflict between its traditional acoustic character and the increased traffic noise from its major thoroughfare, as well as the difference between interview subjects who had habituated to that change and others who were acutely aware of what had been lost.

When I came to write the concluding chapter of the book, in consultation with my colleagues, I suggested that each example of an acoustic community showed the traits of variety, complexity and balance. In the language of ecology, many species of sounds, each with subtle variations, co-existed in a balanced relationship with the inhabitants who knew how to interpret the complexity of the information conveyed by the sounds of the community. The balancing forces were crucial, as they kept the system relatively stable. These included the physical layout of the village, the qualities of the sounds themselves, their temporal cycles, and the social practices that regulated the life of the village. Although a certain degree of change in any of these factors could be accommodated, in the sense of keeping the soundscape functional, there appeared to be no guarantee that a 'tipping point' wouldn't be reached where some degradation in the soundscape was inevitable. We suggested that acoustic

design and public awareness were key elements in avoiding such a decline. It is encouraging that the Finnish study 20 years later found these soundscapes, though challenged by change, were still functional and vibrant.

It would be easy to dismiss the European village study as a typical romanticization by outsiders of the 'quaint' European traditions sought out by tourists. Therefore, it is important to emphasize that the model of the acoustic community that emerged from this study has a far more general applicability than some aestheticized vision of past perfection. As a functional model of how sound pervades and maintains a community, it can be applied to any bounded system where sound is shared by the members of a community, no matter how that social entity may be defined. It can be as small as a home or apartment, as public as a classroom or daycare centre, as arbitrary as a self-defined neighbourhood, or as virtual as an electronically mediated system shared by remote users. The methodology devised by the WSP group to document and analyze the five European villages was admittedly ad hoc, but it reflected a viable alternative to the objective acoustical engineering model of level measurements or the traditional social survey centred around a particular noise issue. It included those traditional objective measurements, but added subjective listener assessments of sound qualities, soundwalks, and wide-ranging interviews with local inhabitants to the extent that language barriers allowed. In other words, it took an interdisciplinary acoustic communicational approach that treated sound as a mediating agent within an information rich system of relationships.

The WSP study not only provided a unique portrait of five acoustic communities, but also suggested some of the dangers that could challenge their continued functionality. The most obvious of these was, of course, noise from traffic, aircraft, factories and so on. These familiar noise sources reduced the acoustic definition of the community, shrinking its profile and horizon, masking more diminutive sounds and generally habituating the populace away from an aural orientation towards their environment, even if this trend was difficult for some to acknowledge. Equally serious perhaps was the suggestion, even if unproved, that as economic activity increased, the community soundscape began a trend toward simplification. Again to use the language of ecology, fewer species of sounds with less variety began to dominate the soundscape, with correspondingly less information and definition. This trend runs counter to the conventional stereotype that with economic progress comes increased complexity. The very opposite may be true in the soundscape as uniformity and blandness may emerge instead.

What this study does support is the importance of the human scale in the community, the neighbourhood, or even the home, a quality emphasized by urban geographers such as Jane Jacobs. However, it is only recently that the acoustic component of that sense of scale has been acknowledged. The aural equivalent of that scale is the human voice, and it is interesting to note that the villages where voices and pedestrian traffic dominated (Cembra and Lesconil) were the best defined acoustically.

However, there was ample room for human sounds in the other villages, even if they had to compete occasionally with motorized and mechanized sounds. But once the balance shifts entirely in favour of the latter type of soundscape, an uneasy feeling of alienation and lack of coherent community may follow. The WSP's European village study provided a tantalizing glimpse into the naturally evolved acoustic community, and hence an inspiring model for how a contemporary soundscape on a human scale might be designed.

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Introduction

Between February and June of 1975 the World Soundscape Project, with assistance from The Canada Council, undertook to study the soundscape of northern Europe. Our immediate purpose was to obtain data to compare with our first field study *The Vancouver Soundscape*. We decided to concentrate our attention on a selection of villages rather than cities, for although numerous organizations and civic officials in larger centres offered to assist us, the prospect of arriving at intelligent conclusions regarding the complex soundscapes of cities in the brief time at our disposal would have been quite impossible. We were also aware of difficulties involved in even a modest survey of such an elementary soundscape as that of a village, for we would only be able to remain a week or ten days in each location, we had insufficient knowledge of the languages (including dialects) we expected to encounter, and we were only able to carry the minimum amount of equipment to measure our findings objectively. Given these conditions, the study which follows is certainly open to criticism on grounds of accuracy and methodology. No doubt soundscape studies will have to undergo many refinements before it becomes a reliable discipline, but the discoveries leading to improvements in research techniques and methodology will not be made in the laboratories, but only in field studies such as the one described here. Our purpose then, far from being a definitive analysis of the soundscape of northern Europe, is to enquire into the different types, quantities and rhythms of sounds heard in five villages in five countries, and to show the relationship of these sounds to the structure of each village and its life.

Our five villages were Skruv in southern Sweden, Bissingen in southern Germany, Cembra in northern Italy, Lesconil in western France and Dollar in the Lowlands of Scotland. Each village has a population of less than 3,000 inhabitants, and in each,

one social activity or institution is prominent. Thus, Skruv is a relatively modern factory village, Bissingen is an agricultural village, gradually being converted to industrial life, Cembra is an agricultural village with few signs of conversion to industrial life, Lesconil is a fishing village and Dollar is a village revolving about a celebrated school. We expected that by choosing villages with contrasting institutions and social life the differences between them would be more conspicuous.

How did we choose precisely these five villages? Actually, it was no easy matter and although we consulted libraries and talked to numerous natives of each country before and after our arrival there, we simply had no way of knowing for sure whether a particular village would be satisfactory until it had been visited. Thus, numerous places in Sweden were mentioned, all of which proved unsatisfactory, until, after several days of hunting, we happened accidentally to arrive in Skruv and in desperation decided to remain there. Again in Scotland, after two weeks of preliminary research in London libraries had provided us with a long list of what seemed on paper to be perfect sites, days of crisscrossing the country resulted in merely abbreviating the list. After a dozen sites had been rejected, Dollar proved to be suitable. What made a village suitable? First of all, we hoped it would be off a main road, that it would be self-contained and not contiguous with other settlements, that its buildings would be fairly closely grouped so that the soundmaking activities of the village would constitute the largest events in the quiet countryside beyond, that the village would have a strong and cohesive social life – but not so cohesive as to resist curious intruders like ourselves – that it would have a few acoustic signals of distinction, a few unusual vernacular sounds, some good ambiances to record, and a native speaker who knew both the regional dialect and spoke fluent English. These are not features likely to be found in tourist literature or governmental and social studies, hence our difficulties and the reason for so much reconnoitering.

We traveled by Volkswagen bus. At first there were four of us: Howard Broomfield, Peter Huse, Jean Reed and Murray Schafer; then in early March we were joined by Bruce Davis. Space limitations dictated the modest amount of equipment we could take: two tape recorders (a Nagra and a Uher, both stereo), an assortment of microphones, two sound level recorders (B&K) and about 100 reels of recording tape. We stayed about the same length of time in each village (a week to ten days), starting in Skruv in February, followed by Bissingen and Cembra in March, Lesconil in April and Dollar in May. Our findings are undoubtedly affected by the period of the year we visited each site and we returned to none except Skruv, which Bruce Davis visited for a few days in early June.

With limited time and equipment we had to organize our data collection in an efficient manner. The following is a brief list of the things we attempted to accomplish in each village:

- investigate local and regional history
- study local archives for references to sound (town crier, post horns, noise by

laws etc.)

- create morphology charts of all significant changes in the soundscape
- record and measure the intensity of all village signals
- draw profile maps for prominent community signals
- record all antique sounds in the village (blacksmith, old tools or artifacts, etc.)
- make extended recordings of characteristic ambiences in each village
- take regular sound level recordings day and night both in and outside the village
- enumerate and measure the frequency of specific types of transportation sounds
- make lists of sounds heard throughout the village at different times of day
- run a Sound Preference Test in the village school(s) in which we ask children to list their favourite and most disliked sounds in the community
- conduct interviews with elderly people concerning the past soundscape of the village
- focus special attention on any unusual features of the soundscape.

As can be imagined, the collection of this type of information made us very conspicuous during our sojourn in each village.

We found the villagers generally much more approachable than we had first imagined, and we were able to get a good deal of information from personal interviews; but our biggest problem was language. Although some of us had fair competence in two or more languages, this was totally insufficient to extract the information we wanted from the villagers, much of which was technical or concerned social activities with which we were unfamiliar, usually delivered in broad dialect. We realized this in our first village, Skruv, but were saved by an accidental meeting with Yngve Wirkander, the church organist and a sensitive naturalist and historian. In the three other continental villages we were fortunate enough to find native speakers in advance, who had both a knowledge of the region and a sympathy for our work. Without Renata Braun in Bissingen, Albert and Birgid Mayr in Cembra and Anny Malroux in Lesconil, we would have been quite lost. We thank them by name. Nameless, but not unthanked, remain the countless citizens and officials who provided facts and information on which this study is based.

I The Five Villages



Skruv

The smallest and most northerly of our five villages is Skruv, situated in Kronoberg County, province of Småland in south-western Sweden. Founded in 1874, it is a relatively new village, having come into existence with the railway. Though not large, the station still seems to dominate the village for it sits at the intersection of the community's three principal roads. The country around Skruv is flat with some farming, although much of the land is covered with evergreen forests.

About seven kilometers to the west of Skruv lies the original community of Ljuder, now nothing more than the parish church and a few high wooden houses. Linked historically, the two locales continue to exchange greetings by means of bells and whistles, plainly heard across the vacant intervening fields.

Skruv is an industrial village, in the heart of Sweden's glass-blowing district, and after its establishment by the railroad, the glassworks became the first source of employment for its citizens, though by the early twentieth century it had also become the home of a brewery. Since that time a number of small industries have moved in: there is a small metal works and a sawmill, and in 1975 a cardboard factory was opened. There had always been a flour mill on the brook which divided the village, though the flour mill now in operation has moved to the edge of town and is no longer powered by water.

Including the community of Ljuder, the area population of Skruv (1975) is 1,422. The area has a surprising number of telephones: 472, compared with 78 for Cembra, 266 for Bissingen and 150 for Lesconil – though each of these has a larger population. It is 322 kilometers north to Stockholm and 220 kilometers west to Copenhagen. The nearest airport is 30 kilometers away at Växjö, but it is the railroad with its numerous

commuter trains and fast nonstop expresses that provides the travel excitement for the community.

Leaving the station and proceeding down the main road about 300 meters, the traveller encounters on the left the town's only hotel. Its half dozen guest rooms and spacious, but rather sterile, dining room are managed by a friendly Jehovah-Witness couple. It was here that the World Soundscape crew stayed, ate Swedish meatballs and endless quantities of potatoes, seasoned with Ingrid's pickled plums, and passed the evenings, when we were not out collecting information, in dense religious conversations with the proprietress.



Skruv: looking down the main road from the station.



Bissingen

We should not have discovered Bissingen had it not been for Renata Braun, who lived there. She had attended one of Murray's lectures, in Stuttgart, where we met her. We drove from Stuttgart to Bissingen that night, arriving after dark and took rooms at the Gasthaus Adler, a smaller pension and butcher's combined. The next day we explored the countryside, visiting alpine and plateau villages and those nestled far below in storybook valleys; however, we resolved to stay in Bissingen, for the promise of Renata's sustained help meant that we should be able to approach the local inhabitants more easily.

Bissingen, with a population of 2,742, lies in a fertile farming area at the foot of the Swabian Alps. It is an old village with a continuous record of activity since the early 15th century. Two sides of the village are surrounded by high hills adorned by ruined castles; the other sides give out to flat countryside sprinkled with more towns and villages, which now are threatened by Stuttgart's sprawling scruburbia.

Fruit farming is the occupation of the farmers though dairy products and vegetables are also produced. The farmers all live in the village and go out to their fields during the day on tractors. The arrangement of their houses is interesting, for they combine barn, storehouse and living quarters. Occasionally the living quarters are above the barn, but the usual arrangement is for the cowstall to occupy the centre of the building with the storeroom on one side and the living quarters on the other. The front gardens of these houses are invariably manure piles and it is said that the wealth of a Swabian peasant was traditionally measured by the size of the urine tank beneath his manure pile.

But Bissingen is changing. Of the 40 remaining farmers, about 20 of them combine farming with other kinds of labour. The rest of the population either works outside of the village in Stuttgart, or in the newer parts of the village, which have witnessed an accumulation of industries throughout the 20th century. The oldest of these is a large textile works dating back to 1897, and a furniture factory of unknown



Bissingen: a typical farmhouse.

vintage. More recent industries are a hosiery factory (1964), a plastics factory (1964) and a thread factory (1962). Past this end of the village, traffic moves continuously along the arcades of the Autobahn in the distance, while the sky overhead is filled with the calisthenics of everyone's airforce.

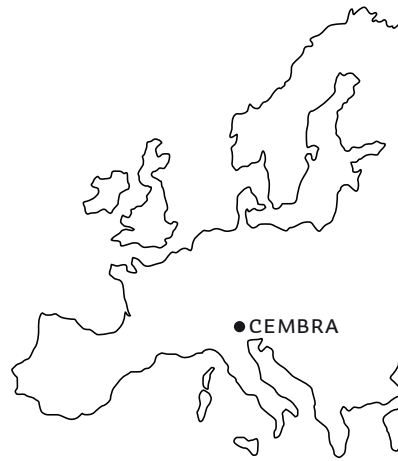
There is one church in Bissingen, Lutheran. The nearest railway station is at



Bissingen: from the cherry orchards looking towards the village.

Dettingen, a few kilometers away, but the village is linked to the outside world by buses, which stop about every 20 minutes in front of the Rathaus (Town Hall), and take the villagers to Kirchheim, the nearest sizeable town.

It is from the direction of Kirchheim that small planes carry gliders aloft in one of the more interesting pastimes of the area. Originally the gliders were pushed off the slopes of the high hills above Bissingen, and Renata says the whistling sound they make as they nose in for landings is one of the most characteristic summer sounds in the fields around the village. But in March only a few went aloft and none landed around our heads.



Cembra

Cembra is the oldest and most traditional of our villages, for although the date of its actual founding is unknown, it was the site of a chapel as early as 946 A.D. It can be reached only by one road, a narrow ascent through an oblique latticework of vineyards, for the village lies high in a mountainous valley north of Trento.

The area of the town itself is less than a square kilometer, although its population is 1,431, facts which will suggest even to those who have never visited it, the tight network of its buildings and inhabitants. But such facts do not convey the extremely attractive quality of the village, for many of its passageways are no more than a few meters wide, and are often bridged by the upper stories of the houses. The streets are cobblestone and except for the newer parts of the village, the houses are situated directly on them.

Though built on a little plateau where the mountainside seems temporarily to fan out, the village also climbs the hill so that it makes an attractive picture when seen from across the valley, just as the villages on the other side appear along another mountain road to the inhabitants of Cembra. They can be no more than a few

kilometers away and seem close in the bright sunshine; acoustically, however, few sounds carry across the deep valley which is cut by a large river.

The new road moves through the outer edge of the village, adorned with new stucco buildings of cream and orange. The original road zigzags through the heart of the village, past two of the three Catholic churches and into a little square on which are situated shops, the Municipio (Town Hall) and the Albergo Cembra, where we stayed.

The only factory in Cembra is a small pewter works. The inhabitants live mostly off the vineyards and fruit farms, though the valley is too high to produce the best wine. Some of the villagers still take cattle up the mountain to pasture in the spring, remaining with them all summer. Tourism is a quite recent industry here.

Village life revolves around the new church (the older two are used today only for special festivals) and the Albergo Cembra, where the elders gather in the evenings to drink grappa and the adolescents gather in an adjoining room to play the jukebox and occasionally dance.

Here it was that we remained for a week in late March, working in the comfortable but unheated little rooms of the Albergo, visited daily by our guide and native speaker, the composer Albert Mayr and his wife, explaining our work around the dinner table to a growing company of sympathetic but incredulous Cembra citizens.



Cembra: looking towards the New Church.



Lesconil

We had made up our minds to study a fishing village in France and asked several friends in Paris to recommend one. The suggestions were numerous and confusing. Arbitrarily eliminating Normandy, we were left with Brittany. So together with Anny Malroux of UNESCO, who had kindly agreed to accompany us, we started out along the north coast. We eliminated all the recommended villages in one day as being too touristy, then cut across the peninsula and moved along the south shore, ears open, until we eventually entered Lesconil. We were immediately struck by the way in which the houses of the village were gathered in a bow about the harbour.



Lesconil at low tide.

With a population of 2,832, Lesconil was larger than Skruv and Cembra, about the same size as Bissingen. In 1800 Lesconil had been a hamlet of 80 persons centred around a flour mill. Its evolution since then is the story of a village twisting around on its axis from the land to the sea. At first the sea was fished only as a means of augmenting agricultural livelihood, but by the turn of the 20th century, fishing began to be its main source of income. In 1975 the daily catch of its 46 trawlers amounted to 13,000 kilos on the average. Lesconil is today the first port in France for shrimp.

Two languages are heard in the streets of Lesconil: French and Breton. The latter had suffered setbacks for many centuries (it was, for instance only in 1960 that a French law prohibiting Breton parents from giving their children Breton names was repealed) but its revival has been swift, so that side by side with old fishermen who speak Breton as natives one also encounters young people who have studied the language and folk music at the University of Rennes.

But Lesconil seems like a village of elderly people; or perhaps it is just that they are conspicuous by the peculiarities of their dress, for most men still wear *sabots* (wooden clogs) and the women may be seen wearing dark coloured dirndl skirts and shawls and the traditional Breton *coiffe* (a bonnet that sits on top of the head). The ones of this region of Brittany are very tall – 18 inches high and always made of beautifully embroidered white muslin. To observe a woman with a *coiffe* getting into a small French car, her head thrown right back to find room for her headpiece, is one of the town's best entertainments.

The heart of Lesconil is, of course, the harbour. It is from here that the fishing boats depart each weekday morning at 5 a.m. to return only in the late afternoon. One by one the boats bob their way past the great bell at the harbour's mouth, pull up to the wharf, and unload their catch, which is immediately auctioned off and loaded into refrigerated trucks to be hauled to cities as distant as Paris (600 km.). Then the fishermen may be seen returning to their houses each with a basket of *fruits du mer* for supper, and save for the occasional strain of a Breton folk song, emerging from one of the waterfront taverns, the village closes down for the night.



Dollar

Visually, the most conspicuous thing about Dollar is the castle which stands behind the village. Indeed the oldest authenticated reference to the site of Dollar is the 1465 title deed of Castle Campbell, or as it was then known, Castle Glaume (Gloom) – an apt name, for the building gives a sombre note even to the bright green landscape of May, the month we visited the village.

Dollar itself is situated directly beneath the Castle on the southern slopes of the Ochil Hills overlooking Dunfermline and the Firth of Forth. It lies on a direct line between Stirling and Kinross, the distance to each town being 12 miles along the A91, which slices the village in half. To the south the river Devon meanders past, receiving in its course the many tributary streams of the hills. One of these is the Dollar burn, formed by the union of two streams beneath the castle, and flowing excitedly down past a golf course and playing fields until it reaches the village, dividing it in the opposite direction to the road and with a quite different acoustic effect.

Dollar revolves around one principal institution: its celebrated school. Founded in 1818, the Dollar Academy attracts young men (and now also young women) from well-to-do families around the world. There is a local saying: “The School is Dollar and Dollar is the School,” suggesting the way the entire community organizes itself around the forms and rhythms of school life. Certainly the moments of greatest activity in the community are those when school is assembling or breaking up, just as the moment of greatest excitement was the time the school was damaged by fire in 1961.

Owing to the school, Dollar seems to be a community of young and old. What is missing is the 20–40 age group. Aside from a little farming, there is nothing else in Dollar to attract this generation. The coal mines that once gave employment are no longer operated, and the copper and silver mines have long since ceased to be profitable. Even the railway station closed down in 1963. But the community still appears prosperous and indeed the 18-hole golf course, the tennis courts and bowling green suggest that Dollar has not been shy of discovering the attractions of tourism.

The stone houses of the village are neat in appearance, each with its flower garden surrounded by stone walls. The inhabitants seem quiet and rather stern, at least towards outsiders. But with a population of 2280 (1971) the community possesses 803 telephones suggesting an active vocal life that is not heard in public.



Dollar: the main street (A91).

II Soundscape Character

So far, the impression we have given of each village is visual, for print is best suited to visual description. But in life, too, the impression we obtain of places is often largely visual. We must now seek to improve that impression by adding the aural dimension. A Parisian commentator wrote after receiving our previous work, *The Vancouver Soundscape*, that for the first time in his life he had formed an impression of an unknown city in aural rather than visual terms.

Each locale usually suggests its character to a visitor by means of an immediate initial sensory experience. We form an attitude about a new place right from the start. This attitude may be changed as we get to know a place better, but in this chapter we will be concerned with the initial character which each village evoked when we arrived and walked its streets for the first time. What was it that made it different? What made us decide to stay?

Skruv

Skruv in February is cold and bleak. We arrived before supper. After supper we took a long walk through the deserted streets, down across the railroad tracks to the glass works, over to the cardboard factory, back to the brewery and shopping plaza, around the metal works and past the Volkshuset with its library, then along the stream to the lake and finally back to our hotel. It was quiet. The snow screeched under our boots. But we also heard another sound: a pitched hum; and the pitch changed as we moved through the village. We resolved that the next night, when we were to take ambient sound level readings, we would also trace these hums and notate their pitches. The result was the map in Figure 1.

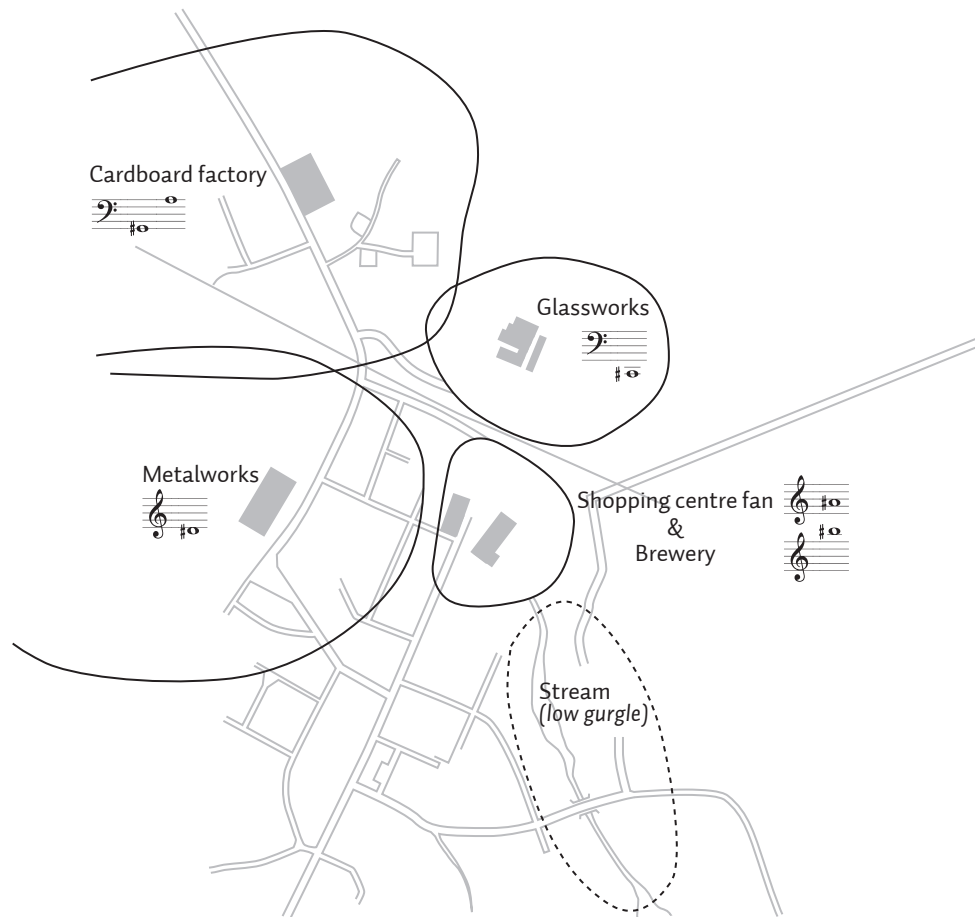
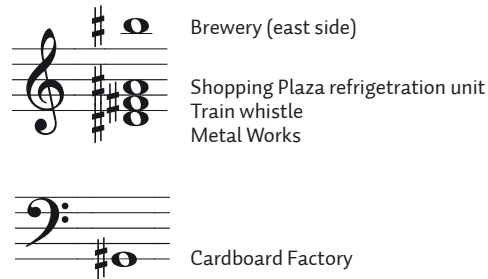


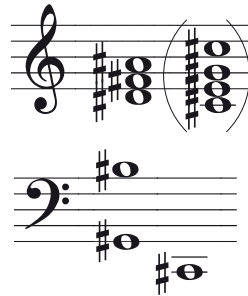
Figure 1. Pitches of predominant hums heard in Skruv, originating from the factories and the shopping centre.

Each of these steady-state sounds flooded out over an area of the village, as shown on the map. Two of them were non-pitched: the low rumble of the glassworks and the gurgling of the stream; the others were electrical hums of various pitches.

Pitched sounds result when pulses or oscillations are speeded up past 20 or 30 per second. A similar development has taken place among the sounds introduced by the Industrial and the Electric Revolutions. The hard-edged sound of electrical current is symbolic of this speeded energy and its strong presence in Skruv suggested a “progressive” village. In Europe the current is 50 Hertz giving a musical pitch of approximately G sharp. It is this fundamental that sounded from the cardboard factory. The other pitches resulted from the presence of strong harmonics. An additional feature of the Skruv soundscape was the piping F sharp of the train whistles. The resulting aggregate of pitched sounds was a dominant ninth chord, quite in tune.



Further investigation of some malfunctioning street lamps gave us additional tones: C natural, C sharp and D; but the predominant character of the Skruv soundscape was that 9th chord. Returning to the glass factory we were surprised to detect that its low rumble was centred on C sharp, giving the whole chord a quite classical harmonic resolution, just as the glassworks itself gives the town its fundamental character.



Of course, one does not hear these things standing still. One has to move about. As one does the town plays melodies. It is the folk music of the Electric Revolution.

Bissingen

One can not be in Bissingen for more than 15 minutes before one hears its clock bell. Day and night it rings out from the church tower. There were church bells in all the villages we studied, but none rang as frequently or punctually as those of Bissingen. It was Oswald Spengler who said that the interminable bells of Germany gave the nation its sense of historic destiny.

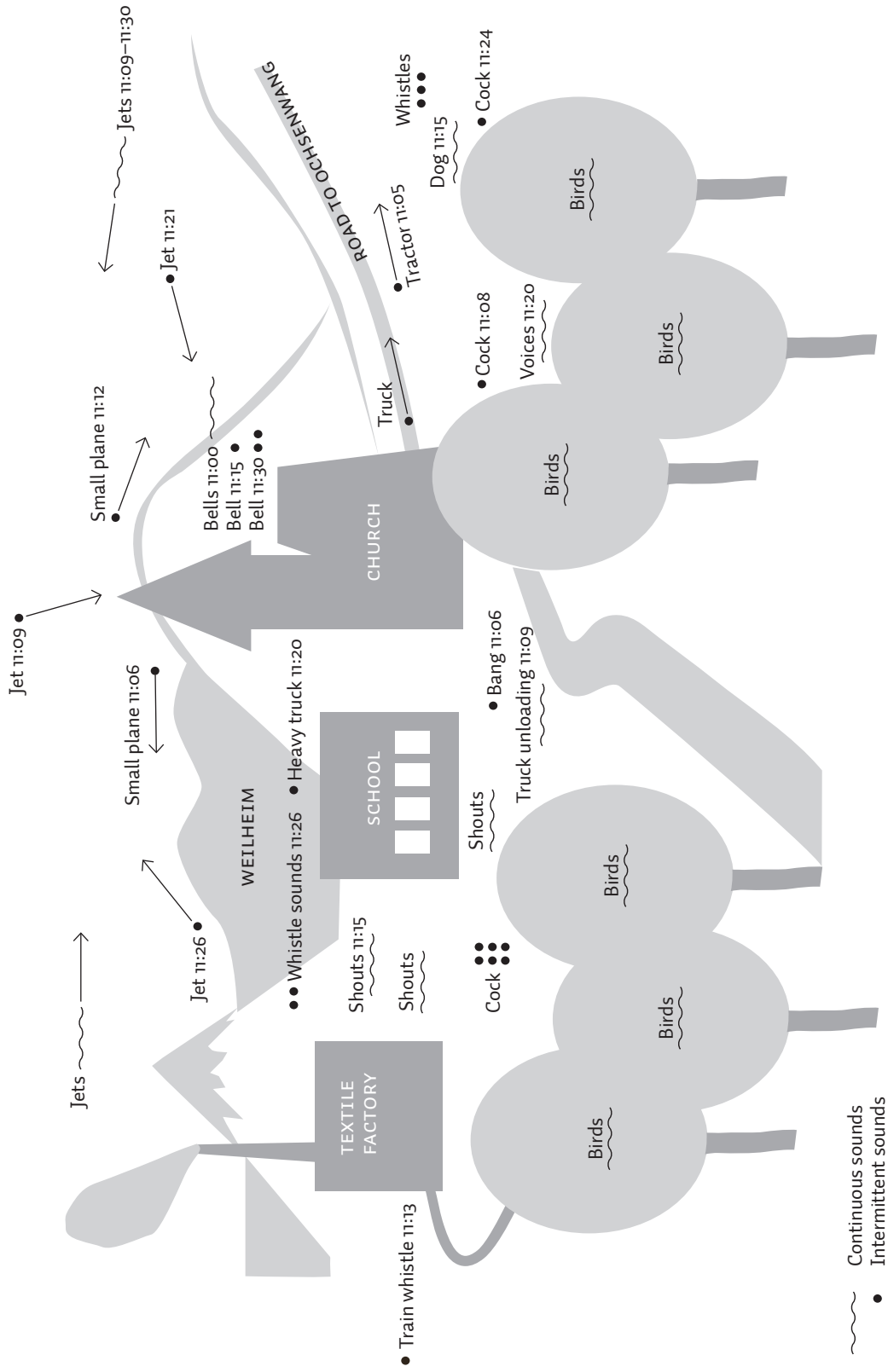
There are four bells in Bissingen. The highest rings the quarter hours; the hours are sounded first as a set on a lower bell and are then repeated as a set on another bell, deeper still. The custom of sounding the hours twice is apparently common in this part of Germany, though we heard it nowhere else. The bells are also pealed at certain times every day, known as *Zeitläuten* (time ringing) a system of time keeping in use before the mechanical clock. *Zeitläuten* occur at the following times:

WINTER	SUMMER
6:00 a.m.	6:00 a.m.
11:00 a.m.	11:00 a.m.
3:00 p.m.	3:00 p.m.
6:00 p.m.	6:00 p.m. getting a little later each day so that at midsummer it is rung at 8:30.

The early bell is a *reveille* for the farmers, the 11:00 the signal to break for food, at 3:00 the peal is in memory of the hour of the crucifixion, and at 6:00 the Angelus ends work for the day. On Sundays the burghers of Bissingen are aroused to church by peals of bells rung for 3 minutes at 8:30 (one bell), again for 3 minutes at 9:00 (another bell); then at 9:20 all four bells are rung for 10 minutes, the service starting punctually at 9:30 a.m.



Bissingen church on the main street.



Prominent sounds heard between 11:00 a.m. and 11:30 a.m., March 6, 1975, from a hillside about 500 meters beyond the village of Bissingen.

The night after we booked into the Adler, which is just a few short steps down the street from the church, we shared dinner with an amplitudinous traveling salesman who claimed that the bells of Bissingen and the Adler's apple cider were his chief pleasures in Swabia. The Bissingen bells are also held in great affection by the local inhabitants. Curiously, the only person we met who showed no affection for them was the church's new pastor, but he did allow us to go through the church books. There we learned that in 1886, when the steeple was reconstructed, it was the wish of the congregation that the belfry be left open so that the bells could be seen as well as heard to ring. Pastor Burkhardt told us that experts had recently tried to persuade the people that angled shutters would distribute the sound of the bells over a greater distance, but they wouldn't hear of it for the same reason as in 1886. An interesting story is told of how in 1969 specialists informed the congregation that the sound of the bells was faulty and they would have to be recast. The congregation agreed, with the understanding that the new bells would be recast directly from the old. However, while the bells were down waiting to be collected by the foundry, the new bells arrived. The uproar that ensued made it necessary for the pastor to be replaced. Also, one of the old bells was taken away, presumably by a band of local citizens, and has never been seen since.

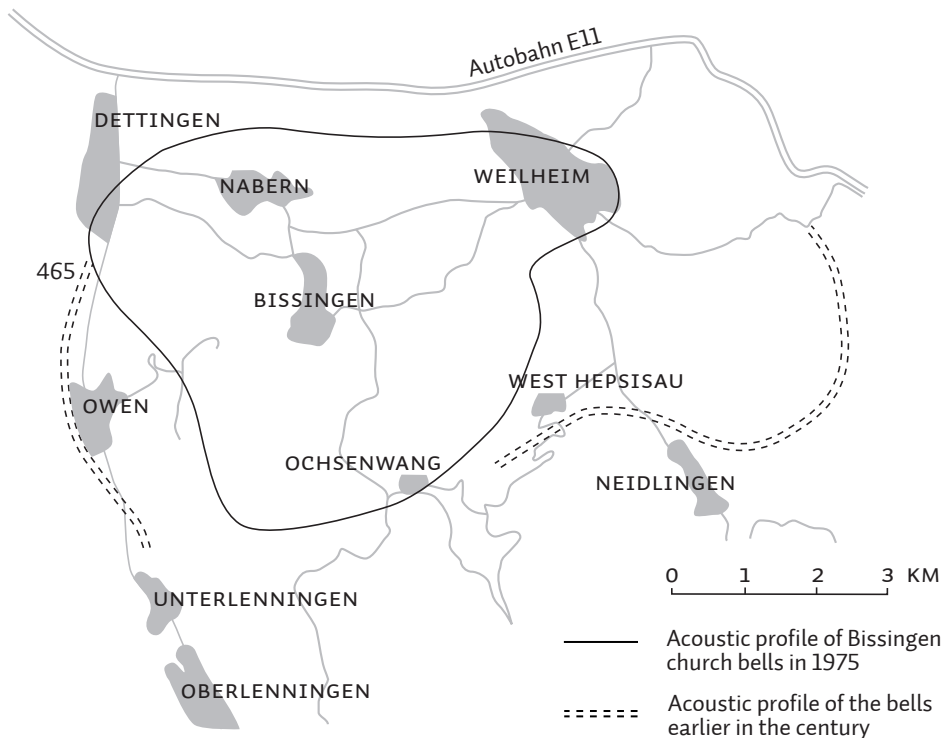


Figure 2. Acoustic profiles of the Bissingen church bells for two time periods.

We decided to attempt to construct a profile map of the Bissingen church bells and so on several evenings we drove out to surrounding villages, Weilheim, Dettingen, Owen, Unterlenningen, to ask villagers on the streets or in the pubs whether or not they could hear the Bissingen bells. From numerous interviews we were able to draw a fairly accurate profile, which naturally varies considerably with the weather. Incidentally many villagers mentioned bells as a weather beacon: when they could be heard from the west, the weather would be bad. See Figure 2.

But something more interesting emerged during these enquiries. We noticed that elderly people, even at great distances from Bissingen, heard the bells more regularly than youthful listeners. For instance, a middle-aged woman on the street in Weilheim was asked whether she heard the bells, and replied: "Yes, and best of all on the east side of that hill over there." But when we asked a youth on the same street, his reply was a flat: "never have." Later when we interviewed a marvelously lucid 94 year old woman in Bissingen, she told us that in old days the bells had been audible at an even greater distance. The shrinking of the bell profile may be explicable as a function of the rise of ambient noise. As the countryside becomes noisier (the Autobahn, for instance was built in 1936) sounds do not travel as far. In *The Vancouver Soundscape* we noted a parallel between the shrinking acoustic space of the Cathedral bells and its dwindling congregation. The same thing is apparent in Bissingen, where young people are no longer attending church. As they cease, they no longer hear the bells, or, as we were informed in several German cities, they begin to experience them as a source of irritation and noise. Bell casting has dropped quite remarkably in Germany in recent years. Church bells appear to be on the way out, although in Bissingen, where the last bell was purchased as recently as 1970, they may continue to be heard for some time to come.

Cembra

First impressions of a new environment are much affected by the environment just left. Italy would sound quite different to a visitor arriving from the south or east than to one arriving from the north. We arrived from the north and as we left Tyrol, we anticipated the same miracle that has thrilled northern Europeans for centuries: the sudden fluorescence of sunlight and warmth. Is it the light and heat that brings Italians outdoors to congregate on verandahs, in streets and plazas? Is it the light and heat that causes them to talk more enthusiastically and seemingly louder than their northern neighbours?

The soundscape of Italy is a vocal soundscape and Cembra is no exception, though after the deserted streets of Skruv and the taciturn ways of the Germans, it seemed exceptional to us. Voices came from all directions, from inside and outside, from men, women, children, birds and animals. It was Easter week; the Albergo was full of visitors and children were out of school: they milled about us as we sat on the steps

of the Albergo translating a sound preference test we had given in the local elementary school. Between hoots of laughter they called out to us. “Don’t forget *chiamare del ferrone - Ei!*” “Remember *mormorio della gente.*” “Look what someone mentioned! *Ehi sleffo!*” The day before they had patiently filled out our questionnaire under the supervision of their teachers. We had given our sound preference test in many places in many countries but nowhere had children mentioned calling out to each other, nicknames and the current insults used among themselves as significant sounds.



Children playing in the steep, narrow streets of Cembra.

Snow was still on the ground and the men had not yet gone to the fields. They stood on street corners and shop porches, in idle conversation, sometimes playing with the children, or else they gathered in one of the village’s three bars to raise their voices over a glass of *grappa* or a cup of espresso. Two of the three bars had marble floors and stone walls, materials common in Italy, which produce a clear reflection of the voice, seeming to give it heightened amplitude and resonance. The narrow cobblestone streets and passages of Cembra also encouraged the voice and even quite late at night one might still hear youths or drunks testing out a good wall or tunnel with a shout or a song.

Voices in the streets are clear and present. Those from indoors are reverberant and hollow. There are no carpets on the floors of the houses in Cembra and the indoor voices bounce off hard bare surfaces: tile, stone, plaster and, less frequently, wood. If the voices of men and children predominate in the streets, the voices of women come from windows. The windows of an Italian village seem always to be open. They are like a radio, tuning in on the happenings of the world, eavesdropping in the literal sense. They are like telephones, for often one hears women talking

across the roofs of the town between airing bedding, shaking mops, and supervising children playing in the streets.

Outdoor speech tends to be louder than that indoors. If this is so, the Italians have more opportunity to practise. And having mastered the art they take big voices back indoors with them. Lydia, for instance, the waitress in the Albergo, when she announced the supper menu, proclaimed it like a biblical angel with tidings of great joy. When we explained our project to her as well as our impoverished Italian and diffident vocal style could suggest, she proclaimed “*silenzio*” to the dining room with a voice like a bronze trumpet. Another evening a group of men came over to our table to give us a demonstration of the game of *Morra*, banned in Italy because of the excitement and violence it creates. The *patrone* of the Albergo said the game created “too much noise.” Two men sit across the table throwing out a fistful of fingers at each other and shouting out the sum of both sharply: “*Sette, Otto, Uno, Due, Quattro, Tre, Cinque.*” The crowd of men around them is hushed; it is possibly the only time a crowd of Italian men is hushed, except perhaps in church. But even in church, which we attended at Easter, there were also grand opportunities for soundmaking as the congregation spontaneously broke into harmony, singing hymns in the Lydian mode.

Italian voices dialogue with extensive overlapping. Having noticed how frequently two or more people would be speaking to each other at the same time in Cembra, we listened especially for dialogue “cross-fades” in Lesconil and found that they occurred much less frequently. In any case, dialoguing voices in the Albergo Cembra between 5 p.m. and 8 p.m. could raise the ambient sound level from 40 to 80 decibels.

If Italians are egotistical, it takes the form of sheer vocal exuberance, regardless of subject matter. When Albert Mayr would come with us to interview local inhabitants we always spent more time with them than in any other village extracting the information we wanted, not because they were unforthcoming, but rather because so many other matters had to be expressed along the way.

One intimately familiar with Italian life would probably criticize many of the observations of these paragraphs. We would do so ourselves as our experience increased. But these were our first impressions in Cembra. There were other memorable sounds there – the church bells, some of which were still rung by hand; motorcycles in the village square; the mountain buses with their aggressive two-tone horn, and others we will mention later. But our first impression was that Cembra, unlike Bissingen and Skruv, was first and foremost a human soundscape. As such we thought it sounded medieval. Certainly the village looks more medieval than any other we studied. But with the soundscape one can only reach back to ancient times with the imagination.

Lesconil

Chateaubriand, a Breton and born by the sea, knew the sound of the waves from birth: “The roar of the waves whipped up by a squall heralding the autumnal equinox

drowned my cries.” When women sang to the child, “the music of their canticles mingled with the roaring of the waves.”

Lesconil is surrounded by the sea on three sides and the modulations of its voice never leave the village. It is a strange, even oppressive experience for newcomers to the sea, for it sounds in the distance much like the roaring of a busy expressway. Above the waves at Lesconil one hears the buoys which are a type known in English as “puffers.” They make a mooring or groaning sound when tipped by the waves, forcing air out of a compressed chamber and through a reed whistle. In choppy seas they repeat every 2 or 3 seconds. It is these buoys that give the first clue to the secret of Lesconil’s acoustic character, for one cannot remain in the village long before noticing that the sound of the puffers comes from different places at different times of the day. Then one talks to the old sea captains and the mystery unfolds as a complex soundscape rhythm.

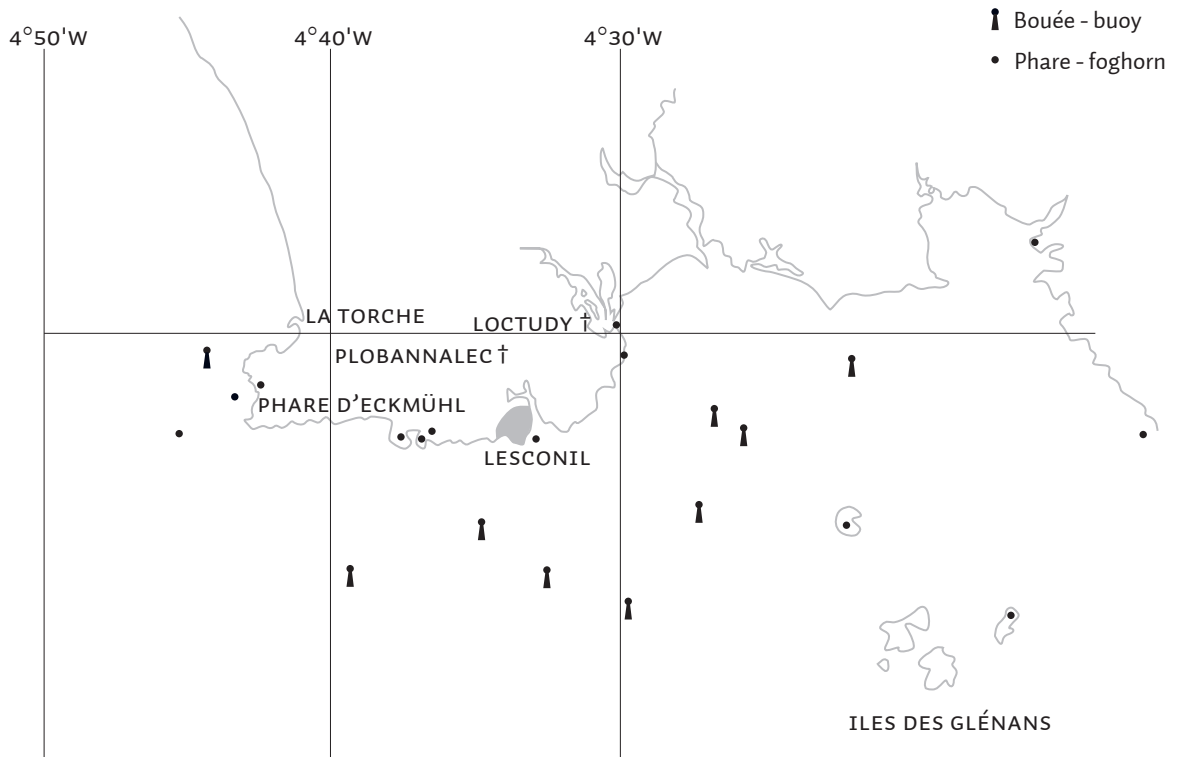


Figure 3. Marine map of Lesconil from information provided by a local sea captain. All the marine signals can at one time or another be heard in Lesconil, depending on weather conditions. The radius from Lesconil would be approximately 15 kilometers to the more distant signals.

The village is subject to an onshore-offshore wind cycle known as *les vents so-laires*. These winds affect the acoustic horizon of the community and bring villagers vital information about the environment beyond. Distant sounds are carried to the village in a clockwise sequence, beginning from the north at night, moving to the east and south during the day, and finally the west in the evening. (See Figure 24.) In the early morning when the fishermen put out to sea, the Plobannalec church bells and nearby farming noises are clearly heard. By 9 a.m. it is the bells of Loctudy to the northeast; by 11 a.m. the buoys off the east coast, then by noon the motors of the trawlers out to sea at the south. By 2 p.m. the western buoys are audible and by 4 p.m. it is often possible to hear the blowhole at Point de la Torche, 12 km. away to the west. When the sea is heavy, the sound of water being sucked up and squeezed out of this giant blowhole has been heard up to 30 kilometers away. If the weather is foggy, the afternoon will bring the sound of the great foghorn at Eckmühl, on the same coast. By evening, the farm sounds return and with them the bells of the church at Treffiat to the northwest.

This pattern is characteristic mainly of the summer months, when the weather is clear. Variations in it indicate weather changes: thus when the surf is strong in the west, villagers know that good weather will follow or when certain buoys are heard out of sequence, there will be a squall, etc. Every fisherman and every housewife knows how to read these sound nuances, and the activities of their lives are regulated by them in a manner that is as old as fishing itself, though the contemporary urbanist (and soundscape) can only discover the pattern by patient investigation.

Dollar

Our arrival in Dollar was the result of a somewhat different selection process from that used for the other four villages: we tried to research this one in advance using library facilities in London. From our experience in the other places, certain criteria were clearer to us, and we hoped they could be tested by applying them to available data on certain villages in Great Britain. There was some preference for a mining village in Scotland and after a week's work we set off with a list of possibilities in order of priority.

Very quickly, the various mining villages were visited and eliminated from the list. They were usually mined out, or were too close to larger towns or city suburbs. After three days and several hundred miles of traveling (as far as Portree on the Isle of Skye), we returned to Edinburgh to start afresh. By chance we roomed that night not far from the Bartholomew & Sons publishing office (cartographers and geographical publishers) and with their assistance, found three other possible towns, with Dollar at the head of the list.

Dollar had the attractive feature of being a significantly different community on the basis of class alone: basically it is inhabited by professionals and executives who



Dollar Pipe Band

often live there for relatively short periods as their children attend the Academy, the institution which gives Dollar its identity and reputation. Upon arrival, we stopped at the village chamberlain's office, and on the basis of this talk, decided to stay. Here, for the first time we could talk to – and more important, be understood by – the people of the village. More than this, we could get a critical reaction to some of our questions and thus develop an interview to some depth and to a certain level of abstraction. We have always emphasized the idea that the soundscape is the interface between the objective reality and the perceived and understood image of reality. How would our objective measurements tally with the subjective experience of the inhabitants? We hoped that Dollar would be a good place to develop this theme.

Although it played no part in our decision to stay, we were soon to find the most characteristic sound of Dollar: the cadet Pipe Band. But because it was a musical event with established associations which were national as well as parochial, we were undecided how to regard it. It soon became clear that pipe music is very environmental: it is always performed outdoors, and has always been associated with the military, rather than the musical wing of the school. Pipes, of course, were used traditionally to lead soldiers into battle, and therefore the sound was functional, not artistic or aesthetic. It belongs outside and the sound carries all over the village and up over the Ochil hills to the north. Virtually all of the villagers we talked with mentioned the band proudly, adding that you will hear single pipers too, practising alone in backyards or on the school grounds. (See Figure 4.)

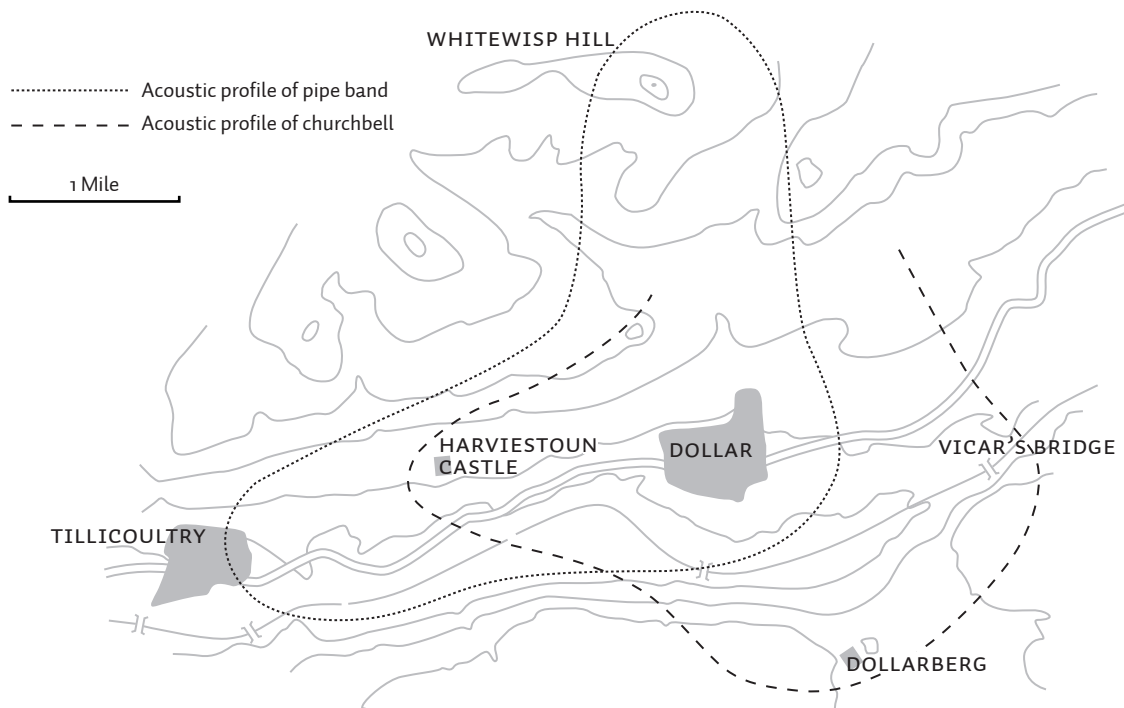


Figure 4 Acoustic profiles of two Dollar soundmarks, the pipe band and the church bells. The profile is largely determined by the geographic contours of the land, in particular the hills to the north-east and north-west.

But another sound challenges that of the Academy pipe band as the most conspicuous in Dollar. This is the A91 highway that strikes through the centre of the town. Heavy trucks are almost as common as automobiles, and the vehicular traffic often masks human sounds in the area, suggesting an environment dominated not by the spirit of learning and study, but rather by commerce and industry, even if these sounds were “just passing through.”

This discrepancy between the ideal and the real became more interesting as we investigated it further. It was most apparent in the difference between descriptions of sounds given by the local minister and the town clerk. The minister spoke only of those sounds directly associated with the Academy, referring to the “cloud” of students’ voices, footsteps and games from the playing field. On the other hand, Mr. Graham, the Town Clerk, whose account of the Dollar soundscape can be read in full at the conclusion of this document, was well aware of the change in Dollar’s predominant sound since the increase of traffic on the A91, which he stated was by no means as recent as was claimed by other residents but had been building steadily since the end of World War II. This contradiction was further accentuated in interviews with two businessmen, the one living directly on the highway and the other

well away from it. The former expressed a concern for the decline in the quality of life. At first he did not relate this directly to the increase in traffic outside his house, but when this was suggested, he was quick to agree.

If the traditional soundscape in Bissingen is being threatened by the encroaching suburbs of Stuttgart and the intrusions of aircraft noise, that of Dollar is being transformed by truck noise on the A91. In Dollar we were able to register the extent to which this change is perceived as threatening. Whether such a change in the acoustic life of a community can be subtracted from the social benefits or ills it represents is difficult to determine, but the passage of one predominant acoustic feature which is universally regarded as valuable and attractive towards another which produces ambivalent reactions is an important subject for further soundscape research.

III Acoustic Rhythms and Densities

The daily rhythms of a community reflect its social and economic structure. These rhythms may be defined by such activities as vehicle movements, work, school and transportation schedules, or, as we suggest here, they may also be defined acoustically. In this chapter, we will pursue the notion that the structure of community life is closely linked to and reflected by the acoustic patterns found there. These patterns seemed to be controlled by only a few social and economic determinants, usually those of the greatest importance to the village's survival. To a large extent, the soundscape and economy of these communities are controlled by the same factors.

The information we will use is of the following types:

1. the daily patterns of time signals; business, school and factory hours; major transportation schedules;
2. the flow of pedestrian and vehicular traffic at a central location of the village. This data is based on the number of cars, trucks, tractors, motorbikes, bicycles, pedestrians and other traffic passing the spot during the first ten minutes of each hour from 5 a.m. to 12 midnight. During peak hours, data from other 10 minute periods per hour were also collected;
3. sound catalogues of all acoustic events heard by listeners in *all* areas of the village during half hour periods at five times between 7 a.m. and 7 p.m. To compile this the village was divided in sections and project field workers moved continuously through the streets listing every sound heard. (This information was not collected in Bissingen.)

The data is summarized for the daily patterns of each village in accompanying figures (Figures 5, 6, 7, 8, 9).

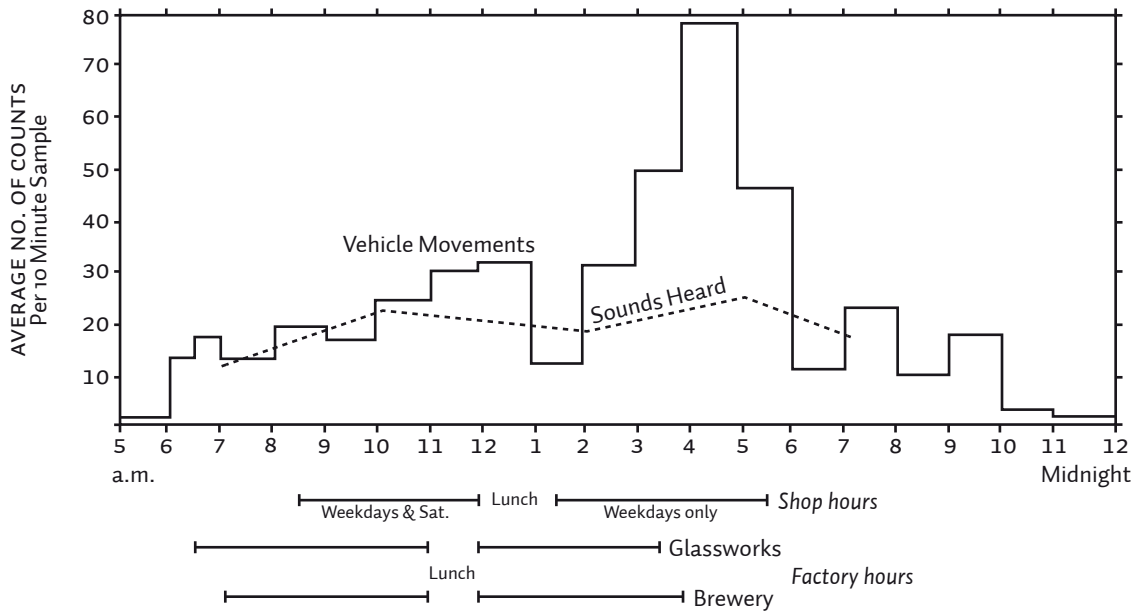
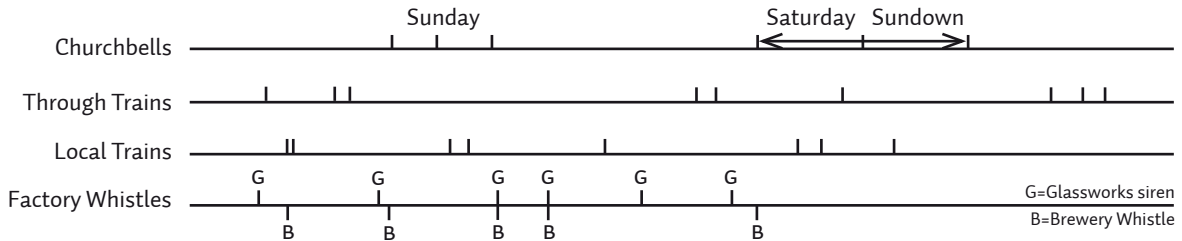


Figure 5. Skruv: Daily rhythms of signals, shop and factory hours. Traffic counted at the village centre is compared with the number of sounds heard throughout the community.

Bus arrivals every 20 minutes 5:30 am – 9:30 p.m.
 Churchbells every 15 minutes (*Clock chime*)

Factory sirens

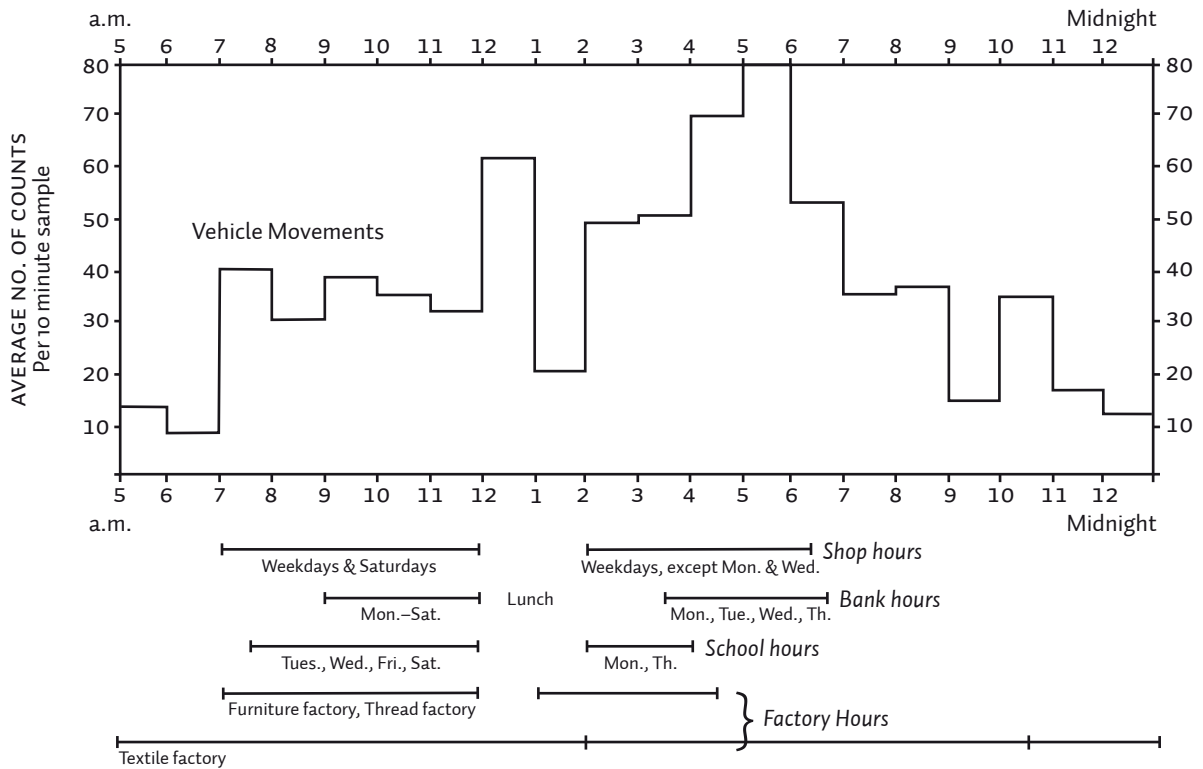
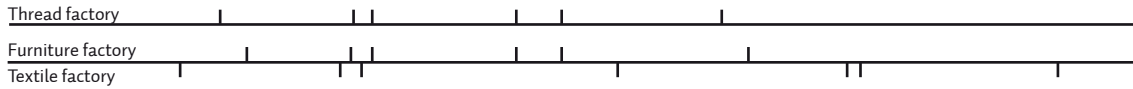


Figure 6. Bissingen: Daily rhythms of signals, business, school and factory hours. Traffic counted at the village centre is also shown.

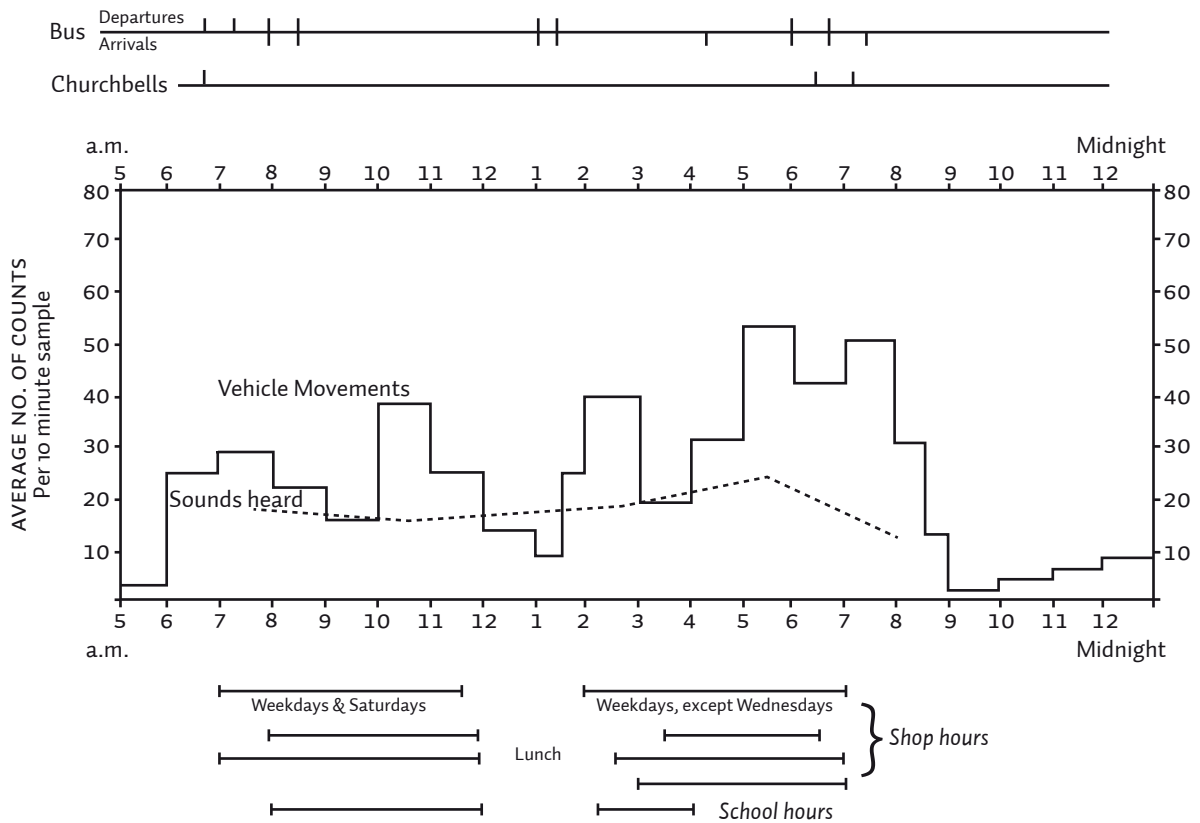


Figure 7. Cembra: Daily rhythm of church bells, bus arrivals, shop and school hours. Traffic counted at the village centre is compared with the number of sounds heard throughout the community.

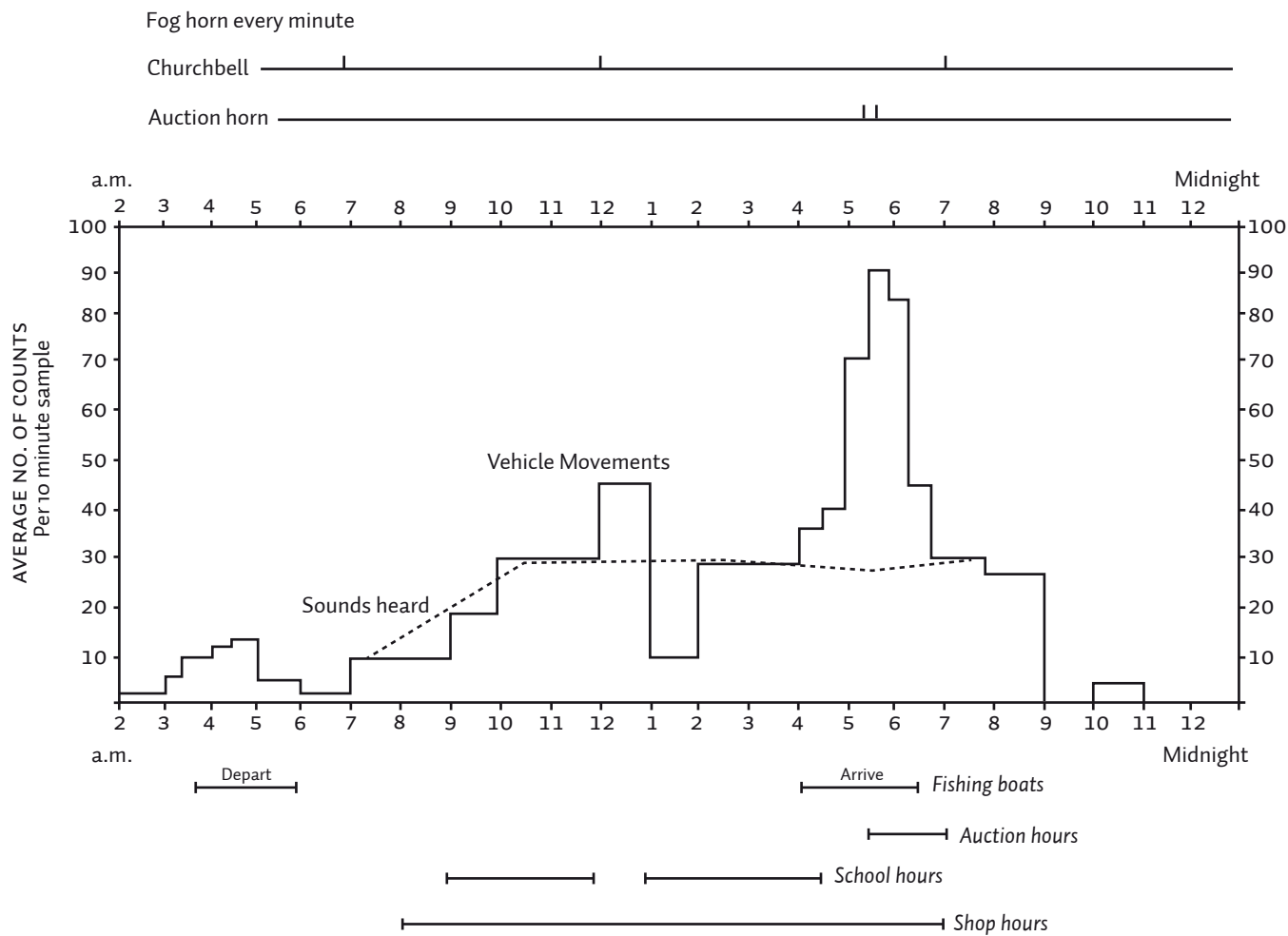


Figure 8. Lesconil: Daily rhythm of community signals, fishing fleet, school and store hours. Traffic counted at the village centre is compared with the number of sounds heard throughout the community.

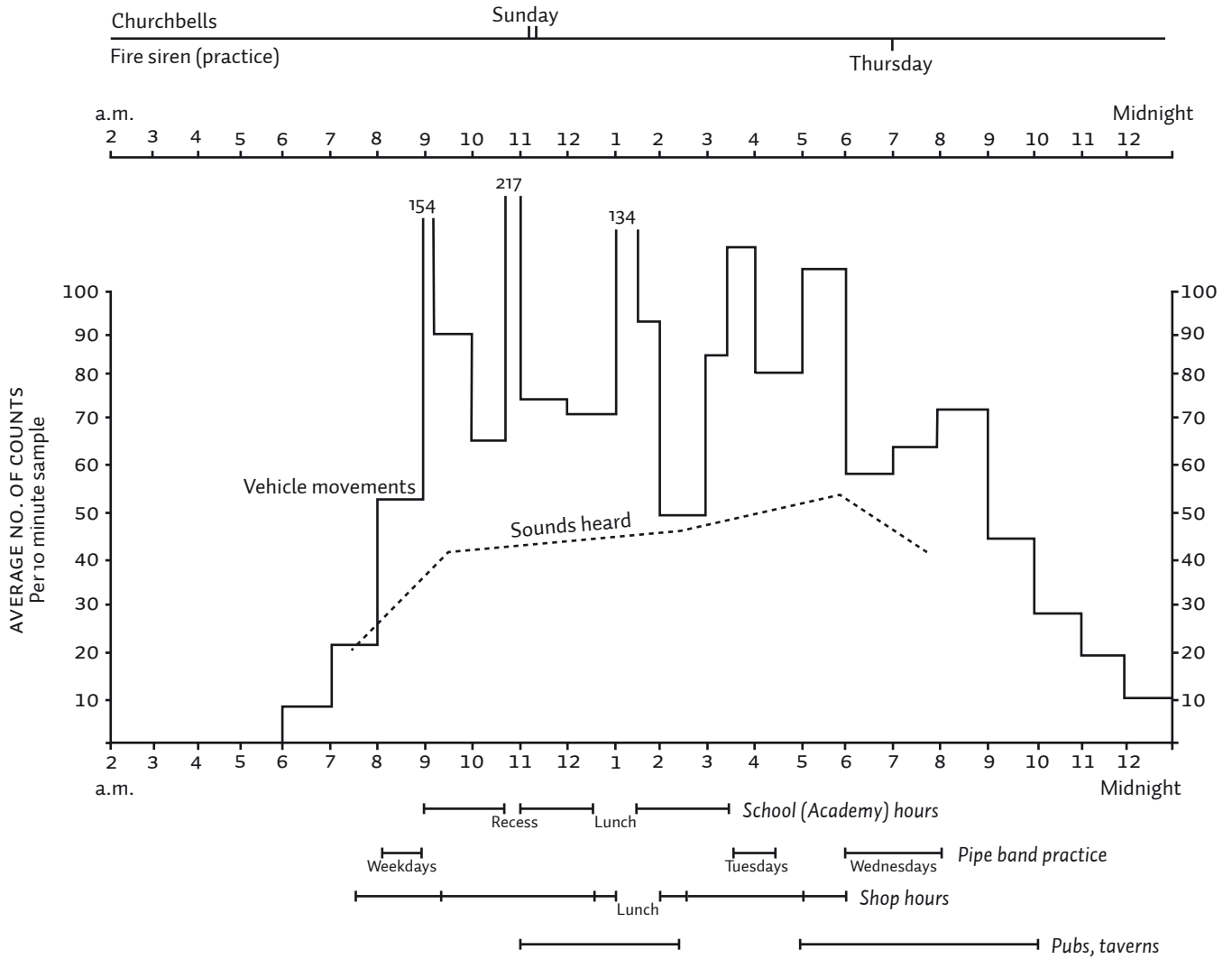


Figure 9. Dollar: Daily rhythm of community signals, pipe band practice, school and business hours. Traffic counted at the village centre is compared with the number of sounds heard throughout the community.

At first glance, the pattern of vehicle movements in each town follows a similar contour of increasing activity during the morning, a lull around noon, increasing activity again through the afternoon, reaching an overall peak in the late afternoon, then tapering off in the evening. However, many subtle differences emerge on a closer examination of these movements in connection with the hours of business and commerce, the rhythm of acoustic signals, and the breakdown of the traffic into various types. The total number of sounds heard throughout the village follows the same contour of activity, though because of the fewer number of samples, there is less definition of peaks. However, it is quite likely that there are fewer dramatic changes in acoustic activity throughout the village than there are in traffic flow near the centre at peak hours.

Skruv has perhaps the simplest daily pattern of movement, since a large number of its inhabitants work in the village's major factories. The largest two, the glass-works and brewery, have similar shifts announced by a siren and whistle, respectively. Therefore, these signals are closely correlated both with vehicle movements, as workers come and go from the factory, and by implication, with the ambient sound level as well. The heavier traffic movements in the afternoon suggest that not only are the workers the main contributors, but also that others are shopping more heavily during that period as well.

The secondary dependence of vehicle traffic on the local train schedule is striking, particularly when one remembers that Skruv was founded in 1874 when the railway was put through this region. Now, although train arrivals are prominent acoustic events in Skruv, it is the factories that not only establish the keynote humming sounds

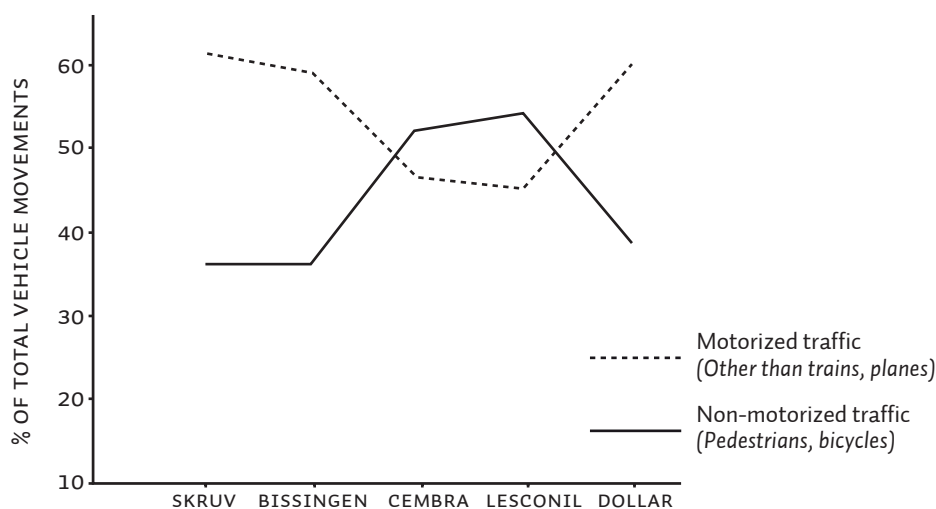


Figure 10. Percentages of motorized and non-motorized traffic counted at the centre of each village, 6 a.m. to 12 midnight.

(see Figure 1), but also the major traffic and ambience patterns. Many housewives, however, use the local train service to shop in larger nearby centres. The church bells, reduced to Sunday ringing, play even less of a role in daily village life.

Table 1

	SKRUV	BISSINGEN	CEMBRA	LESCONIL	DOLLAR
Cars	50.4	49.1	34.1	32.4	48.2
Trucks	6.0	3.1	6.0	7.0	10.2
Bikes	19.2	9.1	5.1	5.9	1.6
Motor-bikes	3.4	5.4	5.0	5.2	0.9
Tractors	1.0	1.0	1.3	0.	0.2
Pedestrians	16.6	26.3	46.3	47.6	37.0
Other	3.1	6.0	2.4	1.7	1.9

As can be seen from Figure 10 and Table 1, Skruv is one of the three villages where motorized traffic outweighs pedestrian activity. In fact, Skruv has as high a percentage of car traffic as does Dollar where the major A91 highway bisects the town. This indicates that it is not only the local inhabitants, but also the equally large number of people living in the surrounding rural area, that participate in Skruv's high traffic density.

Skruv also has the highest percentage of bicycle traffic, and the lowest percentage of pedestrians of any of the villages studied (19.2% and 16.6% respectively). The lack of pedestrians may be due to the severity of the winter climate, but it may also occur for the same reason that the per capita telephone ownership (1 out of every 3 people) is high. Skruv is a small village with many essential services outside its boundary, and therefore communication over a distance is necessary. In view of the relatively high standard of living enjoyed by these people, the high density of traffic is not at all surprising, compared with the lower living standard in the relatively self-contained village of Cembra.

Cembra and Lesconil are the only pedestrian-oriented villages of the five, and these also show the most unusual rhythmic patterns. Cembra, on the one hand, shows the least amount of variation in traffic throughout the day, possibly because the measurements were taken near Easter when school children were on holiday and

the workers had not left for the fields. Lesconil, on the other, follows the typical daily pattern that repeats itself throughout the year. This is the pattern established by the fishing fleet, leaving between 4 and 6 a.m. and returning from 4 to 6:30 p.m.

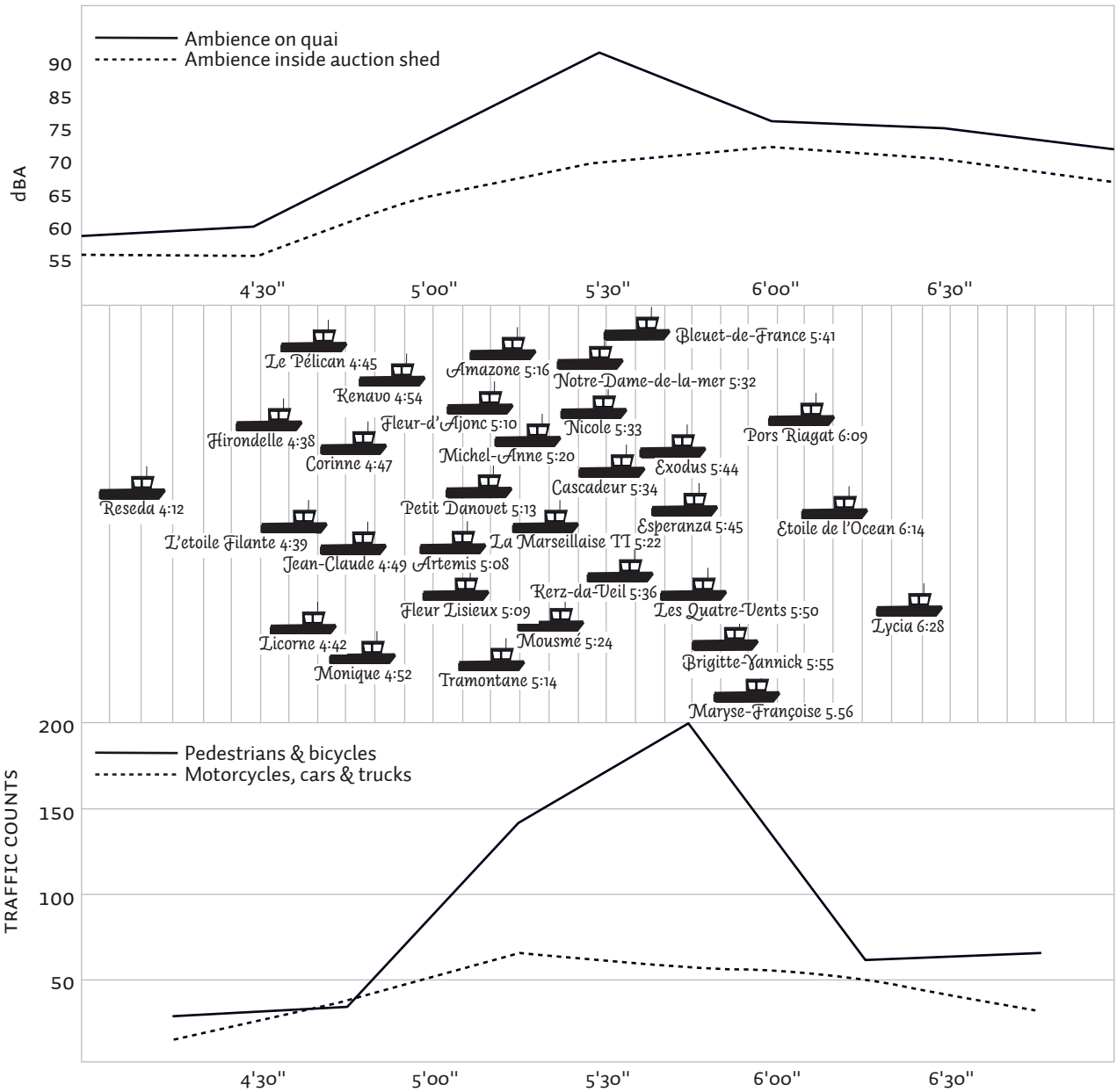


Landing the shrimp catch at Lesconil.

In between, the village is in a lull, except around noon when much of the shopping is done. The peak of the day's activity comes dramatically when the fleet returns to port to unload its catch for immediate auction sale. During this period, hundreds of people and vehicles flock to the pier where the acoustic event of the day, two long blasts of an air horn, announce the beginning of the auction. Once over, the villagers go home, and little evening activity occurs. Whereas the people of Cembra and Dollar participate in evening activities almost as much as in daytime ones, the hard-working townspeople of Lesconil concentrate their activity at fixed times, between 4 a.m. and 8 p.m.; otherwise little happens.

In Dollar, the peak pedestrian hours associated with the rhythm of the school day at Dollar Academy would seem to the casual visitor to define the pattern of activity of this village. However, the statistics compiled in Table 1 show that nearly 60% of all traffic movement is that of motorized vehicles, including 10% caused by trucks. Because their flow is steadier, they may seem less obvious to the observer than the visually striking throngs of school children that fill the streets briefly at certain points of the day. However, the pattern of motorized traffic provides the real acoustic basis of the town.

Since the five villages vary considerably in their populations, the total number



Correspondence between marine and land traffic in Lesconil on April 25, 1975. As the fishing boats return and unload their catch for auction, the number of land movements at the waterfront climbs sharply. At the top is the variation in ambient sound level on the pier.

of vehicle movements noted in each place is presumably dependent on population. Table 2 shows the estimated hourly number of vehicle and pedestrian movements normalized for population.

Table 2

No. traffic movements					
<i>(per hour per thousand population; 18 samples per village)</i>					
	SKRUV	BISSINGEN	CEMBRA	LESCONIL	DOLLAR
Motorized traffic	63.3	52.6	52.4	24.9	91.0
Non-motorized traffic	38.3	30.0	55.2	29.4	58.4
Total	101.6	82.6	107.6	54.3	149.4

The time period in the case of the traffic is an 18 hour period, usually from 6 a.m. to 12 midnight, except in Lesconil where the daily pattern lies mainly between 3 a.m. and 9 p.m. These figures vary over a 3-to-1 range with Dollar showing the highest level and Lesconil the lowest. With no train or major highway in the area, and an economy centred on fishing, Lesconil shows the least amount of daily activity, and similarly the fewest number of regular signals or acoustic events. The high levels in Dollar and Skruv indicate that much of the traffic may come from outside. Indeed the Skruv data is calculated from the population of the area, not simply the village, and both villages are on or near major transportation routes.

Cembra's isolation contributes to its slightly lower amount of traffic movement.

Table 3

No. of Sounds Heard Throughout Village				
<i>(per hour per thousand population; 5 samples per village)</i>				
	SKRUV	CEMBRA	LESCONIL	DOLLAR
Motor Traffic	30.6	21.8	21.8	37.4
Human Traffic	6.9	9.9	6.3	8.6
Voices	10.5	18.8	8.9	14.4
Indoor Human Activity	2.7	3.5	1.6	2.3
Outdoor Human Activity	8.7	7.6	4.9	3.5
Domestic Animals	2.4	5.7	2.7	3.6
Electro-Acoustic	1.2	1.7	0.7	1.6
Total	71.4	74.5	48.9	76.6

Here, as in Lesconil, motorized traffic has not yet surpassed pedestrian and other non-motorized activity. Despite the differences in population, the ratio of motorized to non-motorized traffic, as shown in Table 5, is about 1.6 for both Skruv and Dollar, and climbs to 1.75 in Bissingen which is near Stuttgart and a major Autobahn.

We turn now to the data for the types of sounds heard during the day throughout four of the villages. This is tabulated in Table 3 as hourly averages, normalized per thousand population, and in Table 4 as percentage contributions to the total number of sounds heard. The sounds tabulated are limited to those reflecting community life, and do not include those of natural sounds (e.g. water, wind, birds), one or more of which were so numerous in each village as to constitute what we call a *keynote* sound, that is, a prevalent sound heard as background to all other signals in the environment. (In the next chapter, for instance, we will discuss the prevalence of water sounds in the villages.) This predominance of certain natural sounds is in strong contrast to most urban areas where traffic is the main keynote sound.

Table 4

	SKRUV	CEMBRA	LESCONIL	DOLLAR
Motor Traffic	42.8	29.2	44.6	48.9
Human Traffic (<i>footsteps, bikes</i>)	9.7	13.3	12.9	11.2
Voices	14.7	25.2	18.1	18.8
Indoor Human Activity	3.8	4.7	3.2	2.9
Outdoor Human Activity	12.2	10.3	9.9	4.6
Domestic Animals	3.4	7.7	5.4	4.7
Electro-Acoustic Sounds	1.7	2.3	1.3	2.0
Signals (<i>Non-regular</i>)	2.5	2.8	2.5	5.0
Other Transportation Sounds (<i>brakes, doors, ignition, etc.</i>)	5.9	2.8	2.5	5.0
Planes	3.4	0.4	1.0	0.7

The data for some of the major types of sounds is shown in Figure 11 where it can be seen that, with the exception again of Cembra, the sounds of motorized traffic predominate throughout each village. In Cembra, as can be seen in Table 5, footsteps

and voices dominate the soundscape even more (ratio 0.76) than pedestrians did in the traffic count (ratio 0.95), indicating that traffic tends to be somewhat isolated at the centre of the village. This is because of the narrow, winding streets which damp traffic sound and confine its spread to the immediate area. The aural impression is that a car or bike emerges suddenly (both acoustically and visually), and almost as suddenly disappears again.

Lesconil was the other village where we noted a slight predominance of non-motorized traffic in its centre, but here the situation completely reverses itself in the residential area where traffic sounds lead. This reversal can be clearly seen in Table 5 which gives the ratio of motorized to non-motorized traffic sounds. Lesconil reverses from 0.84 to 1.43. Clearly, the reason is that traffic from outside the village is heard, though it doesn't necessarily penetrate to the village centre, i.e. the port area. This same effect is probably also present in Skruv where a slightly greater ratio of motorized traffic sound was observed throughout the village than was counted at the centre. The figures for Dollar are about equal, indicating that traffic is heard throughout the village.

Table 5

Ratio of Motorized to Non-Motorized Traffic					
<i>(1.0 denotes equality)</i>					
	SKRUV	BISSINGEN	CEMBRA	LESCONIL	DOLLAR
Traffic counts (village centre)	1.65	1.75	0.95	0.84	1.56
Sound counts (throughout village)	1.76	-	0.76	1.43	1.63

Lesconil is also different from the other villages in the amount of other types of sounds heard, as can be seen in Figure 11. It scores lowest in sounds per capita of indoor and outdoor human activity (a general category including all work and play sounds other than voices and footsteps), domestic animals and electroacoustic sounds. This is not surprising since, on the one hand, most of the men are away fishing during the day, and on the other, Lesconil has generally been the slowest of the five villages to bring in 20th century technology, as can be seen from the historical charts at the end of this chapter (Figures 18–20).

Skruv and Cembra, the smallest villages, show the greatest numbers of these other prominent sounds, though perhaps for different reasons. In Cembra, the predominance of voices and general social activity in the streets is closely followed by other human and domestic sounds, whereas in the quieter northern village of Skruv, there are fewer domestic animals and pets, but a fair number of other sounds of human activity reflective of the higher standard of living (e.g. power lawnmowers).

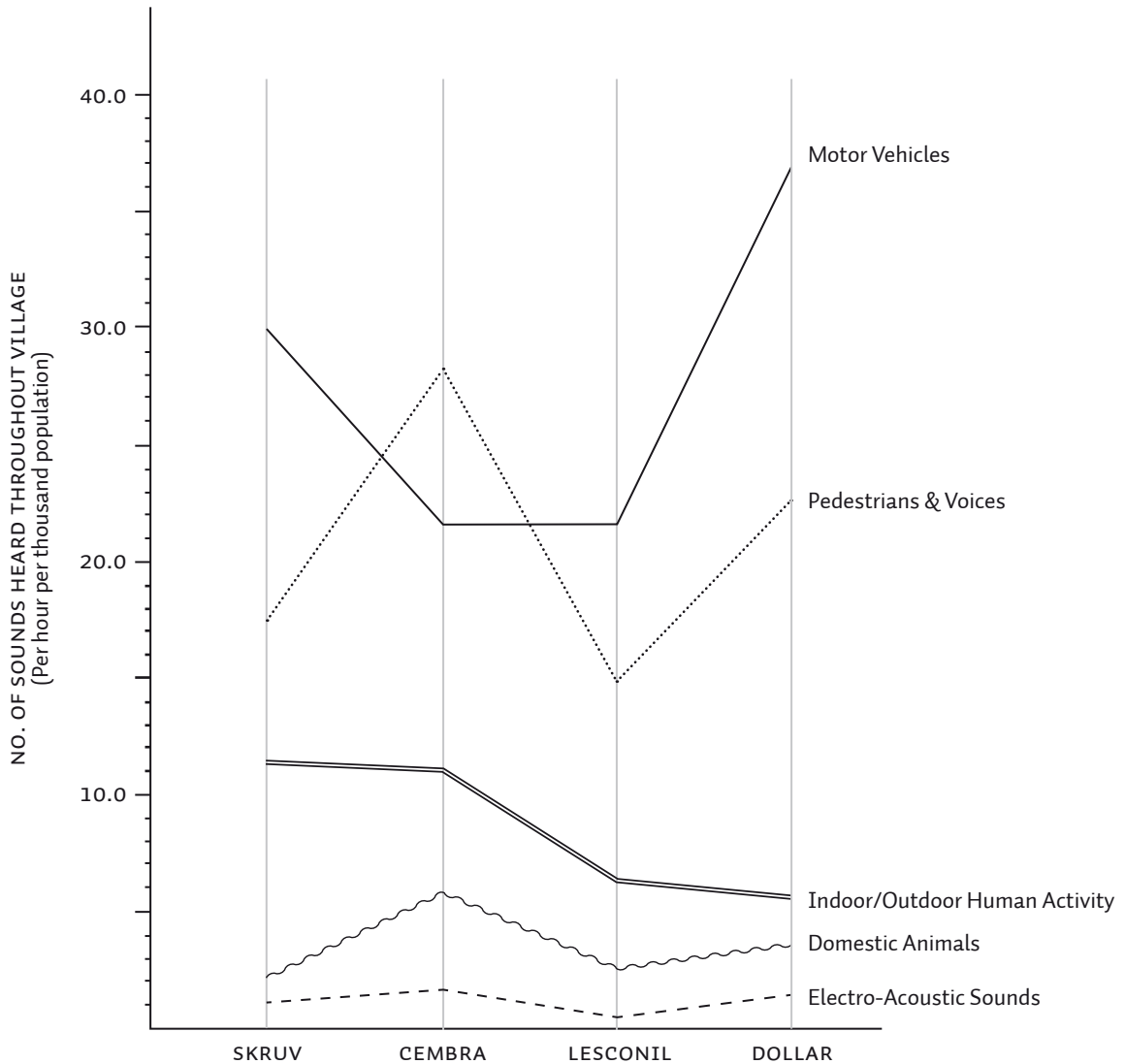


Figure 11. Breakdown of sounds heard in residential areas of each village according to source type. The counts shown are hourly average, normalized for population.

Dollar, on the other hand, with its extremely high traffic flow, records the least number of sounds of indoor-outdoor human activity, and a high per capita number of electroacoustic sounds. Domestic animal sounds are also fairly high, but unlike Cembra's farm animals, Dollar's sounds are mostly from pet dogs. Again, from the historical charts, it can be seen that Dollar was always the first with technological change, and therefore its urban tendencies are not surprising.

One of the most revealing breakdowns of the daily pattern of sounds heard throughout the villages is that of the different kinds of voices heard. In Figures 12

and 13 we show the comparison between two types at different times of day by plotting the number by which one type exceeds the other, women compared with men in Figure 12 and children compared with adults in Figure 13. In general, the pattern shifts from men to women during the day, and back to men again in the evening, except that in Lesconil the men are away fishing during the day, and in Cembra they were still in town when we visited, waiting to go out to the fields.

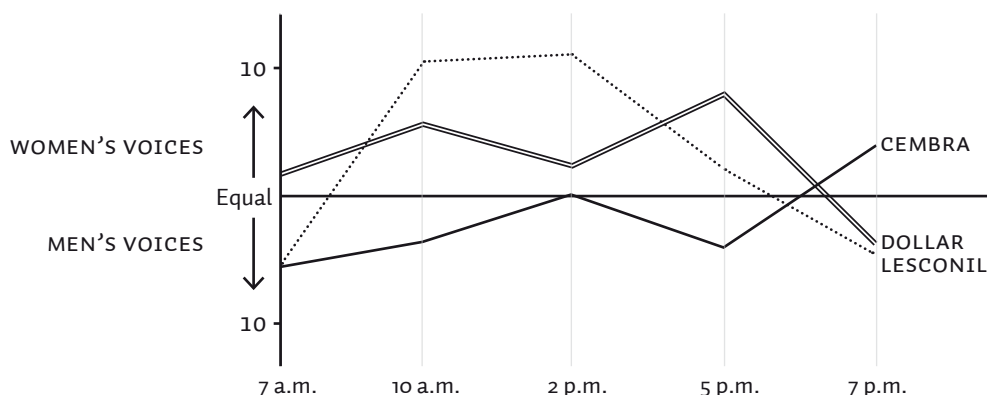


Figure 12. Comparison of the number of women's and men's voices heard in the streets of three villages during the day. Points above the line indicate women's voices predominating, those below the line, men's.

With children's voices, the patterns range from near absence in Lesconil (where most of the older children go away to school), to equal numbers throughout the day (except at 7 a.m.) in Cembra where children play in the streets. Dollar, with its academy of over 1,000 students, naturally shows a high proportion of young voices, but only after school hours (5 p.m.) or during the brief periods before and between classes. Data for Skruv is not included because of the small numbers of voices heard, although the tendency was for about equal numbers of children and adults.

The most interesting aspect of the information collected is the pattern that emerges when we plot the traffic and acoustic data opposite each other. The hourly per capita totals of traffic movements and sounds heard, shown in Figure 14, exhibit the expected correlation of mutual increase. Because data is only available for four villages, the conclusions to be drawn from the graph are somewhat ambiguous. Although the tendency for the number of sounds heard to increase with traffic is clear, the rate of change, as interpreted from the slope of the possible curves or lines joining the points is not. A straight line approximation would result in a slope somewhere between 1:3 and 1:4, meaning that the number of community sounds increases about 1/3 to 1/4 as fast as traffic movements. An alternative interpretation, which puts more importance on the specific data, suggests that the normal growth

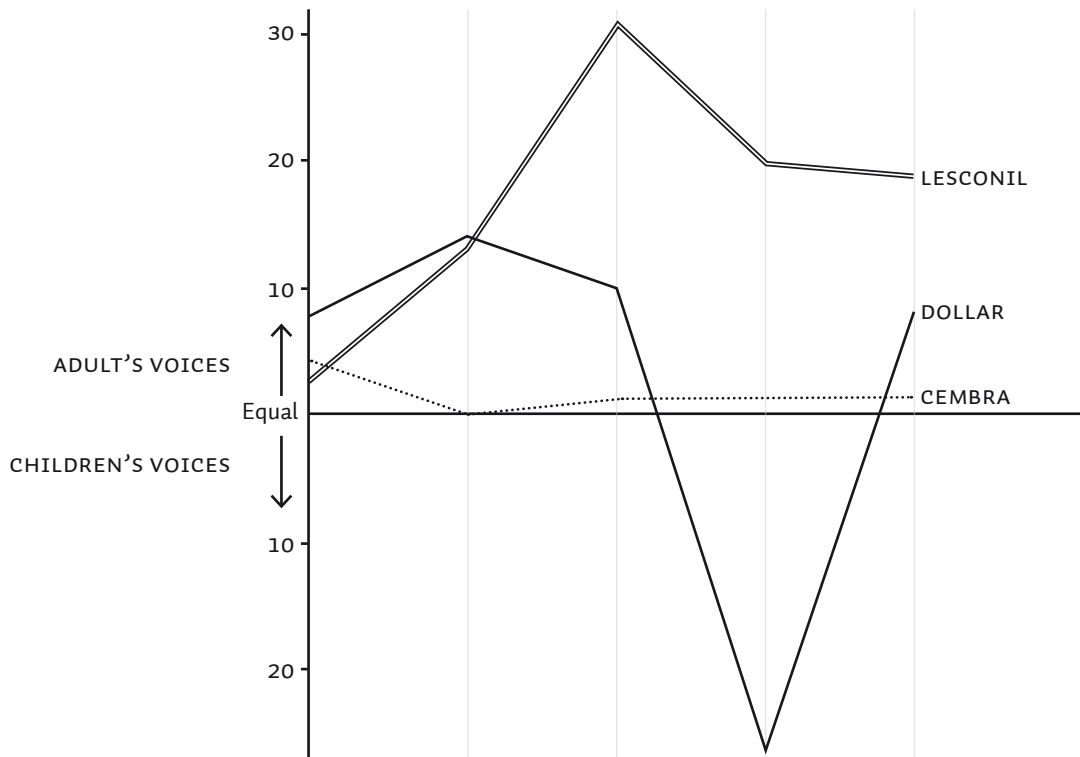


Figure 13. Comparison of the number of adults' and children's voices heard in the streets of three villages. Points above the line indicate adult voices predominating, those below the line, children's.

rate of sounds is between 1:2 and 1:3, but that it slows down as traffic movements increase, as suggested by the drop in voices and other sounds of human activity in Dollar, the most traffic-saturated of all the villages.

In other words, the simplest argument is that as a village prospers economically, there is increased traffic movement per capita and this is accompanied by a slow rise in ambient level (see Figure 15) and a slow growth in the sound density throughout the community. However, an extension to the argument is that the increase in motorized traffic creates a sound environment that in fact inhibits the growth of other types of sound, notably voices and such sounds of human activity as would be audible to a pedestrian in the community. Although the volume of sound increases, the actual rate of growth of numbers of sounds heard would be less rapid (as perhaps indicated by the flattening of the growth rate in Figure 14). The increased standard of living that accompanies a rise in economic activity and traffic movement produces fewer, but more powerful sounds which eliminate larger numbers of light-weight sounds such as voices. As well, the style of living moves necessarily toward more self-contained, isolated family environments, lessening the density of social, public

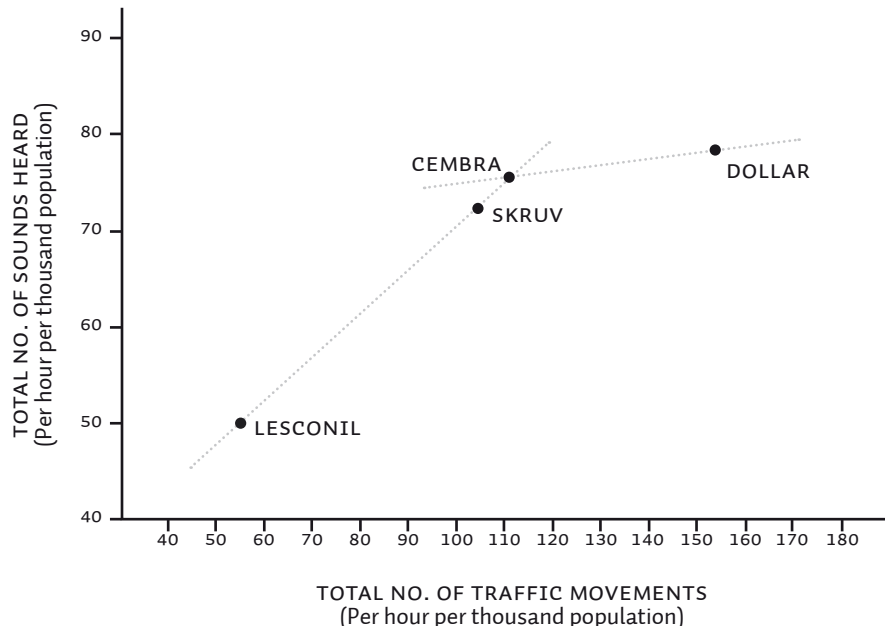


Figure 14. Total number of sounds heard in residential areas of each village throughout the day plotted against the total number of traffic movements recorded at the village centre. Both counts are hourly averages, normalized for populations.

sounds The data in Figure 14 suggests this trend, but further studies would be needed to establish it firmly.

Cembra, in this regard, stands out in an interesting manner, particularly in comparison to Dollar, in Figure 14. It is hard to imagine two more paradigmatic and contrasting villages to consider. Cembra supports a smaller, high-density population in a geographically isolated region with low traffic density, and a high degree of social activity, street sounds and general gregariousness. Its population and economy have been falling off since World War II (see Figure 16), and although many of the past traditions are gone, its social life remains on a distinctive, human scale. Dollar, on the other hand, is rapidly increasing in population and prosperity, and its soundscape is traffic-dominated. A great gulf of social development separates the two villages, suggesting that the rate of growth of the soundscape from one to the other is in the direction of the domination of heavy, technological sounds at the expense of the numerous small sounds that characterize a balanced social soundscape on a human scale.

The uniqueness of Cembra is also seen in Figure 17 which shows that the two most prominent sources of community sounds divide easily into the motorized traffic and pedestrian/voices categories, just as the traffic movement divides easily into motorized, non-motorized components. When plotted against each other, the two sound source types fall neatly along two nearly parallel lines, indicating that the rate of

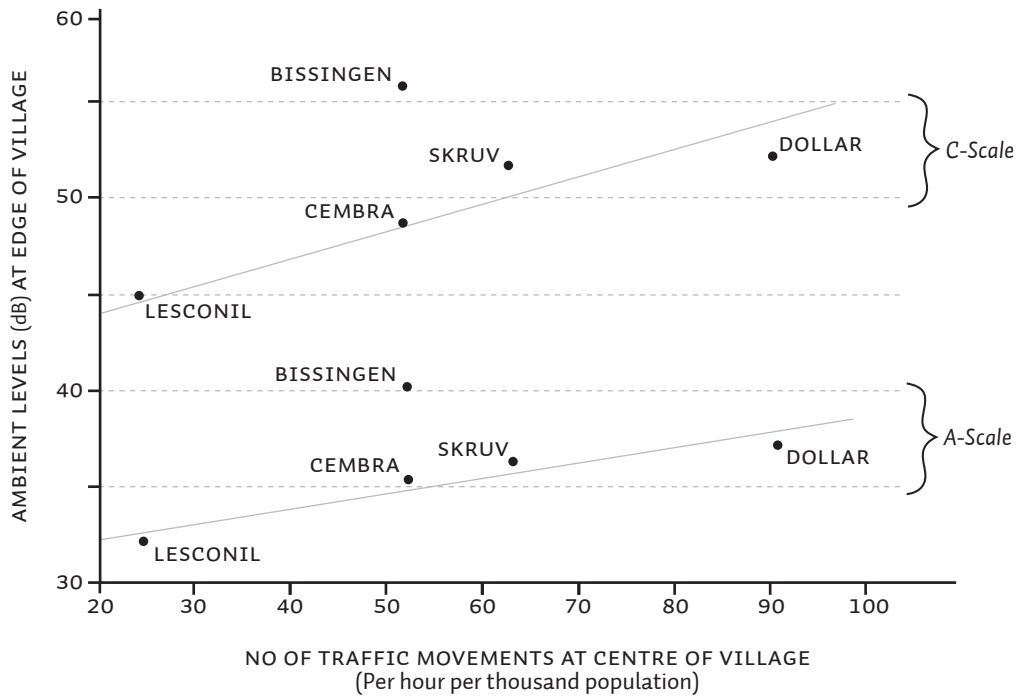


Figure 15. Ambient noise levels recorded at the periphery of each village (dBA and dBC) plotted against hourly traffic count at the village centre, normalized for population.

growth of these sounds is almost uniformly 1:4 (slope = 0.25). The remarkable anomaly, however, is that of all the villages, Cembra's predominant community sound type is that created by humans, whereas with the other three it is traffic. Similarly, traffic in Cembra falls among the secondary sound sources which in the other villages are the human sounds. Even though pedestrian traffic leads motorized traffic in both Lesconil and Cembra (as shown in Figure 17 by the fact that the point for pedestrian traffic is somewhat farther right than that for motorized traffic; note that the equivalent points for Skruv and Dollar fall far behind to the left), it is the sound of traffic from outside the village that predominates in Lesconil. Although the village has turned historically from the land to the sea for its livelihood, the prosperity this has brought has also been accompanied by a traffic invasion of the soundscape from the landward side, particularly by trucks carrying the fish to inland cities.

The choice of contrasting villages has worked to our advantage in this aspect of the study as it gives us examples of communities at different stages of economic progress with soundscapes suggesting different patterns related to that growth. The sound environments of these villages reflect the social and economic context not only in the more obvious aspects of daily rhythms and fluctuations, but also in the way that the types and numbers of sounds produced reveal the kind of adaptation made by the population to a changing social life.

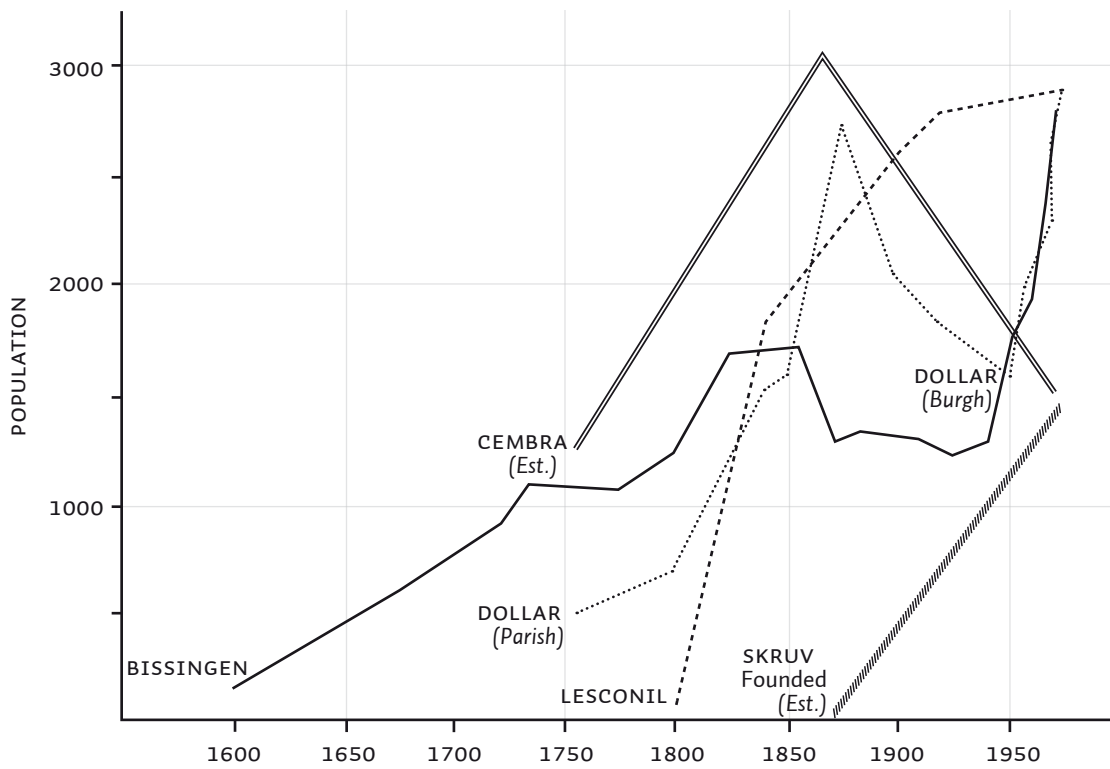


Figure 16. Pattern of population growth in each village. Note that the figures for Dollar represent the parish population up to 1950, and the burgh population thereafter.

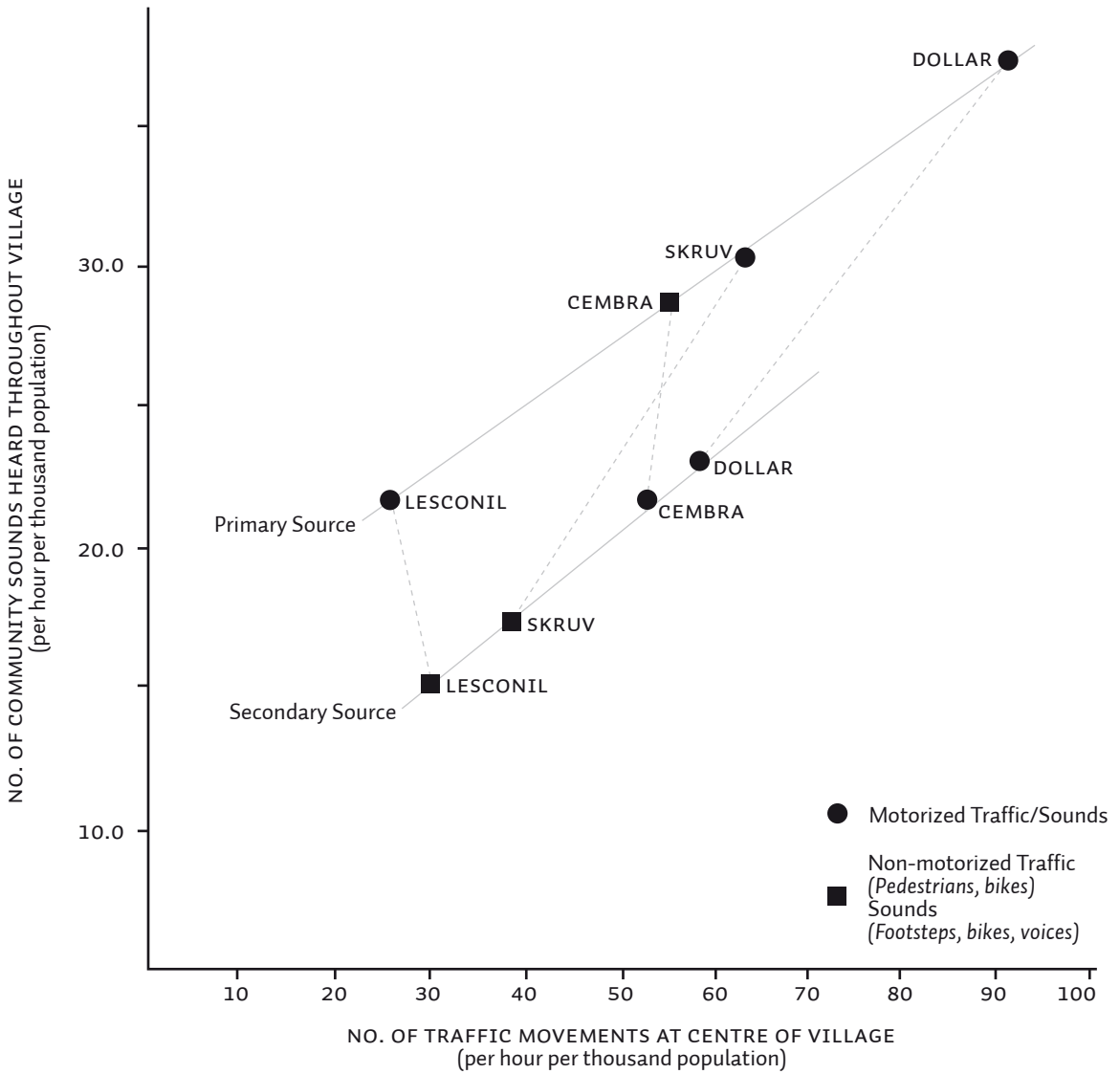


Figure 17. Hourly averages of primary and secondary community sound sources plotted against hourly traffic counts. Both counts are normalized for population. The dashed lines join the counts for the same village.

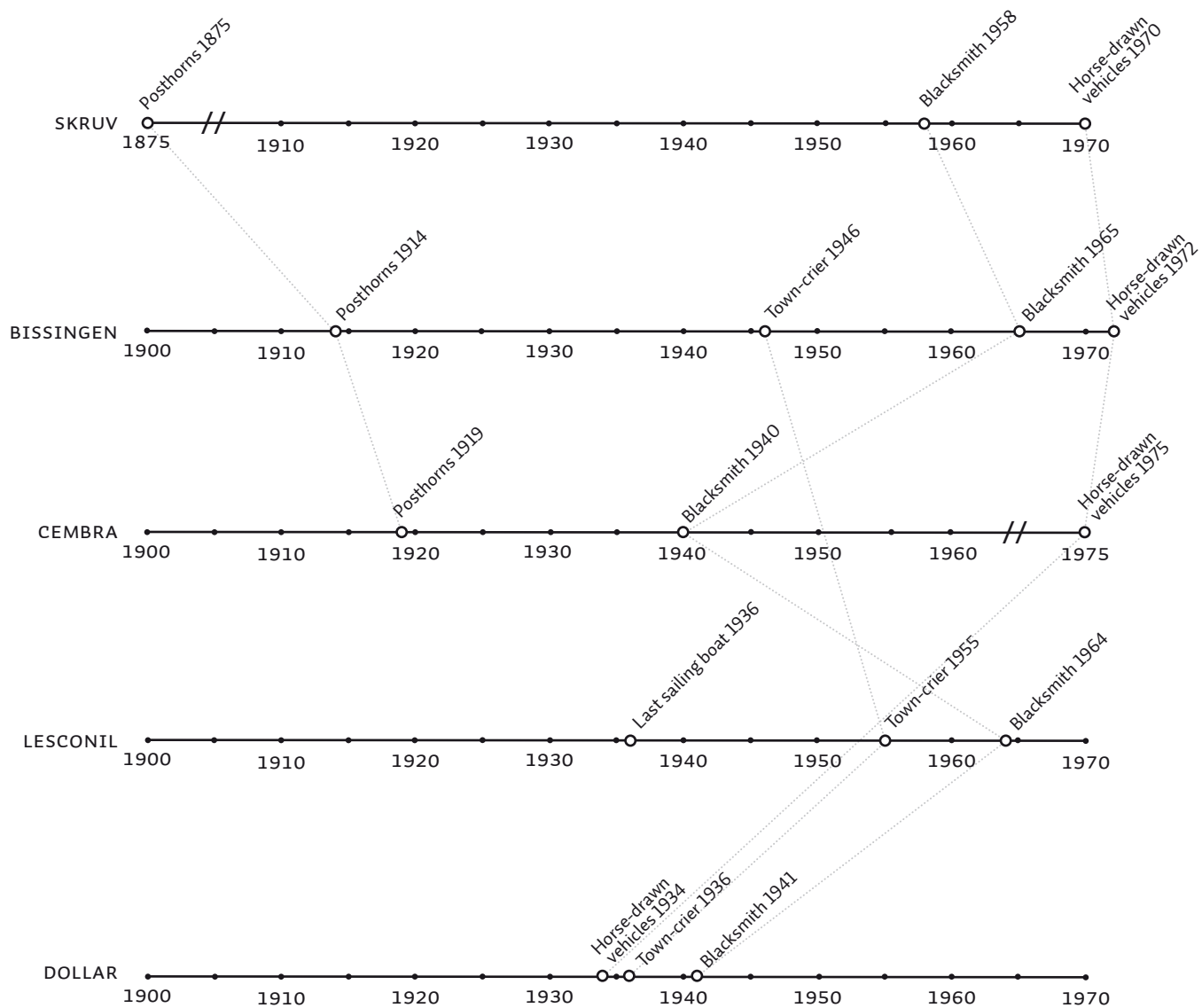


Figure 18. Chronology of disappearing sounds (posthorn, blacksmith, horse-drawn vehicle and town crier) showing when each was last heard in the different villages.

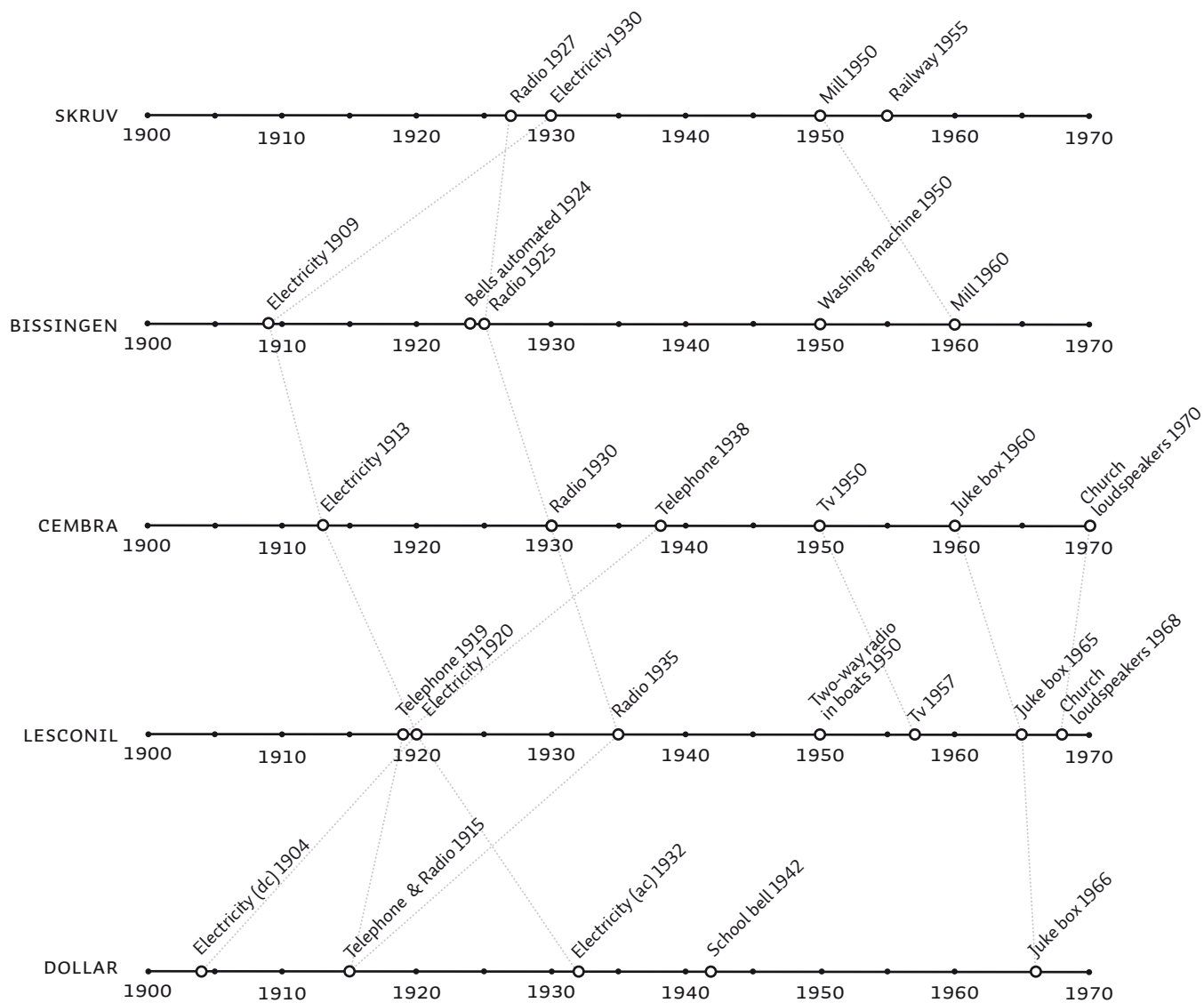


Figure 19. Chronology of electrification: electricity, telephone, radio, jukebox, church loudspeakers, and the electrification of other community sounds.

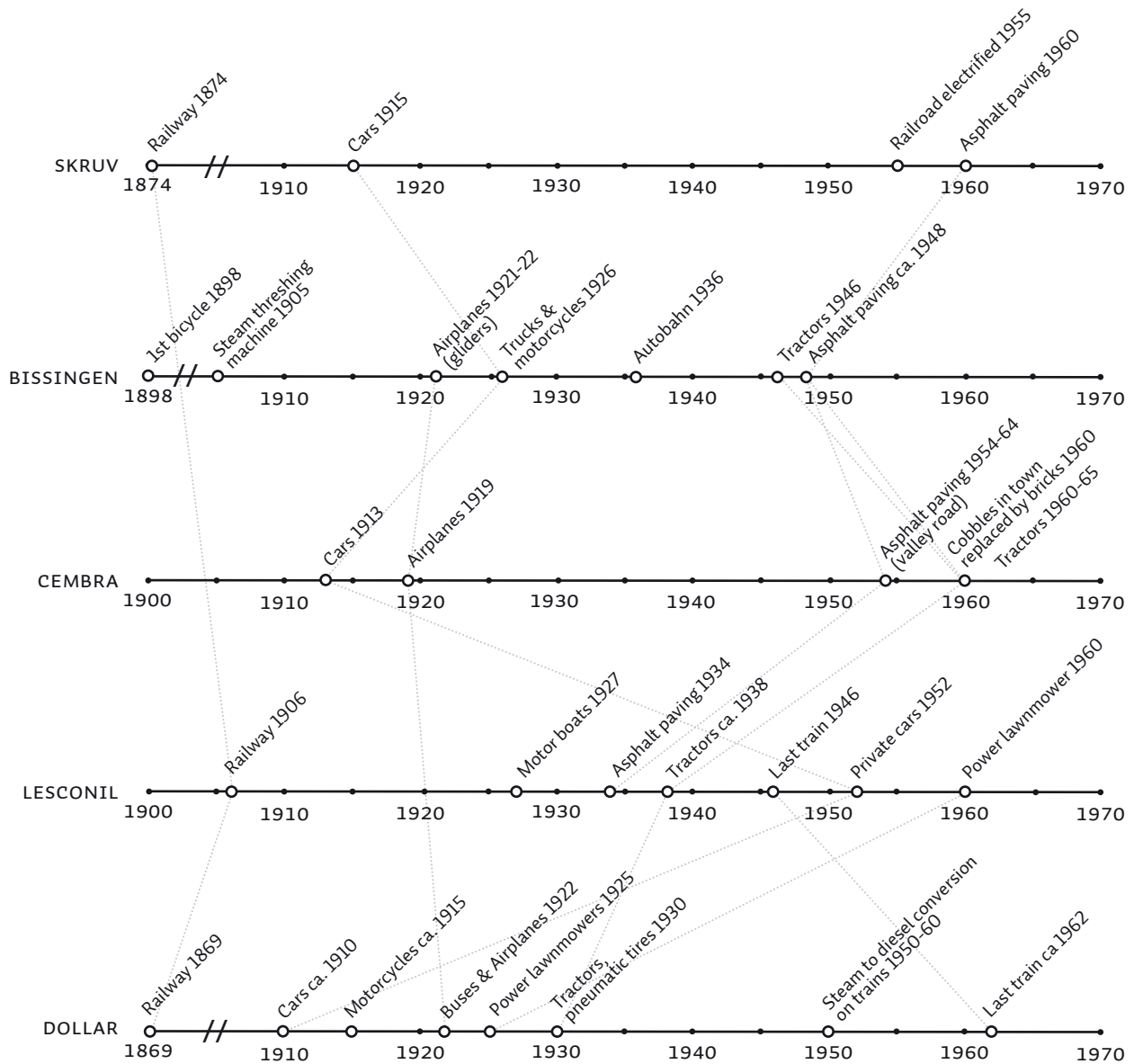


Figure 20. Chronology of developments in transportation in the different villages: railway, motor vehicles, airplanes, tractors, asphalt paving and other developments.

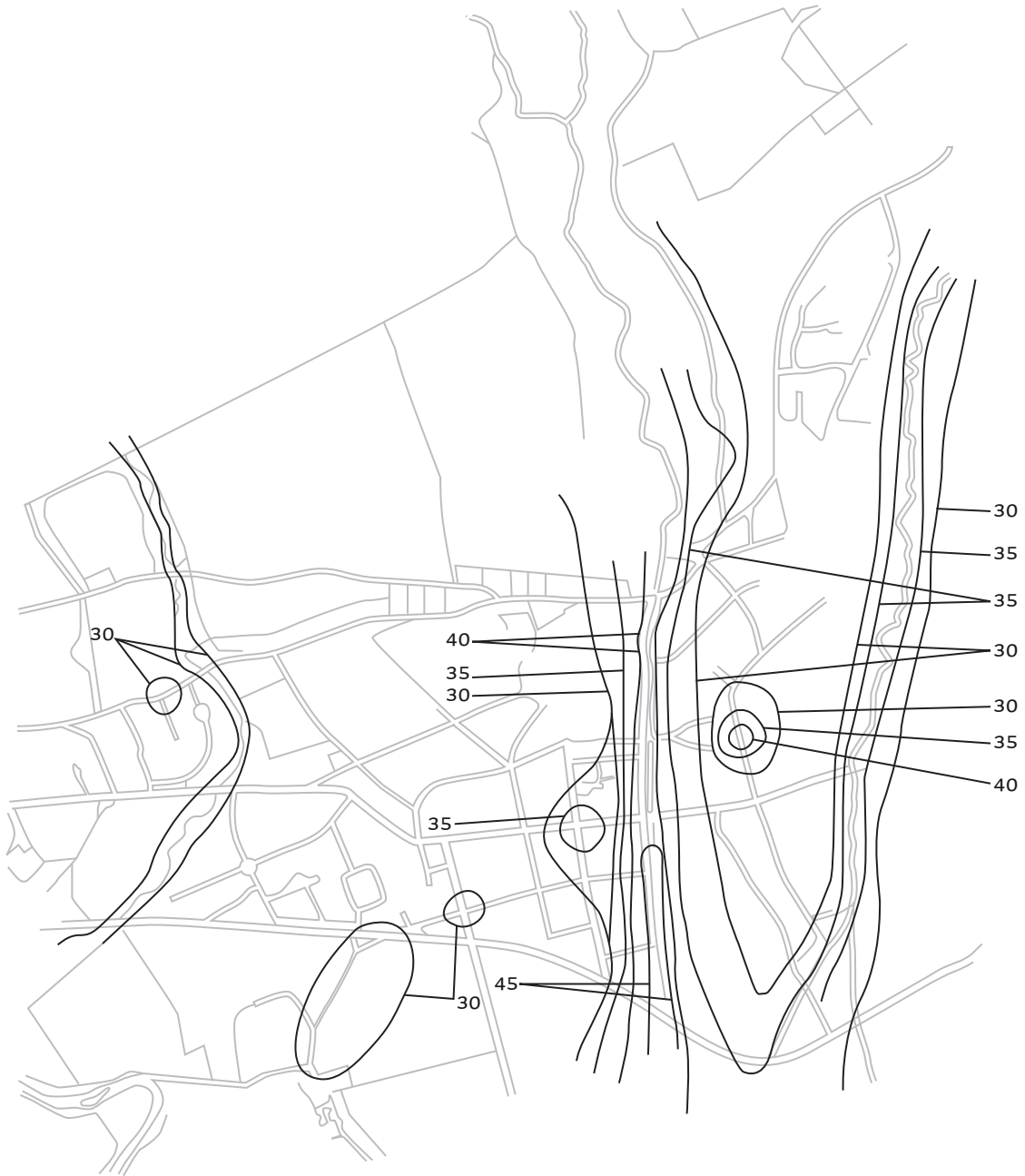
IV Acoustic Materials (Water and Stone)

The materials of society each have their own special sounds. As we write about two of them in the life of our five villages, the reader will have to imagine their acoustic properties or verify impressions by listening to the recordings which complement this study.

No habitation is possible without an adequate supply of fresh water and so water becomes an important keynote for all ancient communities, both inland and



The Dollar Burn



Isobel map of Dollar, constructed from ambient sound level readings taken in the late evening. The sound of the burn accounts for the higher level down the centre of the map. Other prominent sounds, creating circles of higher intensity, were an electrical hum, voices and amplified music.

maritime. From the world's first civilizations, born on the deltas of the Nile, Tigris or Yellow Rivers, right down to the most modest settlement, water, in one or more of its myriad transformations, was an omnipresent sound in community life. That the sounds of water are so frequently mentioned as among the most pleasant in sound preference tests can be explained in this way. It is more than aesthetic preference that is expressed here, for water is necessary for life and its sounds reassure us of the continuity of existence.

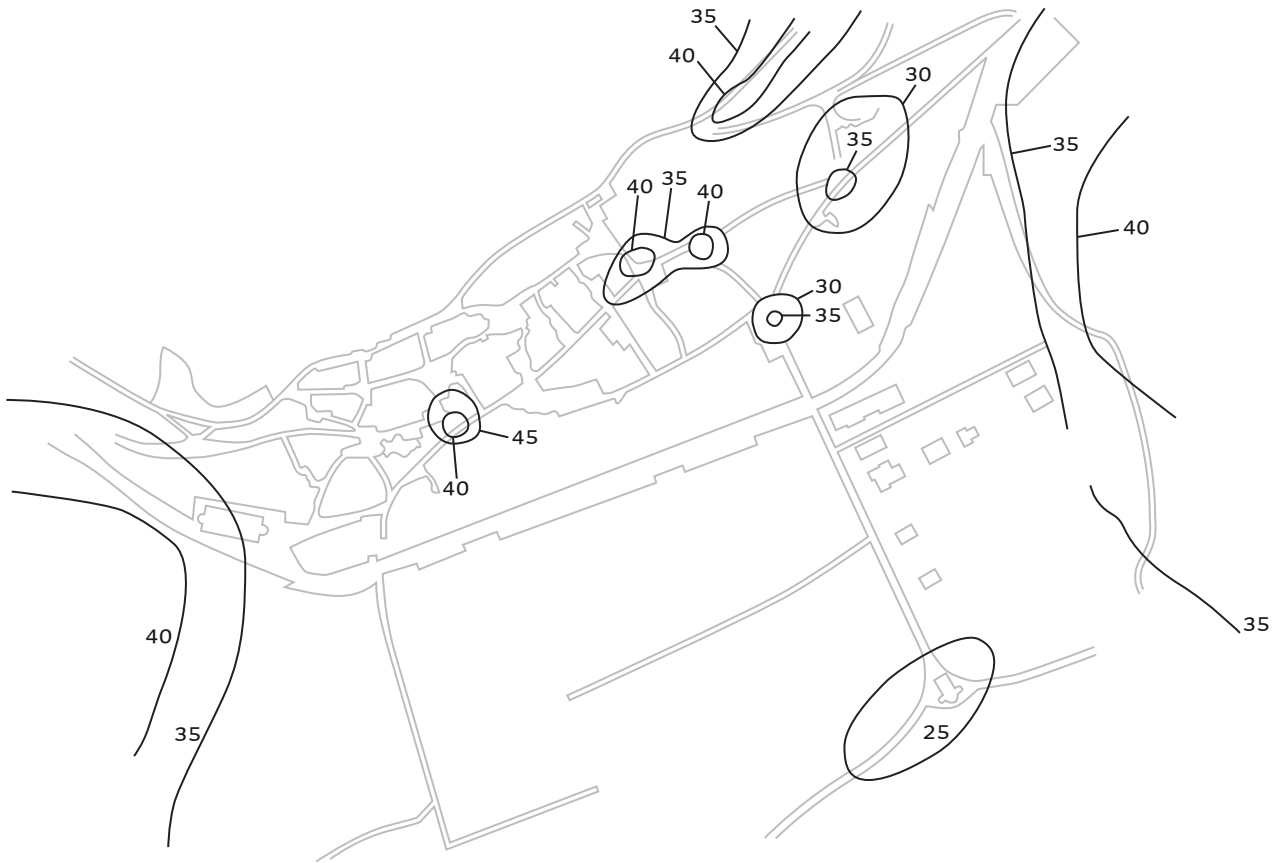
Settlers with heroic aspirations choose the banks of broad rivers, lakes and oceans as sites for settlement. From here they can travel out to explore, trade and conquer. More humble settlers are content to live at the edge of a stream, requiring only water to drink and to wash in, with perhaps enough to power a mill.

Three of the villages are situated on streams. Of these the largest and loudest is the Dollar Burn, for it tumbles through a steep narrow glen down from Castle Campbell, dropping over ledges in little waterfalls, cascading around rock outcroppings and over pebbles, swirling into caves and through deep pools, finally to broaden out momentarily at the Academy playing fields. From there it is funneled through town in a sort of canal, lined with stone walls and crossed by several humped stone bridges. Its splashing noise seems to increase here, sometimes exceeding 45 decibels as measured from the roadway (see isobel map of Dollar).

There is a footpath up the glen to the Castle and the visitor who enjoys hiking can follow the concert undisturbed for a good hour. When the footpath was formally opened in 1865 nearly a thousand people gathered and at the conclusion of the ceremony the Dollar Flute Band paraded through the streets. The Burn continues to have an attractive symbolism for its citizens. In the sound preference test we gave to Dollar school children, water sounds were rated the most pleasant and of these, the sound of the Burn was the favourite. Emphasizing the unification of an attractive soundmark with its vital importance, we note that when Dollar had a town crier, part of his job, in winter when the Burn had frozen over, was to announce the availability of drinking water once the ice had been cleared off at the fountainhead.

Unlike Dollar, Cembra, which is also situated on a steep hillside, does not have a stream running through it. But it does have a plentiful water supply in its several public fountains. Their tinkling noises are the loudest ambient sounds to be heard after the village has settled down for the night (see isobel map of Cembra). At the edge of town too, one is within earshot of the river below in the valley. Once it made a considerable noise, but since the building of a dam up the valley it has been tamed though it is still noticeable, or at least it was during the spring runoff when we were there.

Cembra is the only village in which women still wash clothes in the public fountains. We were told that they also do so in Lesconil, though we saw no evidence of this during our visit. The chief water sound in Lesconil is the sea, and isobel maps of this community show clearly how it encircles the community with its ceaseless presence, receding only as one moves well inland. The first map was made at low



Isobel map of Cembra, constructed from ambient sound level readings taken in the late evening. The most prominent village sound sources were the fountains in the public squares. Higher levels at the sides and top of the map were created by the river and sounds from the valley below the village.

tide with little swell. The second shows how a bigger swell and brisk westerly wind can push up the sound of the sea by 10 or 15 decibels. When we gave Lesconil school children a sound preference test, the sound of the sea was their favourite.

Bissingen and Skruv are also situated on streams. Even before the village of Skruv came into existence there was a flour mill there, dating from 1840. Little by little the mill moved the centre of gravity away from the Ljuder church, down to where the waterflow was sufficient to keep the paddles turning and the millstones grinding.

The story of water needs to be told in two parts. If the first part consists of the element's natural sounds, the second introduces a wealth of transformations, when water is poured, stirred, paddled or boiled. Many different kinds of manufacturing processes were annexed to water in the ancient community, and they in turn gave rise to a whole new vocabulary of signals and keynotes. Mills provide a great variety of such sounds. In our villages we encounter flour mills (Skruv and Bissingen), a saw



Wash day, Cembra

mill (Skruv) and a bleaching works (Dollar), all situated on streams.

The acoustic differences between mills were considerable. The aged miller at Bissingen told us that the stream dropped sufficiently there to allow for an over-driven wheel, rather than a paddle wheel, which was equally popular. The millstones were rather quiet in operation. It was the shaking of the bin that produced the biggest noise, especially when grain was dumped into it from a large metal scoop, an action that used to be performed by hand. The last mill wheel in Bissingen was dismantled in 1960, and a gas turbine was substituted, so that, although it continues to operate, the gentle splashing of the paddle wheel has been replaced by a flat-line drone.

In Skruv both the flour mill and the saw mill, also powered now by new forms of energy, have moved away from the stream on which they were once situated. By contrast, Lesconil once had several windmills, which were quite noisy in operation. “Rack-rack-rack-rack!” was the way one inhabitant described the sound of the wooden sail-frames buffeted by the wind.

As the world modernizes it seems to move away from water, at least in its natural form. We can observe this happening in our villages. One by one they have retreated from the public fountains, as running water has been piped into houses. Dollar was the first to be provided with the modern amenity (1867). Lesconil followed in 1918, though in Cembra it did not begin to happen until 1938, and the transition is still not complete. In Bissingen the town council put an end to the public fountain (except perhaps for the watering of animals) in 1950 when they established a public laundromat with electric washing machines. Even the annual custom of washing sheep in the stream has died out (the bleating could be heard all over the village).



An abandoned windmill near Lesconil.

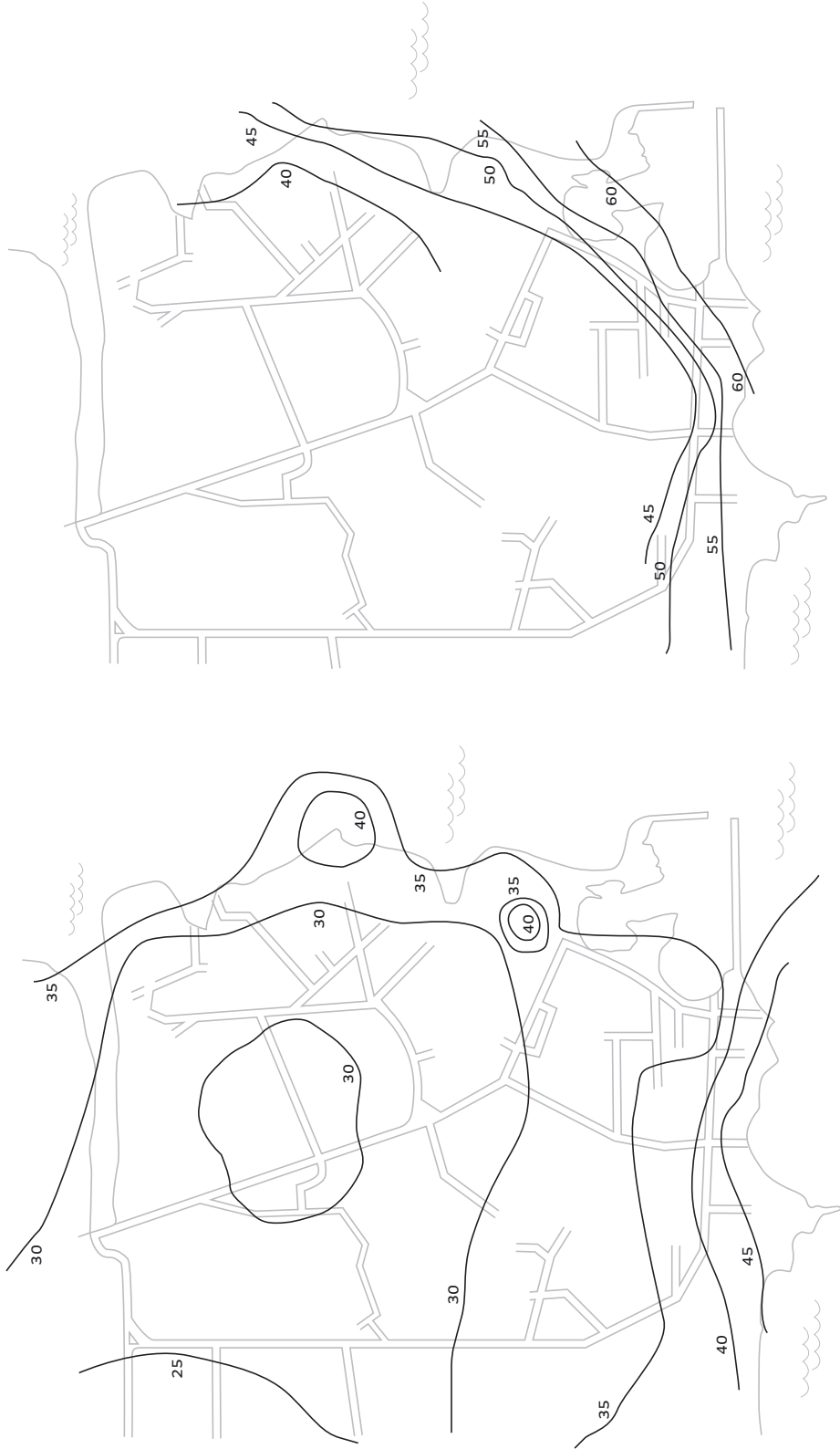
Today, as before, there are three public fountains in Bissingen, outside the Gasthaus Adler, the Gasthaus Ochsen and the Gasthaus Hirsch. They are there for the animals. But the last horse and wagon disappeared from Bissingen in 1972 and cattle are now seen only rarely in the streets.

Finally the modern town seems to turn its back on water. In both Skruv and Bissingen the streams have been covered over in the central part of town. They now run beneath the widened streets. In Dollar, where the original town lay around the Burn and to the east of it, the new town has been regrouping since the nineteenth century so that it now hugs the banks of the A91 highway, which forms the contemporary and more ambivalently appreciated keynote of the community soundscape.

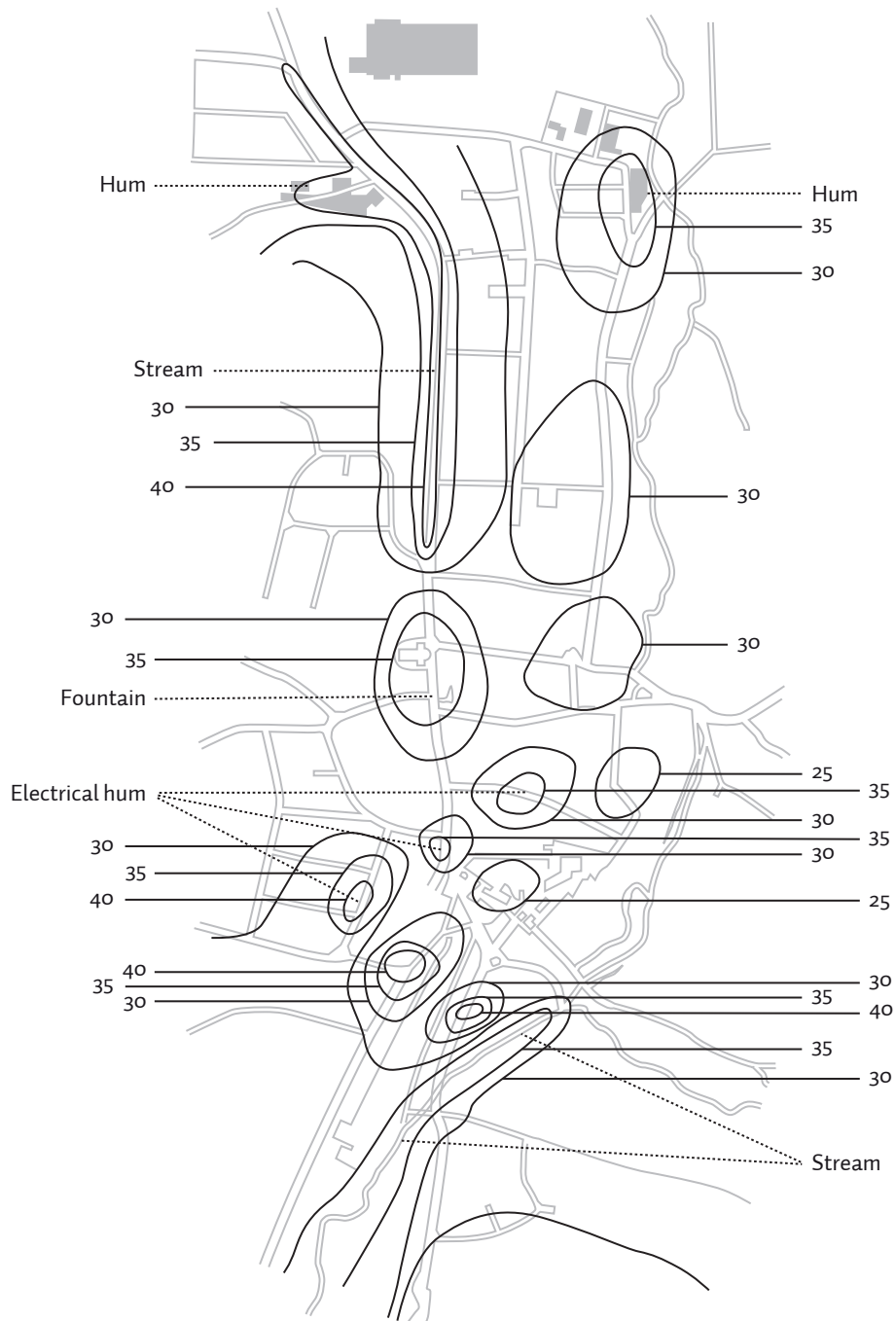
Unlike water, stone does not make a sound on its own; rather only when brushed, chipped, scraped or crushed. Like other building materials, stone also affects sound by reflecting and refracting it in different ways, producing variations in soundscape ambience. Some of these qualities will be explored in the following paragraphs.

One of the most common sounds in all community life is that produced by the wheels of vehicles in contact with various road surfaces. Today village life, like life everywhere, is dominated by the sounds of motorized vehicles with rubber wheels. But this is a modern transition and it is not yet quite complete. Originally the road surfaces in all our villages were dirt or mud and the vehicles were wagons or carts, drawn by animals. Even the bicycle did not arrive until the end of the nineteenth century (Bissingen 1898), thirty years after its invention, because the road surfaces were not suited to it.

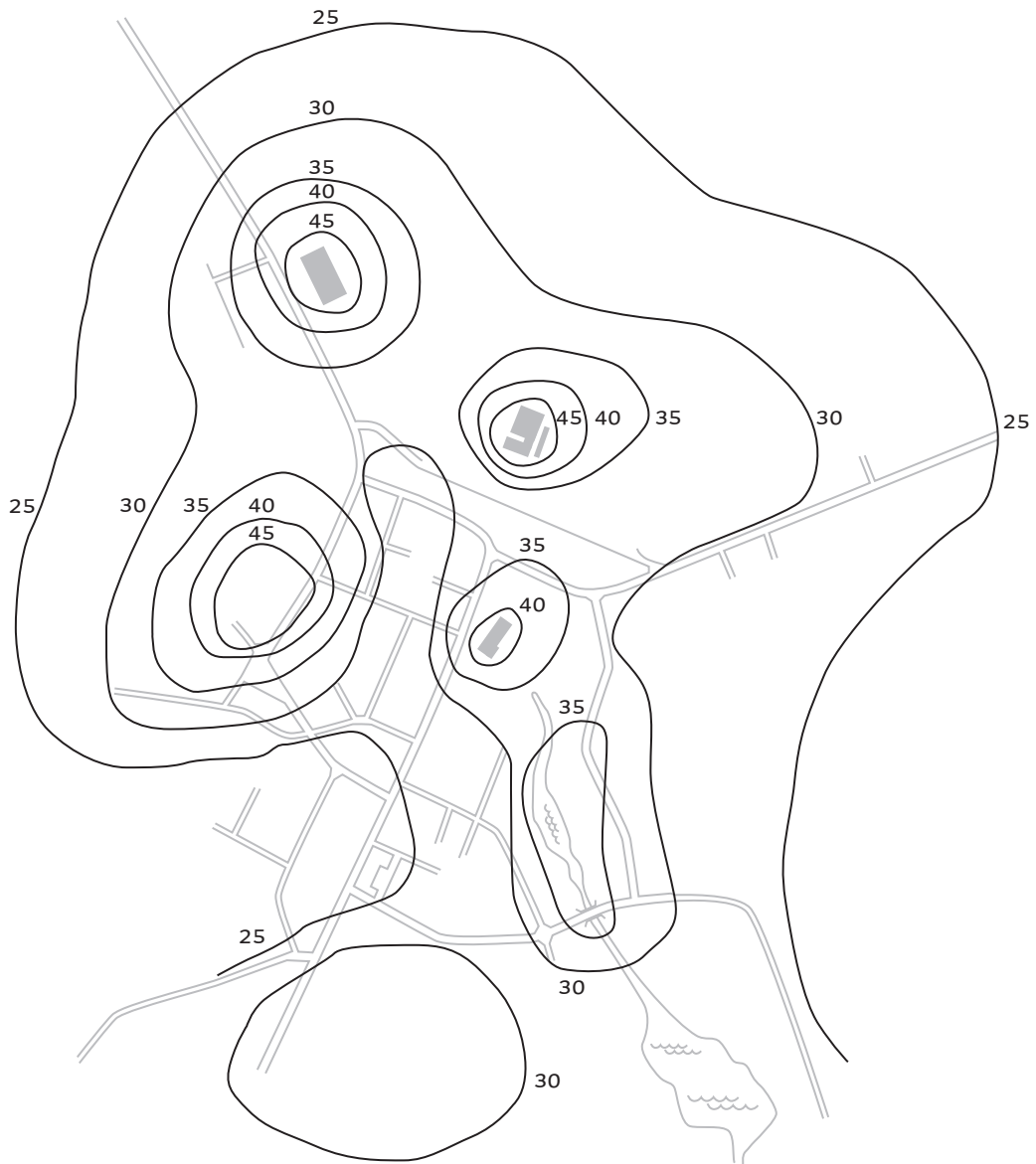
The first improvement in road material was frequently gravel (Skruv, Bissingen,



Isobel maps of Lescomil, constructed from ambient sound level readings taken in the late evening. The first map shows the pattern for a calm evening, the second when the wind is creating waves along the beach.



Isobel map of Bissingen, constructed from ambient sound level readings taken in the late evening. The prominent sound sources marked include hums from the factories and water sounds from a fountain and the stream.



Isobel map of Skruv, constructed from ambient sound level readings taken in the late evening. Prominent sound sources included the hums from the factories, shopping plaza and the sound of the stream.

Lesconil). In Bissingen we were informed that during the early decades of the present century, boulders were piled at intervals along the sides of the streets. When the roads became muddy, poor people or schoolboys were employed by the town council to chip them up into gravel, which was then flattened out by a steam roller. In fact, the sharp impact sound of mallets chipping stones must have been one of the

important keynote sounds of all communities in the past, comparing with that of the blacksmith's hammer. (In our villages the stone mason's hammer would have been especially prominent in Lesconil and Dollar.)

In Dollar, many of the roads were macadamized during the 19th century. The technique, invented by John McAdam, consisted of compacting into a solid mass successive layers of stone, broken into pieces of nearly uniform size. In Dollar the stones are about the size of tennis balls and a few of the roads and many of the pathways are still composed of them. Interviewees in Dollar mentioned the distinctive sound-memory of iron-wheeled vehicles and horses' hooves on water-bound macadam and the transition of tone quality as one left the village for the country lanes. During the present century, gravel gave way to asphalt paving in four of the villages (see Figure 20). Cembra has retained cobblestones on many of its side roads, though in 1960 the principal streets were repaved with flat brick-like stones, often in fan patterns.



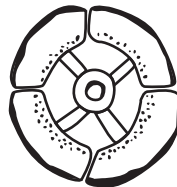
*Cobbled back street
in Cembra.*

The differences in sound quality between rounded and flat cobble is as noticeable as that between gravel and pavement; and even among the asphalted roads, there are detectable differences between the smooth surfaces of Skruv and the rough asphalt of Lesconil, if not under wheel, at least under foot.



Newly cobbled road in front of the Municipio (Town Hall), Cembra.

A great variety of boots and wheels have moved across the streets of the different villages. In the little museum at Ljuder, there is preserved an old cart with heavy wheels made of rough-hewn wood in four sections:



Contrasting with this is a special type of wooden cart, still occasionally used in Cembra. Because of the very steep roads these carts are provided with an unusual braking device, consisting of two heavy beams dragged behind the wheels and fitted with crossbars on which wood from the hills is loaded and brought down the back streets of the village. The scraping and rattling sounds produced by these carts once provided the village with a unique sound, and in our Sound Preference Test, school children remarked on it.

The majority of wagon wheels would have been fitted with iron rims in all villages. Bissingen, for instance, used to have a wagon master and a cooper as well as three smiths. The sound of animals, shod and unshod, can only be surmised, but Bissingen apparently heard a unique two-toned effect, for its horses and cattle were shod on one side only in order to keep the hooves in a healthier condition. The shoes were changed around periodically.

The last horse-drawn vehicles have left four of the villages now, the most recent being Skruv in 1970 and Bissingen in 1972 (see Figure 18). In this respect it is somewhat surprising to discover how much children in Skruv approved of horses' hooves, while in Bissingen they seem to have passed with scarcely a notice. Only in Cembra can one still hear carts, drawn by horses or oxen. Lesconil seems to have been a village (almost) without wagon wheels. In the past, when it was very poor, there was only one horse in town, owned by the fish dealer. Everyone else walked.

Human feet on road surfaces once provided considerable sound variation in the five villages and to a certain extent it still does. In Bissingen hobnails were used in everyday footwear and a charming picture of a school class from the early decades of the century shows a row of little boys sitting, feet outstretched, showing the soles of their boots covered with hobnails. A small detail in the altered Sunday soundscape of village life was that "Sunday best" included shoes without nails. The same custom existed in Lesconil, where, on confirmation, each child was given a pair of leather shoes (much too large, with the idea that they would grow into them) for Sunday use only. The normal footwear in Lesconil was *sabots* (clogs) and they are



A side street in Lesconil.

still worn by most of the older men. The custom will probably pass, however, for the local clog-maker died in 1970 and no one has followed him in his profession. Though they certainly sound differently from modern shoes, we found it interesting that none of the school children we interviewed gave them special attention. On the other hand they did express a liking for *claquettes*, a type of wooden slipper worn by the women in summer. We could only imagine the sound of *claquettes* on tile or stone cottage floors, for we heard none during our visit. On the other hand, to round off our consideration of characteristic stone sounds, Lesconil children expressed a strong dislike of the sharp impact of the gun used to fire nails into concrete, a recent acquisition to the village soundscape, but probably destined to be heard more frequently because of the building materials used there.

All building materials affect the acoustic ambience of a community. Flat stone or concrete provides the clearest reflection of sound, though a great deal also depends on the placement and height of the buildings, the width of streets, and the number



Narrow alley in Cembra.

and type of open areas between them. From our notes we can make the following general observations about the character of the streets of the five villages. See Table 6.

From Table 6 it is obvious that Cembra, with its taller buildings, narrowest streets and few open areas, should produce the greatest amount of reflected sound. Bissingen, Lesconil and Dollar represent a middle position. Skruv, being a much more open town suggests less acoustic congestion and overlapping. Such observations would only be true if materials and spatial configurations alone dictated soundscape character, but this is a great oversimplification. It depends largely on the activities taking place in each village. These activities and the resulting complex interjection between sounds and the community are the subject of the following chapter.

Table 6

	SKRUV	BISSINGEN	CEMBRA	LESCONIL	DOLLAR
Predominant Material of Buildings	wood and brick	wood beams, covered with stucco; tile roofs	stone & stucco	stone & some stucco	stone or stucco, slate roofs
Height of Most Structures	1–2 storey, a few 2–3 storey apartments	1–2 storey; a few 3–4 storey public buildings	1–4 storey	1–3 storey	1–2 storey
Buildings Set Back or Directly on Street	houses set back with front lawn	houses directly on street or set back behind compost heaps	directly on road in old quarter; set back in new quarter	1–2 meter yards on main streets; 3–6 meter gardens on side streets with stone walls	set back 6–20 metres with stone walls and gardens
Average Width of Streets	10–12 metres	5–9 metres	1.5–6 metres	2.5–8 metres	5–9 metres
Average Width of Sidewalks	1.5 metres	1 metre (when present)	1 metre (when present)	1 metre (when present)	1–2.5 metres
Open Areas: Squares and Plazas	shopping plaza, station plaza, etc.	none	church plazas, otherwise none	shopping plaza, harbour front	academy grounds
Open Natural Areas: Parks	yes	one, around small lake	none	none	yes
Trees and Vegetation	plenty of trees; mostly aspen and evergreen	no trees, but extensive cherry orchards surrounding village	no trees, vine yards on slopes below village	no trees at waterfront, some further back, small grove of pine in one quarter waterfront, flatland behind	plenty of deciduous & evergreen trees & shrubs
Geographic Situation of Village	flat open & forested countryside	in a valley; high hills on 3 sides	on a mountainside, wide valley across	waterfront, flatland behind	at base of hillside, open country & river valley below

V Acoustic Definition

Throughout this document we are working toward an understanding of each community by establishing relationships between a village's life and its acoustic environment. In the foregoing sections on rhythm and materials, we were concerned with different patterns of movement, and with ambient qualities. Together they reflect processes which make up the background of village life. In this chapter we will discuss sounds of a different order, sounds such as community soundmarks and signals that are the *foreground* to the ambience of the village. These are sounds that have some specific value or function in the life of the village. We recall, for instance, how in earlier times the sound of the church bell served to delimit parish boundaries, or how the human voice once carried fire distress calls throughout a fair-sized European town such as 18th century Vienna. Such sounds are typical of a highly defined acoustic environment in which certain sound events stand out in high relief to the ambient background.

The essential question in this context is: what *information*, and what levels of information, are communicated by the foreground sounds of a village? By this we mean not only the more obvious messages which certain sounds are understood to convey individually, but also the less obvious implications which these sounds have when taken together as interrelated elements of a coherent system of communication. We shall explore this concept from four different perspectives.

First, we shall consider *community sound signals* – those sounds which deliver recognized messages, such as shift whistles and church bells. These are sounds which define time and certain activities, and they are heard clearly over the entire village. Naturally though, they often extend beyond the village itself and become incoming sounds for certain other neighbouring communities. In this context they have a

different level of information: their message as sounds is not important on a signal basis, defining work periods or activities, but rather it is important on a geographical basis, defining the *acoustic horizon*. This will be our second subject of discussion, the acoustic interconnections between a village and those incoming sounds which indicate its larger regional context.

Other types of incoming sounds however, constitute *sonic intrusion* (e.g. traffic, aircraft noises) and carry still another level of information. Usually they indicate nothing particular in themselves as sounds but their continued existence emphasizes the larger socio-economic context in which these villages function and by which they will perhaps eventually be absorbed. These sounds tend to mask and blur the overall acoustic definition of a community, reducing the clarity and spatial quality of its sound environment. Distraction from the centralized, tightly knit life of a village is the direct result of such sonic intrusions; by losing interest in the sounds of their community, people tend to disconnect themselves from the traditional rhythms of village life.

The question of soundscape definition would not be complete if we considered only the present day realities and ignored *historical changes*, the subject of our last theme. Change in acoustic definition of a community runs parallel to social change, and in our experience, the change in western industrial society is always toward reduced definition. Our thesis is that when a village surrenders its independence to a larger social system, the transition is marked by the disappearance of its unique soundmarks and sound events.

We will deal with the various levels of definition outlined above by concentrating on specific villages which are specifically representative of them, at the same time referring to the other villages as occasion demands.

COMMUNITY SOUND SIGNALS: SKRUV

We think of definition as that which gives order and coherence to the soundscape on the level of conscious perception, whereas rhythm and ambience, being less consciously perceived, function similarly to the ground in visual perception by giving the context for the definition.

Acoustic definition arises through foreground sounds, those which stand out conspicuously and regulate (or indicate regulation of) village life. These sounds indicate rules of behaviour and activity, articulating patterns which range from those which are universal (at least to the culture) to others which may be more peculiar to the village. Four such common patterns are work, worship, travel and consumerism, and they are all reflected in the foreground sounds of Skruv in particular. This village, with its several small industries, has grown up around the railway since 1874, and it is the sounds associated with the railway and the two largest industries which are the most significant and predominant in the village. Another community sound signal,

the church bells at Ljuder, originates 4 km. to the west, and so properly constitutes both a signaling and a geographical function, indicating the service times and also defining the westerly acoustic horizon.

Figure 21 shows the different physical areas encompassed by the signal sounds of Skruv, as estimated by villagers (except in the case of the train whistles, which we estimated). It also shows the measured intensity of several of the loudest sounds to be heard in the village.

We can interpret this information in three different ways:

1. the largest profile (church bells) suggests the most important community sound;
2. the smallest profile is most significant, being most specific to the village area itself;
3. the map is “wrong” in terms of the measured intensity of the sounds and the most significant sound is the brewery shift whistle.

All three interpretations have interest. The measured sound levels suggest that the brewery shift whistle ought to have the largest profile, yet the acoustically less powerful church bells are defined by the villagers as spreading over a greater area. They think the bells reach farther, based presumably on what they have “noticed” but in fact this reach of the bells is probably largely a mental process that reflects the cultural values associated with the sound. Another factor could be that the church bells have a more complex pattern: they ring repeatedly and have more internal structure than does the single blast of the shift whistle. Also, the bells ring only once a week, on Sunday, when it is quieter. Although the church bells may figure larger in the conscious minds of the inhabitants, we wonder if the economic (and probably less consciously perceived) importance of the factory is suggested by the actual profile of its whistle.

The profile of the train whistles is also interesting, but for other reasons. It occupies roughly the area of the village itself, but more specifically, the whistles are blown at the outer edges of town, and thus define the physical limits of Skruv, not only by occupying its area, but also by identifying precise boundaries. These boundaries are at the edge of a fairly deep forest surrounding the village – an environment providing each whistle blast with considerable reverberation as a result of multiple reflections off the trees. The train whistles mark the physical boundary of the village, define its area, and in addition, represent its connection with the outside world. (This last function, of course, has also been taken over by those media which provide electroacoustic connections to the outside world.)

The sound of the train whistles appeared quite attractive to us personally, a reaction which was shared by some of the students in our Sound Preference Test: “The signals are very plain”; “The whistle from the train seems very lovely to me”; “In the train we sit very calm.”

Before we go into this subject in more detail, we should investigate briefly the way sound signals articulate daily rhythms in Skruv, for besides giving spatial

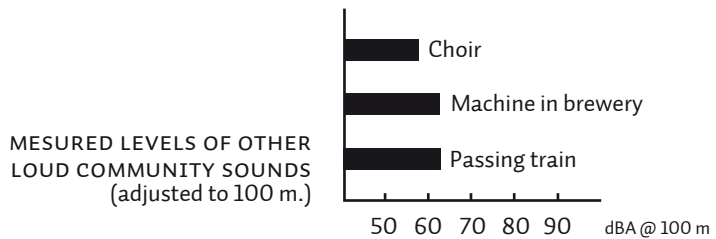
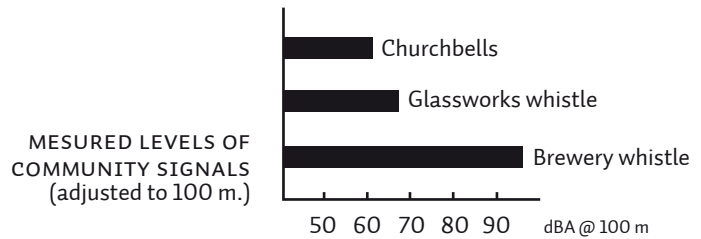
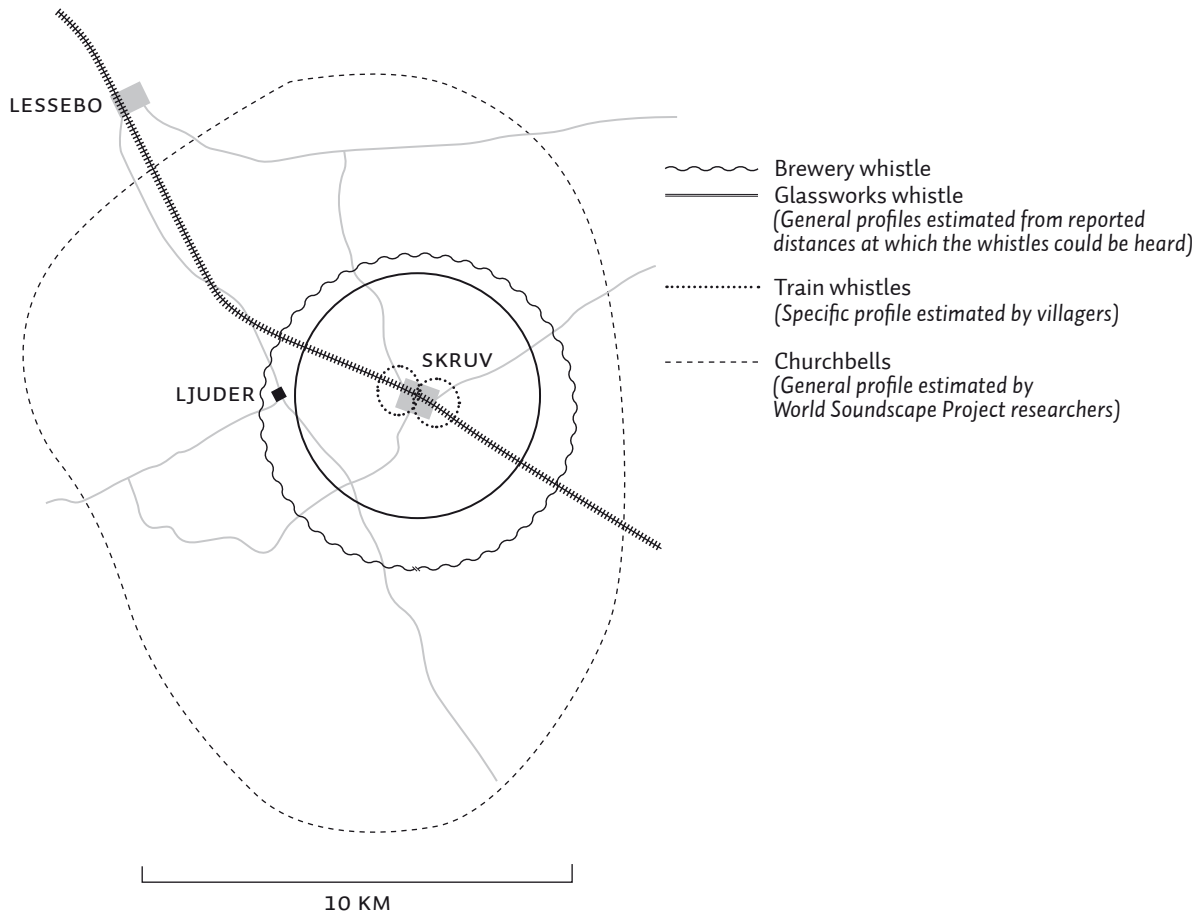


Figure 21. Acoustic profiles of the church bells, glassworks and brewery whistles in Skruv as perceived by local residents. For comparison, the estimated profile of the train whistle and the measured levels of various community sounds are shown.

definition to the community, they also mark time, punctuating the village rhythm at fixed intervals. Figure 22 shows the isorhythmic patterns created by these sounds. Together they give a clear indication of the passage of time, but the experience of time which each signal suggests is different. The factory whistle, for instance, emphasizes clock time, very mechanically marking off sections of the work day as they are completed or as they begin.

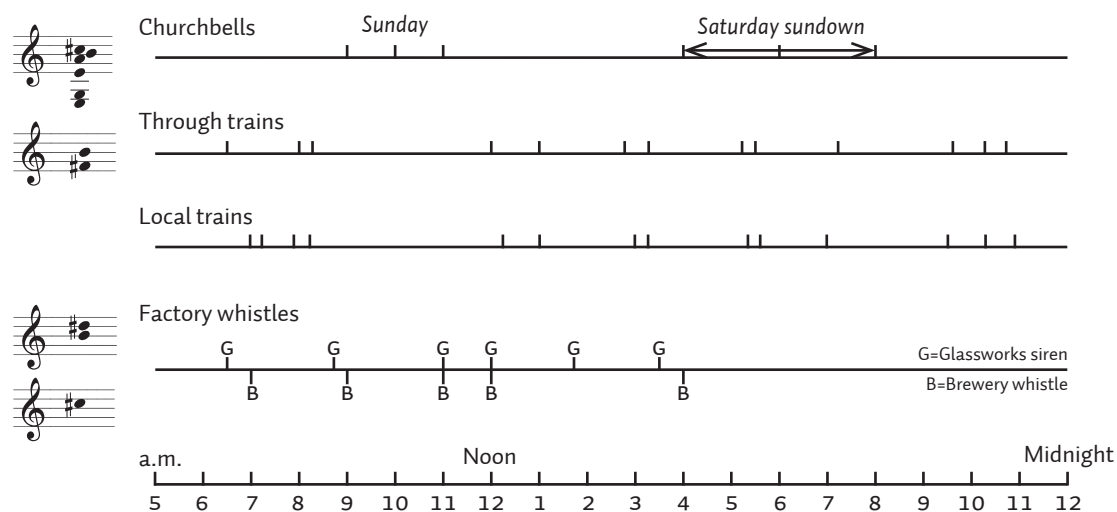


Figure 22. Pattern of community sound signals throughout the day in Skruv.

Many children found the shift whistles unpleasant, possibly echoing the displeasure of their parents, who work in the factories. The church bell, on the other hand, suggests a different rhythm, one which may be more benign. But this may be changing, as our Sound Preference Tests with school children showed: bells occurred only once as a pleasant sound, compared with 8 references to pop music. Of all the signals, the train whistles occur most often, and while they are more ubiquitous, they were generally well-liked by the students. Perhaps the train whistle suggests a possibility of escape from village ties. However, the chart indicates only the punctuating rhythms and pitches of each signal.

The chart also fails to show the very clear ambience in which these sounds appear and create their physical definition. Despite the relatively high traffic statistics given earlier for Skruv (Table 1), things are slow enough that cars and all other sound events are heard individually and clearly. *Any* sound, signal or otherwise, stands out in this village, and a good example of this is to be heard in a recording we made of the stream which flows quietly through Skruv. During this recording, which was made near the railway station, the sound of a freight train flying through at top speed failed to mask completely the sound of the stream, which

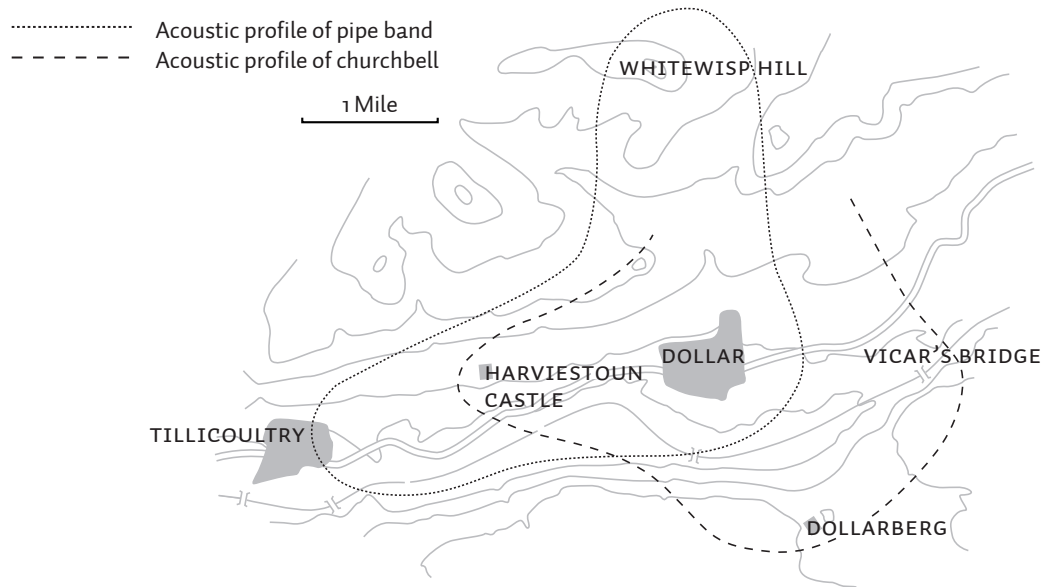
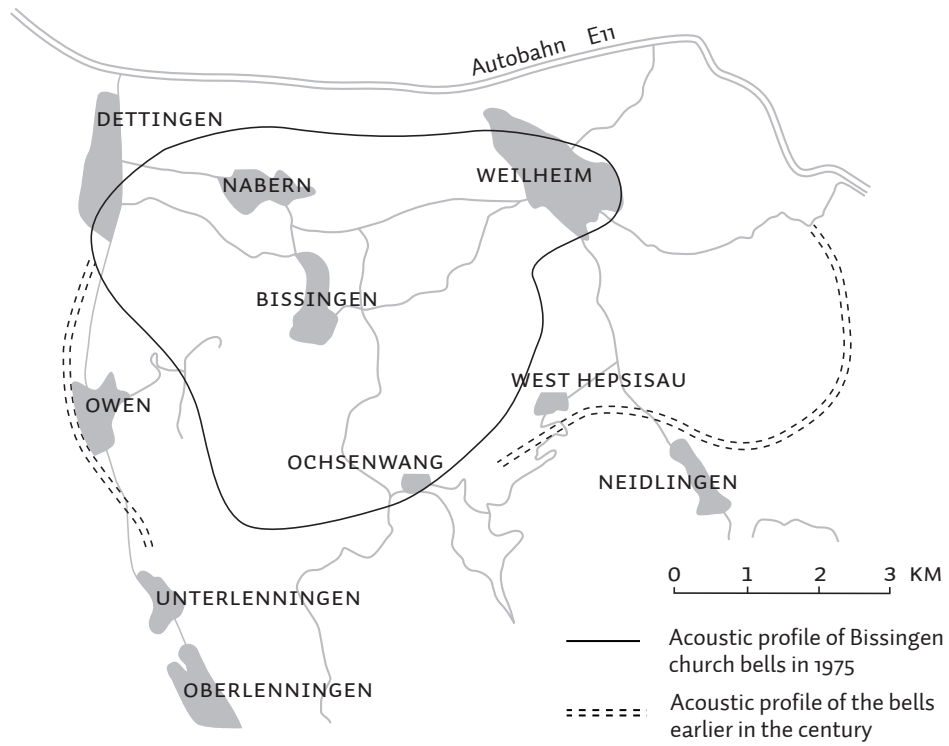


Figure 23. Acoustic profiles of the church bells in Bissingen and Dollar, and that of the Dollar pipe band.

was bright, and strong in high frequencies. Because the train's acoustic energy is centred in a lower frequency range, and because of the lack of any other masking noise in the village, the delicate sound of the stream somehow survives the blitzing of the high intensity train. The sound of the stream appears in an ambient context which allows subtle, complex and delicate sounds to stand out, and gives clear definition to individual and less conspicuous processes and events. This quiet ambience functions complementarily with the community sound signals to create a hi-fi soundscape where acoustic definition of single events is, along with the quiet droning keynotes, Skruv's most characteristic feature.

Signals in the other villages were less prominent or significant, but for comparison, Figure 23 shows the profile for the church bells of Bissingen and church bells and Pipe Band of Dollar. In the case of Bissingen, a second profile is given (dashed lines), corresponding to the pre-World War I profile of the bells.

ACOUSTIC HORIZON: LESCONIL

The community signals of one village often penetrate areas larger than the village itself, and thus are heard in neighbouring settlements. Any town might have a few of these incoming signals, arriving from various points, and thus defining an acoustic horizon in those directions.

In the ancient Indian text, the *Rig-Veda*, a primary relationship is suggested between sound and spatial orientation: "The moon was born from his mind; from his eye was born the sun ... From his navel grew the atmosphere; from his head the sky; from his ear the directions." (quoted in C.G. Jung, *Symbols of Transformation*, Princeton, Bollingen Series, 1967, p. 417). This mythological derivation could only come from a culture in which sounds were perceived with acute awareness as coming from precise points near and far. Notice also the consummate quality of the hearing function: put all the previous entities together (sun, moon, atmosphere) and you have direction, i.e. the relationship they create together in a specific context.

Listening at a distance is primarily a rural habit, and it is probably a very ancient one. In the modern city, however, most aural information comes from sounds that are near at hand, and because of their numerousness or intensity, distant sounds are rarely ever heard. Distant sounds entering a community from various directions relate the village to the region at large. The acoustic horizon created by such sounds is limited and modified by certain constraints: the intensity of the originating sound, the physical environment over which the sound must travel, weather and atmospheric conditions, wind flow, and most particularly, the ambient sound level in which these signals are heard. Thus, conditions at the source of the sound, in the medium of its transmission, and at the receiving end, all affect its audibility and quality.

In most pre-industrial societies the intensity of the originating sound would correspond to some limit of human activity: the strength of a bell ringer, for example.

Therefore, because of the human limitations in defining the acoustic horizon, it is not surprising that in those villages which preserved essential qualities of their traditional ways, few sounds appeared which were farther than a day's walking distance. This acoustic horizon would correspond to limits beyond which villagers would not often venture.

Of the five villages in our study, the French fishing community of Lesconil has the most clearly defined acoustic horizon, one which changes during the day and which corresponds to the socio-economic rhythms of the village.

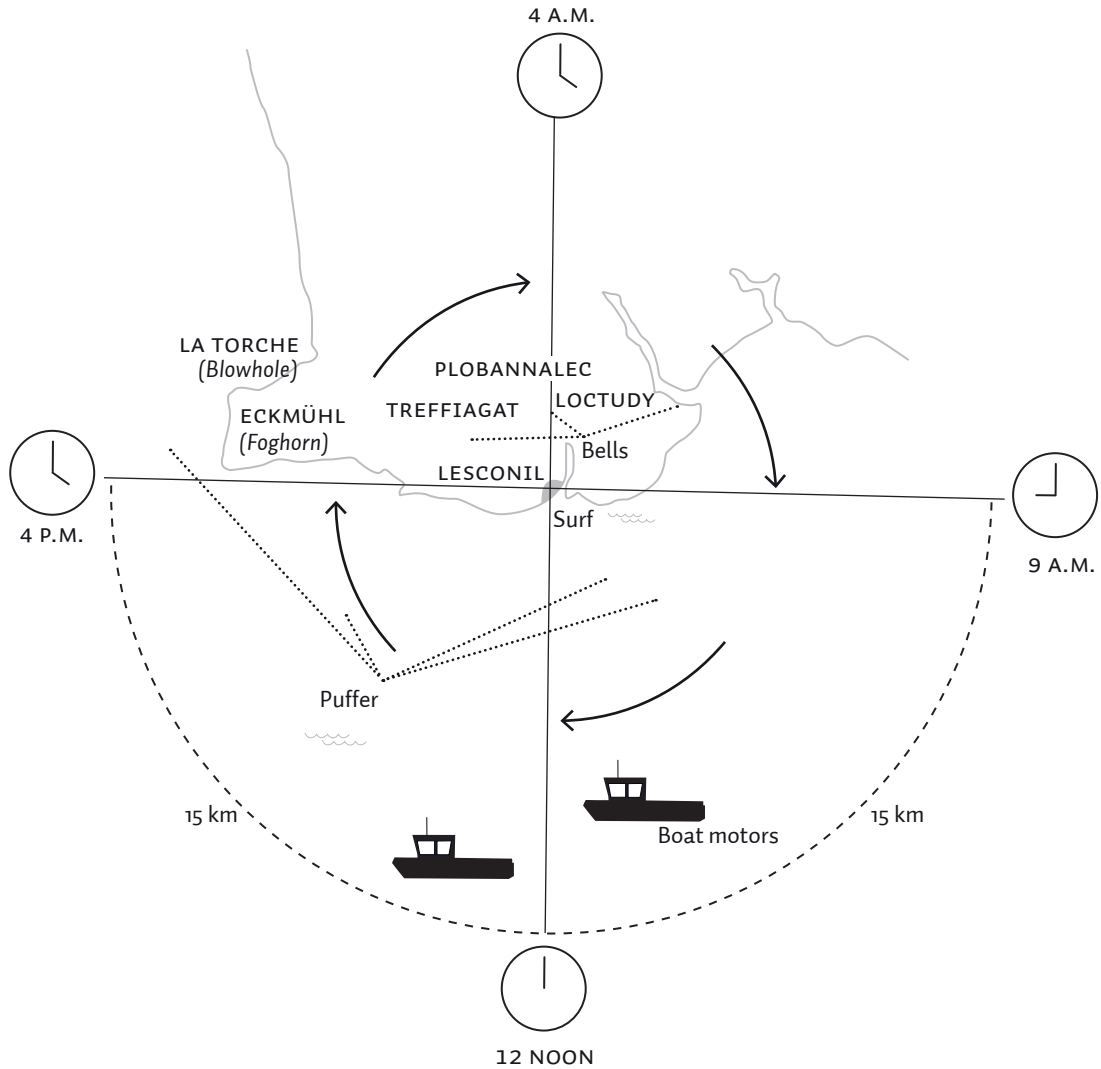


Figure 24. Daily pattern of the solar wind cycle in Lesconil showing the sound sources brought by the winds to the community throughout the day.

In chapter two we mentioned the offshore-onshore cycle of winds known as *les vents solaires* (solar winds). The daily cycle begins in the morning, when air is blowing from the north, off the land to the relatively warmer sea. As the sun rises, the wind begins to move in a clockwise direction toward the east, continuing on to the south toward afternoon, the west in the evening and back to the north again at night. Sounds are carried by these winds to the village from the surrounding communities, coast-line and open sea. Over the day a pattern is created which gives both spatial (directional) and rhythmic articulation to the soundscape.

Figure 24 shows the sequence of sounds and their geographical distribution. The interesting thing about this cycle, aside from its internal structure, is its parallel relationship to the daily fishing routine, and thus to the routine of the whole village. In the early morning when the men set out, winds blowing from the north carry land-associated sounds to the port, and so they hear the noises of activity in the fields, church bells and so on. Then in the afternoon when they return, the wind has rotated 180 degrees so that again it blows more or less from behind them, from the environment they are leaving. However in this case, the sounds of their engines are not blown out to the sea, but back to the village. The sound of the trawlers can be heard at a distance of 10 to 15 km. due to reflection from the water surface and atmospheric effects, in addition to the wind gradient. In effect the sound signals the arrival of the fleet back into port. This effect of the solar winds holds for wind speeds up to 3 or 4 on the Beaufort scale; beyond this, sounds are scattered and there is too much incidental noise for the distant sounds to be heard distinctly.

The various sounds which the solar winds bring together define a physical range which corresponds to the limits of the villagers' traditional activities. Rarely would they venture beyond Plobannaec or Loctudy. The trawlers never went further than 15 km. offshore, following the range of movement of the shrimp. (This movement, incidentally, is associated with another sound, the springtime singing of frogs, which is believed to signal that time of year when the shrimp have moved closer inland.) Of course this environmental perimeter has broken down since communication with the outside world by motor vehicle and electronic media became possible. However Lesconil has been slow in this development, not acquiring private motor vehicles until the early 1950's.

The fact that the boats have become motorized with diesel engines (1927–36) has not changed the basic daily cycle, which no doubt resulted partly from the winds themselves, as they blew sailing vessels out to sea and back each morning and evening. However, the sailors' hearing seems to have suffered from the motorization of the fleet, so that one may wonder whether the acoustic horizon of Lesconil is accurately perceived as it once was.

Apart from the summertime effect of *les vents solaires*, the southern acoustic horizon, defined at any time of year in Lesconil by the noise of the sea, contains useable and fairly precise information about weather changes. Quite simply, the

direction from which the sound of the surf or certain buoys are heard, precedes by 24 hours the weather to come from that direction. The type of weather, bad or good, is always associated with its source: south-easterly, westerly, etc. This is common information and it is supplemented by other cues, such as the presence of gulls inland, or certain atmospheric effects on sunlight. Together they form an accurate forecasting system, predicting 48 hours in advance (even ahead of barometric changes) alterations in weather conditions.

Naturally these patterns are not exclusive to Lesconil, but are characteristic of all coastal areas of the region. However, they do point very clearly to a well-defined acoustic environment which has a strong, precise relationship to the community and communicates useful information to the villagers, and to us as students of history and human settlement, about the environment in which the village functions.

Figure 25 shows for comparison the sources of various incoming sounds or Dollar and Bissingen. For Dollar, these sounds are audible only at the golf course, which rests on the slopes of the Ochil hills. Distant sounds can be heard here which normally would be masked by ambient traffic noise. The Bissingen map is more theoretical, for, standing on the hill overlooking the village, we were never able to hear any but the bells of the churches in Nabern and Unterlenningen, though we did hear trains from Dettingen. Elderly inhabitants of the village, however, claim that they used to be able to hear the church bells from all the sources marked on the map. But today one hears a new sound from outside the village, and with great regularity: that of aircraft.

SONIC INTRUSIONS: BISSINGEN & DOLLAR

The above profile maps of Bissingen and Dollar introduce the problem of interference from outside. Here the acoustic horizon of each is often simply that of automobile traffic or aircraft — sounds which do not belong in the village, and come into it simply by virtue of their inordinate intensity, which in turn is only the by-product of a mechanical process that is unrelated to the village.

The bells are quite hopeless, there's a car every 15 seconds; I would reckon that a car within a quarter of a mile makes the bells inaudible... and I never heard anything from Blairingone at all. You'd never hear it with this traffic. (David Graham, commenting on the audibility of the Dollar Church bell, at a place on the road one mile out of town where his father once could hear four different church bells ringing together from neighbouring villages at several miles distance.)

The “noise” which the intrusions of heavy traffic or aircraft create should be understood in terms of its effects on the system of incoming and outgoing community

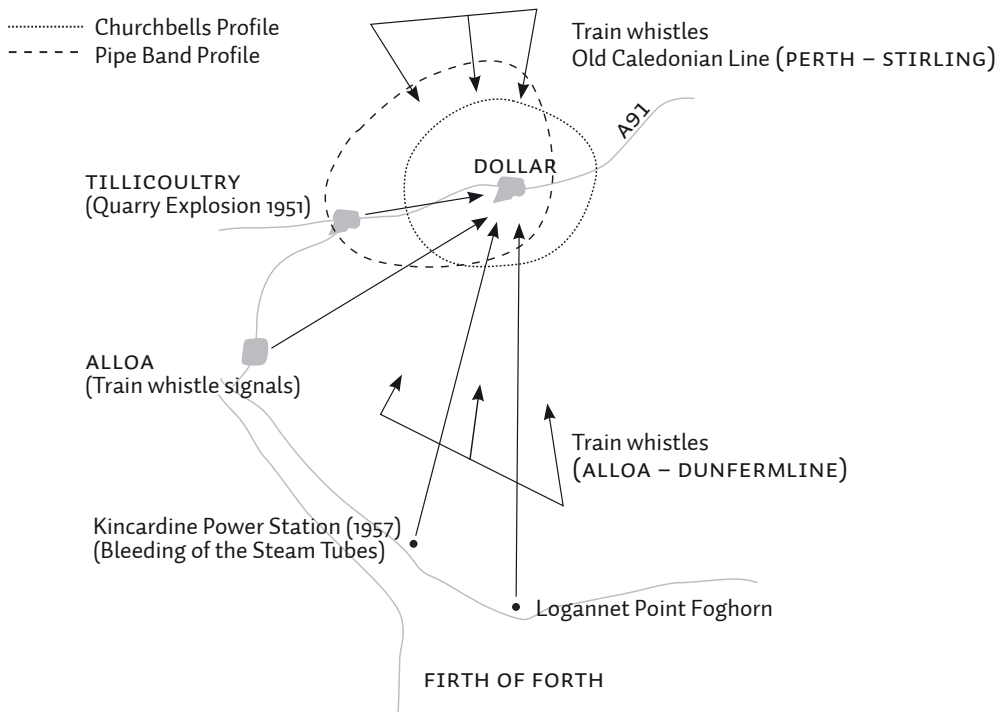
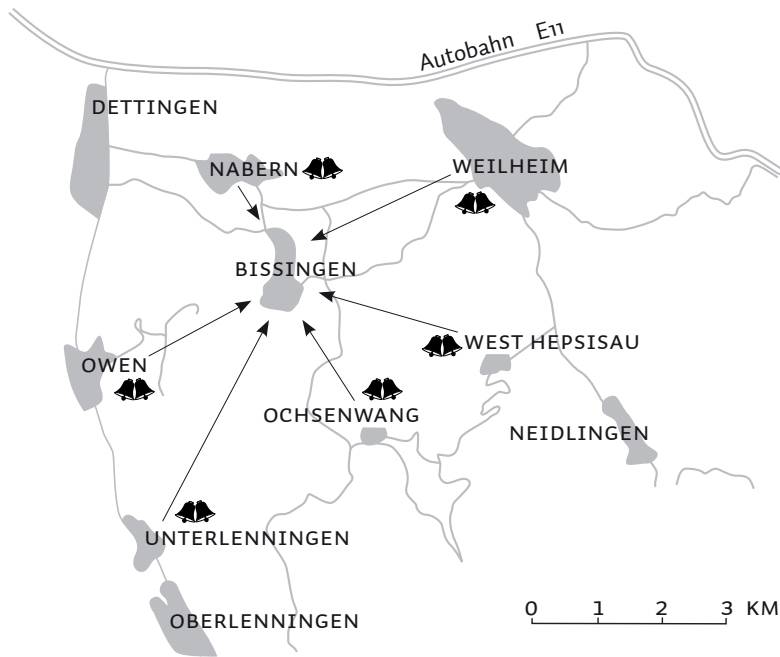


Figure 25. Incoming sounds heard in Bissingen and Dollar. In Bissingen the sounds are those of church bells from neighbouring villages. The sound sources on the Dollar map are more numerous, and can best be heard at the golf course, above the village.

signals described above. This kind of sound is continuous, compared to the relatively isolated events of local traffic. Local traffic may indeed constitute a noise factor, but it does so at another level: an individual traffic sound might interfere with other single sounds at any particular time, but because of its individual quality, it does not change the repeated pattern of the larger system of community signals audible on the acoustic horizon. However if the noise source is constant and loud or broadband, the audibility of incoming sounds may be reduced altogether or partially, over certain daytime durations. Thus, the acoustic signals which precisely define the interdependent relationship between village and surrounding region are rendered unusable, and consequently they become less clearly defined in the minds of the people. Once this happens, the relationship of the community to the region, which the perception of the sounds invoked, begins to disappear, or is replaced by centralized powers, as symbolized by aircraft or transport trucks.

One indication of the presence of ambient traffic sound is the difference between readings taken on the weighted A-scale and those taken on the less-weighted C-scale of the sound level meter. Low frequency sound is filtered out of the A-scale readings to make them correspond with the frequency response of the ear, which discriminates against low frequencies. Soundscapes heavy in low-frequency components are generally typical of both open and enclosed environments in urban industrial society. Building interiors and traffic noise alike share this characteristic, in contrast to the comparatively balanced spectrum of the natural soundscape, where C-scale decibel readings are usually no more than 2–5 dB higher than A-scale readings.

Table 7

Daytime Ambient Sound Level Readings (measured at village perimeter)					
	SKRUV	BISSINGEN	CEMBRA	LESCONIL	DOLLAR
dBA	36.1	40.0	35.1	32.0	36.7
dBC	51.6	55.9	48.7	45.0	51.9
dBC–dBA	15.5	15.9	13.6	13.0	15.2

Table 7 shows comparative A and C level readings of the daytime ambient sound environment of our five towns, measured at the perimeters. Especially interesting are the particularly high C levels measured on the hillsides of Bissingen. We can only speculate as to the causes of these high levels. However, one possible interpretation is that the bowl-shaped valley itself traps low-frequency noises and so possibly even remote aircraft might cause this buildup, without being visible and only barely audible.

Studies made on the hillside above Bissingen support this interpretation. The presence of high-flying jets was registered by listeners from the moment they appeared on the acoustic horizon until they disappeared. Figure 26 shows that aircraft are clearly audible over the village more than 50% of the time during daylight hours, and their inaudible vibrations may be present for more time still. The proximity of the Autobahn, less than 3 km. to the west, and of numerous other towns, which thicken as Stuttgart is approached, no doubt contributes to the rumble effects as well.

The intrusive increase of low-frequency sound and vibration into the contemporary soundscape is one of the more common, but unstudied trends in environmental acoustics. The relatively slight response of the ear to these sounds has distracted most researchers from the simple, but important fact that physical vibration affects the entire body. Over long periods of time, the physiological effects are unknown; however, we certainly know their effect at high intensities over a relatively short time: they tear tissue apart. At low intensities over the long term, their effect may be as much psychological as it is physiological.

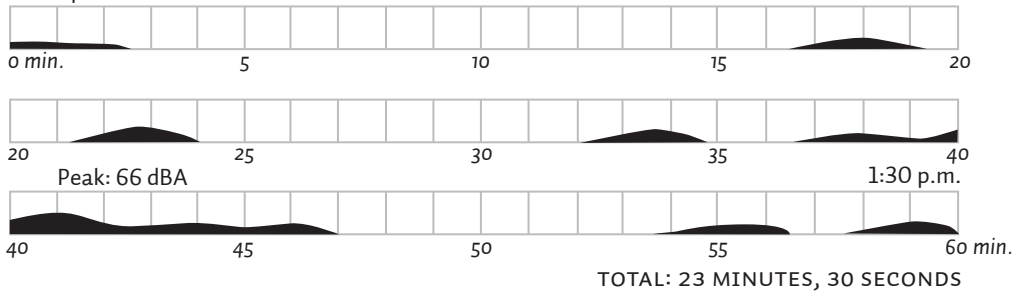
On the perceptual level, low-frequency rumble affects one's sense of acoustic space. Low-frequency sound sources are difficult to locate, because the waves diffract easily around corners and are transmitted through walls and other surfaces. Because such sound is at the lower pitch threshold of hearing, it will not usually be consciously perceived. Therefore, while it provides the listener with little directional information itself, it also tends to mask other higher-frequency sounds which do; on both counts low-frequency sound is reducing perspective in the soundscape both indoors and outdoors, minimizing the difference between the two.

General low-frequency rumble in Bissingen, and to a lesser extent in Dollar, represents the intrusion of industrialized society into village life. This intrusion, however, also takes the form of individual low-flying military jets and the sonic booms they produce. While we were in Bissingen we heard at least one sonic boom per day, sometimes distant, sometimes frighteningly close. These are conspicuous events and are in contrast to the continuous but very quiet rumble which is in the background.

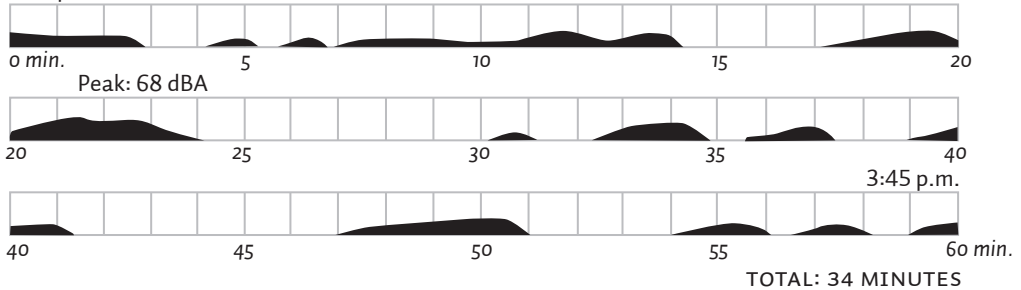
Intrusive sounds function as "noise" in the soundscape on at least three levels, depending on the system of acoustic exchange in question. One system involves those sounds which travel between the villages in a kind of circuit: the community sound signals. Another operates at the level of interpersonal exchange, and the third describes the relationship between each individual and the perceived world. In the first case, noise blurs the acoustic horizon and reduces the awareness of geographical relationships between villages. In the second case, noise contributes obviously to speech interference, although this may only come from certain main roads, such as the A91 in Dollar. Not so obvious however, is the role of noise in the third case of individual orientation. In a well-defined soundscape, the relationship between listener and environment is a highly interactive one, because most of what is heard contains useful information, often about aspects of larger patterns or cycles. Differences in

SATURDAY, MARCH 1ST 1975

12:30 p.m.

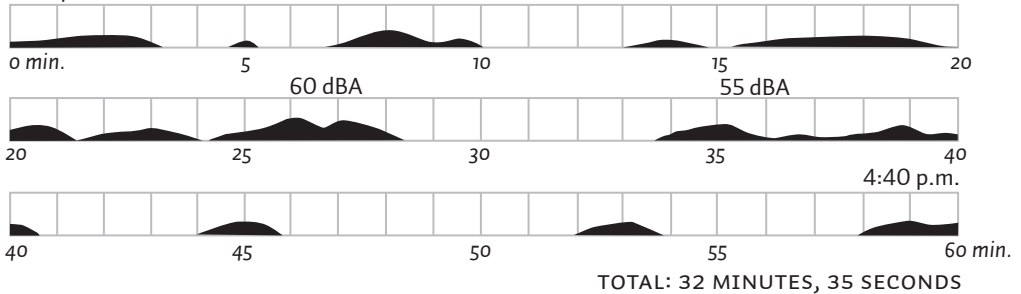


2:45 p.m.



WEDNESDAY, MARCH 5TH 1975

3:40 p.m.



11 a.m.

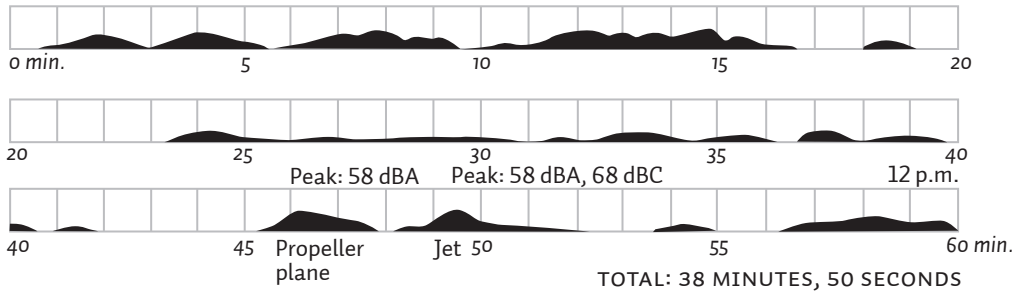


Figure 26. Time period of aircraft heard on separate days in Bissingen. The charts show both the period during which the sound could be heard and the peak sound level.

these patterns will indicate important changes. This information, by which the listener is in constant communication with the external world is extremely vulnerable to intrusive noise. Sonic intrusions raise the ambient sound level and contribute – in combination with other factors such as the electro-acoustically reproduced sound environment of radio – to the reduction of the interactive process which is at the heart of this system, converting it from an open process to a closed one. Noise in this sense works to isolate the individual from the environment.

As part of this process of change, radio and TV emerge as new “links” between listener and environment. These links may be to a larger world, but they are non-interactive. Moreover, the media are often used negatively by listeners as a way of dealing with excessive, monotonous or intrusive sound. Incoming sounds appear to be covered by a radio or TV and in the short term, the problem may seem to be solved by this technique. But in the long run, one merely hides intrusive sound by creating more of it, and the technique eventually works against itself, as the sound saturation develops. For instance, in Dollar, the observed use of background music in shops, mostly on the main street (the A91), was quite high.

Another clear effect of intrusive sounds is to obscure the definition of the natural soundscape by reducing the perceived seasonal changes which natural sounds normally indicate. The annual rhythms of village life are punctuated acoustically by certain seasonal events, and in Dollar, one such event mentioned by virtually everyone we talked to was the annual separation of ewes from lambs which used to take place on a hillside farm adjacent to the village. The young lambs were taken from their mothers and led in a flock down the hillside through the town to the train station, where they were shipped to market. On the day on which this took place, usually in July, the air was filled with the bleating of frightened and confused animals. Sheep are present year round, grazing on the hills overlooking Dollar, and their intermittent bleating is often heard in the distant background. This annual event created a seasonal acoustic focus which accentuated the agricultural life of the community.

As traffic increases on the A91, these and other events are less noticeable, but strangely enough, it is not always recognized that increased traffic noise is the reason for this. One gentleman we interviewed, who lived in a large house on the highway, regretted the disappearance of natural sounds once heard in Dollar, but did not relate this to traffic until it was suggested to him. This typical oversight points to the complete acceptance of traffic and traffic noise in our society, accompanied only by a feeling of vague discomfort about what is largely an effect of this noise.

This also brings to mind an incident in Cembra. It happened during our 24-hour recording of the village when, at 6:45 p.m., a driver pulled up to the Albergo door and left his car (an air-cooled Volkswagen type with a bad muffler) idling on the spot for over 20 minutes. Those of us living in cities may not fully realize the effect of this; in the quiet of the early village evening, the effect was shattering. The measured sound level of the engine was 73 dBA (87 dBC) at 15 feet in an ambient level of 35 dBA (40



The village square in front of the Albergo Cembra, where a 24-hour recording was made on Easter weekend.

DBC). The intruding noise filled the square with such an amount of sound that any sense of acoustic space was severely distorted and shrunken. Sounds which should have been audible across the village were hidden by a wall of noise which resulted in zero audibility. The altered state of the soundscape could only be described as a temporary environmental psychosis.

Events such as this were not untypical in Cembra, and were all the more conspicuous because of the relatively low traffic ambience. Motorcycles, tractors, automobiles would suddenly appear out of nowhere, to dominate the soundscape completely for a moment, then disappear as quickly again. The Italians take pleasure in speeding through narrow streets and in general playing with the sound of their vehicle engines. (Italians don't simply start a car with the ignition key; they play a little rhythmic tune on the gas pedal for several seconds after the motor has caught. This pattern of revving engines became almost as recurrent an element in our 24 hour recording as the voices and bells of the village.)

Any conclusions about intrusive sounds should take into account the element of public complicity in the process, when attitudes exist which to various degrees tolerate or even indirectly encourages the presence of such sounds. The Cembra example shows that even when significant long-term intrusions are missing, villagers bring in their own, whereas in Bissingen and Dollar, the intrusions are more constant, and come from outside. However, acceptance of them is still as complete, although what is accepted by the conscious mind may be a source of conflict and stress at other

levels of behaviour. Therefore, acceptance of these intrusions (i.e. denying their intrusiveness) is just as important a problem as the intrusions themselves.

HISTORICAL CHANGES IN DEFINITION: CEMBRA

So far in this discussion of definition, we have been mainly concerned with community sound signals, because in most of the five villages it is these – or the intruding sounds which cover them – which are the main defining factor. However, in Cembra, although the church bells ring loud and clear, it is the human voice which is most characteristic. Cembra’s definition is clearly human, and this emerges even more strongly as we

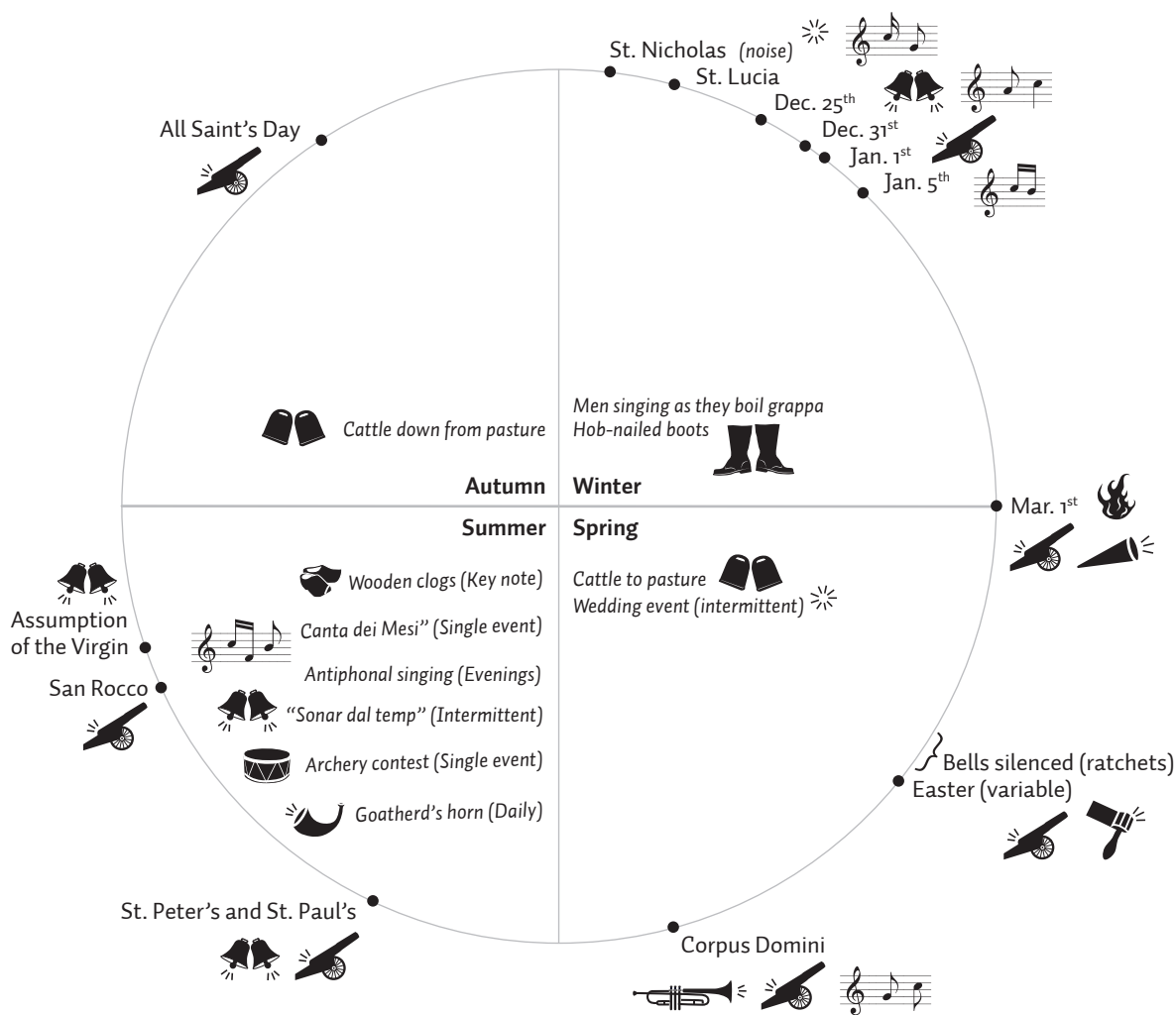


Figure 27. Traditional seasonal events and characteristic sounds heard throughout the year in Cembra.

investigate the village history, which of all our localities is richest in local folklore.

Until well into the 20th century, Cembra was virtually self-supporting. The village produced all of its own food, goods and services, and there was apparently very little exchange of any kind with the outside world. Probably as a result of this isolation and independence, the village developed a highly active and self-sustaining social life. Entertainments, festivals, church feasts and other activities were plentiful, largely acoustic in nature, and followed the rhythms of village life. Figure 27 shows the annual cycle of events.

Winter

Winter was generally less active than the other seasons, for obvious reasons, but it did contain events well marked with voices, bells and cannons, and one additional element we have not mentioned: noise-making. A noise event was staged each winter on St. Lucia's and St. Nicholas' day (Dec. 5) by the boys, lasting about an hour. They rang hand bells and banged things with chains, stopping every so often to sing a verse of a song about the saints. Following this on Christmas Eve the boys would go through the village carrying nativity scenes which they had made and singing carols. In return they hoped to receive fruit and other gifts in exchange. At 11:55 p.m. on New Year's Eve, a special bell was rung for the New Year, echoed the next day with a firing of cannons. On January 5, the *Canta dei Trei Re* (Song of the Three Kings) was performed. This was a very old song, handed down orally from generation to generation, and sung after sundown by a male choir usually in the church. Men would also gather at times throughout the winter season to sing together and boil *grappa* in the streets. Women, it seemed, were excluded from these activities, and had to be content with occasional visits to the home of one of the wealthy or aristocratic families to recite the rosary together with the wife of the household.

Spring

The relative quiet following these events for the next six weeks or so was shattered on the evening of March 1 with *Il Tratto Marzo*. Crowds of youths would climb to different peaks in the hills behind the village, shooting guns and making an uproar. There they would divide into groups, light fires and using cardboard megaphones, call names of those likely to be married in the coming year. If the marriage was a real possibility, cannons were fired and the sound would boom out and echo off the hills to mark the event. If the match was only a joke, they would blow a horn instead.

A month later, during Holy Week, the church bells were silenced, and ratchets were used instead to announce services. Dating back to the pagan period, some of these devices were huge and were pushed about the streets like wheelbarrows. In the spirit of Lenten sacrifice, these loud, startling sounds took the place of the bells,

substituting their beauty with ugliness.

An amusing story is told about the Easter processions: apparently these were held each year until once in 1821, when the man playing Christ in the procession stumbled on some chestnut husks a few prankish lads had placed in his tracks as he was carrying the cross, barefoot. He swore and cursed so vehemently that the Bishop prohibited further processions from that date.

On Easter day the bells were rung once more – *El Campano*' style – and cannons also were fired. A month later, during Corpus Domini (Pentecost), the largest procession of the year was held with singing, cannons and the village band playing. In late spring, cattle which had wintered in the village would be driven up to pasture in the hills above; they all had bells, and they were accompanied by a fair number of villagers, who went along to spend a week or so together in the hills, where they would indulge in small festivities.

Summer

In summer, winter hobnailed boots were traded for wooden clogs, and the sound of footsteps – always distinct in Cembra – changed from metallic crunching to hollow wooden clogs. Every day the village would hear the goatherd's horn when he took the animals to pasture each morning, and returned again in the evening. Summer evenings were also a time for group singing: men, women and children would gather in groups after supper and sing antiphonally together. One special singing event was the *Canta dei Mesi* (Song of the Months) when people would dress in costume and sing a verse of the song for each month of the year.

Drums could be heard during the annual summer archery contests; the drummer would signal each round of firing and the all-clear sign with a pattern which, according to one old villager we talked to, went like this:



Summer was also the time for thunderstorms. The *Sonar dal Temp* (bells for prayers against bad weather) would be rung to save the crops most often during this season.

Autumn

The principal summer church feasts (St. Peter's and St. Paul's, San Rocco's, and the Assumption of the Virgin) were followed in autumn by All Saints' Day. After all the spring and summer activity, this season was relatively restful. The cattle were brought back from pasture, bells ringing, and apart from these there were no regular

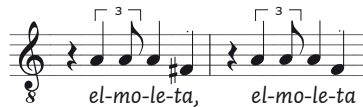
events other than the sound of the post horn, heard twice daily at 11 a.m. and 6 p.m. in Cembra until after World War I. We spoke to one old gentleman who could still remember hearing this, and he hummed the tune they played:



This pattern was blown three times on the outskirts of the village, and was heard throughout the year; other, less regular sound events could be heard at various times of the year, such as the clamour before the marriage of a widow or widower. The night before the ceremony a great noise event took place, when people would gather outside the groom's house with pots and pans, banging and making a racket until the man would make an acceptable offer of money or service to the community.

Other noise events were staged by military draftees (*I coscritti*). The boys belonged to three different groups each having its own fraternity, and each with a different date when the boys were to be drafted into service. The night before, the gang would roam the village carousing, making a racket and generally getting into trouble.

Finally, punctuating the yearly cycle of sounds every other month or so, were the itinerant knife grinder and coppersmith whose cries would be heard in the streets:



While we have no tape recorded documentation of these events, it is not difficult to imagine them from descriptions given us by villagers and from written accounts found in *Cembra e suo Folklore*, a book by a local man, G.P. Zanettin, published in 1970 by the Gruppo Folkloristico Cembrano.

Running throughout these descriptions are the sounds of voices, in song, laughter and shouting; along with them two other elements appear: bells and cannons. Directly or indirectly, the voices run through all the events, which range from the solemn to the playful; bells are associated naturally with the more serious church festivals (although if our Easter visit to Cembra was any indication there is a great deal of merrymaking on these occasions as well). Cannons were fired off for both the solemnities and the festivities, almost it seems, on the slightest provocation. These were small, 15 mm. diameter weapons, called *mortaretti*.

There is an interesting traditional relationship between bells and cannons: during wartime, bells were taken down from village churches all over Europe and melted down to be recast into armaments. After hostilities ceased, they were usually cast back again into bells. The two sounds, one of peace, one of war, have recurred alternately throughout European history for the past two or three centuries. Their occurrence together

in the soundscape of Cembra is therefore not accidental. They even occur together in the same event, such as on the Assumption of the Virgin Mary (mid-August), and at Easter. More usually though, they sounded at different times, and while we know little of the particulars concerning the actual firing of the cannons, we do know something of the patterns of bell-ringing on these and other special occasions.

There were five different uses to which the church bells were put, apart from the normal daily and Sunday ringing for mass and Angelus. Of these, three were functional, two ceremonial (i.e. part of a larger ritual process). The three functional ringings themselves worked on different levels as signals. First there was the fire warning bell: someone would climb the bell tower when fire or other calamity occurred and manually strike the clapper against the rim. This produced a distinctively different sound from normal, which suited the urgency of its purpose. All other uses of the bell involve ringing in the regular way. A second functional signal for which the bells served was to call for snow-clearing operations in the winter. Unfortunately we do not know the particular pattern used for this purpose, nor for the third type of functional ring, the *Sonar dal Temp*: during bad weather in the summer, the bells were rung to invoke prayers from the villagers to save crops. In each case, the bells were rung to summon some kind of activity, but apart from this, the activities were of quite different types, and responses to the sounds would of course vary accordingly.

This complexity of function is paralleled in complexity of form given to the ritual bell ringing in Cembra. Little or no trace of this complexity remains today, and this is typical in soundscape morphology of a trend from highly articulated and defined patterns to greatly simplified and less articulated ones. As the village developed its connections with the outside world in this century, it lost its economic and cultural independence. (A similar thing happened in Dollar, where traditionally the bell-ringers went to the lairds of the nearby estates and to the well-off villagers to solicit funds for their duties. After the Second World War, with its unsettling effects on traditional social patterns, this practice died out, and the bells, which used to ring the daily Angelus, have remained silent except for Sundays.) This important change is reflected generally in the loss of form and pattern in its acoustic environment.

The two ritual uses of the bells in Cembra were during certain church ceremonies and on the occasion of death in the village. After there were two churches in the village, an interesting bell-play developed between them during those feasts which involved processions. As the villagers processed from one church to the other, the bells of the first church would ring, then as the crowd neared the second church, its bells would ring and the first church would stop. A special ring, using a specific rhythm, followed by the ringing of all the bells together (a custom called *El Campano*) marked the occasions of the feasts, such as San Rocco's and St. Peter and St. Paul's. Funeral bells and the *El Campano* are still rung now, but more rarely.

The use of bells surrounding death relates to the functional uses described earlier. There were three types of ring: when death was imminent, a single bell was tolled to

invoke prayers for the person's soul; when the person died a second bell was rung, followed by another one whose pitch – high or low – indicated whether the person was male or female. Just before the funeral itself, another bell was tolled (3 times for men, twice for women); then finally the people would sing, and the bells were rung together during the funeral procession itself. Thus three different processes were involved: calling for prayers, announcing the event, and burial. Here, formal and functional complexity are deeply intermingled.

All the sounds and events described above represent an ideal point in Cembra's past. Cembra is now exclusively a wine-producing community, and is no longer economically self-supporting. It depends a great deal on the outside for food and services. This change runs parallel to the changes to the soundscape. The unique and highly differentiated sound environment that resulted from the village's independence and isolation has declined. Now, while certain elements of the soundscape remain (the voices and bells), little of its original form and structure has survived. The *Canta del Mesi* is still heard, and also the *Il Campano*, but more rarely. Instead, the throbbing jukebox, Cembra's electroacoustic link to the outside world, pounds



Volunteer Fire Brigade, Cembra, in full dress for Easter Sunday.

out for hours each day (Sundays too) its imported rhythms. (Some day its speaker – which hangs in a comer of the room and is so overloaded with bass frequency it has become unhinged inside and rattles on each downbeat – will fall right off!) And yet Cembra is the only place where one can still hear a sound like that of the sacristan, a portly young man who rides a child’s bicycle, huffing and puffing after ringing the bell or evening mass as he climbs back onto his creaking vehicle and spins off down the street into the darkness.

VI Community Attitudes to the Soundscape

An outsider's attitudes to the soundscape will obviously be different from those of a native, and the wider the cultural separation between them the greater the difference that may be expected. New sounds to the one may be timeworn to the other. The church bells which North Americans find so intriguing in Europe (our report demonstrates this obsessional interest) are sounds to which the European is habituated. Signals once, today they are perhaps more like keynotes, unconsciously overheard rather than consciously listened to. Similarly, sounds which are more novel in parts of Europe (power lawn mowers, for instance) are old clichés to the North American ear.

How do these differences affect listeners' attitudes? We don't really know. We only know that the student of culture must try to measure the culture under investigation with reference to the perceptions of those living in it.

Despite the difficulties of a brief sojourn in each village, together with the language barriers, we were determined to gather as much information as possible on local attitudes to the soundscape. This was accomplished by giving our Sound Preference Test to schoolchildren in each village and by seeking out and interviewing citizens with a special sensitivity to their acoustic environment.

We have already made several references to our Sound Preference Test. This test, which simply asked for lists of the most liked and disliked sounds in the local environment, was given in the elementary school of each village under the supervision of the teacher, usually after a brief introduction by one of the researchers in which the attention of the class was focused on the local environment as distinct from the world at large. Despite this we encountered a number of sounds which had obviously been heard on television ("elephant trumpeting" in Skruv; "lion



Interviewing an elderly Lesconil woman about the sounds of the past while she works on a piece of Irish lace.

roaring” and “beaver slapping its tail” in Cembra), demonstrating how natural such incongruities have become to the modern mind.

A general breakdown shows the sounds most frequently liked and disliked in each community. See Table 8.

The general results of this test agree fairly well with those we have conducted in other parts of Europe and North America, in particular with respect to a fondness for natural sounds and a strong dislike for technological noise. But in the present test, German school children form an interesting exception: here there is a fair division of opinion over the sounds of technology, and natural sounds are not the solid favourites they are elsewhere. Germany was, however, the only place where silence was mentioned as a pleasant sound.

In all other cases, natural sounds are high on the list, though understandably these vary according to the geographical setting and climate of each village, so that, for example, while the burn is favourite in Dollar, in Lesconil it is the sea. In fact the sea was mentioned by 39 out of 40 students interviewed in Lesconil and of these only two disliked it.

It is here that the ambiguities mentioned in the first paragraph become apparent, for the heavy and ceaseless presence of the sea was considered oppressive by our researchers (see the entries under the dateline of Lesconil in *European Sound Diary*).

Similarly in Skruv the factories and factory whistles received negative attention from the inhabitants while for us they were among the chief attractions of

Table 8

SKRUV 22 students tested 11–13 years old	BISSINGEN 26 students tested 14 years old	CEMBRA 55 students tested 11–14 years old	LESCONIL 40 students tested 9–10 years old	DOLLAR 23 students tested 10–12 years old
birds (18) music (& instruments) (17) water (11) horses (11) wind (6) rain (6) cat (4) leaves rustling (4) sea (4) motorcycles (3)	church bells (9) motorcycles (8) voices (8) music (8) birds (8) cars (8) kissing (5) water (5) siren (4) leaves rustling (4) silence (3)	birds (46) bells (25) voices calling (16) water (15) wind (12) hammering (11) horses (9) clocks (8) laughter (8) fire crackling (7) rooster (7)	sea (37) birds (35) boats (16) wind (13) rain (7) fire crackling (7) seagulls (7) music (3) cats (3) animals (3)	birds (19) burn (13) leaves rustling (13) water (10) clinking coins (8) rain (5) wind (5)
Most Pleasant Sounds				
traffic & cars (18) thunder (12) factory noise (10) factory sirens (9) chalk on blackboard (4) power saw (4) gunfire (4) crying (3) screaming (3) insects (3)	cars (9) alarm clocks (9) siren (7) screaming brakes (7) jets (5) screaming (5) high sounds (5) barking dogs (5) thunder (5)	door slam (15) crying (14) door creak (12) screaming and shouting (12) chair scraping floor (12) chalk on blackboard (11) cars (8) scolding (8) insults (7) gunfire (6)	cars (27) motorcycles, motorbikes (25) boats (10) door slam (7) wind (7) gunfire (6) door creak (6) children crying (6) storm (5) construction work (5)	traffic (5) chair scraping floor (5) screaming brakes (4) chalk on blackboard (4) door slam (3) desks banging (3) rain (3) screaming (3) squeaking (3) styrofoam (3)
Most Unpleasant Sounds				

the village. Sometimes, however, our attitudes were in agreement. Thus, church bells were strong favourites in the two communities where they occurred most frequently (Bissingen and Cembra) just as to our ears also they enriched the soundscape character of these villages. Also, the vocal character of Cembra was as conspicuous to the inhabitants as it was to us. Voices calling laughing, crying, screaming, shouting; even insults and insulting words figure in the Cembra list – and only here – as examples of soundscape dissonances. By comparison, in Sweden “too many people talking at once” was cited as unpleasant. We have also noted (in chapter two) how vocal overlapping in Cembra attracted our immediate attention following our travels in Germany and Sweden.

Some of the sounds mentioned result from the predominant materials of the village. Thus, in both Cembra and Lesconil a strongly disliked sound was the banging of doors (heavy wooden doors with latches and bolts are intended) though in the other villages, where the streets are wider and the doors smaller, this sound is not even mentioned. In other cases industry creates unique sounds with strong associations. The trawlers of Lesconil are an example, but there are others. For instance, in the glass-blowing village of Skruv one student mentioned the highly idiosyncratic sound of “a truck full of glasses” and several students mentioned the sound of glass breaking.

The equivalent in Cembra would be the mountain carts used for fetching wood, which we have described in chapter four. This is only one of several strongly resonant sounds produced when stone meets wood and in the same chapter we mentioned the positive response of two students to *claquettes* sounding on the stone floors of the fishermen’s cottages in Lesconil. On the other hand our Sound Preference list shows a strong antipathy in Dollar and Cembra to the sound of wooden chairs scraping on stone floors. The fact that our informants in this inquiry were all children has given rise to certain characteristic sound phobias: for instance, chalk scraping on a blackboard. Although it is not our main concern here, let us draw attention to the fact that owing to their extended hearing range, children are acutely conscious of certain high-frequency sounds (screeching brakes, styrofoam squeaking, insects chirping, etc.) in a manner that makes them unpleasant and possibly even painful. Some psychologist might profitably investigate this theme.

The information provided by the Sound Preference Test is very general and at the present stage it is only useful to confirm or contradict impressions which the soundscape researcher may have about the effect of certain sounds on those who hear them most frequently as part of their everyday lives. The only way to obtain detailed information about the affective qualities of the soundscape is to interview local citizens in depth. In each village we managed to conduct some valuable interviews of this kind, for instance, with a 94 year old Bissingen woman whose memory for sounds and ability to date them was quite remarkable. In another case we interviewed a captain who patiently revealed the effect of the solar winds on the acoustic horizon of Lesconil. Nor can we forget Yngve Wirkander’s phenomenal knowledge of

birdsong in the Swedish countryside. But it is not easy to extract such information where all conversation has to be sifted through an interpreter or where the interviewer steps into subject areas involving technical knowledge of unusual vocations such as those of the vintner, the fisherman or the blacksmith.

In Dollar, at least most of the language problems were gone so we could develop our interviews to a greater depth of detail. We end this chapter with a portion of an extended interview Bruce Davis conducted with David Graham, formerly the Town Clerk for over 20 years. Although in its isolated form it contributes little to the comparative approach of our study, it does display Mr. Graham's remarkable ear and memory for sounds. The interview was conducted at different sites around the village, an approach we have found useful in stimulating the memory of earwitnesses.



*Bruce Davis (right)
interviews David
Graham in Dollar.*

THE DOLLAR CHURCH BELLS

(On the road a mile outside Dollar)

Graham: The bells are quite hopeless, there's a car every 15 seconds. I would reckon that a car within a quarter of a mile makes the bell inaudible ... and you can't hear anything from the Blairingone direction at all. You'd never hear it with all this traffic.

Davis: How many bells would you have heard in the 1920s?

Graham: My father used to reckon he could hear four church bells sounding together from this point, though I wouldn't be certain which four they were. Certainly you were aware of different bells ringing at different pitches.

Davis: But the bells are not rung together anymore.

Graham: No, where churches are sharing a minister they've got to give him time to move from one church to the other, so the bells are staggered.

Davis: What kind of traffic would you meet when you came up here as a boy?

Graham: None on a Sunday morning. Most people who had cars went to church. They just weren't on the roads then.

AT THE BLACKSMITH

Graham: This, as you can see, is the Dollar smithy. I don't know how old it is. I was here frequently in my young days about 50 years ago, and horses from a fairly wide area were brought in to get new horseshoes. With his left hand the blacksmith would pump the large leather bellows at the forge while he held the tongs in his right hand. You had different tones when the hammer was hitting the metal to be made into horseshoes. You got other sounds as well: the clomp of the horse's feet as he moved in and out. And you had the noise of the instructions being given to the horse, particularly as he was being manoeuvred back into the shafts of the vehicle. The floor was covered with old wood, and you got a different note from the horse as he went from wood to earth and from earth back to the road.

Davis: Do you recall the rhythm of the hammering on the anvil?

Graham: It went BOING, BOING, DING-DING-DING, BOING, BOING, DING-DING-DING and you could hear it over most of Dollar. The forge, of course, had its own noise as well. There was a distinctive squeak from the bellows and you could hear the

air rushing through the fire. And another noise was the expression James Gilligan produced when a spark landed on his bare arm!

Davis: What time would he have stopped work?

Graham: Oh, about five o'clock. He'd be going by about half past six in the morning.

Davis: When did he retire?

Graham: I think he died during the Second World War. But even before that horse-shoeing had almost ceased.

AT THE ELECTRICAL GENERATING STATION

Graham: This is where the electric supply for Dollar was generated from 1906 to 1932. Two Crossley gas engines drove direct current machines; the exhausts came out through the tin roof above us and made a very typical sound over all this part of Dollar: BOOMP, BOOMP, BOOMP. One of them used to keep going all night, and that led to a fair amount of complaint from people living round about. But I used to come down here because I liked the look of the machines when they were running and I liked the sounds they made.

Davis: Both engines were running during the daytime?

Graham: That's right. Both engines ran from about seven o'clock until six or so at night. They ran at almost the same speed but not quite and you used to get the alternative beats of the two exhausts. Then one engine would begin to gain or lose a bit on the other and the governor made it miss a beat so they were more or less where they were before. It was quite a distinctive sound and if you were in the middle of a boring cricket match over in the school playing field, you could always fill in time by listening to the exhausts of the generating station.

Inside it was the governors which made the most noise. They were the "hit-and-miss" type and you got a lot of mechanical racket from them. It used to be very interesting to listen to the governors because you could hear when they hit or missed – they gave a different note – and then you'd hear the engine slightly speeding up or slowing down.

AT THE RAILWAY STATION

Davis: What kinds of sounds did you hear at the station here?

Graham: All kinds. The steam trains were running through Dollar, I suppose about one an hour on the average. You got the noises of the locomotives themselves, and then there was a small goods yard over to this side of the station and it was visited twice a day. At half past six in the morning a train went towards the east, and he used to drop off full wagons at the Dollar siding. He would return at 11 o'clock in the morning and he used to go into the yard then, do a bit of shunting, sort out the empties and take them away. There were all kinds of shunting noises: the clash of the buffers, and the shouts of the shunters.

Some of the trains had distinctive sounds. Occasionally, fairly late in the evening, you got what was called the "Belgrove Special". That was a train consisting entirely of cattle trucks, which used to move cattle from Perth to the Belgrove sidings in Glasgow. Then you had thirty cattle trucks, each with seven or eight beasts in it. You could always hear it, and it also had a very distinctive smell!

Davis: Do you remember the station master calling the arrival and departure of the trains?

Graham: Not in Dollar. The signal box was about 200 yards from where we are standing and you could tell when trains were arriving from that. You had a bell to signal the communications from Rumbling Bridge on the east and a gong from Tillicoultry on the west. If you knew the codes, you knew what was happening with the trains. You could hear a signalman accept a train from Rumbling Bridge, and then after a few minutes you'd get the two pings on the Rumbling Bridge bell. You knew by that time that the train had left Rumbling Bridge and was entering the Dollar section, and you could follow its progress as far as Tillicoultry from the bell signals.

There was also the very typical noise the ticket machine made, giving the date of issue of the ticket: PLIMPONK! PLIMPONK! Then you got the slamming of the doors on the carriages, the guard's whistle and the instructions from the station master to all round about.

Bringing me down here reminds me of all sorts of sounds. Just to look down the track I can remember the noise of the ganger shouting to his men when they had to reset the track on a hot day. The touch of the sun would move the rails and the ganger would bring his men down to reset the rails back on the right curvature. They would place crowbars – pincers as they're called in this part of Scotland – under the rails and on the ganger's order they would all heave together. You'd also get a man who was "walking track" going along with a hammer to knock in the wooden keys when they had been loosened by temperature changes or by the passage of trains. You see how these keys are all metal. They came later. In the older days the keys were all made of wood and you could hear the thump of the workman's boots on the wooden sleepers and the occasional knock of his hammer.

(Later, on the hill to the north of the village)

We used to follow a lot of railway operations up here. We could usually hear whistling from Alloa, about six miles away. We knew all the whistle codes and could tell when a driver was trying to get out of the siding onto the main line, or when he required assistance to help him up the incline. We also used to be very interested when we got the occasional three-cylinder engine through Devon valley. The great majority of the locomotives had double action cylinders, giving four beats per revolution, but sometimes we got a three-cylinder local which gave six. Then we would hurry down to see what was at the station before it got away again.



The WSP group in the churchyard, Dollar (Scotland), 1975. Left to right: R.M. Schafer, Jean Reed, Bruce Davis (standing), Peter Huse, Howard Broomfield.

VII Conclusion

Soundscape studies, as applied to our particular study of these five European villages, is concerned with the nature of the interaction between a community and its sonic environment. In order to establish that a true interaction exists, it is necessary to show that the sonic environment is not merely a reflection of the community, a kind of acoustic by-product, but that it functions actively in regulating community behaviour. If a community and its acoustic environment function as a system, then a change in any aspect of either effects some corresponding change in the other. In fact, it is only when we demonstrate this kind of mutual influence that our application of the term soundscape has any true significance.

Therefore, although we may begin by examining the structure of the sonic environment, we should enquire further as to its function within the entire community system. Our first task is to ascertain what levels and types of information about a community are reflected in its sonic environment and develop methods for the acquisition of such information. The complexities of this stage have largely been the concern of the World Soundscape Project to date. With this document we take the next step by treating the soundscape as a system of communication where information is constantly being interchanged between the individuals of a community and their sonic environment. That is, we attempt to combine a simple description and classification of community sounds with an explication of how they function socially. Further, we observe the conditions which result when the character of such a system changes. The kind of change we observe confronts us with the most important development known to date in terms of its power to change a soundscape, that of the technology and associated economics of the 20th century.

We will now examine the evidence acquired in this study in relation to two of the

most fundamental issues of soundscape studies. First we consider how the structure of a sonic environment interacts with the behaviour of a community and the mental attitudes of those living within it. Secondly, we are concerned with the process and consequences of change within the environment that have already occurred and that will continue to occur. That is, we will examine the implications of soundscape evolution for what we call acoustic design, with particular regard to both small community and larger urban problems.

With regard to the first of these questions, we note that although every community sound reflects some aspect of village life, it is the information conveyed by certain sounds that contributes to the definition of the soundscape. *Definition* is the term we have used to describe the set of relationships between the environment and members of a community, both individually and collectively, as created by acoustic information. Thus, definition is a mental construct based on what is perceived and understood. The information on which it is based may derive from the properties of a sound itself, such as that coded or represented in a sound signal, or from the statistical pattern of groups of sounds. It is always conditioned by both the ambience which is background to the perception, and by the social and psychological experience of the individual.

For instance, in Skruv, the musical pattern of hums we noted on arrival probably affects the community's sense of definition less because of the pitches involved than because it is a constant background to daily life that reminds people of the economic basis of the village. The otherwise quiet ambience in Skruv, as we have noted, allows each sound signal to be heard clearly over a wide area. Such signals contribute both to a sense of geographic definition and to a temporal cycle of events, besides denoting major economic and social institutions within the community. The sea in Lesconil and the traffic in Dollar function similarly as keynote sounds that signify a major influence on the community.

In Lesconil, the importance of the solar wind cycle for community definition lies not in the individual sounds which it brings to the community but rather in the overall pattern of sounds as they recur throughout the day. The wind cycle seems to have favoured the community's shift from an agricultural to a fishing economy, particularly when the boats were dependent on these winds, and even now the daily pattern still correlates with the economic base of the community and brings useful information to the inhabitants. As such it gives the village's relationship to its environment a strong acoustic basis.

The effect that sonic intrusions have on the definition of a soundscape has also been discussed, particularly in terms of Bissingen and Dollar where air and motor traffic form a significant "foreign" element in the acoustic environment. Being broadband in spectrum and frequent in occurrence (aircraft were heard an average of over 32 minutes per hour on separate days in Bissingen), these sounds have considerable masking power in the environment. Geographical relationships and events in the seasonal cycle are obscured, reducing these contributions to definition.

Moreover, acoustic information normally available to the individual about the environment, and in particular, changes in any given pattern are seriously jeopardized by such intrusions. Thus the delicate chain of communication between individuals and between them and their environment is easily disturbed, if not broken. Compensating links in terms of electroacoustic media offer a substitute, but one that lacks the important ingredient of interaction found in the acoustic environment. Further, mental attitudes of complicity and acceptance of such intrusions by the community prevent any substantial reversal of the inevitable deterioration in definition.

The nature of a soundscape depends on the mental attitudes of those living within it. This presents us with the methodological difficulty of acquiring reliable information about such concepts. The Sound Preference Test is a simple indicator of general attitudes, and it has been useful in putting our own evaluations in the perspective of those of the inhabitants. However, its use should be extended to all representative age and social groups within the community. Further tests regarding such questions as sound profiles, acoustic rhythms and sonic intrusions need to be developed as well. But reactions to sound are not easily communicated by the individuals living within, i.e. habituated to, an environment. Simple questionnaires or the standard 'social survey' cannot bring out the habitual reactions or processes, many of which are so ingrained and subconscious that their verbal identification would require unusual powers of self-analysis. This situation is particularly striking in reactions involving unwanted or unpleasant intrusions (noise) where avoidance and desensitization are the common psychological means that people use to cope with these sounds. Techniques for the inference of such effects are required. We can also seek out those individuals who are extremely sensitive to acoustic information and who have a long history within the area, and compare their knowledge with our own as outsiders.

Keeping these difficulties in mind, we approach the second question stated above, regarding the nature of long-term changes within a soundscape, its consequences and implications for acoustic design. The three main criteria that emerge in our attempt to describe such change are *variety*, *complexity* and *balance*. The former two refer not only to the range and quality of individual sounds, but also to the kinds of information perceived in both the sounds themselves and in the patterns they form. Balance refers to the coexistence and interaction of such sounds in the environment with particular reference to the stability of the soundscape.

In this study we have used for the first time quantitative data other than sound level readings and spectrum analyses to support our argument. In this case, the data was derived from simple counts of traffic movements at the centre of the village and sounds heard on walks throughout the community. Although our methods need to be refined and extended to include a wider range of samples, various suggestive results have been derived from the initial data. As would be expected, the types and numbers of sounds heard in a village reflect practically every aspect of its social and economic life. Interesting differences lead to a sense of the unique character of each

village. However, another level of implication arises when we consider the correlation of traffic and sound counts. The traffic count is used as one indicator of the level of impact of current technology that also reflects the level of economic development in the community. Although more accepted economic standards may also be consulted in future, the present emphasis on traffic seems justified since it is the prime (or in the case of Cembra, the secondary) contributor to the soundscape of the community.

A comparison of motorized and non-motorized traffic counted at the village centre to the same categories of sound heard throughout the community led to an understanding of how prevalent these sound sources were in the entire area. In Skruv and Dollar, motorized traffic predominated in both the centre and the residential parts. In Cembra and Lesconil, non-motorized traffic predominated, revealing less technological impact on the community. Additional community characteristics were revealed: namely, that in Lesconil, traffic sound from outside the village to the landward side clearly dominated in the residential sections, whereas in Cembra, the presence of traffic sound dropped off toward the residential part because of the layout of the mountain village, and the containing effect of the labyrinthine streets.

When the villages were considered as a group, ranked according to amount of traffic activity, the pattern of increase in the variety of village sounds could be examined. It should be noted that since this information is normalized for population, the cause of increased traffic in one community over another has to be attributed to social and economic processes related to growth. It was seen (Figure 17) that as both motorized and non-motorized traffic increased from one village to the next, the number of sounds associated with them throughout the village kept pace (namely at a constant rate of 1:4, that is, one new residential traffic sound for every 4 additional traffic movements at the centre). This constant rate was as expected. However, the more serious question arose when we considered the growth rate of the total number of sounds heard in the community as a function of traffic increase (Figure 14). Although more data is needed to substantiate a firm conclusion, the trend indicated was that the number of community sounds dropped off with traffic growth. Our interpretation of this result, in terms of an “ecology of sounds” is that increased motorized traffic, producing high intensity, low information sounds, tends to desensitize the populace and result in less social interaction, as indicated by fewer resultant sounds. It is not merely a question that many quieter sounds are masked; this is true to some extent but since only a small rise in ambience is involved (Figure 15), this is not the only factor. We contend that the fundamental social changes taking place result in a soundscape of reduced character and variety, and that this leads to a reduced interaction between community members and the environment.

Although a highly varied sonic environment indicates a potential richness of information in a soundscape, it does not guarantee that this information will necessarily be used meaningfully by those living there. Conversely, it is quite possible that a seemingly simple sound environment can be interpreted in highly complex ways by

local inhabitants, showing that an assessment of the environment as being ‘simple’ merely reveals an inability of the outsider to make the same distinctions and subtle differentiation as those who depend on such information. Therefore, we see that variety itself, deriving from description and classification analysis also depends on the observer’s ability to differentiate between types of sounds in the way that local inhabitants make such distinctions. In order to include this necessary attribute of the criterion of variety, we link to it the concept of *complexity* by which we refer to the types of relationships involved in the interpretation and understanding of sounds.

Acoustic complexity already begins at the level of interaction between a sound and the environment. Every subtle attribute of a sound source, its interface to the air, the type of terrain, proximity of other surfaces, and atmospheric conditions (which depend on time of day and season) affects the quality of the sound that reaches the listener. A sound brings with it a complex history of its past, and it is the ability to decode this kind of information that characterizes the competent listener who depends on this information for orientation and problem solving. Natural sounds, and vocal sounds in particular, are constantly changing throughout their duration, and therefore are capable of creating the most complex relationships with their listeners. Consider, for instance, the people of Lesconil who can interpret subtle distinctions in incoming sounds as a weather forecast, or the people of Cembra whose varied use of the voice is the basis of all social interaction.

The influence of technological sounds strikes at the basis of acoustic complexity. These sounds are generally what we call “flat-line” sounds which by their constancy of quality (as in a drone), or their broadband spectrum (as in white noise, rumbles and hisses) have little discernible pattern of interest. It is not only their often high intensity or piercing timbre that makes such sounds unpleasant to listen to, but also the redundancy of their information content. Of course, there are instances where environmental modification of sounds (as in Doppler shift, phasing and other colourations) give these sounds more information and therefore potentially more interest (note, however, that most of these effects are dependent on speed and motion). In addition, drones and broadband sounds have traditionally been used (as in mantras, waterfalls, drumming, etc.) to catalyze altered states of consciousness. However, in conventional environmental perception, the sounds of technology generally produce uniformity in the environment and a dulling of listening, if not also hearing, abilities.

The soundscapes of our five villages exhibit many symptoms of the trend towards simplicity and predictability brought about by technology, urbanization and economic development. Patterns decrease in number, variety and structure; human and natural sounds give way to technological sounds, even though these are seldom regarded as favourites on the Sound Preference Test. This evolution is largely the result of a standardization in energy sources, materials and information exchange. In Cembra, for instance, we have noted a decline in the number and complexity of social customs and their acoustic components. Fewer sounds are used that define

the community geographically, socially or culturally. Many natural sounds, water in particular, are being abandoned by most of the villages in favour of modern power sources and conveniences. Materials too, such as in roadways and housing, are being standardized such that little variety, acoustic or otherwise, remains.

The loss of such information in the sound environment is important, because it is this information which the mind uses for orientation, learning and the achievement of greater awareness. One essentially ignores that which cannot be patterned. Just as homes and buildings are designed today to be unaffected by outside changes, by means of artificial heat, light, air movement and in most cases, built-in sounds as well, so the listening habits of most people living in these closed environments become insensitive to incoming acoustic information. At one level it is a slow hearing loss, at another, a lack of inclination to listen carefully. The less useful information there is in the immediate environment, and the less one is dependent on that information, the greater the decline in listening ability. The result, we claim, is an alienation that leads to reduced social interaction and community cohesion.

Finally, the criterion of *balance*, incorporating both variety and complexity, leads us to a basis for acoustic design. However, we must first distinguish between the requirements for balance that are based on physical properties of sound, and those based on information content. In order for sounds to be perceived separately, their physical attributes of intensity, frequency range and timbre, spatial distribution and rhythmic variation must be compatible to avoid masking. Although the interaction of these variables is considerable, the general rule is that complementarity and contrast lead to the least overlap and masking. However, the type of information conveyed by the sound must also be considered and thus, knowledge of human information processing is required. For instance, sounds must be understood to be semantically appropriate within an environment for them to be perceived as balanced. (An extreme but common example is that of a radio playing in a natural environment. Even if the physical characteristics of the sound and its environment are mutually appropriate, most people will not think of them as being compatible.) An acoustic designer must have a knowledge of both the acoustic criteria and the information-processing strategies involved in perceiving balance in the organization of environmental sounds.

In the design of an environment, balance is the result of suitable constraints acting on the development of complexity and variety. An unrestrained increase in complexity could easily lead to chaos unless the structural principle of balance acted as a stabilizing force in the sense of negative feedback. For instance, in Cembra, where the greatest variety of human and other sounds predominated, the increase in variety was constrained by such natural influences as the physical layout of the village (which tended to contain sounds), the rhythm of the daily cycle (alternating peaks of activity with periods of rest), similar to the seasonal cycle, and finally, the social pattern of the village (involving different times for the men and children to leave for work and school, the women to gather for washing, as well as church

services and social gatherings). All of these constraints contribute to the balance of this soundscape where human-produced sounds predominate. To a limited extent, such a system can survive the introduction of technological sounds which are also constrained in the same way. However, once such sounds tend to dominate in numbers and/or intensity, and are no longer constrained by human energy and endurance, then the natural balance will deteriorate and eventually disintegrate. Once the factories, such as in Bissingen, operate continuously, or aircraft and traffic noise spreads over the entire community; once the differences between seasons are minimized, and the long-term organizing influence of church, family and social groups begins to weaken, the balancing process breaks down. The balanced hi-fi environment gives way to the chaos of the lo-fi environment.

We conclude our study at the point of being able to ask how *acoustic design* can be used to counteract the negative effects of technological and economic growth within a community. Our analysis of the evidence in this and previous studies has arrived at a model of the traditional village soundscape (which we presume is analogous to that of a pre-literate culture or the natural environment itself) that is rich in information and patterns of interaction. A wide variety of sounds function in a complex social interaction, and the whole system is balanced by natural forces as well as those of the social institutions which define the community. Such a system seems adaptable to considerable change in acoustic population, but not to change in the balancing or control structure that organizes it, unless new levels of control are introduced as well. With economic growth and the introduction of technological sounds, we observe both a degeneration in the variety and complexity of community sounds and a break-down in the balancing forces that once organized the community. The strength of a previously balanced soundscape does not preserve it from this kind of destruction.

It appears that such change is irreversible in the sense that no natural process will restore the original balance to a degenerate soundscape. Nothing can prevent the continual increase of sound intensity, and for the individual, noise-induced hearing loss and social alienation are the limiting responses to such an unchecked increase. Since we regard this natural "solution" as non-acceptable, we must look to the development of a scientific discipline, called acoustic design, which will concern itself with techniques for the analysis and improvement of existing soundscapes and the creation of new ones. The basis of the discipline is a concern for *behaviour* – individual, social, economic, cultural – and from it develops a study of the systematic relationships between behaviour, sound and the environment. Our analysis provides a guiding principle for the practice of acoustic design. Techniques need to be developed for *increasing variety within a soundscape, promoting a complexity of relationship and function, and establishing controls which will act to balance the soundscape on the larger scale.*

We may look first to the technology itself to determine whether it may be used to promote these goals. Since technology itself is neutral, and it is only its organization that is biased, we should look for methods of using technology to bring about

solutions. It is probably true that small scale changes may be made within the current structure of technology, but that large scale reform will only come about through basic political and social change. Thus, in order for it to be applied effectively, acoustic design must assume a political and social responsibility. Since we also recognize the dependence of the soundscape upon individual and public attitudes, we must look for techniques of analyzing and influencing these through experiment and education. The relevance of soundscape studies to music must also be brought forward since it is apparent that this form of acoustic education is not concerned as yet with environmental problems. In fact, acoustic design needs to be applied in all disciplines related to sound, and therefore professional people in government, law, medicine, planning, architecture and engineering need to be made aware of acoustic problems such that they can individually and collectively exert a positive influence.

Soundscape studies takes a positive approach to the problems of environmental sound, as opposed to the primarily negative approach of most noise studies. It seeks to make people aware of the positive benefits of sound and the listening attitude, and to encourage acoustic design as the means by which desirable improvements are made. In contrast, noise studies, as they have proliferated in the last 15 years particularly, are solely concerned with numerical and statistical representations of noise levels and correlated public annoyance. A typical result of such a survey shows the degree of public annoyance and protest given a certain measured noise level. No thought is taken for the social impact of the noise, or the long-term deterioration in physical and psychological well-being. Such studies are conducted as if the public's relation to sound were unchanging. Their results, at best, specify 'acceptable' levels of noise with no consideration of what would be a desirable environment, or how an existing one could be improved. At worst, they merely justify economic expansion that allows noise levels to increase at the slow rate (about half a decibel per year in North America) that people can adapt to negatively through gradual deafness and increased tension.

The soundscape approach concerns not only the problems of pollution, but also the larger questions of *acoustic ecology*, the balanced relationship of individuals and communities with their sonic environment. It is clear that humans cannot adapt as rapidly as changes in the environment necessitate without adapting negatively. Conscious effort must be made, therefore, both informally on the individual level of listening and making choices about personal living spaces, and formally as a non-exploitative design science, if we are to restore our acoustic environment to a humane, balanced state.

THE MUSIC OF THE ENVIRONMENT SERIES

- No. 1. The Music of the Environment.
- No. 2. The Vancouver Soundscape.
- No. 3. European Sound Diary.
- No. 4. Five Village Soundscapes.
- No. 5. Handbook for Acoustic Ecology.

FIVE VILLAGE SOUNDSCAPES

- No. 4. The Music of the Environment Series.

These 2 CD's contain excerpts of the original Audio Cassettes that complemented the book of the same title and are thereby considered to be a part of Document #4 in The Music of the Environment Series.

FIVE VILLAGE SOUNDSCAPES – CD PROGRAM NOTES

Prepared by Bruce Davis and Hildegard Westerkamp, with additional editing by R. Murray Schafer and John Grayson. Audio tapes edited by: Bruce Davis, Hildegard Westerkamp and Barry Truax.

ORIGINAL INTRODUCTION:

To record sounds is to put a frame around them. Just as a photograph frames a visual environment, which may be inspected at leisure and in detail, so a recording isolates an acoustic environment and makes it a repeatable event for study purposes. The recording of acoustic environments is not new, but it often takes considerable listening experience to begin to perceive their details accurately. A complex sensation may seem bland or boring if listened to carelessly. We hope, therefore, that listeners will discover new sounds with each replay of the cassettes in this set.

R. Murray Schafer
Director
World Soundscape Project

Five Village Soundscapes

– CD Program Notes

SKRUV

CD 1, Track 1. Winter Images.

We begin with a series of short vignettes; it is February in the village – the ambience is quiet and clear, with most of the activity taking place indoors in homes, stores and factories. The places visited in this short overture are:

- The Glassworks (0.00–0'35): the acid bath machine & guide's commentary.
- Near the railway station (0'35–1'20): a passing train.
- Village stream (1'20–2'10).
- In a home (2'10–2'45): voices in conversation.
- The main street at night (2'45–4'05): footsteps on frozen ground, pause to listen to a bird [squealing tires?], and factory ambience in background.
- Railway station (4'00–5'15): passenger train arrives, *bop bop* of its electric motor.
- Outside the Brewery (5'15–6'30): the creek again, & Brewery shift whistle.

CD 1, Track 2. Glassworks & Brewery.

Inside the glassworks and the brewery, it is a loud day's work for many village men. Here we move through both of Skruv's main industries (2'25).

CD 1, Track 3. Home Workshop & Station Platform.

It is 12 noon, and both shift whistles can be heard throughout the village. The recordist walks, pauses, hears the bird again. Inside, at the home of the Bohman family,

we hear the smaller-scale sounds of glass engraving in Mr. Bohman's workshop (2'40-4'40); he talks about his work, and what the various sounds associated with it mean to him (4'45-5'45). The family clock chimes 11 a.m., and the scene changes as we move outside and walk toward the train station. A passenger train pulls in and idles a short while before shutting off its engines, waiting for a non-stop freight train to pass through at full speed (10'10). Then the train starts up again and pulls away into the quiet countryside (10'50). Sequence ends (11'39).

CD 1, Track 4. The Bells of Ljuder.

In this recording we listen for the sound of the distant church bells in Ljuder, 6 km away, from our hotel window in Skruv (Skruv itself has no church) to find out just how audible they are to the villagers. In the foreground are the sounds of men loading a truck and birds singing; very faintly in the background the bells can be heard, in between the louder local sounds (1'10-2'55).

In the hotel later on, we ask directions to the church to get a closer recording of these bells. The ring pattern begins with each of the three bells rung separately, then all together; it is presented here in its entirety (3'30-8'50). Then we move back again to Skruv for a last listen to the bells in the village, as the men continue working. (See Chapter 5, "Acoustic Definition" for more on this and other community soundmarks.) (11'36 total)

BISSINGEN

CD 1, Track 5. A Children's Church Service, and the Bells of Bissingen.

There is one church in Bissingen (Lutheran denomination). A separate service is held for the children here, where the first sequence begins as the offering is being taken. Coins ring in the collection trays, then the rush of voices calms down for a series of hymns and responsive readings (0'50-3'45). Outside on the street, the five powerful church bells peal a long ring (to 8'20), ending with the street sounds again; a military helicopter throbs overhead toward the end – as typical a sound now in Bissingen as the bells, birds and roosters, and one which is amplified by the bowl shape of the hills surrounding the village. See Chapter 5, "Acoustic Definition" for a further discussion. (10'27 total)

CD 1, Track 6. Bissingen Town & Country.

A weekday morning: 6 a.m. A single bell signals mass in the empty streets. Seven o'clock (1'30): the birds are awake, people are moving about, there are voices, a car, the clatter of milk cans and wagons, the sound of footsteps, and then a tractor pulls up

and the driver talks with another man on the street. Just under the loud idling motor, you can hear the church bell ring 8 a.m. (5'20) as they continue their conversation.

The sequence continues with a slow dissolve to the hillsides on the outskirts of Bissingen (6'40). Children are playing near one of the farmhouses, and there is a tractor (perhaps the same one as earlier) working away in the distance. A bell rings in the village below, and the scene begins to change again: we hear the blacksmith (who is now retired) working with an assistant, hammers bouncing on hot iron in dancelike rhythms. He talks about former times, sharpens a scythe for us (9'55) and cracks one of his old buggy whips for the microphones. He explains his craft to the soundscape people, then the scene changes once more: this time to the butcher shop, located just below our guesthouse on Bissingen's main street (11'40). The men struggle with a large pig, then electrocute it, slit its throat, and slip the carcass into a vat of boiling water to remove the hide: all in a day's work.

We move back to the textile mill again, where the siren signals a shift change. After work, people gather at the same butcher shop and hotel, which becomes the village pub, to wind down the day with beer and music (14'05); this particular day was the occasion of a wedding celebration: the M.C. (Master of Ceremonies) explains the rules for a party game and dance. Finally we move out of the pub and into the quiet evening streets of Bissingen as the sequence ends (15'35).

CEMBRA

CD 1, Track 7. Cembra, Easter Morning.

During the Easter weekend, we planted our microphones behind a screened window on the upper floor of the village guesthouse overlooking the main plaza; we took a 10-minute sample every hour from midnight of Easter Eve to the following midnight. This passage from that recording takes place between 7 and 10 a.m., Sunday morning, and gives an abbreviated version of the village coming alive on the festive weekend. A heavy snowfall is melting from the rooftops, a car passes in the distance, and 7 o'clock mass is rung from St. Peter's church (one of 3 in Cembra). Footsteps appear, and the spring loaded locks of the sliding shutters covering nearby shop windows are released with loud bangs; birds, a rooster, more shutters, and by 9 o'clock the streets are filling with sounds and people. It will not die down now until after midnight. For the conclusion of this recording, refer to CD 2, Track 3. (7'15 total)

CD 1, Track 8. Easter Eve, St. Maria's Church.

In the vestibule of the church, (Cembra's newest, and the one in which most services are presently held), St. Maria's tiny bell catches the recordists a little off guard before they move inside for the Easter Evening service. Heard under the singing are the bells

of St. Rocco's church across the other side of the village (0'47, 2'15), and the recordists move to the plaza outside for a closer audit of them (2'37). People are still coming in, and move past the microphones. The three bells die off to one, which rings underneath the four Hallelujahs sung by the congregation inside (4'10), muted behind the large wooden doors. On the fourth and final repetition, the recordists move back inside to rejoin the service. The music is sung in the old church modes, with a choir of men and boys, singing antiphonally with the congregation, a capella. A second hymn occurring later in the service (7'00) is mixed in at this point to conclude the sequence. (8'14 total)

CD 2, Track 1. Morra.

Seven a.m. Easter Monday morning: footsteps mark their way across the plaza facing the Albergo, and other things come and go – a tractor, voices, birds, a moped, a stone, more footsteps, a tin can, and a laundry truck advertising itself with amplified voice and clarinet. Boys' voices in the street transform into men's voices playing *Morra* (4'10), an illegal betting game which often causes havoc (which is why it is prohibited). Players sit opposite each other and signal numbers with their fingers in quick succession, shouting out their guess for the combined total each time. As long as one is correct, the play continues; when both are wrong, new partners enter. This game was arranged especially for us on the night of our departure by the son of the hotel keeper; it was supervised by a visiting priest who kept the language clean. Suddenly the scene changes back to boys' voices in the street, (5'45) before the recordist moves through big creaking double doors into the relative safety of the Albergo (6'30) to greet his colleagues and eat a late supper. (7'09 total)

CD 2, Track 2. Snow Games.

The higher part of Cembra reaches up the mountainside, a maze of closely spaced houses and winding lanes. This recording was made on a walk through the dense neighbourhood, listening for its moods. A fresh snowfall, together with the Easter vacation give the children plenty of time for fun, sledding down the steep curving streets. Towards the end of the sequence, the recordist moves around a corner or two to a quieter section, surrounded by the dripping eaves of melting snow. Sequence ends (5'27).

CD 2, Track 3. Cembra, Easter Evening.

The 24-hour recording concludes here: it is 4 p.m. outside the Albergo, where the vibrations of the jukebox are heard through the walls and windows. Bells ring, and an Easter Procession can just be heard from a couple of blocks' distance (0'40). Voices and cars mingle with the jukebox bass throb, and traffic builds to a wild crescendo following the conclusion of the afternoon service (ca. 3'30–4'30). A short calm is

broken by a hotel customer who parks his idling car just outside the door, leaving it running for 20 minutes, burying the 7 o'clock announcement of the recordist (6'28). Sequence ends at 8 p.m. (8'08).

LESCONIL

CD 2, Track 4. Point d'Eckmuhl Lighthouse.

This lighthouse stands a few kilometers from the village of Lesconil; its large moaning foghorn can be heard plainly in Lesconil however and it is the most conspicuous marine sound signal in the region. Inside the tower, a spiral staircase winds up a glistening tiled interior spire; sound reverberates wildly, and the blast of the horn itself – heard first outdoors, then inside, almost inhabits the place like a ghost. One of the attendants talks to us about the foghorn and how it works: you can hear the gas motor droning away from high above (1'10). It was built in 1897, and he says that nobody minds when the horn goes off. The recordist then climbs to the top, along with a dozen tourists, reaching it out of breath and exhausted. The perspective then opens out to the sea below (3'25), and we hear the horn again, with the sea in the background, birds closer up.

Once inside again (7'00) footsteps join voices on the way down, and just behind the microphones a woman is counting the steps in a whisper as she descends (there are 271). Sequence ends (8'30).

CD 2, Track 5. La Criée.

The port of Lesconil comes alive every day for the auction (“la criée”) of the day’s catch at the pier warehouse in the late afternoon. The boats begin to come in towards 4 p.m.; they have been gone since the early morning, after shrimp, and in the afternoon sale about 13,000 kilos of seafood will be sold and trucked out to the major inland centres. The long airhorn blast (1'51) announces the opening of the sale, and at 3'35 we move from the pier to the warehouse and walk around between 10–15 buyers who come from as far as Paris. They bid with quick nods of the head, continuously bobbing up and down as the auctioneer registers the bids in rapid fire. (See Chapter 3 for more details.) (4'52 total)

CD 2, Track 6. Bretagne Dialect.

Two men work with planes and hammers building a small fishing boat in a yard just off one of the main streets; they speak the Gallic language of Bretagne. In the song which follows (2'50), recorded in one of the cafe-bars, one of the older women of the village tells the story of a sailor and his girl. Later, in the same place, two men oblige us with a sample of Bretagne dialect (5'25). They remark at the beginning in French

(4'50) how it used to be discouraged, but that now they are proud to speak their traditional language. It must be true: real Bretagne folk music is in the jukebox, and after the conversation lapses back into French (7'20), traditionally tipsy sailors sing more traditional folk tunes (9'00). We move out to the street, and in the quiet afternoon, *Le Glas*, or funeral bell, is heard coming from the direction of the church. Then we hear the village priest, in fine voice as he preaches to his flock. Sequence ends (13'00).

DOLLAR

CD 2, Track 7. On the Road to Muckert.

The sequences on this side centre around a set of interviews with the former Town Clerk, Mr. David Graham, carried out at the same places he once frequented as a boy. Mr. Graham's knowledge of Dollar was extensive, and included detailed recollections of community sounds from his early youth. Not much escaped his attention: even details of local gates were familiar to him (0'00-1'40).

A major highway, the A91, runs through Dollar. In fact it is the main street. Outside of town about a mile, we stand with Mr. Graham next to the highway, at about the same point where he remembers his father saying he could once hear four different church bells ringing simultaneously on a Sunday morning. Our talk also took place on a Sunday morning, and we listen for what there is to hear, but observe only the single bell of Dollar church, and even that is being carried away by the wind. Congregations have dwindled and can no longer support their own minister, so services are staggered, and such soundscapes are now a part of the past. The last sound is the 'clicking' of a dead leaf as it is blown by the breeze. Sequence ends (6'35).

CD 2, Track 8. Pipe Music.

Here are three pipe tunes, played end to end during a practice session on the Dollar Academy playing grounds. The town is proud of the school band, which regularly collects top honours in the yearly competitions. This sound carries well over the townsite itself, and over to the neighbouring village of Tillicoultry, carried in part by the tall Ochil hills which run to the north of the two communities. (3'28 total)

CD 2, Track 9. The Cemetery Gate. (0'13)

CD 2, Track 10. Golf Course and Railway Station.

In conversation again with David Graham, now high above the town, on the hillside by one of the golf course fairways. From this vantage point many of the village sounds can be heard and Mr. Graham recalls others from the past. Just as our tape

was running out, he notes one further detail: the voices of the players passing by on the fairways “were not locals; the accents were English.” (2’55)

Cars swoosh by on the A91 as we move back down to the town again to the site of the abandoned railway station (3’55). As children play in a nearby yard, Graham talks about the sounds that once abounded here: shunting in the goods yard (buffers, men shouting), the signal box codes (bell and gong), the ticket machine, weighing machine, the car doors unloading passengers, the guard’s whistle and shouted instructions, the ganger and his crew resetting the track on hot summer days, the man who ‘walked track’, hammering back the wooden pegs which had become loosened (thump of boots on sleepers, the occasional whack of a key). (10’05 total)

CD 2, Track 11. Dollar Church – Special Request.

The one Sunday we had to record Dollar’s church bell, something went wrong with one of our tape recorders and we asked the minister if he would have it rung again for our microphones. He declined, thinking it might be confusing. But when people heard that Dollar’s bell might be the only one missing in our five village study, they rallied to the cause and we asked on their behalf whether the Minister wouldn’t reconsider. He did, and this recording, made on a Tuesday morning as the postman was walking by (0’20–0’50), was the result.

Following this, the sequence continues with a visit to the church (1’25) during the Sunday morning sermon, then a quick cut to the Academy grounds (2’40) where the pipe band gets itself together for a drill practice. (4’11 total)

LIST OF EQUIPMENT USED FOR THE RECORDINGS

Field Recording Equipment

Nagra Model IV-S 1/2-track portable stereo tape recorders;
Uher Model 4200 1/2-track portable stereo tape recorder;
AKG Model C-451E Condenser Modular Microphone Systems, including:
CK-1 cardioid condenser microphone cartridges,
CK-9 interference tubes (shot gun),
C-451 E preamplifiers,
W-17 windscreens;
AKG Model D202ES dynamic cardioid microphones;
AKG Model K-60 headphones;
Superex Model ST-PRO-B headphones.

Studio Recording Equipment

Three Ampex Model AG/350/2 1/2-track stereo tape recorders;
Ampex Model AG/440/2 four-channel (in-line) tape recorder;
AKG Model C 12A Electrostatic Microphone System;
Two Krohn-Hite Model 3100R band-pass filters;
Tascam 12:4 mixer

Analytical Equipment

Brüel and Kjaer Model 2205 sound level meters;
Brüel and Kjaer Model 4230 sound level calibrator;
Brüel and Kjaer Model 3347 Real-time Third-octave Analyzer, including:
Type 4710 Control and Display Unit,
Type 2130 Frequency Analyzer;
Model 2305 Graphic Level Recorder.

Studio Equipment

Two binaural construction microphone pistol-grips;
Bidwell Variable Speed Control Unit (for tape recorders);
Tape study unit (tape-loop playback machine).

Acoustic Environments in Change

– CD Program Notes

Prepared by Helmi Järviluoma, Heikki Uimonen and Noora Vikman
Recordings edited by Ari Koivumäki and Meri Kytö

SKRUV

CD 3, Track 1. Winter images 2000 (3'16)

Walking on the frozen tree leaves in February. We can hear a dog barking and a carpet being beaten. The motors of passing cars as well as distant shouts of children can be heard sporadically in the dormant atmosphere of the hi-fi soundscape. Small streams in the nearby forest are still not frozen.

CD 3, Track 2. The train (1'00)

The train passing the Skruv railway station. In the winter of 2000, Swedish Rail had left the premises, and since 1984 the trains had not picked up passengers anymore.

CD 3, Track 3. Group interview on sonic memories (2'05)

On this track we can hear an extract of a group interview that Helmi Järviluoma carried out along with Emmi Tavela in Skruv. Four villagers were involved. The group gathered at the house of a retired couple. The wife, Asta, had worked in health care, and her husband, Kalle, was a glass- and metalworker, Jan an excavator operator, and Ove was a retired railway officer. The alternation of 'listening points' in the group interview is typically polyphonic, making fleeting trips from past to present. With their broad Småland accent they talk about the past busy life and activities of the village, concluding with a discussion on past and present train sounds in Skruv. See also the article "Soundscape and social memory in Skruv" in this collection. Recorded by Helmi Järviluoma and Emmi Tavela in February 2000.

CD 3, Track 4. *The bell of Skruv chapel (0'42)*

One of the most striking changes in the soundscape of Skruv is the new bell of the local chapel. Its remarkably loud sound can be heard very clearly especially on silent Saturday afternoons, when it is rung to mark the beginning of the weekend. The microphone was placed on Storgatan 30 metres away from the belfry on the street. You can barely hear a car passing by at the end of the recording.

CD 3, Track 5. *Listening test in the movie theatre of Skruv (0'21)*

The villagers were asked to recognize local sounds and give opinions about them. We planned to use the sound of the local bell as a sample since it is known to have caused mixed emotions among the villagers. Unfortunately we did not have the sound recorded at that time so we had to settle for the bells from the nearby church of Ljuder. It certainly did the trick: at the end of the recording you can hear one of the villagers sigh *det räcker* ('that's enough').

CD 3, Track 6. *Brewery (5'01)*

The brewery in Skruv still produces beer. In this recording the factory workers explain in a strong dialect the production process of local beer. Different machine sounds accompany the background until the noise of the moving beer bottles increases and masks other sounds in the echoing space. Recorded by Heikki Uimonen and Noora Vikman.



CD 3, Track 7. Glass factory (1'53)

Also the glass factory still gives work to the people of Skruv. The presentation hall has become a tourist attraction. Workers give demonstrations of glass blowing. The products of the factory are sold in a factory shop. In this recording you can hear machines and assembly line sounds. Also radio entertains the glass factory workers during every day of production.

CD 3, Track 8. Hans Ulrich Werner's Skruv (6'36)

Sound designer and radio producer Hans Ulrich Werner's sound art dealing with Skruv [see also page 93 of his article in Schafer & Järviluoma (eds) (1998) *Northern Soundscapes. Yearbook of Soundscape Studies*, 1. Tampere: University of Tampere, Dept. of Folk Tradition].

BISSINGEN

CD 3, Track 9. In the Bissingen bell tower (1'14)

We were invited to climb the clock tower of Bissingen church to see and listen to the bells. The loud ringing near our ears startles us and interrupts our guide. A sound level meter tells the intensity: 102 dB. The guide goes on telling that during World War II the bells were removed, because the metal was needed for military purposes.

CD 3, Track 10. Counting German traffic (5'55)

Counting traffic was a routine method of becoming familiar with the local soundscape. The recordist is following the traffic patterns in the main street. On the other side of the street is the Bissingen bakery and its tiny parking place for bread shoppers. This recording starts with accelerating cars. Again the church bells do not let us forget the flow of time.

CD 3, Track 11. The old bellows of Bissingen's church organ (2'02)

The organ player of Bissingen church presents and plays the church's old organ. It was built before 1914 when the old style of bellows system was still used. The recording is made from beneath the level where the organ was situated, near the big bellows. The blowing of the air to the organ pipes is more uneven than in a modern mechanized instrument and this can be heard.



CD 3, Track 12. Slaughterhouse (6'17)

The slaughterhouse operates in the same building as Gasthaus Adler – as it did already in 1975. It is used only once in a week, on Mondays. One big pig was killed just before recordist entered the slaughtering hall. Did the pig say something when killed? The hair of the animal has already been removed in a hot metal bin. In this long recording we can hear the processing of the pig as well as the omnipresent Bissingen 11 a.m. church bells in the background. The echoing hall enhances the workers' negotiations with their strong Schwabian dialect. After all the machine noise subsides, the older experienced worker starts opening the animal carcass with his knife and only two fingers of his left hand. But he does the work quickly and in the end finds the heart of the pig.

CD 3, Track 13. The mill in Bissingen (2'31)

Our microphone listens near the old, partly wooden equipment, while the old owner of the Bissingen mill explains its history. The surroundings are wooden and covered with white dust. The mechanical movements of the machine parts and the source of sounds can be seen and heard at the same time.

CD 3, Track 13. Hunting horns (1'04)

The hunters of Bissingen practice together in a big storage hall in Dettingen village near Bissingen. The volume is loud! Hunting horns are still played even when hunting wild boars. The older hunters still know a number of meanings for these short tunes, as they tell us later on.

CEMBRA

CD 3, Track 14. Easter rituals of Cembra (5'11)

Sounds of early spring. Quiet birdsong provides a background to the steps of people walking through the labyrinth of houses in the old part of Cembra village. The ambience is occasionally filled with fragments of hymns sung during a procession. The recordist moves into the Santa Maria church during daytime mass where a woman is reading a liturgical text. Then the recordist moves outside again. The choir singing inside the church can be heard coming through the doors in the piazza outside the church. Recorded by Noora Vikman.

CD 3, Track 15. At an old shoemaker in Cembra (7'47)

In springtime 2000 the elderly men of Cembra still often gathered together at the old shoemaker Lorenzo Zanotelli's workshop. His friends silently sit and follow the work. Sometimes they comment about matters of life. In this recording one can hear the atmosphere. After the details of the work are explained to the recordist one can hear quiet talking, the clicks of tools, and electric machines. We can also hear Lorenzo's weak voice and the materials moving in his shaking hands. At the time of this recording he was more than 80 years old. Lorenzo passed away in spring 2007 and his workshop is now empty. Recorded by Noora Vikman.



Photo: Jenni Kangas

CD 3, Track 16. *Human traffic in Cembra* (0'46)

A short piece of atmosphere in old Cembra. People talking and human traffic is lively around lunch time. If one pays attention to the acoustics and reverberation no wonder many have asked if the recordings were made indoors. Recorded by Noora Vikman.

CD 3, Track 17. *In the panaderia* (6'59)

Every morning the neighbourhood around Cembra bakery wakes up to the smell of bread. The routines in the little bakery begin early. People come to buy their fresh breakfast, lunch and dinner bread following a regular rhythm. Like children, different kinds of white bread have various names. *Chiabatta* makes a beautiful rustling sound when exposed to cooler air after a short, hot time in the oven. Machines work with the dough in the back room.

CD 3, Track 18. *Precipio of Cembra* (1'36)

Antonio Nardon has been working on a huge Nativity scene since 1970. He has built thousands of details and moving parts, with dolls and creatures in several different scenes. Nardon still prepares them from nuts and pieces of wood found in the forest. He voluntarily shows his life work to visitors. Music is an essential part of the atmosphere of this mechanized miniature world.

CD 3, Track 20. *Sawing and cutting wood* (2'21)

The sound of woodworking dominates the open mountainous space on a windless spring day. Traditional ways of cutting wood belong to the mountain life. The owner of the *baita*, Mario, shows how to do it properly – first with the saw and then with an axe – even if it is Sunday.

CD 3, Track 21. *In the forest hut* (1'49)

One Sunday afternoon in autumn 1999 Franco's *baita* is full of friends. Between drinking their homemade wine and eating *castanas* and raw minced meat, the whole group sings polyphonic songs from their huge repertoire. A dog is barking outside, madly hunting a little lizard.

CD 3, Track 22. *Forest work with Giorgio* (2'40)

Steep hills make forest work here a little harsh. The practice is to hang the logs on a metal cable and send them down to the valley. This device makes a fantastic solo instrument!

CD 3, Track 23. *Lavanderia in Cembra* (3'07)

As well as a place to clean the football uniforms of the youngsters from Cembra and nearby villages, the laundry is a social meeting place for the women – just as the wells had been before. Many women popped in just to chat awhile with Luigina. It is amazing how many *ciaos* one living above the *lavanderia* could hear during a day.

CD 3, Track 24. *Sound preferences of the pupils of scuola media* (5'34)

Claudio Lagomarsini presents the idea and the FVS and AEC projects in Cembra's *scuola media*. He also translates the guidelines of the sound preference test into Italian, when the Finnish AEC researchers introduce the test in English. However, it is difficult to prevent the lively Italian children from co-operating when writing their answers. The classroom is bubbling with excitement. Soundscape is a collective creation in many senses!

CD 4, Track 1. *Silvia and her 13 cats* (3'17)

An old lady Silvia spends her days outside her flat in Piazza Pozzamaura. Also her 13 cats like to lie and dream in the springlike sun. Silvia is talking to them. All the cats come quickly back home when they hear the sound of the cardboard package of *crokattini*, dried cat food.



LESCONIL

CD 4, Track 2. Playing galoche (1'33)

The game of *galoche* can be roughly categorized into the same family of games as *petanque*, although perhaps the proud Bretons do not fancy this comparison. This recording was made in April 2000 at a *galoche* competition – a fairly frequently organized event in the region – outdoors at a particular crossroads near Lesconil. In 2000 a *galoche* club in 13 villages of the district offered the possibility of playing twice a week. The game is especially mastered by elderly men – this time around 20 of them – who also take this opportunity to use the Breton language (mixed with French) when commenting on the game. The specific sounds heard in this recording have to do with the materials used in the game, including a kind of metallic ‘coin’ which makes a tinkling noise when falling on a hard surface (for example asphalt), if the ball hits its goal. Recorded by Noora Vikman.

CD 4, Track 3. Sailing boat masts in the wind (1'32)

A very typical sound heard in Lesconil harbour during quiet moments is the tinkling coming from the small sailing boats (‘Optimists’). It is caused by the wind hitting the halyards against the masts. The harbour is the home of a sailing school, which regularly offers sailing courses to young people. This evocative and quiet soundscape recording was made by Noora Vikman in April 2000.

CD 4, Track 4. Subtle bar soundscape (0'53)

A peaceful moment at the terrace of the Lesconil harbour bar, l’Abyse. We can hear some sounds and music at a low volume coming from the bar, and the fluttering wings of a bird. Recorded by Noora Vikman in April 2000. (Note: the following track is from the same place on a lively night.)

CD 4, Track 5. The bar l’Abyse (0'38)

In Spring 2000 it was at the bar l’Abyse where young people gathered on Saturday night. They were listening to Anglo-American rock classics on the jukebox, such as ‘Everybody needs somebody’ by the Blues Brothers, joining loudly in the singing, but also listening to Celtic music with bagpipes, fiddles, and guitars. On weekdays the bar closed at midnight, and on weekends at one o’clock in the morning. That moment was louder than any other time in Lesconil harbour – not even the return of the fishing boats in the late afternoon caused such a buzz. Recorded by Helmi Järviluoma and the AEC group.

CD 4, Track 6. At Fez noz dances (2'15)

In September 2004 Helmi Järviluoma visited a *Fez noz* Celtic dance event in the Loctudy municipality, seven kilometres from Lesconil. The audience at the L.A.C. (Loctudy Cultural Association) house consisted of around 40 people. On the recording we can hear a band called Tod, three men and three instruments, saxophone (sounds like a clarinet), accordion and a guitar, playing. The music is played very loudly. We can even hear some people stamping their feet, shouting and screaming, while dancing. We can also hear how people sitting at their tables at the sides of the dance hall never stop their talking. 'Constant, ceaseless social noise is unquestionably the soundmark of Lesconil' (see more in the chapter on Lesconil in this publication). Recorded by Helmi Järviluoma.

CD 4, Track 7. Washing and eating mussels (1'09)

Seafood forms an important part of the diet of Lesconil's inhabitants. In the case of mussels and for example *pousse pieds* (growing on certain cliffs by the seaside), the people often collect the seafood themselves. One morning our Chambre d'Hôte hostess, Jeannie Guilloux Larzul, took Noora Vikman to the seaside, and they came back with a bucket of mussels (*coques*). In this recording we can hear the shellfish being washed and eaten by the AEC group members and the host family Guilloux. Recorded by Noora Vikman and Heikki Uimonen, April 2000.

CD 4, Track 8. A whistling bricklayer (1'48)

In April 2000, when the AEC group visited Lesconil, people were often working outside. The soundscape was mostly reasonably silent, but not without human voices and the sounds of activities. Often the activities had to do either with construction work or work in the gardens. In this soundscape we can hear the whistling of a man laying bricks, mixed with the bird song, a couple of cars passing by, and some dogs barking. Recorded by Noora Vikman.

CD 4, Track 9. The 24 hour recording and traffic count at Lesconil harbour (5'17)

This recording was made in early May 2000 at Lesconil harbour during the traffic count operation. The recording and sound level metering equipment was set up by the CRESSON researchers Nicolas Tixier and Julien McOisans. The AEC researchers took turns counting traffic during the first ten minutes of each hour, as well as recording a slice of soundscape. Also, Julien McOisans took panoramic photographs from the spot. This recording is edited to represent ten seconds of soundscape from each hour. First one can hear how the night with its constant clicking of sailing boat masts turns into morning, how the fishing boats are leaving; then the land traffic

(cars, mopeds, lorries) starts to be heard, growing more frequent during the day. Seagulls and other birds are a constant background sound. The harbour restaurants and bits of conversation can also be heard. The evening gets quiet again. Recorded by the AEC group, and edited by Julien McOisans and Nicolas Tixier.

CD 4, Track 10. Soundscape inside a fishing boat (3'05)

Jeannie Guilloux Larzul took Julien McOisans, along with Tero Hyvärinen and Helmi Järviluoma from the AEC group, for a visit to the fishing boat aboard which her son was working. The boat had just arrived at the port of Guilvinec quite late in evening. Tero Hyvärinen recorded the sound of the boat's main motor (5000 horsepower, six cylinders), including it shutting off; then the smaller motor is started. The fisherman told us, and Julien McOisans translated the fact, that the ceaseless motor sounds inside the boat which the men had to listen to sometimes for three weeks in a row, had the effect that many become deaf. Recorded by Tero Hyvärinen, April 2000.

CD 4, Track 11. Guilvinec harbour, dealing with the fish on arrival (3'33)

Guilvinec harbour was flourishing in 2000. Here we can hear the constant rumble of a fishing boat that has just arrived in the evening. We also hear Jeannie Guilloux Larzul introducing the AEC researchers to the fishermen and port personnel. Then we hear the sounds of fish being unloaded from the boat, with the motor rumbling in the background. Slowly we move inside the main hall of Guilvinec harbour and listen to the forklifts moving the catch to where workers are waiting to deal with the arriving fish. There are splashes and bangs as the big fish are thrown into plastic boxes. Tero Hyvärinen is commenting on the work. The track ends with a quite silent, even spooky (a lot of echo) evening soundscape from the large main hall, with the sounds of forklifts and a falling metallic object. Recorded by Tero Hyvärinen in April 2000.

CD 4, Track 12. Fish auction at Lesconil harbour (1'58)

This fish auction is not in the large, industrial Guilvinec port but in the smaller Lesconil harbour. Here the manually shaken rattle is still used as a signal. The afternoon auction was still an integral part of village life in 2000, and as Jeannie Guilloux Larzul put it: 'It brings people to the centre, it brings movement, it brings colour.' See more in the chapter on Lesconil in this publication. Recorded by Noora Vikman in April 2000.

CD 4, Track 13. Wedding at the Grand Hôtel des Dunes (2'54)

The AEC group happened to look into the bar at the Grand Hôtel des Dunes while there was a wedding party going on. It was almost midnight and people were happily joining

the singer-guitarist, singing together quite loudly, giving proof to the fact that Lesconil inhabitants love to sing at local festivities and family assemblages. There's a strong social noise of talking on the recording, which was made while sitting in the bar, while the wedding party was going on in the main part of the restaurant. Busy waitresses run, and dinnerware is tinkling. Recorded by Helmi Järviluoma 29.4.2000.

CD 4, Track 14. On the seaside cliffs (1'06)

The rolling of the waves across the thin sand of the beach and the slow crispy sound as they retreat, the violent breaking against the cliffs, or the distant hum that almost seems like a motorway drone, are some of the most common sounds of the sea we became used to hearing in Lesconil. Here is one such ocean soundscape, recorded at the cliffs of Lesconil. Recorded by Julien McOisans in April 2000.

CD 4, Track 15. Sunday morning (2'36)

A silent Sunday morning soundscape in Lesconil, with a plethora of birds (a black-bird is clearly audible at the start), distant church bells and a moped passing. Recorded by Helmi Järviluoma.

CD 4, Track 16. Sonic memory walk in Quartier de Quatre Vents ('the quarter of four winds') (4'42)

A group of middle-aged or elderly women who were born in Lesconil walked with Helmi Järviluoma along the special path they had chosen in September 2004. They roam slowly through the landscape, which is for them heavily charged with meanings, telling stories and recalling sounds and smells of this quarter that is located right behind Lesconil harbour. These women create shared understandings of past places, not only through verbal recollections, but as they move, in flesh and blood, through the streets and fields that used to be important to them. The recording extract here starts with the introduction of the group. The woman most audible at the start is Martine le Faou, followed by the stories of Jeannie le Pap. Also present during the walk are Jeannie Guilloux Larzul and the daughter-in-law of Mme le Pap. The stories of sensory memories heard here, mostly from the 1950s, tell about the paintshop of Marie Quiniou, the shoemaker Bernard, the 'bazaar shop' of Jeannie Bargain, the sounds of the wooden shoes, sabots, horse carriages, and sailors talking loudly in Breton; and the special crunch of pine needles in the crepes, when chewed. (See more in the chapter on Lesconil in this publication.) Recorded by Helmi Järviluoma.

DOLLAR

CD 4, Track 17. Sonic memory walk with David Graham (3'54)

In Dollar, David Graham, 88 years old in the year 2000, and formerly a solicitor and town clerk, was definitely a person with an excellent memory of the senses. We made a listening walk with him – a kind of *écoute resituée* to transform the term *écoute située* used



by Nicolas Tixier and other CRESSON sound researchers, stemming directly from the method of commented city walks by Jean-Paul Thibaud. Mr Graham chose his favourite path, and we equipped him with microphones and earphones. He took us to Mill Green, a park at the foot of the Ochil hills, opposite a golf course, by the side of the burn. The past of the park became vivid when he described the sounds that could be heard there before, in the 1920s and 1930s. Recorded by Helmi Järviluoma and Heikki Uimonen.

CD 4, Track 18. Dollar branch railway in 1960s (4'07)

The sounds of the now discontinued Dollar railway track were recorded and commented on by Mike Jodeluk in the 1960s (copyright Mike Jodeluk, 1999).

CD 4, Track 19. Dollar Burn (0'38)

Dollar Burn runs on the west side of the village and under the main A91 road. The stream's beautiful sound is dependent on the time of the year. The melting snow on the hills contributes the amount of the water and thus changes the everpresent sound of the burn. The sound can be heard quite clearly along the main road in Dollar, especially at night when there is no traffic or other sounds masking it.

CD 4, Track 20. Pipe band (0'39)

The sound of the Dollar Academy Pipe Band is definitely one of the main sonic attractions of Dollar. During the summer season the pipers practice in the yard of the Academy and the sound can be heard several miles from the village. The practice sessions were considered very pleasant by many of the villagers.

CD 4, Track 21. Blacksmith (1'36)

Albert Mylne, the last blacksmith of Dollar, is describing how the villagers reacted to the sounds from his blacksmith shop. They were liked very much. The story of the



Wilson sisters especially reveals how a soundscape competent person can tell a trained blacksmith by ear. Read more in Heikki Uimonen's Dollar article in this publication.

CD 4, Track 22. Sounds of Dollar (4'54)

The soundscape of Dollar recorded at different times of day in spring 2002. The general soundscape can be observed, including how the various places differ sonically from each other. Each sample lasts 30 seconds.

- a) Manse Road, 26 March, 2002, 7:48 a.m.
- b) Bridge Street, 26 March, 2002, 8:08 a.m.
- c) Dewar Street, 26 March, 2002, 8:25 a.m.
- d) Strachan Crescent, 26 March, 2002, 8:44 a.m.
- e) Manse Road, 26 March, 2002, 11:53 a.m.
- f) Manse Road, 26 March, 2002, 3:44 p.m.
- g) Bridge Street, 26 March, 2002, 3:55 p.m.
- h) Dollar Glen, 18 March, 2002, 4:00 p.m.
- i) Above Dollar, 18 March, 2002, 5:18 p.m.

CD 4, Track 23. Sonic snapshots from Dollar (5'55)

First you hear the recordist walking on the gravel and opening and closing the squeaky gate on the way the Lawhill Community Woodland located right above the village. On top of the Lawhill you can hear the sounds what are most likely from the open cast mine few miles south of Dollar. On the way back a keen gardener is whistling a song 'Waterloo Sunset'. Right after that the church bells are calling the congregation to hear the sermon. The recordist is standing on the bank of the Dollar Burn. After an excerpt of the holy sermon we can hear church bells one more time followed by more vernacular sounds from the local grocery shop: refrigerator keynote sounds and radio music accompanied by the discussion of the customers. These are followed by the sounds from other business premises on the main road such as kids playing cards, clinking of cutlery and by Karaoke singing from the local pub. Compiled by Ari Koivumäki from the recordings of the AEC team.

NAUVO

CD 4, Track 24. Evening near the sea (1'52)

Summer has almost arrived; the Nauvo beach is ready to welcome swimmers and sunbathers. Where are all the people? It's eight o'clock in the evening. Yet there is work to do, someone is repairing his summer cottage. No flies, no mosquitoes for the time being. Recorded by Ari Koivumäki.

CD 4, Track 25. Nauvo revue (2'57)

Revue is a form of music theatre that has been strongly adopted especially by the Swedish speaking minority in Finland. Every year Nauvo people put together a revue show, 'Nagu Revy'. The actors are this time mostly the 13–15 year olds from the secondary school, plus one of the school teachers and one of the cashiers from the gas station. The hairdresser of Nauvo has been one of the writers and directors of the revue. The play always humorously criticizes the current topics of the year, and of course the ones 'in power': the mayor of the municipality is bombarded quite hard, and the 'good brother' circles of the naval club of Nauvo are exposed. It laughs at the silly uses of mobile phone, and the idea of Finnish postal authorities to stop the post boat services and to buy a helicopter instead is shown to be ridiculous. Recorded May 2000 at Nauvo Hall of Associations by Helmi Järviluoma and Noora Vikman.

CD 4, Track 26. Eiders 'barking' on a May evening (0'50)

This recording was made on a May evening at the Nauvo seaside at a quiet spot a little off from the centre of the village. Steven Feld and Helmi Järviluoma heard a bird making a sound that reminded them of a dog barking. Later, the bird was identified as an eider. When a few years later the One Hundred Finnish Soundscape project collected meaningful soundscapes, the singing of different seabirds in Turku archipelago in springtime, suggested by a woman living next to Nauvo Island, was selected. Recorded by Steven Feld, May 2003.

CD 4, Track 27. Morning in May (1'37)

The sounds of the sea naturally depend on the weather. Because there are no large waves between the islands, the keynote sound of Nauvo is very often the murmur of the wind. Birds are usually audible during light traffic. Recorded by Ari Koivumäki.

CD 4, Track 28. Nauvo church bells with birds (5'25)

Nauvo has a medieval stone church dating back to the fifteenth century. Here in the brisk Nordic air of early spring, a pair of austere bells calls the Sunday congregation. Then the resonance of the organ fills the old stone church. Nauvo is known to have had the first organ in Finland, built in the late sixteenth century. Even this Schwan organ, dating from 1791, is a rare example and famous for its sound. Steven Feld recorded the Nauvo church bells and Sunday mass. The day was also the memorial day for war victims. Therefore the congregation had a little ceremony at the adjacent cemetery after the service. Hymns are sung, and the birds, cars, and bells again mark the surrounding space and temporal flow of the day of prayer. Steven Feld paid



attention to the interaction between the congregation singing hymns in Swedish and the jackdaws that seemed to be interacting with the singers. Recorded by Steven Feld, May 2003. The complete track is on the CD *Time of Bells 1* “Soundscapes of Italy, Finland, Greece and France”, Vox Lox Io4, copyright Steven Feld.

CD 4, Track 29. At the pier (1'05)

Cars are driving from and to the ferry in the distance. The water of the East Sea is still terribly cold. The weather has been cool and windy. The summer holidays will begin in a couple of weeks and the soundscape will turn livelier. Recorded by Ari Koivumäki.

CD 4, Track 30. Ferry (1'57)

The *Sterna* ferry is arriving at Prostvik, Nauvo. The road traffic to the mainland is maintained by these state administered ferries. The voyage has not been long – it takes only about five minutes. There are hundreds of summer cottages dotted around the Nauvo islands. Especially during midsummer the traffic is busy and loud since most visitors come by car. Recorded by Ari Koivumäki.

CD 4, Track 31. *At the Nauvo harbour (3'17)*

Nauvo guest harbour is an important part of the village summer life. For many Finns boating is a kind of alternative to a summer cottage, and whole families spend their summer vacations and spring and summer weekends on sailing or other boats. Nauvo guest harbour is a central one in the Turku archipelago, and in the year 2008 its services range from sauna to sushi bar. This recording, however, was made by Steven Feld in mid-May 2003 at around 9 p.m., when the Finnish spring night has not yet reached twilight. We can especially hear the young sailors partying, shouting into the echoing evening soundscape and playing music in their boats. The tune heard from different angles comes from one of the boats, a kind of pathetic mixture of Finnish tango and 'new wave punk', talking about loneliness and an empty fridge. Feld is walking with his microphone headset with Helmi Järviluoma. They leave the harbour restaurant l'Escale with its squeaky door, visiting the pier and going back towards the village along the harbour front. Recorded by Steven Feld.

LIST OF EQUIPMENT USED BY THE AEC GROUP FOR THE RECORDINGS

Field recording equipment

AKG C 522 Eng Microphone
Sony ECM-999PR
Sony TCD-D8 DAT Recorder
Sony SBM-1 Super Bit Mapper

For interviews

Sony ECM - MS 907 Microphone
Sony MZ-R35 MiniDisc Recorder

Editing was made with

Pro Tools LE 7.4 software
Digidesign Digi 002 Workstation

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*“I think about listening and what it means more and more...
and that’s why I found this book enthralling.”*

– PROFESSOR SIMON FRITH, UNIVERSITY OF EDINBURGH

Acoustic Environments in Change

How are the soundscapes of European villages doing? Can you still hear the factory hooters in the Swedish Skruv? What about the echo and children’s voices in the old part and the new residential areas in the Italian Cembra? The writers are interested in both the disruption of sonic order, and the listening experiences of the members of the communities who wish to preserve order and equilibrium. How willing are the villagers to open up to the outside world and tourists, their new potential ‘patrons’? What about the process of becoming more aware of the noise and silence in their own lived environment? The writers also delve into the dynamics of social memory, nostalgia and soundscape, and the relationship between human and non-human materialities in these villages.

The first part of this publication with its twelve articles takes you to six European places, five of which were visited by the World Soundscape Project in the mid-1970s. The starting point in both studies has been to research acoustically and culturally diverse sonic environments. In this new study methods of anthropology and cultural studies have been deployed to supplement the methodology of soundscape research. The study strives towards making us aware of local interpretations about soundscape.

Writers: Dr Helmi Järviluoma, professor of cultural studies at the University of Joensuu; Dr Heikki Uimonen, ethnomusicologist and researcher of the Academy of Finland, Dr Noora Vikman, lecturer of musicology at University of Joensuu, MPhil Tero Hyvärinen and FM Meri Kytö, junior researcher at the University of Joensuu.

Five Village Soundscapes

This re-publication of the World Soundscape Project’s seminal Five Village Soundscapes study not only brings this landmark case study back into print, but, perhaps for the first time, allows a longitudinal comparison over 25 years of community soundscapes in transition. The result of the original study, apart from its detailed documentation of the soundscapes of five contrasting villages, was a model of the “acoustic community” characterized by their variety, complexity and balanced state, yet vulnerable to social and economic change in the form of noise. This model serves as a reference point for contemporary communities by showing the highly varied ways in which sound can play a positive and cohesive force at a social level, while subject to inevitable change. The studies are complemented by extensive audio examples on the accompanying CDs.

Editor: R. Murray Schafer, composer and founder of the World Soundscape Project. With a new introduction by Professor Barry Truax, School of Communication & School for the Contemporary Arts, Simon Fraser University.

