

European Sound Diary

Edited by R. MURRAY SCHAFER

THIS IS DOCUMENT # 3 IN
THE MUSIC OF THE ENVIRONMENT
SERIES

(R. Murray Schafer, Series Editor)

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INTRODUCTION

AUDIO CASSETTES

A stereo cassette with highlights of the tour described in this book will be available as part of a Special Cassette Series drawn from the large collection of material recorded in Europe.

The other cassettes in this series focus on the specific communities studied in the book *Five Village Soundscapes*.

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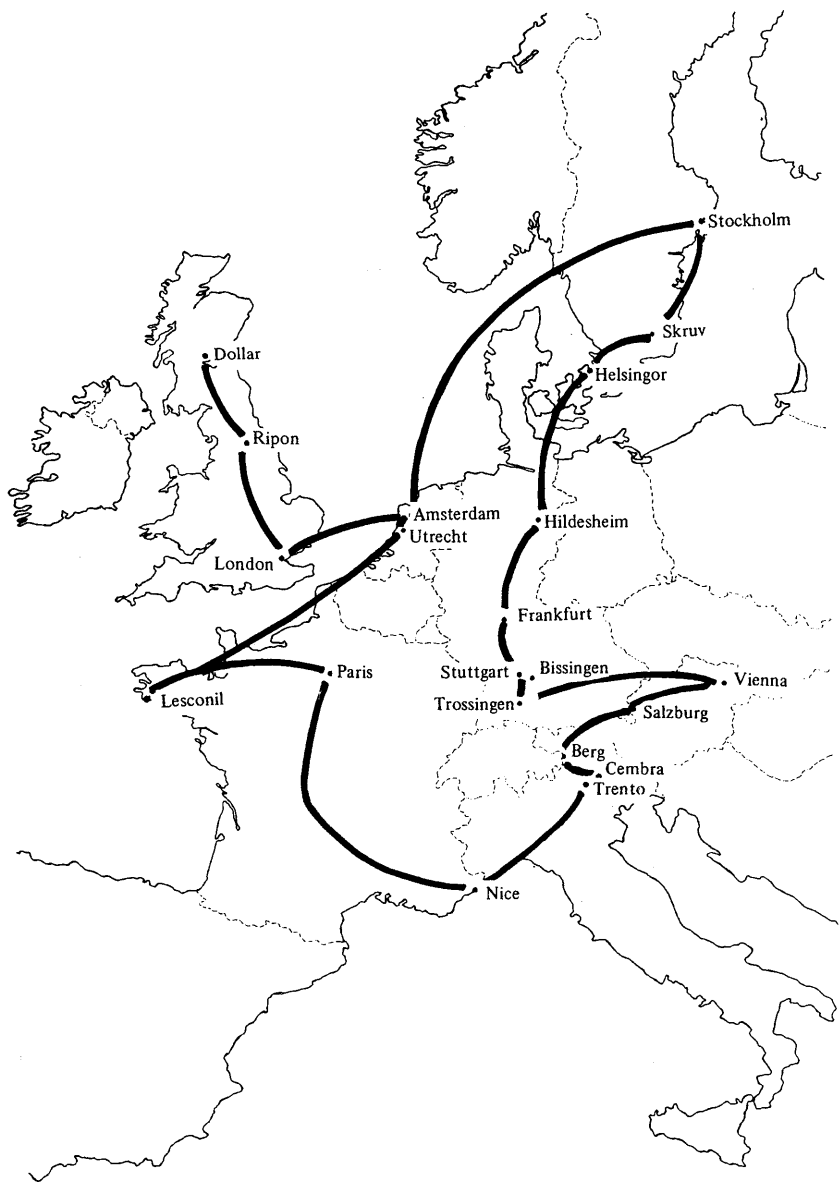
Between February and June, 1975, a group of researchers from the World Soundscape Project in Vancouver travelled to Europe. We wanted to know more about the soundscape of contemporary Europe to compare it with that of Canada, which we had been studying for several years. Travel assistance was made available by the Humanities and Social Sciences Division of The Canada Council and we planned the trip so that it would coincide with a lecture tour which had been arranged for me.

Our principal aim was to document the soundscape of five villages, one in each of the countries we would be visiting: Sweden, Germany, Italy, France and Britain; and the results of this undertaking are described in the book: *Five Village Soundscapes* (No. 4 of *The Music of the Environment* series). But we quickly discovered that we were collecting a lot of general information, notably from cities, for most of my lectures took place in larger centres, and it was to cities also that we were drawn to do preliminary research for the village studies.

It was my suggestion to the group that each member might keep a sound diary, entering into it each night notes on the day's experiences (primarily acoustic). As we planned to travel together most of the time in a rented Volkswagen bus, we thought it might be interesting to discover how each person would react to the same acoustic events and experiences. Two members of the group (Howard Broomfield and Bruce Davis) had never been to Europe before. Peter Huse and I had been returning there intermittently for fifteen years or more, and Jean Reed, who is Welsh, had left Europe for Canada only a few years before and was now returning with attitudes in transition.

Each week I collected the diaries and selected a few passages from each, fitting them together to tell the story of our discoveries, hopes and surprises. The result is an impressionistic account of a soundscape expedition rather than an exposition of measured facts. We did gather facts, as the diaries mention, and we also took measurements and made recordings. Some of this material will be used in future documents. If the tone of this document is less studious, it is with the hope of engaging the attention of general readers. The sound diary, and its companion piece, the soundwalk, are easy to compile, and by directing attention to a sense often ignored they can be useful educational experiences for everyone.

R. Murray Schafer



AMSTERDAM

From Howard's Diary:

Feb. 2/75. Amsterdam is filled with traffic. But the traffic is different than in North America: the cars are smaller and consequently their engines sound higher pitched; and there are more motor scooters and bicycles with motors. The yellow streetcars are generally quiet and the grey buses are noisy. Peter says that the yellow streetcars sound like the wind, but as they take the corner in front of our hotel they howl like angry dogs.

From Peter's Diary:

The yellow streetcars are electric. The grey buses are diesel. When a yellow streetcar is coming it sounds like an elevator; and when it stops, the sound of the doors opening and closing enforces that impression. The electric tram, when heard from inside, has a whistling wind effect.

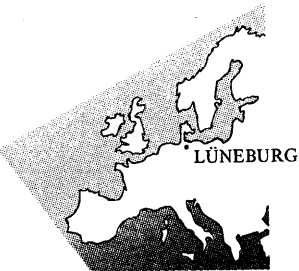
From Jean's Diary:

Deep hummy roar of streetcars, constant traffic. Chiming of a clock at quarter to the hour. Different horn sounds, almost whistle sounds from the deux chevaux cars. The newer trams are quieter, but give a shrill electric bell sound when they start up from stop.

From Peter's Diary:

During the night church bells rang the hours and half hours. In the early evening — 7 and 8 o'clock — gay bell tunes introduced a deeper, more sombre-toned bell which marked off the hour. In the middle of the night the gay tunes were omitted from the hour sounds. The half-hour was indicated by two higher pitched bells, the first of the two, which was also the highest in pitch, counted out the preceding hour, and the second counted out the hour to come. These bells were lighter than the deep hour bell. Our location was Die Port van Cleve (Hotel), 178 N.Z. Voorburgwal, so the church we heard must have been Westerkerk, behind our hotel near the Singel Canal.

A contingent of students from Argentina, about fifty of them, brought a loud and excited babble-and-shriek voice texture to the ordinarily staid spaces of the hotel. A German, on three occasions after midnight, knocked on the hotel room door of the Spanish-speaking Argentinians, saying: "Could you please slow the radio down?"



EN ROUTE TO SWEDEN

From Jean's Diary:

Feb. 4. Germany, 20 km. from Lüneburg. In the hotel last night the lusty German voices, all male, as they sat around a table and drank beers. Later, at 1:00 a.m., they went to bed; on waking I thought I was hearing one of the speaking scenes from *Der Freischütz*. There was the baritone, the leader obviously, lighter obsequious voices and every now and then peals of loud laughter. Murray went to their door and asked them in his beautiful flat, clipped German to be quiet — *ruhig bitte* — I caught. Then *selbstverständlich* from baritone, and after that things were quieter, although there was a lot of coming and going to the w.c. placed conveniently (!) next to our room.

From Howard's Diary:

Awakened at 1:15 by six travelling salesmen who were drunkenly laughing in the hall ... belly laughs; but rigid Murray asked them to be quiet. He says they were eating large bowls of soup.

After I was awake I listened to the trains as their wheels screamed around corners. The horns were electric, rather sawtooth and of a single high pitch. We have also seen some steam engines; they must have steam whistles.

We stop in Lüneburg, to search out the church where J.S. Bach played the organ. We search around three churches: all three have loudspeakers for the sermon. Murray hypothesizes that they are used because the speed of speech has increased in recent centuries so that the long reverberation times in the churches make fast contemporary speech unintelligible. He also comments that prior to the gross sounds of autos and machines, the sound of the organ in the church was the biggest sound that the people knew aside from natural sounds like thunder.

From Peter's Diary:

Murray claps and I count 6-7 seconds reverberation time in St. Michaelis Church (1400 A.D.) in Lüneburg. He speaks with slow, detached rhetoric and we hear every word from the back of the church. Bach was a choir boy in St. Michaelis Church, where now they have Siemens Hexadyne loudspeakers. Outside in J.S. Bach Platz an electric guitar sits in the window of John's (!) Music Shop: Hi-Fi Musik für Hörbehinderte.

In St. Johannes Church (built 1350), the speakers are by Strasser of Stuttgart - two speakers on each of four main columns. Reverberation time: 4-5 seconds on a medium loud clap.



From Jean's Diary:

Feb. 4. First night in Sweden. We stayed at a small place called Klippan. A really loud electrical hum greeted us as we got out of the van in front of the hotel. It seemed to be the hotel's keynote sound for all night we heard a softer version of it in our room, which Murray has traced to the razor socket! No Moozak in the restaurants and none on the two ferries we took yesterday. But significantly, there was a radio playing constantly in the kitchen of the restaurant last night. Although it was Swedish, they played "English" pop songs all the time.

Consulting his dictionary, Peter suddenly looks up brightly and informs us that the word for "noisy" in Swedish is *bullersamt*. We all pronounce it and approve of the sound.

From Howard's Diary:

Swedes appear to speak into the telephone differently than do North Americans. The telephone mouthpiece tends to be held below the chin. This gives rise to a louder speaking voice and thus some people hold the

earpiece about a half-inch from the ear. At breakfast in our hotel the other morning, a caller on the telephone was clearly audible in the dining room some 20 feet away! Murray measured the intensity of the caller's voice at the earpiece at 98 dBA. The intensity of the telephone ring at about a meter was 76 dBA. The duration of the cycle from one ring to the next is about 10 seconds — much slower than in North America — but students tell us that in the near future this is to be accelerated. Must record before this happens.



UPPSALA AND STOCKHOLM

From Peter's Diary:

A combination bell-horn-like sound, playing an ascending perfect fourth resolution, preceded a woman making an announcement over the PA system of the Centrale Station in Stockholm. We heard the same interval in a falling version on the PA system of the ferry between Denmark and Sweden. The rising interval almost sounds like the beginning of a folk song, for many Northern folk songs begin with a rising perfect fourth. So did many calls on hunting and post horns.

From Jean's Diary:

Feb. 5. Staying at a super old-fashioned hotel in Stockholm. Despite double windows one can hear the traffic clearly. Between 5 and 6 in the morning there is a very loud machine in the streets. It travels slowly; I think it must be a sweeper; it sounds madly overpowered for such a job.

From Peter's Diary:

Murray's first lecture is at Uppsala University and we have come up with him. The first thing we notice are the *Kajor* (Jackdaws) in front of the Uppsala Station. They've moved there from the cathedral tower which is being repaired. The birds are having their parliament screaming "kra, kra."

From Howard's Diary:

In the Pizza Restaurant in Uppsala there was the song cycle that began with "She'll be Comin' Round the Mountain" and ended with "Yellow Rose of Texas." The arrangements were moozakal, but contained very prominent lead violins that one of the students later told me are characteristic of Swedish folk music. The cycle included some five songs that played through one and a half times during our half-hour visit. Watch out Chicago,

Stockholm may take over the Moozie business!

From Jean's Diary:

What a charming custom. After Murray's lecture the students got up, moved the tables, brought in wine, cheese and candles. We had such a jolly time; especially when one of the professors knocked over the wine. Afterwards we emerged into the streets of an utterly still Uppsala. It was 1:00 a.m.

From Peter's Diary:

On two separate days I studied my footsteps in the cobbled courtyard of the Stockholm Stadshuset (City Hall). The second time the shadows were holding a thin covering of snow from the previous day, softening the footfalls and absorbing much of the ambient sound. I had moved through the arcade there with its increase in reverberation, or held sound, and was standing in the open by the harbour when the tower bells began the elaborate sequence by which they mark noon for the city. It is a beautifully varied array of bell sounds and folk tunes, unfortunately marred on this occasion by the entry of a pug-nosed city truck which filled the courtyard with its mixture of diesel fumes and low-vibration roar. At this most special acoustic time, when these bells — the primary Stockholm soundmark — were momentarily centering the city, a compressor pump mounted on this truck began noisily to gobble up slop from the City Hall kitchens. Upon leaving this space I noticed that the street seemed a welcome, peaceful change. City of Stockholm, take notice!

From Howard's Diary:

Feb. 10. I enter at the end of one of Murray's lectures at the Musikhogskolan in Stockholm. He is explaining soundmarks to the students and is asking them for examples in Stockholm. They suggest the bells of the Stadshuset and the Storkyrkan. Someone also mentions the subway station at Östermalmstorg. Murray wants the students to study the signals and soundmarks of their native city, but they seem puzzled or reluctant.

From Peter's Diary:

There is a landing between escalators in the Östermalmstorg subway station which is a round room with a slate-tiled floor. This space produces a rapidly repeating echo, amplified in spots by the focussing of sound waves. While we were trying to determine the exact location of these spots, a schoolboy, dashing through, hopped and landed with a whoop precisely on one such spot. The sound was startling, the boy grinned back at our gaping admiration, and then disappeared down the escalator without missing a beat. Participation in the soundscape.

From Jean's Diary:

Sitting in a cafeteria facing the water. Here the floor is marble tile, but the chairs are of wood and the sound of them scraping is nothing like the metal ones in Parisian restaurants. However, the echoing sound of the china and glass on the marble-top tables is very distinctive.

From Howard's Diary:

We have been recording police and fire sirens and measuring them. The police siren, with an interval of a minor third, measures 94 dBA at 8 meters. The fire siren measures 107 dBA at the same distance. The Stockholm police will change over to American-type yelping sirens next year, because the ones now in use are not loud enough. The young policeman seemed to have a proud look on his face as he told us. Finally he will sound like the TV cops from America.

From Howard's Diary:

Feb. 12. Today we counted car horns at Sergels Torg for nine hours (Sven and Jean helped). The average number of car horns at this busy intersection is 25 per hour, which compares favourably with the quietest cities we have recorded: Moscow 17; London 21.* Our plan is to do comparative counts in all the major cities we visit.

From Jean's Diary:

The oldest part of the city is situated on an island. Murray is interested in it because traffic is prohibited from all but the perimeter streets, so today with a group from the Music School we went there to compose a soundwalk. Each student was sent out to find at least one original sound for incorporation. I found a marvellous old iron shutter in a back lane. It shuddered violently as I pulled it away from the wall and then as it came near to a right angle, creaked. Afterwards we assembled in a coffee house, exchanged notes and together composed a soundwalk for future visitors.

SOUNDWALK: THE OLD TOWN, STOCKHOLM

February 13, 1975

Gamla Stan, the old town, is full of acoustic rewards for the soundwalker and sound collector. The narrow, labyrinthine streets and old buildings determine the acoustic atmosphere of this place: ambiances change subtly as one goes through passageways or around corners; the most delicate sounds come alive as they reverberate and echo from stone surfaces. Occasionally the sounds of traffic can be heard up the lanes and alleys that lead down to the perimeter roads on each side of the island, reminding the listener of another, louder reality.

Considering the sounds listed and mapped below, it seems that the lively acoustic quality, as would be experienced with footsteps on cobbles, added to the students' overwhelming preference for metallic and percussive sounds. Strangely absent from their list are sounds of human activity and, with a few exceptions, those of modern technology, including the subway, by which many of them arrived there. Instead, the historical context, largely absent in the students' own modern suburbs, seems to condition their acoustic preferences. Thus, on this walk, one will find unusual ambiances in churchyards, narrow streets, and old buildings; a number of unique doorbells and knockers; interesting metallic sounds from squeaky gates, from resonant

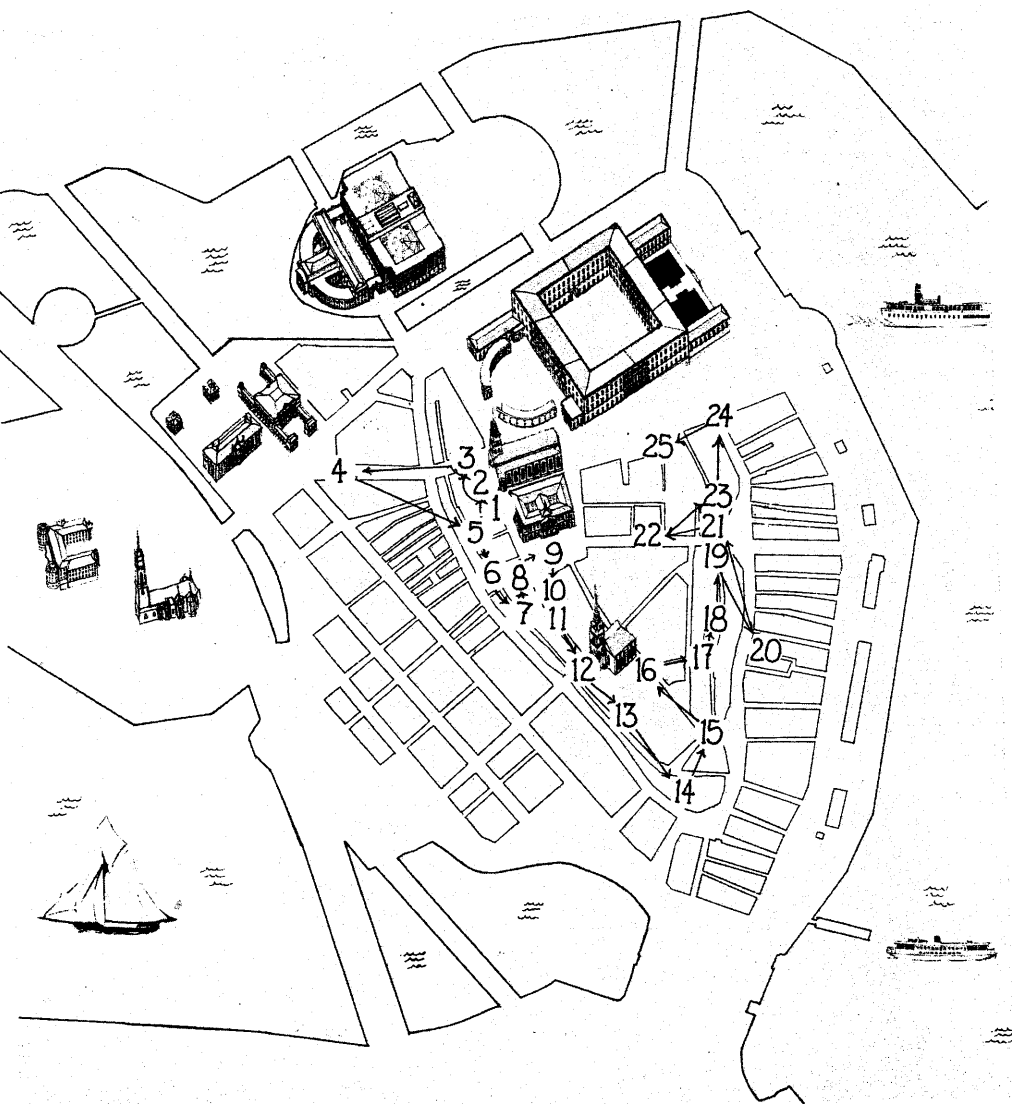
drainpipes or clinking metal chains; a few unusual wooden sounds, such as one experienced in an old telephone booth; and only three mechanical sounds, one of which is produced by an 1880 coffee grinder.

The map below suggests a route which you may want to follow when you visit Stockholm. You may also find it rewarding to add your own collection of sounds to the list as well. If you don't have the chance to go to Stockholm, you might try composing a soundwalk in your own city or town.

1. Antique telephone booth near front of Storkyrkan. The ambience is different in here than in most other booths! Why? Swing the saloon doors, step inside and stomp on the raised, wood-slat platform.
2. Storkyrkan. Listen to your feet as you mount the steps. Enter the church. Your footsteps are resounding differently here. How long does it take for each sound to die away?
3. Library sign overhead at Trångsund and Storkyrkobrinken. On windy days it swings and "sings". Do you hear other wind-voices here?
4. Marianne Lindholm's tea and coffee store at 9 Storkyrkobrinken. Listen to the 1880 vintage coffee machine grinding away. Remember the sound of your own coffee grinder at home
5. Strange door knocker at 13 Prästgatan: rock tied to leather thong which goes through a little hole in the door. Pull thong, listen and RUN.
6. S. Lundgren Ved Kol, 15 Prästgatan in the block called Echo. (Ved Kol means "Wood, Coal".) If the door is open, you may hear wood being chopped. How often do you hear *that* in a city?
7. Inside Swedish Sparbank at 49 Västerlånggatan. Listen to the sound of the computerized calculator and changemaker. A truly unusual sound in this medieval setting!
8. Gallery of drain-pipes along Kåkbrinken. Turn them into a musical instrument. How many different notes can you produce?
9. Fountain in the square called Stortorget. Every fountain has its own voices. In this case the sounds issuing from each one of the four spouts are different. In the winter, however, you can only imagine them.
10. Sweetly ringing doorbell at 28 Skomakargatan. Remember the sound of your own doorbell at home ...
And left of this door: two more variations for the drain-pipe theme.
11. Squeaky iron gate to yard at 30 Skomakargatan.

Why don't you open it? And close it again.
12. Old doorbell in shop called St. Göransboden at 24 Tyska Brinken. Do you like it? It sounds quite different from most doorbells. Why?
13. Storkyrkan's schoolyard of Prästgatan. Lots of soundmaking here, if the children are outside. How does it fit into the general ambience of Gamla Stan?
Do you hear any birds?
And don't miss the schoolbell. It rings at 10:20 a.m. and 1:20 p.m.
14. Narrowest street in Stockholm: Mårten Trotzig's Gränd, about one meter (!) wide. Descend some steps and note the change in ambience.

*But compare this with the later London count. See graph, page 80.



STOCKHOLM SOUNDWALK

15. Two more drainpipes. On the day we were there the one at 27 Svartmangatan sounded the pitch of f, and the one beside it, at Svartmangatan and Baggensgatan sounded the pitch of c: Find out if the pitches are still the same. For accompaniment there is the iron grill around the bottom of the pipe in f.
16. German Church yard opposite Svartmangatan and Tyska Skolgränd. Can you hear sounds from Storkyrkan's schoolyard here? Clean your shoe soles on the mud-grate. If the German Church is open, enter and recall the inside of Storkyrkan: how do their acoustics compare? Returning to Svartmangatan listen for the shudder when you close the 1771 vintage iron gate behind you.
17. Squeaky door at 2 Tyska Skolgränd. Open it v-e-r-y s-l-o-w-l-y.
18. Fence-posts outside 15 Baggensgatan. Children love to run a stick or a pencil along these posts. Try it.
19. Right wooden door shutter at Baggensgatan and Köpmangatan, southwest corner. It has a spooky squeak in its moorings.
20. Metal grill over basement window off Osterlånggatan on left side of Lilla Hoparegränd. Scrape with shoe...and once again, listening harder.
21. Air conditioner above doorway at Köpmangatan. Can you hear the women's voices inside the hairdresser's, above the purr of this machine? How many other continuous, mechanical sounds have you heard so far in Gamla Stan?
22. 14 Köpmangatan. Iron: heavy iron door-knocker, held in lion's mouth. Again knock, and quickly run.
23. Staffan Sasses Gränd, five meters down on right side: old iron window shutter. Swing it open, listen for its special shudder and squeak.
24. Fences of chain along Slottsbacken, of two different thicknesses. Clink them against each other and bang them against the metal post near Finska Kyrkogränd. Remember the many other metal sounds encountered on this walk.
25. Yttre Borggården at southwest side of King's Palace. If you have timed it right close your eyes and listen to the Changing of the Guard (12 noon, except Wednesday and Saturday, 1:00 p.m.). Otherwise explore the echo your own way.

Have you noticed any other interesting echoes on your walk?

It might be interesting to take the same walk at night. Everything sounds quite different. Beer cans being kicked down the deserted streets are episodes in another sound-story about this place.

From Jean's Diary:

Feb. 13. Last night we had dinner with a large group of Swedish composers. Two of them sitting by me were very funny. One translated for the other, though as both spoke perfect English, I don't know why. Anyway, the translator told me that Mr. K. (his companion) had just written an opera entitled, "Storm on the Border by the Kibbutz." I was told that Mr. K. was a very spontaneous, witty fellow. Once in an interview on the radio he said, "I resemble Brahms ... from the backside." I thought for the moment that maybe the five different kinds of drink we had at dinner were making him a bit frisky. But in that split second, Mr. K. looked at me, turned slightly to the side and with a smug look patted the back of his head.

Later I conversed with another composer. He was young, very loose-jointed and extremely jolly. He came over to me and in a beautifully modulated voice, said "Are you interesting?" I suppressed a giggle assuming he meant "interested" and replied, "No, not at the moment. Are you?" He gave a sigh, made some lovely wavy hand gestures and said "No, I have been interesting on many things but now I am not."

From Howard's Diary:

Some time for myself, for solitude. I began walking to get some food at 7 p.m. but when I reached the street, the sound of the traffic seemed to push me on to the waterfront. As I walked, the new snow squeaked under my boots, giving way to rougher sounds where the pavement showed through. It was quieter, but still the traffic pushed me across the bridge to the amusement park, Skansen. Skansen was closed and very eerie in the night, quiet except for flags flapping in the wind, ice cracking as it flowed in the inlet, wind whistling through taut ropes and wires, and the rhythmic banging of flag lines. Occasionally a dog's bark would enliven the soundscape or churchbells would fill in the acoustic horizon.

I walk back across the bridge, the traffic engulfs me and I walk quickly to escape. I end up at McDonald's, the only place for a glass of milk at 12:15 a.m. in Stockholm. A strange collage of Swedish voices calling for "Hamborgar" and "Coke" is mixed with international Moozak.

From Peter's Diary:

Even through the nonstop 50-cycle roar of the heating plant, bubbling up from the bottom of the inner light well, we could hear at 8:00 a.m. from our window in the Hotel Plaza, uptown on Stureplan, the broad bell of Storkyrkan on the small island of Gamla Stan (Old Town), ringing out over the Stockholm morning for a full 5 minutes.

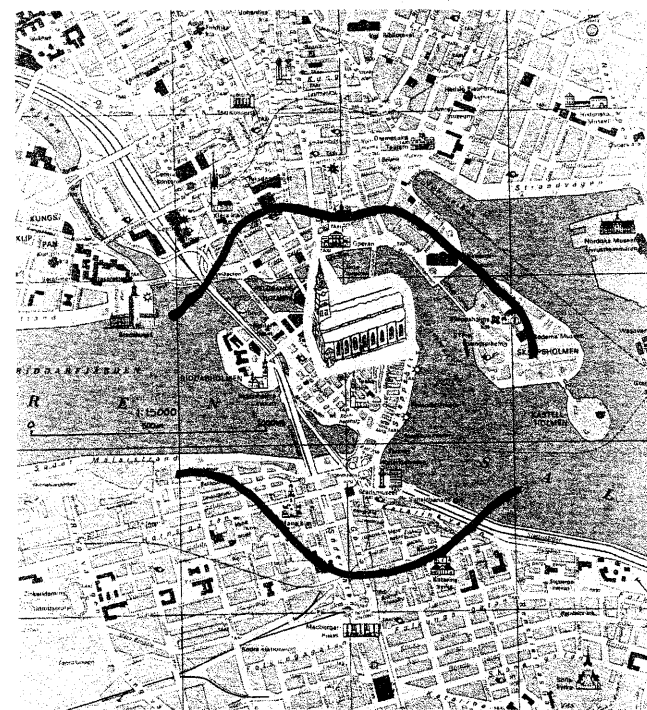
From Howard's Diary:

Murray hypothesizes that with the great worldliness that dominates contemporary Sweden and the concomitant decline in church attendance, Stockholm's church bells will be silenced within 20 years, and this is why he is so anxious for them to be recorded and measured today.

From Jean's Diary:

A composer at the Music High School in Stockholm told me of an unusual sound he has experienced in Gotland. Gotland is a large island off the east coast of Sweden, very interesting archeologically and historically. The sound he referred to is made by the young unmarried people at a wedding. Before the service they climb into the belfry, each taking a stone. When they get to the bell they bang on it with their stones, and this sound is the signal for people to come to the church.

Howard was told by one of the students at the Music School in Stockholm that in Finland the church bells at funerals toll differently, depending upon the age and sex of the dead person.



Sound profile map, showing the area of central Stockholm over which the bells of the Storkyrkan were heard during two Sunday morning rings on February 9, 1975. Soundscapers fanned out through the streets during the ringing to discover the precise points where the ringing disappeared behind tall buildings or ambient street noise.

From Howard's Diary:

Feb. 15. In Murray's last lecture at the Music Academy he read a passage from Strindberg describing the sounds heard from the Mosebacke at 7:00 p.m. on a May evening in 1879. Then we played a tape that we had made at the Mosebacke at 7:00 p.m. one night this week. It was dominated by traffic; only two sets of bells were heard as a muffled presence. "What has happened to the Stockholm soundscape?" Murray asks. No one had a reply, they still seemed to be thinking about the sounds they'd heard on the tape.

Far below him rose the clamour of the newly awakened town; down in the harbour the steam cranes whirred, the bars rattled in the iron weighing-machine, the lock-keepers' whistles shrilled, the steamers at the quayside steamed; the Kungsbacka omnibuses rattled over the cobblestones; hue and cry in the fishmarket, sails and flags fluttering on the water, screams of seagulls, bugle-calls from Skeppsholmen, military commands from Södermalmstorg. Workmen in wooden shoes clattered down Glasbruksgatan, and all this gave an impression of life and movement....

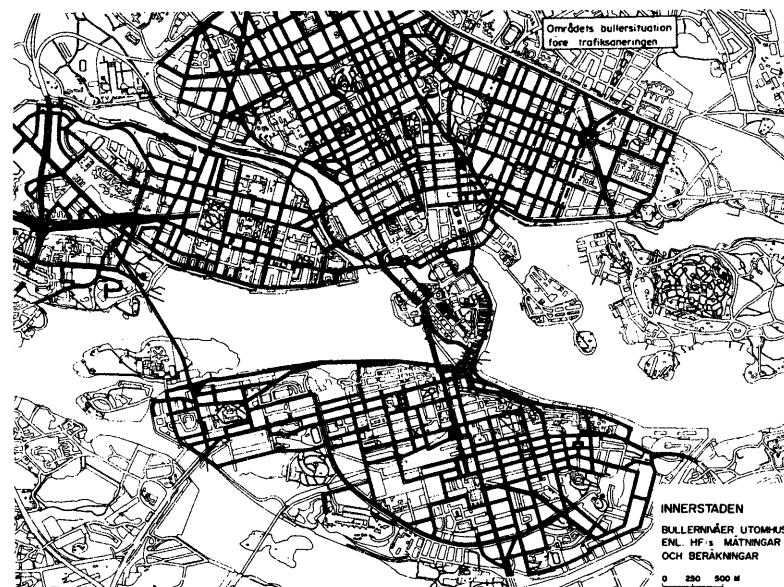
Now the bells of Santa Katrina chimed seven and were echoed by Santa Maria's reedy treble, the Abbey and the German Church joined in with their basses, and soon the whole air vibrated with the city's seven bells. And as, one after the other, they fell silent, the last one could still be heard in the distance, singing its peaceful evensong. This had a higher note, a purer ring and a swifter tempo than the others – yes, indeed it had.

From Howard's Diary:

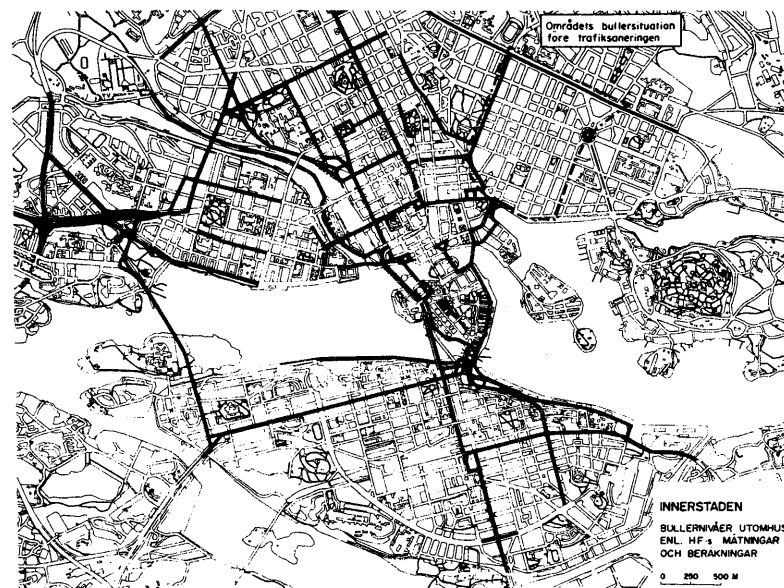
The evening before we left Stockholm we were invited to visit with Leo Nilsson and his wife Sissi. Nilsson is a composer and Sissi is an artist. They live in a very old apartment building in an old part of town.

Leo played two compositions for us. The first composition was a beautiful piece created from fog horns and boat horns recorded on an island near his childhood home of Malmö. A particularly deep horn from an ocean liner stands out in my memory – it was like a giant tuba – it must have been heard for miles at sea. The second piece was based on the sound produced by running a wet finger tip on the rim of a glass.

Some of his projects are a bit more "airy". For instance, he once put loudspeakers into two helium balloons and launched them over a town in the north of Sweden. The result was a stereo festival of new music from the sky. But the balloons were too strong for their mooring, a large concrete block. The block began to leap and jump about the streets, until eventually the balloons had to be cut loose and they went sailing out towards Lapland and Russia, still broadcasting Nilsson's music.

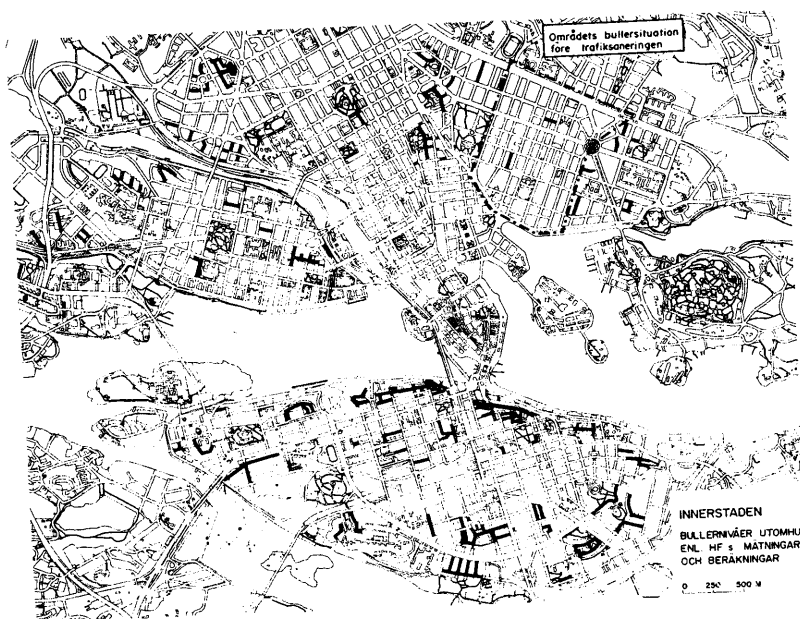


Map 2. Streets with levels greater than 65 dBA



Map 3. Streets with levels greater than 75 dBA

Stockholm Traffic Noise Maps. Readings were taken from 250 different positions and supplemented with some theoretical calculations. Source: "Traffic Noise in the City of Stockholm," Public Health Administration, Technical Department, 1973.



Map 1. Streets with levels less than 60 dBA



EN ROUTE TO GERMANY

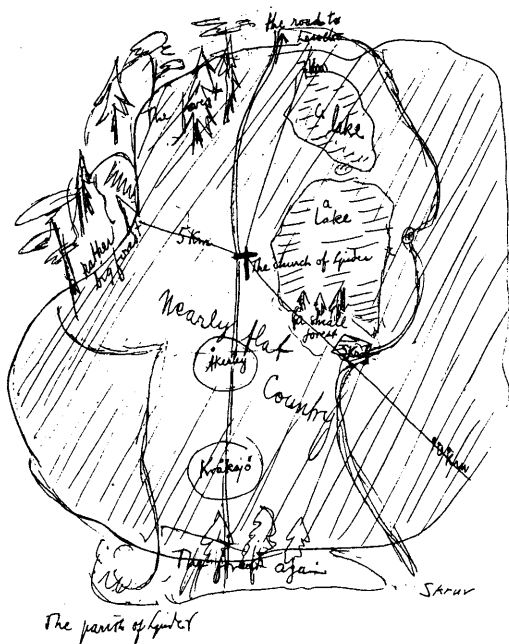
From Jean's Diary:

Valdemarsvik, Feb. 17. I look out of the window and watch a lone boy playing hockey on the frozen lake, silently.

From Howard's Diary:

We were trying to have the church bells rung for us in Ljuder, the parish church for Skruv,* when the owner of our little hotel, an impassioned Jehovah's Witness named Ingrid, told us the following story:

Churchbells, she said, came from a time when the people who are now Christians worshipped the false god Moloch. Moloch demanded that the people sacrifice their children by burning them in great pits within their



Sketch map of Yngve Wirkander, organist at the country church of Ljuder, showing the distance over which the church bells may normally be heard in the flat, Swedish countryside – about 15 kilometers. Compare this with the previous profile map of the Storkyrkan in Stockholm.

temples. The people complied, but they could not bear to hear their children screaming as they burned. So they fashioned huge bells which they rang during the ceremony in order to hide the children's screams.

From Jean's Diary:

Feb. 22. Åstorp, Sweden. The button for the maid, placed over the door, has a word under it. It says "Ringledning." When you first look at it you want to pronounce it "ring-a-ding-ding."

Swedish starts up high at the beginning of the word, descends to a lower note in the middle, then up again at the end.



French is a gradual ascending note.



English is almost a straight line.



German is a straight line.



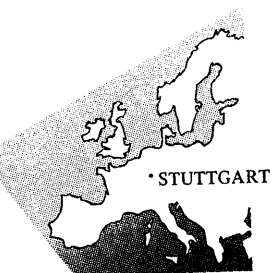
From Jean's Diary:

Feb. 23. Leaving Sweden on the ferry from Hålsingborg bound for Helsingør, Denmark. I am looking forward to being in Germany because I know some German. I have been living in a silent world – silent because I don't talk. I don't know any Swedish. When I leave the other three and go off on my own, I am then not only alone, but for the most part, silent.

I go to the grocery store and pass from counter to counter trying to make out what the labels mean. Then at the cashier, I stand mutely watching the register to see how much I must give her. I get the notes together silently, then as I get my change, I utter my first word, the only one I know, "Tak," as I put the change in my purse and leave the shop.

A couple of times, as I pass among people chatting together, I have suddenly noticed one looking right at me and talking. Someone has been saying something to me, but until I look up I am not aware of it. I smile apprehensively and say, "I'm sorry, I don't understand," but before I have finished they look away and pass on.

* Skruv was the first of five villages we were to study.



STUTTIGART

From Peter's Diary:

Feb. 25. The magnificent, deep bell of Friedenskirche. When the first bell starts, a major third above the deep bell, it reminds me of the Basilica bells in Quebec City.

From Jean's Diary:

We are staying in a hotel at the Friedensplatz (Peace Square). Right opposite is a church from which, just as we arrived, the bell began to toll. A quick measurement on the sound level meter gave us 74 dBA and 82 dBC at the base of the tower. There is little traffic here. Ironically, the hotelkeeper asked, when we requested a quiet room, if we found the bells disturbing.

From Peter's Diary:

Staatliche Hochschule für Musik. On the third floor students mix piano pieces into one another like musical madness, and into this mixes the white noise purr of an electric floor-polisher. The practice sounds change as doors are opened for a while and closed. The visually designed terrazzo tile floor and plaster walls; the spiral staircase open for the full five floors; all contribute to the pouring together, swirling and spilling over of sound; the echoes of each attack, of bumping doors, tick-tick typewriters, squeaking crepe soles or hard leather heels tapping – these percussions are sustained and faded slowly down the halls. Professor Stephan Mueller's secretary calling down the stairwell for the technician to arrange for a tape-playback system for Murray's lecture: "Herr Braun! Herr Braun!"

From Howard's Diary:

As Murray lectures about the soundscape and silence in this large, hard rectangular room, trumpet fanfares and drums sound like an impending war on the floor above us. I imagine that we are unholy prophets of silence in the midst of a state-supported religion of noise. A helicopter flies over the music school creating a low counterpoint to the drums.

From Peter's Diary:

Feb. 25. Mittlerer Schlossgarten, lawn bowling. Bocce rolling silently on a hard, sponge-rubber court, clicking delightfully against each other and bonking off the wooden borders. There are many people gathered about, Mediterraneans and Swabians alike, playing or observing a respectful silence,

surrounded by: a lot of construction noise from outside the park on all sides, warning toots and bells, bonks like giant xylophone notes, the rumble of traffic, birds, the intermittent rough huzz of a nearby chainsaw answered by another farther away, the crash of branches coming down, a dog barking, the scuffle and thump and short shouts of a few young men playing football on the grass.

We have been conducting listening surveys all day in preparation for the Stuttgart Soundwalk, which we want to complete by tomorrow.*

From Howard's Diary:

Feb. 26. After Peter and I completed our soundwalk, we returned to our car which was parked near the Katholische Pfarrkirche of St. Maria. We saw some people in front of the church so we went in. Inside the priest chanted into a public address system for a few moments and then three girls began to sing to the accompaniment of a harpsichord and electric bass. Although the musicians were long-haired and the music had rock chord changes and tempo, the rhythm was quite square.

From Howard's Diary:

Feb. 27. Today Christoph Koller, a student at the music school, and I recorded police sirens. The sirens consist of a two-tone electronic horn which sounds 98 dBA at 8 meters. The interval of the horn is a perfect fourth. It has a more metallic timbre than did the Stockholm police sirens which were 4 decibels quieter at the same distance. We then went to the fire department. The fire department uses two types of siren. The first type is a standard two-tone horn and it is used on regular fire trucks. It has a deeper voice than the police siren, but the interval is the same. It sounds 108 dBA at 8 meters. This compares to 107 dBA at 8 meters in Stockholm. We also measured an emergency first aid vehicle's experimental siren. The siren is broadcast through a directional loudspeaker so that it is louder in front than at the sides. It measured 95 dBA at 8 meters at the front and, although it used the same interval as the other siren, its tone warbled.

Earlier in the day, Jean and I went to record the noon bells at the Rathaus. As we arrived, the outdoor market was closing and just as the bells of the Evangelische Stiftskirche began to toll, a garbage truck moved into the area to clean up. A garbage truck had also appeared at the Stockholm city hall at noon.

From Jean's Diary:

Feb. 27. Taking sound level readings in the Marktplatz, Stuttgart, at noon and listening to the various clocks and church bells. They were marred by a very noisy garbage truck. Later when it moved on, the carillon of the Rathaus started up. It plays pretty tunes, but I don't like the sound of carillons much. I prefer the plain tolling of bells, though most of all I like to hear eight bells rung through their changes. It seems as if I'm going to have to wait till England for that lovely sound.

* See Appendix for the Stuttgart Soundwalk.

From Peter's Diary:

The Markthalle, the indoor market, on Dorotheenstrasse, has more voices than the equivalent *saluhall* in Stockholm, and in more languages: Swabian (the German dialect in the area), Italian, Yugoslavian, Turkish; but less refrigeration and consequently less hum. A German later points out to us how peculiar it seems to be hearing so many foreign languages in modern Germany, whereas up until fairly recently only one tongue was heard.

After another overnight silence the great deep bell of Friedenskirche once more rings out at 7 a.m. — Good morning (in German naturally): “Morg’n, Morg’n, Morg’n, Morg’n, Morg’n, Morg’n, Morg’n, Morg’nnnnnnnn...”

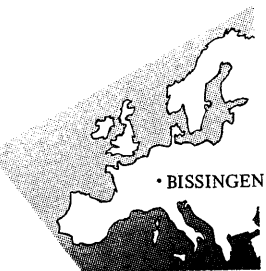
From Jean's Diary:

One heavily trafficked road in Stuttgart is called Olgastrasse. We thought this very funny, for one always thinks of an Olga as being very heavy.

When Germans catch on to the fact that you are a foreigner, they raise their voices and end up shouting at you. Exactly like English people. They seem to think that if they talk loudly enough the foreigner will finally understand.

From Peter's Diary:

March 2. Near Reussenstein, a castle on a rocky crag overlooking a broad and deep valley in the Swabish Alps. The sound of wind through these nude, deciduous trees is as bone-grey as the rocks of Reussenstein and its history. Germans walk with us on the slow curve of the plateau. Moving over grass, hands behind our backs, we brood on the inevitable taming of the world's wildernesses, our thoughts taunted by giant insects — small airplanes filled with Sunday drivers.



TRAVELS IN GERMANY AND SWITZERLAND

From Jean's Diary:

Sunday, March 2. Bissingen, Swabia. We are in a lovely village, surrounded in the distance by high hills and all around us the slopes are covered with cherry orchards. Renata Braun, a student at the Hochschule für Musik in Stuttgart, lives here and is helping us document the soundscape of Bissingen, which is the second of the villages we plan to study.

Yesterday we sat listening and watching for birds. We heard the *Amsel* (blackbird); *Kohlmeise* (great titmouse); *Elstern* (magpies); *Saatkrähe* (rook); *Finken* (finches) and my favourite bird, the *Rotkehlchen* (robin). This shouldn't be confused with the North-American robin which is much larger and much less distinctive-looking and sounding. The birds, and way overhead, the jets, are the keynote sounds of the orchards, though at certain times of the day, tractors also form a keynote.



Howard Broomfield recording a pig being slaughtered in Bissingen, Swabia.

From Howard's Diary:

The gentler climate of Bissingen leads to more life on the streets. Many of the new inhabitants of the village are workers who have come from Spain, Italy and Greece. Talk on the streets is frequently punctuated by the sound of tractors, for there are many farmers here and they travel from their homes in the village to the fields in their tractors.

A child playing with a toy tractor in his yard re-creates the sound but his pitch is higher and whining; his voice becomes louder as a real tractor approaches.

From Jean's Diary:

This evening we went to a concert of baroque music at the Church given by the Bissingen church choir. The Buxtehude was the most exciting. All was predictable until the last few phrases when the whole choir, led by the sopranos, got hopelessly lost and almost stopped singing. Finally they came together and sang out the last line strongly; though instead of ending on a low note, they stopped on a middling high one so that I and other members of the congregation stared at each other in confusion.

From Howard's Diary:

Yesterday while I was counting traffic, a little boy, no more than 7, came up and started talking to me in German. I tried my best to explain to him that I only spoke English. He walked away around the corner. After a minute or so he came back and very proudly said "Good morning."

From Jean's Diary:

March 5. Bissingen. The light switches in our hotel make a different sound from those in Canada: they go "clunk" instead of "click." Another new sound for us is the sound of shutters being closed at night. The ones on our bedroom windows are the modern kind, made of metal, and they can be lowered from inside the room with the windows closed.

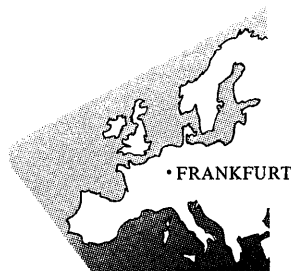
I've noticed that some words in the Swabian dialect sound quite English. For instance, yesterday an old lady pronounced the word *Küche* as *Kicha*, making it sound very similar to "kitchen," which is what it means. Some other pronunciations noticed were *Dag* instead of *Tag* (day); *fife* instead of *fünf* (five); *losne* instead of *zuhören* (listen); *alva* instead of *immer* (always); and *gud* for *gut* (good). The old lady also talked of a *Beedl* who was apparently the caretaker for the Council House in the old days. Remember the beadle in *Oliver Twist*? He was some kind of city employee. Later on, talking with the blacksmith, he referred to a young child as a *Bubi*. I can remember the word "boobie" being used by West Country people in England in the same way — though in general it means someone who is cowardly, a cry-baby.

From Howard's Diary:

March 7. Last night Peter was snoring in his sleep. As a loud car passed he stopped snoring and as it faded off into the distance he began to snore again. This makes him very much like the Pitt Meadows frogs on the Vanscape, who stop their chirping as a car passes and begin again when it has passed.*

Sleep well, Peter; we have a long drive to Frankfurt tomorrow to fetch Bruce from the airport.

* "The Vancouver Soundscape", Volume Two of *Music of the Environment*, contains a recording and commentary on the frogs alluded to here.



From Bruce's Diary:

March 8. Frankfurt Airport. Ears fresh after the 12 hour flight — thanks to ear plugs. First signal heard when I took them out: PA cue — a relaxing, horn-like falling major third with complete decay. In North America it would be a faster, more hectic sound. The PA system at the baggage claim area is very crisp with the highs accentuated (to compensate for the murky reverberation of the airport's large spaces?).

The ride with Peter and Howard in the VW van to Basel seems louder than the jet ride — have to shout to be heard. Back go the ear plugs!

To bed in Basel. Trams roar through quiet late night streets with a vengeance. I think: it's not the intensity of the cars themselves, but the relation to the very quiet (25-30 dBA) ambience in which they appear, that makes them seem so loud. Their envelope is a huge event in the still evening.

From Howard's Diary:

March 9. We are staying in an artist's studio in Basel. The woman who works here complains that she is unable to work on difficult problems because of the frequent tram passes which occur approximately every four minutes. At 3:00 p.m. Sunday, the ambient A scale reading is 34 without cars passing and 42 with cars passing, indicating that it is not the physical noise of the trams so much as their annoyance factor which bothers her. Still, as I sit in meditation in this room with my ears plugged, I notice that my heart speeds up as the tram passes.

From Peter's Diary:

March 12. Basel, morning. Before phoning for us, Vivienne explained that when she called Uli she had to let the phone ring a long time as it was the biggest house in Basel, like a palace, and it often took him a while to get to the phone. And sure enough, she had to let it ring and ring this time too, until we'd almost given up when Uli was finally heard panting and gasping "hallo" into the other end of the imaginary tunnel.

From Bruce's Diary:

March 9. Basel. Stimulating breakfast discussion with linguists Waltraud Brennenstuhl and Thomas Ballmer. Reinforced belief that we need interpretation of our work. Not enough feedback in our system. What our project needs is a little *competition*.

March 10. Trossingen. Awake at 6:30 a.m. to hear birds. Their sounds are strange to my North-American ears. The cleaning ladies are already in the halls vacuuming. Their machines whoosh; mine whines.

March 12. Zürich. Apparently the Swiss do not hear the high-frequency video oscillator sound filling the Union Bank of Switzerland's downtown office. I look for the source and can't find it (with eyes or ears).

March 13. Bollingen. Three trams, one lake barge, one small plane have come and gone in the half hour spent by C.G. Jung's country house, not to mention the continuous roar of industry on the other side of the lake, 2 kilometers away. A unique dwelling in a commonplace soundscape.

From Peter's Diary:

Sounds heard at Jung's house in Bollingen: traffic on highway, 70 meters above on hillside — gentle ripple of Zürich lake from passing rumble of a barge — coots and other birds — swish, screech of electric train passing beside the highway — roar across lake from an industrial village. Trying to imagine the relative quiet of the place when Jung began to build his house here in the 20's. The house is like a little castle. Small, thin, vertical, with wooden-board shutters. The reeds, thin verticals in the bright lake-edge, his patios, the block he carved in an ancient language, the carvings in the blocks near the bottom of his round tower, the bat asleep in the edge of the window on which the shutter was left unlatched. Bruce and I peered in but didn't wake it, sleeping upside down against the frame.

From Bruce's Diary:

Bollingen. The trains here swoosh by on welded tracks ... no clickety-clack as over the track-ends on Canadian railroads. No diesel roar, no horn blast. If you are close by, the tracks hiss quietly as the train approaches and departs. Electric charge? Mechanical tension? Good sound.

From Peter's Diary:

Bollingen. Trains: no clickety-clack. High frequency sizzle from welded tracks before and after train passes — loud tearing white noise when it passes.

The church bell here rings no warning, that is, there are not four bells before the hour is counted off.

March 13. Geneva. Cathédrale Saint Pierre in the old town of Geneva, locked because it's past noon. Standing between the gigantic columns of its front porch, I clap and Bruce times the reverberation at 2 seconds. At 12:30 p.m. the cathedral carillon plays a tune



that Santo tells us commemorates the defence of the city against the Duke of Savoy in 1602 when the townsfolk pushed the Duke's ladders off the town walls. There are different tunes every hour.



From Jean's Diary:

March 10. While Bruce and Peter are visiting Switzerland, Murray, Howard and I have come to Trossingen, the centre of the mouth organ industry, the home of the Hohner factory. Trossingen also has a Music School at which Murray is going to lecture and we are staying at the school. In the night I heard a very strange chime to the clock in the village. It didn't sound like a bell so much as a brief blow on a giant mouth organ.

March 11. Just now Howard played the North American police siren example for Murray's soundscape lecture and for the first time I found it very beautiful. Sitting amongst these reluctant-looking Germans, it reminded me longingly of home.

From Howard's Diary:

Today in Murray's lecture we played the example of the North American police car siren and Jean remarked that it sounded quite beautiful since it reminded her of home. Her statement demonstrates the interplay between aesthetics and psychology. It demonstrates the notion of "field" which the phenomenological psychologists developed to complement the Gestalt notions of figure and ground. When we bring the notions of figure, ground and field to a practical level, "field" is the interplay between mind and environment. Thus, if Jean had heard the same siren in Vancouver she may have become anxious, for the siren is a signal of emergency or trouble. If she were reading or writing, she might have heard it as a noisy distraction. But the field of her experience is "a month away from home" and thus the siren becomes an attractive reminder of everyday life in Vancouver.

Many people in the seminar here cannot understand the relevance of soundscape activities to music. Murray continually emphasizes that modern music is influenced by the soundscape. Many of the seminar members keep repeating that noise is a technical problem. We have heard that so many times from politicians, but to hear it from teachers is particularly disheartening.

Murray demonstrated his notion of "Sacred Noise," i.e., that the centre of power or the godhead of a society always has the freedom to make the loudest sounds without censure. Moving through history, he first drew attention to Thor, the god of thunder; then to the churchbell; and finally to the factory. He might well have added that the airplane has now replaced the factory as the godhead. The factories are no longer the sacrosanct institutions that they once were. Labour unions have brought the factories down to earth, but the starfighters, the commercial jets that fly money men around the world, are seldom attacked.

The seminar ended with a ritual display of appreciation: all of the students banged their knuckles rapidly upon the table.

From Jean's Diary:

March 11. The dawn chorus started at 6:05 this morning. First just a few birds, then increasing, and I couldn't name a single bird. I tried to separate and count the various calls and got to eleven, when sleepiness and some distrust in my capacity to keep all the sounds in my memory stopped me. Finally I heard a call that I could identify, a crow.

The birds' calls are a whole soundscape in themselves, a beautiful and varied one in an increasingly uniform environment. It seems to me that it would be a more positive step for me to learn to appreciate that soundscape, i.e., to be able to know which bird makes the sound and what sort of call it is, than to fight for the reduction of ten decibels from the noise of a bulldozer.

From Howard's Diary:

March 12. We have taken the music teachers into the streets of Trossingen and have asked them to listen for five minutes. Returning to the school we have discussed the sounds and finally we have tried to re-create them. Many people remarked that they had not previously noted the density and pervasiveness of auto traffic.

The performance yielded their impressions in an analogous form. After the first performance they were asked to perform again, replacing sounds they did not like with sounds they liked. Human voices, laughter, and singing began to predominate. Towards the end of the performance, one man went to the piano and began to play a melody that was composed of thick chords. Everyone began to sing in unison creating a powerful presence that scared the daylight out of me. Is this what will come when the chaos of the streets is eliminated — a melancholic amplification of the herd instinct?

The high point of the week: a game of musical football (soccer). Two teams of five people each stand facing one another. The first player on one of the teams invents a musical motif; he passes it to the next player, and so on to

the final player. This may seem simple, but as they are trying to pass the motif the members of the other team are trying to distort their performance by making noises. Two referees judge the motifs rigorously. If the team manages to pass the motif to all of the players they are given the opportunity to "shoot." A shot is made by one member of the team inventing a motif and then pointing to a member of the opposite team, who must repeat the motif. If the other player succeeds the shot is "blocked," if the other player fails, a goal is scored. This game was a group invention following the experience of watching a football game on television last night.

EN ROUTE TO VIENNA

From Jean's Diary:

Today, March 14, on our way from Trossingen to Vienna, we stopped for tea at a town on the Bodensee called Oberlingen. The main church was attached at one end to a very old looking tower; the top of which was made of wood. We went into the church to try to see the tower from the inside, but unfortunately it was blocked off. The churches, with their huge thick walls, provide a sanctuary from the constant hustle and bustle of Europe. As the noise level rises, they may become popular places to visit again for their stillness.

From Peter's Diary:

March 14. Bodensee. Why are people attracted to lakes and oceans? Waterfront provides a visual silence.

March 14. Thalhofen, Bavaria, 6:20 p.m. Two boys in the main square beating a rug. One holding, the other beating, whop! whop! whop!

March 15. Miesbad. Church bell in Miesbad rings at noon and quite likely always with a slightly limping rhythm



at the average speed of five "dongs" in five seconds.

From Howard's Diary:

March 14. Schongau. Awoke at 6:25 and a soloist was performing, a single bird. Then the 6:30 bell from the church sounded — two rings — and as the ringing was dying, the dawn chorus began: many birds, many songs. Stuck at the border into Austria. Seventy-five truck drivers babbling in languages from Eastern Europe and North Africa as well as in German.

Two men enter, speaking Cockney English. I ask Jean to listen and she says, "They're speaking German." The radio is playing an international music. A Turkish sounding melody is punctuated by a gravelly male German voice. Then the radio begins to play American soul music – "I'm a Woman" (from Los Angeles).



From Peter's Diary:

March 15. Salzburg. Arriving at Mozart's home town at 4:30 p.m. Saturday, we noticed a circular road sign showing a black bugle-type horn on a white background inside a red circle with a red slash diagonally across it. This sign means: don't blow your horn, man.

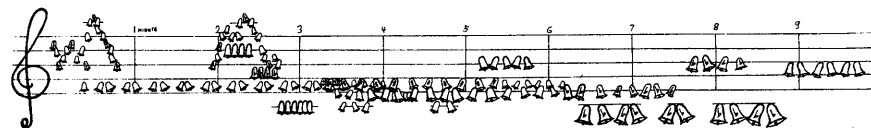


Salzburg from the Bishop's Palace high above the city.

March 15. Salzburg. Reverberation time in Salzburger Dom (Cathedral) is six seconds.

From Jean's Diary:

March 15. We arrived in Salzburg late this afternoon. We went up to the Bishop's Palace, Hohensalzburg, on the hill above the city and were lucky enough to be standing at one of the ramparts at 6:00 p.m. We heard a wonderful chorus of bells from, I reckon, seven churches, five in the very centre right below us, one across the river from a monastery and another way out to the right of us. A delicate sounding carillon was the first to start, then others high and low, with the Cathedral bell very, very deep.



The bells of Salzburg as heard from Hohensalzburg at 6 p.m. on Saturday before Easter, notated according to their approximate pitch on a musical staff, and their loudness as shown by the size of bell notation. The distant carillon is shown at the left.

From Peter's Diary:

We strolled out on the terrace of the Hohensalzburg to gaze down on the city and were suddenly delighted to hear the Angelus, ringing out from the various churches, complete with polite pauses followed by new outbursts of sound. We listened enchanted as this "bell canto" shimmered through the city, our eyes wandering from tower to steeple to pick out signs of bell motion, tracking the counterpoint. Truly the best city for bells I've been in – what an overture! And what good seats: hilltop loges!

From Howard's Diary:

The bells of Bissingen were austere; I felt they were measuring the moments to eternity. By contrast, the bells of Salzburg are like a music box, a performance that reminds one of a grace and splendour long past. One waits for the image of ballerinas dancing on a mirror surface in the sky.

Certainly some of the bells in Salzburg are loud and fearful. They made Ingrid's story more credible. During one ringing, an airplane entered the soundscape and we had some difficulty acknowledging its presence.

From Bruce's Diary:

March 15. Salzburg. The first sound that greets you as you step off the cable car to the Hohensalzburg, is a loud (75 dBA) fan noise from the restaurant ... couldn't have been in a more poorly designed place.

From Howard's Diary:

March 17. Driving from Graz to Vienna we decided to stop at Spittal am Semmering for dinner. We went into a Gasthaus and were greeted by a din of television, juke box and hammering. The place was being modernized and the owner watched television as the carpenters worked and listened to the juke box. We couldn't stand the noise and left. We stopped at the next Gasthaus just down the road. This one had a waterfall by the side, trees around – quite inviting from the outside. Inside we were greeted by a table of people who were singing Austrian folk songs. Their voices hardly sounded Germanic at all. At times the word "mamma" was sung in an almost Italian way. Peter, Bruce and I left the Gasthaus first and as Murray and Jean were leaving we could hear the people sing a farewell song to them.

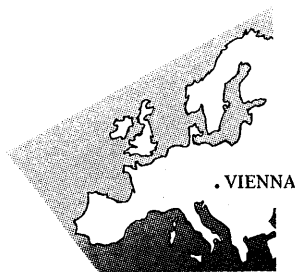
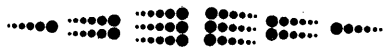
From Bruce's Diary:

There was nothing boisterous in their singing, just gentle, almost intimate sentiments. Interesting to listen to the way a song dissolves into laughter, applause and babble, then condenses together again as a new tune is introduced. Voices come and go, but one seems to remain, threading the songs together: a light charming soprano ... her singing is like a lullaby.

From Howard's Diary:

This singing was a gift of fate. But recording it was not easy. If detected, our tape recorder would have destroyed the relaxed atmosphere of a gathering such as this. Bruce stole out to the van and somehow re-entered the room without being noticed. He then set the recorder on the bench next to him and covered it with my sweater, leaving the microphones exposed. Peter and I moved closer together on the opposite bench in order to hide the mikes from view.

What a strange group we must have seemed to the other patrons: we didn't speak very often – instead we gesticulated madly. We must have looked like a fools' ballet. Whenever the waitress came, Bruce sprawled his elbows across the table to hide the mikes. Another bonus of this recording is that finally we have recorded the rifle fire of Murray's "Bit' zahlen" as he calls for the bill.



VIENNA

From Howard's Diary:

March 18. Vienna is a filthy, noisy city. Is this what happens when the public turns its attention to the concert hall and museum, but forgets about the soundscape and the landscape of everyday life? It is almost impossible to hear any soundmarks, for the sound of automobiles is loud and always present. Although I spent four or five hours on the streets yesterday, I can remember hearing nothing memorable. The traffic moves so quickly and erratically that one must concentrate on the immediate environment in order to survive.

Noon at Kärtner Ring and Schwarzenberg Platz: the intensity hovered around 75 dBA on the sidewalk. At 6:00 p.m. the street levels had dropped to 65 dBA but the level inside our restaurant on the same corner was now also 75 dBA as the dishes hammered together and the patrons shouted over their *Würstchen*.

From Peter's Diary:

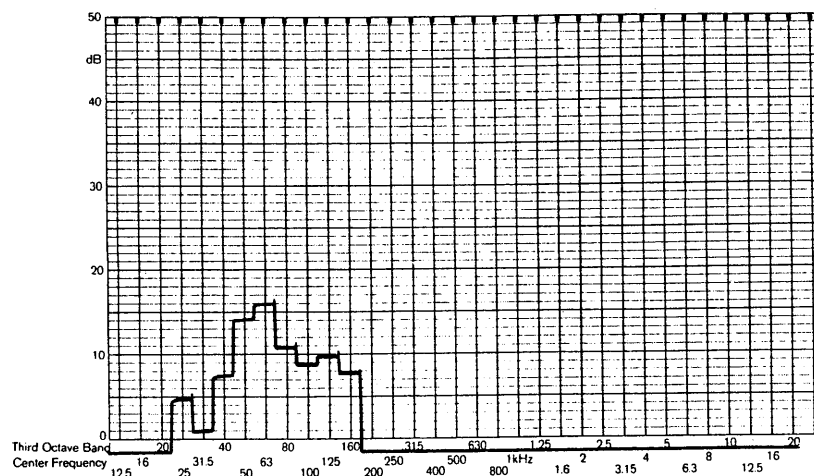
Hotel Wandl on Petersplatz in Vienna, between airwell and stairwell on 3rd floor, windows open all the way up and down, darkness within, a snore here and there coming out, a couple fighting, his voice louder than hers "I wanna talk business!" blah blah – the spiral staircase with blood red carpet winding down forever, the coiling space holding a scream in the imagination – that kind of silence.

Same, 7:00 a.m. Strange rhythmic short moans in the airwell – followed after a pause by a flutter of feathers: pigeons. Now it begins again, a soft whooping rising slightly in pitch and building in intensity then fading again and missing a beat or two. Now the fluttering and a pigeon flies up the airwell, by my window to the light. The rhythm of the cooing changes. Now it has stopped altogether.

From Bruce's Diary:

In the National Library, Howard and I are led into the old reading room, where it is so quiet my head seems to pound. A whole new scale of sounds comes into the foreground: heartbeat, nervous system sizzle, breathing. The sound level meter bottoms out on the A-scale at 25, but registers a

whopping 52 dBC,* indicating a heavy concentration of very low sound pressure. Where were these deep vibrations coming from? We never did find out, but the recording should make a very interesting spectrum in a third-octave display.



Sound spectrum of the Old Reading Room in the National Library, Vienna, showing a heavy concentration of low-frequency vibrations between 20 and 200 Hertz. However, in the middle and upper registers of the spectrum, the room is very quiet, as indicated by the straight line at the right of the graph.

From Jean's Diary:

March 18. We are in the Academy of Music in Vienna, in one of the conference rooms. It looks impressive, a long walnut table, comfortable-looking chairs on which sit important people. Our host, Kurt Blaukopf, conducts the proceedings with great aplomb. The other people who are here to listen to Murray's soundscape lecture are architects, town planners, acousticians, a couple of composers, diplomats, a neurologist – professional people who are concerned with the problem of noise. Everything proceeds

* Decibels measured on the C-scale of a sound level meter (dBC) indicate the level of low frequency sound when compared to dBA measurements, because the weighting network of the C-scale does not filter out low frequencies as does the weighting network of the A-scale. Therefore, high dBC readings compared with dBA readings indicates the presence of a great deal of low frequency sound and vibration which can affect the body and its functions. For a detailed explanation, see *A Dictionary of Acoustic Ecology*, no. 5, *Music of the Environment* series.

very decorously until the telephone rings, and then one corner of the table breaks into a scramble to stop it. Murray is talking about recovering the ability to enjoy stillness in modern life. The telephone rings two more times before poor Dr. Mark, who happens to be nearest to the wretched thing, whispers rather violently into it and then defiantly leaves it off the hook. Everyone else looks the other way of course.

There was a lively discussion after Murray's presentation and although I certainly couldn't understand it all, it seems that his ideas interested a good many of those present. Another small advance?

One of the most charming things of the afternoon was the look of pleasure on the face of one of the officials from the Canadian Embassy in Vienna, when Howard played the Canadian train whistle example.

From Bruce's Diary:

March 19. The telephone in this restaurant (corner of Belvederegasse and Argentinierstrasse) rings quietly in its secret panel in the rear wall. It deserves a World Soundscape stamp of approval.

From Peter's Diary:

Car horns are the beep-beep variety here. Also the way of beeping is very short and staccato, either two short beeps close together or a slightly longer beep. I did not hear a single two-tone chord blast of the North American variety. Another variant on the beep-beep is a very short beep, just a touch, followed immediately by a longer beep.

From Bruce's Diary:

March 20. Spent a good day with firemen here, recording and measuring the sirens, and in conversation. We learned something new, for our morphology file: the melodic motif of the Austrian fire sirens (and generally of all European emergency warning signals) apparently derived from the days in the 19th and early 20th centuries when trumpeters blew warnings from the fire vehicles as they sped their way through the streets. When electrical horns were introduced, the characteristic interval of the perfect fourth was retained in the design of the new devices. We were shown one of these old bugles, battered and broken, on display in the fire hall museum, where it had been put after an accident ended its useful life once and for all.

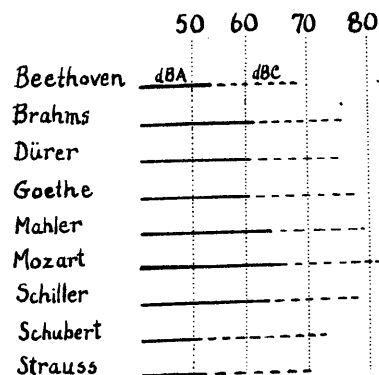
From Howard's Diary:

March 20. Vienna was the home or working place of poets and many great classical composers. Their statues and plaques are placed throughout the downtown section of the city. But let us listen to the environments in which their admirers have placed them.

Beethoven sits looking out upon Lothringerstrasse. He listens to the ambience of auto noise, ventilator noise from an underground parking lot, construction work, and tram bells.

Brahms sits weeping over the sounds of Karlsplatz being ripped up for a new subway station. The Viennese have also not accorded Mahler's plaque much respect. He is kept hard at work near a ventilator system in front of the Konzert Haus.

We measured the sound levels at the feet of our artistic heroes with these results:



From Peter's Diary:

Wooden steps down to the old subway station — but all concrete below. It echoes along the concrete landing. There is an old station one level further down. Quiet down here when there are no trains — like a stage set for Beckett — grey — shafts of sunlight. A tram slides in out of the darkness — stops with the pish of air brakes — while it sits quiet — the pish again before leaving. Another train ground and grabbed to a halt — *achtunddreissig* — loudspeaker — a woman's voice. The conductors get off the train, put the key in a little metal box on the speaker poles, and talk — the sound is piped out of two speakers at the top:

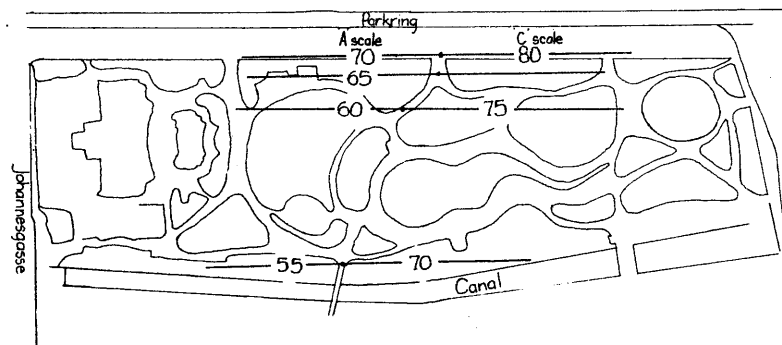


Ambience level 54 dBA/70 dBC without a train. Train coming in: 80-84 dBA/80-86 dBC.

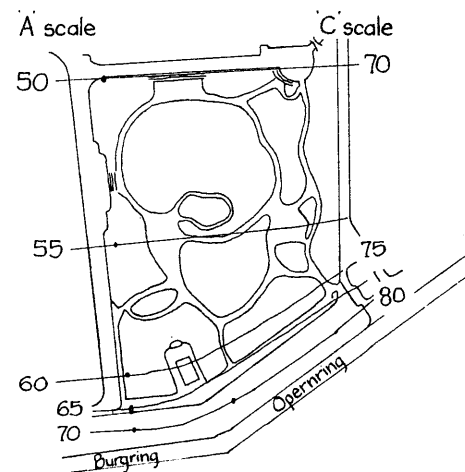
From Jean's Diary:

Last night, gypsy music at Pataky's Restaurant. And afterwards out on the street it was quiet. We walked along the torn-up roads that one sees everywhere. There's the machinery for the next day's work standing mutely idle. And we almost whispered; it was so quiet that talk sounded loud. But later when we came near Karlsplatz, a worker was grinding something against a fast whirring machine and the noise was deafening.

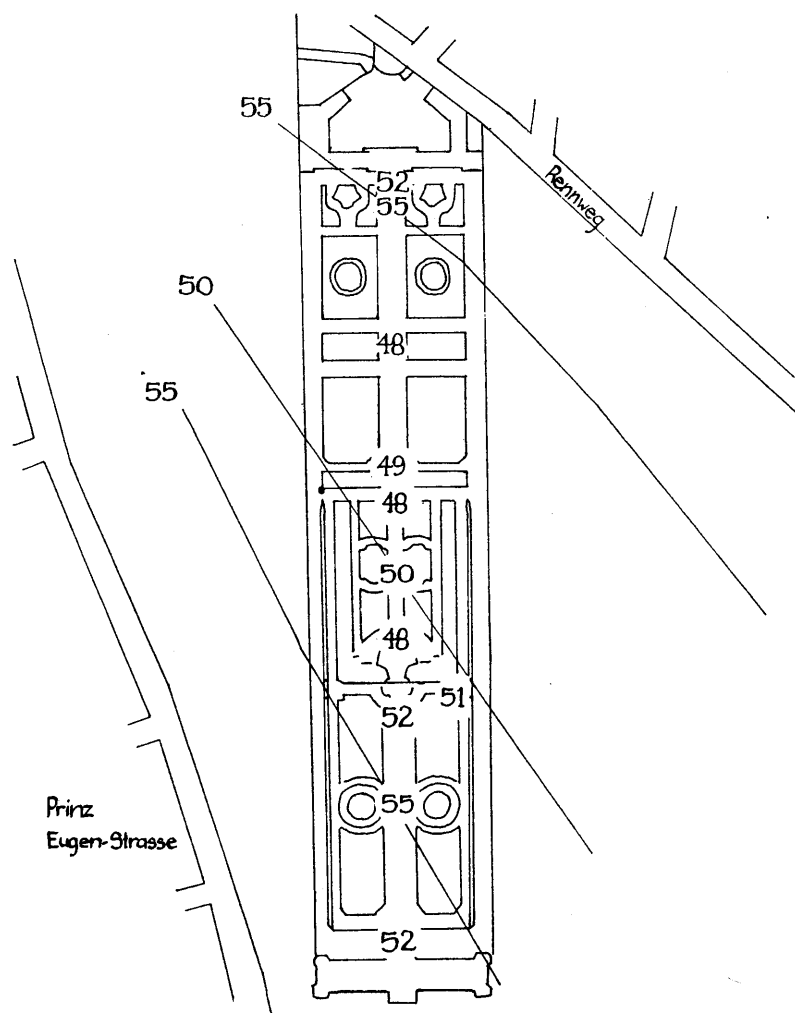
Hotel Clima City. At 2:00 a.m. from the street side window, the ambient level was 35 dBA and 52 dBC.



Isobel map of the Stadtpark, Vienna.



Isobel map of the Burggarten, Vienna.



Isobel map of the Belvederegarten, Vienna (A-readings only).

Isobel Contour Maps of Sound Levels (in dBA and dBC) in Three Vienna Parks

In all cases the chief source of the rise in sound level toward the edges of the parks was traffic on busy adjacent streets. Methods of measurement varied for each park. Lamp posts around the Burggarten provided a convenient means of projecting a rough grid over the park, giving 23 measurement positions equally spaced over the area of the park. Belvederegarten was simply divided into 10 equal sections, with measurements taken down the centre at each section point, to which were added 4 other points at either edge. For the Stadtpark, 10 measurement points were taken along a single path which cut a cross-section from the centre of the park to the perimeter at the Opernring. At each measurement point, three readings were taken, 20 seconds apart, and later averaged together.

From Peter's Diary:

Interesting rattle as I try to fold my map in the wind at Mariahilfer Gürtel station. Someone opens a door and invites me in out of the wind. I hear the paper better inside this doorway. I thank him and re-enter the roar.

Aegidigasse – Wiener Notenstecherei – engravers for Universal Edition – three men sit in an unlit room at windows – it is perhaps four in the afternoon – and no direct sunlight. When I came in, the middle man was hammering about 5 times a second a regular rhythm – now he goes again, this time a noticeable speeding up and slowing – with a metal hammer and a metal piece with the treble clef on it – he puts on the treble clefs, one every 3 seconds. The fast hammering is to flatten out the plate again from the other side. The pitch changes depending on where he hits. The young man on his right is making scratches, measuring off for the staff line – tiny scratching sounds with a compass device, a little slower than 1 per second.

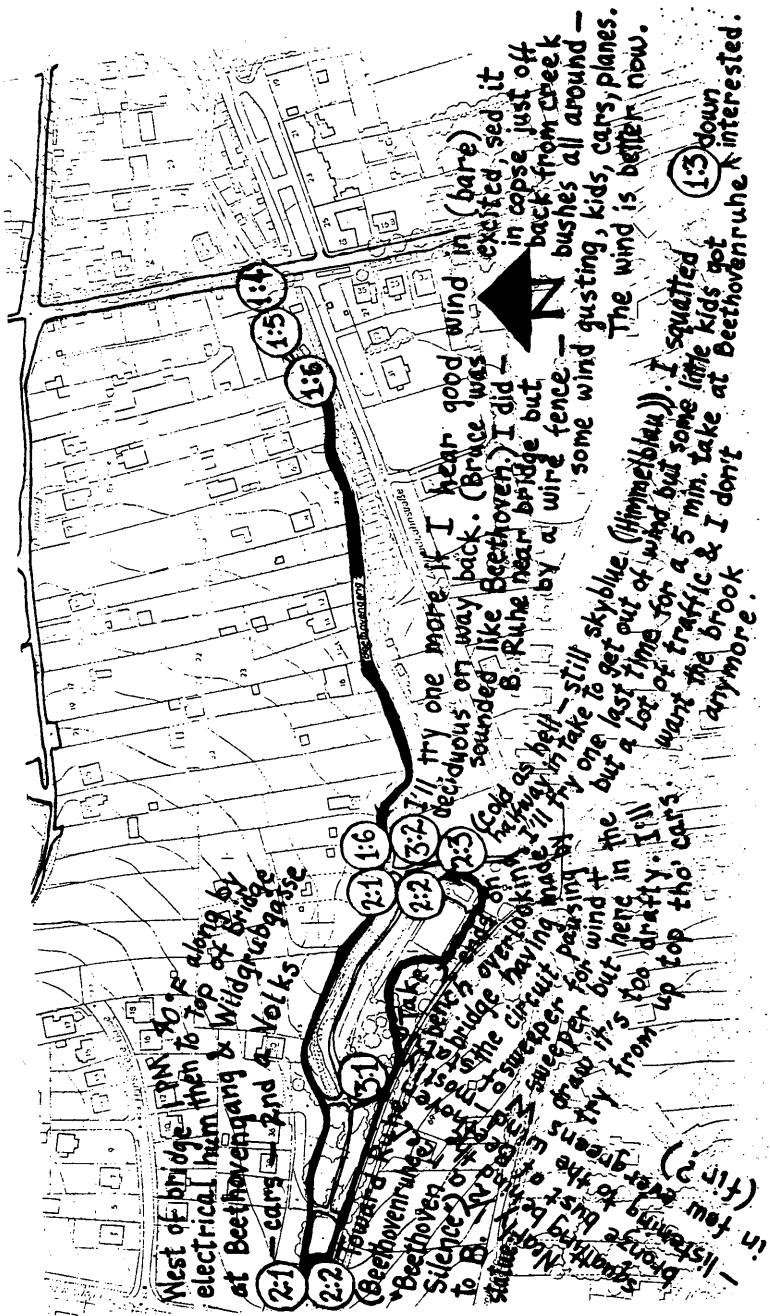
Now the middle man rattles through his papers, gets up, scraping his chair, and scrapes the finished plate smooth – a sliding oiled sound. Occasionally he blows the shavings away, uses another tool to scrape the edge, chucks it (clunk) down on the bench, resumes scraping with two hands with a broad piece of metal. The scraper pebbles over the note-pocked surface. The phone rings (B natural). Two rings together, then a pause. It gets dimmer and dimmer for such work. So I go.

From Jean's Diary:

At the *Volksoper* last night a memorable sound was the popping of champagne corks during the interval. So different from the upper-class *Staatsoper* where the corks had been discreetly removed before being brought up to the bar.

Afterwards we wandered home looking for a place to eat. As we'd left halfway through the opera it was still early, before 9 o'clock. We were attracted to a large ornate building opposite the Burg Theater which had a large patio filled with metal tables and chairs. The neon sign on the otherwise dark exterior, said Café Landtmann Restaurant. It was deadly quiet, empty, except for one girl reading a book and two Chinese boys drinking coffee. The quiet went with the look of the place, high decorated ceiling, chandeliers down the centre of the room, panelled inlaid mahogany walls, along which were very worn plush settees, each surrounding a small oval marble-top table.

The waiter, dressed in black suit and bow tie, had a slight lisp. He'd say at the end of every sentence, "Bit-te sehr," going right up to the end. I loved hearing him say that. I kept saying "Danke schön" so as to hear his "Bit-te sehr."



Observations from the recordist's field notes, taken on a recording tour of Beethoven's traditional walking path in the Vienna suburb of Nussdorf.

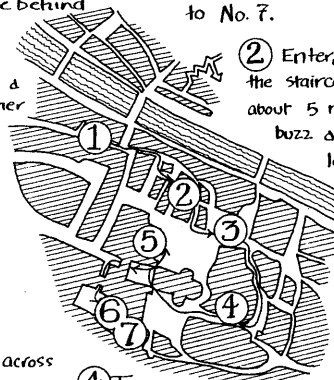
SALZBURG AND EN ROUTE TO ITALY

Salzburg Soundwalk

This is a soundwalk for baritone (and friend). The bells of the inner city form the framework for the walk, providing cues to move on from one place to another, on the quarter hours. A baritone voice is required in order to play with the eigentones found in the course of the walk. An eigentone is the resonant frequency of an enclosed space, and you will find it by humming continuously up and down until the one note is found which sounds louder than all the others.

- 1 Only slightly marred by the far noise as you enter, the place should be alive with bird-song, the ambience coloured slightly by the waterfall at the south entrance. Toward 7:00 the gatekeeper should come by, swinging his keys, to usher you out of the cemetery. The last sound you hear will be the swirl and clank of his keys as he locks the gate behind you, and saunters off into the square. And now you are ready for supper in Paterskeller a few steps to your left in the corner of the square. Bon appetit!
- 2 The two pairs of heavy wooden doors will thud behind you, leaving you in a restful stillness, which is yours to enjoy for the next 15 minutes. When you hear the bell strike 6:45, go out of the church and into the cemetery to your left.
- 3 Scuff and crunch your way across the courtyard over the fine gravel surface as you walk toward the statue at the far end. In the summer, the basin at the foot of the statue will be full of water, with the serpents spouting waterstreams into it. Listen for a short while, then go through the doors at your right into the Institute of Philology. Turn immediately right, down the short flight of stairs, then left down the corridor (3-4 steps) and find the eigentone here. This is a particularly strong one, and should keep you amused for some time, but don't linger too long or you'll miss the Dom (and St. Peter's) striking the half hour, which is your cue to move on to St. Peter's church.

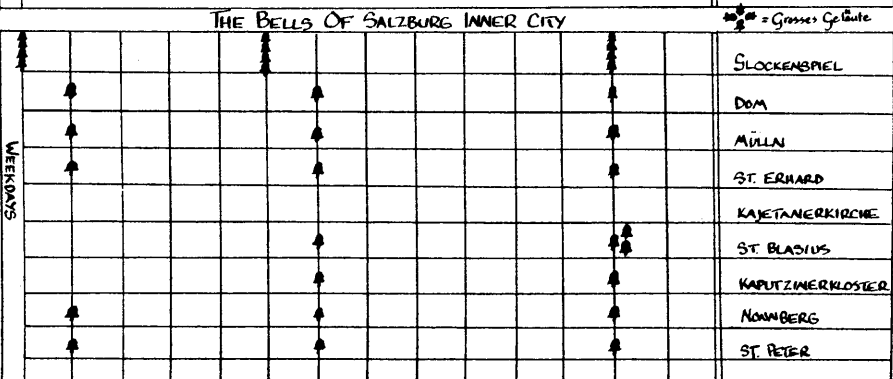
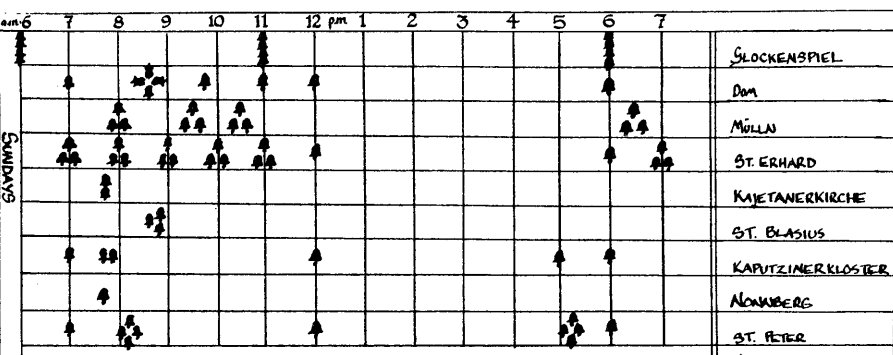
- 4 We begin at 5:40 pm, outside Mozart's birthplace on Getreidegasse. Stand with your eyes closed, listening to the strollers-by, until the Rathaus bell strikes the 3/4 hour (3 rings). This is your cue to proceed east, turning right at the Alter Markt, then left along Goldgasse to No. 7.



- 5 Enter, and find the Eigenton in the staircase to your right. You have about 5 minutes here to drone and buzz about in the stairwell before leaving for Mozartplatz, arriving shortly before 6 pm.
- 6 At the base of the composer's statue, wait for the Glockenspiel to ring, listening meanwhile to the sounds of the parking lot around the statue. Wait a moment after the bells have stopped - you should hear several churches chiming the hour - then head east to Kaigasse, turning right and following it to Kapitelgasse.
- 7 Turn right again to the five humming, buzzing windows on the south side of the street, halfway down the block. First try walking past them quickly, then perhaps stand between them, and twirl around in the sidewalk with your eyes closed. You can play with these sounds and wonder where they come from for another four or five minutes, until the Dom strikes the quarter hour. This is your signal to continue down into the street (listening to the mysterious windows fading into the background) through the Domplatz into the University building courtyard.

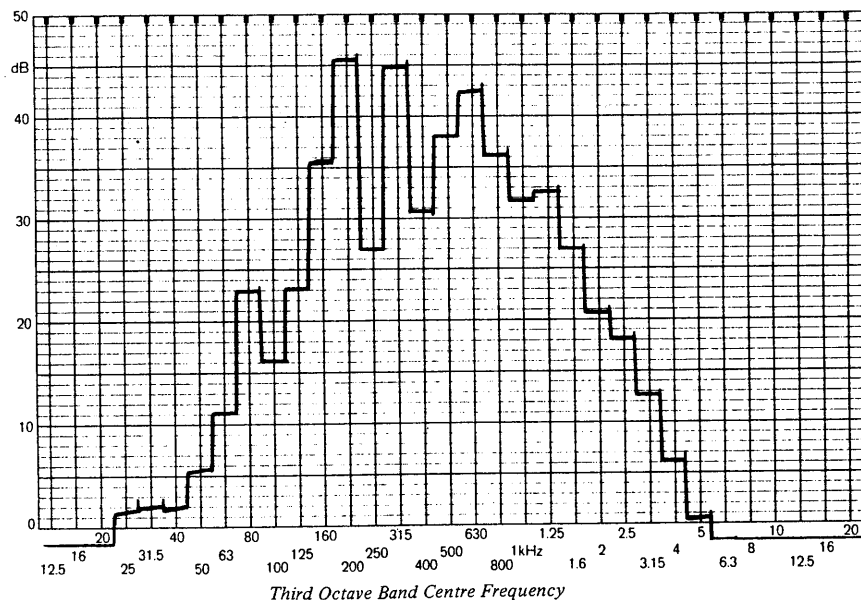
From Bruce's Diary:

March 22. Salzburg. Howard and I have come here to record the bells — especially the 6:00 p.m. Angelus, which we heard last week from the fortress. Another assignment is to compile a schedule of Sunday rings for the churches. We begin to ask questions as soon as we arrive Saturday afternoon. Howard's broken German takes us into the Cathedral, where a baptism is in progress; a priest points to his watch, and says that a big ring is to begin in 5 minutes! We dash back to our nearby rooms, I throw on the Nagra and rush out with it toward the Cathedral. I round two corners to Residenzplatz and the bells begin. I wait a moment, unsure whether to move on, and decide it might make an interesting sequence — a natural fade-in. I cross the square, go under the high portal and into the Domplatz. The bells are thrilling — huge rolling sounds above me. But I look at the levels and wince; in the mad dash I've forgotten to check the pots, and they are way too high. Instead of lowering them I move across the square and out the opposite portal, where the sound is not as great. If the tape is already spoiled, why not preserve the perspective and keep it as an example of bad recording technique?



Charts of the daily and Sunday patterns of bell-ringing in the old quarter of Salzburg. Most of these bells can be heard from the Hohensalzburg, overlooking the city.

The frustration continues: at 6:00 p.m. atop the fortress, the delicate bell ambience is being tossed around in a breeze, the wind bumping the mikes, even in the turret where I have managed to squeeze myself with the help of a young tourist. And more: the ring which we had been told was to be sounded at 6:45 failed to go off until I was halfway down the elevator on my way home.



Sound spectrum of Salvatore Mundi, largest bell of Salzburg Cathedral (14,000 kg., cast in 1971). The chart shows the top 50 decibels of the sound only. Except for the peak band, centred around 200 Hertz, the predominant frequencies of the bell are multiples of an 80 Hertz fundamental.

March 23. And still more: the ring at St. Peter's the next morning lasted one minute longer than we had tape for. I'm beginning to wonder if we'll get any of these bells recorded properly.

But at last it happens. It is 9:15 a.m., and the tape is rolling to record the great Salvatore Mundi bell of the Cathedral, which is rung only on occasions when the archbishop performs mass. It is Palm Sunday, warm and bright, and that 14,000 kilogram bell is making my bones rattle. What a sound! People are gathering in the square for the traditional procession. Children, dogs, men and women. Salvatore Mundi pounds out for 10 minutes. The Domplatz is overflowing with the sound. It is followed almost immediately by a huge ring with all seven bells rolling away high above in the twin steeples. (Salvatore Mundi has the south steeple to itself; the others, equalling it in weight, share the north tower). It finishes, and I have tape to spare. The fact that I missed the first couple of attacks of the second ring doesn't bother me — I can probably fix it up. I am too happy about what we did manage to record.



From Jean's Diary:

March 25. Berg im Drautal, in the Alps near the Italian border. Outside my window the snow shines in the moonlight. I can hear water tinkling along the metal eaves. I'm all alone in the dark room, looking and listening.

From Howard's Diary:

Berg, Austria. We are staying only one night in this Alpine village. I wish we could stay longer. The horizon is dominated by white snow-capped mountains which form a vibration bowl for the sounds of the village. A waterfall is the keynote sound. I am reminded of nights on the Sechelt peninsula of British Columbia. It is warm and the snow is melting. I can hear it dripping into puddles. Still the air is cold and very clear. Small sounds seem to be amplified. I can hear the wooden houses creaking. The waterfall seems to become louder – it is not only a waterfall, it is also a train that I have heard approaching for the last half hour. I can hear the train whistle, just a single long blast. The whistle sounds misty, as though produced by steam.

Cars sometimes enter the soundscape here with the roar of repressed fire. Somehow their power is diminished. The mountains and rushing waterfalls keep them in perspective.

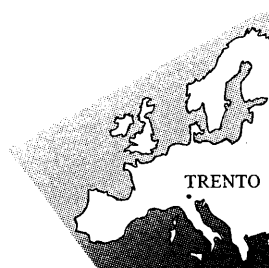
At the border crossing into Italy there are numerous formalities to clear our equipment. A virtuoso rubber stamper works on an empty metal desk, which acts like a drum. His stamps are large and, like the heads of hammers, are attached to the ends of stems. In this way he can crack out rapid rhythms: di-di-di-daa-di-di.

In Scandinavia, Germany and Austria drivers would signal their intention to pass by flicking their headlights onto high beam. In Italy they blow their horns.

ITALY

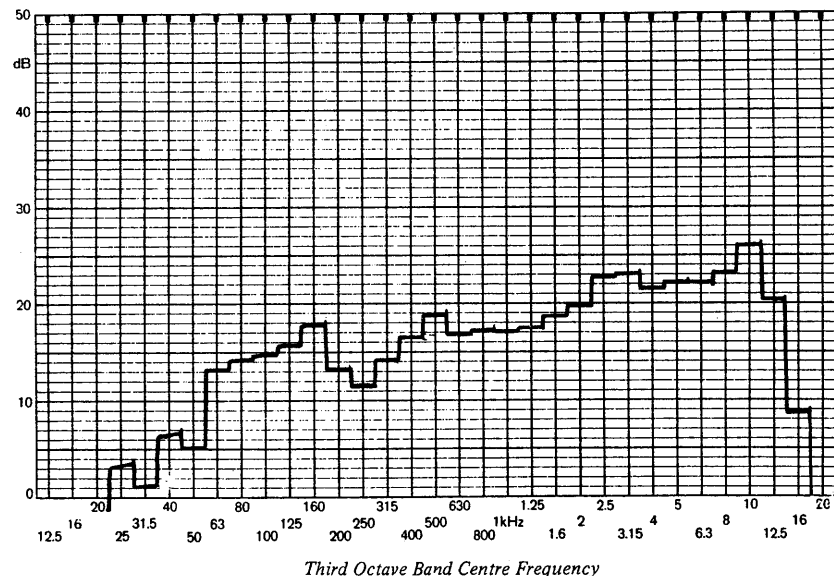
From Jean's Diary:

March 26. For the first time, just after crossing the Austrian/Italian border, we saw snowmobile tracks in the snow and remembered their horrible howl which has utterly spoil the Canadian winter soundscape.



From Bruce's Diary:

March 27. Trento. Bedtime, our first night in Italy and a gentle rain is falling out in the courtyard below, myriad drops falling from eaves and tree branches. Very little other sound – it is midnight. I taped a low sequence, and measured it at 50-52 dBA and 53-55 dBC – no low frequency rumble, or at least if there is, it is being nicely complemented by the higher frequencies of the rain. It should make another interesting spectrum display.



Sound Spectrum of Courtyard Ambience, Trento, Italy. Note the absence of low frequency rumble and vibration usually present in cities as a result of industry and traffic. The higher frequencies at the right of the diagram are caused by rain.

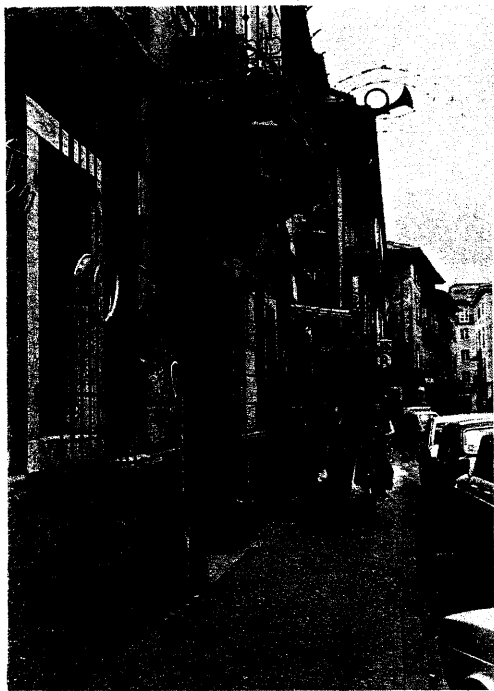
From Peter's Diary:

March 27. Wednesday. Maid in hotel singing with church bells ringing outside. This is the first time on this trip that I've heard a maid singing.

From Bruce's Diary:

March 28. Trento. The bells of the churches here ring a little differently than those I've heard in Germany or Austria: towards the end of the ring, they become softer and slower. The ritardando is more pronounced and the effect, with more than one bell slowing, is quite beautiful and makes the end of the ring characteristic in itself, like an extended *coda*. *

Tonight we strolled into the Cathedral and found a service in progress. I listened to the amplified voice in the old Gothic structure and realized that the amplification coming through speakers placed on each column, had the effect of reducing the acoustic perspective of the place. The voice of the priest seemed to be coming from a flat plane immediately in front of me. How much better and more holy it would have sounded with the voice coming from *deep* in the centre of the structure, at the altar.

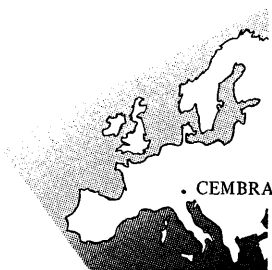


The Post Hotel in the Northern Italian town of Pergine, decorated with a traditional acoustic sign. But note also the newer acoustic sign, indicating the presence of a public telephone.

* We were later to discover the reason for this. Many of the bells in Italy are still rung by hand, while most in Northern Europe have been electrified with the consequence that they tend to stop and start more quickly.

From Jean's Diary:

Trento. After dinner we went for a stroll to the little park to see the statue of Dante. The crunch of the fine gravel paths reminded me of France, where the parks also have gravel footpaths. Two or three teenagers on motorbikes went joyriding by, up and down and around the statue, revving their engines all the time. But on the credit side, on our return to the hotel, we saw how they clean the streets in Trento: one man hoses with water and another sweeps up with a large hard-bristle broom. So much more efficient and much less disturbing than the huge machines heard in the cities of Northern Europe. Also the chance that the man with the hose might suddenly go berserk and drench passersby made it a bit exciting.



From Howard's Diary:

March 28. Cembra, Italy. We have come to study this small mountain village in Northern Italy. We are staying in a hotel which has a bar downstairs. The bar is one of the centres for both old men and the youth of the village. The group is divided: older people sit in the bar talking, drinking and playing cards. Young people are in a larger room talking, listening to the juke box and dancing. Many of the songs on the juke box are North American: the song "Kung Fu Fighting" keeps being played. Murray says that one of the songs is based on "Night on Bald Mountain" by Moussorgsky. One song costs 50 lire; two songs cost 100 lire and five songs cost 200 lire. Whoever pays for the tune gets to lean on the juke box. They hug the machine eagerly as if they can't get enough sound. This seems strange because the loudspeaker is placed at the far end of the room.

From Jean's Diary:

March 28. In the barber's shop at Cembra the radio was playing choral music by Bach.

From Peter's Diary:

LAVARONDERI LONER, this van with its loudspeaker, speeds through the afternoon streets of Cembra with some riddle-dee-rip-a-dip-a-doo alto saxophone interludes – between calls for laundry.

From Howard's Diary:

As we eat breakfast at 8:00 a.m., people are already in the large room playing the juke box. There are some people talking in the bar, but by far the most beautiful voice in the bar is the song of the canary.

From Bruce's Diary:

March 28. Cembra. The old church here, San Rocco, while the smallest in size, has the largest steeple and bells. The newest one, while largest, has two very small steeples with tiny bells. The third church is midway between the other two. I wonder about a church-to-steeple ratio: as the importance of bells in people's lives diminishes, so also does the size of the steeple.



The New Church, Cembra, with its diminutive towers and small bells.

From Jean's Diary:

Cembra. St. Peter's Church just after 7:30 p.m., on Saturday before Easter Sunday. A little group waits outside the church. The bell-ringer and a group of children get a fire going in a brazier. They do this every year to commemorate the vigil before Christ's tomb. But so few people – 14 – children and adults included. Cars arrive, old men, soft old voices, phlegmy coughs. When Bruce moves with the tape recorder toward the church, two of the young girls come up to me and say with smiling faces "Que Facia?" I know what they mean, but haven't the words to reply, so I say "Non capisco – Inglese." "Ah, Inglese," they walk away repeating "Inglese," and then "Eengleesh."

Finally the church is filled with people, men on the right, women on the left, a lot are left standing at the back. The unaccompanied singing by the parishioners is very beautiful. A clinking sound warns me of the collection. They use the same method as in the Storkyrkan in Stockholm, a long pole with a cloth bag on the end. In the Church of England it was always a large brass plate; you could hear and see the coins. All through the service two women have been intermittently talking in indignant-sounding voices; they must be the village gossips. Towards the end of the service I hear Murray cough; I wasn't sure until now that he was in the church. A last invocation and response. I hear the words, "Gloria Signor." Suddenly everyone piles out of the church: duty has been done.

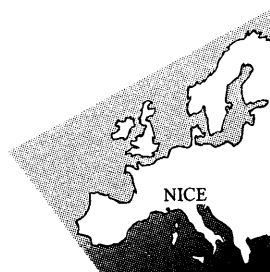
From Bruce's Diary:

Cembra. As I walk through the street listing all the sounds I hear, voices sound almost continuously. They come from outdoors – dry, present, and from indoors – reverberant, hollow, distant. It occurs to me that there are no carpets on the floors of houses in Cembra: these indoor voices are all coming off hard bare surfaces: tile, stone and plaster.

FRANCE

From Jean's Diary:

April 1. Leaving Cembra early this morning we sped across northern Italy to southern France. The landscape was beautiful, but I can say nothing of the soundscape, for all I have heard all day is the throb of the van's motor. Peter thinks the Italian highways are beautiful, but Murray keeps making ironical remarks. By nightfall we've arrived at Villefranche where at last we can again hear the sounds of the sea.



From Bruce's Diary:

April 3. Nice. Here we are in the big time again – Bossa Nova Moozak in the Banque Nationale de Paris.

From Jean's Diary:

April 4. Nice. The scraping of the elegant gilt chairs on the white marble floor where we had breakfast and the great taste of that first cup of French coffee.

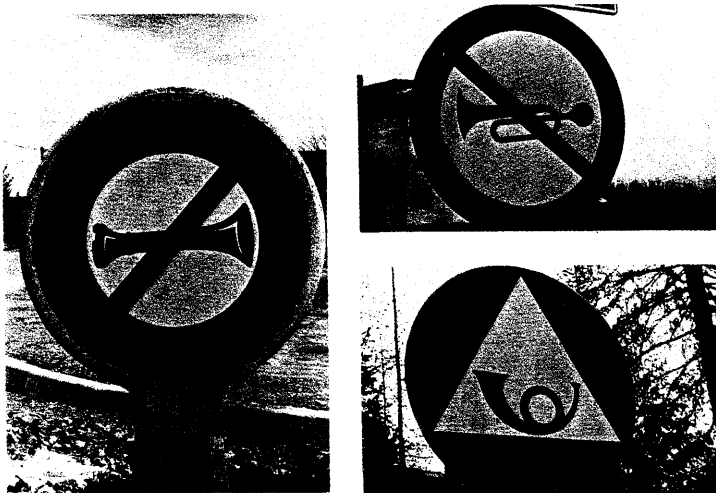
From Howard's Diary:

We stop in the tiny village of Micheline to buy food for lunch. The soundscape is dominated by "You ain't nothing but a Hound Dog" sung by Elvis Presley, blaring from a record player in a house.



From Peter's Diary:

April 6. Limoges. Sign to indicate no horn blowing. This morning at a village called St. Maximin la Ste-Baume, there was a sign reading *Silence, Prudence*.



French and Italian road signs prohibiting horn blowing, in the shape of post horns and trumpets. The French Ligue Contre le Bruit (Anti-Noise League) employs a similar sign to recommend quiet hotels.

From Jean's Diary:

April 5. Marseilles railway station: beep-beeps of the vending carts and just now a musical signal to introduce the station announcer on the loudspeaker. His voice completely distorted and very loud. Question for old railway porter: how did they announce train departures before loudspeakers?

Avignon is an open station and we can hear the announcer's voice over the loudspeaker clearly. They blow a whistle to signal the departure of the train.

Later: "Montélimar, Montélimar" says the station announcer. Montélimar has such a magical ring for me, ever since I realized that the Montélimar (Nougat) in the Black Magic chocolate box was the name of an actual place. We can smell the Nougat even from our closed compartment.

Valence: In the Parc Jouvet there are many groups of men playing boules; the balls are made of metal and make a sharp click when they knock together. There's also a bandstand though you'd have to be very close to the band to hear it against the traffic which circulates the park. There are four composers' names carved into the four quarters of the canopy: Offenbach, Mozart, Rossini and Beethoven. The best feature of the park is a large trough-like fountain, or rather two troughs, so that the water from one trickles gently at certain points into the other; it makes a really lovely varied water sound.

A small plaque outside our Hotel in Valence looks like this:



Etablissement recommandé
Ligue française contre le bruit

WORLD SOUNDSCAPE PROJECT

April 17, 1975
Sonic Research Studio,
Communication Studies,
Simon Fraser University,
Burnaby 2, B.C. Canada.

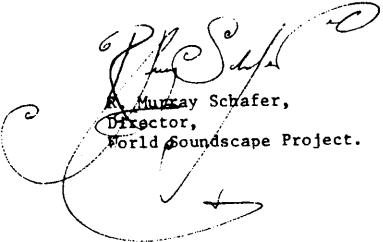
Monsieur le Directeur,
Ligue française contre le bruit,
45 rue Chapelle, Paris 18^e, France.

Dear Sir:

Arriving in Valence I was delighted to note a plaque outside one of the hotels, the Hotel de Lyon, stating that the establishment was recommended by the Ligue française contre le bruit. As it is becoming more and more difficult to discover a quiet hotel, especially in large cities, it seems an excellent idea that some independent organization should rate hotels in terms of one's likelihood of enjoying a peaceful night there. I congratulate you on your initiative; but I should like to know more precisely what criteria you use in determining a recommendation. Let me relate our experience in the Hotel de Lyon.

We told the proprietor that we had noticed your recommendation and asked for a quiet room. As we arrived in it, the maid had just finished cleaning it (about 3.00 p.m.). She then vacuumed out other adjacent rooms as well as the hall for about an hour while we attempted to rest from a lengthy train journey. When she stopped we noticed how heavy the traffic sounded through the single-pane window with its loosely-fitting shutters. The taxis at the station seemed particularly annoying, for they blew their horns frequently. Little did we know that they would continue blowing their horns until 3 a.m. and start again at 4.30 a.m. We should not have been able to determine this had it not been for guests in a neighbouring room, especially a woman with a great trumpeting laugh, who continued to talk noisily until about 2 a.m. Lying on the most uncomfortable bed we have probably ever experienced, our attention was then drawn to the loudspeaker announcements from the railway station: "Ici Valence! Ici Valence!" There were also a few singing drunks departing from the bars below us. Finally, unable to take the bed any longer, I got up and lay on the floor. On leaving I timed the ping of a loose spring in the mattress at no less than seven seconds. After about 6 a.m. we dozed off a little until a pneumatic drill started up in the road just below our window at 9 a.m. and continued until we departed towards noon.

So you will appreciate it when I ask, how in the world the Hotel de Lyon obtained its special citation from your organization.


Murray Schafer,
Director,
World Soundscape Project.

LIGUE FRANÇAISE CONTRE LE BRUIT

ASSOCIATION RECONNUE D'UTILITÉ PUBLIQUE (DÉCRET DU 28 JANVIER 1963)

Siège social :
5, rue Las Cases
75007 PARIS
CCP Paris 16 409-39

Correspondance : 11, rue Tronchet, 75008 Paris, Tél. : 265-07-6.
Réception : même adresse, exclusivement le vendredi,
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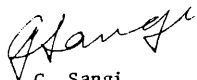
Permanence téléphonique :
587-19-79
du lundi au jeudi inclus
jusqu'à 14 heures

Monsieur,

Your letter reached us after a long delay, no doubt because of our change of address. We understand your problems and very much regret that you were misled. We are making inquiries now, and it goes without saying that if the facts you mention are not the unfortunate result of unusual and exceptional circumstances, l'Hotel de Lyon de Valence will be struck from the list of establishments who may claim to be included in our "Guide to Quiet and to Quiet Hotels".

A new edition is presently in preparation, complete through to 1976, which should make things clearer. You will find a copy of the editors' preface attached, indicating which criteria have been revised - bearing in mind the relative situations which have to be taken into consideration - with our thanks for your interest in our work. Please accept our best regards,

For the President,

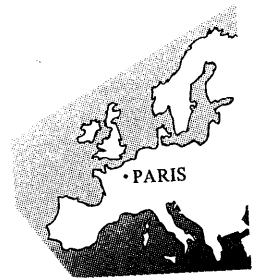

G. Sangi,

Director of the Secretariat.

M. R. Murray Schafer,
Director, World Soundscape Project,
Burnaby, B.C.,
Canada.

From Jean's Diary:

The Mistral Express, Nice to Paris. The engineer gives a falling major seventh, when he starts up after waiting for another train to pass. Electric horns. The same sound is also heard when two trains pass at full speed. Last night Murray heard a falling major sixth from a train arriving in Valence station.



PARIS

From Bruce's Diary:

April 6. Sitting in a café amidst the noisy jungle of downtown Paris, I look out to see a young woman, wearing a sari and rubber sneakers — and she is walking on the balls of her feet, almost on tiptoes!

From Jean's Diary:

For the last five minutes motorists have been sounding their horns in the street below. Every time a truck makes a delivery, it blocks the street because of the double parking. When this happens, motorists blast their horns continually until the chap finishes his delivery and drives off.

From Howard's Diary:

April 8. I am sitting in the middle of the Arc de Triomphe counting car horns. The sounds of drivers and horns is more interesting than sheer numbers indicate. There are many types of horns. Small irritating buzzers on motorbikes, low throaty air horns on trucks and a variety of pitches in between on automobiles. Policemen whistle shrilly between their teeth and with police whistles. The vehicles move irregularly across six lanes of traffic. Motorbikes creep around everywhere. A Porsche goes by with pop music blaring from it; the driver executes an almost 90 degree turn as the flow of traffic changes. A girl on a motorbike challenges a Citroen for position. The vehicles move more like pedestrians on a crowded sidewalk than like cars on a busy street. Often they tap one another on their bumpers.

From 2 until 3 p.m. there is an auto horn extravaganza. For no obvious reason the drivers are going wild with their horns. One hundred and thirty-five blasts occur between 2:00 and 2:10 p.m. One hundred and seventy-six are blown between 3:00-3:10 p.m. This is a wonderful piece of accidental music — or should I say, music to avoid accidents. No, there is little blowing to signal emergencies. The horns are expressing the exasperation of drivers moving tons of metal through city streets. And all of this in a city where horns are banned!

Recordist's notes of sound intensity levels taken at various points inside and outside the Louvre.

Place	Time	Ambience (dB)	Sounds	Materials/Comments	
INSIDE THE LOUVRE:	Wed. Apr. 19 1975				
1. Winged Victory of Samothrace at head of main stairs after entry, 5m. from pedestal	11:30 a.m.	67-75A	71-75C	Reverberating voices and foot steps of thousands of visitors: the entering crowd	Marble tile steps and floor. It clicks.
2. Mona Lisa on 2nd floor in Salle des Etats. See photo #2, Paris Soundtrack	1:00 p.m.	65-67A	70-72C	Voices, foot steps, but mainly the sound of cameras. Occasionally a tour group is herded through en masse. Then the guides lecturing voice in French or perhaps German rides above the murmur. Cameras continue clicking, being wound, the buzz of a time exposure.	New wooden floor in "wood" pattern. It clunks.
3. Venus de Milo on 1st floor, end of gallery east of 1, centrally placed.	3:00 p.m.	60-63A	68-70C	Reverberating foot steps and voices but not so many as 1, the entering and 2, the painting crowd.	There is a smaller audience for sculpture than for painting. Indeed, the action represented is generally quieter: posed. Even when it is not, the stone makes it so.
4. A Porte Denon: foyer just inside the main entrance.	4:00 p.m.	71-77A	75-82C	Roar of crowds as they enter, loiter, rendezvous — often in large groups, get tickets, information, souvenirs, coats in the adjoining area, often loudly anticipatory or loudly relieved at completing another tourist ordeal.	Marble tile.
OUTSIDE THE LOUVRE:					
4-B Porte Denon: steps just outside the main entrance	5:30 p.m. (a half-hour after closing)	58-62A	75-80C	No cars immediately in front. On left, coming out, the deep, husky voices of French blacks selling African wares to French and other tourists. Traffic through Cour de Carrousel and in distance.	Almost all visitors have left by now.

Place	Time	Ambience (A)	Temp (C)	Sounds	Materials + Comments
2. Intersection of central spatial axes between Porte Bonaparte and Ministry of Finances.	5:35 pm	58-61 A	75-80 C	Same as above, from different distance and angle.	Smooth stone tiles. 6" square.
6. Cour de Carrousel centre, 11m. from traffic.	5:40 pm	57-74 A	80-84 C	Through traffic. Busload of girls posing for photo and laughing, footsteps.	Pedestrians: grass and gravel. Traffic: usual concrete.
7. Arc du Carrousel under it.	5:45 pm	60-65 A	78-85 C	Birds. Traffic in Cour du Carrousel and distance. A few packsackers resting and talking	packed dirt and some gravel
8. Intersection of central axis with lateral axis aligning sculptures, some 30 m. east of Avenue du G. Le Normier	5:50 pm	59-64 A	77-83 C	Traffic sound increasing in proximity of Av. du G. Le Normier. Few footsteps.	Same
9. Intersection of central axis with Av. G. Le Normier:	5:55 pm			Traffic	
A. 1m from curb facing traffic		56-80 A	78-90 C		
B. 11m from curb facing traffic		57-77 A	83-89 C		packed dirt
C. 11m from curb, back to traffic		55-71 A	78-86 C	Traffic and some footsteps	
10. Tuileries Garden, at rim of fountain, facing west to it, 11m. distance. 130m. west of Av. du G. Le Normier	6:00 pm	55-68 A	77-82 C	Ambience evened out by fountain water, some traffic rumbling below and breaking surface of intensity. Dog's chain, kid crying.	Rough concrete with pebbles in it, a kind of fulgit

Continuation of Recordist's notes of sound intensity levels taken at various points inside and outside the Louvre. A Paris soundwalk, based on some of the paintings in the Louvre, can be found in the Appendix.

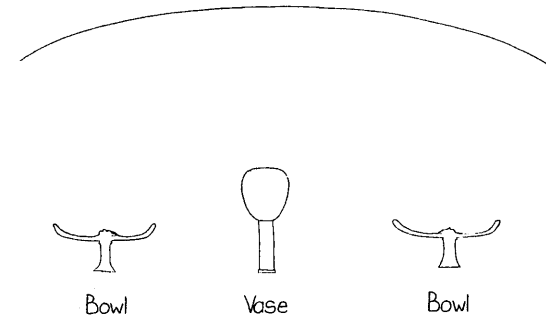
From Jean's Diary:

I travelled on the Mairie d'Issy-Porte de la Chapelle métro line yesterday. It's the last one that uses the old métro trains. They are much noisier than the newer ones. Every time the automatic door shuts, the brass handle comes up from the right door and clicks over onto the left. You can see and hear it better outside than in.

Even in the treeless city streets of Paris you can hear birds. You can hear such a furious chattering, almost screaming, but you can't see them. They must be hidden in the eaves.

From Howard's Diary:

We go into a Pizzeria for dinner. International Moozak fills the room – Frank Sinatra – “Strangers in the Night.” Then it stops for a moment and returns with a warbly Spanish (?) guitar and voice. The tape slips and the sound speeds up so that it sounds like chipmunks. The staff tries to behave as if nothing were wrong. Peter, Bruce and I are roaring hysterically. After about five minutes of this, the couple beside us finish their meal abruptly and leave. Peter can't eat because he is laughing so hard. No one can do anything about the screwy tape ... it's signed and sealed – PROPERTY OF MOOZAK – NOT TO BE TOUCHED EXCEPT BY TRAINED PERSONNEL.



LOUVRE SOUNDGAME

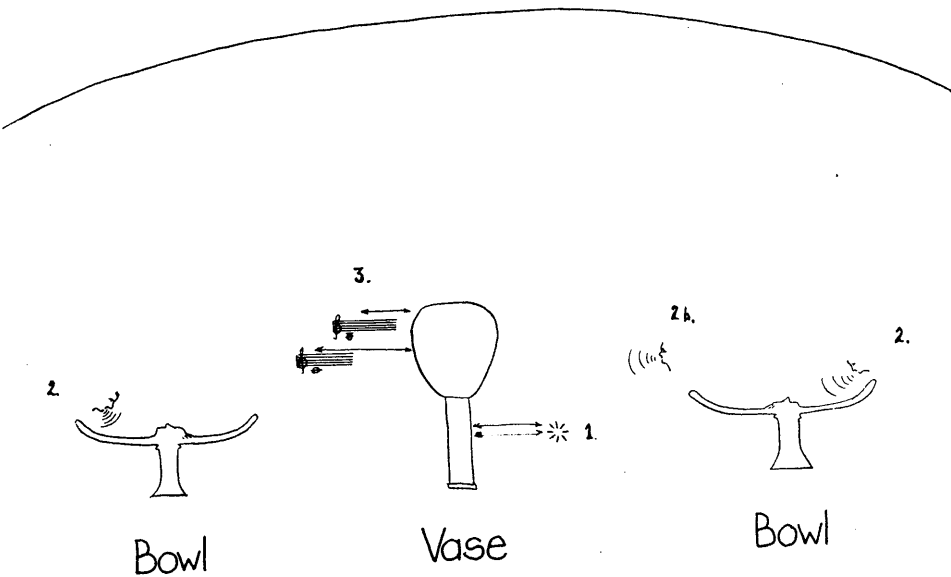
Directly under the Winged Victory of Samothrace, down one flight of stairs, is a place with the three objects pictured above. There may be some children clustered around the bowls (*caves*), making noises, and it was this hubbub which first caught our attention as we were walking through the hall. Once they had left, we began experimenting ourselves, and discovered several interesting things. In fact, this hall is a well-designed gallery of acoustic experiences.

Here are a few clues to start you off:

Clue No. 1. It gives seven for your one, and is near the vase.

Clue No. 2. The faces in the bowls are telling you the secret they share.

Clue No. 3. The excitable vase has two answers.

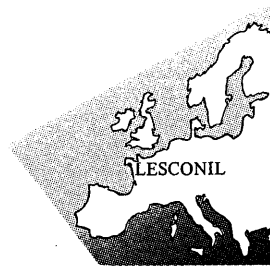


Answers:

1. A multiple echo sounds when you clap your hands (or stomp your feet) on the arc surrounding the vase, 1.3 meters from the centre column. Try clapping at various distances and heights.
2. By leaning into the bowls and directly facing the carved faces in the centre, two people (one at each vase) can speak across the room to each other. The voices have a deep resonance (as if heard through a low-pass filter), but they have a high resonance (high pass) if one person moves 2 or 3 steps away from his bowl on the arc subtending the two bowls (2b); there the voice appears to be coming from a point close to the ceiling.
3. This vase resonates at two different frequencies, apparently depending on the distance from it. Between 15 meters and 1 meter from the edge, an A (220 Hertz) sounds, and at about 2 meters, a C (256 Hertz) will be heard.

From Jean's Diary:

Paris. I phoned Anny at UNESCO this morning; the switchboard girl answered very rapidly in French and then left me. I thought I'd been cut off when I began to make out a musical motif and distant speech. When my ears became accustomed to the static I could make out a little signal of 3 ascending notes and then a soft female voice: "Ici UNESCO, nous cherchons votre correspondant." Then the musical signal again and this time an English woman, with a vintage upper-class accent: "This is UNESCO, please hold on, we are trying to connect you." Such precise diction is so rare nowadays that you can't help smiling when you hear her. But you certainly wipe the smile off your face when the switchboard girl suddenly snaps back on with "No reply." Cut. You are on your own.



BRITTANY

From Bruce's Diary:

April 13. Lesconil. The quiet, subdued voices of pairs of women in conversation on the streets contrast with those of Cembra. There the voices seemed to come from all directions simultaneously. Here the voice sounds are more directional and are rarely heard in counterpoint. As you walk through the streets, you hear them one by one. But in the soundscape of both villages, the voice is a basic element.

From Jean's Diary:

April 13. Sound of bed sheets flapping in the Lesconil wind. Gas lawnmowers going almost all day. Garbage collection, modern vans, very noisy, chew up garbage. Lying in bed at night I can hear the buoy outside the harbour, moaning regularly every three seconds. Bruce calls it a "puffer" buoy and says it produces its sounds when the waves tip it, pushing the air out. But the real keynote during the day is the birds. Even at the seashore you hear songbirds as well as gulls.

From Bruce's Diary:

April 17. Lesconil. The church seems to be less important here than in Cembra, if our unusual neglect of the bells is any indication. They are not emphasized in any of our conversations with the villagers, and so we have paid little attention to them ourselves, aside from recording them on tape. I suppose one value of our approach to soundscape studies is that the information we collect reflects fairly well the attitudes and interests of the community.

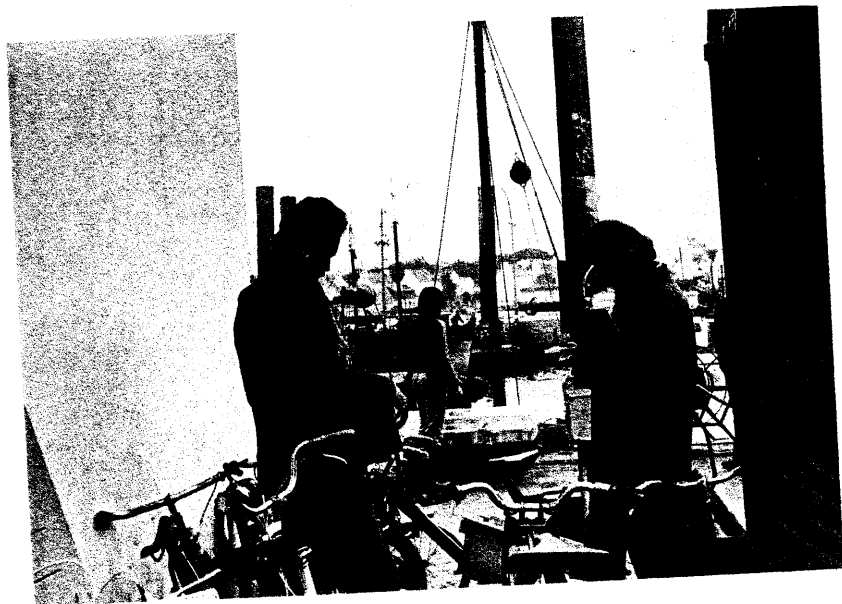
The catholic church has a strangely-pitched set of 3 bells:



The ringing produces a low difference tone which is very dissonant and which I cannot explain. The bells are rung electrically and the priest tells us that there is a local war going on between the bell-ringer and the communists, who are very strong in the village. Sometimes, out of spite, the bell-ringer lets the bells ring for half an hour or more, and the poor priest has to defend the activity.

From Peter's Diary:

Near cemetery: hearse puttering by in first gear, slowly, then voices — just chatting; the procession passes — not sorrowful except the old man in front next to the golden metal cross-bearer. He wipes his nose with an old hanky. The men have their captains' caps, the women their coiffes. After they pass, the sea in the distance, birds, a crow caws close by.



Bruce Davis and R. Murray Schafer recording and taking sound level readings at the harbour in Lesconil.

From Jean's Diary:

Lesconil. Today the buoy at Le Ster is moaning constantly. I wonder how the people here like it. I find it strangely comforting. It has nothing to do with me, but I find myself listening to it and trying to store up its haunting sound in my memory forever.

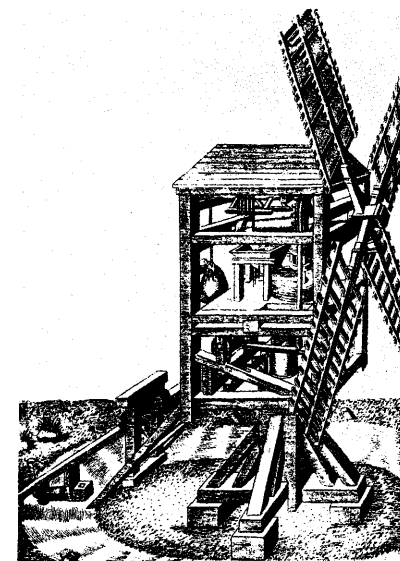
The keynote sound of the sea is not as beautiful to me as I would have thought, in fact sometimes when I suddenly stop and listen I almost hear it as a steady stream of traffic. We must be at least a kilometer from the sea-edge, and the constant roar sounds just like heavy traffic on the freeway.

This morning I woke to the birds' chorus and suddenly I heard a cuckoo calling. The sound conjured childhood; wading through the grass, picking bunches of primroses and cowslips; then someone would look up, stop and shush us and we'd listen: a cuckoo — *coo-coo, coo-coo*. After it stopped, you'd go on hearing it in your head, so you weren't really sure when it stopped. It's my favourite bird call, and it's so long since I heard it.

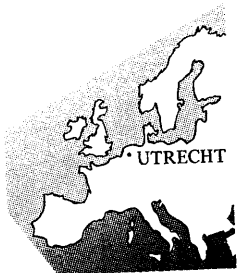
From Howard's Diary:

April 18. We are staying at the Hotel La Reposée on the highway outside Rennes. At the back of the hotel, just below our window there is a small figure-eight pond and a grove of trees. We were unloading our baggage when we heard a high pitched sound: "bloo, bloo." We found that it came from frogs. The sound was very different from that of the frogs of Vancouver: "ribbitt, ribbitt." Bruce and I tried to record them, but it was difficult because the highway traffic continued intermittently all night. At 5:30 a.m. the first birds of the dawn chorus joined the frogs and by 6:00 a.m. the frogs had faded and the birds had replaced them.

11:00 a.m. We are trying to do some work here this morning but alas there is no repose at La Reposée. This evening there is to be a dance for the Club Nautique. As we were finishing breakfast, some young men began to move a control panel, some loudspeakers, and a set of drums into the dining room. We are subjected to what Murray describes as "some idiot playing with an amplifier," and another person banging on the drums. We ask if they can please be a little quieter. They reply that it is impossible. We leave in anger.



A windmill on the highway in Normandy, together with an ancient engraving showing how such windmills operated. A keynote sound of the countryside, it creaked and groaned as its wood and stone mechanisms turned. "Crack-crack-crack" was the way one native described the loud sound made by the sails as they beat the wind.



HOLLAND - AMSTERDAM

From Howard's Diary:

Utrecht. This afternoon we visited the sonologist Otto Laske, who is interested in charting the mental processes of composers in creating their works. Dr. Laske does not believe that modern composers are influenced very much by the sounds in their environment. He believes that sociological considerations, in particular, academic trends and styles, are much more determining influences. During our one-and-a-half hour visit I heard these sounds from his living room window:

- nearly continuous light automobile traffic punctuated by bicycle bells
- two car horns
- one jet airplane clearly audible for about two minutes
- nearly continuous bird song

I would be interested to listen to the piece that he is working on at the table in front of the window.

From Peter's Diary:

April 23. Amsterdam. In Montreuil, France, in the Hotel Chez Eduard: Berlioz Moozak with dinner. De Knijp Cafe in Amsterdam: Chopin Moozak. The bar next door: Aretha Franklin Moozak. Not bad. Now in De Knijp - Debussy's Clair de Lune, Beethoven's 6th (Pastoral).

From Howard's Diary:

I am waiting outside of the central train station for Bruce and Peter who have gone to get information. About 200 meters to my left there is construction going on. Three great metal structures emerge from a hole in the ground to a height of about 100 meters. Workmen are moving the three monsters into position, and as they scrape against each other, a harmonic series of moaning sounds and punctuated knocks of metal-on-metal are given off. Ah spring, the time of love! Even the machines are mating.

From Peter's Diary:

April 24. In the Vermeer room of the Rijksmuseum. The only sound besides a few footsteps and hushed voices is the humming of the electric light; but it doesn't sound as good as Vermeer's light!

1 Commentary to an Amsterdam Car Horn Count
Place: Different Positions in Dam Square
Time: 11am - 7pm, April 23, 1975

It is warm here, so my fingers are not too cold to do anything except scratch numbers in my notebook. I want to keep a running commentary to the count, or at least make a few notes during the same ten-minute period of each hour that I shall be counting.

11am A carillon sounds, then a bell tolls from the Koninklijke Paleis. Bells also sound quite regularly from the trams that rumble by and the taxi telephone at the corner of the square. The trams run on Damrak, the main street of this area, and as they move,

2 their metal wheels squeak out harmonics against the tracks. Brakes squeal approximately two times per minute. A police whistle blows somewhere, but I see no one in uniform.

A voice comes up from behind: "Do you have another cigarette?" Dutch hippies seem smokes in English.

Noon The carillon sounds from the palace followed by its big clock bell and I begin my monitoring session. I think I hear other carillons or music playing in the distance. Perhaps my mind is forming music from the harmonics of the tram wheels. No, it's an organ grinder across the square.

A bicycle bell scrapes or rings behind me as it passes on Mopas in Aaron Street. The bicycle traffic is the heaviest that I have seen in any city. This makes the traffic seem less dense and noisy.

3 It also allows for more human contact - contact between eyes and voices.

Brakes squeal less frequently now, approximately once each minute and a hilly there are fewer trucks. I assume that it is truck brakes that squeam the most. It is lunch hour. There are more motorbikes with their pinpoint, farting horns.

1:00pm I am sitting in the south-east corner of the square next to the taxi telephone. The carillon and the clock have sounded. I wish I could see the taxi guys with their horns, and I wish I could see the bells against the traffic.

A second carillon ice cream man has come into the square. The first one has worked in silence since 11am. Both are silent now. People walk by, whistling.

Ah! The first call and response horn exchange has just come from two trucks.

4 The taxi phone bells ring again. Brake squeals are almost a keystone sound now so are the tram bells.

A deep horn blasts from behind me on Paleis Street. The other man on the bench and I turn around and see a very small car, too small for such a big noise. Is this a type of school phone? The driver yells something at us as the light changes and he drives off.

It is between monitoring periods 3:00pm The taxi phone rings as the carillon plays its tune. A shrill whistle follows before the clock bell tolls the hour. There is an eerie silence. Ah, the reassuring sound of the tram bell and then the rumble sound. A static "pwahh" sounds as the tram rattle sparks.

2:00pm The carillon and the bell again. Brakes squeal just as the clock stops chiming. There are many pigeons in the square.

5 They have been here all day, but now their flapping wings and their cooing create an undeniable presence.

One old man ice cream salesman claps his hands, whistles, and sings alternately.

A man walks by with two dogs. One dog is on a metal lead, the other dog is on a leather lead. The metal lead jingles.

3:00pm The taxi phone rings as the carillon plays its tune. A shrill whistle follows before the clock bell tolls the hour. There is an eerie silence. Ah, the reassuring sound of the tram bell and then the rumble sound. A static "pwahh" sounds as the tram rattle sparks.

A perfect horn triplet: three different horns from three locations around me hook within microseconds of one another.

6 The pace is picking up. There are more events. The events are occurring much more quickly. Will this reflect in the number of horns or are factors other than quantity of events on the streets the determining variables?

It is between monitoring periods and I am going to the Amsterdam Bureau of Public Relations to try to make arrangements for recording police and fire signals and to hear out other sound information.

In addition to making arrangements with the police and fire departments, the Public Relations Department offers information about the carillon, the quantity of fire signals, and the band organ.

The carillons which are heard from the Koninklijke Paleis, Westertoren, Oudekerktoren, Zuiderkerk, and Nieuwkerk in the central district were built in the 17th century by Francois and Pieter Hemming. It is said that the brothers Hemming forbade talking when they tuned.

Big difference between Louvre and Rijks is that there are sound doors between most of the exhibition rooms in the Rijks: glass and iron doors, reinforced with wire mesh, with a black brush material at the jam. It makes it much quieter in here. Also the floors are newer and of harder wood — a hard click but no squeaking. Also the Dutch crowds are quieter.

From Howard's Diary:

Rumbling through the streets of Amsterdam inside a mechanical snake. It bends in the middle and rattles its tail while it winds its way amongst the hard-shelled motor-beetles of post-neanderthal man. *Thump, thump*, people feed the snake paper wads as they climb into his rattling tail. He shudders to a stop and screams until a bell rings near his head. Then his tail begins to rattle again and he moves along the track and down the street.

AMSTERDAM SOUNDWALK

The Flea Market at Waterlooplein

Suggested time 1:30 p.m.

The Waterlooplein Flea Market is in the eastern corner of downtown Amsterdam. Although Amsterdammers say that the Flea Market has lost much of its life in the past five years, since urban redevelopment has taken some of its space, we still found it one of the most interesting places in the city for listening to human sounds.

Since the booths are mobile it is impossible to map exactly where each booth will be on a given day. We suggest that you listen for the sounds in Column A and match them with the places in Column B. Compare your list with ours in order to discover if the sounds ever wander away from their places.

A

- 1 When you run your hands through unplugged sockets they make a mechanical clatter.
- 2 Two bells of different sizes and tones wait for you to ring them.
- 3 Mechanical music rides on a squeaky cart behind jingling coins.
- 4 A soft, multicoloured cavern of stillness gives you peace.
- 5 A place where you can make a thousand thumping sounds.
- 6 A place where hot, sizzling sounds meet a cold, long drone.
- 7 This man sells ticks.
- 8 A sound by the canal that multiplies in summer and diminishes in winter.
- 9 A schizophrenic marriage occurs.
- 10 When the sound begins the tempo is much too fast, but when it finishes it is much too slow.

B

- 1 Inside a food van.
- 2 At a used clothing booth where the clothes are used to form a tent.
- 3 Along the walkway between a toy and bag shop where the radio plays classical music and an old coin and jewellery shop where the radio plays rock'n'roll.
- 4 Birds in trees along the canal.
- 5 From an antique booth with a hand-cranked 78 r.p.m. record player.
- 6 A bin of wrench parts in front of a hardware store.
- 7 An organ grinder and his assistant.
- 8 In a used book booth.
- 9 At a copper and brass booth.
- 10 A watch salesman.

Our answers:	A	B
1	6
2	9
3	7
4	2
5	8
6	1
7	10
8	4
9	3
10	5

EN ROUTE TO ENGLAND

From Peter's Diary:

April 25. Train in Harwich waiting to pull out for London: Moozak. Schlukk. Inspid bounce, big band arrangements, hokey rhythms, uninspired "written-down" solo lines alternating with choppy, boring-to-play tutti passages. The girl next to me was thinking; "Why can't I turn it off!" (Our rhetoric is working.) They turned it off now. Just the hiss of steam and voices, in Dutch and English, quiet, kids' oo's and ah's and giggles, newspapers being shook open, pages turned, and the whole thing being re-folded. Now, the conductor's whistle. Rumble. We're moving. Clunk-clunk. The change of ambiances as we pass thru arches, by close walls and buildings, open space, space changing, highs cascading into my ears as the spaces grow. Still, no further Moozak. Just real sounds. The hiss persists. Squeak of brakes and sequential crunch and clunk of stopping. Crash of a packsack falling off the overhead rack onto a woman's white head. The rush of human cries simultaneously

From Jean's Diary:

At Brighton Railway Station, broadcast music — Johann Strauss polka — and then local announcements from BBC Brighton radio. I remember during the summer months of my youth, the BBC announcer would ask listeners 2 or 3 times a day to be considerate of neighbours and keep the volume of their radios down if they had the windows opened. And now the BBC is broadcast at loud volume in public places and no one is allowed to turn it down or off.

Our carriage has a central aisle with eight seats either side and doors between them on each side of the train. The doors make a terrific slamming sound when you close them. It's impossible to close them quietly. The stations we stop at are for the most part no more than a 5 or 10 minute train ride apart, and each time we stop the passengers getting on and off create rhythmic compositions with the doors.

Despite the closeness of the stops, sometimes the train does get a bit of speed and then through the open windows you hear that familiar rhythm of the wheels over the tracks: *biddle-di-dee, biddle-di-dee, biddle-di-dum*. Now and again the rhythm changes when you go over an odd length of track, then you may get two *biddle-di-dums*, straight after one another.



LONDON

From Howard's Diary:

April 25. Liverpool Street Station – overwhelming din of voices, booming train horns, schlock, instrumental Moozak on the PA's, electric tones and announcements. The streets are filled with foul air and NOISE. Peter says, "I think I'm going to have a heart attack." Into the underground. Wooden escalators descend more quietly than metal ones, or is it that the street was so loud? It clicks when the slats recycle at the top and bottom.

From Jean's Diary:

In Bourne and Hollingsworth they have old wooden escalators. Instead of the usual whine, you hear a rumble and clatter. It's nice, and so is the tactile sensation of stepping onto wooden slats instead of metal.

From Bruce's Diary:

April 25. Ktchang! Tchklatt! The double sliding gates to the lifts taking us down to the tube make the sharpest impact sound I've heard here so far.

From Peter's Diary:

April 26. Passenger elevator in Lancaster Gate tube stop: folding metal gate closes like a cymbal crash. When leaving it a whole array of jazz-drummer whams & clash-swish, hard & rhythmic, cymbal & rim-shot sounds follow you down the tunnel; and the ride is rhythmic too, loud flams and repeating shot patterns ...

Notes:

1. London ambulance siren: a descending whole tone.
2. Sticker on the back of ambulance:
MIND THAT CHILD – HE MAY BE DEAF
3. Sign on Regent Street, block south of Oxford Circus:
HEARING CENTRE over sign it sez: FORTIPHONE

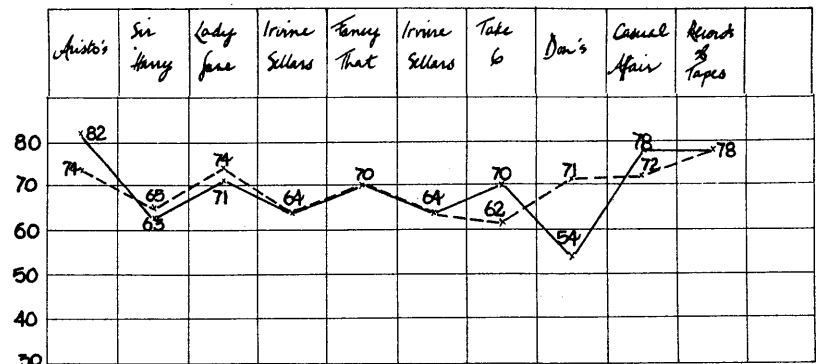
4. A sign at Huntley St. and Capper St. off Tottenham Court Road: "Hospital Quiet Please" and then "Royal Ear Hospital." What I hear: traffic and construction, especially the rivetting sound.

5. A poster in Oxford Circus tube stop:

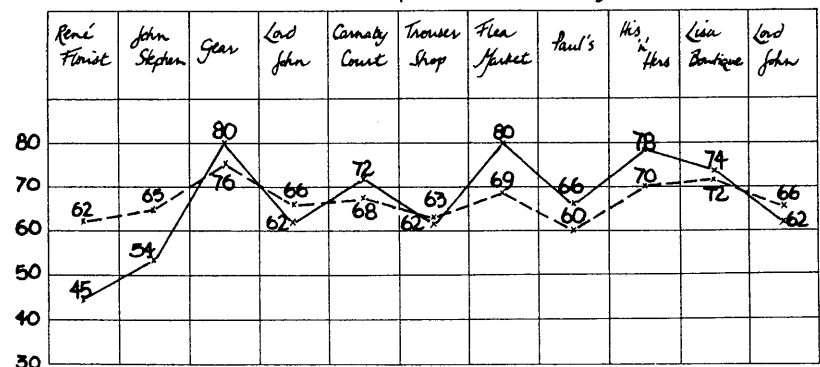
ABORTION – A WOMAN'S RIGHT TO CHOOSE.

We could well paraphrase that:

QUIET – A LISTENER'S RIGHT TO CHOOSE.



Sound Levels of Shops on Carnaby Street — inside — outside



Sound level readings taken inside and outside shops in London's Carnaby Street. Although traffic is prohibited in this street, many of the shops play amplified pop music both inside and outside. As a result there is little difference between interior and exterior sound levels, both of which are almost as high as those of streets with steady traffic.

From Howard's Diary:

Entering Kensington Gardens at Bayswater Road and Lancaster terrace, I walk 33 paces before the birds replace the traffic as the keynote sound. There are nine separate jet plane passes over Kensington Gardens in one half hour!

p.m. 7:57; 8:06; 8:08; 8:13; 8:17; 8:20; 8:21; 8:24 and 8:25.

At the entrance to the park there is a sign: *The Regent's Park Regulations, 1932:*

No.18 No unauthorized person shall erect or use in the Park any apparatus or thing for the purpose of the transmission or reception of wireless telegraphy or telephony or for the reproduction thereof or any apparatus, experimental or otherwise, connected with the reproduction by electric or mechanical means of sound, speech, or vision.

From Howard's Diary:

Instructions in a London telephone booth:

Have money ready 2p or 10p.

Lift receiver

Listen for continuous purring

Dial number or code and number

When you hear rapid pips press in a coin

To continue a dialed call put in more money during conversation or when you hear rapid pips again

I had my money ready and I lifted the receiver off the hook. I waited and waited but heard nothing that sounded like a pleased pussy cat; I only heard a hushed buzzing sound. But I dialed anyway.

The phone rang and I tried to insert my coin, but the machine wouldn't take it.

Finally a connection was made, but before I could say hello, a high pitched sound with a rapid rhythm began. The coin that I had been trying to force into the hole fell in and a voice came out of the earhole.

From Jean's Diary:

Bought some apples from a barrow and heard the tinkly sound of the weights being placed on the scales. Each barrow-boy has his own set of brass weights — ½ ounce, 1 ounce, 8 ounces, 1 pound, etc. It's a disappearing sound, Britain is going over to the metric system and they will need new scales which will not likely have as much character as the old ones.

From Howard's Diary:

I pay my bus fare to a woman conductor who comes around to my seat with a strange contraption hanging from her neck. I give her the money, she clicks her meter into position and then turns a crank that produces a rapid zipping sound as the ticket comes out.

From Peter's Diary:

April 26. Craven Terrace, off Bayswater at Lancaster Gate. It strikes me as quieter now than it was 9 years ago when I lived here. The waiter and cook in the Taormina Ristorante confirm my impression: "O yes eet's quieter, much quieter." Why?" "Why?" He gestures rubbing both thumbs quickly against his forefingers. "No money. Da peoples is too poor."

They turned down the rock'n'roll radio moozak when the boss came in.

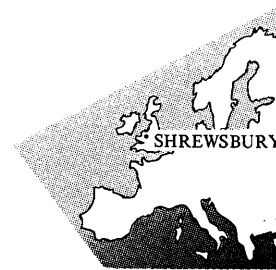
Double decker bus 171 on way to Elephant and Castle (The Infanta of Castille) underground station. The conductor pulls a cord smartly and the bell rings twice:



Crosswalk from Cavendish Sq. to Chandos St. A button starts a stoplight to allow pedestrians to cross. But it is a very short duration with an alarm signal during the allowable crossing time:



4 pips per sec. The bottom pip lags behind slightly, creating a phase shift, different every time.



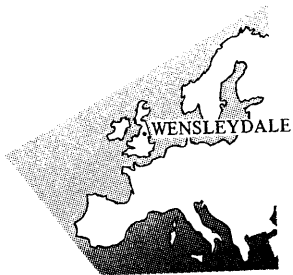
FROM ENGLAND TO SCOTLAND

From Jean's Diary:

I went for a walk in the park at Shrewsbury and heard some unusual sounds. As I walked across the greens to the Dingle, a sunken garden, I heard distant bugles sounding. I walked on down to the river. Drawing nearer, I could hear a strange booming sound and then I spotted a cyclist on the tow path with a megaphone to his mouth. Finally I saw the rowers, eight 15-16 year olds dressed in white, obviously from the local school. As always, seven of them were strapping lads and the eighth was skinny-looking. This is the cox, or coxswain and he faces forward in the boat in order to direct his team. He also has a megaphone for this purpose. The coach cycled alongside as they rowed, calling out such phrases as, "blades on the water;" "row like the very dickens;" "when you get to the red post go like the clappers." All in regulation public school English.

York Minster, York. There is a large group of visitors down by the door of the south transept. From where I sit at the back of the church, their voices seem to be from a multitude. It must be the reverberation, for the din goes on and on without any light or shade. Actually whilst I've been reading my guide book, they've all gone and now it's quiet and I notice the footsteps of people passing. The reverberation time appears to be 5 seconds.

When Elizabeth and I were sight-seeing this morning, I heard "Big Peter." This is a bell which tolls at noon each day in the Minster and has an interesting history. It was brought to the Minster in 1845, a monstrous size, 11 tons in weight. However, as it did not match the peal and since even 30 men together could not set it swinging, it was used very rarely and then by striking it with a hammer. In the twenties it was sent away, a great task in itself for several floors had to be removed in order to get it down. It was recast and in 1927 was reinstated. "Big Peter" is further reputed to be the deepest-toned bell in Europe. It didn't sound that deep to me; it certainly had a big sound but at the same time was mellow and gentle.



From Bruce's Diary:

May 6. Wensleydale lies in the upper valley of the Ure River in North Yorkshire, beginning in the watershed of the Pennine Hills, and opening out further east into the Valley of York. The river continues eastwards, eventually to join the Humber and empty into the North Sea. It was the discovery here of an old acoustic custom which first drew us to the area as a possible field study, namely the tradition of blowing the village horn, which having survived from Saxon times to the present, still gives unique soundmark identification to the dale.

But we notice first the different types of birdsong to be heard along the length of the dale, from the strange, mad mixture of curlew, owl and cuckoo at the high western end where moor and dale meet, to the relatively familiar, almost domestic sounds of wood pigeon, finch and guinea fowl by the old Cistercian ruins of Jervaulx Abbey amidst the rich treed pastures of lower Wensleydale.

This distinction between the wilder upper valley and the lower is further reflected in the character of the river itself, which breaks out into several waterfalls higher upstream or is joined by swift-flowing tributaries, often with their own spectacular falls, later to wind more leisurely through the wider valley farther below.



Sheep farming predominates throughout the dale and lends continuity to the soundscape there. April through May is lambing time, and the days and nights are peppered with the bleats of young and old animals, often coming some distance from the hillsides around, and from all directions. To this must be added the sounds of cattle in all but the highest pastures, and of pheasants, which abound here and are raised for sport hunting.

The activities which once occupied many of the villagers in the 19th century here, have long since disappeared and the remaining population has taken almost exclusively to sheep and dairy farming.

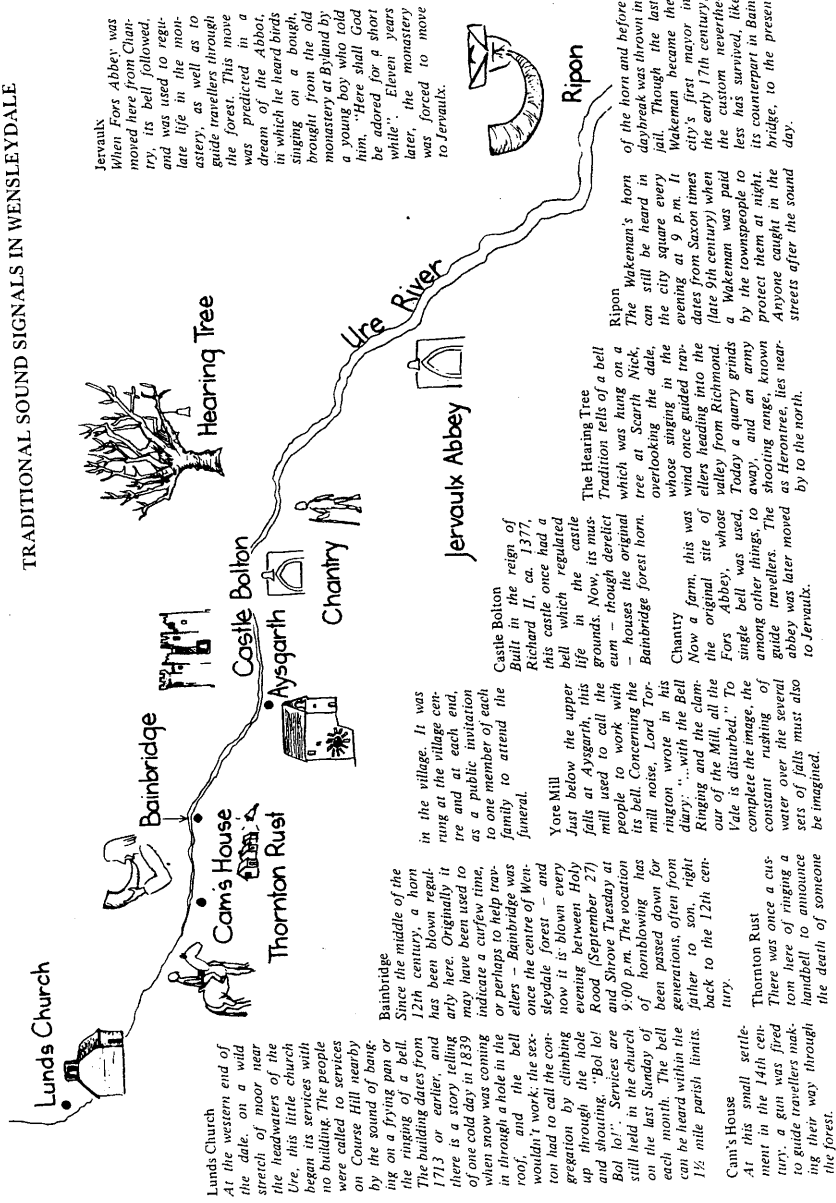
From Howard's Diary:

Jervaulx Abbey. We get out of the car to a chorus of birds and wind in the trees. In the far distance automobile engines are audible. The ambience is 42-48 dBA. A dog's bark and a voice from the TV sound from the caretaker's house. In the past three minutes two cars and two trucks have passed on the roadway.

Amongst the birds there are crows and at least two varieties of song birds. An airplane passes and is only audible for forty-five seconds before it is buried under what sounds like a giant lawn-mower engine. Yes, it is a large power mower operated by one of the

From Peter's Diary:

Jervaulx Abbey grounds, first sound in Wensleydale — birds, traffic on road, intermittent, voices of 3 visitors, TV thru window of house. Tractor-sounding lawn-mowing vehicle behind a hedge mowing the grounds to N, bellow of a cow to SE, cows eating, walking, turbo-jet passes overhead, heading south, its noise ebbing and flowing, warbling high behind shifting greys of the clouds, the sound fading to the celestial West, a spring or underwater brook emerges in a tiny stone-encased pool and then drops back underground, its rattle echoes as a brook thru a culvert, a car on the distant high-



Abbey staff, 100 meters to my left. A second airplane passes. After one minute and forty-five seconds another airplane drowns it out, and then remains audible for one minute and twenty seconds. I believe that I saw signs on the highway indicating that there is an RAF base nearby. The birds sing on. I can hear at least four different kinds now. Although airplanes litter the soundscape I find the ruins of the Abbey much more inspiring and holy than the huge damp cathedrals that have been maintained throughout Europe. The openness to the birdsong, I feel, creates the holy ambience. I will now try to shut out the sounds of airplanes and traffic.

The wind blows deeply through the trees. Four coniferous trees and four deciduous trees whisper deep messages. In the graveyard the moans of a truck engine crying out in the distance from beneath a bed of wind and cows lowing is quite eerie.

Aside from the birds, the animals are all so still ... Cows, chickens, horses, all quiet. Just as I wrote that, a chicken clucked six times. That was no chicken. That was a rooster with a red head, gold and brown back and black and green feathers. He just crowed four times. I didn't expect to hear him, so he was almost frightening. He is mixing with the crows now. The crows sound like belligerent birds who heckle the song birds.

way to the N, the warble overhead of a jet persists, thru all the birds, the crunch on the path as the 3 visitors walk by me as I stand writing. Another plane warbles above, gas I think. So there are modern sounds here, as well as caw of rooks, the song of larks. I hear the cooing of a wood pigeon to the S: *huh hoo huh huh huh hooo huh huh*.

Quiet with the roofless walls of Jervaulx Abbey, among the grass floors and isolated column bases, bird song solos, chirping, purple flowers tint the shapes of the remaining stone. Airplanes. Stone archways outlining halls and vaults long since invisible, transparent. Crunch of gravel on the widely-designed walkway where the cloister was. Birds, a tractor in the N distance, coming and going of the wind. Cawing in the formally planted evergreens, isolated chirps, high clear tones and twee-peeps. There is stillness between these narrow stone alleyways, sprinkled with flowers and clumps of weeds, floors of grass and occasional paving stones. Cawing on evergreens persists. Rooster close by behind the wall, crows squeakily 3 times. And again. Whirr of wings as a blackbird moves from one standing fragment to another, farther from me.

Wind sound swells in the pines, and large deciduous trees beyond the yard. Cluck cluck of some bird in that tree. The tractor in the distance again, Crunch crunch crunch crunch then clunk as I step on a stone slab over a deep, covered channel. The wind rolls in the evergreens with the rooks. The tractor sound came from beyond there; the far whine of diesel in high gear.

From Bruce's Diary:

May 9. Bainbridge, Wensleydale. The tradition of blowing the forest horn has proven to be a focal issue of our work here. Earlier, when researching a suitable region to study, we came across a similar custom surviving in Ripon further down-river, so it was the discovery of the Bainbridge horn-blowing custom that suggested a very interesting regional definition for study.

Whether the custom still survived had yet to be established, however; we had to go there to find out. Arriving at the Rose and Crown pub, where the horn was supposedly kept, we were informed that it was still blown. We had the hornblower, Jamie Metcalfe, give a special blow for our tape recorder, and that was exciting enough, but there was another development in store for us. The original 12th century horn has been kept in Castle Bolton museum since the present one was donated to the Village in 1864, and when we borrowed this old horn and recorded Jamie blowing it, Dick Chapman — a retired school teacher — decided it should come back to the village for good. He in fact had had ideas about this before we arrived. The upshot of it all is that the Parish Council will be asked to request the return of the original Bainbridge Forest Horn from the Castle museum. The museum is very poorly run these days, and in fact the horn had been misplaced when we asked to borrow it for the recording. I've written to the management asking them to take better care of their possessions or to give them to somebody who can. If it all works out, the World Soundscape Project will have helped repatriate a soundmark!

It won't be soon that I'll forget the night I brought the old horn over to the Rose and Crown pub, to hear the small place resound with its warm, hollow, centuries-old note as we all had a go on the thing.

The only shadow hanging over this happy affair is that Jamie — the last of a line of hornblowers going back to medieval times — has no successor. He is probably the end of his tradition, which was often handed down from father to son. Mr. Chapman hopes to work out an arrangement whereby the horn will be kept permanently in the Rose and Crown so that when and if Jamie can no longer handle the job, at least someone will be around to give it a blow.

I'll be waiting with interest, once back home, to hear the outcome of this little chapter of village history. This will be a good test of their attitude *vis-à-vis* their own soundmark ... It would also indicate the effect of our own efforts in preserving characteristic sounds.

From Peter's Diary:

Bolton Castle: wind, wind and more wind. The grass looks pressed in the sun by it. Kids, on the way home from school, 5 and 6 year olds screaming and laughing excitedly in the wind. This book, the leaves flutter in it all together. The kids still laughing and flapping in the wind, all with little packsacks, were sprawled in the leeward side and now are all blowing back up a hill road west of the castle.

WORLD SOUNDSCAPE PROJECT

Sonic Research Studio,
Communication Studies,
Simon Fraser University,
Burnaby 2, B.C. Canada.

May 11, 1975.

Mr. Thomas Waite,
Manager, Bolton Estate,
Wensley,
Yorkshire.

Dear Mr. Waite:

First let me thank you for allowing us to make a recording of the original Forest Horn of Bainbridge, which is kept in Castle Bolton Museum. It is very rare indeed that a sound of such historical interest and significance can still be found, and that the tradition of its performance has survived as well. Furthermore, now that traditional hornblower at Ripon has retired, Jamie Metcalfe in Bainbridge is almost certainly the last one left in England; it is a custom which reaches back to the twelfth century and earlier. The recordings and other documentation which we now have will become part of our archive collection.

However, I was surprised to find that the horn was lying in a dark corner of the Castle Museum, having been forgotten by the museum management. I am told that previously it was exhibited in its own box in a glass case, along with the particulars concerning its use and its special significance to the Wensleydale area.

I urge you to take some kind of corrective action. The museum is not well run; its contents should be competently cared for, or else donated to an institution which can look after them. The Bainbridge horn might better be in the hands of the village itself, to whom it belongs. In this way it could be performed and an ancient custom, now rare in Britain, could be enabled to survive. I understand the Parish Council of Bainbridge will be making overtures to you along this line in the near future and I urge you to give them your every consideration.

Yours truly,



Bruce Davis,
Research Assistant.

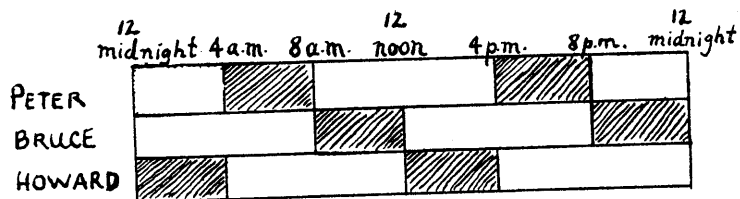
In the entrance to St. Oswald, the door is banging like crazy in this gale. In the diffused sunlight, a ring shines at the end of a rope coming thru a hole in the ceiling below the tower: the church bell hangs, tempting to be rung.

I've walked around to the courtyard gate and I see Bruce inside a narrow window across the courtyard, head bowed, the grey ball of windsock sticking up on the stone ledge, the microphones hiding inside it.

From Peter's Diary:

May 9. Bainbridge. I suggested we do four simultaneous 24-hour recordings through Wensleydale, and Bruce and Howard agreed.

Instead of taking one sample every hour for 24 hours at one location (as we did in Cembra), we plan to record at four different locations alternately so that we will end up with six samples (one every four hours) at each location. We can use the same work/sleep pattern we used in Cembra. (The shaded areas indicate sleep.)



The four locations are to be:

- Lunds Church, near the head of Wensleydale and the Ure River, where the moor birdsong interests us;
- Semerwater, about one third of the way down Wensleydale and a bit south, for some lakeside ambience;
- Castle Bolton, a 13th century castle about two-thirds of the way down Wensleydale and north on the steep hillside, where there are sheep, cattle and hounds;
- Jervaulx Abbey, a ruin dating from the 12th century, not far from the main road and the widening Ure River.

From Bruce's Diary:

May 9. This 24-hour recording should be interesting — first time we've tried to cover so much ground: 4 locations stretching the 35-mile length of the dale. For the two on shift, it will be pretty well non-stop activity, recording then driving on to the next spot, recording again, driving on. These narrow, stone-walled country roads make a great Sunday afternoon drive, but not when you have to average 40 m.p.h. and still make it through the slow-to-a-crawl turns and bridges.

Seasonal Birdsong Activity in Wensleydale, Yorkshire

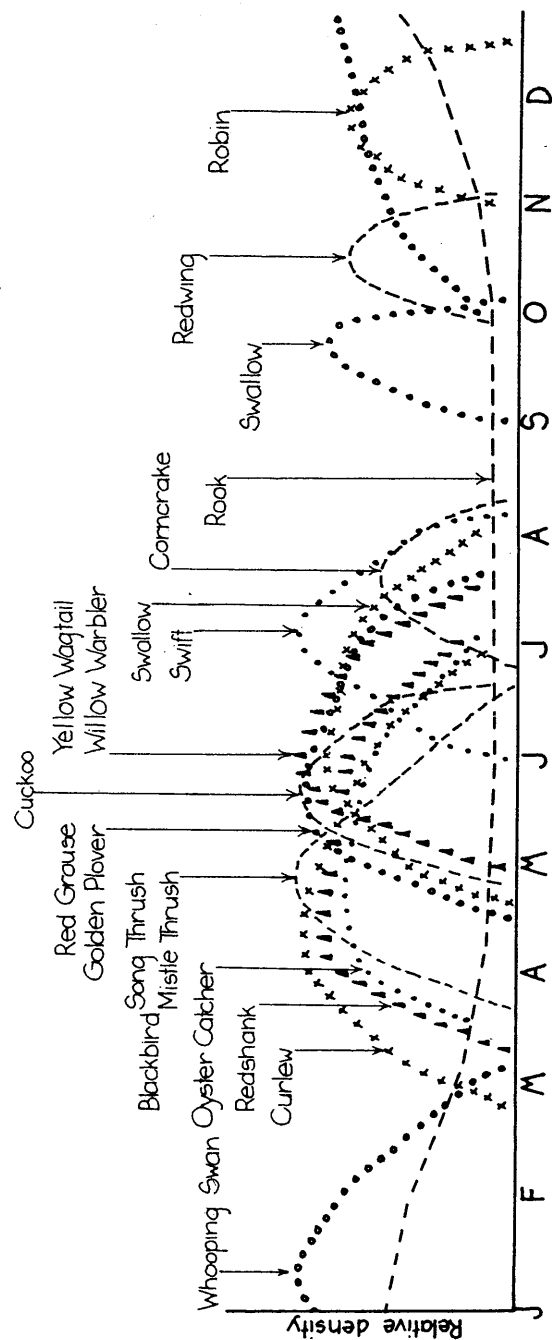
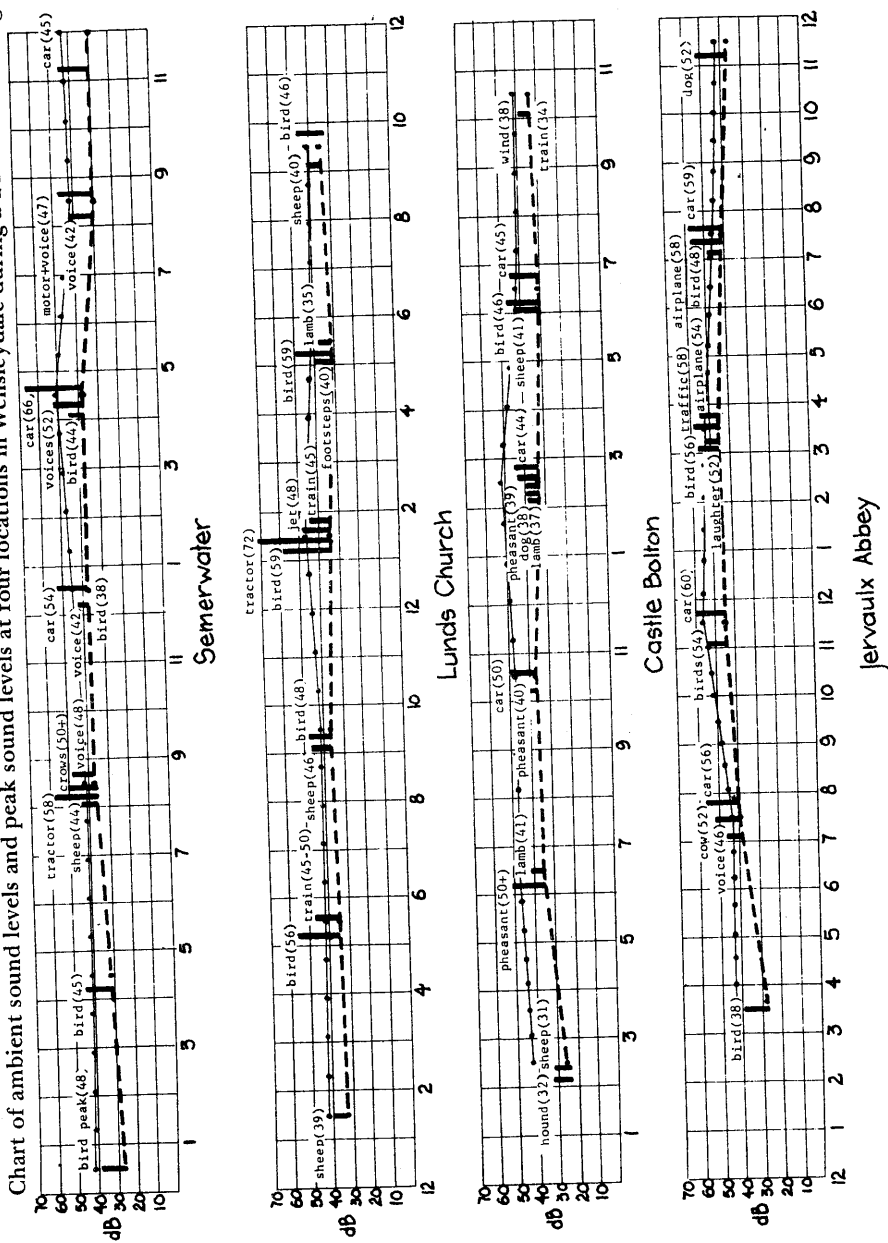


Chart of ambient sound levels and peak sound levels at four locations in Wensleydale during a 24-hour recording.



From Bruce's Diary:

May 11. I have charted the ambient levels compiled during the 24-hour recording, and am trying to make some sense out of them in relation to my impressions of the changes in each place throughout the day. Actually, there was not much obvious variation within each place to my ears (my shifts were from midnight to 8:00 a.m. and from noon to 8:00 p.m.). Jervaulx seemed the least active at night, the most noise-ridden during the day; Lunds Church, on the other hand, was the least changeable that way, though I liked it the best: the sounds were strange — even the trains passed in an odd way, appearing suddenly out of nowhere, dying out again as quickly, only to reappear once more, then to fade again. Some hills between us and the tracks accounted for this, I suppose.

As we proceed down the valley from Lunds Church to Jervaulx, the influence of technological sounds becomes more prevalent, as shown below in data derived from the chart. Both the ambient level and its range increases towards the lower end of the valley, just as the peak sounds include more technological sounds at Jervaulx.

Range in Ambient Level

	dB	DBC
Lunds Church	5 (32-37)	6 (42-48)
Semerwater	11 (27-38)	9 (42-51)
Castle Bolton	11 (28-39)	10 (42-52)
Jervaulx	18 (29-47)	16 (42-58)

Peak Sounds

Location	Peak Sound Level (dB)	Sound Source
Lunds Church	5	bird
Lunds Church	4	sheep
Lunds Church	2	train
Lunds Church	1	tractor
Lunds Church	1	jet
Semerwater	5	motor vehicle
Semerwater	5	bird
Semerwater	4	voice
Semerwater	1	sheep
Castle Bolton	5	sheep
Castle Bolton	2	dog
Castle Bolton	2	pheasant
Castle Bolton	1	motor vehicle
Castle Bolton	1	train
Castle Bolton	1	wind
Jervaulx	3	motor vehicle
Jervaulx	4	bird
Jervaulx	2	voice
Jervaulx	2	airplane
Jervaulx	1	car
Jervaulx	1	dog





World Soundscape Project team in the Dollar churchyard at the conclusion of their European travels. Left to right: R. Murray Schafer, Jean Reed, Bruce Davis, Peter Huse and Howard Broomfield.

EDITOR'S CONCLUSION

From Wensleydale, the World Soundscape Project team went north to Dollar, Scotland, to the last of the villages we planned to investigate. But as those investigations will appear in another document, this is a suitable place to interrupt the present chronicle. A sound diary has no ending, for listening continues throughout life, perhaps more vigilantly for the experience of writing about it.

We have no mighty conclusions or theories to draw from our travels. It remains for the editor, who kept no diary, to pin together a few observations based on the experience of reading others' — an experience now shared by the reader.

There are numerous places in the diaries where we are made aware of how the same sound or aspects of it can be perceived differently by individual observers. For instance, one of the first sounds to be noticed on our arrival in Amsterdam from Vancouver were the trams, possibly because Vancouver has no trams; but while Peter notices the interior whistling effect of the ride, Jean is attracted to the bell and Howard hears them outside rounding corners like "angry dogs."

Again, if the reader will investigate Howard's and Peter's comparative descriptions of their first few moments out of the car at Jervaulx Abbey, the differences in perception are striking. Though both are immediately taken by the birdsong and both later notice the wind, Howard hears a dog bark at the beginning of the sequence while Peter hears a cow. Later Howard hears the cows and then goes on to hear a chicken cluck six times (compare Peter: "cluck cluck of some kind"). That neither diarist is an ornithologist is obvious from the confusions between chickens and cockerels, crows and rooks.

Both listeners hear aircraft in the sky, but observe the way each describes the passing of the same plane:

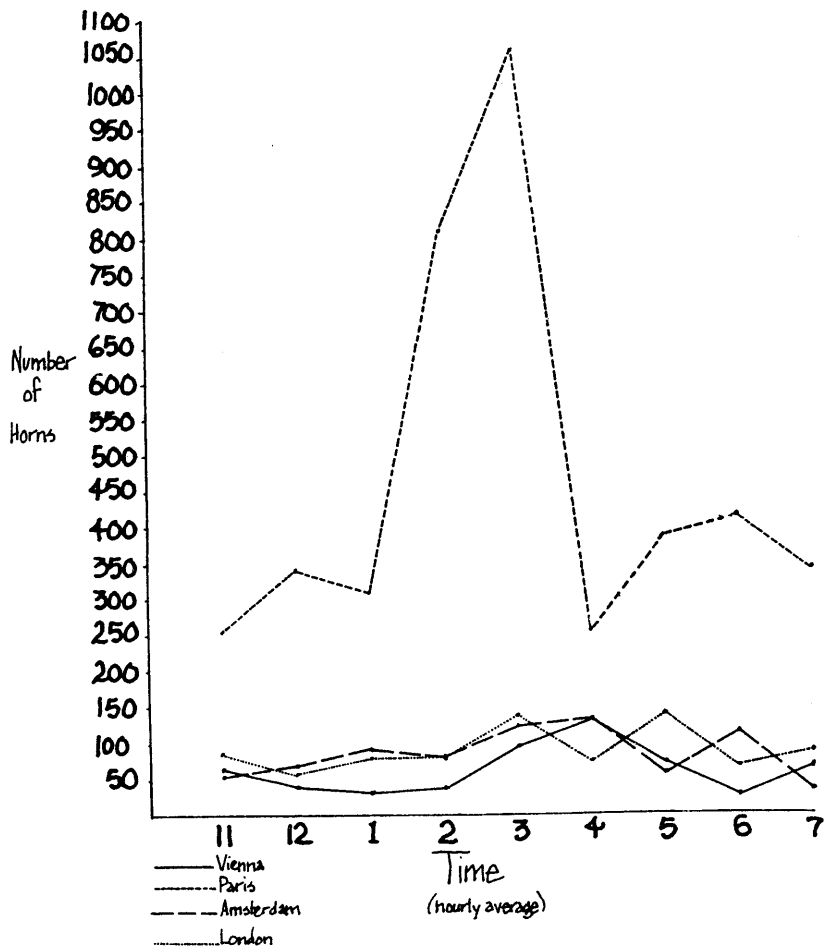
"... audible for 45 seconds before it is blurred under what sounds like a giant lawn-mower engine." (Howard)

"... behind shifting greys of the clouds, the sound fading into the celestial west." (Peter)

Peter's description is synaesthetic: sound fades into sight, soundscape into skyscape. Howard has difficulty escaping the omnipresence of technological sounds, a characteristic that is evident in many of his diary entries.

But there is one striking exception. Howard never comments on the sound of the Volkswagen bus in which he drove us many hundreds of kilometers almost every other day. Did he even notice it? The tendency of people not to be bothered by technological sounds which they themselves produce is well known. But Bruce notices the motor immediately when he arrives in March and is picked up at Frankfurt airport. He has just removed his in-flight ear plugs and he found it immediately annoying. As a matter of fact, we measured the interior noise at 78 dBA/95 dBC travelling at 100 kilometers per hour. Later in Italy, Jean also picks it up and finds it unpleasant.

One expects new experiences when travelling, and the diarists concentrated on listening to new things. The sound of glass on marble table tops and wooden chair legs on tile floors are conspicuous in Stockholm because they are absent in Canada. Perhaps an Italian or French visitor to Sweden would not have found them worth mentioning. On the other hand, sounds that Canada and Sweden share (office sounds, for example, or construction sounds) go unrecorded in our diaries. One shared sound is traffic, and although it may seem to be the same the world over, it does vary in subtle ways. The frequency of horn blowing is a measurable variation. The following graph of car horn counts for several of the cities we visited makes this plain enough.



In many cities, the sound of bells of all kinds, being unfamiliar to Canadians, attracted much attention. Time and again, Peter or Jean refer to the common time-marking bells, the tuneful carillons, or the tower chimes. Outstanding from the daily rings were those special events which moved their listeners: the "broad bell" of Storkyrkan in Stockholm, the "magnificent, deep bell" of the Friedenskirche in Stuttgart, the "bell canto" chorus of Salzburg, or the bone-rattling thrill of the Salvatore Mundi in the Cathedral there. Howard's concern is more with the sociological implications of declining religious activity as implied by the encroaching city noise, or the public indifference to bell soundmarks in Stockholm and Stuttgart. Many major cities, such as Paris, Vienna and London, elicited no particular notice of their bells from our observers.

On the other hand, radios, PA systems and Moozak (our word for wired background music) probably attracted the most attention in every locale from the diarists, with over two dozen references to schizophrenic sound — i.e. sound separated electroacoustically from its source. Loudspeakers in churches, train stations, banks, restaurants and hotels were noted everywhere. Although some cases, such as the background music in Sweden, reflected a small amount of folk tradition, most were international, with much American influence.

Subjectively speaking, the diarists seem to have found Vienna and London the loudest cities. To this the editor would offer his impression that Paris was equally noisy. As Europe succumbs to the chaos of modern technological noise, it is interesting to note the few opportunities for quiet found by the diarists. Some are searched out as a respite from the noise, as when Howard feels "pushed onto the waterfront" and across to Skansen to escape the Stockholm traffic. Jean remarks on the hushed quiet of Uppsala and Vienna late at night. She also evokes a striking mood when she describes the lone, silent skater seen from inside her window at Valdemarsvik. But on another occasion she describes the oppressive silence of not being able to speak to those around her because of language barriers.

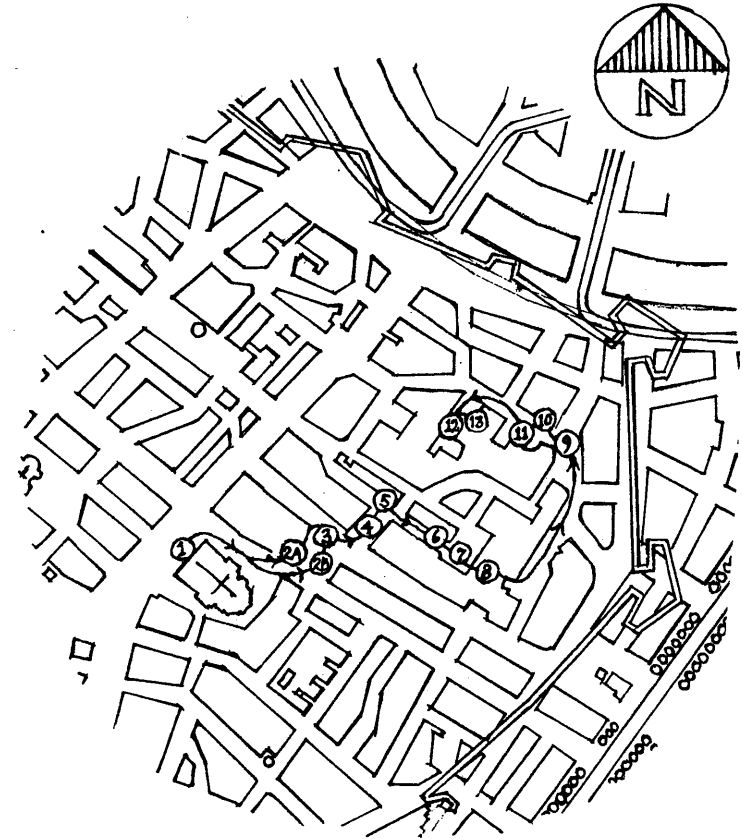
As tourists without fluency in all the languages encountered, the writers frequently describe the difficulties and novelties of foreign language encounters. We recall the drunken German salesman in the hotel near Lüneburg, the absurdly-modulated voice recording on the UNESCO telephone in Paris, the lively voices of Cembra and the gentle singing of Austrian folk songs described by Bruce and Howard at Spittal. Our lack of language competence was often a hindrance to us in our work, but it may have been an asset in the composition of diary thoughts. A diary is always evidence of solitude and the most thoughtful entries usually result when there is no one to speak them to.

Can descriptions of sounds ever be adequate to their original stimulations? Probably not, although with a great writer they may serve to evoke reverberations in the imagination. Ultimately what emerges from any sound diary is the strong flavour of the writer's attitude and personality in relationship to sounds that are often only vaguely or possibly even inaccurately described. If one thing is clear from these pages it is that our diarists have spoken with individual voices. Compare Peter's detailed and highly des-

criptive entries with Bruce's more analytical approach. Bruce's entries tend to be brief; he writes only when he has discovered something or has a comparison to make. Howard tends to describe situations relating sounds to political or social contexts. Jean also relates sounds to contexts but they are usually personal, giving her entries variety and spontaneity.

Certainly we have not done justice to the rich acoustic heritage of Europe in these pages. The publication of these few personal commentaries will be justified only if they provoke readers to undertake a critical investigation of the soundscape wherever they may find it. Soundwalks and sound diaries stimulate a critical attitude to the environment. As such they prepare us for the art and science of Acoustic Design.

APPENDIX A: SOME ADDITIONAL SOUNDWALKS



Vienna Soundwalk: Evening In The Old Town

1. Stephansdom (St. Stephan's Cathedral). Listen as you enter first through the outer thick canvas flaps, then the wooden doors. This is a quiet place to prepare your ears and souls for listening. Can you hear the hum? It is B above middle C. Is the subway underneath the street outside finished yet? We recommend you return during the day to visit St. Stephan's great and famous bell, Pummerin, and imagine it being rung, as it is only on special occasions such as Easter Sunday morning. And if you are lucky enough to be in Vienna on such a day, take a good position and listen well.
2.
 - a) Enclosed passageway, 1/3 Schulerstrasse. Move through it playing with your fingers or a pencil on the shop shutters, grills on the floor, elevator grate, metal gate bars. This passage closes at 9 p.m.
 - b) If you are here later, do the same thing with these textures along Strobelgasse.

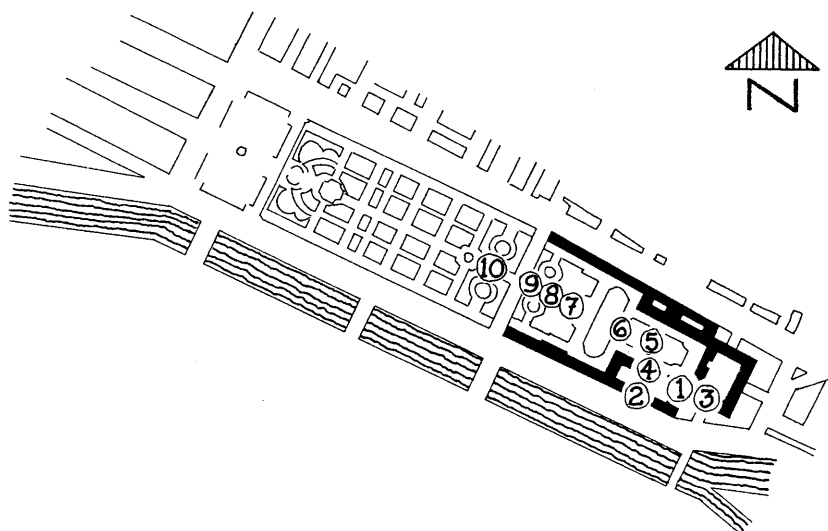
3. When you emerge from either the passageway or Strobelgasse, locate the buzzy hum. (Neon *Meindl* sign).
4. Essiggasse.
 - a) Just off Wallzeile, find the buzz.
(Above *Teppiche Li lega Vorhänge* store)
 - b) Approaching Backerstrasse, find the whoosh.
(In air-conditioner, opposite *Antiquitäten* and 15 meters up)
 - c) Just before Bäckerstrasse, find the faceless listener.
(Spray-paint drawing on left wall)
5. PIANINOS FLÜGEL NEU UND ÜBER SPIELT, 7 Bäckerstrasse, facing Essiggasse. Stare at the piano picture above the traffic and imagine its sound also rising above the traffic.
6. Find the grated basement windows on the left (north) side of the *Osterreichische Akademie der Wissenschaften* (Austrian Academy of Sciences), Bücherstrasse and listen to the sinister modern chord coming through the window.
7. Bäckerstrasse and Dr. Ignaz Seipel-Platz.
 - a) Listen to the cars as they speed from the asphalt onto the cobblestones at this square. Imagine the original traffic sounds here.
 - b) Go into the telephone booth. Stomp on the wooden floor. Listen to and *feel* the low rumble of traffic resonate here. When it's quiet listen to yourself breathing deeply. Does the receiver make a noise when you lift it?
8. Bäckerstrasse cont'd. Whistle yourself through the arch and keep whistling while you search the immediate wall until you find another reproduction of the faceless listener.
(This time he's on the wall to the left (north) of the arch).
9. Fleischmarkt and Postgasse.
 - a) A great grate in the middle of the intersection: when there is traffic, listen to the cars rattle it; when not, listen to high-pitched water flowing down it.
 - b) Go into the phone booth here. Note how it differs from the one visited at 7b. Listen to and feel trucks passing (not so filtered), stomp on the floor (metal), turn on the light (fluorescent clinks and zips), lift the receiver (clock tick). Listen hard for the light to go out ... silently.
10. Main Post Office, 19 Fleischmarkt.
 - a) Enjoy the squeaky doors as people come and go.
 - b) Two more great grates, before these doors. Scrape them to compare their tone colours.



11. Hotel Post, across Fleischmarkt near Drachengasse. Find the big old bell in the lobby wall. Blot out the mix of kitchen sounds, diners, telephones, TV, white noise and hum, and imagine ringing for a bellhop 80 years ago. If you come back in the daytime, they might even ring this antique for you.
12. Mural at dead end of Wolfengasse: workmen building a wall. When this mural was painted in 1955, construction work was still largely a manual operation.
 - a) Find the quietest workman.
 - b) Imagine the rhythm of their worksounds together.
 - c) Find the image of St. Stephan's Cathedral in the mural and recall that interior ambience.
13. Hotel Austria, Wolfengasse.
 - a) Enjoy the quiet of the foyer.
 - b) Find the quietly gurgling fountain in the dining room.
 - c) Find the five clocks, determine which three are ticking, and locate yourself to enjoy most pleasantly their syncopated soundmix. Perhaps you'll snuggle up to the new grandfather clock in the corner.
 - d) Find the fluorescent light that is humming.
 - e) Contemplate the large engraving of 17th century Vienna on the lobby wall and St. Stephan's bells ringing out the lost peace of this city.

PARIS SOUNDWALK: THE LOUVRE

Almost every visitor to Paris visits the Louvre to look at its world-famous collection of paintings and other objects of art. But how many visitors LISTEN to these paintings? Our Paris Soundwalk is in the form of a quiz, to draw your attention to some of the sounds in famous paintings. Study the images, and let the genius of their execution speed your imagination to provide the appropriate soundtrack.



LOUVRE, 1st FLOOR

- 1 *The Legend of Dionysius and Ariadne* (Sarcophagus). What kind of instruments are being played? Imagine the sound of them together.



LOUVRE, 2nd FLOOR



- 2 Tintoretto: *The Toothpuller*. This was before anaesthetics. Where is the Moozak coming from?
(Note change of floor sounds on way to the David, especially the squeakiest old wooden floors in the gallery).



- 3 David: *Leonidas at Thermopylae*. Which sounding objects characterize the action?



- 4 Girodet-Trioson: *The Deluge*. Which two sounds caught here dramatize the difference in power between God and Man?



- 6 Giorgione: *The Rural Concert*. What two kinds of sounds often associated, and even used to describe each other, are being mixed in this painting?

- 5 Leonardo da Vinci: *Mona Lisa*. She may well be making a sound, swallowing, or suppressing a giggle, or a moan ... Aside from her, if sound in a painting is once removed, what sound in this one is twice so?



- 7 Veronese: *The Marriage of Cana* (detail). As Christ is above the musicians, who adds his percussion above Christ's head?





8
 Le Sueur: *Clio, Euterpe and Thalia*. The noted association of two sounds in the sixth painting is here also. What is the difference this time? Clio, the muse of history, holds a heroic horn. Which other painting contains horns?



9 Courbet: *The Wave*. While you listen to this painting, recall too the sound outside in the streets of Paris. Which do you prefer?

LOUVRE, 3rd FLOOR

(Note marble stairway floorsounds on way up to 3rd floor – especially the clicking and ensuing reverberation.)



10 Millet: *The Angelus*. What are they listening to? Are their lips moving in prayer?

ANSWERS

1. *Lyres and the Roman tuba.*
2. *The guitar player, paid to try to hide human pain with sweet sound.*
3. *War horns.*
4. *Thunder, following the streak of lightning and the baby crying.*
5. *The swift and turbulent river in the right background: it is a painting of a painting.*
6. *Running water and music: a girl empties a pitcher of water into a well while flute and lute music is played.*
7. *The meatchopper.*
8. *The music this time is being played on a flute and the liquid is water again, falling naturally over a rock lip as if from a spring. Other horns are in painting 3.*
9. *The choice is your own.*
10. *The distant churchbell tolls the Angelus and the couple pray silently.*

- (d) Walk around this water and mount its hill. In what way does the hill modulate the watersound more than the fountain sculpture does?
 - (e) On top, sit on a bench, close your eyes and concentrate on where sounds are coming from. How is it different from on the bench at the fountain? From the other end of the waterfall? Which sound is the wind favouring? Any surprises?
- (6) Restaurant, west-central within Gardens. What is the chief indoor acoustic feature in the outdoor eating area?

Leave the Gardens by Chester Gate and recall how well its anti-noise sign was respected. Leave the Park by the same route you came in, and note the THRESHOLD OF DISCOMFORT: the transition point where the sounds of the Park are once more buried by the sound of city traffic. Note the difference between the two threshold locations (2). Depending on how much the Park has cleaned your ears, the second Threshold will be farther from the outer streets. If you're interested in all the sounds banned from the Park, read Sections 18-23 and 28 of the Bylaw posted near York Gate, the south entrance opposite St. Marylebone Parish Church.


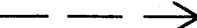
Some of the answers and possibilities for Part B (at least in April)

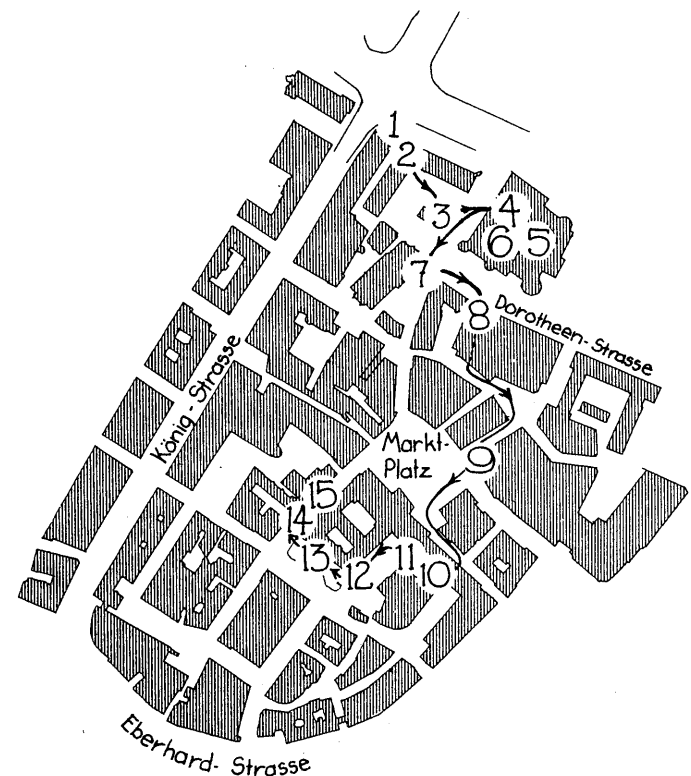
- (3) (a) Radios
 - (b) Birds, babies crying, different dialects of English, German.
 - (c) Truck and tram rumble coming and going, car horns.
- (4) (b) Our kids stationed themselves in front, the splashy half, and screamed their appreciation in excited voices.
- (c) 5 water jets. The centre one is blown straight up from a conch shell, like a musical tone. It falls back down onto the sculpture as much as onto the pool surface, making a splattering sound. The other two types of water sound are from focussed arcing jets and fanning jets.
 - (d) They momentarily mask the higher frequencies.
 - (e) Birds, ducks bathing, voices, surprisingly quiet tractor with garbage wagon, and, of course, airplanes.
 - (f) We counted 2 a couple of times, 3 another, with the odd propeller plane thrown in.
- (5) (a) Gurgle. The sound seems contained within thin, high-frequency bands.
- (b) High, squeaky ones, pigeons cooing, ducks quacking, larks making melodies.
 - (d) From behind, the fountain sculpture blocked some of its own high-frequency sound. In this way, as well as with the lowest frequencies, the hill is much more effective.
 - (e) The water is below, the voices all around behind. One source of watersound, rushing and bubbling. The wind favours the sounds upwind. Churchbells?
- (6) Glass partitions between table groups.

A STUTTGART SOUNDWALK

The Stuttgart Soundwalk can be done easily in one hour. It takes the listener through one of the most pleasant walking areas of the city, for once one leaves Königstrasse, the vehicular traffic is greatly reduced and in some places eliminated altogether. Footsteps and voices rise out of the softer ambience and fill the air, and there are many different walking surfaces and changes of space.

The walk has been divided into several elements or themes, and is presented here in sequence, arranged according to the order in which they appear on the walk.

- change of place 
- change of attention or activity 



1. *Vendor stand at Planie and Königstrasse, southeast corner.* Stand five meters from the Brezelkörble (or any other) vendor and wait until you can hear the vendor's voice clearly.

2. *Passageway from southeast corner of Planie and Königstrasse to Schillerplatz.* Note ambience change as you pass through, especially the decreasing noise level and increase in reverberation.

3. *Schillerplatz.* Stand at the base of the poet's statue and imagine the sounds Schiller himself may have heard here at the beginning of the 19th century.

Is the Evangelische Stiftskirche still being restored? If so, how do you imagine these work sounds compare to those made by the original workmen?

4. *Württembergisches Landesmuseum courtyard.* Enjoy the sense of stillness here. How clearly are sounds defined in space? What is the furthest sound you can hear?

5. *Württembergisches Landesmuseum.* If it's open, enter. (Hours: Tuesday-Sunday, 10-4; Wednesday, till 8:00 p.m.; Monday closed). If there is sound being broadcast over a public address system, where are the loudspeakers?

If commentary is being played, how many meters must you move away before the words are unrecognizable as single units of sound?

Mount to the mezzanine floor and note change of floor surface and space and, corresponding change of reverberant quality.

Enter the cylindrical tower room a few steps above the main floor, stomp your foot and count the reverberation time in seconds.

Note the other visitors to this space: are they taking advantage of its acoustics in any way?

6. *Museum courtyard again.* There is a sudden change of "atmosphere." But it sounds different this time, doesn't it? How would you describe the difference?

7. *Beside the Evangelische Stiftskirche.* There may be a stonemason here, fluting sandstone blocks with wooden mallet and steel chisel. Count how many mallet blows per minute. Does he change tempo?

8. *Markthalle on Dorotheenstrasse across from Museum.* Enter through the first main door closest to Schillerplatz: it has an iron gate in front of it. Listen first to the thick but clear texture of this indoor market ...

... but don't miss the big door jangle shut behind you.

HUMAN

AMBIENCE AND REVERBERATION

ELECTROACOUSTIC

IMAGINATION

DOORS AND TRANSITIONS

Walk toward the opposite door (southwest) picking sound-figures out of the sound-ground: flowers wrapped, cash registers rung and change counted, different languages spoken, _____

_____ → ... and the door squeak as you push it open into Sporerstrasse.

9. "The new marketplace," Breuninger's department store, across Marktplatz from the Rathaus (City Hall). Enter and stop under the white noise ceiling between the double doors, and remember the sound of entering the Markthalle on Dorotheenstrasse.

Move inside and stand at the head of the down escalator. Listen with telephone ears to high frequency crashes and rattles of wire carts, and other supermarket sounds from the food floor below, and again remember the shopping sounds in the Markthalle. _____ →

← _____ Do you hear any Moozak?

_____ → Put these Breuninger sounds back together in your mind's ear. Do you like the mix? Are you on a ship?

10. Hollow sidewalk, Eichstrasse, behind new section of Rathaus (go through covered passageway from Rathauspassage and turn left). Enjoy drumming your shoes over the glass block surface. _____ →

HUMAN

AMBIENCE AND REVERBERATION

ELECTROACOUSTIC

IMAGINATION

DOORS AND TRANSITIONS

11. Back of Rathauspassage, 2. Eichstrasse. Listen to the rear end of the Rathaus pass bad air.

12. Rathaus, the old building, near corner of Eichstrasse and Nadlerstrasse. Listen up to the second-storey corner window on the Eichstrasse side: hear anyone typing? _____ →

13. Telephone booths in the little park beside old section of Rathaus, off Nadlerstrasse between Eichstrasse and Hirschstrasse. Pick one that is empty, open the door and listen to it swing shut again.

← _____ Open it again, enter and listen to the dial-tone. How many seconds is each rhythmic cycle, and how does it divide into parts?

← _____ If there's someone in the next booth, eavesdrop. How does the double-glass wall change their voice? Are they speaking fast or slowly? Are they doing most of the talking or most of the listening or is it quite balanced? _____ →

Is this phone booth an efficient insulator of street noise? _____ →

← _____ What is the first sound you notice upon stepping out of the booth?

← _____ 14. Cabaret Balzac on Hirschstrasse, few steps northeast of Bebenhauser Hof. What kind of music are they playing inside? Does it suit the pictures in the doorway?

← _____ 15. Outdoor Wurstbar in the Dinkelacker building next door. How much static is from sizzling wurst ... _____ →

_____ → ... and how much from the radio?

notes

APPENDIX B: SOME EUROPEAN SIREN MEASUREMENTS

Place	Type	Intensity at 8 meters	Manufacturer	Interval/ Other Comments
Stockholm	Police	94 dBA	Klaxon Sonabel	minor third
	Fire	107 dBA	-	
Stuttgart	Police (1972)	98 dBA	Martiushorn	perfect fourth
	Fire (1974)	108 dBA	Bosch	perfect fourth
	Ambulance	95 dBA	Wandel & Addermann	warbling fourth
Vienna	Police (1954)	98-102 dBA	Bosch	
	Fire (1972)		Bosch	
	1971	112 dBA		
	1967	110 dBA 106 dBA		
London (1960)	Police (1968)	109 dBA	Fiamm	
	Fire (1965)	108 dBA	Fiamm	
	Ambulance Bells*	115 dBA	Fiamm	whole tone
	Police	80 dBA		used to indicate for someone to stop
	Fire	82 dBA		general warning signal
	Ambulance	86 dBA 88 dBA 82 dBA	Siemens Siemens Winkworth	used after dark used after dark used after dark

* in London the siren is only used in dense traffic. The fire dept. generally uses the bell as a signal; the police use the bell to signal for a driver to pull over. The ambulance services use the bell after dark.