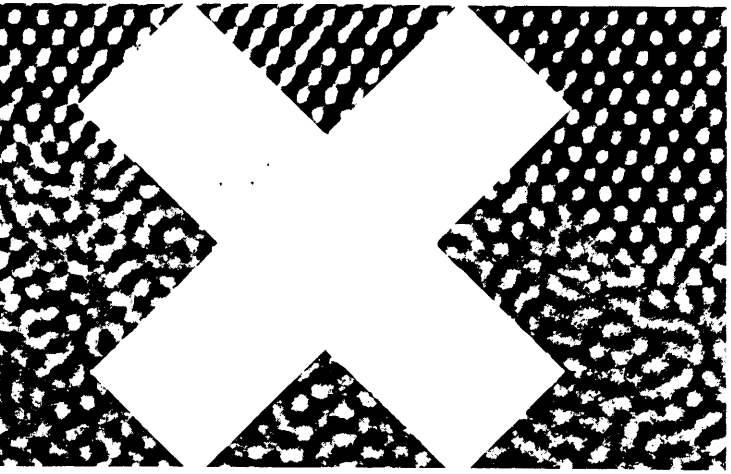
Listeners have the right to audition the tapes in any way they prefer. As stated above, direct pirating and copying or use for profit is illegal. Home dubbing is discouraged because copies will be of inferior quality and this unauthorized copying does not support the artists involved.

Manufacturing: Each cassette is produced to be, in and of itself, a successful sound object rather than a fidelic document of any event or recording. However, most of the tapes are accurate reproductions of an *X* master. Considering the broad range of tape types used (both chrome and ferric, each with its particular advantages) and the even broader range of likely reproduction equipment, play-back specificities such as EQ and decoding are not always indicated. It is advised that the listener experiment with flipping play-back switches until the most satisfactory result is achieved. Some *Mystery Tapes* have undergone constant revision. The result is that occasionally a listener will receive a rare or unique version of a particular tape. Information is available on the pedigree of your purchase. Official *Mystery Tapes* are very valuable and worthwhile.



Radical Radio

R. Murray Schafer

from Sound by Artists, D. Lander & M. Lexier, eds., 1990.

What was the origin of radio? Of course it is not new. It existed long before it was invented. It existed whenever there were invisible voices: in the wind, in thunder, in the dream. Listening back through history, we find that it was the original communication system by which the gods spoke to humanity. It was the means by which voices, free from the phenomenal world, communicated their thoughts and desires to awestruck mortals. The divine voice, infinitely powerful precisely because of its invisibility, is encountered repeatedly in ancient religions and in folklore. It is the sound of Thor, of the hundred-headed Typhoeus, of Mercury the messenger. It is frequently present in the Bible: 'In the dream the angel of God called to me: "Jacob!" and I answered: "I am here."' (Genesis 31:11)

In those days there was nothing but religious broadcasting. The schedules were arbitrary; the programs began when least expected. The power of the broadcasts was often terrifying, as when Yahweh thunders at Job, 'Have you a voice like mine?'

Radio remained an awe-filled medium even after it was desanctified. Legends tell how the ancient kings of Mesopotamia and China could transmit messages sealed in boxes to governors in distant provinces, who would open the box and hear the commands of the king. To have an 'audience' with a king implies that one dares not look at him. Audience comes from the Latin verb *audire,* to hear. The same root provides the word 'obey' (*obaudire*), meaning to hear from below. Hearing is obeying.

That is the first thing to remember about radio. It is a fearful medium because we cannot see who or what produces the sound: an invisible excitement for the nerves. This is why I call it schizophonic (split sound) and also why McLuhan called it a 'hot' medium.

When radio was invented in the early part of this century, two models of broadcasting grew up: the political model, born of the rage

for power; and the 'enlightenment' model, born in opposition to it. Hitler gave us a vivid illustration of the first type when he wrote: 'We would never have conquered Germany without the loudspeaker.' But even today, when one listens to politicians on the radio, there is a hectoring tone to their voices, occasioned by the enlargement of personality promised by the microphone.

When David Sarnoff argued the case for radio in the United States in 1916, he referred to it as a modern 'music box,' thus setting in motion the idea of radio as an entertainment medium, a toy. These are the theorems of broadcasting all modern programming endorses. How far has modern radio departed from radical radio in its pre-technological phase? Considering what radio once was, all contemporary models have profaned it.

When I taught in a communications department at a university, I used to give students this exercise: Consider yourself a visitor from another planet; your spaceship allows you to cruise close enough to pick up twenty-four hours of North American radio; report back to me everything you learn about North Americans.

You can imagine the results. They are obsessed with body odor. Their favourite colour is extra-white and their favourite game is trying to predict the weather. They dress in armour and move about on wheels. Their religion takes the form of a ceremony in which a sacred relic is chased about a field by opposing sects. And so forth.

Let us become anthropologists for a moment and ask what might have happened had radio been invented by someone else. Supposing the Lendau tribe of Central Africa had invented it, would they have broadcast their rain ceremony? (But that only occurred in times of drought.) Or supposing the Egyptians had invented radio, would they have broadcast the Osiris Festival at Abydos? (But that lasted non-stop for several days.) Or supposing the Bernardines of Martin Verga had invented it, would they have broadcast the singing of matins? (But that took place in the middle of the night.) Rhythms of other societies are quite different from our own. Western broadcasting is tyrannized by an instrument we have accepted as inviolable: the clock.

Both Oswald Spengler and Lewis Mumford have spoken at length of how the clock came to regulate the destiny of the Western world. How it drove a wedge between the hours of work and the hours of leisure, regulating eating and sleeping as much as the life of

the factory. Radio has become the clock of Western civilization, taking over the function of social timekeeper from the church bell and the factory whistle. Throughout the day, events are shaved off to the split second. The news comes at 8 on the way to work, at 5 on the way home, at 11 on the way to bed. (Recently the Canadian Broadcasting Company moved its evening news back to 10, for reasons I will discuss in a moment.) For those on the run, there are the news and weather flashes throughout the day. Between these the tapestry of the broadcast schedule is strung.

Several years ago I proposed an idea to the CBC to do a program on the sounds of the ocean. The producer wanted to know how much time I required. Without thinking I answered 'twenty-four hours.'

One could not do justice to the rhythms and likes of the ocean in less time than this. I was given an hour and a half to create *Okeanos* and it was made plain how many problems would have to be overcome to make even this possible. But such problems can be overcome, as the Irish Radio proved when they broadcast Joyce's Ulysses as a 36-hour program.

Radio today is the pulse of a society organized for maximum production and consumption. Of course, this is temporary; radio will not keep this beat forever. The advantage of the quartz watch is that it doesn't stop or need to be reset, so the ceremonious timekeeping of radio is already anachronous. And if industrial civilization is in decline – and it is – alternative radio rhythms may be closer than we think.

The rhythms of life are enormously complex. Consider, for instance, the extended jubilation of the village wedding, the rhythms of the sleeper, the swimmer or the long-distance runner. Let us recall the natural rhythms of the tides, sand spinning on the beach. Let us measure the durations of melting snow, the waning of the moon; let us become reacquainted with the counterpoint of birds and frogs and insects. Let us know these things, and when modern radio begins to buckle, we will be ready to change the pulse of the Western world. You may say that such rhythms do not belong in the territory of radio; but they belong to it as much as hyperbiological rhythms do. If modern radio overstimulates, natural rhythms could help put mental and physical well-being back in our blood. Radio may, in fact, be the best medium for accomplishing this. And when the discovery that our continued existence on this planet depends on re-establishing this continuity with all living things, I suspect that radio

will reflect the discovery and play its part.

A few years ago Bruce Davis and I had an idea for what we called *Wilderness Radio*. The plan was to put microphones in remote locations uninhabited by humans and to broadcast whatever might be happening out there: the sounds of wind and rain, the cries of birds and animals – the uneventful events of the natural soundscape transmitted without editing into the hearts of cities. It seemed to us that since man has been pumping his affairs out into the natural soundscape, a little natural wisdom might be a useful antidote.

The rhythms of radio are always changing. Rhythmic patterns dictate content; never the other way around. If you can put your idea into a three-minute capsule, you can move it onto radio; if you can't, you can't. This brevity shapes the treatment of all material, producing what John Leonard called the 'flat shriek' of contemporary radio:

> Instead of stories, canned opinion; instead of discussion, sirens; instead of sadness, the gruesome details; instead of play, heavy breathing, fists.

The limitation is not technical but cultural, for technically the radio signal is continuous and can be shaped in any way desired.

Let me tell you about one rhythmic change that I expect to show up in the near future. We all know that the average age of Western humanity is rising. Already social scientists are aware that geriatrics is an interesting research area and governments are promising to fund programs dealing with the aged.

Now older people seek a different kind of comfort from radio than youngsters. They have their favourite programs and are less inclined to require a continuous curtain of sound to blanket their daily routines. The music they enjoy is slower and softer. The voices are older; there is less edge to them.

How long will it be before radio rhythms begin to decelerate to please this growing (and incidentally affluent) public? Already, the CBC has moved its prime evening newscast an hour earlier because older people go to bed earlier. Older people also spend less time driving. They live in quieter environments; they fear silence less than the young. These considerations will show up in revised broadcasting patterns in the age and tempo of the announcers' voices, in the choice and dynamics of the music, in the topics of discussion, and in the methods of joining all this material together.

Listening to radio in the presence of noise (the car radio is a good example) has had a very interesting effect on programming: it eliminated it. In any noise-prone system, information has to be reduced and redundancy increased. Programs with a high information quotient (educational and cultural) are swept aside for those in which basic modules are repeated or varied slightly. The hit parade and news and weather burps are examples of such repeaters. This is not merely a matter of taste; it results more from technical considerations affecting audience environments. Britain, Canada and France have had a broadcasting history emphasizing high-level intellectual programming – at least up to the time when the car radio and the shop radio and the street radio bumped it down into the Agora.

In the old days, radio programs existed for special interest groups. Program guides were published and consulted. I know people in Canada and Europe who would mark up the guide each week and then stay at home instead of going out to a film, a concert or the theatre.

An excess of environmental noise produces sloppy listeners. We no longer listen to the radio; we overhear it. It stays on, shielding us from the coarseness of modern life. Radio has become the birdsong of the twentieth century, decorating the environment with 'pretty.'

Buckminster Fuller used to say that garbage was an unpackaged product. Noise is garbage. Headphone listening puts a protective seal between it and the customer. It is not a corrective against noise pollution but a prophylactic. It represents a determined effort by the public to escape sonic interruptions and regain the serenity of sustained, selective listening. This too is a matter creative broadcasters should not ignore.

Any art form must produce a meta-language by which it can be adequately described. Poetry and painting are art forms because we have a theory of poetry and painting. Radio, as we have it right now, is probably not an art form. It lacks an exegetical apparatus (or even an adequate program guide) for external analysis. In *The Tuning of the World,* I called attention to the poverty of criticism dealing with this rich and potent contemporary soundscape. What we need is the study of broadcasting in terms of semiotics, semantics, rhetoric, rhythmics and form. A good radio program deserves the same critical attention as a good book or a good film. And the shapes of broadcasting ought to be as interesting to the sociologist or the anthropologist as the shape of life itself. With an analysis of radio, the serious criticism of broadcasting could begin, and with it, the serious reforms.

Your commentary is only valuable to others if they know they will also be able to see or hear the things you are discussing. Radio which thrives on novelty and immediacy does not encourage critical attention. But this too is a fashion.

This era is intimately wedded to McLuhan's name since he was the first to catch the pulse of it. Electricity, said McLuhan, is total information. Suddenly broadcasters became aware of the all-at-onceness of the radio signal. Lawrence Blair describes it this way:

> No language seems a barrier to the hidden brotherhood of 'hams' and professional radio operators. They sit, all over the world, thousands of miles apart, yet connected by electronics – the only clue to their existence being the prongs of steel emerging from their attics. This international brotherhood never sleeps, but continually monitors and feeds the thought-forms of the planet: the political upheavals, the new discoveries, the disasters, are all exchanged within moments. Teilhard de Chardin's hypothetical 'Nousphere,' an envelope of 'thought' around the world, is now quite real.

This is what we all believed 20 years ago, and I wouldn't like to estimate how many licenses were granted to broadcasters as a result of promises to bring the world to the doorsteps of larger and more remote groups of people. That was the camouflage hiding the intention to use the license to print money.

The deception still thrives today. It is called 'information radio.' Its claim is to connect the listener instantly to vital events wherever they may be happening on this globe. Its aim is to maintain everything on the razor edge of the present tense.

We have been led to suppose by its advocates (and McLuhan is certainly not innocent of this) that the potential of the medium is best realized in this way. In fact, a potential is realized. But when interest in it passes, information radio becomes a fashion like everything else, and fashion, as Cocteau once observed, is what goes out of fashion.

I used to have students monitor radio stations and then draw maps on which they fixed dots for every toponym in the programming – the names of towns and countries, the location of all events. What emerged in almost every case was a network of dots clustered around the community itself, with a vague sprinkling over the rest of the world. Looking at these maps, one couldn't avoid the conclusion that radio was intensely regionalist, mildly nationalistic and totally

uninterested in the rest of the world except when it meant trouble.

The whole globe may be transmitting, and satellites may be moving these transmissions around with fantastic precision, but the most healthy form of radio broadcasting today is community intensive. It resists invasion. In fact, I doubt whether in its whole history, broadcasting (on either radio or TV) has broadened understanding for the people of the world to anything like the extent of the book. And despite all claims to the contrary, I don't think broadcasters ever intended to do this. Radio has been much more an instrument of nationalism than of internationalism; and when the transmitters were beamed abroad it was only for the spreading of propaganda. Commercial radio is even more tightly territorial, with networks buying up franchises as if they were grocery stores or parking lots.

Broadcasting everywhere is beginning to give way to narrowcasting. Technical people also assure us that the limitations of 500-1600 kilohertz and 88-108 megahertz will soon be overcome, making possible hundreds and finally thousands of new audio channels, fracturing the audience into a myriad of special interest groups. As these developments unfold, radio ought to become a more responsive and 'cybernated' medium, allowing listeners to become more actively involved.

In a sense, this began with the hot-line show, which is a conversion of radio back into telephony; but it must not end there. If listeners are to become a true force in reshaping radio, they must be allowed to participate in the choice of subject matter. They must not be hectored and manipulated by slick radio hosts. In Holland, for instance, Willem de Ridder operates a radio program in which any listener can make a cassette tape on a subject of his choice and it will be played on the air. The variety is astounding and refreshing.

In a similar way, I have often thought if we could just place microphones in restaurants or clubrooms or any of the places where people gather and exchange concerns, the results could be quite invigorating. A small town Kiwanis Club meeting, women at a tea party, high school students smoking behind the school house, bums on a park bench, farmers in a general store, without a host to keep their thoughts on target. These or a million other situations would yield more interesting material than opinions on the headline topics currently solicited from listeners. This too is technically possible. What prevents it is the arrogance of broadcasters.

Art is the enemy of the present; it always wants to change it by

introducing other tenses. It alters the perceived world by introducing new rhythms, forgotten, ignored, invisible, impossible.

What if radio became an art form? Then its content would be totally transformed. No longer would it spin as the slave to machine technology, mechanical and clocked. No longer would it palpitate with the spasms of production and consumption. It would outstrip the impediments of mechanization, it would drown the fury of the hawkers and hucksters, and it would muzzle the voices of newscasters.

All these excrescences of the 'more' society would be shoved into the ash-bin of oblivion. Radio would ring with new rhythms, the bio-cycles of all human life and culture, the bio-rhythms of all nature. There are people in the world today – and the history of humanity is made up almost totally of such people – who live organic lives within the great natural cycles of the universe, which they accept and respect. Only in that condition could radio be reunited with the primevally divine, charged with the energy of the sacred and restored to its original radical condition.

What I am urging is a phenomenological approach to broadcasting to replace the humanistic. Let the voice of the announcer be stilled. Let situations be presented as they occur without the interruption of sponsors, clocks or editorial manipulation. A radio station in rural Quebec has the following logo:

> A note of music, the song of a bird, a poet, an idea, and sometimes also silence, on the waves of CIME FM 99.5 megahertz. You are listening to life.

Unfortunately the contents often do not live up to the claim; but it is approaching the theme I am announcing. Phenomenological broadcasting instead of humanistic. Let the phenomena of the world speak for themselves, in their own voices, in their own time, without the human always at the centre, twisting, exploiting and misusing the events of the world for private advantage.

Why shouldn't radio register the minutest changes in the soundscape? It is the perfect instrument to do this. Why not record the changing of the seasons in the sound of autumn leaves, or the coming of birds in spring?

And why not disclose these themes with the voices of those who best understand them? The monologue of an Indian chief, complete with the deliberate and calculated silences that formed such an important part of his eloquence – and infuriated the white man. Why not take hold of the pulse of another civilization, say the reading of Victor Hugo's *Les Miserables* non-stop for as long as it takes? Or story-tellers from around the world bringing us the miraculous tonalities of the unknown; for instance, a reading of the *1001 Nights*, the perfect serial, pausing, as the story-teller intended, at dawn in the middle of each episode, and continuing the next night at sundown. Or the music of Africa and China and South America and Asia, the music of bamboo and stones, of crickets and cicadas, of waterwheels and waterfalls, uninterrupted for hours – just as they are in the making.

For many of these themes we will have to move out of the studio. But why not? Get out into the open. Go into the streets, the meadows, the jungles and the ice fields. Create from there. Flip the whole broadcasting model around and you will be amazed at what new ideas surge within you. You will need new equipment but that will follow. Stake out the new territory and it will be designed for you – a microphone to record the percussion of the battlefield, plunge into the ocean depths or catch the vibrations of molecules.

It's nearly fifteen years now since we began to produce a series of radio programs entitled *Soundscapes of Canada* for CBC. In one program we traveled from Newfoundland to Vancouver by splicing together all the answers received to the question 'How do we get to...?' What the listener heard were directions on how to get from one village or town to the next, clear across the country, given in all the dialects and languages from every region in between. Another program consisted of nothing more nor less than three bells from a village church in Quebec. Another had all the sounds of games recordists had heard on their travels: outdoor games on sandlots and hockey rinks, indoor games on billiard and card tables, games with sticks and balls and words and counters, arranged in a montage that was almost musical. We once made a twenty-four hour recording on a summer solstice in the countryside near Vancouver, and from this, extracted two minutes from each hour to form a sort of circadian day and night. The CBC, who commissioned the series, were not very thrilled with it. They considered it boring. They had not learned to listen, as we had, with new ears.

It was a start. Radical radio is the means to do it. Radical negation and radical affirmation. The creatively destructive and the destructively creative. It is a Nietzschean theme, but it is more than

that. It is the theme of the living universe. Place your microphones there and you will catch the voices of the gods. For they are still there, Osiris in the innundation of the waters, Mercury in the alchemist's fire, Thor and Typhoeus in the storm clouds, and the voice of God everywhere.

This essay was previously published in *Ear*, Winter 1987.

Piano Transplants (1968-82)

Annea Lockwood

1. Piano Burning (1968, London)
set piano upright in an open space with the lid closed. spill a little lighter fluid inside, near the pedals, and light.

staple inflated balloons all over it. play whatever pleases you for as long as you can.

2. Piano Garden (1969-70, Ingatestone)
dig a sloping trench and slip an upright piano in sideways, so that it is half interred. plant fast growing trees and creepers around and under the piano. do not protect against the weather and leave the piano there forever.

set the piano down amongst young trees.

3. Piano Drowning 1 (1972, Amarillo)
find a shallow pond in an isolated place. the pond should have a clay bed. anchor it (by rope to a stake) against storms.

slide piano into position vertically, just off-shore.

take photographs every month as it sinks.

4. Piano Drowning 2 (1982, Rimini)
bolt a heavy ship's anchor chain to the back leg of a concert grand.

chain an anchor to the piano leg and leave the piano there until it vanishes.

set the piano in the surf at the low-tide line at Sunset Beach near Santa Cruz, California.

open the lid.