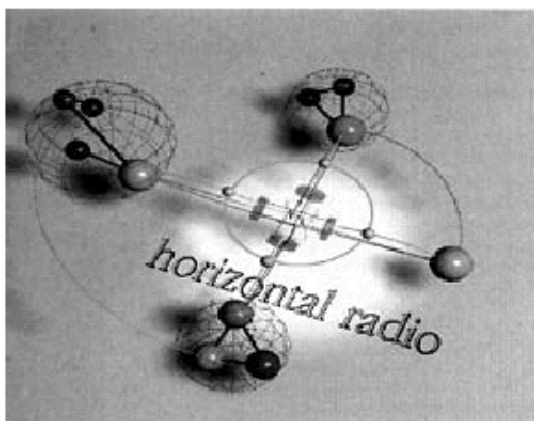
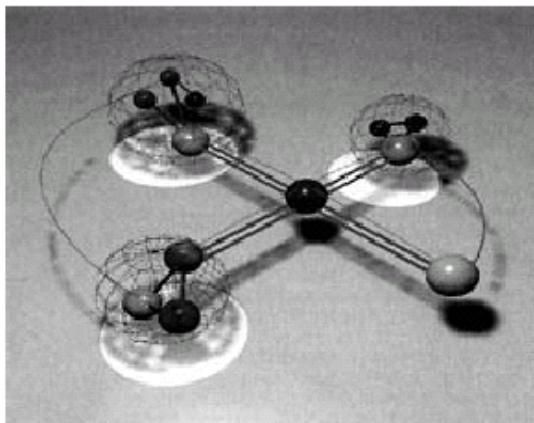
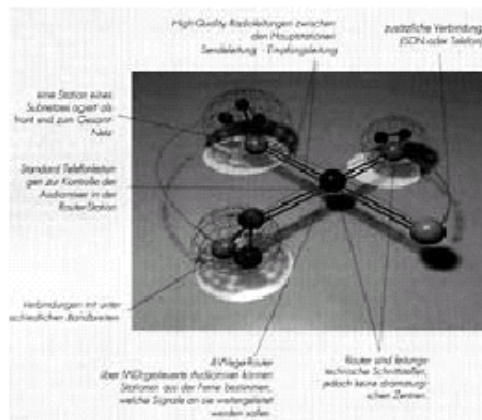


## 24 Stunden live Horizontal Radio



24 hours live  
on the frequencies of 22 radio stations in Africa, Australia, Canada, Europe, the USA, in the Internet and at the network intersections in Athens, Belgrade, Berlin, Bologna, Bolzano, Budapest, Denver, Helsinki, Innsbruck, Jerusalem, Linz, London, Madrid, Montreal, Moscow, Munich, Naples, New York, Quebec, Rome, San Marino, Sarajevo, Sydney, Stockholm, Tel Aviv, Vancouver

From the 22nd, 1200 hrs, to the 23rd of June, 1200 hrs.

A co-production between the Ars Acustica experts of the EBU (the European Broadcasting Union) and TRANSIT - the ORF's regional studios in Tyrol and Upper Austria, ORF KUNSTRADIO (the ORF's radio art programme). Ars Electronica 95, and Kapsch A6.

Planning & Coordination: Gerfried Stocker - x-space. Heidi Grundmann - ORF KUNSTRADIO

## **HORIZONTAL RADIO - COMMUNICATION AS A CYBERNETIC SYSTEM**

Horizontal Radio is a telematic radio network project. It takes place simultaneously at different locations, in different media, and on different frequencies.

The starting point is the analogue cable and broadcasting network of the EBU (European Broadcasting Union), which serves as a primary telematic sphere of action for horizontal radio. Superimposed to this network is the Internet, which serves as a medium of access and distribution beyond the broadcasting range of the participating radio stations.

"EBU: the European Broadcasting Union is an organisation of public broadcasting corporations. (Canadian and Australian broadcasters, as well as New Public Radio [USA] are associated members)."

The confrontations and interactions between the various media antipodes (distribution and interaction, analogue and digital media, synchrony and asynchrony) create a hypermedia network which links the intersections, and thus forms an interactive data ambience.

The intersections become the scenes of live performances which sometimes involve the generation of soundscapes. A "virtual stage" manifests itself, which is based on interaction and telepresence, and on which the participating artists can meet for 24 hours.

Beyond its function as a medium of broadcasting, radio turns into an instrument and tool of an artistic activity which is not concerned with simply opening up lines and passing on what was received. Instead, local artistic events are influenced through a permanent exchange between the stations. The audience is real, but its presence only virtual. At any time, a member of the audience can switch the sides and intervene actively in the artistic process.

Horizontal Radio forms part of the process of confronting the social and artistic implications of new media technologies.

"The differentiation between sender and recipient, naming and interpreting, and politics and the general public disappears in the reality of telecommunication and information networks. Production, collection, distribution and supervision (in the sense of surveillance) coincide in the network hyper-medium. However, the potential equality of sender and recipient, and the possibility of switching between the two roles will not become socially relevant until the social context of such operations, and the referential system determined by them, will change."

## **NETWORK DESIGN: CONFIGURATIONS OF COMMUNICATION**

Basically, a project like Horizontal Radio is orchestrated through the configuration of lines and channels, gateways and interfaces, and by determining frequency ranges and access rights.

The basic idea is to create a media structure which is as heterogeneous as possible. It is supposed to function as an experimental set-up within the field of tension generated by the various characteristics of transmission and communication. This field is also a result of the frictional relation between the isosynchronous character of radio and the asynchronous properties of digital data networks, which are dependent on their context and on the type of access (e.g. on demand, random access, caching).

The strategy to ensure that participation is as simple and as widespread as possible is diversification.

Horizontal Radio: Instead of representing a vertical hierarchy of sender and recipient, it creates a platform for the exchange of transmissions.

"transmission: mechanism by which power is transmitted from engine to axle, transmit: allow to pass through, be a medium for, serve to communicate."

The individual radio station can determine its role in the network by making its own selection of artists.

## **REGIONAL SUBNETWORKS: THE RACK-ROPE OF HORIZONTAL RADIO**

The regional subnetworks represent a structure of technologically sophisticated bases. They serve as docking stations, at which participants can easily connect themselves to the network. These docking stations are responsible for passing on, distributing, and routing the information circulating in the network.

"A router is used when regional and super-regional networks are connected. It is responsible for linking the various stations and for distributing information correctly."

The regional subnetworks not only serve as geographical bridges, but also as gateways between different media and frequencies. As a consequence, they create the preconditions for the desired decentralised structure, in which the individual station does not have to build up links to all other stations in order to be connected to them.

The following devices are employed as carrier media:

- analogue modulation lines for the transmission of hifi audio signals (stereo/mono)
- ISDN and standard telephone lines with corresponding frequency range reductions (7kHz: 3.4kHz)
- data transmission lines in the shape of ISDN or standard telephone lines for the remote access to musical computer equipment (e.g. for the purpose of real-time sound installations).
- the Internet as a caching server, and as a medium of communication, interaction, and distribution as well as a stage for conferences (telnet. ftp. irc. www. social netbrowser, mbone)
- transponders on EUTELSAT II-F4 for the flow of signals between European stations, and on INTELSAT for the overseas connection
- VHF, MW and SW.

The resulting differences in sound quality serve as an artistic tool, and provide a means of orientation as regards the geographical areas and media covered by Horizontal Radio. Differences in sound turn into "soundscape signatures", which help

us to identify senders acoustically.

„Here is a example of how it could work. There could be a common starting point, (a theme ? a text ? a concept ? a picture ? a theory ?) that is the same for everyone to start from. Then, receiving things from the others would add to our own thought and actions. We could ourselves add to it or choose to leave it as it is for broadcasting here. And the listener would sense the distance (both the geographical and cultural) throughout the hours or the whole day, in that the audio content would evolve through the cultural filtering and the technical filtering.“

Jocelyn Robert (CAN)

Such a network environment implies an artistic conception that places less emphasis on primary production and more on dialogic distribution and administration.

## **MIGRATION - THE PRINCIPAL THEME OF THE PROJECT**

"(f. lot. migrare - to move from one place to another), migration - permanent emigration or immigration of individuals or groups from one population into a similar population. Under certain circumstances, isolation can produce new subspecies, or, after a longer period, new species in their own right. A migration in which no settlement occurs is referred to as passage {permigration}. A special form of migration is constituted by an invasion."

On the one hand, migration can be seen as a metaphor for a changing society and the transition to a culture of telecommunication and telepresence, in which the

"act of populating transmission and transport times will replace the act of populating traditional habitats".

Virilo On the other, it symbolises the migration of individuals, their ideas, and their socio-cultural paradigms and identities. The metaphor becomes the journey, the permigration. which serves as the structural principle of the artistic activities in the net, and as a model of organising permanent data flow.

The information entered into the network passes through

- various levels (aggregate states) of its technological reproduction in the various media,
- various levels of interactive and artistic processing and manipulating
- the geographical area covered by the participating media.

## **CONFERENCES AND COMMUNICATION INTERVALS - THE TIMETABLE OF THE NETWORK**

The structure of the network is open, and the participating media show divergent temporal characteristics. These characteristics manifest themselves not only in different forms of access to information, but also in different methods of reception and interaction. This structural openness and temporal divergency imply a form of organisation which is utterly different from traditional broadcasting schemes. It abandons long-term advance planning, and is based on communication intervals.

The centres of activity within the system (its centres of gravity) shift along certain thematical guidelines (i.e. correspondences). The morphological and temporal parameters of the social environment created by communication are therefore unstable, and the environment itself is fluid.

Horizontal Radio: a period of 24 hours, during which stations

- log in for a certain time
- repeatedly make brief interventions, or
- remain on-line for the whole time.

The term "conference" was introduced to denote communication within this temporal organisation structure. The conference topics are determined by the participating radio stations. When a station brings up a subject, it becomes the conference host and the temporary centre of the network. The centre serves as a meeting place, at which actions can be focussed on certain regions of the net.

Participants register for certain conference topics, have private discussions within the organisational framework of a conference, intervene in panel discussions, or simply listen.

## **THE GLOBAL INFORMATION MACHINE**

Horizontal Radio must be seen as a further development of earlier simultaneous telematic projects of the 90ies. Especially important in this context are the projects Chipradio (92), Realtime (93), and State of Transition (94), which were realised for TRANSIT and the ORF-KUNSTRADIO. These projects took a network of simultaneous live performances as a starting point and then used various means of communication (radio, television, telephone, data networks) in order to explore the communicative potential of mass media. Special emphasis was placed on strategies to reconcile the requirements of linear, one-way media, with the diametrically opposed requirements of open communication networks.

Horizontal Radio explicitly refers to the period of the pioneers of telecommunication art. In Austria, this was roughly the time between 1979 and 1986. It is indeed no coincidence, that artists like Robert Adrian X (Vienna) and Art Pool (Budapest) participate in this project, because they are normally associated with exactly that period. Art Pool participated in the first telecommunication project to link artists in Western and Eastern Europe (Telefonmusik, 1983). It was initiated by Robert Adrian X, who also realised a series of other projects.

Therefore, Horizontal Radio not only reflects the technological development and changing characteristics of the media, but also the political changes. Today, the situation is such that radio stations in Russia and Hungary are able to contribute to a telecommunication project that incorporates more than just the transmission of telephone music, whereas in Sarajevo and some other places perhaps not much has changed in this respect.

The 24-hour-schedule is a conscious reference to another project, which was realised at the Ars Electronica in 1982: Die Welt in 24 Stunden (the world in 24 hours). Its topic was the position of artistic production within a sphere of action that forms part of the media - a sphere of action which is to a large extent pre-set and pre-structured by its intrinsic apparatus. The project was developed and directed by Robert Adrian X, and its character is still exemplary. Its "mediatised situation" linked artists in 16 cities and three continents for 24 hours (cf. Reinhard Braun in: Medien.KunstPassagen, 2/94).

Die Welt in 24 Stunden was the most comprehensive and ambitious art project that had ever been realised in low tech. i.e. in the international telephone network. First of all, an international network of artists and groups had to be formed, which all had to submit contributions via slow scan TV, Fax, computer mailbox/conference and telephone, or should at least use one of these media. At local noontime, the individual stations were called from Linz. The project started at 1200 hrs. GET. on the 27th of September, followed the sun around the globe, and ended on the 28th of September, again at 1200 hrs. GET.

"The initial situation, and the way the project was carried out by installing and continuously operating numerous devices for the transmission of data, both already indicate that 'Die Welt in 24 Stunden' was not conceptualised to produce objects or results which could be considered works of art (e.g. art faxes). Its objective was to create and to continue dialogic exchange as such, i.e. to establish special relations between the participants, and thereby produce communicative events. In a certain sense, the composition of the project already constitutes the work itself. ...The subject of a project like 'Die Welt in 24 Stunden' is the global 'information machine', a term coined by Richard Kriesche." (transL from Reinhard Braun, Medien.Kunst.Passagen. 2/94).

In 1995, the request of art itself has become more urgent. The global information machine remains the most significant theme of projects like Horizontal Radio.

## **LINZ - THE NETWORK MONITOR AND CACHING SERVER OF HORIZONTAL RADIO**

Linz is not the centre of the network. Although many network lines may intersect here, there is no central directorate pulling the strings behind the artistic activities. The network components on the radio and data level are configured in such a way that access from outside is possible. If a station establishes a connection with Linz, it is in control of the lines and of the audio channel mix. In the ORF's studio in Linz. Horizontal Radio is represented as a multi-media network monitor in the shape of an installation displaying the positions and activities of the individual stations. The emphasis is not on the production of data currents, but on watching and interpreting them.

Electronic/telematic space is not explored by covering distances, but by opening up transmission channels and frequencies.

The grid of lines inscribed into this space defines only one aspect of its potential, but not its shape and dimensions (its range). Its dimensions are determined by evidence and coincidence, and are therefore dependent on the parameters of time. Wherever communication takes place, there is a spatial junction, the coordinates and vectors of which are recorded and represented in the installation. Not the contents of communication are on display, but the context under which communication was started, and the dynamic, unstable relations between centres of activity. These centres serve as meeting places, determine the broadcasting scheme of the participating radio stations, and become so-called "init-points" for the events in the Internet.

The traces of data currents and their producers are rendered as acoustic „mappings" in real space in the foyer of the ORF's studio in Linz (this process is analogous to the method of "texture mapping" in computer graphics). Thus, the different transmission speeds and frequencies, the spatial parameters of the virtual data reality between various geographic locations, turn into acoustic characteristics of the soundscape created by the installation in Linz.

In addition, Linz plays the role of a temporary caching server for the purpose of synchronising the individual stations.

Covering geographical distances by way of electromagnetic transmission has obscured the identity of distant places, because that identity is based on division. The paradigms of the industrial revolution govern the one-way medium radio. Its electronic space is still rigidly (isosynchronously) linked with the temporal axis. The use of digital communication technology results in a loss of temporal continuity typical for multidirectional networks. Synchronisation does not take place in linear, periodic impulses, but whenever correspondence occurs.

This divergence actually prevents transparent transitions between the parallel realities established by the two different types of media. The installation in Linz, however, creates osmotic interfaces between them. The act of transmitting data to the other side leaves traces that are similar to the afterglow on the fluorescent screen of a cathode ray tube.

"The other languages - suoni arabi, greci, ebraici, italiani, spagnoli ..."

Im mediterranen Subnetz von horizontal radio sind Italien, Griechenland, Israel, Palästina, San Marino und Spanien 24 h verbunden. Von Bozen bis Neapel erstreckt sich das Netz in Italien auch über den gesamten dazwischen liegenden sozialen und kulturellen Raum.

In Bologna kommt es zur Zusammenarbeit der RAI mit drei unabhängigen Radiostationen, eine große Zahl von Schriftstellern, Musikern, Schauspielern und Regisseuren beteiligen sich an dem Bestreben, Netzwerke als öffentlichen Raum mit freien Zugängen zu etablieren.

In der Verbindung zu Israel und Palästina kommt es zu der bemerkenswerten Situation, daß palästinische Künstler als Gäste der staatlichen Rundfunkstation in Jerusalem gemeinsam mit israelischen Künstlern teilnehmen werden.

Durch die Zusammenarbeit mit der Tageszeitung "il manifesto" entsteht ein ganz besondere medialer "link". Die Zeitung, die sich immer schon der "cultura dell'informazione" verschrieben hat und auch im Internet präsent ist, wird als Medium für horizontal radio zum Einsatz kommen." Roberto Paci Daló

"The Russian Metaphysics of Sound" Group will work with soundscapes from the city of Moscow and with Russian language. Their participation will be broadcasted by Radio I Ostankino. Two synchronized transmitting networks comprise 65 long and medium wave, 12 short wave and 183 ultrashort (FM) transmitters. This provides the reception in each ten hour zones. An audience of 300 millions can receive the programme, even in Africa and the Middle East." Radio 1 Ostankino (Russia)

Sender Freies Berlin:

"In einem alten Straßenbahndepot in Berlin-Moabit errichtet der Berliner Künstler Martin Daske eine sequenzgesteuerte 'Klanginstallation' zum Thema Migration, die mit vorproduzierten und/oder vor Ort erstellten Beiträgen anderer in Berlin lebender Künstler 'ergänzt' wird. Dazu kommen Texte, die in mehreren Sprachen live gelesen werden. Durch den gleichzeitigen (mehrkanaligen) Empfang all dessen, was die anderen an diesem Projekt beteiligten Rundfunkanstalten ausstrahlen, — und die räumliche Ausstrahlung dieses Materials im Straßenbahndepot kann das Publikum sich seine individuelle Mischung 'erwandern'.

Für die Berliner Sendung wird aus allem ankommenden und vor Ort produzierten Material eine Mischung imaginär (am Mischpult) 'erwandert' ON AIR: 22.6.: 12.00 - 16.00, 23.00 - 24.00; 23.6.: 6.00 - 12.00

"Downlink, samplers and ISDN-Lines are working tools to recompose and recycle the horizontal radio sendings. We'll recycle, and add characteristic finnish soundscapes. Midsummer fires and the magic rites of water take their sendings into land of shamans." Proton Sound Art Group - (FIN) YLE

"at 24:00 (CET) London will launch the European Menagerie of Wild Birds and Musical Instruments." Rex Brough. Matt Thompson (GB) BBC

"Our idea is to create, in our theatre FOURNOS, on installation with interactive sound systems, in which will take place a live performance from musicians (connected with Italy), based even in Greek sounds." Manthos Santorineos (Greece)

"Radio B92 is an independent station which besides the radio programme is also a publisher for books, magazines, CDs."

"My yoiking has some elements of the old style yoiking, such as the voice technique and the throat technique. I can also do some traditional yoiks, but accompaniment doesn't quite suit them. When I yoik and the boys play I have to do something new." (Yoik is traditional Somi music - an archaic mode of solo singing.) Wimme Saari (FIN). YLE

SIR - Sverige Radio

"Soundscapes from around the Radiohouse, spotted mikes in parks, streets and other public places. All sources being electronically treated by Anders Blomqvist together with material coming from Linz. "

"horizontal radio, eine Reisegesellschaft auf Kreuzfahrt. An den Häfen, die sie anläuft, kommen Passagiere hinzu, andere verlassen das Schiff, für Erkundungen des Landesinneren wird das Transportmittel gewechselt, vorübergehend übernehmen lokale Reiseführer die Regie."

Participating Radiostations

ABC Radio The Listening Room. Andrew McLennan BBC Radio 3 / Nightwave. Matt Thompson — BBC Radio 4 / Short Story. Pam Fraser Solomon — CBC — SRC / Mario Gauthier Magyar Radio / Experimental Studio, Janos Decsenyi — New Radio & Performing Arts New York, Helen Thorington — ORF / Österreich 1 Kunstradio, Heidi Grundmann — ORF / Österreich I Zeitton, Christian Scheib — ORF / Landesstudio Tirol, Wolfgang Praxmarer — Radio 1 Ostankino / Radio Theatre, Dimitry Nicolaev — Radio Città 103 — Radio B92 — Belgrade, Veran Matic — Radio Città del Capo — Radio DRS 11 / Studio Basel, Stefan Heilmann — Radio Kappa Centrale — Radio KOL Israel, Ilana Zuckermann Radio Popolare Network (Milano. Bologna, Firenze, Roma) — Radio Sarajevo RAI Radio Uno / Audiobox, Pinotto Fava und Pino SanLo — RNE Radio 2 / Ars Sonora, Jose Iges — RTV San Marino, Pino Cesetti — SFB — Sender Freies Berlin / Manfred Mixner — Sveriges Radio (SR) / P2 Musik — Studio Torsdag, Berndt R. Berndtson — YLE Experimental Studios, Pekka Siren — YLE I Documentary Group, Jouko Blomberg

Participating Artists

Robert Adrian X — Dimothenes Agrafiotis — Jackie Apple — Art Pool — Sam Auinger — Stefan Beck — Jose Manuel Berengner — Bensch/ Cassani — Bisca 99 Posse — Luther Blisset — Jouko Blomberg — Anders Blomqvist — Blues Mobile — Isabella Bordoni — Andras Borgo — Harvey Branscomb — Rex Brough — Sheila Concari — Contained — Stefano Contanibbi — Stefan Daske — Janos Decsenyi — Barbara Doser — Patrizio Esposito — Spiros Faros — Makis Faros — Gabriele Frasca — Takumi Fukushima — Mario Gauthier — Paolo Grandi — Alberto Grih — Gerhard Gruber — Angelika Hensler — Kurt Hofstetter — Rupert Huber — Jose Iges — Arsenije Iovanovic — Concha Jerez — Dimitri Kamarotis — Christine Köck — Mikko Laakso — Claudio Lanteri — Juan Antonio Lle Machine for making sense — Leila Maglietta — Marco Manchisi — Hannes Mariacher — Alberto Masala — Norbert Math — Sergio Messina -Metaphysis of sound group — Christof Migone — Amal Mocus — Elisabeth Nicolussi — Jaakko Nousiainen — Adolfo Nunez — Bruce Odland — Roberto Paci Dalò — Maria Pambouki — PAPA String Quartet — Vasilis Papavisiou — Harald Pröckl — Proton Group — Jocelyn Robert — Banda Roncati — Wimme Saari -Mato Santek — Manthos Sartorineos — Andi Schiffer — Martin Schiller — J.F. Sebastian — Massimo Simonini — Pekka Siren — Sodomka/Breindl — Fabrizio Spora — Ivana Stefanovic — Gerfried Stocker — Matt Thompson — Helen Thorington — Itkka Toiviainen — Juha Valkeap — Agnieszka Waligorska - Gregory Whitehead — Hanno Winder — Gunter Zechberger — Elisabeth Zeller — Stefano Zorzanetto — Ilana Zuckerman



#### Realisation des Radionetzes

Gerhard Blöchl — Harry Domittner — Christiane Veigl — Enrico Giardino — Gernot Gökler — Edith Kiesling — Hans Soukup — Gerhard Wieser — Elisabeth Zimmermann

#### Realisation der Internet-Events

Oliver Frommel — Enrico Giardino — Arno Heimgarten — Andi Kleen — Peter Riedelsperger — Martin Schiller — Hermann Schmidt — Gerfried Stocker — Contained

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