## **BREAKING THE AIRWAVES**

by Knut Aufermann

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"Here is a positive suggestion," wrote Bertolt Brecht in 1932, alarmed by the dead hand of centralised control that was being exerted over radio, "change this apparatus over from distribution to communication. The radio would be the finest possible communication apparatus in public life, a vast network of pipes. That is to say, it would be if it knew how to receive as well as to transmit, how to let the listener speak as well as hear, how to bring him into a relationship instead of isolating him." Nearly 80 years later, if Brecht were to scroll carefully through his wireless dial or search the outer reaches of the internet, he might find his wishes coming true in the works of artists who proceed to unlock the untapped potential of radio. Radio art exists in many different forms and variants. It survives on public radio, thrives on community and campus stations and mutates via internet streams. It invades galleries, music venues and public spaces, spawns festivals and publications. Radio art can be a single exceptional broadcast or a series of programmes that runs for years; it can take the form of an installation or live performance in front of an audience; even spark public 'flash' events or disorder. The transmission is not necessarily tied to a studio any more: live radio art might radiate from a park, a subway underpass or even a moving tram. Ultimately, a whole radio station might be considered an artwork in itself.

Leafing through the 16 page newspaper-style programme of the 1998 Resonance transmissions — surely a collector's item by now — one can immediately detect the changes that have occurred over the past 12 years in the UK. Curator Phil England's editorial, asking why artists received so little access to radio as a medium, has been answered by the radical decision of the media regulator, then called the Radio Authority (RA), to award the only available London FM frequency to Resonance104.4fm when it introduced community radio licences in 2002. I still sometimes catch myself wondering why the decision was taken. I have a hunch that the RA bosses were as bored of the uniformity of radio as I was.

Since then, the station has attracted a large and dedicated audience, both in London and around the world, with thousands of artists shaping the consistently challenging output. Any other metropolis that wants to boost its cultural standing

should take note. The licensing of more than 200 other community radio stations in the UK has spawned only a few other stations that are actively encouraging the transmission of radio art, notably Soundart Radio in Dartington.

The 1998 Resonance listings also throw into sharp relief the subsequent decline in the international radio art world. Many exemplary public radio programme strands at the time, which provided works for Resonance's International Gallery of Radio Art thread, have had their own broadcast schedules cut back in the last decade, or, like Italy's RAI Audiobox in 1998 and Australia's ABC Listening Room in 2003, have disappeared altogether. There are only very few projects – like the dedicated Czech rAdioCUSTICA that was founded in 2003 – that defy this trend.

In parallel with these cuts, advances in computer technology for production and web streaming, and the proliferation of non-commercial community-driven radio stations, has boosted and diversified the access to any form of '-casting' for artists. As a result, radio art has become more colourful, but less traceable.

Most people who have shaped the development of radio art in the 21st century have had no formal radio training, and have crossed over from different backgrounds. Pit Schultz, with his roots in club culture and media arts, is a stalwart of the multifaceted Berlin radio scene. As a co-founder (in 1995, with Geert Lovink) of the influential nettime mailing list, he helped develop the term 'net.art'. Nevertheless, he remained loyal to the medium of radio, influenced by his early experiences with pirate radio stations in Amsterdam, broadcasting at the 1997 Documenta in Kassel, and as an avid listener to the 1998 Resonance stream. For the last decade, he and his collaborator Diana McCarty have been pushing the envelope with their manifold but always temporary radio projects, culminating in the current 20 hours a week share of an FM frequency which they dub Free Cultural Radio Berlin.

In 2004, McCarty invited me to witness the start of Reboot.fm. The station had developed out of the computer programming collective bootlab and had been awarded a three-month licence. The launch party was in full swing when, at midnight, the monopolist transmission controller Deutsche Telekom – despite being paid large amounts of money for the service – failed to connect them to air. Immediately, a mantra-like loop saying "Wir glauben an die Deutsche Telekom" ("We believe in Deutsche Telekom") started up, on a bedrock of Grand Theft Auto game sounds sampled live from the neighbouring room. This impromptu, ironic statement about the reliability of DT's expensive service also

highlighted the rising aspirations of the amateur broadcasters, who were itching to take control of the complete broadcasting chain (something they achieved for the first time in Berlin in 2009 with their project Herbstradio). It was around half an hour before the Telekom engineer flicked the switch and it finally became audible over the radios scattered around the building.

This was also the first time I had heard of Heinrich Dubel, aka DJ Officer, Officer, one of Reboot's favourite programme makers, whose existence I doubted until he turned up in person at a concert two years later. His style is instantly recognisable: his preacher-like voice fuses silliness and irony with a deep understanding of popular music culture. Every decent radio station needs such an enigmatic icon.

When I asked Pit Schultz why he prefers analogue radio, he cites the "immediacy and realness of the technology" and the "locality" of the broadcast. "On the internet you are everywhere and nowhere," he goes on. "Radio is defined by its locality and complements the internet very well." Analogue radio is sexy and quaint. For proof, check his Boombx events, where at short notice a disused underpass at Berlin's Alexanderplatz is turned into a venue with a DJ, a small radio transmitter and a PA system consisting of the combined wattage of the boomboxes of hundreds of party people.

Other artists use radio transmission as a performance tool. Anna Friz, one of Canada's most active radio artists, creates installations in which hundreds of tiny radios hang from the ceiling and play back her compositions, which they receive through a low-power radio transmitter. Often this set-up is augmented with a second or third transmitter to open another channel for a live performance of a slightly more improvised nature. Soothing harmonica can give way to nightmarish radio snippets and disembodied voices that send shivers down your spine.

Friz's practice is by no means limited to installation work. She's a seasoned radio broadcaster, and intends to gain her ham radio licence in the near future in order to conquer further sectors of the electromagnetic spectrum. She describes the paradox that when she has a piece played on a national radio station, she has no control over the circumstances in which people listen to it, but she can at least be sure of the actual broadcast quality. Whereas when she performs live on her gallery set-up, she has the full attention of her audience, but has to accept the unruly behaviour of her flock of radios and home-made transmitters adding their own chirping to the mix. "This unpredictability is really a feature of working with radio. If you are in a small space where you know you

are all sharing the experience of listening then you have no idea how the transmission is going to be affected by, for example, interference caused by people walking around."

Canada has a rich tradition of radiophonic culture. Campus stations like CiTR in Vancouver or CKUT in Montréal provide ample airtime for unusual radio. Still, Friz puts the number of currently active Canadian radio artists at around 20. One of their meeting points is the annual Deep Wireless festival, organised by Darren Copeland. Conceived as an intersection between public broadcasters and independent radio artists, it has so far produced seven CD compilations of radio art, and played host to many international guests such as Harmon E Phraisyar and Tetsuo Kogawa.

Festivals have provided an important means of connecting artists in a landscape of often disparate and marginal activity. The landmark German festival Radio Revolten, a month-long event in 2006 hosted by free Radio Corax in Halle (Saale), provided a major focus for radio art. Corax not only decided to radically change their schedule to include many radiophonic experiments outside their studios, but also secured a second FM frequency for the duration of the event, which they entrusted to performance and media artist Marold Langer-Philippsen. He encourages close contact with the public by placing the actual radio studio in a prominent public space. In Halle, it was a yellow construction-site caravan called Radio Erevan, parked in the middle of the town square, furnished from his own house. Marold and his 'alter ego twins' Langer and Philippsen were in full-scale storytelling mode, producing up to ten hours of live talk radio every day of the festival. Loosely themed around Armenian culture, the caravan was always open for visitors, who would be offered sweets, vodka and an open mic when they entered. The storylines were simultaneously seductive and highly complex; I soon started to set my alarm clock so as not to miss the following morning's instalment.

It took a while for the public to take the alien broadcaster in their market square to heart. One night, a local cab driver finally caught onto the fact that this crazy stuff he had just heard on the radio was actually emanating from this caravan. He opened his car doors, turned up his car stereo, and Joseph Beuys's famous recording "Ja Ja Ja Ja, Nee Nee Nee Nee Nee" flooded the square at 2am. (Unwittingly, the driver was simulating the work of Dutch artist Sasker Scheerder, who started to use 'boom-cars' as mobile PA systems for his Audio Drive broadcasts in the late 90s.)

Langer-Philippsen wants to drag his listeners fully into the aural domain, where

he says live radio can create a specific type of energy over time, not unlike that of a long club night. "I think it sounds different when a radio show has been going for five hours already and you tune in at the sixth hour," he says.

Experimental research in durational radio has preoccupied Swiss audio artist Jörg Köppl in recent years. In Nachtschichten (night shifts, 2006), he offered individual artists 50 hours each of overnight airtime on Zurich based free radio LoRa. Out of the many conceptual responses he received, he singles out Anja Kaufmann's RadioSolarKompass as his favourite. She collected over 400 web streams of radio stations around the world and structured her channel-hopping between them to coincide with dawn in their geographical locations. Jörg describes it as a plethora of languages greeting the day, combined with the unavoidable pulp of pop music jumping along the Earth's longitude. "My favourite moment was when I got up early in the morning to check if everything was working fine, and it came bouncing along from the Middle East to Turkey, then suddenly Italy, and then at the end it switched back to our studio and before I knew it a Tamil breakfast show started in Zürich. It was stunningly applied geography – on the one hand the radio world orbit, and simultaneously the migration that echoes it." Nachtschichten is also the title of a book published by Köppl, including texts by the participating artists and three audio CDs documenting their projects.

One of the national commissioners that continued to innovate during the last decade is Kunstradio, a hugely influential programme on the Austrian national network ORF. Initiated by Heidi Grundmann in 1987, Kunstradio is featured highly in the impressive 540 page tome Re-Inventing Radio (2008) and gave rise to a radio art manifesto by Robert Adrian X. His Proposition No 5 reads: "Radio art is not sound art – nor is it music. Radio art is radio." Most of the artists I have spoken to would probably agree on this point.

Kunstradio's producer Elisabeth Zimmermann has overseen many groundbreaking broadcasts in the last decade, often furnishing cutting edge technology for artistic use. A recent show came live from a Viennese tram converted into a sound art gallery. Microphones, attached to six guests strolling through the tram while it moved around the city, were transmitted in DIY surround format on three different radio stations, which required the listener to tune in on three receivers to experience the full effect. Although the internet changes habits rapidly, Zimmermann does not anticipate the demise of FM radio in the near future. "I am convinced that FM radio will still be there, but I am

not sure what it will look like." As the chair of the Ars Acustica group (a conglomerate of openminded radio producers within the European Broadcasting Union), she is ideally positioned to push forward access for artists and radiophonic experimentation in this network of public cultural broadcasters, despite dwindling budgets.

To expect radio art on public networks to leave its secret, late-night haunts and step into the limelight is unrealistic, though, in the current media climate. Small non-commercial cultural radio stations have stepped in to plug the gap, some of them, like Resonance104.4fm, started with an artistic mission in mind. One successful example is the New York based free103point9, which has grown over 13 years from a Brooklyn microcasting artist collective to a fully licensed community radio operator in upstate New York. Asking Galen Joseph-Hunter, one of the chief organisers of free103point9, for a quick chronological breakdown of their milestones, the list she sends via email is impressive. From the initial low-power FM pirate radio events in 1997, whose favourite frequency gave the group its name, they acquired a permanent venue in 2000, turned into a non-profit organisation in 2002 and branched out into a rural upstate location called Wave Farm in 2005, which is home to artist residencies, installations and summer performances. Joseph-Hunter lives there with her partner Tom Roe, while the city branch has found a new home in Manhattan. This autumn they plan the launch of WGXC, a hands-on community radio station covering New York's Greene and Columbia counties, with night time slots reserved for international radio art.

free103point9 has a roster of around 23 radio artists with whom they work on a regular basis, with hundreds of other collaborators racked up over the years. Along with running free103point9 webradio, they also produce CDs, host an ever expanding website, and plan a massive online 'transmission art' archive. They define transmission art as "work informed by an intentional use of space – often the airwaves". Joseph-Hunter is currently editing a new book, Transmission Arts: Artists And Airwaves, which documents work by 150 artists, starting with early radio experiments in the 1880s and continuing up to the present (due to be published early 2011 by PAJ).

Aside from all this valuable output, the actual broadcasts at free103point9 should not be overlooked. When questioned about her personal radio highlights, Joseph-Hunter replies, "The 2007 Tune(Out)))side at Wave Farm was a pretty magical event. It featured 33 artists playing directly into five FM transmitters. No sound was amplified. Attendees tuned in with radio

headphones as they explored 30 acres of meadows, forests and ponds." Judging from the photos, it must have been a blissful day.

With luck, the launch of WGXC will create a new generation of radio artists, by providing an entry point to the excitement of FM broadcasting. A liberal offer of airtime can unlock untapped sources of creative energy.

From time to time, radio offers opportunities for artists to produce more than an isolated one-off work, allowing them to stretch out over a series of regular instalments. UK collage composer Ergo Phizmiz states that the majority of his work has first and foremost been intended for broadcast, even before he had any access to the airwaves. "I didn't go to university as such," he says, "and over the years Resonance, WFMU and Soundart Radio have provided me with airtime in which I can explore ideas fairly limitlessly — so the idea of experimental, open canvases on the radio has filled the gap where art school perhaps could have been." On the other hand, stations are indebted to certain prolific radio artists who act as figureheads. For me, the early years of Resonance104.4fm (which I oversaw as station manager) will always be connected with The Harmon E Phraisyar Show, Clingradio and broadcasts by Dan Wilson, to name a few.

Clingradio, created by Sarah Washington, was an incubator for radio talent. Born out of necessity to fill a vacant six-hour Saturday night slot, it became a loosely structured but tightly run vehicle for live improvisation and format experimentation – a radio lab and social space all at the same time. Food and drink were provided, and any guest was welcome to take part in the late night live house band session. Several notable radio series by participating artists are the legacy of those evenings in the Denmark Street studio.

The often sparkly mood of Clingradio nights was habitually set by listening to The Harmon E Phraisyar Show, which immediately preceded it. Any of the uncounted shows (more than 100 in all) by the elusive Harmon was a masterpiece, full of oblique references and musical jokes. It worked on so many different levels that even people with no knowledge of the London scene loved it. When Kunstradio approached Resonance with a view to a five part series, I recommended Harmon, and he delivered five CDs under the title The Future Of All Radio Is Silence. A few minutes into the first show, an irate listener is put on air and asks: "You and your stupid radio programmes, I'm fed up. Tell me this, you stupid radio worms: radio interference, often it is that I am getting the interference. Why is it that the interference is always more interesting than the programme itself?" Harmon's humour can be hard-hitting. It is his favourite

vehicle to subvert the smooth surface of our mediated world.

Dan Wilson's two long running series, The Exciting Hellebore Shew and Epistaxis Time, are means of spreading confusion – not only to the casual listener, but also to the radio programmer, who has to decide if the material is too disturbing for the afternoon schedule. By his own admission, Wilson's desire to master the skill of confusion when producing Epistaxis Time drove him to what he calls "disorientation of a near-clinical degree". He tells me that even dangerous affairs like conducting car horns by jumping out in front of moving vehicles had to be recorded in situ to reach the desired effect. "I'd strung a baking tray across my chest as armour," he recalls, "but when a wing-mirror caught me at considerable speed, the tray dug into my stomach quite painfully. If I had tried to fake this recording, it wouldn't have been effective." The slightly more light-hearted Hellebore Shew reached one of its climaxes in an episode where a robot tried to take over the show from Wilson and subsequently tricked him into using a swearword on air, exposing the idiosyncratic language rules of UK media regulators. His piece "Corrosion Suite" was commissioned as the inaugural broadcast for the Radia Network.

As a response to the lack of contact between likeminded independent cultural broadcasters, Radia was founded in 2005 as a collective umbrella for ten radio stations from Europe. Membership of the network has by now grown to 20, spreading to North America and New Zealand. The type of station varies from free and community radios to web-only and campus stations. Some are long established radio projects, and one is even a commercial national station in Macedonia. Their common denominator is radio art, with an implicit understanding that everyone has a different idea of how that might be defined. Every week they broadcast a half hour show produced in a 'round robin' style by the member stations. More than 250 shows have been made in this way, by a vast network of international artists. Although Radia has no legal structure, no administrators and no paid commissions to hand out, it has managed to build a sustainable sense of responsibility, based on the treasured occasions when the members can actually meet in the flesh. Several radio festivals have played host to Radia gatherings, and have given the opportunity for joint radio performances. Meetings at the ambitious RadiaLx festival in Lisbon in 2006 and 2008, and a four-hour live show involving 13 radio stations as part of the impressive Radiophonic festival in Brussels in 2007, cemented the good relationships between artists, organisers and station managers. One of them is Ricardo Reis, the president of campus based Rádio Zero in Lisbon and

instigator of the RadiaLx festival. While pursuing a PhD in fluid dynamics modelling, he is also pushing for a permanent FM licence for Rádio Zero so that they can "experiment and play with certain idiosyncrasies connected with the radio waves that you can't do with the internet."

In July 2010, eight Radia artists were given sole access for two days and nights to the Gasometer in Oberhausen, Germany. This giant steel cylinder, measuring 117 x 68 metres, is often described as an industrial cathedral. Its extreme acoustic properties – an eight-fold echo and 30-second reverb – formed the inspiration for joint recording sessions to produce a series of five shows for Kunstradio.

The idea for this 'radio art camp' was floated by Sarah Washington, who, together with myself, runs Mobile Radio. The project started out of the necessity to take a mobile radio studio on the road, to fit in with our plans for a year long trip around Europe, playing concerts, teaching workshops and conducting live broadcasts. Soon it became clear not only that adding radio stimulated other artistic endeavours, but also the unusual spaces and often makeshift technical set-ups brought a new colour to broadcasts.

Locations ranged from a backyard in Zurich to the Brussels Atomium, from a pigeon infested roof of a medieval tower in Cologne to a security-guard booth in an Amsterdam museum. "Exiting the studio makes it easier to catch people unawares," explains Washington. "Inner city park users stop in their tracks at a sudden strange sound emanating from a radio hidden in a tree; you give over control of a live music performance by broadcasting it through radios controlled by the audience; by setting up a temporary radio station you become an elemental part of the fabric of a place simply by broadcasting from it, and through doing these things you meet your public, who tell you they have been turned around by what they've experienced." This kind of approach to radio art harks back to Brecht's notion of radio as a two-way medium of communication that has inspired many artistic exploits.

A similar impulse seemed to be driving Hamburg based artist group LIGNA in 1997 when they began a regular and still ongoing show on local free radio FSK. LIGNAs Music Box gives everybody the chance to become a radio DJ: members of the public call in and not only talk about music but also play it to other listeners over the phone. The group's most well known use of radio happened in conjunction with an intervention in (formerly) public space. Their Radio Ballet consisted of a large group of people gathering at Hamburg's main station and following instructions issued via portable radio headphones. In what they term

"an exercise in lingering outside of regulations", requests such as "gaze into the distance" or "lie down on the floor" caused a stir as hundreds of participants followed them silently and in perfect synchronicity on the platform. Station security eventually got so worried that they announced a ban on trains entering the platform due to the strange behaviour of waiting passengers.

Fellow Hamburg resident Felix Kubin cites LIGNA's works as one of his favourite examples of radio art. His own love and creative drive belongs to the Hörspiel, a type of radio drama still popular in the German linguistic area. "Radio is in some cases a technical manifestation of a pathological situation, when somebody hears voices," says Kubin. "I interviewed a woman who described herself like a radio receiver; she had schizophrenia." The disembodied voice is a recurring theme when artists are asked what they like about working with radio. Kubin also strongly advocates communal listening to the radio: "It is an interesting situation, not as absorbing as the cinema and not as isolating as reading."

Verena Kuni, professor for art and gender studies at the Goethe University in Frankfurt, says listening to good radio occupies her whole attention: she is more likely to drift off and multitask when sitting in front of the TV than when glued to the wireless. She is also a tireless radio activist with Frankfurt's free Radio X, and one of the few media art bloggers to publicise weekly web radio tips. Many outstanding broadcasts pass by unannounced and unnoticed due to the structural lack of funding for independent cultural radio, and a cutback of radio listings in print magazines. Now, with standalone internet radios entering our kitchens, and tens of thousands of stations at our fingertips, we more than ever need to be pointed towards those channels that stand out from the herd.

Another recurring issue for Kuni is the problem of copyright in radio productions, which renders many magnificent works inaccessible after their debut transmission. Fellow blogger and French radio artist Etienne Noiseau reminds me about Arte Radio, an offshoot from the Franco-German public cultural TV station Arte, which tackles the problem of copyright head on by releasing all content under a creative commons licence. "They produce documentary-like pieces and many community radio stations grabbed that opportunity to rebroadcast création radiophonique and it inspired people to produce new work. Now Arte Radio has become very successful and many people are influenced by their style."

Although most artists have either no clear definition of radio art, are not interested in such a definition, or even disagree with the term itself, a cluster of

descriptive expressions have emerged from the many interviews I have conducted that could be attributed to radio art: magic, subversion, liveness, volatility, synchronicity. Then you meet Tetsuo Kogawa and are forced to reevaluate your set ideas in the light of his radically different performance practice. Kogawa is professor of communication at Tokyo's Keizai University. In radio circles he is known as the father of 'mini FM': in the 1980s he discovered a loophole in Japanese law that allowed for unlicensed low-power radio broadcasts, and started off a mass movement of home broadcasting until the law was tightened.

To explain his approach to radio, he describes his early experience with the medium. "At the end of my primary school, I started to build a shortwave receiver and became familiar with various kinds of shortwave signals including ham radio, propaganda radio such as Voice Of America, Radio Moscow, Radio Peking, wireless communications of fishing boats, etcetera. So, already in my early experience of listening, I was very familiar with international and diverse 'programmes' and noises." Soon after that he constructed his own ham radio transmitter from schematics he found in journals. Many hours were spent in radio communication with other operators in distant places, so he considered radio as interactive, with equal emphasis on reception and transmission. Over the years his homemade transmitters have decreased in power, down to a transmission range of about one metre. He has given up the whole idea of 'casting', and instead gives mesmerising performances by influencing the complex electromagnetic fields of freshly soldered micro-transmitters through the movement of his hands.

He describes radio art as "an art form whose 'matter' [Materie] is electromagnetic waves. 'Matter' in this case does not only mean tool or stuff, but also the concept in philosophy." Kogawa's own bare-essentials transmitter design continues to inspire artists worldwide, and can be found with detailed instructions on his website.

From DIY radio transmitters back to DIY radio station Resonance104.4fm. Loopmaster extraordinaire Lepke B's late night show The Graveyard Shift was part of the first incarnation of Resonance, a temporary broadcast event that rekindled my love for and restored my faith in the creative possibilities of radio and the art of the imagination. "In the 1950s hundreds of soldiers lost their hearing when they were deliberately exposed to explosions during training in the US army," I recall Lepke ad-libbing at the beginning of one of his shows. "A few years later some of them were invited to take part in a research programme

and have a newly developed artificial ear implanted. Here is a recording of the first thing they heard after the operation." He then played a blast of harrowing, unidentifiable noise. Resonance has thrived on such anarchic spirits.

The 28 days of Resonance FM in the summer of 1998 jumpstarted the recognition of radio art in the UK. Broadcasting at the time to a tiny audience in Central London and on the internet, its radical approach to radio continues to send ripples through the international radio landscape today. Studio manager Chris Weaver likens radio art to a self-assembly kit, with every listener building their own mental object. He attributes the audience with a relaxed and intelligent relationship to radio, dipping in and out of programmes and filling in the rest themselves. On the other hand, he views them as an integral part of Resonance's continuing success: "The radio station is like a magnet for this incredibly altruistic group of people."

Resonance co-founder and current programming director Ed Baxter, through his visionary work and against many obstacles, has transformed the station from its impetus as a gallery and production space for radio art into an artwork in and of itself. He describes the realisation of "fine art modernist authority" lan Breakwell in 1998, that somebody was listening to him live in New York, as one of his memorable radio moments. Baxter is also the driving force behind some of the station's creative projects such as The Resonance Radio Orchestra, a loose ensemble of musicians, Foley artists and actors who perform live radio plays; or the recent decision to play 24 hours of cover versions of The Beatles' "Yesterday".

Today the station has fans around the globe, but is still unmistakably rooted in London; the creation of hundreds of volunteer programme makers and engineers, and thousands of visiting artists. There is no 'Resonance model': it's a singularity that can't be packaged and resold, and so it continues to inspire others to give radio a try. The chances of tuning into a piece of radio magic that will stay with you for the rest of your life are now greater than ever. Spin that dial.