Bill Fontana
This catalogue is published on the occasion of the exhibition and the public art project

Bill Fontana
Primal Energies & Sonic Projections

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'Wherever we are, what we hear is mostly noise. When we ignore it, it disturbs us. When we listen to it, we find it fascinating.'


Accompanying Bill Fontana on his recordings, is a fascinating experience. Equipped with the latest microphones, vibration sensors and recording devices, he has been listening deeply for over 50 years into what is happening inside a vast range of materials, from steel bridges joining land masses, to water tanks enclosed in mountains, powerful turbines and ancient trees. He listens carefully, then passes over the headphones with an unfailingly infectious enthusiasm. Whatever his ear, extended by technology, focuses on, it acts as a resonance body for a sound that mirrors and filters its surroundings and their acoustic shadows. As a witness to constant change, acoustic energy constantly flows through materials and develops a unique musical structure in time. In his Sound Sculptures—which can be experienced like other sculptures, through movement in time—Fontana has been opening up processes in objects hidden from the eyes, creating physical experiences for a wide audience over decades. Through his works the public enters an invisible wonderland of acoustic interiors like through the looking glass of a Carrollian rabbit hole. It seems possible to dive into a continuum of space and time—when we become, at an almost atomic level, part of what was chosen through technologically extended hearing.

The Book

Tied in with the exhibition Primal Energies, the urban sound installation and the reenactment of Fontana’s most discussed project sonic Projections (1988/2020) in Graz, this book explores decades of close investigation into the interplay of the world: the work of artist Bill Fontana. Influenced by Fluxus, John Cage’s expanded concept of music, by Zen Buddhism and a growing environmental awareness, Fontana creates profound studies of an oscillating world of sound. This book offers essential perspectives on the Sound Sculptures and Sonic Visions, which he has been developing over the last 50 years: the Sound Sculptures are audio recordings gathered from across the world for his context-shifted hearing, and which have evolved over the years in line with technology. Since 2009, his sound compositions have been joined...
by his Sonic Visions—works that assign a level of film to the sound. The film element is added to the sound installations using a fixed camera that focuses its probing gaze on details of the object examined, making inconspicuous patterns of movement visible to us.

As documentation of the exhibition, this book is a first major overview of Fontana’s tireless processes of recording, analyzing and reconfiguring places and their acoustic and visual qualities all over the world. On our increasingly globalized planet, the relocation and technical transmission in his works means that they take on the role of translators, in line with Nicolas Bourriaud’s theory of displacement, describing a search for a new synthesis of world knowledge.

Along with many illustrations, the book contains an interview between Hans Ulrich Obrist and Bill Fontana that considers the full breadth of Fontana’s oeuvre. There are also articles by Pedro Gadanho, Rudolf Frielig and myself, reprints of historical texts by Bill Fontana and by the curators involved in the first performance of Sonic Projections in Graz. Werner Fenz and Heidi Grundmann. It also features a comprehensive index encompassing works from 1968-2020, compiled by Katja Huenen.

The article Listening to a Reconstructed Nature (Or Resounding the Environmental Emergency) by Pedro Gadanho—who in 2018 staged a large-scale audiovisual installation with Fontana about the iconic bridge at MAAT in Lisbon, which very much served as a model for our exhibition in terms of space—focuses on the topicality of Fontana’s work in understanding the key issues around an impending environmental disaster. Rudolf Frielig’s Site-Specific Elsewhere—Evocative Places on View identifies the possibility of returning to the quality of the individual through the perception of difference. He sees the museum as an important space for Fontana’s artistic visionary field research.

My own article Becoming fully present examines Fontana’s artistic career and his two current projects in Graz.

**Primal Energies and Sonic Projections**

Both the sound work Sonic Projections in urban space and Primal Energies at the Kunsthaus concentrate on interfaces between nature and culture. The focus is on the current theme of a relationship between energy and environment. Inside the bulbous domed space of the Kunsthaus, sounds and views of sustainable energy production (earth and solar energy, wind and water power) are transformed into a multidimensional experience as visual and acoustic patterns—extended in space and time. Using prototypical space-mapping, the installation immerses the audience in a spherical vision of the internal processes of energy production, opening up a dialogue between nature and culture. Last but not least, live sounds from the inside of a tree on the banks of the River Mur, recently dammed for a new hydro–electric power station, illustrate the fragile balance between technical progress and changes to the landscape. Rudolf Frielig’s Site-Specific Elsewhere—Evocative Places on View identifies the possibility of returning to the quality of the individual through the perception of difference. He sees the museum as an important space for Fontana’s artistic visionary field research.

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**The sky above Graz: soundless, desolate and empty. Voices: Oooops, too late! Now we have to wait another year.—I want my cloud back!**

Caricature by Walter Titz, in: Neue Zeit, 25.10.1988

for the duration of the exhibition. Sonic Projections is the revival of Fontana’s 1988 piece commissioned by Heidi Grundmann of sound art radio ORF and curator Werner Fenz for the steirischer herbst festival. Originally transmitted from the Schloßberg, a hill in the Graz city centre, today it also resounds back from the Kunsthaus in a kind of dialogue. Due to its politically charged nature—in 1988, the steirischer herbst festival conducted an unfinishing exploration of the city’s National Socialist past with their Reference Points 38/88—and also a lack of prior mediation and information, the project, which had originally aimed at fostering harmony, was cancelled after just a few days. The sounds do, nonetheless, still exist as a melancholic and inspiring memory for many. Since then the art institutional field as much as Fontana’s work itself has become more participatory. Urban structures also call for participation. In its instal-lative, dialogical form as much as its mediation and accompanying programme, the enactment therefore focuses on exchange and researches concepts of urban existence. For this we work with many local partners and in exchange with a broad public. With the city’s various administrative offices, for instance, who are responsible for protecting the habitat—in terms of safety, the aesthetics of buildings and streets, and concerning the city as a recreational area. An important place of reflection is also represented by the Kultur Inklusiv working group accompanying the project, and the extremely committed group of people with visual and hearing impairments with whom we are working in creative exchange on a communication tool for a broad spectrum of perceptions of the city, of noise, of dangers and also local harmonies, or potential harmonizations. Beyond this, the project is being promoted in partnership with Radio Helsinki and the project Soundscape, which is working on acoustic cityscapes and planning public walks with us. With the Institute of Electronic Music and the independent, non commercial network operator FunkFeuer, the sounds of the city are being captured and taken to the city centre using the latest digital technology.

Throughout his career as an artist in the medium of sound, Bill Fontana has specialized in experiencing environmental relationships and the environment as a communicative resource. Today, while a whole generation is taking to the streets to claim their future on this planet, he belongs to the leading artists addressing notions of the environment and his pioneering work resonates with more urgency than ever. Hence staging an exhibition at the Kunsthaus Graz with Bill Fontana makes sense
on many levels. On the one hand, there is the urgency of climate change already mentioned here. Fontana, as Pedro Gadanho writes in this catalogue, opens up the experience of ‘resounding the environmental emergency’ and ‘reconnecting to deeper natural histories’. Additionally, the Kunsthaus Graz can be considered as prototypical with its flowing architecture that allows sound to travel over large dimensions. Sound art has from the outset been a high priority at the Kunsthaus: artists who have exhibited here include Peter Ablinger and Winfried Ritsch, Max Neuhaus, Susan Philipsz and most recently Franz Pomassl and the historic performance of Ballet mécanique. These contacts and our collaborations with festivals such as musikprotokoll, the University of Music and Performing Arts Graz and local sound experts at the global company AVL have created the networks necessary for making this kind of show and the public sound project possible. Also significant is the fact that, after Sonic Projections appeared in Graz, Fontana went on to produce further works in Austria that have shaped local memory, the artistic environment, and indeed his own artistic development.

My sincere thanks go to all of the supporters and cooperation partners who assisted us with the project and this catalogue. On site, these are above all our subsidy providers, Land Steiermark and the City of Graz with Graz Kulturstadt 2020. As a representative of the city, I would like to thank the City Councillor for Culture, Günter Riegler, whose commitment brought the project to the City Hall, and who also provided his personal support; the AVL Cultural Foundation for their content and financial support, and its director Kathryn List, who as a sound specialist introduced me to Bill Fontana in 2015 in Graz, and Elisabeth Gigler; also Helen Meyer and Meyer Sound, the highly specialized acoustics company who provided their newest instrument (Galileo GALAXY) for installation in the building for the control of multidimensional sound acoustics. Astrid Kury (Akademie Graz) and my in-house colleagues Monika Holzer-Kernbichler and Eva Ofner, representing the whole of the wonderful group Kultur Inklusiv, who have greatly widened our range of perception. Our fantastic on-site adviser, Winfried Ritsch (Institute of Electronic Music and Acoustics), in collaboration with FunkFeuer, managed to assemble the sounds of Sonic Projections and their echoes from the city to its centre. I would like to thank Justin Winkler and Christine Braunersreuther for the contact to their current project Soundscores (Radio Helsinki), that will go on walks with us, among other things. Also Ö1 Kunstradio (ORF) with Elisabeth Zimmermann and Rudi Schauer, who carried out research for us in their archives and are still supporting the project. We would also like to offer our thanks to supervisory board member Klaus Zausinger (Holding Graz), who showed us the most beautiful hydropower plants and storage locations along the River Mur in 2017.

I would furthermore like to express my thanks to all of the authors for their inspiring articles; all of my in-house colleagues, and in their name Kunsthaus Director Barbara Steiner, the curatorial team Alexandra Trost, who patiently ploughed through the jungle of city offices, and Katia Huemer, who in addition to the index was also responsible for bringing together the whole catalogue.

Last but not least, my thanks go to the tireless Bill Fontana, for his wonderfully illuminating and friendly conversations here on site and—thanks to digital technology that recalls his groundbreaking satellite sound-bridge Ohbrücke of 1987—across several time zones.
Bill Fontana and Hans Ulrich Obrist
In conversation

Hans Ulrich Obrist: You have been recording sound for 50 years...

Bill Fontana: Yes I have, and the part of technology that’s really changed during this time is the recording part of the machines.

HUO: How did you record in the 1970s?

BF: With beautiful handmade Swiss recorders, one called the Nagra and the other the Stellavox. These recorded on tapes and had very good microphone preamps.

HUO: Did the way you recorded change with the digital age?

BF: The first digital recorder I had was in the mid-1980s, and the first digital recorders recorded sound and video tape. This was Betamax. And there was this box, about the size of a video recorder, that was an analogue digital conversion. It would take an analogue input and convert it into a recorded signal on video tape.

HUO: So it was much more voluminous than today?

BF: It was. Also, the early digital recorders didn't sound as good as today, simply because analogue digital conversion was still pretty new.

HUO: Which year did you shift to digital?

BF: I began my first digital recordings in 1985. Then later, into the 1990s, I started to get the new DAT [Digital Audio Tape] recorders.

HUO: And now?

BF: Well, what I have here is very simple, but I have more complex stuff. I basically travel with a portable recording studio because I not only have microphones, I also have hydrophones, which are underwater. My friends and I have these vibration sensors called accelerometers. But the most important equipment is actually between my ears.

HUO: Can you tell me about your memory for sound?

BF: I’ve been recording thousands of sounds over the 50-year period of my work. When I listen to them, I feel like I’m going through some sort of time travel, like I am re-entering my body and my consciousness from some moment in the past, where I was really listening.

HUO: A lot of the sounds you recorded probably no longer exist. In a way your work also talks about extinction.

BF: Yes, there is extinction. I think my favourite story about that was my experience of the solar eclipse in Australia. In the 1970s I was working for the Australian broadcasting company. The job was to record what Australia sounded like. On October 23rd, 1976 there was a total eclipse of the sun. It went through the rainforest in South Eastern Australia, about 100 miles east of Melbourne. I knew something interesting was going to happen with the effect of the eclipse on the wildlife. I went there, and was totally by myself in this beautiful rainforest. I recorded the effects of the total eclipse of the sun on the birds in the rainforest: starting about seven or eight minutes before the total eclipse actually arrived, the light became completely strange, and the shadows in the rainforest started to sparkle and shimmer. Normally birds in the rainforest, or in any natural landscape, do not sing all at the same time—they sing according to the position of the sun, and things like that. But during these minutes before the total eclipse, they basically all sang collectively. So part of me thought, what the heck is going on here? And then, when the total eclipse arrives, it’s not like a sunset, it is like a light switch, it just goes dark. Then they essentially stop. It was really dramatic—10 or 12 minutes of sound and silence.

HUO: Amazing, and not an easily repeated task, I guess.

BF: Yes, that bit of the recording has been stored in the collection of some museum. You know the next time an eclipse is going to happen in this rainforest will be in 5,000 years? So it was a once-in-a-5,000-year opportunity to hear it. So connecting to sounds that disappear—this recording is certainly a very interesting piece.
Hans Ulrich Obrist: Yes the idea of sounds disappearing seems an interesting topic in your work that I am sure we will get back to. But for now, let’s turn to your biography. You were born in 1947 in Cleveland. I was curious as to how you came to art, how art came to you? Or how you came to sound, how sound came to you?

Bill Fontana: I grew up in a neighbourhood that was within walking distance of the Cleveland Museum of Art and the Cleveland Orchestra. Ever since I can remember I was interested in music, and had fantasies as a boy of becoming a composer of great music. When I got older, by the time I was at high school and getting into college, I was experimenting a lot with writing music in a very minimalist sort of way. I found that to create music I needed to have a kind of a hyperfocus, as there are ambient sounds in that situation. So, as I was trying to write music, I became more interested in my perception of the ambient sounds. I came to the idea that the act of listening was a way of making music, and found out what kind of hyperfocus I could have. Then I got my first real recorder in 1967. And I started recording sounds and using headphones.

Hans Ulrich Obrist: This is interesting: You said it seemed that you needed a hyperfocus to hear music in the ambient sounds. So when you were in a state of mind that was especially focused, you could make music that was a way of experiencing the world. Can you explain that to me?

Bill Fontana: It has to do with pattern recognition. If you use your brain in a certain way, you start to recognise those patterns. It became a kind of mental habit for me to listen and to hear them. And the more I did it, the more normal it was for me to do that. When I was a college student the Vietnam war was on, and I wasn’t sure what kind of career path I was going to have. In Cleveland I was enrolled at the music conservatory for composition, but also at the university as a philosophy major. I took all the philosophy classes, as specifically logic and philosophy of speech somehow seemed closer to what I was looking for in music than what I got at the music faculty. When I saw that John Cage was teaching a class in New York called ‘Experimental Music Composition’, I enrolled in the New School College and went to New York.

Hans Ulrich Obrist: The analytical aspect of the recording and listening is particularly interesting to me. When I became friends with Jonas Mekas in the early 1990s he taught me how to use a camera, which is why I actually record my interviews. There wouldn’t be 4,000 hours of conversations if he hadn’t taught me how to use it as a kind of notebook, daily, so I always film and record, reacting to a constant flux of reality, keeping track of presence. You said that you started to make those first recordings in a similar way to Jonas using a camera. Can you tell me something about this, also because it connects with that famous Cage quote, which came from Thoreau: ‘Music is continuous; only listening is intermittent’?

Bill Fontana: That’s kind of a fundamental idea of my work, especially in the later work where, as I got to know Cage, the more I got feedback on some of my ideas. In 1968, there was an exhibition at MoMA in New York called ‘The Machine os Seen at the End of the Mechanical Age, and it was the first time in my life that I have ever seen any of Duchamp’s work.

Hans Ulrich Obrist: It was the late K.G. Pontus Hultén who curated that show in the year I was born, 1968. I have the wonderful catalogue with its metallic cover. So you saw the musical sculpture by Duchamp there?

Bill Fontana: Yes, I was really inspired by that passage in the Green Box, Musical Sculpture. ‘Sounds lasting and leaving (4 minutes 17)’, a sculpture that was, for me, almost a theorem for my work. It made a lot of sense to me at that time as I had started treating these recordings basically as found objects. I would make a recording and then put it in a cassette—to be able to play it back at some random place where it was out of context, in order to observe people’s interactions with the sound and listening space. I was interested in how most people’s perception of the ambient sound was to regard it as noise and to tune it out. That passage about Duchamp’s musical sculpture made me call my sound intervention pieces ‘sound sculptures’.

Hans Ulrich Obrist: So that’s when you started thinking of the concept of sound sculpture and where the definition for your work comes from?

Bill Fontana: Yes. What I was doing was essentially different than, say, doing concerts. I started thinking about the meaning of sculpture. To me, it meant some physical embodiment with an aspect of the human condition. So the first real sound sculptures I made, in the early 1970s, basically consisted of taking several resonant objects, putting small microphones in the objects, positioning them on the roof of a building, and connecting them to a loudspeaker system in the gallery space below. I did this, for instance, in an alternative art space called the ‘Experimental Intermedia Foundation’.

Hans Ulrich Obrist: Would you call this your first valid piece—your number one in your Catalogue raisonné? How did it work, exactly? You explained in an interview that you connected the roof to the inside—and the inside to the outside, is that right?

Bill Fontana: Yes, I was interested in the resonant properties of certain objects, and how these objects were, in a sense, listening to the world around. That seemed to symbolise how I felt about the act of listening, making music as a physical embodiment of that idea. That’s why these are the first sound sculptures, yes.
Huo: Italo Calvino wrote this beautiful book about the Invisible Cities. I always thought that the Sonic City is somehow part of the Invisible City, because every time we don’t take notice. I feel that with your work it is. As Paul Klee said, ‘art makes visible the invisible’ — you seem to do that sonically, would you agree?

BF: Yes, absolutely. But thinking about New York, I was back in New York maybe three or four years ago, and there was this building I became very interested in, the old Met Life Tower on 23rd Street. It opened around 1909 and was inspired by the Campanile in Venice. At the top of the tower there were four bells that rang the Westminster chimes, and they did that for about 100 years. Then the building was sold, it is now a luxury hotel, and obviously the bells don’t ring any more. I went up to where the bells are and did test recordings, where I put these high resolution vibration sensors on the bells and made recordings of the bells essentially hearing New York. It seemed just — what began in the early 1970s, with these objects in the roof of a building — that process continued there. It was just a much more sophisticated, high-tech way of doing that.

Huo: We talked about the way you record. I read that, early on, you also used a tool that structural engineers use...

BF: An accelerometer.

Huo: Yes, an accelerometer, something like a vibration sensor. Can you tell me how you use the accelerometer to find this other dimension? Again, a dimension we don’t really perceive with our eyes, because we don’t perceive vibrations?

BF: The accelerometer is technically what is called a transducer. It’s normally used by structural engineers to measure vibration in structures like bridges, for example. Every airplane you fly on has accelerometers on the engine to monitor whether it’s moving correctly. When they’re building car engines, for instance, they use them. So they are really designed as measuring tools to get inside the vibrations of structures. I use them as portals into another dimension, and to explore how physical situations are connected through vibration, how they react through vibration. I did a project along these lines here in London with the Millennium Bridge, do you remember the sound sculpture from 2006 in the Turbine Hall at Tate Modern?

Huo: Yes, of course.

BF: I installed a network with these sensors on the Millennium Bridge, with the help of the engineering company that built the bridge. It’s a listening tool that has been part of how I work.

Huo: In the beginning, it was just with the roof that you recorded, and now you mentioned the Tate piece: bridges have also played an incredible role in your work. I searched online — so many of your pieces connect to bridges. Huang Yong Ping, the late Chinese artist, said we need always at least two points of view, and to bridge them. Of course, there is your famous bridge in Lisbon, and there is the Tate bridge, but there are also many, many more. When did the bridges enter your work? What was the bridge epiphany, and why bridges?

BF: The first bridge appeared in my work in 1977 in an exhibition at a museum in Melbourne called the National Gallery of Victoria. I was working for the ABC (Australian Broadcast Corporation) then — and had access to eight to sixteen analogue channel recordings, so I was able to take these sometimes into environments. This first bridge I recorded was in a town in Australia, halfway between Sydney and Melbourne, called Gundagai. There was a large wooden trestle bridge that went over a floodplain. The sound it made, the rattling of the wooden panels when the car went over it, I made some recordings of that in 1977. In the US, the first bridge I worked with was actually in Cincinnati, Ohio — there is a suspension bridge designed by the same guy who did the Brooklyn Bridge, John August Roebling. I did a real-time sound sculpture with the bridge in Cincinnati, which was transmitted to the Federal Reserve Plaza. When the Brooklyn Bridge was a hundred years old, in 1983, I did a similar project and transmitted live sounds into the façade of World Trade Center. So the sound of the Brooklyn Bridge was kind of hovering in that space.

Huo: Quite a bit later you did the bridge at the Tate?

BF: Yes, The Tate was in 2006.

Huo: That was, of course, Norman Foster’s Millennium Bridge. How did you do the Tate piece?

BF: I was a frequent visitor to London at that time, and I always travel with some kind of recording device. I had accelerometers, and I started my own experiments with making test recordings, putting accelerometers and cables on the Millennium Bridge. This seemed really amazing to me. I started to dream about making this artwork, but I also had good fortune. In a lecture at a conference about sound art in 2004, I played an example of my test recordings of the Millennium Bridge. It happened that an acoustic engineer from Arup Engineering, the company that had built the Millennium Bridge, heard it. He had a lot of experience analysing the wobbling that the bridge used to do, but he never listened to the accelerometer recordings, which is data for him. So he was very excited when he heard these, and said to me: ‘What do you think would be interesting to do?’ I said: ‘I want to bring sound into the Turbine Hall’. So what his company did for me was that they do work for architects who build concert halls and buildings, and they’ve got this incredible acoustic simulation lab. They can make a model of the acoustic space, and then take a sound and place it in the model.
and simulate what it sounds like. One of the head guys from Arup was on the board of the Tate. We invited Nicholas Serota to come to this lab and hear the simulation of the Millennium Bridge sound piece I was trying to do, and how it would sound in the Turbine Hall. On the spot Nicholas Serota said, ‘I want to do this’.

HUGO: The installation became a really fascinating experience that I connect to the time I moved to London in 2006.

BILL FONTANA: Currently I am negotiating with the Tate to give them a permanent, recorded version of the piece that they might install on top of the Turbine Hall.

HUGO: I have often discussed the lack of sound museums, comparing this fact to the 1990s, when video was still very much marginalised. Jonas Mekas, for example, was very upset with the Whitney showing videos in some other rooms as a programme during the Whitney Biennial. Nobody saw those films in the exhibition context, where they had only painting and sculpture. Today that has changed, now there are video rooms in every museum. Yet sonic works are still often absent from collections, and I was wondering about your perspective on that. I feel it will most probably change in the next 10 years—it is the next frontier. Sound in a museum or a collection context is still somehow unresolved. I was wondering if you believe that there should be a specialised museum of sound? Or do you think that sound works should just enter existing museums? How do you feel about collecting sound works?

BILL FONTANA: I have the experience of having some of my sound pieces in museum collections. I think that probably one of the most interesting of these is in Rome, in a museum called MAXXI ...

HUGO: ... by Zaha Hadid.

BILL FONTANA: Yes, she did the architecture. And I did this pretty large-scale immersive and permanent sound piece for her large entrance hall. The piece that flows through Hadid’s ‘kinetic’ architecture is based on recordings I made, many of them in the streets in Rome, and on an old Roman aqueduct called the Aqua Vergine. Visitors really experienced that piece in space and its surroundings.

HUGO: I have experienced it—it is indeed exciting and merges effortlessly with the situation.

BILL FONTANA: Even if SFMOMA in San Francisco also have some works of mine in their collection, as well as the Art Gallery of New South Wales in Sydney, which has two sound pieces in its collection—what you say is still interesting and right: Sound art in collections is still in its beginning stages. For the whole process of collecting, I have been operating independently mostly all of my career. The only time I had a gallery was when Haunch of Venison gallery existed in London, and I think they did kind of struggled with what to do with sound art. I always felt like I was, in some ways, a token sound artist for them. I still feel that there is a certain ambivalence about a gallery working with sound art.

HUGO: Another interesting aspect of your works is the treatment of the urban as much as the rural. Rem Koolhaas said: ‘The countryside is kind of a blind spot’. Nowadays we talk so much about the city that we have barely any images of the countryside. Which is why he is now doing a big exhibition on the countryside for the Guggenheim. We don’t have as many images of the countryside as we do of the city. And this is also true for sounds: sounds of the countryside are much less present than sounds of the city. You have worked in cities, in the countryside. In deserts even. When did you start to think beyond the city?

BILL FONTANA: It began, I think, in Australia, because the landscape in Australia is such a vast countryside. Cities are only a small part of that country: it is about the size of the United States and has maybe the population of New York City. So I did a lot of recordings of the Australian countryside.

HUGO: Can you tell me about those?

BILL FONTANA: I have one vivid memory of driving along a country highway. At the side of the road there was a large herd of sheep, and the sheep were agitated, making the kind of ‘baa’ sounds that sheep make. Their problem was that they were being attacked by a flock of magpies, and the magpies were also making a special kind of sound. So it was a combination of this moment in time, of an unhappy herd of sheep being attacked by a flock of magpies, and the sound of that moment was very special. Then in the distance you would occasionally hear the sound of a gear shifting on a large semi-trailer truck, and that mixture was so special … this was a moment. Another moment, I was in a field near a forest and because there were some interesting birds. I set up the microphones so that the recorders would record them. I was stepping away and by accident, or destiny, there were a couple of cows that started walking near where my microphone was in this field. I got the gradually increasing sound of those cows walking through the grass, approaching the microphone.

HUGO: Chris Watson made me aware of the importance of the sound of animals. In that context I think of your extraordinary piece in Cologne in the Kolumba Museum restored (1997–2007) by Peter Zumthor. I remember that when I was in Cologne in the 1980s or 90s, there were pigeons all over the mostly destroyed old town... For your piece that is now in the museum, which merges old and new, you recorded those pigeons.
BF: Yes, in the 1980s I worked in Cologne, where I did sound art projects [with the WDR, for example] and was a known artist in that community. In 1994, when I was living in Paris, I therefore got an invitation from the Museum of the Arch bishop of Cologne to visit what was soon going to be a construction site for their amazing diocesan collection. The site was the mostly destroyed St. Kolumba. Since 'columba' means dove or pigeon in Latin and is the bird of peace, they wanted me to document the sounds of the pigeons living there before it became a construction site.

So I brought a multichannel digital recorder to Cologne and circled my way around the Kolumba, making hours of recordings of the pigeons. Then the museum opened in 2007, and I designed this sound piece in that incredible space out of the old recordings.

HUO: So because of your piece, those long-gone pigeons are still there.

BF: Do you know the Vienna piece Landscape Soundings, which I did in 1990? It was installed in Maria-Theresien-Platz, between the Art History Museum and the Natural History Museum. In the mid-1980s the Austrian government was discussing the building of a hydroelectric power plant in the east of Austria, which would have really damaged the Danube.

The Hainburger Au was very much in the news then, and the theme of the Vienna festival in May ’99 was ‘kunst und natur’, ‘art and nature’. The idea came about with Heidi Grundmann, a producer from Austrian state radio, who did public art projects. With the help of the Austrian radio we selected a forest in the Danube wetland, installed a network of 16 microphones there, and transmitted the live sounds into the heart of Vienna.

HUO: So the work then was also a form of protest to force the government to abandon the idea?

BF: Yes. The sounds that came to Vienna were directly transmitted to 70 loudspeakers in the façades of these museums and to some of the lighting features on the ground of the park between the buildings. The space was filled with the living voice of this amazing wetland of the Danube. It was definitely striking. Today I am thinking of reworking this idea for an exhibition dealing with the idea of an age of trees. I’m using accelerometers and am actually listening through the trees. Then, it didn’t even occur to me that we would listen to the trees of the wetlands too.

HUO: So that brings us to the trees—a big theme right now, also because of extinction, since trees are probably the only chance we have of saving the planet in terms of climate change, through the massive reforestation of billions of trees. Can you tell me about the recording of trees?

BF: I feel it is important to go deeper and look closer because of the climate change issues, and their urgency. I wanted to make an artwork that would really bring out the living voice of one of these very important old world forests. Last time I worked with the forest it was very good in terms of rendering the kind of acoustic sounds you have in that kind of environment. But what was missing was the trees themselves. This time I see it as a great opportunity to put this technology—the accelerometer technology—on the trunks of trees that are several thousand years old; not only to hear some kind of internal vibrations that the trees have from the wind and weather, but more importantly, I regard a tree of that type as an amazing natural and live organisation. In California, in Sequoia National Park, you’ve got trees that are the height of a 10-storey building and 3,000 years old. The massive body of such an old tree is an incredible resonance structure, and if you put accelerometers high up on the trunk, where it is more elastic, the trunk is going to react to the sounds of the environment around it, like interesting bird calls. The massive tree trunk has a harmonic structure with resonant frequency and overtones. The second the trunk vibrates, we essentially hear sounds in a very musical way. When the forest or the wildlife produces an acoustic sound, any of those frequencies match the harmonic structure of the tree trunk. The accelerometers will hear through the trunk that reacts as a kind of resonant filter to the surroundings. Like this, you really hear the inner voice of a tree.

HUO: This means in your work we are basically in the tree?

BF: Yes, you can experience the sound of the forest from the perspective of a tree.

HUO: In this catalogue from Vienna, it seems you actually prompted a question: This idea of the score … not actually writing sheet music, yet at the same time a composition.

BF: I did sheet music when I was in Cleveland.

HUO: Only sheet music?

BF: Well, I wrote scores; a string quartet, some piano music … I wanted to be a composer.

HUO: Do they still exist?

BF: In my archive.

HUO: Has it been published?

BF: No.
Cologne. I was working at this broadcasting company, and I would install a couple of the hydrophones in the ground to hear the movement of the rivers, ship engines and water. That was the first time, but the more dramatic example was in Paris, in 1994.

HUO: You refer to a public art project on the façade of the Arc de Triomphe.

BF: Yes, it was a sound sculpture commissioned by the French Ministry of Culture, for the 50th anniversary of D-Day. I installed a live network of acoustic microphones and hydrophones on the Normandy coast which transmitted the sounds to an eight-channel system on the façade of the Arc de Triomphe. So, basically, the live sound of the sea wrapped around the Arc De Triomphe. The sound...

HUO: inundated it?

BF: Yes, if you stood on the island of the Arc de Triomphe, you were no longer able to hear the noise of the traffic.

HUO: And then there is, of course, your work connected to architecture. You have interacted with Frank Gehry at the SFMOMA and in Miami. Then you worked with the Whitney Museum in 1991, an interaction between you and Marcel Breuer. We spoke about Hadid. Can you tell me your focus when you react to architecture? At the Whitney Museum, you really altered the context, you actually ‘brought’ the Niagara Falls.

BF: The reason I did something there was very simple. The media curator of the Whitney was interested in having a work of mine at the Biennial.

HUO: You talk about John G. Hanhardt, the pioneering curator of new media who was for instance, also an early supporter of Nam June Paik.

BF: Hanhardt was a real advocate for sound art. He invited me to the Whitney Biennial after he had seen the piece with the Brooklyn Bridge on the façade of the World Trade Center in 1983. In 1985, he showed a sound piece of mine in the media room,
produced in Australia in 1976, a recording of wave patterns in Sydney Harbour called *Kirribilli Wharf*. He then invited me in 1991 to do a piece for the Biennial outdoors. The Breuer building has this kind of courtyard in the basement under the façade. While asking myself what sound piece I could do outdoors on Madison Avenue I came to think of the sound of moving water that produces natural white noise. I had a postcard image of the Breuer building, I put it upside-down—and it suggested a waterfall to me. So, Niagara Falls were some of the most interesting waterfalls that I could think of using at that time. I went and made extensive recordings of the Niagara Falls and installed a sound system at the Whitney Museum. It’s because of that piece that I had the chance to do the piece in Paris, with the Arc de Triomphe.

**HUO:** It’s probably one of your most famous pieces.

**BF:** Yes, into an inner courtyard. There is a bridge on the top floor below the Oculus where I was using a special kind of audio technology, because there were other ultrasonic transducers that projected sound waves like lasers into the space, reflecting off the walls. In the boiler room, I installed accelerometers and machinery that would hear all the plumbing and the moving water in the system there.

**HUO:** What about your connection to Frank Gehry?

**BF:** Well, I met him in Los Angeles and I had the opportunity in Miami Beach to do a project on one of his buildings, the New World Center. Because it’s a concert hall, the architecture of that building has one wall that is designed for video projection.

**HUO:** It’s the outside wall facing the park. Where people go to eat lunch, hang out.

**BF:** Right. There is also a permanent TV channel and sound system in the park. The symphony uses it to show concerts on the video wall and play the sound. But a lot of the time the system is not used. The City of Miami Beach wanted an artist with a permanent artwork for that situation—and they commissioned me. I was interested in the issues involved in the relationship of South Florida to the coast around it, and the sense of impending doom. I thought of the rising sea levels and I wanted to make an artwork that explored that relationship. I did a lot of filming and sound recording in many different situations in South Florida, exploring the relationship between the coast and the sea. I put accelerometers on structures floating in the water, against the water, and hydrophones on the water, I also had acoustic microphones. I unravelled and found interesting sonic textures with musical language, and the videos were all collages I made, gazing at the situation and layering parts of an image of itself.

**HUO:** Is it called Sonic Dreamscapes?

**BF:** The work goes in between. While making recordings, there is a sort of suspension of time, where time—normal time—stops. This experience has a kind of perpetual motion to it. I was trying to create media artworks that would get people to think of what surrounds them, but also get immersed into something evocative. Maybe make time stop for them, a little.

**HUO:** Another of your cooperations with architecture recently is the MAAT in Lisbon, incredible architecture by Amanda Levete.

**BF:** They asked me to make a piece for the museum because, when I was in New York, I met the first director of the museum, Pedro Gadanho. He asked me in 2016 about doing a sound piece, maybe a sound-video piece in Lisbon for the 25 de Abril Bridge. We agreed I would make my first ever site visit to Lisbon and work on the construction site of the museum. I came up with the idea of taking this large space at MAAT’s Oval Gallery and making an artwork with that bridge for 2018. Coincidentally, the name of the bridge, the 25th of April, also happens to be my birthday. I made quite a few trips to Lisbon over a period of a year and a half, and spent a lot of time making recordings and studies of that bridge. While working I had reactions to the installations in the building, with the architecture. In the end, the piece was essentially a real-time media artwork. With two concentric rings of speakers they were able to recreate the bridge in the museum. I installed a combination of acoustic microphones and accelerometers on the bridge. It was a real-time data stream sound, with the ability to have a live camera. One of the live cameras was on the bridge. I chose that camera to be on top of the tower of the bridge, which gave a really amazing perspective. I really wanted to have a sonic choreography in the space. I was lucky that there was a sound company from California that I worked with a lot, called Meyer Sound. They have this digital audio platform called ‘D-Mitri’ where, if you have a large number of speakers in a space like that—maybe 60 speakers—you can purposely create a sonic choreography by actually drawing.

**HUO:** The ‘D-Mitri’ programme is like a control brain?

**BF:** It’s very sophisticated. Each sound has its individual orbit through the speaker matrix.

**HUO:** You have used that technology before, for the Pritzker Pavilion in the Millennium Park in Chicago. Another interesting connection to Gehry’s architecture.

**BF:** Yes, I was teaching at the artist studio in Chicago. It was another gallery cooperation. As part of my presence in Chicago they wanted me to create an artwork. I was fascinated by the pavilion’s remarkable design, where you’ve got this trellis...
Nevertheless, with the accelerometer on it you can hear the resonance of the bell reacting to whatever surrounds it. At the Haunch of Venison, you’d go into a room and have this life-sized projection of a beautiful Buddhist temple bell, and you’d have this incredible sound that filled the room. There were several rooms with different bells, and they managed to actually sell one or two editions with that piece. Then in 2010, I did an exhibition at Somerset House about the Thames. It was installed on the lower level. At Somerset House you’ve got this large plaza as you enter from the Strand. The perimeter of the courtyard one level down is this walkway at the level of the Thames. When the building was created originally as the headquarters for the British Navy during the Napoleonic wars, that area was full of storage chambers for goods, weapons and in each of those caves—‘coalholes’—I installed video projections of different situations on the Thames. The piece was pretty immersive, with all these sounds of the different parts of the Thames moving through the surrounding walkway.

HUO: As your work connects to developments in technology, and as Tim Berners-Lee invented the World Wide Web in 1989—we have just celebrated its 30th anniversary—I would like to ask you about the influence of the Internet on your work? You have an extraordinary website, it is one of the best artist’s websites. It includes a lot of your films. It’s extremely complete and even has an own name, ‘Resoundings’, right?

BF: I started to build my website in 1999, when I had a sound sculpture at the Venice Biennale installed on the façade of the Punta della Dogana, and Peggy Guggenheim helped organise that. It was a sound sculpture that explored the idea of hearing as far as you can see. I had live microphones and used them with the immense visual panorama that you’d see from the Dogana. I had microphones in 12 to 16 places. The sound of these locations—an abstraction of the visual panorama—was transferred to loudspeakers on the façade of the building. When you create a website, you have to register a domain name, and I registered resoundings.org. I liked the word ‘resoundings’—that’s really what I am doing, in a sense.

HUO: Why do you like this word, why does it summarise your practice?

BF: The first time was in 2008 and it started because of the development of cameras. From the beginning of my recordings I would always take some pictures of the situations where I was recording sound. So, from the time you could actually do video with the camera I was carrying, I started shooting videos. I started thinking of the moving image as a time-based medium, approaching it in the way I use sound. The first time I exhibited a work with sound and video was actually at the Haunch of Venison gallery in 2008.

HUO: In your first ever commercial gallery?

BF: Yes, when they once asked me if there was a way of having visual elements in my work I had this idea of going back to Japan to make some new recordings of large Buddhist temple bells in Kyoto and Tokyo. The first audio-visual work I did was very simple. Basically, there was a camera staring at the beautiful hanging Buddhist temple bells. The sound was just the sound of silence of the bell, not ringing.
Bill Fontana, Hydro Power Landscape, 2019 (video still)

One of the pieces in the space will be from there. It will be a large vertical image based on a video I made of the hydroelectric power plant. The sound I’m using was recorded with hydrophones hearing the sound of the turbines.

BF: Like a Rorschach test.

HUno: Have you ever thought of painting or sculpting?

BF: In my early days in Cleveland. I also have a lot of friends who were art students, and for a brief period of my life I wanted to be a painter. People who have seen a lot of the recent videos I am doing, their reaction to it was that I was painting with light.

HUno: Have you ever seen the building in Graz?

BF: Yes. But now, for their ‘Year of Culture’, they want it back!

HUno: Let’s talk about the new show in Graz.

BF: It’s an exhibition that is, in some ways, a reflection on a lot of ideas, and especially on ideas about the environment.

HUno: So it is connected to ecology?

BF: Very much so. The exhibition will combine sound and moving image. It’s going to be in that large gallery space on the top floor. When the curator Katrin Bucher Trantow invited me to do something in that space, we were both thinking about learning from the experience in Lisbon, which was on a similar kind of spatial scale, and wanted to bring it together with the local situation in Graz and the globally important environmental questions concerning the production of energy. There will probably be eight to twelve hanging screens with projections on them in the space, and all the images will be from different environmental situations I have worked with.

In the large space, as with the work in Lisbon, there will be something like 50 or 60 loudspeakers, and the sound can move around in the space. A lot of what I am focussing on is renewable energy situations. As something like 80% of Austria’s electricity comes from hydroelectric power, I have done a lot of recordings of Austria’s hydroelectric power situations — there are beautiful hydroelectric power plants not far from Graz, where I did water recordings. On our tours we detected that the Austrian power company Verbund had set up a pilot project at a local power plant, using sounds in order to monitor the integrity of the turbines. When I saw that they used simple aerial microphones I proposed using accelerometers for their measurements, and the researchers were indeed excited when they heard what they could pick up.

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HUno: These exist too? These paintings?

BF: I have them in my archive, yes. I have never shown them.

HUno: Let’s talk about the new show in Graz.

BF: Have you ever seen the building in Graz?

HUno: Yes, I know Graz well. When Peter Pakesch was director of the Joanneum I was invited to do a talk with Michelangelo Pistoletto on social sculpture and the Cittadella. I also went to interview Günther Brus, the legendary Viennese Actionist who is from Graz. A part of the Joanneum is now dedicated to him. The building that you will now work in is by Peter Cook and Colin Fournier, it’s one of the few built structures by Cook, who is mostly known for his unbuilt work. He was a founding member of the 1960s neo-futurist architecture group Archigram, and also an amazingly influential teacher. Can you tell us about what you are going to do with Primal Energies and Sonic Projections?

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Ulrich Obrist
Autor
Bill Fontana, Hans

Just this idea that, through the medium of radio, you can kind of place a sound for art. Can you give us another example of one of your pieces for radio? All of that seems to be true for Graz.

BF: Yes, absolutely, but it has been true for all of my work in recent years.

HUO: It went from the Walkman to the iPhone—now people listen to almost everything on the iPhone. Of course, your work also breaks this bubble, because people are often in this bubble and don’t notice what is around us. But would it be possible to somehow bring it back, bring your work to mobile listening? Have you ever thought of making mobile pieces? Could you even imagine a Bill Fontana app?

BF: In a way, in the 1970s and 80s, before all this happened, I was already using radio like that. The sound art works I did for radio really brought the sound to you. People listening to radios, thousands and millions of different contacts at the same time—it felt like a chance to make temporary sound sculptures in many places at the same time, as the sounds would logically interact with the situations that people would happen to be in. When, in 1982, I had a grant from the Corporation for Public Broadcasting in the US, it produced 365 formatted radio programs that were basically structured for three-and-a-half minutes to hear sound without any explanation. Only afterwards there would be a voice to tell you what you had been hearing. This programme was distributed all over the United States on the public radio network. Just this idea that, through the medium of radio, you can kind of place a sound in all these different situations. But what you are saying about the iPhone app is something very thought-provoking, it might be something I’d like to explore.

HUO: Speaking of radio pieces, they have often been a laboratory for literature—the legendary Austrian writer Friederike Mayröcker has done many amazing radio plays—for art. Can you give us another example of one of your pieces for radio?

BF: Two come to mind. I did a sound sculpture in Berlin in 1984 at the Anhalter Bahnhof: I took the sound of the Cologne main train station and planted loudspeakers buried in the empty field behind the Bahnhof. What the Westdeutscher Rundfunk did, as a partner in this, was that people alive in Berlin in 1984 who had a memory of the Anhalter Bahnhof as a train station would go to that site, and they recorded interviews. In 1987 I did this piece called the Soundbridge Cologne – San Francisco. It basically connected two real-time sound pieces, one at SFMOMA with the Golden Gate Bridge, and one at the Museum Ludwig with a live sound art piece about Cologne. I did this kind of radio concert mixing sounds live, and it was distributed all over Europe and North America, and even to Australia via satellite.

HUO: Please tell me about your archive. Where is it?

BF: It’s online and in my house in San Francisco, in my studio.

HUO: Jonas Mekas urged us to have things in different places. How do you archive your work?

BF: Well, what I do is that I have three servers, and I store a lot of files on the servers. What’s also useful for me is, if I am working with somebody on a project, I can have a file that is not on a website and I can send a link to someone to see or hear it. I use it as a way of storing a lot of data, a lot of files. It’s kind of an ongoing and labour-intensive process. During this work I have often had the idea to take some of the work and maybe sell it as editions. From the money I would perhaps create a foundation.

HUO: That’s one of your unrealisied ideas then. I wanted to ask you about these. What projects were too big, or too small, or too expensive to be realised?

BF: Ever since the idea of a project for the Hayward on listening through ancient trees came to my mind, I am possessed with it. I would love to do it, but due to time issues I am not sure if it can happen. Apart from this I had a public commission in New York City that failed due to money issues, but would have been amazing. I wanted to do a large sound piece bringing elements of the New York Harbour and it’s surroundings into a public space.

HUO: Any other projects?

BF: I had the idea to turn the new Berlin Hauptbahnhof into a kind of musical instrument for the Hamburger Bahnhof in Berlin, working with accelerometers. The sounds of the structure of the new station would be interesting, and it would be remarkable to rebuild that station acoustically into the former station and contemporary exhibition space of the Hamburger Bahnhof. So far I didn’t get the most favourable reaction. What fascinates me about using these accelerometers and recording vibrations inside a structure, or now in an ancient tree, is that it gives me the feeling of perpetual motion. It’s like there is a sense that certain sounds never stop, they keep going. A bit like looking at the night sky, and it’s infinite.

HUO: It’s cosmic.

BF: Cosmic, yes. An accelerometer placed on a 3,000-year-old tree is hearing a sound that never stops, and is a portal to infinity.
Site-Specific Elsewhere
Bill Fontana’s Evocative Places on View

Rudolf Frieling

The casting of roles between sound and image is mostly crafted by specialists in the film industry to enhance our visual and cognitive perception. Sound is typically defined as the ‘soundtrack’ to a motion picture, a supporting role to the main character of moving images. In the acoustic realm of sound art, however, sound is an autonomous thing or a medium specific practice. When this pure focus on one medium is expanded to include a film or digital projection, could we call the use of visuals to accompany a sound the ‘film track?’ Would this simply reverse the hierarchy or could there be a different sense of leading and supporting role when a sound artist includes moving images in his work? These questions come to mind even since 2009 when, in a surprising turn of events, sound sculptor Bill Fontana added digital films and projections to his artistic tool-set after having successfully built a career in pure sound art for almost four decades. I will look at this relationship and the motivation behind this development in light of a body of work that addresses notions of place in different ways. Sounding places like a location scout in search of interesting sounds has suddenly become a double inquiry: What is the image that this sound makes? What is the sound that this image makes?

Objects make specific sounds, and thus there is an inherent link between, say, the image of the sea and the sound of waves. Images, however, do not make sound, although we would associate a variety of sounds with an image, say the blue sky with wind or a passing airplane. The image of an instrument would obviously remind us of the visual still life of a bell in a temple setting with the acoustics of a buzzing urban environment of Kyoto. Nothing moves visually, or almost nothing, as the camera patiently meditates on the thing it records in a single still shot. The hollow space of the bell, this dark void in the center of the image of the sea and the sound of waves. Images, however, do not make sound, although we would associate a variety of sounds with an image, say the blue sky with wind or a passing airplane. The image of an instrument would obviously remind us of the visual still life of a bell in a temple setting with the acoustics of a buzzing urban environment of Kyoto. Nothing moves visually, or almost nothing, as the camera patiently meditates on the thing it records in a single still shot. The hollow space of the bell, this dark void in the center of the

While objects come with a set of stored and remembered sounds, a cityscape is one of those highly detailed and constructed aggregations of audiovisual information. It embodies urban sounds such as cars, sirens, passing voices, and even occasional natural sounds such as birds, rain, or a gust of wind. Almost everything can be mentally associated with an urban acoustic environment, specifically when it’s not literally on view but evoked as an ‘off-camera’ space. This was precisely the premise of what one might call the first sounds that made a film: Walter Ruttmann’s 1930 radio play Weekend: [...] Ruttmann collects sound recordings of a weekend in Berlin: From finishing work on Saturday to starting the next week on Monday morning. Lasting a good 11 minutes, the piece alternates between narration and sound pattern. With his ear for the narrative as well as the visual, Ruttmann works on a kind of audio-art. [...] Tone, coloring, rhythm and pitch merely customize the storytelling. I am referencing this seminal pioneer of sound art precisely because he was also one of the leading experimental filmmakers of his time. Ruttmann sharpened the public’s ears and eyes to the energies and generative qualities of acoustic and visual patterns in order to go beyond the simple indexical recording of reality. Neither Ruttmann nor Fontana believe in the realism of a document, but in the evocative quality of a condensed abstraction providing a complex audiovisual experience situated between an object and a place.

Bill Fontana is not the storyteller who pursued the art of the narrative radio play following the soundtracks laid out by Ruttmann. But his interest in patterns and acoustic field recordings makes him rejoice when someone asks him: So, what does this place sound like? One of his earliest works, Total Eclipse, SE Australia from 1976, was an assignment to capture the sound of Australia. Driving around in a big broadcasting truck with support from the national Australian Broadcasting Corporation, Fontana ended up in the rain forest south of Sydney. But it was not just the choice of the natural landscape to find an answer to this seemingly impossible question, it was also the choice of a unique and for most of us almost singular moment in our lives: the experience of a total eclipse of the sun. Listening to the richness of a rain forest ecology with its multitude of birds and unknown noises is a fascinating thing in itself. Add to that the viewer’s detached experience decades later in an exhibition somewhere else in the world. On top of these two shifts in perception, it is our knowledge and anticipation of the moment of eclipse that finally lends the choreography of the sounds a sense of climax and a heightened sense of reality. This realness and

Notes:
1 This text, originally published as ‘Evocative Places on View’ in Abu Dhabi Music & Arts Lab, 2014, has been slightly modified for this occasion. It was revised again for this occasion.
2 The term sound art emphasizes the difference from the musical ‘sound’ even if the term ‘sound’ and ‘music’ are used in their familiar colloquial terms at other points in the text. The English term sound sculpture is also occasionally used in the following, as it is central to Fontana’s conception.

3 It is characteristic of Bill Fontana’s decades of sound art that he likes to review places he has worked on before. This is true also for Kyoto, where he produced Acoustic Views of Kyoto in 1990 in such an idyllic place where the religious and natural sounds are relocated to the top of a hill, from where one could see the places where the sound originate. Bill Fontana describes the experience as ‘hearing as far as you can see’. Stefan Bohlmann (2004), http://www.nationalgallery.org.uk/exhibitions/billfontana.html (accessed 20.01.2020)


5 Walter Ruttmann, excerpt from the score for Weekend, 1930

Author: Rudolf Frieling
materiality of a unique moment is at the core of Fontana’s field recordings that, in the decades to follow, would lead him to explore the notion of sound sculpture across the globe.

I am referring to this work not only because of its acoustic qualities though. Let us rather understand better its evocative visual quality. Hearing these crystal-clear and sharp individual voices in a spatialized stereophonic way conjures up a still image of tall trees, entangled branches and leaves, twisted vines and an occasional quick movement in the upper regions of this almost monochrome visual feat in green. Then it gradually fades to black as the sun is eclipsed and back to green as normal life continues. At least that was my film. It’s not a purely technical story of place rather the way we all see it from this experience. His juxtapositions are much more aligned with the potential of a place. Or, we had not heard it before in quite this way. Equally important is that we had not seen the place in quite this way. This is especially felt in a setting where we are physically on the site that generates the sounds. One of his commissions for a museum, Sonic Shadows (2010), at the San Francisco Museum of Modern Art offered from 2010-2011 a real-time musical performance of sounds that the building itself generated in its boiler room, hidden behind a grid of holes in the beautiful Oculus with the light-filled bridge leading into the galleries. Once again, we are in a specific visual environment; an all-white, curved architecture. Here, listeners were looking at rotating, white flat, ultrasonic speakers that evolved a history of abstraction in the fine arts while at the same time making “acoustical drawings”, as Fontana would call them, onto the curved walls. Pointedly said, the conditions of an audiovisual experience, as framed by the architecture of the space, led to reverberations throughout the building and public spaces of the museum. The soundtrack became coupled with a variety of different visual experiences, including the perception of works in adjacent, temporary exhibits. This was particularly appropriate as the museum also owns an icon of the 20th century, a three-paneled White Painting by Robert Rauschenberg from 1951, which was also intended as a reflecting surface for the presence of shadows by visitors and which (not coincidentally) inspired John Cage, Fontana’s teacher in the 1960s, to compose his seminal work of listening to the space we are in, 4’33”.

Bill Fontana identified the beginning of his musical practice as the moment when he disregarded the traditional realm of the concert hall and began to think outside the box. Side-stepping the traditional space for listening to music with its specialized, interested, and educated public, the field of public space is undefined, overdetermined, messy and at times too concrete. Still, Fontana has favored public spaces for his often site-specific interventions into the sound and visual ecology of a place. The public sphere is alluring to him precisely because of its quality of an open field in which unchoreographed events can happen that do not reference music history but the conditions of public space as an event-space, a space of possible narratives and interactions. Similarly, we can consider even the museum a part of this public fabric although its main function seems to be to stage an encounter with art history and discourse. Yet, the museum partakes in this emphatic understanding of an institution that addresses the public at large and which is therefore also intrinsically a part of this public sphere. The act of exhibiting sound within a museum is then an act of addressing a larger public that is often untrained in the art of listening. The sound of the art work makes it constantly difficult to approach and disappear trains cannot be integrated into the experience of being in a certain place and time. Listening to typical sounds of the city inside the San Francisco City Hall (Spiraling Echoes, 2009), on the other hand, feels almost as natural as listening to the mechanics of the famous Big Ben clocktower inside Westminster Abbey (Speeds of Time, 2004). Both in fact ‘echoed’ what was happening in its very context. In other words, a geographical proximity or a structural affinity to these sounds helps in this regard. After all, the fog horns of Golden Gate Bridge, which were also part of the Sound Sculpture Through the Golden Gate (1987), insert themselves into the typical Bay Area soundscape in a quite natural way. San Francisco’s City Hall then becomes the resonant body of its community, not unlike the bell in the Kyoto temple.

It makes a huge difference whether the overlay of the audio and the visual stage have an affinity or not. Shifts of perception and disruptions of expectations possibly occur, but Bill Fontana is not interested in staging conflicts. His musical and aesthetic choices have typically enhanced our understanding of place rather than disoriented us from this experience. His juxtapositions are much more aligned with the potential of a place. Or, we had not heard it before in quite this way. Equally important is that we had not seen the place in quite this way. This is especially felt in a setting where we are physically on the site that generates the sounds. One of his commissions for a museum, Sonic Shadows (2010), at the San Francisco Museum of Modern Art offered from 2010-2011 a real-time musical performance of sounds that the building itself generated in its boiler room, hidden behind a grid of holes in the beautiful Oculus with the light-filled bridge leading into the galleries. Once again, we are in a specific visual environment; an all-white, curved architecture. Here, listeners were looking at rotating, white flat, ultrasonic speakers that evolved a history of abstraction in the fine arts while at the same time making “acoustical drawings”, as Fontana would call them, onto the curved walls. Pointedly said, the conditions of an audiovisual experience, as framed by the architecture of the space, led to reverberations throughout the building and public spaces of the museum. The soundtrack became coupled with a variety of different visual experiences, including the perception of works in adjacent, temporary exhibits. This was particularly appropriate as the museum also owns an icon of the 20th century, a three-paneled White Painting by Robert Rauschenberg from 1951, which was also intended as a reflecting surface for the presence of shadows by visitors and which (not coincidentally) inspired John Cage, Fontana’s teacher in the 1960s, to compose his seminal work of listening to the space we are in, 4’33’.

Sonic Shadows, SFMOMA, 2010
concerned with an image and its corresponding or not-corresponding soundtrack. In fact, as much as his practice has tested time and again the relationship to the ‘iconic,’ his interest is rather how event patterns intersect in a complex interaction between foreground and background. All viewers are trained in discerning these parameters of the visual field. But with Fontana, it is an audiovisual field recording, enhanced and abstracted in real time or in post-production.

We know that the cables set in motion horizontally or vertically as in Studies for Acoustical Visions of the Eiffel Tower (2012) correspond to one of the most iconic places of the Western hemisphere. We have seen this too many times, whether in real life or on postcards. What needs to be shown is the way that these icons are based on the vibrancy of the microscopic view on matter, granularity, or detail set in motion and related to the macroscopic totality, whether it is a mechanical construction as in Studies for Acoustical Visions of the Eiffel Tower, a process of industrial manufacturing as in Linear Visions (2014), or a natural configuration as in Desert Soundings (2014). Linear Visions, Fontana’s work for the OK Center in Linz, reveals the charged relationship between concreteness and abstraction where the dramatically concrete is temporarily dissolved in a composition of pure colours of moving matter. The camera and the microphone allow a close-up and attention to the material events which would be impossible to achieve with the human eye and ear simply because of the exposure to the heat and noise of steel manufacturing. What applies for this work, as for Primal Energies on display in Graz: without recording media no new experience. It is the sound that makes the image AND it is the image that makes the sound—sound and visuals support each other, no leading or supporting role can be identified in this interaction. Fontana’s audiovisual art is, I would conclude, not a surrealist art of collage but a materialist art of abstraction— it is the grain of sand that evokes the desert, it is the pattern of sand shifting that evokes a place as the very foundation of the works on view in this exhibition.

This is where we can circle back to the expanded field of contemporary art that has seen a growing body of hybrid works, addressing the qualities of the performing arts within the museum, as well as formulating an artistic practice as research. Specifically the analogy to field work plays a role in this approach to Fontana’s art: archaeology with its notion of lost times in lost places that can be captured and evoked through found objects; anthropology with its notion of other voices that are telling a different story but ultimately enrich our fuller understanding of humanity through the diversity of voices made accessible, and even within the subjective realm of psychoanalysis we are confronted with a notion of the lost as belonging to the unconscious or repressed that can be activated or liberated. From archaeology Fontana has learned a way of evoking a lost or inaccessible aura with all its connotations of lived life and rituals. This, ultimately, leads to the concept of an original site as something that can be ‘exhibited.’

The assumption that we have indeed lost something which can be unearthed and thus saved, is translated in his works into the act of paying close attention to the disregarded, the fleeting and ephemeral, possibly to a reality that has been repressed from the public surface. Today in the age of coded and programmed objects, his sounds and images remind us of the materiality of sites. A bridge, in this close-up, is a string of cables that vibrate and hold a tension. But how does this relate to the image that makes a sound? One of Fontana’s most recent site-specific interventions was, once again, focused on the most iconic of all bridges—the Golden Gate Bridge in San Francisco. Exhibiting his Acoustical Visions of the Golden Gate Bridge in 2012 inside Fort Point, which sits right underneath the actual bridge and which accommodated a series of contemporary commissions by the FORSITE foundation to celebrate the 75th anniversary of the Golden Gate Bridge, one could see and hear the bridge from a hidden structural level. Pointing a video camera upwards towards the street level with a section of steel grids which form the joints between the bridge and the land, Fontana offered a real-time audiovisual experience of patterns of light and shadow—passing cars—and intervals of enhanced vibrating noises. Depicting a place by enlarging a detail and cinematographically zooming into the granularity of a place, avoids the obvious iconic references and clichés while managing to show an icon in such a way never seen before. It has become clear that Bill Fontana is not concerned with an image and its corresponding or not-corresponding soundtrack.
Listening to a Reconstructed Nature  
(Or Resounding the Environmental Emergency)  
Pedro Gadano

‘The world is not for the beholding. It is for hearing. It is not legible, but audible.’  
Jacques Attali  

These days, Nature seems to erupt in rebellion, furiously returning the impacts of man-made alterations to the planet’s surface and climate. In such a moment, one would say that the traditional wisdom of ‘listening to Nature’ has again become an urgent matter. This may be desperately reinstated by indigenous peoples who have kept closer connections to natural ecosystems, or discovered anew by a recent crop of ecological activists. And yet, such appeal may also be identified in contemporary art practices which, in a vein of research-based, critically-oriented postures, now turns its focus to highlight hidden narratives related to a widespread environmental emergency. This is the revealing context in which we should situate the subtle evolution in Bill Fontana’s choice of sources for his artistic creation over the last two decades. When Fontana diverts from regular forays into the inaudible sounds produced by human-made structures, and again returns to sites and articulations that reveal an ongoing dialogue between natural and artificial settings, he too underlines, in his very own way, the renewed urgency of ‘listening to Nature’.

Back in the 1970s, in another moment in which environmental pressures were felt on all sides, Fontana’s focus had already been drawn to operations of ‘resounding’ the hidden sonic marks of events taking place in the ‘natural’ realm. As the artist recalls in his interview with Hans-Ulrich Obrist, when commissioned to ‘record what Australia sounded like,’ he felt intuitively compelled to capture a 5,000-year event, and document how a solar eclipse would surely affect the wildlife in the local rainforest. The ensuing operation of sonic re-presentation ultimately alluded to phenomena that possibly will not be heard again by a human ear—a sense of irrevocable loss that sparks a specific kind of ecological awareness. Yet, Fontana’s typical reconstruction of the sounds captured on site also surely celebrated the exhilarating, trancelike revelations of ‘listening to Nature’ at its most unique, secretive, and untouched. While the artist’s focus over the following decades was mainly directed at environments defined by the superimposition of human-made elements on natural or urban contexts, his most recent work certainly realigns with a broader movement in which sound art is seen as a particularly suited vessel to address the urgency of reconnecting to deeper natural histories.

Fontana’s hydrophone, recording the sounds of water. Power station, Rabenstein 2019

Back in 2013, sound artist and curator Leah Barclay had already noted that, undeniably, there was ‘a strong movement associated with environmental sound art emerging internationally.’ Following on Jacques Attali’s thoughts on the agency of music and its ability to be ‘a harbinger of change,’ Barclay stressed that the combination of electroacoustic compositions with natural sounds could expose the ‘state of the world’ and specifically trigger an ‘awareness of ecological crisis.’ Her words could not be more to the point at the beginning of the 2020s. As an international coalition of curators has rendered clear in the multi-venue Eco-Visionaries project, an acute sense of urgency has indeed taken hold across a vast spectrum of contemporary art media and practices. But, as Barclay defended at the foundation of her Sonic Ecologies, sound art may indeed benefit from a more intuitive, less mediated capacity to involve communities and audiences in igniting ‘an awareness and connection to the environment.’

As Barclay stated in her essay, ‘the process of simply listening to the environment can completely shift our perception.’ And Bill Fontana, too, has been deeply engaged in the artistic processes of shifting perceptions. As I wrote in the introduction to Shadow Soundings, his 2017 installation at MAAT, the Museum of Art, Architecture and Technology, in Lisbon, Fontana’s work often deconstructs ‘the iconic, yet dampered aura’ of everyday structures, but in such a way that ‘we can rediscover it afresh.’ Where the Benjaminitian aura has been dimmed by the state of distraction associated to our daily uses, his compositions with the inaudible—and his exercises in its abstraction and reconstruction—re-enhance those objects’ forgotten or hidden perceptual qualities. Consequently, I was prompted to underline that ‘as other artists, he heightens aspects of reality that remain imperceptible to most, thus reshaping the aura of the objects he scrutinizes.’ At a given stage of Bill’s career this could have been solely understood as an aesthetic and technological pursuit. Yet, the urgency of ‘listening to Nature’ may have led to new priorities in considering what ‘reconstructed perceptions’ we should be aiming at or listening to in the context of a climate crisis.

A subtle turn to the paradoxical sonic revelations of supposedly ‘natural’ environments, already seemed clear to me in the project on which we worked together for MAAT. If Lisbon’s nearby ‘singing bridge’ was the first motivation for the artist’s interest, the underwater sounds of the river eventually became stage-centre in the whole endeavour. The latter appeared in an intricate and operatic dialogue with the metalically produced sound waves, or, on their own, confronting visitors with the hidden narrative of the water mass that stood before their eyes at the museum’s entrance. In this particular and intendedly permanent sonic installation, one would expect the livestreaming sounds to be merely the water course’s ‘natural’ outputs. Yet these were soon revealed as, once again, profoundly affected by the human interference that has come to define the Anthropocene. If paying attention, by simultaneously listening and seeing, one would soon realize that the major disturbance in the gentle sound flow audible in the public space were produced by the massive, polluting cruise ships entering the port of Lisbon.

In the midst of the current environmental crisis, the relevant characteristic of Bill Fontana’s oeuvre may indeed be his particular interest in the impact of technological objects and their interactions thus highlighted as a matter of critical reflection. There are artists who may aim at raising ecological awareness through the compelling re-enactments of naturally-existing musical compositions. Fontana’s work, however, particularly addresses a condition in which ‘Nature’ can no longer be simply considered an object of nostalgic conservation or re-presentation.
In this sense, his intuitions align with radical contemporary views in which a proper ‘environmentalism’ must, perforce, include the articulation of a by now falsely idealized Nature with human-made environments. As political scientist and author Steven Vogel provocatively points out, after the end of Nature, ‘an environmental theory or practice [exclusively] oriented toward nature’s protection has nothing left to do.’ Thus, if we indeed want to raise and maintain deeper environmental concerns, we must be aware of the whole edifice or system: we must listen to trees and river flows, as much as to man’s artificial harnessing of those same ‘natural’ resources.

In a world in which a certain sense of Nature is irredeemably lost, in a state of crisis driven by our undiminished patterns of natural resources consumption, it is irresistibly pertinent to direct our reflection to those forms of ‘primal energy’ that are now key to maintaining whatever delicate ecological or societal balance is still possible. As such, through its particular drillings of unexpected sonic and visual combinations, what Bill Fontana’s latest project for the Kunsthaus Graz is effectively telling us is that solar, hydraulic or wind energies—now harnessed and channelled by our artificial engineering imagination—are the objects of a new Whitmanesque, futuristic poetry. And while this is not necessarily a celebratory proposition, and even while the undertaking is eventually tinged by irony, such realization should drive us to a less naive take on the ecological complexities and contradictions that we see today at play in any given eruption of environmental consciousness. We may appreciate the intrinsic beauty, or even the ethical aura of capturing natural flows of renewable energy—rather than just stomach the ugly impacts of depleting natural fossil reserves for good—but let us not forget the profound artificiality involved in such enterprise.

Adding to this necessary reflection, the continued fascination with the use of advanced technical instruments in Fontana’s ‘listening’ work indeed recalls the now pervasive idea that technology is an essential, if contradictory part of the equation in a much-needed reconnection to natural flows and systems. If what is left of Nature is to be reconstructed and rewoven into some new sort of ecological balance, human technology will certainly be a component of that ambitious process. Just think of the discreet but elaborate technological innovations imbedded in contemporary agroecological farming. Technology may fail to deliver in a timely way the silver bullet called for by certain delusional optimists, but it will certainly provide some of the means through which we can reclaim a more manageable world. Fontana’s use of certain technological devices to access inaudible aspects of that same world—be it in the occasional vibrations with which an artificial structure echoes its surroundings, be it the perpetual sonic messages transmitted by ancient trees—in fact inform us of the constant advancements in our ability to better ‘listen to Nature.’ In the midst of apparent chaos, using sonic art as a doorway to an enhanced experience of the world, Bill provides us with a sort of precise, modulated hope. And this, let’s face it, is an important first step.
‘Becoming fully present’
Katrin Bucher Trantow

There was a strange stillness. The birds, for example—where had they gone?¹

When, in 1962, Rachel Carson’s book Silent Spring triggered the beginning of environmental awareness—and in particular, an awareness of a whole, cyclical and large, noisy web of life—it was certainly also her powerful verbal images that drew millions of readers across the world. Carson’s vision of a looming deathly silence continues to speak volumes today.

Bill Fontana grew up in an age of growing environmental awareness, at the beginning of the 1960s, a Cleveland boy with an interest in music. His family lived in a neighbourhood situated between an industrial zone and a concert hall. This intensive experience of a world around him suffused both with music and the noise of production had an impact that was to shape his whole life.

The task of acoustic art and acoustic design is to fundamentally challenge all of the old historical definitions of noise and the resulting preconceptions that most people have about the sounds they live with.²

The epochal steirischer herbst festival, Bezugspunkte 38/88, explored Austria’s 1938 ‘Anschluss’ to national-socialist Germany, a topic commonly repressed until 1988. Sound artist Bill Fontana installed a sound work in the city centre that is still remembered by many local people to this day: Sonic Projections from Schlossberg. Graz was an urban ‘multi-channel installation’ that transmitted sounds from the top of the hill down into the town, and mixed live noises of the city with recorded sounds from all over the world. Invited by Graz curator Werner Fenz and Heidi Grundmann from ‘Kunstradio/Radiokunst’ at ORF, Fontana came to Austria for the first time. In that following year—also at Grundmann’s initiative—he transmitted the sounds of the Danube wetland landscape to Vienna, between the Kunsthistorisches and Naturalhistories museums; this happened immediately after a debate about the construction of a hydropower plant there. In Graz, the Schloßberg clocktower was once saved from demolition, and so became a local symbol of resistance. In 1988, Fontana took sounds gathered from all over the world and transmitted them into the city from the Schlossberg for a period of five days, for several minutes each hour. These included foghorns from San Francisco Bay, bells from Kyoto and birdsong from the Australian rainforest. Using what were then cutting-edge recording devices, loudspeakers and radio technology, these sounds were combined with the eight sound-delayed live recordings of places of historical significance around the city into a live mix in the radio studio. The studio was set up in the Landhaus—which once served as headquarters for the fascists—and, for one day, the acoustic map created by the overlapping was broadcast to the whole of Austria. Although it had sought to reconcile the past with the healing present, Fontana’s sound portrait of the city met with a heated climate of defensiveness. As a result, the ‘beastly shame’—as the work was dubbed by the Neue Zeit newspaper—was vandalised after just a few days and consequently was canceled by city politicians. Despite—or perhaps even because of—the explosive poignancy felt at that time, for many people those sounds from the Schlossberg still linger as a melancholic memory.

I am assuming that at any given moment there will be something meaningful to hear. I am in fact assuming that music, in the sense of meaningful sound patterns, is a natural process that is going on constantly.³

Since the beginnings of his artistic work, Fontana has been moved by the possibility of a holistic perception of the ‘overlooked’. Beyond instrumented and composed music, this is about conscious listening and making us aware of the sound qualities and harmonies in everyday life. Using technical instruments and unfamiliar localisation, he makes the acoustic properties of landscapes, places, objects, and especially buildings into an audible and accessible experience. As in the case of Sonic Projections, Fontana often uses the indirect environment as the source of his musical information. A level of abstraction arises from the shift of location and naming, conjuring up strong visual images.

Fontana grew up in Cleveland, Ohio, and showed an early interest in music. As a teenager he played the piano and clarinet, and from 1965 to 1968 studied music at the Cleveland Institute of Music as well as philosophy at the John Carroll University. Cleveland, focusing on Wittgenstein’s logic and language analysis. In 1968 he enrolled at one of the most prominent universities of the time: the New School for Social Research in New York. There he studied composition—on a course shaped by John Cage, who taught there from 1950 to 1960 and was in contact with the university and with Fontana—together with philosophy. At that time the leading figures in Conceptual Art, experimental music and Fluxus Art taught at the New School. Years later Cage also supported him as a mentor for the project at the Golden Gate Bridge in San Francisco (1985/86) and wrote a letter of recommendation emphasizing the quality of his work, which he said ‘marriage natural sounds like birdsong and the rushing sea with the metallic noises made by the stretching structures of the famous bridge.

As a student he was greatly influenced and supported by Philip Corner, Dick Higgins (who in 1963 founded the groundbreaking Fluxus journal Something Else Press) and his partner Alison Knowles, whose performative work focuses on the perceptions of everyday phenomena as independent events and aesthetic experience. It was their perspective on the notion of a unity of art and life that led Fontana to the conviction that while all sounds—as Cage stated—were already there, we just could not perceive them, since our ‘Gestalt’-programmed perception—determined by the dominance of the visual sense—excludes them. The consequence of this is to singularize and decontextualize everyday sounds so that they form pictures in your head. Language

³ Walter Müller, Live Affenschande, Neue Zeit, 16.10.1968, p. 9
⁵ Letter from John Cage, viewed by the author in Bill Fontana’s archive, 15.12.2018
this time Fontana also learned of the Balinese tradition of gamelan, in which music is regarded as a medium employed to make the flow of all cosmic energies audible. Fontana has devoted himself to this task throughout his oeuvre, and evokes it again in his *Primal Energies* installation at the Kunsthaus Graz in 2020.

From 1975 to 1978 Fontana lived in Australia, where he began systematic sound works and recordings, and came into contact with radio as a medium of communication and an artistic space for the first time. He produced a comprehensive set of recordings of everyday noises from various places on the Australian continent for the Australian Broadcasting Company (ABC). His work with experimental radio allowed him to buy and use the latest sound equipment and led to his most exciting work of the 1970s: *Total Eclipse, SE Australia, October 23rd 1976* is the striking acoustic record of a total solar eclipse, an extremely rare occurrence that is generally perceived first and foremost visually. Not due to happen at the same spot again for many years, the event was documented and broadcast by Fontana live from the rainforest. His recordings revealing the animals’ acoustic behaviour during and after the eclipse—from the wild clamour of the birdsong and rustle of the trees through to complete silence, and finally the tentative reawakening of the forest—were transmitted via radio into the urban reality of Sydney. This transmission of the recorded natural sound to a place defined by man is a crucial component of the spatial experience of his sound sculptures, which essentially occur in people’s visual imagination. Before the listeners’ inner eyes their own visions unfold, as with my visions of colourful, iridescent birds in the green undergrowth being silenced as gradually all becomes still, slowly sinking into the dark.

As a consequence of this experience taking place in our imaginations and overlapping with our own situation, which expands in time, Fontana called his works *Sound Sculptures*, so using the relatively new conceptual construction from the combination
It was not just Duchamp but the entire legendary exhibition—which ran in 1968 at the Museum of Modern Art in New York and explored the machine as part of an artistic way of thinking and creating—that had a lasting impact on him. The curator, Pontus Hulten, brought together artworks addressing the machine as a promise (as with the Futurists), as a danger (as with the Surrealists), or as a distinct aesthetic medium (as with Duchamp). Fontana's enthusiasm for technical and mechanical development and also for Wittgenstein's analysis of language underwent a physical translation. In a period of growing electronic and chemical influence on communication and perception of social reality, and the increasing awareness of how nature was changing, the show also implicitly raised the question of an actual dichotomy between man and machine, between culture and nature. The concept of the analytical staging of an everyday encounter between nature and culture runs like a thread through Fontana's work to this day. Famous as a result of his work with the Australian Broadcasting Company, Fontana was awarded a DAAD scholarship in Germany. Within this context he created compositions and live sound sculptures for the WDR 'Studio Akustische Kunst' (Studio Acoustic Art) in Cologne, including Distant Trains (1983), Metropolis Köln (1984), Soundbridge Cologne—San Francisco (1987) and was part of the groundbreaking exhibition Für Augen und Ohren (For Eyes and Ears) at the Academy for Fine Arts in Berlin, curated by René Block who for that event drew up a wonderful constitution map of the development of New Music and Sound Art.

"My work over the years has been an ongoing investigation into the aesthetic significance of sounds happening at a particular moment in time. This has led me to create a series of projects that treat the urban and natural environment as a living source of musical information."  

Sound Island, Fontana's 1994 installation at the Arc de Triomphe in Paris, is another work that analyses both the imaginary worlds of national identity and also the rules of acoustic visualization and verbal images. Using eight loudspeakers he transmitted the rushing of the sea off the coast of Normandy onto the façade of the Arc de Triomphe. Due to the complex acoustics, the white noise of the crashing waves saw was in line with acoustic reality. You could look as far as the eye could see, and from the sounds also imagine the life and goings-on there. Fontana has more recently begun to ‘re’combine images with sound. For instance, the sound of the temple bells in Silent Echoes, extracted and abstracted by high-frequency microphones and seismic devices—his first audiovisual work, composed for the London gallery Haunch of Venison in 2009—were combined with close-up images of the ringing bell in high image resolution as a video. As an internal and external phenomenon before the eyes of the viewer, his abstracted works become whole sound-images. For Desert Soundings on the roof of the DK Center in Linz (2014) he juxtaposed high-resolution video images of the moving desert sand of Abu Dhabi with the acoustic recordings of vibration sensors buried in the sand. Both an acoustic and visual experience at the same time,
the overlapping waves and lines moved by the wind on the creamy white sand combined with the sounds of constant movement that no one had ever been able to hear before.

Within the context of the conference Music and Landscape. Soundscape and Sonic Art at the Graz University of Music and Performing Arts, the Kunsthaus Graz commissioned Bill Fontana with a site-specific work for the inner courtyard of the Kunsthaus building. Since 2017 Acoustic! Visions of the River Mur has brought the sounds of the River Mur, which is connected to the Kunsthaus via its extinguishing system, into the courtyard. Pipes act as sound amplifiers bringing the burbling and trickling sounds to the surface for the visitors. It is especially in these recent, aesthetically arranged works that it is as if the beliefs of the gamelan musicians are once again confirmed. Image and sound describe an energy that flows through everything and becomes perceptible in a composed overlapping. Fontana extracts recognizable patterns from the recordings that complement one another in picture and sound. Using technical devices, he commits himself in this way both to technology and nature and, through the sensory experience of their aesthetic relationship, manages to show them in fragile coherence.¹⁰

‘When simultaneity makes time spread in dimension, multidimensional sound becomes more material.’¹¹

The question as to what energy sounds like is answered in the exhibition Primal Energies and the public sound project Sonic Projections by drawing attention to a holistic perception of energy and the environment: in the domed space of the Kunsthaus, Fontana’s Primal Energies immerses us in the acoustic and visual structures of solar, water, wind and geothermal energy. Eight places in Portugal, California, England, Italy, Germany and Austria, their sound sources and cinematic views, are assembled in three-dimensional space on 64 loudspeakers and eight projection surfaces into a spherical composition of the properties of cycle energy. For this Fontana uses the latest technology in spatial sound acoustics (Meyer Sound Galileo GALAXY), so that the composition can develop not only in time but also in space. Primal Energies explores very current and, for the developers at Meyer Sound, prototypical possibilities of multidimensional soundscapes and uses the influence of movement on the viewer as well as the level of content as a theme for the multi-dimensional composition. In addition to the acoustic and visual recordings collected from across the world, there is a transmission site located on the dammed River Mur in Graz. A tree near the hydropower station is linked to the total composition with live sounds and images. Connected to a sound meter, the tree transmits its environmental sound through its beautifully wooden resonance. Its roots, which since the start of

the power station have stood in the water, allow us to hear both the noises of the flowing water and also the power station’s turbines. The basic sound of the water flowing and the swinging of the rotor merge into a rhythmic suction in space. The steam from the geothermal heat sweeps past the visitors as a gentle breath. Yet it is precisely the factor of the living plant, which experiences this simultaneously with the transmitted sound and incorporates itself into the existing patterns on site, that increases the feeling of a real continuum in which time, materiality and spatial levels are interlaced; relativity can be experienced here.

Just as Fontana identifies details from the acoustic sources, he also edits the films in the same way: close-ups are juxtaposed with panoramas, views of structural analysis multiplied, tonalities determined. In the installation, acoustic and visual patterns are aligned on the theme of cycle energy that, alongside an eerie urgency, render tangible a constantly pulsating existence.

I only hear the sky when an aeroplane flies over me.’¹²

Parallel to the exhibition, Sonic Projections examines a perception of the environment as immediate surroundings. Just as the aeroplane makes the sky noticeable, it is often disruption that leads to actual perception. The resistance that emerged in 1988 from various circles testifies not least to Fontana’s ability to discern sensitive points in a society. From today’s perspective, the perceived provocation was based on a misunderstanding triggered by a lack of general information and—as was usual at the time—little active mediation work. Today, the main focus of Sonic Projections lies less with working on the ‘dark stain’ in the city’s history, and more with perceiving the city as a model of community. The reenactment once again transmits unfamiliar sounds of the world (tropical birds, a windbuoy, Japanese bells, a San Francisco foghorn, etc.) for several minutes into the urban space, a gentle irritation that gives people a brief nudge. An essential factor is that the sounds stand out due to their unfamiliar localization and so reflect back on the actual place of perception. Today, the revival of the sound sculpture encounters a changed city, which is a delicate balance of use and overuse, democratic communication and economic marketing, of working, living and
protected space, and a city which, in its densification, increased traffic and growth in consumption, faces completely different demands to those of 32 years ago. Apart from technical development and usage for broadcasts of city sounds via the Internet, the Schlossberg is today a nature conservation zone intended to offer people somewhere to relax. It must be said that this is not easy, since there is also a concert stage located in the middle of the hill. The effect that this had on the installation was that Fontana has selected only ‘clearly’ unprovocative sounds and will transmit them alternately from the Schloßberg and the Kunsthaus in dialogue.

The issue of education and inclusion is, in today’s information society, more important than ever; the project will therefore be widely explained both in the press and also on social media. We as a museum will be offering an extensive educational programme for the duration of the project. Part of this programme focuses on the sensory perceptions of people with visual and hearing impairments and their perception of the city. In addition to expanding the project and mediation support, this flows directly as a prototype into city guidelines for inclusive mediation projects. Beyond this, long discussions with the city offices have led to us agreeing on an adaptable project scenario that outlines a possible reduction in volume or frequency of projections.

Against the backdrop of global warming, the world’s tropical sounds represent an impetus for dialogue; about how we live with one another, and how we want to shape our future. A whole generation is setting out to ask for alternatives that bring an instability of interplay back into harmonious union. Concerning the issue of environmental protection, the focus is on restricting overexploitation and on the return of extracted energy. It is not only on an atomic basis that everything is permeated with energy and strives for balance: as a whole, the world is defined by the physical laws of a constant exchange of energy. In order to address the living conditions of a constantly growing world population and its consumption, we need not just technological innovations and developments in energy and food production and use, but also political and economic decisions supported by each individual person. For this, in turn, we all need the greatest possible presence and attention.

When I recently asked Bill Fontana what has driven him to keep tracking the sounds around us across the world for 50 years now, using constantly changing new technology, his poetic reply was: ‘to become fully present’. What he was implying was that his work to date serves to make us become fully present—that is, to live in the here and now, to take in the present, to behave and act accordingly.
Biography

Born 1947 in Cleveland, Ohio (US), lives and works in San Francisco, California (US)

resoundings.org

Education
Cleveland Institute of Music, 1967
John Carroll University, Cleveland, 1966/67

Awards
Prix Ars Electronica Collide@CERN Prize, 2012–2014
Golden Nica Award in the category of ‘Digital Music & Sound Art’ at the Prix Ars Electronica, 2009
Bay Area Treasure Lifetime Achievement Award, SFMOMA, 2009

Fellowships
Centre for Cultural Innovation, Investing in Artists Grant, 2007
San Francisco Bay Area Award, Artadia, 2005
Artists Fellowship, National Endowment for the Arts, 1990–1991
John Simon Guggenheim Memorial Foundation, 1986–1987
Berliner Künstlerprogramm des DAAD, 1983–1984
Composers Fellowship, National Endowment for the Arts, 1979

Teaching
School of the Art Institute of Chicago (US), Distinguished Visiting Professor, 2011–2012
University of Birmingham (UK), Department of Electro-Acoustic Music, 2004–2005
Academy of Media Arts, Cologne (DE), 2000–2003
San Francisco Art Institute (US), 1995–1997
Sorbonne Université, Paris (FR), 1994–1995

resoundings.org

Bill Fontana listening to the clockwork of the clocktower at the Schloßberg, Graz 2019
Index of Works*

The Toy Tape Recorder Suite
1968
Composition

After a year at the Cleveland Institute of Music, where he studied clarinet and composition, Bill Fontana switched to the New School for Social Research in order to attend the experimental music class founded by John Cage. Cage’s revolutionary ideas—such as the liberation of music from the restrictions of classical composition and performance venues like concert halls—had a lasting impact on him. At the New School, in addition to music he also studied philosophy with an emphasis on Wittgenstein’s theories of language. His teachers included Phil Corner and Alison Knowles. It was here that he produced minimal music compositions such as the early work The Toy Tape Recorder Suite, created by Fontana for the class in experimental music.

Phantom Clarinets
1969
Composition and performance for two clarinets


Phantom Clarinets is another early work produced at the New School. This is a duet for two clarinets (first performed by Bill Fontana with Daniel Goode). The clarinetists simply breathe with their clarinets in their mouths for a certain period of time. The piece shows the direct influence of John Cage: under the threshold of audibility, a rich soundscape is produced that is only structured by the rhythm of the breathing. The individual sub-audible sine tones of the breathing into the clarinet produce disturbing frequencies that become perceptible physically and in space.

Compositions for Preferred Objects
1970
Composition

Performed at the New School for Social Research, New York

Fontana wrote the piece Compositions for Preferred Objects as a final project for the band composition class at the New School for Social Research. This early work only uses sounds produced by everyday objects.

Tape Library of Environmental Recordings
1970–1978
Collection of tapes, several parts with brochure

During this time Fontana produced several works that were increasingly dedicated to the recording of natural sounds and the displacement and transmission of three-dimensional sound spaces. A significant contribution was made by the fact that Fontana, who was hired by ABC (Australian Broadcasting Corporation) as a producer for experimental sound projects, was able to use the technical equipment of ABC for (among other things) live broadcasts. The Tape Library of Environmental Recordings includes a collection of sounds such as birdsongs, street noises or water sounds from New York City, Canada, Australia and the UK and with an accompanying booklet containing instructions on how to collect eight-channel sounds. This library was shown in the exhibitions on Kirribilli Wharf in 1978. The collection also includes a very rare sound recording: the sounds of a rainforest in South-Eastern Australia during a solar eclipse in 1976.

*The index of works, compiled by Katia Huemer, is based on countless project texts, catalogue contributions and articles from Bill Fontana’s archive as well as on conversations with the artist. As much as we have tried to be complete, we ask for your understanding in case we missed something. Many of the projects are documented audibly and/or visually on Bill Fontana’s website resoundings.org.
Sound Sculpture with Resonators
1972
Sound sculpture
In Sound Sculptures with Resonators, Fontana combined sculptural, musical and architectural elements of sound live for the first time, using the term 'sound sculpture'. He borrowed the term for this from Duchamp's Large Glass, which he discovered in 1968 in the exhibition The Machine as Seen at the End of the Mechanical Age at the MoMA as a consistent connection between music and sculpture. In 1973, for the Experimental Intermedia Foundation, he placed microphones in small resonating bodies on the roof and transmitted their own sound, mixed with the ambient sound of New York, into the gallery space. From then on, this form of relocation or recontextualization of sound was Bill Fontana's main interest.

Gentle Surprises for the Ear
New York, NY (US), Copenhagen (DK), 1975
Sound installation and performance (with Alison Knowles and Philip Corner)
Performed for the first time during the festival Experimental Intermedia
After his studies, Fontana collaborated with Fluxus artists and former teachers Philip Corner and Alison Knowles for the performative sound installation Gentle Surprises for the Ear, in which he wrote their musical descriptions of the everyday objects Knowles collected. These were hung on small pieces of paper on the objects and some of them were read aloud.

Australian Sound Studies
Australia, 1975-1978
Radio recordings
Australian Broadcasting Corporation
The Australian Sound Studies are recordings of Australian everyday sounds for the radio, which have become a large collection of sounds from an entire continent. Bill Fontana had the equipment of ABC (Australian Broadcasting Corporation) at his disposal for this project. The collection also includes a rare sound, which happens at the same spot only once every several thousand years, recorded by Fontana: the sounds in a rainforest in South-Eastern Australia in 1976 during the solar eclipse. It was spring and there were lots of songbirds, which do not all sing at the same time. In the minutes leading up to the eclipse, the light became weird and the trees’ shadows began to sparkle and shimmer. It was suddenly dark and we had no sense of time. At that very moment it seemed like all the birds and animals had something to say about it, they all started calling at the same time.’ (Bill Fontana)

Kirribilli Wharf
Sydney (AUS), 1976
Eight-channel sound sculpture
In the collections of SFMOMA and the Art Gallery of New South Wales
The recording of the Kirribilli Wharf in Sydney is Fontana's first eight-channel sound sculpture. Fontana used eight microphones, which were placed in cylindrical holes in the shipyard and recorded the closing of the openings by the waves, which resembled percussive sounds. Kirribilli Wharf was played at various venues in Sydney, and a few years later at an exhibition at the Whitney Museum of American Art, New York.
As a construction helper and co-performer, Fontana met the Australian dancer and choreographer Nanette Hassall, a former member of the Merce Cunningham Dance Company, at an installation of the Gentle Surprises in London. A few months later they married and returned to Australia together, where their son Mark was born in 1976. In the same year Fontana had a solo exhibition at the Central Street Gallery in Sidney with works reminiscent of his work with Knowles and Corner. He made sounds of everyday objects such as an empty bottle or a car tire perceptible in the gallery space—in part through instructions on how to produce sound, but also in the form of recordings.

→ Music for Ordinary Objects, 1989

Musical Sculpture for English Handbells
1977
Composition and sound performance
Australian National University Art Center, 1977 and the National Gallery of Victoria, 1978
In this work, the performers played on a row of English handbells distributed throughout a room. Each performer had a different random sequence of numbers, which gave them a certain period of silence in between, during which they rang their bell once until it fell silent completely. This simple system created complex and changing spatial patterns. The end of the piece is ambiguous, as the larger bells reverberate for longer and longer. So it could happen that a performer was still counting in silence until their next use, and neither the other players nor the audience could tell if the piece was finished—except by waiting and listening.

Standing Wave Sculpture
Melbourne (AUS), 1977
Sound sculpture
Royal Melbourne Institute of Technology
A standing wave has unique physical properties; although it oscillates in time, its amplitudes do not move in space. Using four loudspeakers and four oscillators, Bill Fontana made these properties physically perceptible by making the sound of space reverberate as a sine wave.
Piano Sculpture
Melbourne (AUS), 1978
Composition and sound performance
National Gallery of Victoria, Melbourne
In this work, the performers played a repetitive melody of 84 notes and four octaves on four pianos distributed in space. Fontana composed the tones entirely from the overtones of bells, reflecting his interest in alternating sounds. As the changing spatial patterns move and echo each other in space, they create an imaginary landscape.

Pipe Phase / Motion through Space as a Way of Changing Pitch
Melbourne (AUS), 1978
Composition and sound performance
Fontana created Pipe Phase during his stay at the Royal Melbourne Institute of Technology, Australia. This piece also deals with the physics of sound. Its components are a player who hits a 4.5-metre-long suspended aluminium rod in a repetitive, rhythmic pulse, and four performers who hold a microphone in each hand and move continuously around the sound field of the vibrating rod. Each microphone ‘hears’ or records the different frequencies and overtones in the room, which change their pitch as the four performers move. The piece is thus an exploration of movement in space.

Space between Sounds
San Francisco, CA (US), 1978
Sound sculpture and sound disc, 1980
Museum of Modern Art, San Francisco / Victorian College of the Arts, Melbourne
Space between Sounds is a precursor project to Sound Recycling Sculpture and was first performed at the art gallery of La Trobe University in Melbourne (curated by Kira Perov). Four pairs of recorders ‘recycled’ the sound of each other and the sound of the space by playing to and recording each other and overwriting what was recorded. The result could be perceived as the ‘timeline of a sine wave’—a cyclical swelling and declining of the sound.

Wild California
Oakland, CA (US), 1979
Sound sculpture
Oakland Museum Natural Sciences Department
This work consists of the recordings of natural sounds in California, installed at the Natural Sciences Department of the Oakland Museum.
Sound Recycling Sculpture
Berlin (DE), Paris (FR), San Diego, CA (US), 1980

Sound sculpture
Akademie der Künste, Berlin, Musée d’Art Moderne de la Ville de Paris, University of San Diego, California

The Sound Recycling Sculpture was part of the groundbreaking exhibition For Eyes and Ears, curated by Nele Hertling and René Block and conceived for the Akademie der Künste in 1980. The work embodied space as an audible manifestation of the sounds of space itself. At unspecified intervals, recordings of the sounds were made and played back from the surroundings. This was done by means of four specially assembled tape loops, which consisted mainly of silence, i.e. of non-recording starting tapes. Each tape loop ran over two studio tape recorders; one was connected to a sensitive microphone and recorded continuously, the second was coupled to a loudspeaker and played back the recording. The tape loops had a playing time of 104, 92, 84, and 78 seconds, respectively, which meant that every 104 seconds you heard a 12-second recording of sounds that occurred 52 seconds ago; every 92 seconds an 8-second recording of sounds that occurred 46 seconds ago; every 84 seconds a 6-second recording of sounds that occurred 42 seconds ago; and every 78 seconds a 4-second recording of sounds that occurred 39 seconds ago. The work manifested itself both visually and acoustically, in the form of four very long black and white tape loops.

Flight Paths out to Sea
Newport, OR (US), 1980

Live sound sculpture
Newport Harbor Art Museum

Newport Airport is located near the spectacular coast of Oregon. For Flight Paths Out to Sea, Fontana placed a series of microphones in the runways for take-off and landing. He installed the recorded sounds as a live broadcast in the sculpture park of the Newport Harbor Art Museum.

Incoming Wavefronts Meeting a Shape of Land over Time
San Diego, CA (US), 1980

Live sound sculpture
Mandeville Gallery University of California at San Diego

A sequence of microphones placed along the Californian coast transmitted live sounds to the Mandeville Gallery of the University of San Diego.

Oscillating Steel Grids along the Cincinnati-Covington Suspension Bridge
Cincinnati, OH (US), 1980

Live sound sculpture
Contemporary Arts Center, Cincinnati

This sound sculpture involved placing a sequence of eight microphones below the steel grid roadway of the Cincinnati-Covington Suspension Bridge and transmitting the sound to a sequence of loudspeakers in the Federal Reserve Plaza, adjacent to the Contemporary Arts Center. This type of roadway produces musical, oscillating tones when traffic moves over the road surface. The faster the traffic was moving, the higher in pitch the resulting tones became.

Sound Surroundings
San Francisco, CA (US), 1979

Sound sculpture
Exploratorium, The Museum of Science, San Francisco

Bill Fontana installed these early recordings of ambient sounds in the Exploratorium—the Museum of Science in San Francisco.
Soundscapes
US, 1982–1983
365 radio programmes on environmental sound, 3.5 min each
National Public Radio (NPR)
In 1982 Bill Fontana received a scholarship from the Corporation for Public Broadcasting in the USA and produced 365 radio programmes, generated from his sound collection, which he had been creating since 1968. In daily radio broadcasts of 3.5 minutes, different sounds were transmitted nationwide without commentary. The explanation of what had just been heard was given only after the recording.

Sound Sculpture with Indigenous Birds
Rochester, NY (US), 1983
Sound sculpture
Long Ridge Mall, Rochester
Bill Fontana transferred the recordings of bird songs of those species, which at that time were native to Upstate New York, to the then popular Long Ridge shopping mall in Rochester.

Oscillating Steel Grid along the Brooklyn Bridge
New York, NY (US), 1983
Live sound sculpture
Brooklyn Museum and World Trade Center, New York
On the occasion of the 100th anniversary of the Brooklyn Bridge, Bill Fontana was commissioned for a sound work. At this time, the bridge made continuous sounds created from the oscillating drones of cars moving over a steel grid roadway, which later was silenced in the late 1980s by being paved over with blacktop. Eight microphones were mounted below this roadway and transmitted the live sounds of the Brooklyn Bridge to the exterior of a building that also no longer exists, the World Trade Center. This oscillating drone was played from eight loudspeakers embedded.

Landscape Sculpture with Fog Horns
San Francisco, CA (US), 1981
Live Sound installation with live radio transmission
New Music America '81
This work was a live acoustic recording of the San Francisco Bay. Microphones were installed at eight different positions in the bay. The sound of the foghorns of passing ships could be heard with an acoustic delay due to the different recording positions and thus due to the contrapuntal textures caused by the speed of sound. These sounds were transmitted in real time to the façade of Pier 2 at the Fort Mason Center on the coast of San Francisco.

Sound Sculpture with a Sequence of Level Crossings
Oakland, CA (US), 1982
Live sound sculpture
Commissioned by the 12th International Sculpture Conference, Oakland
In collection of SFMOMA
The sound sculpture explored the musical patterns created by the Doppler shifts of train whistles in Berkeley and Emeryville, California. Eight live microphones placed at consecutive railroad level crossings transmitted via phone lines to loudspeakers along the top of the Oakland Auditorium. The whistles of all the passing trains became airborne, sounding like harmonicas imitating train whistles, because they were different pitches at the same time as they moved through the landscape. A digitally remastered eight-channel version from 1997 is in the collection of the San Francisco Museum of Modern Art.

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behind the vertical struts of the façade along a setback high above the Austin J. Tobin Plaza. The presence of this abstract droning sound floated above the plaza, becoming the sound of the building, being mistaken sometimes for wind. Loudspeakers were also mounted on the observation terrace with panoramic views of New York and the East River. The Brooklyn Bridge was clearly visible from this vantage point. It was the first time Fontana had explored in real time the idea of hearing as far as you could see.

→ Acoustical Visions of Venice, 1999

Sound Recycling Sculpture
Berlin (DE), 1983
Sound sculpture and MC
Galerie Giannozzo, Berlin

From 1983 to 1984 Bill Fontana was based in Berlin, where he received a scholarship from the West German artists’ programme. During his stay, in 1983 Bill Fontana realized an audiocassette of the Sound Recycling Sculpture of 1980 at the Galerie Giannozzo. Sound situations recorded in Berlin, such as typical railway station noises, the babble of young people’s voices, fireworks or boats and the sound of footsteps on stairs, are the various elements that make up the artwork. In addition to his work, Fontana wrote an essay which was printed in an accompanying booklet. The object was produced in an edition of 100 copies.

→ Space Between Sounds, 1978
→ Sound Recycling Sculpture, 1980

Sound Sculpture with Distant Bells
Washington D.C. (US), 1983
Live sound sculpture
New Music America ’83

Live microphones between two bell towers (National Cathedral und old post office building, now a Trump hotel) transmitted sounds to a public square in front of the Old Post Office Building.

Rainforests of Thailand
New York, NY (US), 1984
Sound sculpture
Jungle World Exhibit, New York Zoological Society

Commissioned by the New York Zoological Society, Fontana made sound recordings of the Thai rainforest, which were installed in the ‘Jungle World’ of the Bronx Zoo.

Sound Surroundings
Berlin (DE), 1984
Sound sculpture
Inventionen ‘84

Sound Surroundings was a sound installation in Berlin’s Ackerstraße that Bill Fontana realized as a DAAD scholarship holder for the Inventionen Festival (a festival of contemporary music founded in 1982 by the DAAD and the Technical University). From the exhibition site, Fontana directed microphones over the nearby Berlin Wall and thus towards East Germany, bringing sounds from the ‘other Berlin’ to the West.

Distant Trains
Berlin (DE), 1984
Live sound sculpture and radio project
Internationale Bauausstellung Berlin / Berliner Künstlerprogramm des DAAD
Anhalter Bahnhof and broadcast, WDR Cologne

Distant Trains was created at the end of his one-year artist residency in Berlin in 1984, in which Fontana examined acoustic memories of Anhalter Bahnhof in Berlin-Kreuzberg, which had become a ruin after an air raid by the Allies during World War II. Only a fragment of the portico still reminds us of the imposing building, which before World War I was the ‘Gateway to the South’, the main station for connections to Austria-Hungary, France and Italy. Fontana had a grid of eight loudspeakers laid underground in the field of ruins, still empty at that time, behind the portico in order to recreate the acoustic space of what was then the busiest railway station in Europe, Cologne Central Station. At the same time, Westdeutscher Rundfunk (WDR), which was involved in the project as a partner and broadcast the work on the radio, interviewed people on site who associated memories with the still active Anhalter Bahnhof. Klaus Schöning, funding and editorial director of the studio for acoustic art at WDR, was to remain an important collaborative partner for Fontana until the late 1990s for subsequent projects.
Phantom Bandshell
Los Angeles, CA (US), 1985
Sound sculpture
Otis Parsons / New Music America ‘85
As part of the festival New Music America ’85, Fontana transferred recordings of Californian sounds into a fictional bandshell at the Otis College of Art and Design (Otis-Parsons).

Hidden Market
Paris (FR), 1985
Radio sound pieces and MC
Commissioned by Hawaii Public Radio
The recordings of different sounds from Hawaii—both urban and natural—became several sound pieces for Hawaii Public Radio. At the same time a music cassette was created as a collection of these pieces.

Ljudskulptur i Stockholm
Stockholm (SE), 1986
Sound sculpture
Commissioned by The Swedish Radio Company
For the project Ljudskulptur i Stockholm [Sound sculpture for Stockholm], Fontana transferred coastal sounds onto the façade of the Swedish capital’s town hall.

Metropolis Köln
Cologne (DE), 1985
Sound sculpture with 18 speakers and sound piece as live broadcast
Commissioned by Acustica International, WDR; Roncalliplatz, 1985, Heinrich-Böll-Platz / Museum Ludwig, 1987, Cologne
For Metropolis Köln, Fontana used hydrophones for the first time to hear the movement of rivers, ship engines and water. The project was a live acoustic portrait of the city of Cologne and marked a turning point in Fontana’s artistic work, as it gave him the opportunity to combine his interest in many different types of sounds in one big project. Instead of concentrating on a specific sound source and moving it to a new context, as in previous projects, he recorded many different types of sounds and moved them to the site of the sound sculpture, the square in front of Cologne Cathedral [where the festival Acustica International broadcast various compositions of acoustic art]. At the same time he worked with the public radio station WDR and realized a live radio concert with these city sounds. A continuation of this idea found its expression two years later in the large-scale project Soundbridge Cologne – San Francisco.

→ Soundbridge Cologne – San Francisco, 1987
Acoustic Journey – An Investigation of Traditional Japanese Sounds on the Verge of Extinction

Sound sculpture
Wacoal Art Center (Spiral)

From 1985 to 1986 Bill Fontana spent time in Tokyo as part of an artist residency at the Japan Foundation/Creative Artist Fellowship for Japan and the Japan-US Friendship Commission. During this residency, he travelled throughout Japan in search of sounds that seemed ‘endangered’, such as the sound of stamping punch cards, the shouting of tofu vendors, etc. The idea for the project was born out of the feeling that Japan was developing rapidly and seemed to have no sentiment for change. In 1986, this project resulted in an installation in the Wacoal Art Center (Spiral), which had just opened at that time, and an MC.

Echo Tunings at Mt. Aso
Kumamoto (JP), 1987

Sound sculpture
Mount Aso National Park

The ‘endangered’ sounds that Fontana had recorded the year before during his trip through Japan resounded in the Aso-Kuju National Park at the foot of the Aso volcano.

Bridges of the Flats Sound Sculpture
Cleveland, OH (US), 1987

Sound sculpture
Cleveland Children’s Museum

This work for the Cleveland Children’s Museum consisted of a collage of various bridge recordings that Fontana had collected over the years.

Santa Monica Sound Portrait
Santa Monica, CA (US), 1987

Sound sculpture
Santa Monica Place / USC Atelier

Santa Monica Place is a large shopping mall near the Santa Monica Pier. This sound sculpture was a sound portrait of this pier. USC (University of Southern California) has a gallery space in this mall and was involved in the project.
Sonic Projections from Schloßberg Graz
Graz (AT), 1988
Live sound sculpture and live radio project
Commissioned by Ö1 Kunstradio and steirischer herbst
Shortly after his first European live radio projects with WDR in Berlin (Distant Trains, Metropolis Köln, Soundbridge Cologne - San Francisco), Fontana was invited by Heidi Grundmann of the innovative art radio of ORF to realise a live project in Austria for the first time. It appeared within the context of the steirischer herbst festival, which, under the title of ‘Bezugspunkte 38/88’, focused on the ‘Anschluss’ of Austria and its processing. Fontana took sounds from all over the world and transmitted them from the Schloßberg to eight urban ‘Bezugspunkte’—i.e. points in the city centre of Graz that played a role at the time of the National Socialist seizure of power—and its urban echo (recorded by eight microphones at precisely these points) over the radio throughout Austria. After just a few days, the project ended prematurely. Media art history to this day views the piece as a paradigmatic work that managed to combine abstract sound art with urban reality.

The Sound of an Unblown Flute
Cologne (DE), 1989
Composition
The Japan Foundation
The Sound of an Unblown Flute is based on recordings that Bill Fontana collected in Japan during his artist residency in 1985/86. The composition was awarded the prize Radio Play of the Month by the German Academy of Performing Arts in Bensheim.

Landscape Sculpture with Carillon
Berkeley, CA (US), 1988
Live sound sculpture
Performed at the University Art Museum, UC Berkeley
This was a live cubist sound map of the bells of Sather Tower on the U.C. Berkeley campus. Microphones were installed at eight different locations on the campus to explore how the sound of the bells would travel through the landscape. Simultaneous signals from the microphones were sent to the façade of the sculpture garden of the museum, which itself has a good view of the bell tower. Part of this project involved composing two special compositions of minimal music for the carillon (Musical Sculptures for Carillon) that were intended to explore the acoustics of the landscape. When these compositions were performed, the musician could listen to the live mix of the delays and multiple sound images of the carillon and interact with it as part of his performance. The piece Musical Sculptures for Carillon is Fontana’s last traditional composing.

Echo Garden
San Francisco, CA (US), 1988
Sound sculpture
San Francisco Arts Commission
The SFAC—the municipal authority dedicated to promoting innovative cultural activities—operates a garden in downtown San Francisco in which Bill Fontana installed loudspeakers to play a collection of different recordings from urban life in San Francisco.

Acoustic Views
Sydney (AUS), 1988
Live sound sculpture
Commissioned by the Sydney Biennale and Australian Broadcasting Corporation, ABC Art Gallery of New South Wales
16 live feeds of environmental sounds of Sydney were sent to the Art Gallery of New South Wales.

Farallon Island Soundscapes
San Francisco, CA (US), 1988
Sound sculpture and re-composition
California Academy of Sciences
This small island is an important wildlife refuge for migrating sea birds and marine mammals. In the spring (when this sound sculpture was realized) it had a population of more than 500,000 birds and 3,000 marine mammals. Fontana’s 1987 piece Sound Sculptures through the Golden Gate had already focused on the sounds of these volcanic islands off the coast of San Francisco.

→ Sound Sculptures through the Golden Gate, 1987

Sonic Projections from Schloßberg Graz, 1988
Graphics of the acoustical delays of the sound projections in the inner city of Graz
Parallel Soundings
Hamburg (DE), 1989
Sound sculpture
Art in Public Space, Kulturbehörde Stadt Hamburg

In Parallel Soundings, three different locations, each with a characteristic range of sounds evoking the architecture of docks and tunnels, are transmitted to a bridge where they are heard intermittently mixed with natural sounds from other locations. Thus Fontana made the song of a nightingale recorded in Finland sound in the listed Old Elbe tunnel of the city of Hamburg, which is used as a pedestrian underpass.

Landscape Soundings
Vienna (AT), 1990
Live sound sculpture and live radio project
Vienna Festival in cooperation with ORF Kunstradio
Maria-Theresien-Platz, between the Kunsthistorisches Museum and Naturhistorisches Museum

At the invitation of Heidi Grundmann (ORF Kunstradio) and the Wiener Festwochen (Vienna Festival), Bill Fontana realized his project in the tamed park landscape between the Natural History and Art History Museums, for which he transferred the soundscape of an untouched natural landscape into a historical-urban context—a live sound transmission from the Hainburger Au, located between Vienna and Bratislava, whose occupation by environmental activists in 1984 (which ultimately ended with the construction of a planned hydroelectric power plant being frozen) marked a milestone for Austrian environmental policy. 70 loudspeakers, distributed across the entire square, mounted on points at different heights and as invisibly as possible, allowed passers-by to walk through a ‘curtain’ of water sounds as well as the sounds of birds, toads, frogs and insects, which were transmitted live from the floodplain forest with the help of hydrophones and microphones. Not only did the traffic noise of the busy Ringstraße fade into the background, but the acoustic perception of this public square, charged with historical significance, was radically transformed by the unusual soundscape. For the ORF’s ‘Kunstradio-Radiokunst’ programme Fontana also made live mixes of sounds recorded at Maria-Theresien-Platz and compared these with the original sounds from the Au. Fontana and Grundmann published a selection of these recordings on CD in 1994.

Acoustical Views of the San Francisco Ferry Tower
San Francisco, CA (US), 1990
Sound sculpture
San Francisco Museum of Modern Art

The idea of mixing sounds from urban and natural environments was developed further in Acoustical Views of the San Francisco Ferry Tower, in which Fontana transmits the sounds from an architectural and acoustical landmark in San Francisco, the South Ferry Tower located in the harbour, to a gallery space within the SFMOMA. By introducing his own sounds into the dynamic of the landscape of the environment, Fontana subtly modulated the perception of the movement of sound and its interaction with the city at that same time that he contained it within the gallery.
Earth Tones
Sonoma County California (US), 1992
Permanent installation on the Oliver Ranch, Steven Oliver Collection
Six large, low-frequency loudspeakers (Bose Acoustic Wave Canons) are buried around a lake in a natural landscape. Low-frequency sounds from the Pacific Ocean are sent to the site, where the Wave Canons couple the low sea sound to the earth, causing the whole landscape to become activated with sound. A computer is used to slowly move the sounds so that they are always changing their position in the landscape.

Perpetual Motion
Saint-Denis (FR), 1992
Sound Sculpture
Artifices 2 Exhibition, Department of Cultural Affairs
This sound sculpture focused on the bells of the historic 12th-century Basilica of Saint Denis. The bells have not been used in more than 100 years—due to a fire they were moved to the remaining tower, but are not rung because this tower was not designed to withstand the stress of the bells ringing. However, these long silent bells continually make a sound that no one has ever heard, the perpetual sound of the resonant frequencies of the bell excited by ambient sound pressure levels. Sensitive microphones were installed inside the bells and transmitted the sounds to a sculptural installation of loudspeakers at the exhibition site.

Spiraling Sound Axis
Raleigh, NC (US), 1993 (permanent)
Sound sculpture
Commissioned by the North Carolina Artwork for State Buildings Program
North Carolina State Revenue Building, Raleigh
This sound sculpture was originally installed in the rotunda and entry of the North Carolina State Revenue Building in Raleigh, North Carolina and was later relocated to the Weatherspoon Art Museum of the University of North Carolina in Greensboro. For his ‘acoustical mural created of sounds’, Fontana recorded sounds throughout North Carolina—nature and ambient sounds as well as the voices of North Carolina people talking about their state’s history.

Vertical Water
New York, NY (US), 1991
Sound sculpture
Whitney Museum of American Art, New York / Whitney Biennale
This sound sculpture was realized as part of the 1991 Biennial Exhibition. It involved placing the sound of Niagara Falls vertically on the façade of the Whitney. It was installed so that the extremely low frequencies of the Falls came from low-frequency speakers placed in the sunken sculpture garden, while the higher frequencies were played from speakers under the concrete overhangs of the façade of the Whitney. One interesting effect of the natural white sound of the Falls was the masking of the traffic sound on Madison Avenue.
pipeline from Halltal. The second zone (walls) consisted of a piece of old wooden salt pipe, which was used as a resonating body for a microphone. This microphone captured sounds from the area around the pipe and was connected to four loudspeakers installed on the walls of the room. This live sound from the Halltal was also broadcast via a small transmitter from the exhibition to whoever happened to listen to 107.7 FM. Sounds of the Mediterranean Sea recorded with a hydrophone streamed from four additional loudspeakers on the ceiling (Zone 3).

Sound Island
Paris (FR), 1994
Sound sculpture
Arc de Triomphe
Commissioned by the City of Paris and the Ministry of Culture

Using microphones and underwater hydrophones, Fontana transmitted live the natural white noise of the sea off a rugged cliff on France’s Normandy coast to hidden loudspeakers on the façade of the Arc de Triomphe. The sound of waves crashing against the rocks and the cry of seagulls masked the loud traffic noise of the immense roadway around the monument and provided a new and unexpected sense of place, time, memory and dimension made especially poignant as the installation occurred during the commemoration of the 50th anniversary of the D-Day landing at Normandy and the liberation of Paris.

Time Fountain
Barcelona / Madrid (ES), 1995
Sound sculpture
Fundació Antoni Tàpies, Barcelona and Museo Nacional Centro de Arte Reina Sofía, Madrid

This work was designed for the central atrium where, at the highest level, two delicate repetitive sounds were placed—the clockwork mechanism of the Campanar de Gracia and Alexander Calder’s Mercury Fountain. The clockwork mechanism consists of brass gears moving and stopping, with an alternating time structure of sound and silence behind which the ambient murmur of the town square of Gracia was heard. This delicate sound was punctuated every 15 minutes by the bells that mark the passage of time. Alexander Calder’s Mercury Fountain (located at the Fundació Joan Miro) is sealed in a glass chamber that no one can enter. However, this sculpture does produce interesting sounds of the flowing and falling mercury, which is also a secret sound. These two sounds floated above the architectural space of the atrium. At the same time they were also heard in Madrid, in a staircase of the Reina Sofia. The resonant acoustics of this large space expanded the two sound sources in time by making them echo. These echoes was brought back to the Fundació Tàpies, where they were played via loudspeakers mounted one level below the apex, in the corners of the balcony (directly below the apex). People standing by the balcony railing, with their ears clearly between the two levels, heard the spatial differentiation of the time expansion. On ground level, directly in the centre of the atrium, a wooden bench containing a low frequency loudspeaker played the subsonic shadows of passing subway trains coming from a microphone placed in a nearby subway tunnel.
As a prelude to the 5th Acustica International of Studio Akustische Kunst / Musik Triennale Köln, Wiener Platz station in Cologne-Mülheim, Fontana realized his sound sculpture only a few days before the official opening of the new Wiener Platz subway station in 1997. "Subterranean Sounds" was a live installation, the project took place at Kunstradio as well as at ORF Dunkhaus and at the Wienfluss. There Fontana made recordings of flowing water, also with hydrophones under the water surface, and of the resonance of the extensive space below the Naschmarkt. The radio version of Subterranean Sounds was broadcast on 5 March 1998.

Wave Trains
Cologne (DE), 1997
Sound sculpture
Subway station Wiener Platz
5th Acustica International of Studio Akustische Kunst / Musik Triennale Köln
As a prelude to the 5th Acustica International of the Studio Akustische Kunst and only a few days before the official opening of the new Wiener Platz underground station in Cologne-Mülheim, Fontana realized his sound sculpture "Wave Trains." Bill Fontana used the extraordinary resonance of these still unused, empty cavities of the tunnel concert was realized via an installation of ten loudspeakers, including two for sound recordings of a composition that could not be repeated there later. The tunnel concert was realized via an installation of ten loudspeakers, including two large 'wave canons', as a sound composition created by the transmission of various environmental sounds. Eight microphones recorded the Doppler effects triggered by the rapid movements of the sound sources and the low-frequency reverb of the wave canons. The selected sounds reacted especially to the resonance and overtone range of the tunnel.

Subterranean Sounds
Vienna (AT), 1997
Sound sculpture
Commissioned by ORF Kunstradio
In 1997 Fontana stayed in Vienna to realize his sound sculpture "Subterranean Sounds." As a live installation, the project took place at Kunstradio as well as at ORF Funkhaus and at the Wienfluss. There Fontana made recordings of flowing water, also with hydrophones under the water surface, and of the resonance of the extensive space below the Naschmarkt. The radio version of Subterranean Sounds was broadcast on 5 March 1998.

Aerial Water
Bregenz (AT), 1998
Sound sculpture
Bregenzer Kunstverein / ORF Kunstradio for the festival Kunst in der Stadt II
In 1998, the city of Bregenz on Lake Constance became the site of a sound sculpture aimed at the public perception of the urban soundscape. The acoustic background of all modern cities contains the accumulated residues of traffic noise. It is so omnipresent that most people no longer perceive other sounds around them. For this project, Fontana used bell towers, which as architectural constructions can distribute sound over a wide area in the landscape. In this way, seven Bregenzer bell towers sounded simultaneously, with the "voice of the lake" rather than sound of the bells being heard—underwater sounds that Fontana transmitted via live hydrophones from Lake Constance and via loudspeakers on the bell towers. The sound levels of the loudspeakers were adjusted so that they were not too loud, but strong enough to drown out the traffic noise.

Wave Memories
London (UK), 1999
Public art project, sound sculpture
Trafalgar Square
Commissioned by the National Maritime Museum
Breaking waves from the coast of Spain in the vicinity of Cape Trafalgar were broadcast live to Trafalgar Square. Loudspeakers were mounted in arrays inside grey-coloured containers, which were designed to be as invisible as possible in the square. Waves picked up from a multichannel perspective were made to sweep the square in phasing relationships, creating the illusion that the surrounding London traffic was silent. The work entered the collection of the National Maritime Museum.

Acoustical Visions of Venice
Venice (IT), 1999
Live sound sculpture
Commissioned by The Bohen Foundation for the 48th Venice Biennale
Acoustical Visions of Venice was a real-time, site-specific sound sculpture for the façade of the Punta della Dogana. It explored the idea of hearing as far as you can see, and was created for the 48th Esposizione Internazionale d’ Arte, La Biennale di Venezia 1999. It was a live audio collage of sounds collected from 12 key sites within the city by microphones concealed at strategic points selected for both their acoustic richness and their historical and cultural significance. The acoustic signatures of these sites were simultaneously transmitted in real time to the Punta della Dogana, enveloping it in a rich mosaic of sounds, many of whose origins are visible from the Dogana itself. Thus, visitors’ awareness of their surroundings was transformed by the relocation of sounds emanating from around the city. The overlapping textures of these different locations were continuously modulated and re-mixed, creating an endlessly unique interpretation of the city’s acoustical landscape.
Harbor sounds, such as bells or ship horns, were also part of the mix of sounds used in Falling Echoes. This historic collection of recordings was projected into the warehouse with parabolic speakers defining multiple scenes of reflective sound moving dynamically in the space. This created the illusion of being live as the collection mixed with the natural ambient sounds.

→ Oscillating Steel Grid along the Brooklyn Bridge, 1983

Musical Information Network Lyon
Lyon (FR), 2001
Sound sculpture
Tramway Line 1
Fontana created this project for a new tramway system in Lyon, integrating a musical information network into the public transportation network of the tram. This sound sculpture produced a musical information network from the sounds of Lyon, continuously transporting them in changing combinations to all of the stations along Line 1 of the new tramway system. Over time, the placement of this sound sculpture as an integral recurring event at each station had an accumulative effect, so that during the daily routine of riding the tram one could hear and recognize more and more acoustic patterns from the city.

→ Sound Recycling Sculpture, 1980, 1983

Antigone
Düsseldorf (DE), 2002
Sound piece
Düsseldorfer Schauspielhaus
Bill Fontana created a sound piece for the play Antigone by the then director of the Düsseldorfer Schauspielhaus, Anna Badora. (Jannis Kounellis was responsible for the stage design.)

Falling Echoes
New York, NY (US), 2002
Sound sculpture
Commissioned by Creative Time, New York
Falling Echoes was a sound sculpture designed for the old St. Ann’s Warehouse on Water Street in Brooklyn. This place existed at that time as an architectural ruin with spectacular views over New York Harbour and the East River, with the dramatic Brooklyn Bridge overhead. This site-specific work used recordings of the Brooklyn Bridge from when steel grids on its surface produced a humming resonant sound. Those recordings were made in 1983 for the 100th anniversary of the bridge and were transferred live to loudspeakers hidden in the façade of the World Trade Center, so that this humming sound floated above the plaza. Recordings of other New York Harbor sounds, such as bells or ship horns, were also part of the mix of sounds used in Falling Echoes. This historic collection of recordings was projected into the warehouse with parabolic speakers defining multiple scenes of reflective sound moving dynamically in the space. This created the illusion of being live as the collection mixed with the natural ambient sounds.

→ Oscillating Steel Grid along the Brooklyn Bridge, 1983

Speeds of Time
London (UK), 2003
Sound sculpture
Commissioned by the BBC
Speeds of Time was a real-time sculptural audio map of the sound of Big Ben, first commissioned by the BBC and installed in White City Place (BBC Media Village) at the lobby of BBC Radio. Sensors and microphones were mounted on the Great Clock near the bell, so that each tick and chime was repeated seven times, and relayed across eight speakers, moving from one to another, and raising the question of which one was real.


Primal Soundings
Leeds (UK), 2004
Sound sculpture (permanent)
Leeds City Gallery and Contemporary Art Society
Deep beneath the road network of Leeds runs an ancient waterway of the River Aire, which can be seen and heard at a place called Dark Arches. This is where Fontana used hydrophones, which, submerged deep under water, recorded the sounds of the rushing river, which appears soft and rippling on the surface. This recording, audible outside the gallery, is replaced by the slow ticking of a very loud clock as you enter the foyer. This is a real-time recording of the clock tower of the Town Hall, which is only a few hundred metres away, and which makes a time shift perceptible: since digital signals move faster than sound, one can hear ‘into the future’, as it were. Finally, in the gallery room, Fontana mixed natural but rarely heard sounds recorded deep below the earth’s surface: The low-frequency rumbling of micro-insects, imperceptible earthquakes caused by the impact of waves on the land, etc., mixed with the slow pulsation of a windmill that draws energy from the invisible and inaudible ether.

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consulting services for medical infrastructure, Fontana focused on sounds in hospitals for his recordings of Seattle. The result was an extensive research project on sounds in the medical field and beyond.

**Sound Lines**
Leeds (UK), 2005
Sound sculpture
Architecture Week, Dark Arches
For his second project in the British city of Leeds, Bill Fontana transformed a labyrinthine area into a sound sculpture for two months. Launched during Architecture Week, a specially designed loudspeaker system emitted the live sounds of the River Aire below and the Leeds City train station above as an ever-changing composition transforming the space into an immense, brick-built acoustic instrument.
Again, Fontana used a series of microphones to relay the ambient noises from Leeds Station, hydrophones to relay the rushing water of the Aire, and accelerometers attached to buffer stops at the end of rail tracks in the station to detect the sound of trains approaching and coming to a stop. Thus, **Sound Lines** brought noises from above and below Neville Street right into the space of the so-called Dark Arches.

**Speeds of Time**
London (UK), 2004
Live 8-channel sound sculpture
Commissioned by the Parliamentary Works of Art Committee, installed in the Palace of Westminster
For the second version of **Speeds of Time**, Bill Fontana again transformed the famous chimes of London’s Big Ben into a sound sculpture. He recorded the workings of the Westminster bells from unusual places inside St Stephen’s Tower, including the ventilation chimney that goes from the top of Big Ben to the bottom. The sounds were played every 15 minutes as a live soundtrack in the main entrance of the House of Commons.

**Harmonic Bridge**
London (UK), 2006
Single-channel video with four-channel sound
Turbine Hall, Tate Modern / Southwark underground station
Harmonic Bridge reveals the myriad of noises hidden within the structure of the Millennium Bridge in London. A network of vibration sensors was installed on the bridge, transforming it into a huge stringed instrument. A changing musical composition was activated by the movement of people crossing. This was transmitted simultaneously into the Turbine Hall at the Tate Modern and into Southwark Tube Station, creating an overlapping of the actual architecture and acoustically perceived architecture.

**Ants - Sounds of the Rainforest of Trinidad and Army Ant Habitats**
San Francisco, CA (US), 2004
Sound sculpture
Commissioned by California Academy of Science
For this work, Fontana undertook a recording expedition to the rainforest of Trinidad. As has long been speculated, ants communicate not only by giving off pheromones, but also through sounds. They are thus able to produce sounds by means of a leg and an organ on the abdomen. To capture these sounds, which are imperceptible to the human ear, Fontana once again used the technology of accelerometers, which he installed in the ground near ant trails.

**Sonic Landscaping**
Sound sculpture
Commissioned by NBBJ Design
Sonic Landscaping was commissioned by the design company NBBJ to integrate sound into their corporate building in Seattle. Since NBBJ Design also provides
Natural Song Lines
Providence, RI (US), 2007
Sound sculpture (permanent)
Kent County Courthouse
This public art project is installed in a pedestrian passageway that connects a parking garage with the Kent County Courthouse. Natural sounds such as birdsong accompany those who are busy in court, or who have a court date coming up—hopefully reducing stress levels.

Panoramic Echoes
New York, NY (US), 2007
Sound Sculpture
Commissioned by Madison Square Park Conservancy
Panoramic Echoes used sound to create a perception of architectural scale that correlates to the visual topography of high buildings surrounding Madison Square Park. It was a spatial composition with palpable layers of environmental sounds that moved, floated, and echoed above the park's predominant sonic background of traffic noise. The sound quietly emerged from a rooftop and quickly or slowly made a panning journey above the park, then faded to silence. It penetrated the park's noise envelope with environmental sounds that had a magical presence by virtue of their kinaesthetic relationship of being perceived at ground level as coming from above.

Objective Sound
Seattle, WA (US), 2007
Sound sculpture (permanent)
Western Bridge, Seattle
Western Bridge is located in the Duwamish Industrial area of Seattle. The ambient soundscape that envelops the exterior of the building is rich with the frequent sounds of train whistles from the nearby railroad crossings, as well as low flying aircraft on their way to SeaTac and Boeing Field. The building is designed as an exhibition space, and so with the aim of keeping these sounds out. The sound sculpture Objective Sounds brought these sounds into the building, turning its architecture into sound. Eight steel and glass objects, purchased from a nearby industrial surplus yard, are set up in a room that resembles a recording studio. Microphones placed on the roof of Western Bridge bring the live sounds from outside into this studio, where they are played through loudspeakers. Each of the eight objects has either a small microphone or sensitive vibration sensor (accelerometer) mounted within or on it, which registers how these objects are acoustically excited by the outside sounds and become resonant harmonic filters. 10 loudspeakers are distributed throughout the gallery spaces of Western Bridge. The live external sounds passing through these objects move in different permutations through the empty building, translating architecture into sound. This studio of resounding objects is visible through a large window, as a kind of ensemble of musicians or a sonic still-life.

Pigeon Soundings
Cologne (DE), 2007
Sound sculpture, eight-channel sound (permanent)
Kolumba Museum
In 1994, St. Kolumba in Cologne was a Gothic ruin inhabited by a large number of pigeons. Deep within the bowels of this place, 2,000 years of Cologne’s history lay partly visible in the form of old walls, columns and crypts, possessing a strong sense of timelessness. This extraordinary site was framed by the partially destroyed exterior walls of the old church and a temporary wooden roof in whose rafters the pigeons lived. Today, this has been made into a new museum called Kolumba (designed by the Swiss architect Peter Zumthor) which encapsulates the old Gothic ruin with a 12-metre high space of porous walls, above which the floors of the new museum sit. In 1994, Fontana made a series of eight-channel sound map recordings of these pigeons, capturing the sounds from eight spatial points simultaneously. The ruin was acoustically transparent, as the ambient sounds of Cologne would seep through the old walls, mixing with the coos and flapping of wings. More than 10 years later, the sonic memory of these thousands of pigeons returned to the space, invisibly inhabiting it.

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A unique loudspeaker technology was utilized to realize this idea, Meyer Sound’s parabolic speaker, the SB-1, or Sound Beam. This speaker has the physical scale of a large spotlight and is designed to create directional beams of sound that are projected long distances. Panoramic Echoes reactivated the quarter hour ringing of the Westminster Chimes from the top of the MetLife Tower. This was the tallest building in the world between 1909 and 1913, and the design of this tower was inspired by the Campanile di San Marco in Venice. These clock bells had counted the passage of time for more than 80 years and had unfortunately become silent in recent times. Fontana placed live microphones on each of the four bells, transmitting the sound to a mixing system that controls the four parabolic rooftop speakers around the park. The live strokes from these bells were fed into a real-time composition that caused a cascading series of echoes and delays to create a multi-dimensional acoustic interaction with Madison Square Park.
echolocation, in which ultra-high frequency sounds are beamed towards the surrounding environment as a means of navigating within and visualizing it. Spiraling Echoes used an unusual type of ultrasonic transducer that produces a directional beam of ultrasound. This sonic beam functions as a carrier wave of audible sound that has the narrowness and focus of a laser beam. When pointed at the architectural surfaces within the rotunda, one heard sound reflections coming off specific points. When this transducer as moving, one experienced the reflections moving off the reflective surface, so that the shape of the architecture became sound.

Tyne Soundings
Newcastle (UK), 2009
Sound sculpture
Baltic Centre for Contemporary Art and Sage Gateshead
Tyne Soundings was an audio network installed in the Baltic Centre's metal six-storey public staircase. It was composed of pre-recorded and live ambient noises projected from a range of landmarks across the north east including Souter Lighthouse, The Sage Gateshead, and the Millennium and Tyne Bridges in Newcastle. Via fibre-optic cabling and radio transmissions, Fontana transmitted sounds from each of these resonate structures into the shaft of BALTIC's stairwell—transforming this space into a monumental acoustic chamber. Sounds from the footsteps of those climbing and descending the staircase were distorted as they were incorporated directly into this dynamic and ever-changing composition. To create Tyne Soundings Fontana used the seldom heard resonant properties implicit to each of these landmark structures, such as the noise created by the Tyne Bridge's expansion joints and the echoes reverberating within the hollow steel arch of the Millennium Bridge. These sounds were mixed in the stairwell with the footsteps of visitors that were amplified and distorted through the use of vibration sensors. Thus, Fontana created an immersive sonic experience comprised of ambient noises.

Sonic Passage
San Antonio, TX (US), 2009
Sound sculpture
Jones Avenue Underpass and Bridge
Funded by the San Antonio River Foundation
For Sonic Passage Bill Fontana recorded bird calls, crickets, croaking bullfrogs, buzzing insects, rushing water and manmade sounds all along the San Antonio River for this ‘call of the wild’ audio installation under the Jones Avenue Bridge, close to the San Antonio Museum of Art. The public artwork sparks mental images of life along the river, from the serene to the thrilling.
Silent Echoes
London (UK), 2009
Audio visual installation
Haunch of Venison Gallery, London
Silent Echoes explores the sounds of five famous Buddhist Temple bells in Kyoto when they are not ringing. Vibration sensors were attached to the bells and acoustic microphones were placed inside of their resonant cavities. They measured and recorded how these bells are in fact ringing all the time in response to the ambient sounds of the environment. In the context and psychology of Buddhist culture the idea of a bell ringing all the time is a powerful metaphor. There is a famous meditation in which one strikes a bowl-shaped bell and, if one’s attention is unwavering, one experiences that the bell does not stop ringing as long as one is listening. In Silent Echoes, Fontana used modern measurement technology to reveal a hidden world of perpetual acoustic energy within an apparently dormant bell. The bell is always listening and is a physical meditation on the world around it. These bells are portals to the acoustic energy around them, and they have never been silent. This idea of music being a state of mind tuned into the music going on all the time around us has been a strong interest in all of Fontana’s work with live sound sculptures for the past 40 years. These temple bells are a physical analogy to the idea of music as continuous listening. Fontana also refers to John Cage, who said that ‘music is continuous and listening is intermittent’. In Silent Echoes, besides the high-resolution sound recordings of the bells, Fontana for the first time worked with a high-definition video camera that viewed these bells—so that in this video installation the audience gazes at a static, nearly life-sized projection of the bells while being immersed in its resonating echoes of the world around it.

Acoustic Journey
Enschede (NL), 2009
Sound sculpture (permanent)
Cultuurmijl
As part of a project of the Cultural Mile between Roombeek and the city of Enschede, on which several cultural institutions and works of art are located, Bill Fontana installed steles with various sound recordings from Enschede at five locations in public space. In 2013, the sound work caused a sensation when the birdsong that Fontana had chosen for Enschede’s Cultuurpark was replaced with pornographic sounds by anonymous hackers.

Sonic Shadows
San Francisco, CA (US), 2010
Sound sculpture (permanent)
San Francisco Museum of Modern Art
The site-specific sound sculpture Sonic Shadows was commissioned for the SFMOMA’s 75th anniversary in 2010 and explores both visible and invisible features of the museum building. For example, the pedestrian bridge on the fifth floor and the boiler room pipes are transformed into musical instruments by picking up the inner resonance of these architectural structures. Via movable ultrasonic loudspeakers and vibration sensors arranged around the space under the dramatic circular skylight, the invisible sounds are translated into an acoustic drawing in real time. As visitors cross the bridge, their steps contribute to real-time recordings of ambient sounds. Thus, this work creates a live composition that is generated by the building itself.

River Sounding
London (UK), 2010
Sound sculpture
Somerset House
Somerset House was built with direct access onto the Thames—the home of Admiral Nelson’s Navy Office, with boats entering through the building’s great arch on the river. Bill Fontana returned the river to the building with River Sounding, an immersive sound installation that created an acoustic journey through the little-known subterranean spaces of Somerset House. Over several months, Fontana collected hundreds of hours of audio and video from above and below the surface of the Thames, from Richmond to remote locations in the Estuary, in order to reveal the hidden stories and sound-worlds of the river in a public artwork. Images and sounds installed in the Lightwells and Dead House—spaces far below the courtyard, usually closed to the public—create an intimate, acoustic journey and reinstate the forgotten shared history of Somerset House and the Thames.
Soaring Echoes
Chicago, IL (US), 2012

Sound sculpture
Pritzker Pavilion, Chicago Millennium Park

Soaring Echoes was a sonic sculpture created for the Pritzker Pavilion at Chicago’s Millennium Park. Pritzker Pavilion, a music bandshell designed by Frank Gehry, is the centrepiece of Millennium Park, part of Grant Park bordered by Lake Michigan to the east and by Chicago’s architectural skyline to the west. Conceived in seven movements, Soaring Echoes is composed from field recordings of sounds indigenous to both the city’s urban and natural environments—from the rhythms of its public transportation systems to the underwater melodies of Lake Michigan and the Chicago River—in addition to recordings from Fontana’s sound archive. Soaring Echoes belongs to the art collection of Millennium Park and the City of Chicago.

Acoustic Visions of the Golden Gate Bridge
San Francisco, CA (US), 2012

Live single-channel video installation with stereo sound
Commissioned by the FORE-SITE Foundation, Fort Point

This work in International Orange, a FOR-SITE Foundation exhibition in San Francisco, used the Golden Gate Bridge as a gigantic musical instrument, with real-time views under the roadway expansion joints. The visitors were able to experience a mix of sounds coming from the bridge to a 10-loudspeaker system as well as a live image taken from underneath the runway transferred to one large screen in the exhibition.

Acoustic Time Travel
Meyrin (CH), 2013

Commissioned by CERN Artist in Residency

During the CERN Artist-in-Residency programme, Fontana was matched with his CERN scientific partner, cosmologist and former Marie Curie Intra European Fellow, Subodh Patil. Fontana decided to focus his project on the Large Hadron Collider. The LHC is the world’s largest and most powerful particle collider, the most complex experimental facility ever built, and the largest single machine in the world. In Acousical Time Travel, Fontana broadcast the recording of the proton-source beat in the LHC through various structures around CERN and within the LHC tunnel to discover how different materials affect the sound. Over his first four weeks in residence, Fontana carried out many experiments in the LHC and came up with the idea of taking a loudspeaker into the LHC and playing the sounds of the LHC 100 metres underground, back to itself. The echoes and resoundings which happened in the tunnel turned the LHC into the world’s largest acoustic instrument. Bill Fontana received the Prix Ars Electronica for Acoustic Time Travel.
**Linear Visions**
Linz (AT), 2014
Live four-channel sound sculpture with live video
OK Offenes Kulturhaus, with the support of voestalpine AG in Linz

Linear Visions explored a live acoustic view from a very concrete situation that created an amazingly abstract result. This Acoustic Vision gazed at sheets of molten steel rolling repetitively through the Voestalpine Steel Factory in Linz. The view changed from the glistening roller to hot clouds of steam and then the intense flowing of the red and yellow hot sparkling steel sheets. The sounds came from accelerometers mounted on the four rollers and were sent directly to the exhibition space at the OK Center for Contemporary Art.

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**Sonic Mappings**
Rome (IT), 2014
Sound sculpture (permanent)
MAXXI

The immersive sound sculpture Sonic Mappings is a site-specific sound sculpture, reacting to the relationship between MAXXI, Zaha Hadid’s architecture, and the city of Rome. Multiple trajectories and layers of moving sound pass through the 38 loudspeakers integrated into the surfaces of the architecture so that its flowing shapes are inscribed with flowing sounds. Starting from the Roman aqueduct of the Acqua Vergine, which enters the historic quarter of the city from the east and supplies some of its most beautiful fountains, including the Trevi Fountain, the artist mapped the multiple sounds of the aqueduct, capturing the sounds produced by the water as it flows through the underground tunnels and fountains.

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**Silent Echoes – Finnieston Crane Glasgow**
Glasgow (UK), 2013
Audio-visual installation
Gallery of Modern Art, Glasgow
Glasgow UNESCO City of Music’s Glasgow Commissions

In a new version of Silent Echoes, Bill Fontana turned one of Glasgow’s most iconic landmarks, the 19th-century Finnieston Crane in the docks of the town, into a giant musical instrument. By attaching microphones to tap into the deep sounds made by the crane (which are not audible to the human ear), and connecting these deep sounds with an extraordinary visual of the crane taken from an HD video camera underneath, Fontana brought the now long-since decommissioned crane back to life by making the sounds retained in it perceptible. ‘I’ve done some strange things in pursuit of art, but none stranger than pressing my ear to a steel strut of the Finnieston Crane, listening out for its “voice.”’ [Bill Fontana]

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**Acoustic Visions and Desert Soundings**
Abu Dhabi (AE), 2014
Single-channel video with multi-channel sound
The Abu Dhabi Music and Arts Foundation
Abu Dhabi Festival

This multichannel video and sound installation explored the hidden voice of the deserts in the UAE. Groups of accelerometers were buried in the sand dunes, revealing that the desert—silent on the surface—secretly makes sounds underneath. The thousands and millions of grains of sand shifting and moving over the vibration sensors produced a sound that was very much like the sound of the sea.

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**Vertical Echoes**
Manchester (UK), 2014
Sound sculpture
IWM North, Imperial War Museum, Manchester

Vertical Echoes was the first in a series of artistic responses to World War I commissioned by IWM North in honour of the war’s centennial. To evoke battlefield dynamics, Vertical Echoes juxtaposes the crescendos of battle against a backdrop of softer natural sounds. Featuring recordings of the roar of a Sopwith Camel warplane and the echoes of a vintage field gun, the soundscape was reproduced by eight loudspeakers and vibration sensors evenly spaced along the vertical axis of the museum’s AirShard, which is a viewing platform looking out at the Manchester skyline.

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**Linear Visions**
Linz (AT), 2014
Live four-channel sound sculpture with live video
OK Offenes Kulturhaus, with the support of voestalpine AG in Linz

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**Sonic Mappings**
Rome (IT), 2014
Sound sculpture (permanent)
MAXXI

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Acoustic Visions of the River Mur
Graz (AT), 2017
Sound sculpture (permanent)
Kunsthaus Graz
The Kunsthaus Graz is directly connected to the River Mur via its extinguishing and cooling systems, which produce dripping and running noises. For Acoustic Visions of the River Mur Fontana again utilizes hypersonic speakers—an acoustically engaging technology—and brings the unseen world of the turbulent River Mur into the range of perception of visitors. In the site-specific installation, the house itself—specifically its fantastic blastpipes in the courtyard—becomes an instrument, thereby relating to its architectural concept as a living exhibition machine. Through the reduction of the white-water noise that you naturally hear by the side of the Mur, the house itself becomes the transmitter of a new perspective onto unknown dimensions of an omnipresent sculptural material.

Shadow Soundings
Lisbon (PT), 2017/18
Solo exhibition and audio-visual installation
MAAT—Museum Art Architecture Technology
Shadow Soundings was a living work of media art that was created from a real-time connection between the iconic 25th of April Bridge and MAAT in Lisbon. Live cameras, microphones, accelerometers and hydrophones produced an abstract real-time media art work for the 800-square-metre Oval Gallery, the main exhibition space in the Museum. In his largest immersive exhibition to date, in which 10 live sound channels, two live videos and five recorded videos were used on screens floating in space, Fontana put the multiple capacities of visual and auditory perception of the exhibition visitors to the test.

Acoustic Visions of the River Mur, 2017

Sonic Dreamscapes
Miami, FL (US), 2018
Sound sculpture, 72 channels; permanent
New World Center, Miami Beach
The sound sculpture is an imaginary landscape made of environmental sounds, such as local birds and sea life, and the images that they evoke. It is an artistic response to the issue of rising sea levels. Using the technically high-end situation of the Soundscape Park with its 72 speakers positioned in a circle, Fontana mixes underwater sounds and projections of dynamic coastal waves with light, thereby creating an immersive outdoor performance of endangered harmonious life.

Harmonic Time Travel
Bonn (DE), 2019
Sound sculpture
bonn hoeren, Beethovenstiftung / Beethoven-Haus
For Harmonic Time Travel, Fontana filled the street in front of Beethoven’s birthplace with alienating recordings of the early Dressler Variations, which Fontana had made using accelerators on Beethoven’s last grand piano. The sound sculpture ran during the opening hours of the Beethoven-Haus, which was closed at the time for renovation.

Landscape Soundings Revisited, Landscape Sounding River Echoes
Berlin (DE), 2020
Sound sculptures
Gropius Bau (as part of the performance programme Rituals of Care)
Landscape Soundings Revisited is a new version of the work about the Danube floodplains created in 1990 for the Vienna Festival. For the atrium of the Gropius Bau, Fontana conceived a reflection of the numerous recordings made during a period which—shortly after the fall of the Berlin Wall—also marked a new beginning for the Gropius Bau. A second work, Landscape Sounding River Echoes, was created from the recordings made by vibration sensors attached to a group of giant sequoias near the Kaweah River in Sequoia National Park in California to capture the rhythmic energy and echoes of the rushing river in the landscape.
→ Landscape Soundings, 1990
For Bill Fontana’s solo exhibition in Space01 at the Kunsthaus Graz, a live installation about the acoustic and visual aesthetics of renewable energies is being created for the site. In a large room montage, Fontana creates an ever-changing installation that visually and acoustically processes the sounds of water, earth, solar and wind energy production. Using the most precise acoustic recordings and alienated visuals, he creates a multidimensional composition in which live recordings from the local environment have a direct impact. His work deals with technical developments and infiltrations into an everyday environment and makes them accessible as a direct, physical experience. At the same time, it ties in closely with current discussions on sustainability and environmental protection.

The reenactment of Bill Fontana’s legendary sound projections from steirischer herbst 1988 will take place within the framework of the Graz Cultural Year 2020 project. Back then, an act of vandalism as well as numerous complaints from citizens put an early end to the project after just a few days. Nevertheless, the piece remained positively anchored in the minds of many people in Graz. Not least, the resistance from various circles at the time testifies to Fontana’s ability to discern sensitive points in a society. After more than 30 years of creating myths around the historical piece, the acoustic memory of the city is now to be renewed, accompanied by historical and technological as well as innovative and inclusive mediation, and interpreted in a contemporary way. It now works as a dialogue between two spots in the inner city as projection locations (Schloßberg und Kunsthaus) and eight different contemporary urban recording locations such as Volksgarten, train station or market place.

→ Sonic Projections from Schloßberg Graz, 1988


Katrin Bucher Trantow, born 1971 in St. Gallen, CH. From 1999-2003 assistant curator at the Kunsthalle Basel, curator since 2003. She became Chief Curator and Deputy Head of the Kunsthaus Graz in 2012. Her curatorial focus lies on interdisciplinary approaches. She is specifically interested in the intersection of cultural history, art history and art.

Bucher Trantow has recently curated on the topic of transformation and metamorphosis, such as the solo exhibition Berlinda De Bruyckere: In the flesh of the group exhibitions Alino Szipoczkin/ko, Katheina Vincurova and Comille Herrost. Jody’s Bionorphic Form in Sculpture and Cittadellarte: Sharing Transformation. Other curated projects include Connected, Peter Kogler: Landscape in Motion, Constantini, Lusar, Katharina Grosse and Michael Kienzer: Measuring the World, Heterotopias and Knowledge Spaces in Art; Albert Oehlen: M Stadt, European Cityscapes and Soul Le Witt. Numerous contributions have appeared in catalogues and other publications, e.g. Camera Austria International, Domus and Pamm.

Werner Fenz lived from 1944 to 2016 in Graz, Austria. From 1969 he worked as a research assistant, from 1993 to 1997 as Director of the Neue Galerie Graz. From 1998 he curated exhibitions and projects at the Department of Culture for the Province of Styria, the City of Graz and the Landesmuseum Joanneum. From 2006 to 2009 he led the Kunsthistorisches Institut Graz. From 2005 to 2011 he was director of the Institute of Art in Public Space Styria. In addition to his extensive teaching activities in Graz (including teaching at the Kari-Franzens-Universität Graz from 1979 on, and from 1995 as an university lecturer in Contemporary Art History), Fenz realised numerous national and international exhibition projects, particularly in art in public space. Selected projects: Bezirkspunkte 38/FB, Graz, steierischer herbst, 1988, ArgusAuge, Königsplatz, Munich 1990, ... by the way..., Novi Sad, Serbia 2011. Author and editor of numerous publications, including 1-4, Österreichische Triennale zur Fotografie, 1993, Kunst im öffentlichen Raum Steiermark, volumes 1-4 (together with Evelyn Kraus and Birgit Kulteis), Vienna, New York 2010-2013; Arbeit mit der Öffentlichkeit 63 Jahre donach / 63 years after work with the public, Joachim Geír, Vienna 2016.

Rudolf Frising joined SFMOMA as Curator of Media Arts in 2006. He has curated major survey exhibitions such as in Collaboration: Early Works from the Media Arts Collection (2008), The Art of Participation, 1950 to Now (2008/2009) on the history of contemporary participatory practice and Stage Presence: Theatricity in Art and Media (2012) on the crossover between visual and performing arts, and in 2017 he co-curator the large survey Soundtracks on artists working with sound and space. Most recently, he co-curated the touring retrospectives Bruce Conner: It’s All True (2016-2017), Suzanne Lacy: We Are Here (2018-2020) and Nemb Buoloki (2019-2021). Prior to his tenure at SFMOMA, he worked at JKM Center for Art and Media in Karlsruhe, Germany as a curator and researcher from 1994 to 2006. Frising is also a Senior Adjunct Professor at the California College of Arts in San Francisco.

Pedro Gadanho is an architect, curator and writer. He is currently a Loeb Fellow at Harvard University. Previously, he was the founding Director of MAAT, the new Museum of Art, Architecture and Technology, in Lisbon. There, he initiated more than 50 exhibitions, curating new commissions by artists such as Dominique Gonzalez-Foerster, Carlos Garaicoa, Tomás Saraceno and Jesper Just, as well as major interdisciplinary shows and publications including peaks / Dystopias, Tension & Conflict, and Eco-Visionaries. He was also a curator of contemporary architecture at the Museum of Modern Art, New York, where he coordinated the Young Architects Program, and curated exhibitions such as 9+1 Ways of Being Political, Unvein Growth and A Japanese Constellation. He has edited the BEYOND bookazine, the ‘Shrapnel Contemporary’ blog, and contributes regularly to international publications. Gadanho holds an MA in art and architecture, and is a PhD in architecture and mass media. He writes about art and new media. He has organized and curated many symposia and exhibitions on art practice in the media—especially radio, television and internet. She was a member of the Berlin DAAD jury for music and of the Austrian federal jury for visual arts and was coordinator of ‘Arts Acoustic’, the EBU (European Broadcasting Union) working group for radio art. Editor of various catalogues and publications, including Re-Inventing Radio, Aspects of Radios as Art, Revolver, 2008.

Hans Ulrich Obrist (born 1968 in Zurich, CH) is Artistic Director of the Serpentine Galleries in London. Prior to this, he was the Curator of the Musée d’Art Moderne de la Ville de Paris. Since his first show World Soup (The Kitchen Show) in 1991 he has curated more than 300 shows. In 2011 Obrist received the CCS Bard Award for Curatorial Excellence, in 2015 he was awarded the International Folkwang Prize, and in 2018 he was presented with the Award for Excellence in the Arts by the Appraisers Association of America. Obrist has lectured internationally at aademic and art institutions, and is contributing editor to several magazines and journals. His recent publications include Wseys of Curating (2015), The Age of Earthquakes (2015), Lives of the Artists, Lives of Architects (2015), Mondialité (2017), Somewhere Totally Else (2018) and The Athens Diologues (2018).

Heidi Grundmann worked for more than 30 years as a cultural reporter, art and theatre critic, editor and programme producer at ORF Austrian Radio/TV. In 1987 she founded the Q1 radio programme KUNSTRAUDI-RADIKUNKST (original artworks for radio). Since the beginning of 1999 KUNSTRAUDI has had its own homepage, http://kunstrauido.at, which presents many art projects and live webcasts. Besides her work as an on-air-on-line-on-site radio art cura- tor, Heidi Grundmann gives lectures and writes about art and new media. She has organized and curated many sym- posia and exhibitions on art practice in the media—especially radio, television and internet. She was a member of the Berlin DAAD jury for music and of the Austrian federal jury for visual arts and was coordinator of ‘Arts Acoustic’, the EBU (European Broadcasting Union) working group for radio art. Editor of various catalogues and publications, including Re-Inventing Radio, Aspects of Radios as Art, Revolver, 2008.
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Since the 1960s Bill Fontana (born 1947 in the US) has been using sound as a sculptural medium. Linked to his solo exhibition *Primal Energies* at the Kunsthaus Graz, this catalogue is the first comprehensive documentation of Fontana’s many years of artistic work. In addition to an index of works, the catalogue includes texts by Rudolf Frieling, Werner Fenz, Pedro Gadanho, Heidi Grundmann and curator Katrin Bucher Trantow, as well as a conversation with the artist, conducted by Hans Ulrich Obrist.