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In memory of Robert Adrian X¹

Radiophonic art long occupied a peripheral position within the spectrum of ephemeral forms of creative expression. In spite of its acknowledged significance for experimental art movements from Futurism through Fluxus to the electronic age, acoustic and radio-transmitted concepts have widely eluded the—primarily visually based—parameters of art-historical methods. Audio works in general, and yet again radio-related sonic material, have so far escaped most academic writing within the field of art and remain a desideratum in surveys on conceptual and performative contemporary art production. In fact, the discourses in art have been shaped for the most part by the study of visual artifacts. Against this backdrop, the compilation of essays in the book *Radio as Art* marks a starting point for addressing exemplary strategies and features through which radiophonic art is generated, staged, and negotiated in the realm of the visual arts and in relation to its spatial venues and institutional framing. The contributions assembled here open a broad perspective on the range of concepts, practices, and settings that apply to broadcasting technologies and diverse usage of the radio medium from the avant-garde in the early twentieth century to the present day. While on the one hand the apparatus-based structure constitutes the features of artistic approaches to radio transmission, on the other hand the parameters of radio have been deployed for disseminating practices of creative and critical content, often implying tactical impulses for self-empowerment or resistive subtexts. Also applied like a tool for interconnecting diverse spatial and cultural spheres, radio concepts create public environments that enable participating actors to engage in experimental collaborative processes. In view of these tendencies and developments, this book is dedicated to retrieving and reconstructing, in a kind of media archaeology, the significance of past and recent radio artworks—as well as forgotten or virtually forgotten ones—from the archive. It confronts the technosociological nature of radio today and accounts for its transformations as a cultural phenomenon within a more global sphere of communication and more direct practices of production, particularly in the field of art. In an era when almost everyone is able to produce, edit, and transmit his or her own acoustic concepts on home computers

or the Internet, the specialist status of artistic creation is blurred in general and also opens up new dimensions for experiments with radio as art. In this context, acoustic signals, voice, language, sound collages, and experimental music have amplified the aesthetic repertoire as much as the realm of radiophonic transmission has expanded the medium to include multifaceted platforms for activist strategies and global networking in contemporary media practice. In the age of Twitter and online communications, the creative features of the radio medium deserve a fresh positioning of their aesthetic and cultural potential.

Focusing on the artistic and activist usage of radio transmission and revealing the often close entanglement of these approaches, this volume moreover seeks to situate works that use the radio medium within the contemporary art landscape and connect their reception to relevant discourses. In view of the historical emergence of broadcast components in creative production and the rapidly changing nature of radiophonic art concepts today, it seems relevant to also explore the technological advances of the radio medium within its institutional frameworks, which are situated between public broadcasting and today's exhibition culture, between archival documentation, activism, and ephemeral processes, between economic constraints and societal effects, cultural and geopolitical transformations.

This book collates the results of a long-term research collaboration between the Centre for Artists' Publications at the Weserburg Museum of Modern Art in Bremen, the Institute for Art History – Film Studies – Art Education at the University of Bremen, and the Department of Art History at the University of Cologne, which was funded by the Volkswagen Foundation between October 2011 and September 2015. This interdisciplinary project was based on the exceptionally rich resources of radio art, located at the Centre.² This internationally renowned, unique, and comprehensive compilation of radio art by artists from all over Europe, North America, Latin America, and Australia has been made accessible in exhibitions, enactments, and through documentation. It provides monographic or thematic insights into the cultural and aesthetic diversity of radiophonic concepts, while also placing them within a historical perspective. As an exceptional inventory of a wide variety of hitherto inaccessible and unexplored electroacoustic artworks, all relevant forms of radio broadcasts have been collected and archived by the Centre for Artists' Publications with a view to encompassing the broadest range of sonic concepts. Its expanding collection of radio art constitutes a singular and likewise representative selection of this heterogeneous artistic practice, which has been inventoried comprehensively and scholarly analyzed over the course of the research project. Since radio artworks are for the most part today located in the archives of either artists or broadcasting stations, the access is at best limited and in most cases completely restricted, with the effect that these



Exhibition view of *Beyond Radio: 25 Years of Art Radio—Radio Art*, Centre for Artists' Publications at the Weserburg, Bremen, 2012

works have hardly been addressed as a genuine component of the cultural heritage and an important contribution to aesthetic and political meaning production. The sonic presence of the ephemeral and material components of these works is therefore widely unknown and remains to a great extent virtually nonexistent in societal knowledge and in broader public reception. In effect, neither empirical nor theoretical art- or media-historical research has been dedicated to a systematic study of the public and aesthetic relevance of this intangible and invisible cultural heritage.

Under the title *Radio Art: On the Development of a Medium between Aesthetic and Socio-Cultural Reception History* the research project documented here investigated central questions about the technological, conceptual, sociocultural, and discursive parameters that have, at least since the 1960s, furthered the emergence, development, and spread of art forms that make use of analogue and electronic communication media. Three aspects were derived from this to structure the project into three areas in order to study the historical and current status of radio art: first, the reconstruction and transformation of the technological conditions of radio art; second, the study of the institutional contexts of the creation and broadcast of radio art and the associated power structures in different political and cultural contexts; and, third, the mediation of radio art in museums and extended cultural areas.

The fulfilled goals involved, on the one hand, the grounding of pioneering trends in radiophonic art forms within art-historical discourse

by means of scholarly research of their aesthetic specifics and their potential sociopolitical significance since the 1960s in the area of conceptual and performative art forms. For example, radio art could be included in the history of art and media. On the other hand, we sought to characterize the challenges of the reception of these forms of expression defined primarily by acoustic signals and their intended production and linking of “public environments” in the museum context and to develop specific models for innovative strategies of mediation. The focuses of this research project have pointed the direction for discursive fields of media and art studies and for arts mediation. The interest in the context of acoustic phenomena in the field of art were documented, among other ways, by the exhibitions of anniversaries that occurred while the project was ongoing (e.g., John Cage’s hundredth birthday) and by thematic approaches to the role of sound as an aesthetic means in art (addressed, for example, in shows including *A House Full of Music*, Mathildenhöhe, Darmstadt, 2012, *Sound Art: Sound as a Medium of Art*, ZKM, Karlsruhe, 2012, and *His Master’s Voice*, Hartware MedienKunstVerein, Dortmund, 2013). The research project on radio art anticipated the development of this area of research early on and profited from the opportunity to embed itself in this expanded field of discourse that was evolving in parallel with it. At the same time, it became clear that artistic radiophonic broadcast formats were still barely established at all as a subject for study in art history, and it became necessary to work out a methodological and contextualizing framework for scholarly study that went beyond a first documentation of artistic practices and projects. This radio art research project was also able to provide basic foundations with an eye to the emerging paradigm shift to the iconic turn and the spatial turn, which has only just begun, in the direction of a debate over acoustic forms of expression, semantics, and spatial conceptions, as well as networking.

Instead of simply developing concepts to put archives of existing material of radio art on display, it became more and more obvious in the process of research that we would have to also engage with the theme of unavailability. Moreover, while tracing the history of radio as a medium of aesthetic creation from our art-historical and mediational point of view, we realized that overlaps between radio art and political activism—with dynamic collective processes that elude precise determination by non-hierarchical and unpredictable interactions between producers and recipients—marked the expanded field of production and reception of radio art. Taking these co-emergent aspects of radio art into account, our central concern—namely, to introduce the aesthetic, institutional, and political radio art into the established aesthetic orders of radiophonic works in the art-historical field and to sensitize our visually orientated discipline to the performative and experimental scope of radio art in its broadest sense—continues to be relevant today.



Concha Jerez/José Iges, *Expanded Radio*, Performance at the exhibition *Beyond Radio: 25 Years of Art Radio—Radio Art*, Centre for Artists' Publications at the Weserburg, Bremen, Germany, 2012

In order to sound out the artistic and media diversity, the project operated on several levels, in an effort to develop as a whole a multi-perspectival set of instruments with an interdisciplinary network of cultural and media studies. This included not only archiving and systematizing methods of analysis but also conducting exemplary, more detailed descriptions and historical contextualization (incorporating interviews with producers, artists, and contemporaries), preparing works for presentation in retrospective exhibitions, and developing media and personal formats to disseminate works, which were also given a scholarly foundation through the evaluation of the reception of radio art. In addition to workshops with international figures from radio art and scholars, the grant supported smaller monographic presentations of works, and an extensive survey exhibition titled *Über das Radio hinaus: 25 Jahre Kunstradio—Radiokunst* (Beyond Radio: 25 Years of Art Radio—Radio Art) that were produced at the Centre for Artists' Publications (November 10, 2012 to February 10, 2013). This offered students diverse opportunities, integrated into the university curriculum, to become familiar with works of radio art and to position them in the historical context in which they were created. The occasion for this concept for the exhibition was the twenty-fifth anniversary of the broadcast format initiated by Heidi Grundmann: *Kunstradio—Radiokunst* in Austria, first broadcast on December 3, 1987. From the very outset, *Kunstradio* was more than just a weekly radio program. As a pioneering initiative, it became a catalyst for radiophonic productions, supporting international projects while serving as a platform for innovative work in this creative field. For more than two decades, *Kunstradio* enabled



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collaborations with radio institutions, art associations, festivals, and museums worldwide. It also facilitated exhibitions and encounters of artists, theorists, and activists with conferences and symposia, publications, and the launching of a discursive forum implemented in the sphere of broadcasting. The comprehensive overview of radio art projects realized in the context of *Kunstradio's* twenty-five-year activities gave insight into the significance of this internationally renowned program, which never ceased to encourage artists to challenge the institutional limits of radio and art. Situated at the intersection of art, literature, music, media, performance, and Internet art, *Kunstradio* provided abundant opportunities to explore diverse technologies, contexts, and public environments for radiophonic experiments.³ In this sense, it also served as a laboratory and testing ground for creative radio works, including both classical and new technologies in unusual applications or combinations for artistic means. Moreover, it is remarkable that the majority of the radio art pieces were commissioned or specifically produced for *Kunstradio*. The exhibition realized at the Centre for Artists' Publications in collaboration with *Kunstradio*, and as a result of the joint research project, was conceived as a restaging or reenactment, rather than a documentation of the conceptual breadth of significant projects that emerged from this exceptional cultural initiative at the ORF (Austrian Broadcasting Cooperation) in Vienna. The works on display at the Centre for Artists' Publications in Bremen also revealed how radio—as a mass medium and as a creative resource—continues to pass through technological and communicative transformations. Its many roles include being a medium for shortwave broadcasting,

FM and 5.1 satellite transmission, web radio, podcasts, and wireless technologies, all of which are reflected in the artistic methods and became the subject of the research project as well. The context of the exhibition that emerged in collaboration with Heidi Grundmann and Elisabeth Zimmermann, both auteurs and acteurs of *Kunstradio*, also provided opportunities to present and mediate initial research results and to widen the discursive scope by engaging in a public discussion about the project's central issues. Moreover, the exhibition, which was co-curated by the research team, functioned like a projection screen for the verification and calibration of the elaborated mediation concept.

Learning from these experimental studio practices and platforms of dissemination, the research of the documented project here further explored the adaptability of radio art to new technologies, their linkage to institutional structures and to the sociopolitical sphere. As Reinhard Braun underscores,

thanks to this eminent expansion of what radio can be, it long ago became part of a tradition of artistic telecommunications projects from the nineteen-seventies and eighties, intermeshing with forms of radio art that, in turn, considered themselves constituent in this telecommunications art, constantly reflecting on the changes in radio due to new communication technologies.⁴

The range of places and locations that are interlinked via radio is complemented by mobile and wireless technologies today, creating countless dislocated media environments and architectures, connecting geopolitical spheres across the globe. The concept of "milieu," understood as an atmospheric and living environment, may account for this expanded radio space and its potentiality of cultural action in interdependency to social activity and political protocols.⁵ Addressing these "sociotechnical" aspects of radio, Braun emphasizes that the development of the radio medium must be reflected as "a public space of interventions, a soundscape, a sculpture, and ultimately also a 'horizontal' medium of communication in the scope of hybrid media networks that temporarily interlink the most diverse settings."⁶ And he further explains that "[t]he broadcasting format of radio and its content therefore exist in direct relationship to countless other media and communication formats."⁷ In consequence of the intermedia status of radio, it cannot be seen primarily as a space of reception, but must also be considered a space of heterogeneous forms of collaboration, of diverse representations, an environment of variable meaning productions, and of fluid aesthetics—in short, radio is hence entangled with the mediatic—material and receptive—conditions of an expanding field of communicative and cultural interactions between dislocated individuals. Radio as art therefore evades the normative categories in as much as deterministic

concepts of scientific models do not take account of the medium's chimeric character and its vital impurity that connects innumerable acteurs in inconclusive, open-ended liaisons.

From ephemerality to durability, the double destination of radio programs (on air and archived on the Internet) raises new questions about the status and the process of a radio artwork. Internet streaming has changed the nature of content transmission and podcasting, just as other kinds of online archiving formats have transformed the nature of radio. As Étienne Noiseau, initiator of an independent radio art platform in France, has pointed out:

Spreading the content toward a new or larger audience and paying more attention to sound composition, podcasting and radio on demand have ... given more credit to the creative potential of radio. The materialization of radio in the form of digital data which we can save and share invites us to fully consider creative radio programs as artistic works and their producers as artists or auteurs. However, the operating radio signal reduced to digital audio data thrusts radio into the larger, blurred field of audio.⁸

Within this perspective, the spreading of austerity politics, which abandons step by step the communal funding of public media, also needs to be considered with its impact on "elaborate, creative, artistic programs [that] are at risk to be directly or indirectly hit by these cuts."⁹ In fact,

the strict use of analogue broadcast is decreasing while digital terrestrial broadcasting raises problems so that radio art can lose the connection with the broadcasting technique. In the context of economic crisis, governments are cutting off funds for public broadcasting as well as support for community radio.¹⁰

With this tendency in view, questions arise in regard to radio art's technological expansion, while the role of content seems to fade into the background in the digital age. The issue at stake here is the fact that radio art has continuously redefined its position within the media landscape and the public sphere. Most of all, it is the accessibility and the experience of co-presence, so characteristic of radio, which defines the genuine publicness of radio and the experience of an extended social space on various levels. As ambiguous as this effect of radio has been since its early history as a propaganda instrument and in view of growing populist tendencies in Europe and worldwide, as relevant and urgent is the analytical engagement with the power relations of broadcast technologies, also as a prehistory of social media and so-called "alternative" information distribution. Monitoring these transfor-



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mations of the political landscape and the concomitant media usage, it seems necessary to think about the kind of interplay that can be imagined between radio art and strategies of reappropriation of the public realm by means of resistance against anti-democratic and nationalistic tendencies. In the contested field of growing public conflict, poetic imagination and new forms of collective action may also be the subject of performative radio interventions and sensitization for media's criticality in the sense of Jacques Rancière's reconfiguration of the sensible, which, he stresses, is the political dimension of the aesthetic.¹¹ In this discourse, radio's ability to generate a public sphere by creating convivial spaces may be characterized not only by a notion of hospitality where the host receives the guests in her own house, but also by myriads of relations evolving between hosts and guests in transcultural processes of exchange and interactions. It may well be that this notion of a publicly displayed hospitality, based on a collective experience of presence experienced in the shared public space of the radio landscape, imparts a sense of the residual utopian spirit of radio as art.

The results of the first subproject, "The Influences of (New) Technologies on Radio Art," with a focus on broadcasting technologies, such as radio, Internet, and satellites, show that radio art always emerges in the tension between technological developments and possibilities, on the one side, and the artistic will to design, on the other, whereby the factors mentioned represent only a focused subset of the diverse elements whose reciprocal interactions constitute the collaborative projects and collective creative processes in radio art. Based on the

particular focus on the technologies and techniques of radio art, it made sense for the first project area to pursue an interdisciplinary approach from the outset, so that—in addition to musicology, sound studies, and media studies—approaches from science and technology and hence also sociology were integrated into the studies. This made it clear that it is neither true that technology and technique determine artistic works nor that technical devices are passive artifacts that can be employed without restriction by the artist. A one-sided influence of technologies is controverted by the fact that broadcast technologies such as radio, Internet, and satellites, which are also used in the state-regulated, commercial, and military fields, are sometimes employed in the context of radio art in ways antithetical to those in the areas just mentioned. At the same time, however, with the rise of new technologies, new formats and practices of radio art were also explored. For example, the show *Kunstradio—Radiokunst* (Austrian Broadcasting Ö1/ORF) approached the Internet as a new, additional space for its radio art program when it introduced its homepage in 1995. The website combines aspects of an information platform and of an archive (in addition to a broadcast schedule, it has detailed additional information about specific shows and associated events, sound samples, and theoretical texts) and is also used to encourage and implement collaborative radio art projects via the Internet. The *radio aporee* project, which is constantly being expanded by collective collaboration and was initiated by Udo Noll, combines high-tech mobile telephones with a global positioning system (GPS) so that site-specific listening experiences are created in which real and virtual space overlap. In light of such reformulations, representing a purely progressive idea of radio art would not do it justice. In fact, many radio artists still insist on analogue radio technology. Knut Aufermann and Sarah Washington, for example, do not see mobile radio as an anachronistic, nostalgic decision but above all as a political one when, in parallel with setting up Internet radio situations, they always insist on analogue broadcasting. For unlike the Internet, they argue, analogue radio technology is not only easily employed by anyone interested but also in principle autonomous from existing infrastructures, so that they can also be employed in places that have little or no access to communication networks like the World Wide Web. The question of the role of technologies in radio art is thus always connected to political questions of accessibility, of the inclusion and exclusion of groups of people and territorial hegemonies. It is thus unsurprising that a number of works of radio art have affinities with activism and social commitment. The alternative radio network INSULAR Technologies (International Networking System for Unified Long-Distance Advanced Radio) of Marko Peljhan and Project ATOL, for example, aimed to connect remote regions or towns in particular to secure communication and to network them globally.



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In conclusion, it can be confirmed that scholarly engagement with radio art has revealed the relationship of art and technology/technique to be a reciprocal one that connects relationally to choices of themes that can lead us forward. Moreover, historical study of early forms of artistic appropriation, modification, and dissemination of technologies and techniques can also free up a critical perspective on the current approach to so-called social media and the associated phenomena of network. These current developments in media, communication technology, and social policy were reflected on in the framework of the project as a prospect for productive perspectives for research and pioneering approaches, such as Kai von Eikel's theorizing about concepts of radio art that aim to study performative and collective processes, revealing the transitions from formerly public spaces to corporative and surveillance spaces.¹²

Building on these findings, new methodologies for a non-essentialist understanding of not only radio art but also artistic practice in general were developed as well. This approach, which dissolves preset boundaries while at the same time allowing a focus on processes of enactment in the analysis of concrete situational settings, is applied by Jee-Hae Kim in her doctoral thesis in which she explores telecommunications projects involving the technology of slow-scan television from the late 1970s until the mid-1980s.

The second research area, "The Institutional Context of Radio Art and Its Power Structures," pursued the question of the influence of radio as medium and power apparatus on the emergence and development



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of radio art. This question assumes that the specific initial situations and assumptions in each of the radio systems decisively influence creative and artistic work. In that sense, the factors influencing radio art should be considered with an eye to their country-specific and historical constitution: the accessibility and quality of the available technical equipment are manifested in turn in the concrete realization of radio artworks, just as are the traditions of radio (art), the cultural zeitgeist, geopolitical conditions, and daily political events. Studies of these factors focused on Germany, Austria, the United States, and Turkey and touched on Australia, the former Yugoslavia, Italy, and the Netherlands. For Germany, Austria, and the United States in particular, a paradigm shift can be seen since the late 1990s. It was triggered by structural changes in the public radio system. The introduction of format radio, overall budget cuts, and the retirement of aging personalities relevant to the production of radio art have led to the near complete disappearance of radio art from the public radio system in these countries. This art form never succeeded on private or commercial radio. The production and performance of radio art is shifting to the Internet more and more, as well as to community radio stations and temporary (illegal) broadcasters. The artists are increasingly producing the works themselves and organizing in independent networks or in the context of art and radio festivals. In comparison to their peak in the late 1980s and 1990s, radio art today is more individualized, isolated, and occasional. Series of radio art, a marginal but nonetheless regular component of the public radio program, are being replaced by temporary, often precarious projects and events in cooperation with museums and other cultural institutions.

The change from state radio space to private (digital) radio space, which was not (entirely) voluntary, means, first, a certain freedom in production but also, second, the loss of all influence on and presence in the public radio sphere. It also means the loss of funding and access to professional radio technology. Country-specific differences in terms of content and aesthetics were worked out in a comparison of radio art in Germany and in the United States. American radio artists in the 1980s often tried to distance themselves from their European colleagues. Above all, they rejected the intellectual orientation of European radio art and the “old avant-garde” that was influential there, such as John Cage and the exponents of Fluxus, and positioned themselves instead with alternative formats. Their subject matter is dominated by themes related to the United States, such as borders and migration, the struggles of marginalized groups, and “black” history. Aesthetically, coming from performance art, narrative had a more important role than the influence of New Music in comparison to Europe.

The effects of daily political events on the role of radio was studied using the example of, among others, the artists’ collective Oda Projesi in Istanbul. In the radio project *101.7 EFEM* (2005), the collective addressed urban transformation processes in Istanbul and their effects on the population. Such forms of critique of the Turkish government, particularly those concerning the underprivileged, are not possible on public radio in Turkey, so that the artists’ collective Oda Projesi instead turned to an illegal pirate radio station. In terms of its content, the project can be seen as an anticipation of the Gezi Park protests and testifies to the social relevance of radio art.

It can be said in general that artistic reflection on the medium of radio as an apparatus of power is an important precondition for the production of radio art. Analyses of specific works of radio art have shown that artists are overwhelmingly critical in their approaches to radio structures and the medium itself and try to expose and challenge their borders. This results in criticism being more or less clearly expressed in the works themselves. The points of attack are above all the alleged truth character of the medium, censorship, freedom of speech, and one-sided reporting.

In the course of studying mechanisms of inclusion and exclusion in radio art, the question arose of the role of women and female artists in radio art or of the category of gender as a topic calling for research. The work of women in all areas of the production and distribution of contributions to radio, explicitly feminist media practices, and the treatment of general roles on the level of subject matter are approaches that have scarcely been considered in research with this focus until now. Initial results are offered in Franziska Rauh’s dissertation, especially

thanks to the analysis of the radio art of the American feminist artist Suzanne Lacy.

The third area of research, "The Mediation of Radio Art," covered radio art's desiderata of mediation, addressed its specific challenges by developing innovative strategies for mediation and presentation, which can have positive effects both on the perception of radio art and on the implementation and analysis of theoretical concepts and action-based methods for bringing radio art to a broad target audience (children, teenagers, and adults). The point of departure for project work was research that has shown that since its emergence in the 1960s only a few exhibitions and an even smaller number of associated museum offerings have been dedicated to it.

As part of researching the extent to which the theory-based development and application of innovative mediation formats could help to increase the relevance and recognition of radio art, the research project conceived, studied theoretically, contextualized, and established concrete mediation formats. The strategies developed for dealing with radiophonic art encourage performative strategies for action and reflection on them, activating complex processes of perception and language. In addition to generating museum formats for mediation, methods of analysis in art history and media studies were worked out on the basis of theory and transformed to suit the specific context of radio art. A complex analysis was developed in this way as the basis for the mediation of radiophonic art. Its application to exemplary works of radio art both in seminars and in publications helped to identify specific challenges and derived from them the formulation of professional and educational goals that can guide the mediation process. On that basis, the project team worked out a concept for the aforementioned exhibition *Beyond Radio: 25 Years of Art Radio—Radio Art* with three focuses in terms of context, adopting in the process participatory structures of radiophonic works and modifying them for their curatorial and mediation-related presentation. The effects of the extensive offerings of specific mediation formats for radiophonic art were evaluated qualitatively in the context of the exhibition. Data was collected during the exhibition: questionnaires, the visitors' own acoustic productions, entries in guestbooks, and problem-focused interviews with museum workers were incorporated into this part of the study. Starting out from the research question of the extent to which radiophonic works and their mediation setting stimulate visitors to reflection, the material collected was analyzed according to categories and systematically structured. The results of studying exemplary radiophonic works were the point of departure for adapting them to current theories of art mediation. On the basis of the empirical material, a broad spectrum of the influence of the reception of radiophonic works could be documented, as Sarah Rothe points out in her dissertation. Radio art may

trigger reflection in its listeners that ranges from media-critical considerations by way of expanding their own concept of art to critically engaging with multilayered perceptual experiences. It makes both individual and collaborative aesthetic experiences possible and offers listeners occasion to question and scrutinize not only artistic work as such but also the medium of radio. In addition, it supports the unfolding of abilities and contexts of knowledge that are relevant to education. Starting out from these results, a broad spectrum of recommendations, suggestions, and opportunities to work out concepts for the mediation and presentation of radiophonic art was generated, focusing on arte-related, participatory, and reflective processes of perception and action.

In thinking about the future of radio and radio art, it may well be necessary to strengthen the synergies of collaborative projects between public broadcasting stations and museums. These perspectives were first articulated at the symposium *Radio as Art: Contexts of Radio* (Radio as Art: Kontexte der Radiokunst) held at the Centre for Artists' Publications, Bremen, in 2008. One decade later, the transformation of the institutional framework for radio art has progressed, and it seems appropriate to rephrase the set of questions that address what is indicative of broadcasting—being public, free, local, or independent—today. How do we describe the contemporary institutional frameworks for radio art producers and how significant is it? What is the role of museums for the distribution, the archiving, and the production of new radiophonic art? How are the genealogies of radio art defined by different ways of archiving, narrativizing, and theatricalizing the archive? Where is the place of radio art within the broader context of

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the museumization of sound art? Related to these questions is the demand for stronger concepts of radio art mediation in general, also reflected in curatorial concepts and new approaches to create broader contexts for the accessibility of radio art.

In fact, the development of new methods for mediation of historical and current radio art were of central concern for the research in this context. Radio art does not have just one space but rather an infinite number of spaces in which it is mediated or can be mediated and invites “playing” with conventional boundaries, that is, reflecting on and shifting them. The heterogeneity of radio art in terms of technology, medium, and symbolic context offers further challenges for their mediation. As part of the research project, the mediation of radio art was studied and thematized on different levels. In addition to the medium of the exhibition and personal mediation in museums and schools, it focused on mediation via broadcasting and multimedia formats on the Internet. To what extent are curatorial formats, for example, compatible with other dimensions of mediation that are based on them? Discussion concerned especially the various spaces that are constituted and imagined via radio. Radio results in alternative spaces that in turn produce dislocated references to places as platforms of publication and distribution and, last but not least, installations of an expanded sculptural space taking form through the practice of broadcasting.

Common scholarly interests and efforts for public mediation had a positive effect on the collaboration of cooperating institutions in Bremen

and Cologne and offered optimal conditions for successful work on the project. They are documented in the systematic processing of archival holdings and exhibition results, numerous lectures and texts, and the organization of three workshops and an international symposium.

Finally, the symposium had the goal of presenting the results of the project's research to an international professional audience and to stimulate with specific questions a discussion of central issues of radio art in the broadest sense. In addition to scholarly lectures, the English-language event included artistic contributions that shed light on the expanded spectrum of radiophonic art forms by offering impressive examples and proved to be an outstanding way of establishing connections to theoretical discussions. In general, the scholarly result of the symposium was reciprocal inspiration and an intense exchange of information among scholars. It was a summary in the sense of committing to intensifying the mediation and study of radio art in order to open up the great potential of scholarship on radio art and to make clear its importance for the media society of the twentieth and twenty-first centuries.

The symposium was preceded by an international call for papers. Moreover, a worldwide network of the events at the conference with a broader audience was achieved by live streaming the presentations via *mobile radio* (Knut Aufermann and Sarah Washington). Over the course of the three-day event, commentaries and questions from listeners from all over the world were integrated into conference events. They participated via email and Twitter in the often highly charged discussions of questions such as how radio frequencies can undermine surveillance technologies and how artists can intervene in politically precarious situations. During breaks, live interviews with scholars, artists, and visitors at the symposium were broadcast, so that the event was characterized by extremely vital international participation in the themes and contributions presented.

A series of opening questions offered orientation for the subject matter of the symposium. One such question involved how far the terms coined by post-structuralism in the fields of media, theater, and curatorial studies contribute to deciphering the complexity of radiophonic art concepts and their response aesthetics. Can exhibition contexts serve to restructure, replay, and reinvent the primarily dissemination-oriented radio art practices, and to what extent are these institutional constellations constitutive components of radiophonic artworks and their transformation by diverse forms of documentary "arrest"? How can we document the geopolitical contexts that animate artists—and motivated them in the past—to work with radiophonic media? Can radio art projects contribute to the formation of new forms of community? And how is the abuse of radio art for propagandistic purposes and

the impact of the same on a displaced radio public reflected artistically? What role does radio art play in the ongoing transformation of aesthetic orders within the framework of a trans-media-oriented and (trans-) cultural global art development? For in the convergence of broadcast, reception, interaction, installation, and exhibition, radio art goes beyond the media definition of radio, which is always determined in part by politics and society. Within this context, radiophonically disseminated art forms bear a relationship to the interconnections between the technology, voice, body, and cultural and geopolitical formation likewise discussed in cultural and gender studies. Radio art concepts undermine the spatially regulated *dispositifs* of art reception and the related locations of the museum and the private reception context. Through the blurring of spatial boundaries with the public sphere, new horizons open and widen, horizons that address the collective, historically anticipate the concept of the network, and to an extent reconnect them with the local circumstances.

The structure of the present volume corresponds to the structure of the symposium's content. Several additional authors were invited to each of the five sections in order to supplement their themes with crucial aspects. We are pleased that we were granted the opportunity to publish "On Radio Art," a remarkable reflection on the significance of airwaves by the Japanese artist Tetsuo Kogawa. Also, the Canadian radio artist Hank Bull, who together with Patrick Ready broadcast the legendary *HP Show* on Vancouver Co-operative Radio for eight years (starting in 1976), illustrates as vividly as impressively in his keynote lecture "The Reception of Electricity" the significance of the technological constitution of radio by the use of electricity.

Radio Space, the first session of the symposium, was dedicated to the realm of radio's impact. The contextual and conceptual expansion of radio space is reciprocally related to issues of relevance to current discourses on space and the public sphere. Auditory recordings create correspondences between locations and spatial settings, temporalities, perceptions, and meanings. Radiophonic works have the capacity to constitute alternative spaces of art and social convergence, thus they also function as auditory occupations of the public realm. As a publication and distribution platform (gallery space), a communication medium and space, or an artistic working space (recording studio), radio can designate imaginary spaces as well as a specific physical location or the institutional frame. Through the acts of broadcasting and listening associated with radio, it creates heterogenous spaces that may either be condensed to landscapes of sound where various cultural presences overlap or compete with one another by conceptual interplays of broadcasting in the public environment. At stake in this constellation is also the question of who is included in the so-called public spaces—but also who is excluded—and how these mechanisms inter-

relate with the expansion of private property and corporate power structures. Performative radio interventions, such as those staged by the artists' collective LIGNA, are committed to marking and mapping the overlapping territories of public-private zoning in urban spaces. By usage of broadcasting facilities, their concepts for idiosyncratic, participatory choreographies expose the subcutaneous mechanisms of control and exclusion in allegedly public spheres. Sarah Rothe devotes her analysis of the exemplary work *Nacht. Stimme. Zerstreuung*. (Night. Voice. Dispersal.) to the radio performances of the LIGNA group. She studies the connections between the presentations and how their approach is received, which are exemplified for the opportunities to disseminate in the context of the aforementioned exhibition *Beyond Radio: 25 Years of Art Radio—Radio Art*. The focus here is on grappling with the performative and participatory structures of LIGNA, which unfold in the repetition and deliberate restaging of an effectiveness that should be positioned contextually in each case. The results of this empirical experiment prove that radiophonic artistic productions can contribute to an attitude in the listeners that is media-critical and reflective. At the same time, radio art turns out to be an effective way to reexamine the limits of the museum and of the reception spaces of broadcasting and to initiate innovative forms of dissemination. "Considering the Sonic Aspects of the Media Environment as an Exhibition Space for Creative Sound-Based Works," Colin Black conceptualizes from the point of view of an artist and theorist the notion of the radio environment as a "public sculptural space" that also constitutes a kind of ephemeral "non-contiguous art gallery space." In this sphere, a multiplicity of dislocated radio broadcasts converge to new forms of "'we-ness' and 'immediacy'" that also overlap and become part of the expanded discursive field of art in public space.¹³ From the perspective of an art historian who has researched the public landscape of early radio programming, Andreas Zeising elaborates on the medium's role in serving as an "important interface" in the process of familiarizing a wide audience with the aesthetic dimensions of the avant-garde during the Weimar Republic.¹⁴ The left-wing-oriented Novembergruppe (November Group) provides an illustrative example for the ambitious project of popularizing and communicating modern art by the new mass medium of radio with a didactic intent, supported by visual artists, critics, and radio practitioners.

The second session, *Radio Art: Artistic Production and/or Political Practice*, focused on the controversy that frequently flares up on the boundary between artistic work and political action, when questions arise as to whether a certain work is (still) art or belongs more to social involvement, sociological experiment, or political intervention. Instead of following such preestablished concepts of art's alleged autonomy, reconstructions of the production circumstances and the politics of broadcasting as well as the usage and reception of the radio

medium in society are echoed in multiple contemporary artworks with reference to specific cultural and historical constellations. The potential of conspirational radio in times of conflict sets the thematic focus of Ursula Frohne's essay, dedicated to an overview of citations of radio's role for audiences living under repressive regimes or censorship in artworks within the extended field of activism and civil resistance. The futuristic emphasis of Gustav Klucis's constructivist displays designed for public radio transmissions anticipates Tamás St. Turba's contemporary sculptural adaptations of fake transistor radios that people had used in demonstrations during the Warsaw Pact Army's invasion of Czechoslovakia in 1968 at a time when people were forbidden to listen to the radio. It also anticipates Dan Mihaltianu's installation of his Bucharest studio, filled with the sound of the radio coverage on the revolution in Romania in 1989, or Marko Peljhan's empowering mission pursued by his globally operating, high-frequency radio network projects. On the basis of these works, the role of broadcasting as an instrument of dissidence is discussed also in its potential to interact with collectives during times of political precariousness. While the specific relevance of radio in these processes for the pre-1989 period is at stake, the virtually uncontrollable mediatic structure of radio transmission continues to be relevant in the age of electronic communication, mass surveillance, and "cloud" computing. In this vein, Philip Glahn likewise investigates "The Radio and/as Digital Productivism" in view of critical initiatives such as the Berlin-based *Mikro.fm* project, Philadelphia's *Radio Prometheus*, and *Free Radio Linux*. His essay assesses the possibilities and limits of artistic-activist radio practices as critical implementations and examinations of renewed historical avant-garde premises in reference to collaboration, participation, and the formation of new audiences and constituencies, as well as past and present discussions around telecommunication. Widening the cultural horizon, Claudia Wegener gives insight into the production and distribution conditions related to the traditions of the art of listening and storytelling in South Africa and Zimbabwe. Wegener's focus is set on projects that she co-initiated as "entry points for radio to happen, with and among the people, and begin to 'radiate' among communities of listeners across a 'global village.'" ¹⁵ Another facet with an explicitly political effect of radio art is addressed by Franziska Rauh. In reference to Giorgio Agamben's theory of the *dispositif* or apparatus, her contribution "Radio Art in the '... Everyday Hand-to-Hand Struggle with Apparatuses?'" analyses the work of the Istanbul-based artist collective Oda Projesi and reveals how their radio projects become instruments of political agency and a challenge for the institutional apparatus.

Institutional Framing and Agency defines the focus of the third chapter. The conditions of the production and distribution of radio art and the strategies applied by the artists are at stake when the actual context of radio art within various institutions, including museums,



academies, and radio companies, as well as practices outside the institutional frames, center around the issue of what it means to produce and broadcast radio art in today's political, economic, and cultural contexts. How have radio artworks evolved over time and what are the future challenges? These aspects are touched upon by Sibylle Omlin, who gives insight in her work with "Radio as a Research Medium for Artistic and Oral-History-Based Research Projects" related to her ongoing research projects in the arts that use radio formats (sound essays, features, soundscapes). She also explores them within the social context, where nomadic media like radio, web radio, and Skype films are used to transport content or to generate participation in collaborative projects. Examples of experimental radio art productions launched by the radio collectives Resonance 104.4fm, Radia and Mobile Radio are introduced by Sarah Washington. Her experience with new forms of community radio are rooted in artistic broadcasting that responds to fast-changing technological development. Washington's survey on "Community Radio as Post-Capitalist Art" reflects on the conditions that have led to significant change in artists' requirements for cultural production and

From top left to bottom right:
 Anne Thurmman-Jajes, Colin Black, Hank Bull, Elisabeth Zimmermann, Sarah Washington, Anna Friz, Ralf Homann, Philip Glahn, Andreas Hagelücken, Lauren Rosati, Ursula Frohne at the International Symposium *Radio As Art—Concepts, Spaces, Practices: Radio Art between Media Reality and Art Reception*, Bremen, Germany, 2014

have given rise to the adoption of new working principles. The still rare implementation of “Radio Art as a Field of Study” in the academy is addressed by Nathalie Singer who has the Professorship for Experimental Radio at the Bauhaus-Universität Weimar. As one of the few laboratories for the development of creative audio and radio formats for teaching and research purposes, the constellation in Weimar provides a rich context for reflection on creative radio since its beginnings in the 1920s as well as for the development of new radio formats in the digital age. As curator of the extensive exhibition *radiophonic spaces*, held at the Haus der Kulturen der Welt in Berlin (November 1 to December 10, 2018), Nathalie Singer in her contribution links the perspectives of production and reception with the need to also reconsider the mediation of historical works of radio art.¹⁶ As an experienced radio practitioner, author, and producer of radio plays for several German public broadcasters, including Sender Freies Berlin (SFB) / Radio Berlin-Brandenburg (RBB) and Deutschlandradio, Andreas Hagelüken fathoms in his contribution “Radio as Art? Heart or Gall Bladder?” the place of radio “alongside other sites of culture” today and underscores its stimulating role for the arts. Thanks to its ubiquitous presence and the impact of new media, it “radiates in all directions” and has increasingly become “a playground” of the creative sphere in general.¹⁷

The performative features of *Radio Art as Action* are thematic for the fourth chapter, focusing on works associated with aesthetic concepts of radio communication, with joint music-making, networking, collaboration, experimentation, inquiry, and research often playing a central role. In fact, the majority of such works emerge from and are existent only during the actual performative process. The action, which is generally—or at least primarily—an end in itself and is not represented or substituted by relics or objects, appears to also be of constitutive significance for radio art in a general sense. The discussion accordingly refers to the consequences that arise when “radio art” is conceived of less as a media-specific art form, but on the contrary as a structural setting whose foremost function is to initiate a process of something that is meant to be performed or acted out. On the basis of specific examples and also from theoretical perspectives, the contributions to this chapter investigate how (inter)action and its ephemeral features manifest as artistic content. How are processes consummated in the interplay between acteurs and—in the case of radio art—also among dislocated protagonists? In her essay “In Simulcrast: Archigram and Radio Piracy in 1960s Britain,” Roksana Filipowska explores the proposal for “Instant City” by the experimental British Architects Group. The setting allowed the visitor to move through a space filled with speakers and screens, while observing the multiplicity of audiovisual messages within a single radio or television broadcast. Placing Archigram’s “broadcast architecture” in conversation with the pirate-radio phenomenon, Filipowska discusses the programmatic conflation of advertising

language—and actual—advertising with the aesthetic of piracy, to propose plurality of broadcasts as a challenge to Britain’s age of consensus. Focusing on participatory radio concepts, Kai van Eikels addresses in the perspective of theater studies the construction of the recipient, who is situated in an ambiguous position between agency and imposed suffering in LIGNA’s adapted version of Sophocles’ *Oedipus Rex* transmitted by a “Radio Voice That’s Telling Me To Go for the Throat of the Other.” In his in-depth analysis, the interplay of radio waves with the receiving apparatuses in relation to the bodies of the participants is characterized as an uncanny experience of diverse collective processes. The physical, psycho-sociological, and political dimensions of these collective formations are seen as interrogations of the established dichotomies of communal/individual, public/private, violent/nonviolent. The engagement with the ephemeral dynamic of participation in conceptual broadcasting scenarios is approached from a different angle in Jee-Hae Kim’s essay. She offers insight into the artistic practice of the Direct Media Association (DMA), a loose collective founded by Bill Bartlett in 1978 to promote the development of creative applications of telecommunications technology. While focusing on DMA’s exhibition project *Pacific Rim/Slow Scan* (Vancouver, 1979), Kim shows how the featured broadcasting of still images via the technology of slow-scan television (SSTV) can be interpreted in terms of an “art as experience,” as formulated by John Dewey. Characterized by a notion of “doing” that comprises elements of activity and receptivity in a reciprocal process, the experiments in SSTV manifest through the dynamic interplay of such various elements like people, technological artifacts, or governmental and industrial sponsorship. The enactment of *Life on Air*, a twenty-minute radio performance presented by Irina Gheorghe (The Bureau of Melodramatic Research) on the occasion of the symposium in Bremen, is documented and commented in her text collage as a “homage to the dark medium” by Radio Profile, a broadcasting project in Bucharest, Romania, that has been producing radio programs since 2012 in a team of artists, philosophers, and sociologists. With their project *EAVESDROPPING on Life*, they counteract the strong influence of the Orthodox church in Romania on the spreading the populist ideas of “pro-life” which is seen against the historical backdrop of the restrictive abortion politics during the dictatorship of Nicolae Ceaușescu in the 1980s.

The last chapter *Words – Sound – Music* is dedicated to the aesthetic experience of listening to and perceiving works of radio art. Only in the presence of the recipient can radio art take place, namely, during the act of listening. To what extent does this specific constellation of an active participation in the formation of a radio piece have significance, on the one hand, for the constitution of the recipient by conceptions of silence, sounds, tones, volume, editing, montage or overlapping, narration or voice and, on the other hand, for the conception

of a specific work and of radio art in general? How can this impact of a non-site-specific, rather ubiquitous acoustic experience be preserved? What categories and terms are productive in the interpretation of the specific aesthetic of the listening event? Lauren Rosati underscores in her analysis of John Cage's notion of "Cinema for the Ear" the intermediatic and relational conditions of radio within the modern mediascape. That the technology of the speaker would radically and simultaneously transform the domains of radio and cinema had an impact on John Cage, who conflated these media in multiple projects over nearly six decades. With an archaeological approach, Rosati reconstructs how Cage adopted the basic structural apparatus of the film—the frame—as the optimal marker of time in his compositions and works intended for radio broadcast. With her method of bracketing the discipline of cinema as a way of reconsidering Cage's audio works as "cinema for the ear," the example of the visual treatment of sonic material discussed here provides a framework for assessing Cage's audio compositions through the "lens" of moving pictures. Rosati's endeavor approaches the field of radio art from the perspective of other art forms with a methodology that may also be useful for future implementations of radio artworks in the discourse of art and media history. Intermediatic relations between radio and other art forms are also central for Nadine Hahn's discussion of Peter Roehr's *Sound Montages* from the 1960s. Roehr's visual as well as literary works, his photomontages, films, and his poetry resonate with the conception of his radio plays that he produced for the Hessian Broadcasting Corporation (Hessischer Rundfunk). Exemplary of his sound montages that use ready-made elements and are, similar to his visual works, marked by repetitive structures, *Untitled (T-20)* is centrally featured in this essay. Its full adaption of a radio advertisement for the Volkswagen 1500 launched in 1961 is characteristic of his work in the way it transposes the visual language to the acoustic medium and, by its repetitive gesture, also the commercial from mass medium to the sphere of art. In her essay, Ania Mauruschat covers an extended period of the history of the German *Hörspiel* (radio play), beginning in 1924 with Weimar Radio up to the mid-1990s. She focuses on Andreas Ammer and FM Einheit, who created a collage of television, theater, and radio as well as pop music and avant-garde pop broadcast in their radio opera *Apocalypse Live TV* as an experimental reinvention of the radio play under digital conditions. Also, Vito Pinto's elaborations are centered around the format of the radio play. His assumptions about how to perceive radiophonic art by focusing on different listening modes are based on the "Work of the Hörspielmacher Paul Plamper." Pinto's close reading of Plamper's projects reveals that active listening evokes sociopolitical participation. In conclusion of the wide spectrum assembled in this volume, Anne Thurmman-Jajes locates radio art as the "Dead Spot in Art History" and a desideratum in the scholarly discourse. Once again the specific conditions of radio art as an aesthetic format that is nonvisual,

immaterial, placeless, time-based, and disseminated are emphasized and situated within the development and the context of artist publications as well as within art history since the second half of the twentieth century.

Acknowledgments

The three nearly complete dissertation projects on radio art, dedicated to an in-depth study of the research perspectives outlined here, have managed to shed light on the value of radio art and its archives for the development of the visual arts in general and to lay the foundations for further research. Many collaborators were involved in implementing the research perspectives, and we would like to thank them sincerely. They include all the employees of the research project—Melanie Köhnicke, Sarah Monique Lücker, Marvin Otten, Susanne Vögtle, and Zainad Haidary—who accompanied the project on all levels. For diverse support in organizing and setting up the symposium, we wish to thank Iris Blenklein, Bettina Brach, Hartmut Danklef, Leah Drury, Miriam Frerks, and Jule Kahrig.

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We would like to take this opportunity to thank the artists working in the field of radio art and the broadcasters of radio art throughout the world for entrusting the Centre for Artists' Publications with recordings of radio art and archival holdings to preserve, document, and research and for remaining in contact. It is only thanks to this close collaboration that the holdings of this art form can be made available, in the future as well, to researchers and the public: students, scholars, and the broader public interested in the field. The research project on radio art has profited substantially from these international relationships, and the research it has done in a context of expanded reception can be presented only in this wide-ranging, internationally networked discursive context.

It was only with the support of the Volkswagen Foundation that this project could be implemented and its goal achieved of establishing a publicly accessible, internationally networked research institution for radio art at the Centre for Artists' Publications—in the spirit of sustainability as well—in Bremen. It has opened up an expanded space of discourse for the recording, analysis, reconstruction, presentation, and mediation of the aesthetic and sociopolitical features of an art form that has hardly been considered at all in the history of art. The editors are particularly grateful to Dr. Adelheid Wessler, who supported the project with constructive advice and frequent cooperation during its nearly four years of existence. We are also sincerely grateful to Dr. Wilhelm Krull for his faith in a research perspective that is still being established. Accordingly, our greatest thanks are extended to the Volkswagen Foundation for making this work possible in the first place!

- 1 We are dedicating the present publication to the Canadian-Austrian radio artist Robert Adrian X, who passed away in the summer of 2015. He decisively influenced the emergence and evolution of radio art. We are also dedicating it to Tetsuo Kogawa and Hank Bull, with whom he frequently collaborated.
- 2 The Centre for Artists' Publications (Zentrum für Künstlerpublikationen, Bremen) covers several archives with approximately 300,000 publications from all around the world. It is the largest and most outstanding collection of published artworks in Europe. This unique assortment includes twenty-five different types of genres, including artists' books, multiples and book objects, artists' newspapers and magazines, ephemera such as posters and invitations designed by artists, photographs, postcards, artists' stamps, and stickers, graphic works, Xerox copies, and stamp works, sound art on records, tapes, and audio CDs, radio art, multimedia editions on CD-ROM and DVD, artists' videos and films, secondary literature, and documentation material. See www.zentrum-kuenstlerpublikationen.de.
- 3 *Kunstradio*—*Radiokunst* is a weekly radio program on the culture channel of ORF—Austria 1, broadcast on Sundays at 11:05 p.m. In 1995, the Canadian media and telecommunication artist Robert Adrian X launched the website [kunstradio.at](http://www.kunstradio.at), offering announcements and documentation of the program, and for some projects it also provides an “on air—on line—on site” as a networked environment that connects the dislocated venues of collaborative radio art concepts. See <http://www.kunstradio.at> (all URLs accessed in July 2018).
- 4 Reinhard Braun, “Radio amidst Technological Ideologies,” in *Re-Inventing Radio: Aspects of Radio as Art*, eds. Heidi Grundmann, Elisabeth Zimmermann, Reinhard Braun, Dieter Daniels, Andreas Hirsch, and Anne Thurmann-Jajes (Frankfurt am Main: Revolver, 2008), pp. 233–46, esp. p. 235.
- 5 The notion of “milieu” is mainly based on Jakob von Uexküll’s focus on the “phenomenal worlds” of animals whose life, he contended, has to be interpreted in view of the specific environments that they inhabit. See Jakob von Uexküll, *Umwelt und Innenwelt der Tiere* (Berlin: J. Springer, 1909). This new idea of “Umwelt” became a key concept for Leo Spitzer’s and Georges Canguilhem’s elaborations on the “environment”; see Leo Spitzer, “Milieu and Ambiance: An Essay in Historical Semantics,” *Philosophy and Phenomenological Research* 3 (1942), pp. 1–42 and 169–218, and Georges Canguilhem, “Das Lebendige und sein Milieu,” in *Die Erkenntnis des Lebens* (Berlin: August Verlag, 2009), pp. 233–79. The term “milieu” has also been adapted by media theory that understands media as shaping the environment by multiple networked operations—analogue as well as digital, including their cultural observations in literature, theater, and fine arts, which in turn affect the production of new milieus. On the discourse of “milieu” in media theory, see Maria Muhle, “Medienwissenschaft als theoretisch-politisches Milieu,” *Zeitschrift für Medienwissenschaft* 10, no. 1 (2014), pp. 137–42.
- 6 See also Reinhard Braun, “Anomalous Territories,” <http://www.kunstradio.at/THEORIE/rb-anomalous-e.html>.
- 7 Braun, “Radio amidst Technological Ideologies,” pp. 235–37.
- 8 Étienne Noiseau, “Proposal for ‘RADIO AS ART – Concepts, Spaces, Practices: Radio Art between Media Reality and Art Reception,’ International Conference in Bremen, June 2014. Durability of radio art in the frame of global digitization,” unpublished.
- 9 Ibid.
- 10 Ibid.
- 11 Jacques Rancière, *The Politics of Aesthetics: The Distribution of the Sensible* (London and New York: Continuum, 2004).
- 12 Kai van Eikels, *Die Kunst des Kollektiven: Performance zwischen Theater, Politik und Sozio-Ökonomie* (Munich: Wilhelm Fink Verlag, 2013).
- 13 See the essay by Colin Black, “Considering the Sonic Aspects of the Media Environment as an Exhibition Space for Creative Sound-Based Works,” in this volume.
- 14 See Andreas Zeising, “The Avant-Garde and a Popular Medium: The Berlin ‘Novembergruppe’ and Radio in the Weimar Republic,” in this volume. On early radio and its relations to art and modernism, see also Andreas Zeising, *Radiokunstgeschichte: Bildende Kunst und Kunstvermittlung im frühen Rundfunk der 1920er bis 1940er Jahre* (Cologne: Böhlau Verlag, 2018). On the history of the radio medium, see Solveig Ottman, *Im Anfang war das Experiment: Das Weimarer Radio bei Hans Flesch und Ernst Schoen* (Berlin: Kadmos, 2013).
- 15 See Claudia Wegener, “Everyone a Listener, Everyone a Producer! A Collective Journey toward Another Sound of Radio,” in this volume.
- 16 The manual for the exhibition *radiophonic spaces* is available as a download: https://www.hkw.de/media/texte/pdf/2018_1/programm_2018/radiophonic_spaces_manual.pdf.
- 17 See Andreas Hagelüken, “Radio as Art? Heart or Gall Bladder?,” in this volume.