# **FOREWORD**

# Helga Nowotny

The contributions in this volume bear testimony to the emergence of a new trend of practice-based research in and through the arts. In its wake, almost as many questions are raised as answers are given. Many of the questions are context-dependent, since they grow out of the experience gained in certain kinds of institutions, specific countries, and different creative environments. They result from the changing relationships between the arts and the wider society. No wonder then that many answers must remain tentative and will be unsatisfactory for some. As the institutionalization of research in the arts progresses, disagreements and controversies are likely to continue to dominate the scene in the years to come, but productive contestations are also the defining characteristic of any significant innovative enterprise. As the old saying goes: whoever wants to keep the world from changing, wants it to cease to exist.

The innovative impulse pushing for change is based on the imagination of a world different from what it is now. It necessarily involves a lot of speculative conjecture and leaves space for tacit wishes and desires. This is why imagination pushing for change, once it transcends the individual and enters the realm of the collectivity, provides powerful incentives to disagree. At the same time, if we are to move from imagining a different order of things to actually designing and shaping it, disagreement must be put to the side if a common goal is to be achieved. The project of institutionalizing research in the arts by putting it firmly into the established structures of institutions of higher education is one such ambitious undertaking. It brings to the fore inherent tensions, doubts, and disagreement, and yet comes at the right time. In the following I want to spell out these three components.

### An ambitious undertaking

Art, like science, is a form of human creativity that has found an institutionalized space in modern societies. Curiosity and the desire to explore the unknown are its main driving forces. Curiosity aims to go beyond the familiar, to explore a space that opens up to the realm of possibilities. It actively strives to hone itself on reality and to gain

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experience that gives reality a clearly perceptible form that can be interacted with. To gain this experience, curiosity uses all the senses and means available. It is insatiable in two ways: first, because the space of possibilities – and the human imaginative capacity to open them up – is vast, if not infinite; and second, because more and more means and instruments, mostly but not entirely scientific and technical, are at our disposal to expand the space of imagination (Nowotny 2008).

Today, the cultural-economic preference of contemporary societies for the new, be it new scientific knowledge, new technologies and technological gadgets, or the culturally expressed desire to let the familiar appear in an ever-changing, unfamiliar perspective, comes in a socially explosive mixture. The quest for innovation, which has long since assumed a global dimension, is celebrated by some, while leading to widespread feelings of unease in others. For how can society accept and affirm the unforeseeability that is inseparable from research? As François Jacob put it:

What we can suspect today will not become reality. There will be changes in any case, but the future will be different from what we think. That is especially true for science. Research is an endless process about which one can never say how it will develop. Unforeseeability is part of the essence of the venture of science. If one encounters something really new, then by definition this is something that one could not have known in advance. It is impossible to say where a particular area of research will lead. [And he adds:] One must also accept the unexpected and the disquieting. (Jacob 1983: 94)

Between society's preference for the new and its attempts to gain or regain control over what is uncontrollable, since it is not known where curiosity and the 'play of possibilities' will lead or what consequences will result from it, a vast zone of uncertainty is emerging as the true breeding ground of creativity, be it scientific or artistic. The greater the desire for the unexpected and unforeseeable that research stimulates, the more the pressure of expectation grows to bring it under control and steer it in specific directions. The aim is to tame curiosity, and yet it must be given free rein. While the forms that the attempts to tame scientific curiosity take are different in the technosciences from the arts (which are long accustomed to pressure from censorship and other efforts at curtailment), the line to tread requires a fine balancing act. If human creativity is tamed too much, it can atrophy or be driven underground. If taken too far, the taming of scientific curiosity risks killing the goose that lays the golden eggs; while in the case of artistic imagination and curiosity, the sources that replenish cultural life and its renewal may simply cease to flow.

Science and the arts are therefore much closer to each other than their currently institutionalized forms might lead one to expect. They share the creative impulse and their main driving forces of motivation: curiosity and imagination. They thrive – and continuously struggle – in the zone of uncertainty where what is yet to be explored is at home. Uncertainty is therefore inherent in scientific research and in the artistic production of new knowledge alike. The ambition to explicitly anchor the process of research in the arts also aims to bring together the two kinds of practices that once were closely related, but became separated due to their different historical trajectories.

Research is the curiosity-driven production of new knowledge. It is the process oriented toward the realm of possibilities that is to be explored, manipulated, controlled, given shape and form, and transformed. Research is inherently beset by uncertainties, since the results or outcomes are by definition unknown. But this inherent uncertainty proves to be equally seductive: it promises new discoveries, the opening of new pathways, and new ways of problem-solving and coming up with novel ways of 'doing things', designing and transforming them. To put research (back) into the arts, to (again) make visible and explicit the function of research in the arts and in the act of 'creating knowledge' (Seggern *et al.* 2008) is a truly ambitious undertaking, because it takes up a vision and a project that originated in the Renaissance. After centuries of separation, it promises to close a loop.

How did this ambitious project come about? And what does it mean, what can it mean today in a globalizing world in which economic competitiveness is based on science and technology as the recognized engine that drives economic growth? Where is the place of artistic practices in a world in which economic forces seem to appropriate all forms of human creativity and make it subservient to their own ends?

Some of the driving forces are external, coming from outside academia and from the wider societal context. Others are internal, originating in the dynamics of artistic developments. Among the external forces, two stand out and receive ample, mostly critical comments in the contributions to this volume: the pull of the market and the role of the state. There is no doubt that the consumption of artistic production has significantly expanded over the last decades. This is partly related to the general increase in economic wealth in contemporary, especially Western, societies although the more recent emergence of an art market in countries like China and India underlines the global dimension of the phenomenon. But the expansion is not merely quantitative. There has also been an enormous differentiation as well as cross-fertilization between different genres and art forms, in addition to the emergence of ever-new designs and ways of performing. The pull of the market provides new opportunities. Needless to say, it also brings its pitfalls. One specific manifestation of the expansive and continuing pull of the market is the thriving of the creative industries.

Yet, there has also been another, less recognized market expansion, namely that of the labour market for graduates with a background in the arts and design (Menger 2006). They are employed and/or work under precarious conditions in a rapidly growing segment of the tertiary sector, the 'creative sector'. The artist as worker is becoming a familiar and more frequent figure at the beginning of the twenty-first century. While precarious working conditions are by no means limited to artists, there is nevertheless an interesting convergence with other forms of (self-) employment and work organized around temporarily limited projects that shows that the boundaries between the 'creative sector' and other forms of economic activities are becoming porous.

The role of the state manifests itself in the ongoing expansion of higher education, although outside Europe the market is strongly present. This expansion is a worldwide phenomenon, with parents increasingly expecting to give their children better chances to succeed in life through education. It also is in line with the efforts of governments, business, and industry to set up framework conditions for the emergence of a 'knowledge society' and thus prepare for the ongoing transformation of the economy by becoming more 'knowledge-based', especially through the widespread

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use and diffusion of modern information and communication technologies. Especially in Europe with its tradition of a state-dominated system of higher education, the state has been present by initiating and promoting the kind of changes in the universities that have been so aptly summarized by Torsten Kälvemark (Chapter 1). In the context of the emergence of a European Higher Education Area, the Bologna process – used, misused, and abused in its implementation – has brought about irreversible changes for and in universities in Europe. With it, perhaps inevitably, issues of quality control have arisen to which the arts are also subject if they claim space inside the university structure.

### The changing relationship between the arts and society

These forces of change with a major impact coming from outside would, however, not have gone very far, had they not been accompanied or even preceded by dynamic forces from within the field of the arts themselves. These internal forces are by no means homogeneous or pushing in the same direction. They come in a colluding or rebelling mode; they are farsighted in their vision of the future or hostile to institutional innovations while nostalgically turning backward. Just as the role of the market and of the state are conditioned and constrained by the global context, the internal forces in the arts are not autonomous, either. At their core is the ongoing transformation of the relationship between society and the arts.

First comes the ongoing proliferation of sites and modes of artistic production. They are now widely distributed and spread throughout society. No longer confined to princely courts or to the ateliers of artists producing for the rising bourgeoisie, today's artistic production takes place in many, even unlikely places. They range from the familiar studios of architects, which may extend even into the field to study and support 'informal cities'; to the countless exhibitions and works in museums that mix their treasures with artistic ways of displaying them; to artists working in and with 'soundscapes' in built-up environments; to the ongoing innovativeness we have come to expect from the performing arts; but above all in the new media that have allowed the arts to infiltrate society in unprecedented ways and that have considerably enhanced the subversive, critical potential of artistic expression. With this comes a change in the self- and other-definition of the artist; no longer the 'genius', but a worker aiming to become a researcher.

Second, there are the ongoing attempts to find, and define, the place of the arts within the structure of universities and other institutions of higher education. Having escaped, or perhaps only delayed, the formalization of education and training within the disciplinary matrix that characterized the structure of the modern university in the second half of the nineteenth century may turn out to be a comparative advantage. It may be easier for the arts to cross disciplinary boundaries, research fields, and genres and to engage more fully and creatively in the kind of inter-, multi- or trans-disciplinarity that is currently so much in demand by policy-makers, university rectors, vice-chancellors, and researchers alike. If a world-leading university like Harvard sets up a commission to deal with the role and function of the arts within its own research-intensive premises, this sends a powerful signal to the rest of the academic world that cross-fertilization between the domains of the arts and the sciences is not only possible,

but a most welcome and much desired way of enhancing creativity across presumed disciplinary borderlines (Harvard 2008).

Third, and perhaps most importantly, the observed changes in the relationship between the arts and society at large have been greatly facilitated, enhanced, and enabled by the fervent embrace of the new media by artists. Whether in the visual or auditory arts, in performances of all kinds, in architecture and design and far beyond, new modes of creating, producing, and expressing 'creative knowledge' and new links of communication between the various fields of arts have emerged, but diverse and partly new audiences have also been established, leading to new forms of unprecedented interactivity. What the sciences can only dream of, namely to establish better forms of communication with society, seems to come much more 'naturally' to the arts in their playful and often ironic way of reaching out to society.

In short, the ambition to give research a firm place in the arts through PhD training and as an ongoing, conscious effort consists in finding ways of translating these transformative forces, which have been unleashed on a global scale, into a coherent and meaningful assemblage. Individual creativity, but also collective forms of working together, must converge with material practices and institutional structures that enable them to cohere, thereby empowering research in the arts to unfold its dynamic. Obviously, the institutional forms needed must be sustainable and sufficiently flexible. They must include the prospects of sustained funding and research-adequate support. The way forward proposed in this volume is to institutionalize research in the arts by anchoring it in a solid, state-of-the-art PhD training and thus bringing the arts back into the fold of research. With exemplary clarity, Henk Borgdorff has spelt out how to go about this (Chapter 3). According to this vision, *artistic research* will take its place beside *scientific research* on equal footing. It is a vision with which I wholeheartedly concur. Artistic practices, just like scientific practices, will thereby widen the scope of research, with the enormous potential to enrich all fields of research.

Not surprisingly, such an ambitious undertaking reveals inherent tensions that accompany its implementation. Some of them point to real obstacles that must be overcome, while others can perhaps be dispelled, as the following section shows.

### Tensions and disagreements

Disagreements and tensions arise around the concept of artistic research itself. What is it? What does it mean in relation to art and art-based practices? How does it differ from scientific research – if the two can be compared at all? My preference is to use the term 'artistic research' instead of arts-based research, since it emphasizes the analogy to scientific research. Just as there are 'science-based technologies' that are the result of scientific understanding and manipulation, there are also arts-based technologies. Borgdorff's often-quoted characterization of artistic research rightly emphasizes the purpose of expanding knowledge and understanding 'by conducting an original investigation in and through art objects and creative processes' (Borgdorff 2006). He emphasizes the role played by (leading) research questions and their pertinence to the art world. 'Researchers employ experimental and hermeneutical methods that reveal and articulate the tacit knowledge that is situated and embodied in specific artworks and artistic processes.' By explicitly including not only the research community, but also

the wider public as the (interactive) recipients and partners in this kind of production of new knowledge, this concept of artistic research articulates an ideal that scientific research still struggles with: 'public engagement' and 'public awareness'.

This is not the place to compare the obvious and not-so-obvious differences between artistic and scientific research. Many of the seemingly insurmountable or insoluble issues and many of the alleged incompatibilities between them arise from definitions in the analytic philosophy of science, with its emphasis on propositional knowledge. Taking these definitions as a yardstick overlooks that research processes and practices that are based on the pursuit of propositional knowledge constitute only a minor part of the broad range and vast differences in the actual practices in the production of new scientific knowledge. Contesting this philosophical tradition and its narrow range, STS, as science and technology studies are called, have over the last few decades elucidated knowledge practices at work in the laboratory and far beyond. In its constructivist mode, STS, by conducting empirical studies designed to reveal the complexities, contingencies, and uncertainties of techno-scientific processes, have insisted on their heterogeneity.

To take but one example: far from what philosophers claimed, actual practices reveal that what counts as 'evidence' differs from field to field without losing its central importance for the practitioners. As shown in numerous empirical studies, not only does the historical context matter, but so does the present. The laboratory is merely a set of procedures and instruments that together form an 'experimental system' designed to bring forth what is not yet known, due to its essential unforeseeability, and the 'play of possibilities'. Certainly, a controlled interior has to be separated from an uncontrolled exterior. The unstable experimental object must be rendered stable to allow controlled variation. But scientific practices are not restricted to the laboratory or even to an experimental system. Far from it. STS has unravelled many heterogeneous networks that extend throughout society and among its actors and institutions. In these heterogeneous networks, 'humans' and 'things', i.e. artefacts, are linked in multiple and mutual relationships. By extending the concept of 'agency', ANT or actor-network theory claims that the production of new knowledge is taking place in numerous sites and through many transactions and transformations that extend throughout society and its institutions without losing sight of the 'objects' and their materiality. From an ANT perspective, humans and the artistic phenomena they produce and interact with, can also be seen as constituting continuously reconfigured assemblages. Researchers in the arts are therefore well advised – and invited – to delve into the burgeoning STS literature. There they will find much that appeals to them intuitively, but also much that allows them to 'make sense' of their own artistic practices.

While STS originally was keen to deconstruct the accounts offered by analytical philosophers of science and to demystify their and some scientists' narratives, it has since moved on to describing, analysing, and understanding processes of co-production and co-evolution between society and scientific-technological advances. Following such an approach, the social order and the scientific order condition each other. Cultural, economic, and political prerequisites have to be fulfilled before certain scientific achievements and their spread in society are possible. For this reason, the organization of research, its epistemological goals, and its funding structure also change.

Is there room for artistic research in this changing epistemological, institutional, and normative landscape in the bewildering zones of uncertainties? According to STS, the answer is a definitive 'yes'. This is not to deny the many differences between the arts and the sciences and their respective practices. Nor is it to deny 'the fact that the art system – the institution named Art – aggressively stabilizes its perpetuity through all kinds of destabilizing processes' (Brown 2009), since something similar can be said about the science system. It too stabilizes itself, albeit in a different way, through the destabilization processes caused by the enormous societal impact that results from the accelerated advances in the techno-sciences.

Other emerging tensions and disagreements that surface in the following contributions are not unique to artists, either. Together, they make up a long list partly, but not only, of complaints about what is seen as an audit society's growing bureaucratic interference with the autonomous space needed for any creative activity. Take the discussion about evaluation and quality control (Chapter 23). Which criteria are to be used when comparing texts and artefacts? What indeed constitutes a 'significant contribution' to the field of artistic research when evaluating a PhD thesis? What are the specific guiding norms and tests to be applied for artistic research (Chapter 5)? Similar discussions arise in the humanities, and partly in the social sciences, whenever the scientific community is called upon to set up its own standards of quality control and come up with its criteria of evaluation. It does not need to be emphasized that the resistance against the Bologna process, too, is far from unique to the arts. As Torsten Kälvemark rightly points out, there are marked national differences in the acceptance or rejection of Bologna, as well as of the way it has been implemented. One must therefore look to the still largely national university politics and the organization of higher education in particular countries in order to figure out the specific needs of artistic and practice-based research in the wider context of the European integration of higher education systems (Chapter 1).

Another set of issues concerns the tensions between the individual creative act and collaborative forms of work. The subjectivity of the artist as worker has definitely changed. Although not exclusively restricted to the arts, the risks for artists working as 'culture producers' under precarious conditions may be greater. The overall tendency in the sciences is to move increasingly toward collaborative practices, reinforced by the need to share expensive instrumentation and equipment. Forms of collaboration can be quite nuanced, however, and are never free of tension, since the attribution of credit to the individuals involved is always at stake, and mobility, while considered necessary for the flow of ideas, often carries a hidden personal cost (Chapter 22). Yet, in contemporary societies, an individual can hardly undertake anything without finding himself or herself caught in a complex network of interdependencies.

The 'network society' (Castells 1996) is no longer a mere vision, but has turned into a reality of increasing surveillance and data glut. But it also offers new opportunities to realize projects that no individual alone could aspire to achieve. Forms of collaboration do not negate the individual, quite the contrary. Arts practitioners, with their strong record in collective work, may also be more open and disposed to experiment with new forms of trans-disciplinarity. While the quote from Claude Bernard, 'l'art, c'est moi, la science, c'est nous', might have been an accurate description in the nineteenth century, the challenge today consists in how to merge these multiple collaborative forms into the shared culture of the emerging artistic research communities.

The discussion of methods appropriate for artistic research also occupies a good part of the centre stage in the ongoing discussion. Experimentation is frequently mentioned and is one of the oldest methods with which artists have always worked, as central for them as it is for scientists. Although the spaces in which experimentation is carried out differ (the laboratory is a strictly controlled space, separated from the outside for the purposes of controlled variation), the laboratory is not the only kind of 'experimental system'. Whether experiments are performed in exhibitions (Kräftner *et al.* 2007) and other 'creative sites' in society or have shifted from artistic practice as production to practise as a dynamic reference point for theory-driven experimentation, as diagnosed by Slager (Chapter 19), their alleged uniqueness and aesthetic singularity form part of a larger pattern that always includes the local and its unique aesthetics without confining it to one locality and one aesthetic.

In the arts, as in the sciences, there is an enormous heterogeneity of actual practices (Chapter 13). They range from verbal to visual and auditory; from creative writing to creative dance; from performing arts to the original production of arts; from time-dependent or real-time arts (Chapter 16) to the virtual and the corporeal (Chapter 12). Yet this heterogeneity and its explosive mixture of styles and genres, each of which has its own tradition and dynamic projections into the future, is the cauldron for creativity as it erupts and emerges in the experimental system set up for artistic research in all its manifold manifestations and configurations.

This creative heterogeneity may be bewildering, especially when practical and policy-relevant recommendations are to be made for what should go into PhD requirements (Chapter 7). Yet, this is at the core of the ambition of the overall project that now must be attended in greater detail. A good starting point is to ask what the students' needs are (Chapter 21) and how to design curricula to meet them. Some very mundane, but no less important considerations arise at this point: engagement with the faculty and the tedious process of negotiating the standards of evaluation and the criteria to use as an incipient research community. The role of artistic research in the overall setting and structure of the university is largely still to be defined. The Harvard University report, although currently on ice due to the financial crisis, offers a seductive vision of what might develop.

One last but important question is how to obtain funding for research from outside sources. It may be a somewhat symbolic, but nevertheless important signal that the European Research Council, which was set up by the European Union in 2007 to fund 'frontier research' in all fields of science and scholarship, is principally open to funding artistic research as well. Since the ERC targets individual excellence, it supports 'Principal Investigators' and their 'individual teams'. However, one prerequisite is for the applicant to have a PhD as well as a track record of excellence that does not necessarily consist of publications only, but is appropriate to the specific field.

So the pathways forward are multiple and the 'principle of uncertainty' (Menger 2009) is inscribed in all of them. Undoubtedly, it will take time for some of the tensions to settle or to reconfigure. The ongoing debate thus offers powerful incentives to disagree. But all disagreement should be wisely accompanied by reflectiveness and reflexivity (Chapter 10). This means to take into account – and be accountable toward – the changing place of and relationship between the arts and society. Just as science is no longer considered to be solely the pursuit of some eternal 'truth' to be revealed

to humanity, artistic practices can no longer be equated with the expression of some hidden, eternal 'beauty'. Important as such ideal visions may have been in the history of arts and of the sciences, at the beginning of the twenty-first century we have definitively entered the age of the co-production of science, art, and society. Human creativity in its manifold expressions has found a privileged home in the structure of universities and research institutions, although it is by no means confined to them. It continues to radiate outward, transforming – and being transformed – by the multiple sites in society where it is received, appropriated, contested, transformed, and subversively played back. In other words, the natural order with which scientists are mainly concerned, and the order of imagination and inventiveness of the arts, are co-produced with the social order (Nowotny et al. 2003).

### Epilogue: Why now?

The last question concerns the timeliness of the project. Why now? In the context of globalization, it is increasingly difficult to escape marketization. A knowledge-based society recognizes that the production of new knowledge is an indispensable precondition, but this process is fraught with uncertainty, as we have seen. Paradoxically, although knowledge is a highly valued good, it is not a scarce good. It is abundant, but what is scarce is knowledge that will lead to innovation. Today, the entire spectrum of knowledge with its impressive technological, scientific, and creative capacities is oriented toward a future that does not promise so much a new beginning as a further intensification of what has already been achieved. Science and technology cross the threshold between the present and the future unhindered, for what appears possible in the laboratory today can already be in the market tomorrow or the day after. In this broad sweep for new ideas and discoveries, for new products, processes, and combinations of what is already available, the quest for innovation is an ongoing and urgent pursuit of what remains unforeseeable and yet promises to further expand the range of possibilities.

Art has always been finely tuned to a fragile future and sceptical toward promises made in the name of human betterment. It should keep its sceptical stance whenever innovation is evoked as the collective wager our scientific-technological civilization has made on the future. But at the same time, art cannot escape or exempt itself from the lure of uncertainty, which is an inherent component of the processes of research and of innovation alike. If innovation is contemporary society's way of coping with the vacuum that inhabits its present concept of the future, artistic research – and not just the production of art – may lead to forms of innovation that shape the elusive phenomena and events that only the individual and collective imagination can conjure.

The idea that the limits of seeing and knowing as laid down by Aristotle can be transcended first arose among the humanistic artists of the Renaissance. One of them, Leon Battista Alberti (1404–1472), articulated for the first time in his essay on perspective, *De pictura*, the idea that the human way of seeing could be extended and deepened by introducing mathematical knowledge into the material world. With his perspective grid (a geometric object that he imagined as a veil cutting through the visual pyramid), he developed techniques that would make it possible to bring 'mathematical things into view'. He insisted on a special ethos for humanistic painters

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in order to legitimate the active crossing of the boundaries between the natural and the artificial, which mastering the techniques of perspective enabled him and his contemporaries to do. Alberti was not the only one to tackle the problem of how to render the invisible visible. When Galileo Galilei problematized the presumed limits of the visible by directing his telescope toward objects in the sky that were believed to be invisible to the human eye, he was deeply rooted in and thoroughly knowledgeable about the material culture of contemporary artists and their practices (Feldhay 2009). The phenomena he observed in the sky were thus transformed into objects of a novel astronomical experience, just as Alberti succeeded in creating novel objects for the experience of space.

In the contemporary world, much more has been rendered visible that once was thought to be invisible. We can now reach back in time to the beginnings of the universe and observe molecules and their dynamic motion in real time. This has been achieved largely by continuing to cross the boundaries between the natural and the artificial and by the fruits of curiosity and the results from a process of research that began in the Renaissance. It has led to amazing discoveries and feats of bio- and other forms of engineering, resulting in new life forms and making entities that never existed before. The exploration of processes on the nano-scale have just begun and the limits of creating new knowledge are nowhere in sight.

But the techno-sciences, important as they are, are not alone in leading these explorations and pursuits. Artists have quickly realized the artistic challenges offered by hybrid forms and the vast domain of crossing the natural with the artificial. Most significantly, they extend their creativity beyond the range covered by the technosciences. True to the humanistic spirit of the Renaissance, they bring the human back into this world that continues to be transformed by the techno-sciences and their societal impact. It is this *humanistic impulse* that should continue to invigorate research in the arts. It has the potential to bring forth a new Renaissance.

#### Note

1 http://erc.europa.eu (accessed 25 February 2010).

# **FOREWORD**

## Hans-Peter Schwarz

Translated by Wolfgang Schnekenburger

More than a decade ago, a disagreement ignited as to the pros and cons of art-based research, a disagreement that continues to this day. The dispute focuses above all on the dilemma of how art-based research is to differentiate itself from fine art, music and theatre studies on the one hand, and the practical arts on the other. One question that has been discussed for an extensive period of time with considerable vehemence, and which is of great importance for the acceptance of art-based research, at least in the science community, is whether epistemological potential is inherent in the production and reception of art. Research conducted by the Berlin-based philosopher Simone Mahrenholz concerning the relationship between music and epistemology may be considered paradigmatic for this discourse and can with some justification be transferred to other fields of art (Mahrenholz 2000). Based on the system of symbols developed by Nelson Goodman in his book, Languages of Art, which refers mainly to the fine arts, she searches for the uniqueness, or at least the distinctive features, of an epistemological view of the world through pure music, or, to use one of Goodman's central terms, through musical 'worldmaking'. Admittedly, expressed in a simplified manner, Mahrenholz looks for a specific epistemology of the world which can be provided only by musical production or musical reception and by no other epistemological method. In doing so, she moves beyond Goodman by integrating into her philosophical aesthetics results provided by recent brain research. Undoubtedly, these findings are meaningful for a discourse in scientific theory concerning the validity of art-based research and its differentiation from other disciplines within the arts.

Although I by no means wish to underestimate the importance of a discourse for the dynamics of an epistemological gain overall, it does seem to be high time to stop doubting whether art-based research exists at all and accept that it has long ago become an everyday occurrence in most art universities, irrespective of whether they are organized as parts of universities, as is the case in most Anglo-Saxon and some Scandinavian countries, or whether they are the result of a horizontal merger of various institutions of higher art education to form a university of the arts, or, as is the rule in central, southern and western Europe, as mono-disciplinary universities along the lines of the Academia or Bauhaus.