

Composition Research

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Introduction

In scientific research, the exposition usually follows a logic that is different from the research itself. While a clear and well-structured discourse obviously plays an important role in the communication of the research process and its results to an audience, these rhetorical issues are negligible during the actual research. For example, while research can be done repetitively at certain stages, few people would appreciate a presenter repeating the same sentence over and over again at a conference.

In artistic research on music composition, the gap between rhetoric and research is smaller than in other disciplines. This is so because music composition, and art in general, is a form of communication in which the artist expresses concepts, ideas, emotions and feelings in the hope that the audience will be touched, intrigued or provoked. In science, the research methodology can generally be separated from the way in which the research is presented, but communication and expression are at the heart of the arts. Compared to other domains, the diversity and flexibility of communication forms in the arts reflect this central position. In the arts, communication rules are not just used, but also renewed, refreshed and even negated. Doing research in and through the arts causes communication to become part of the research domain, and thus includes exposing research and researching the exposition.

In this chapter, I claim that in artistic research the exposition can have more purposes than just presenting artefacts, knowledge and experience to an audience. For artistic researchers who give expressive and rhetorical issues a crucial role in their research and look beyond the concert hall as the sole opportunity and place for which to compose, the exposition can become an integral part of the research process. With this integration of research and exposition (which I call 'a research-exposition mode') the nature of the research and practice change, and intermediate forms emerge that are difficult to categorise as 'research' or 'practice'. Generally in artistic research the distinction between research and practice (or theory and practice) is not clear-cut. Becoming aware of the (unconscious) connections between both categories and developing them into full-blown (autonomous) research tools and exposition forms is what this chapter aims to do.

The Open Sketch As Exposition Form and Research Tool

In artistic research in music composition, the two main publication forms are texts (articles, theses, lectures) and compositions (performances, scores, recordings). Both are used to make research and practice public. There is an intermediate form, however, between text and composition, which will be referred to as an 'open sketch'. The main features of an open sketch are its focus through sound and its draft appearance. Having a clear focus is widespread in research and the usual way to expose this focus is through a text. But a focus through sound is less obvious. The composed music in an open sketch focuses on one or a limited number of composition problems or new possibilities. All unnecessary elements are backgrounded, simplified or omitted. Which elements are important depends on the focus of the open sketch. As a result, open sketches are likely to resemble fragments, sketches, or studies, forms that are considered unrepresentable in normal concerts. When creating this open sketch, the composer is both an artist and a researcher as he tries to sonify the core of a composition problem.

A recent book by the American composer Henry Brant offers clear examples of this focused open sketch. In general, his *Textures and Timbres* is an orchestrator's handbook, but as the foreword explains, 'the focus is on combining tone-qualities' or mixing different timbres with acoustic instruments (Brant 2009: ix). The book is full of short score examples that illustrate the procedures. Brant states: 'I have composed the numerous musical examples in neutral twentieth-century idioms', and he continues to explain that 'these examples do not necessarily reflect my stylistic preferences or my own composing practices' (Brant 2009: ix). The examples are clearly restricted to the timbre and textural procedures. Elements like pitch, rhythm, harmony, and phrase-building are reduced to the essentials in order to emphasise the procedures. This may be the reason why Brant calls it a 'neutral' twentieth-century idiom.

An open sketch with a clear focus does not imply that only simple or technical problems are tackled. For example, problems related to the form or conceptual aim of a composition can also be pared down to the essentials, and solutions can be made audible. The composer-researcher needs to experiment intensely with the many parameters that exist in music to be able to sonify a specific composition problem. Parameters and features in music exist on different levels, and some features can only appear if others are present: a musical phrase without individual sound events is impossible. This makes the process of simplification and concentration more complicated than it seems at first sight. A focus through sound cannot mean that complex issues are broken up into atoms without any information or characteristics of the complex issue. It rather invites research on what the simplest possible form of a composition problem is in a music performance.

Music focused on a composition problem is not unusual in the history of Western music, although it remained at the margins and was mostly em-

bedded in a pedagogical context. Composition exercises and studies centred on issues such as melody construction, counterpoint, harmony, instrumentation, form, etc. This tradition is still alive, even though techniques, materials and goals have become very diverse in contemporary sound art. The American composer David Cope adds ‘composing suggestions’ to every chapter in his book entitled *Techniques of the Contemporary Composer* (1997). These exercises serve to practise the described techniques and resources and can be seen as a modern equivalent to the former exercises. In literature and journals on electronic music, computer music or music cognition, sound samples are often included to underline the compositional potential of the techniques. Although in some cases these samples are only a few seconds long, in other cases author-composers add a short composition to their text (see Sethares 1998; Keuler 1997).¹

This tradition of the composition exercise can be more than a pedagogical tool and has important potential within the artistic-research process. This change from exercise to open sketch also requires a change in goals: from trying out existing techniques and methods as in music education to experimenting with new expressive problems or making tacit practices more explicit.² Educational composition exercises and research-led open sketches function in a double way: they try to expose a composition procedure in the act of music performance to the listener and at the same time they act as an invitation to the listener to try out this procedure. They create distance and attract at the same time. At first sight, this contradictory nature is linked to the kind of work needed to produce an open sketch. It has a very hybrid character: there is less personal expression than is required to make an artistically ‘finished’ composition and there is more neutralising distance involved, but compared to non-artistic music research, more creativity and composition skills are necessary.

Although these kinds of exercises are sometimes seen by composers as ‘mere technique’ and ‘not artistic or creative’, it is difficult to imagine who but composers could write such exercises. Apart from these negative connotations, the distance present in the open sketch can also be described positively, as distracting the composer from his usual activities and leading him to an experimental activity.³ In a research project that I performed in the

1. The previous examples from electronic and computer music illustrate the fact that the ‘open sketch’ is also applicable in genres where the written score is of less or no importance. The only difference is that the open sketch would be more technology oriented in these contexts. For example, its focus could be on the expressive possibilities of a specific algorithm or a performance set-up.

2. This change reflects the appearance of autonomous composition exercises, studies or études in the twentieth century, for example, in the oeuvres of Conlon Nancarrow, Pierre Schaeffer or Karlheinz Stockhausen.

first half of 2011, six composers wrote an open sketch related to a problem of polyphony. In interviews and questionnaires with these composers, some of the respondents found it difficult to focus on a specific problem. One composer remarked that this kind of task required that he ‘think differently’ and ‘step outside well-known terrain’ (De Baerdemacker 2011). The distance of the open sketch requires artist-researchers to put some of their familiar procedures aside and break out of the way they normally express themselves. After the sketch has been produced and performed, researchers have an external sound object upon which they can reflect. At this stage this object can be matched with the original ideas and formulations of the problem or challenge. This feedback loop between sketch, performance and reflection enhances the research through a constant process of reformulation and focusing through words and music.

A Central Role for the Audience

The nature and function of the audience is a topic that has been given little attention in the literature on artistic research. The composer Leigh Landy writes:

one of the more obvious things to state about much of twentieth-century art music’s being appreciated by a very small audience concerns a side effect of the ‘art for art’s sake’ movement dating from the century’s early years: many composers chose to ignore the interests, desires, and perceptual abilities of the public, focusing particularly on whatever new protocol(s) they were involved with at the time, a manifestation of the modernist epoch (Landy 2007: 23).

Perhaps the minor role of the audience in artistic-research literature is related to the researcher being an artist and to the ‘traditional’ weight attached to individual autonomy and freedom of the artist in the twentieth century. But if artistic researchers want to investigate expressive and communicative issues seriously and aim to integrate exposition and research, they must be conscious of the audience and consequently involve it in the research. In fact, I propose to take control – to a certain extent – of the audience, as opposed to the usual artistic practice where the artist has a limited influence on the kind of people (social group, age, sex, musical background) that attend a performance and on the setting in which this takes place.⁴ In doing so the artist-researcher can consciously choose the setting and create a role for the audience.

3. I see several other links between the open sketch and experiments in music. The open sketch is open for discussion, it acts as a proposition upon which the audience can comment, and it is also a kind of try-out of a musical problem. Moreover, the clear focus reminds us of experimental compositions (e.g. Alvin Lucier) in the 1960s and 1970s, which often concentrated on one phenomenon.

An example from my research practice can clarify this. In the above research project that involved six composers, each writing two ‘open sketches’, I organised a ‘collaboratory’, during which these sketches were rehearsed and performed. This was followed by a discussion among the performers, the composers and other invited contemporary music specialists. This semi-structured discussion centred around a few predefined questions, but there was also enough time to tackle unforeseen and new issues. A few months after this collaboratory, I presented the recordings of the performance to classes in music schools. I used a written questionnaire to obtain an idea of what these people were hearing. Later on, the results of this listening test were fed back to the composers. The audiences in the collaboratory and in the music schools were selected, but their role in the expositions was different. The inclusion of the audience in the research process enables artist-researchers to reflect on the reactions of other people to a specific artistic problem.³⁶ And if they succeed in giving the audience an active role and in fascinating it with their artistic problems, it is not just researchers who are reflective but also the group of people. This can create a larger and more powerful resource pool from which new knowledge or insights can originate. The successful involvement of the audience requires the researcher to become partly a concert organiser, albeit an unusual one. The researcher creates events in which a selected audience is confronted with the performance of open sketches.

Sound Realisation and Documentation

The discussion above focused on two main topics related to the inclusion of exposition in research: the open sketch and the selected audience. To round out the overall picture of this research-exposition mode, I should highlight two additional issues that have not yet been brought to the forefront. Since they are also present in most of the common expositions in music composition, I will

4. There are of course art forms where artists choose a specific place (street, public square) and thus have more impact on the audience.
5. Because of the importance I give the audience, there are some similarities between the research-exposition mode that I propose in this chapter and the research domain of music perception (and the related disciplines of psychoacoustics and music cognition). The main difference is that the goal in the former is to obtain more knowledge about music composition and the creative processes involved, while in the latter the focus is on gathering knowledge on how people perceive sound and music. But in order to obtain more insight about music composition, disciplines such as instrumentation, harmony, music history, etc. and also music perception are important. Thus there is some overlap between both. Moreover, in recent decades the use of simple, low-level sound stimuli in perception experiments has diminished, and approaches like *embodied music cognition* have started to consider the role of the body and thus of human action as vital in perceiving and processing sound. See Leman 2007.

only briefly describe their links to the open sketch and the selected audience. First, there is the way the open sketch is exposed. The sketches are realised as sounds, meaning that the open sketches are performed by musicians or – in the case of electronic music and sound art – by the appropriate sound devices. This realisation is quite obvious but very important. Successful research results and convincing expositions in music composition cannot be achieved if the open sketch is reduced to a material form such as a score. It should be music, a form unfolding over time. Second, there is the documentation as part of the exposition. Its evident function is to describe in spoken or written words the research question, problem, context and aim of the exposition. The context needs special attention since the focus through sound in the open sketch involved the unwrapping and stripping down of the artistic problem to its essentials. The documentation acts as a counterbalance to this exposure and makes the public aware of the silent, missing elements in the exposition.

Together these four components: open sketch, selected audience, sound realisation and documentation, give shape to a research process to which the exposition is an integral part. When looking at these four components it is possible to notice a similarity between the research-exposition mode on the one hand and artistic laboratories, experimental venues, music studios and workshops on the other hand. The latter are events and places where artists experiment and show their work to one another and to an interested audience in a laboratory context. Throughout the past decades such venues have spread internationally. Examples are often self-organised practices such as Dorkbot ('people doing strange things with electricity'), which includes a large number of local groups, and the Logos Foundation in Ghent (Belgium), which organises a monthly concert with music robots, where instrument builders, dancers, performers, and composers try out new ideas. Often several of the four main components of this research-exposition mode can be traced in these laboratories, although the instances where all four components can be discerned are rare. A smooth transition between the more experimental and research-minded parts of the artistic field and the research institutions can, however, be a positive feature. Here the similarities (and thus the overlap) between both can provide links for cross-fertilisation.

In the next section I will focus on two advantages of the above research-exposition mode: it eases generation of knowledge that is both transparent and new. Producing something that had until then been unknown and having the ability to communicate this to others is of crucial importance in most research domains, including artistic research in music composition.

Transparent Communication

As mentioned before, music composition is one of two usual exposition forms in addition to text. But in contrast to the possible third form (open sketches), the compositions are finished, that is, the composer judged them to be publicly

presentable to a concert audience.⁶ But are these finished compositions the ideal vehicle to demonstrate and investigate an artistic problem? Are they transparent enough as an exposed research form? In these artworks several materials, techniques and expressive procedures are used together, and they interact and shape one another. A single composition may contain totally different passages and may have several aims, ideas, or feelings that the composer wants to communicate. Moreover, a composer may initially intend to make a composition centred around an artistic problem or challenge. Once he starts to compose, however, obstacles (in structure or instrumentation) may be encountered, leading to a reformulation of the original challenge and goal. This is a procedure (called problem proliferation) that has been described in the literature on the creative process in music composition (Collins 2005). In some cases, the result of this conflict may even be the abandoning of the original problem or challenge. The composer may end up with a composition that has almost no links to the original ideas, challenges and problems. In the end, a composer wants to produce a convincing sound work for the audience and not a piece of research. Thus if a conflict arises between research consistency and rhetoric, the composer chooses the latter. Therefore, finished compositions can have limitations as tools and as materialisations of a research process.⁷ Sometimes it is almost impossible to communicate transparently and precisely about the research using the finished composition as the only exposition form.

All three forms have their possibilities and limitations. I can best explain this using the antonyms 'abstract' and 'concrete'. An open sketch could be described as concrete and abstract at the same time. Compared to a text it is concrete because it tries to be an accurate translation in sound, and thus in time, of a research topic, but compared to a finished composition it is abstract because this general topic is intended to be perceivable in the music. A text can be theoretical and contemplate on the music, or it can describe singularities and details in the music, but the text always operates from outside sound and outside time; it remains external. The third exposition form, the finished composition, is internal; it operates from within the world of sound and music. In many cases it is also concrete in the sense that the finished composition consists of singular details and sections. These have their own identity based on differ-

6. As far as I know, written preparatory composition sketches are never performed in concerts (as opposed to the visual arts where preparatory sketches are quite often part of an exposition). I use the term 'concert audience' to differentiate it from the 'selected audience' that I have described in the paragraph 'A Central Role for the Audience' in this chapter.

7. The emergent problems and procedures that arise while composing finished compositions can be used as a focus in one or more new open sketches. In this way the reflection process is no longer a purely mental process, but is also a composition praxis. More about emergence in artistic research in Barrett & Bolt 2007.

ent affects and concepts that the composer wishes to express. Such sections are not necessarily linked in a simple and straightforward way to the global musical shape. Composition procedures, construction techniques and perceptual features in these works change quickly and they do not always coincide. The composer Roger Reynolds describes this phenomenon as the ‘palpability’ of sections (Reynolds 2002: 11-12). In some repetitive music, minimal music and contemporary process-based music, though, there is one dominant paradigm that evolves slowly and is meant to function both as a construction technique and as a perceptual feature. In line with the open sketch, such finished compositions can be called ‘abstract’, since a general topic is perceivable.

Research and expositions that combine all three forms (text, open sketch, finished composition) offer a wider array of perspectives on both the artistic practice and the research topics. This combination helps to overcome the sterile dichotomy between art (composition) and theory (text) because each of the media, sound and text, can be either abstract or concrete. The intermediate form ‘open sketch’ has a special position within these three forms because it sheds a light on both the text (through its sonification of a composition problem or possibility) and on the artistic practice. The latter happens through its difference from the finished composition. The open sketch discloses the specific nature and the emergent features of the finished composition. Situated between theory and practice, it helps to create an interactive and performative relation in which both domains change each other.

To include the open sketch as an additional exposition form is not only a question of transparency in communication with others. It can also help the researcher to clarify and even reconcile his own research methods with his artistic motivations. As an artist and composer, the fact that I will be doing research on one composition problem for several years is a constraint on my creativity. It seems as if my future works will necessarily have to centre on this main problem. I may be intrigued and passionate about this problem at the start of my research, but it is impossible to predict if I will remain passionate and engaged enough in the future to compose new works. On the other hand, to do thorough research, it is important to focus on the main problem for a long period. Once I decided to start composing the open sketches alongside my artistic, finished compositions, the conflict was solved and the solution gave me a sense of artistic freedom in my research. By inserting the open sketches between the written text and the finished compositions, the latter no longer needed an obvious, straightforward link to the written text and the research questions. My finished compositions could stay practice-based, and they were not forced to become research-led.

There is a final link between transparency and my research-exposition mode. The greater artistic distance in the open sketches and their sonification of artistic problems partly undermines the usual communication obstacles in music composition. Genres, styles, motivations, institutions, social roles and

meta-stories often act as barriers to dissemination and acceptance of new artistic ideas and confuse the dialogue. Artists often refuse or accept ideas or techniques because they are part of a style, institute or the personal vision of a composer. Since the open sketch is more distant and detached in an artistic sense, and its focus leads to the omission or neglect of some parameters that are found in a finished artwork, the ideas presented can penetrate faster through these barriers. Based on my experience, it is easier to have a profound discussion on a well-defined musical problem in an open sketch than to discuss a whole composition, especially if the participating composers use very different procedures and have contrasting aesthetic opinions. The detached nature of the open sketch can even open the door for researchers to collaborate. Cooperation amongst composers is not a common practice,⁸ but in my research project with the six composers we managed to revise several open sketches collectively without major problems. In a recorded session in which I was changing an open sketch that a second composer had made, he spontaneously remarked that he would never have allowed me to do that if this had been one of his normal compositions, but the open sketch was 'just working material ... you can do with it what you want' (Vanhecke 2011).

Innovation and Exposition

One of the main goals of research – and thus artistic research – is to deliver something new and to contribute knowledge, insight, practice, or tools to the existing body of knowledge and practices. The described research-exposition mode can help to achieve this goal. Its two main components, the open sketch and the selected audience, can ensure that something new is produced in research. Without doubt, newness in art is a complex issue because it is a social construction that transforms over time and depends on opinions, power relations, group formation, science, evolving technology and a great deal more. But the complex and transient nature of what is new cannot be used to avoid creating innovation in research. That a researcher selects an audience for his exposition and that it often consists of other specialists and artists from outside and inside research institutions, helps the researcher to distinguish between finding information and practices that are personally enriching and others that add new insights for a community of people. The large body of researchers and of articles and books in any research domain, and even sub-domain, makes it

8. In general the literature on cooperation in the audio arts talks about cooperation between composers and performers, composers, and dancers, etc., but not about cooperation among composers. There are some famous examples, though, such as the duos John Lennon and Paul McCartney, and Pierre Schaeffer and Pierre Henry. In the music avant-garde of the 1960s and 1970s there were some collectives of composers, e.g. Nuova Consonanza. See: Green 2001; Brooks & Laws 2012; John-Steiner 2000.

difficult for one researcher to master a profound and full knowledge of this (sub)domain. This is especially problematic in artistic research, which is not only interdisciplinary (enlarging the number of knowledge domains involved), but which also requires a profound knowledge of the artistic field and its history. But, as Timothy Emlyn Jones notes, a review of art is particularly problematic because ‘it is simply not possible to determine all that has been done, because not all creative practice of this kind has been externally referenced let alone refereed’ (Jones 2009: 39). Regularly involving a group of experts and other audiences in the research process during presentations is a way of building innovation into the artistic-research process.

There is a second relation between the described research-exposition mode on the one hand and innovation on the other. Innovation in art can be carried too far when artists focus too much on details and lose sight of their position in a changing society. The act of selecting an audience also creates an opportunity for the artist-researcher to become fully aware of this situation. Especially, the selection of a diverse audience ensures that ‘innovative’ remains a synonym for fresh, stimulating and provocative.

Conclusion

In my experience, many composer-researchers expose their research in a format that is not greatly different from that of researchers in non-artistic disciplines. They present a slide show, read a text, or give a well-structured lecture with sound or score excerpts from finished compositions to illustrate their story. It is only for ‘artistic’ occasions (such as concerts) that new music is composed. In this mode the *exposition* of research and practice is almost a synonym for the *dissemination*, a unidirectional action without a profound influence of the exposition on the research or the practice.

But there can be a feedback loop between research, exposition and practice resulting in a research-exposition mode that I have described in this chapter. In this mode the artist composes specific music for research expositions. I have called this type of music in this chapter ‘open sketches’ and described it as ‘unfinished’ but focused. These sketches have some attributes that are usually associated with finished compositions, for example: they are performed. In other fields they resemble text. As important for the research-exposition mode is to challenge the idea that the audience for these expositions is fixed. An experimental space with a selected audience can be created that enables close interaction between the composer’s intentions, the composer’s music, and the perceptions of the audience. These kinds of regular expositions within the research process remind the researcher-composer that in art, and thus in artistic research, expression is the heart of the matter. Introducing affects, ideas and concepts to people through music, and reflecting on these modes and tools, is an essential activity in artistic research.

The way I have described the integration of exposition and research is

grounded on a social vision of the arts and creativity. Mihaly Csikszentmihalyi (2001) has researched issues of artistic creativity extensively. He has stressed that creativity is not the work of individuals but functions within a social system (a 'field') and a cultural system (a 'domain'). The research-exposition mode described is an attempt to create a small-scale and concentrated version of the living creative process by incorporating meetings among the researcher, the field and the domain. Confronting researchers with the comments and actions of other communities is vital for an artistic research project that tries to obtain applicable and explicit knowledge for the field of music composition. In the end, giving the exposition a key role in artistic research is a way to bring the social dimension of both research and practice to the foreground.

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