

Phenomenology, Technology and Arts Education: Exploring the Pedagogical Possibilities of Two Multimedia Arts Inquiry Projects

By Dylan van der Schyff

Abstract

The relevance of phenomenology for arts education is explored through two multimedia arts inquiry projects. I begin by offering a brief outline of what arts inquiry and phenomenology entail. Following this, I consider a phenomenological study relevant to creative multimedia studies, and develop the relationship between phenomenology, critical pedagogy, and creative praxis in the arts. Drawing on these ideas, I then discuss the processes involved in creating the multimedia projects and consider possibilities for similar projects in educational contexts. Most importantly, I attempt to show how such projects might open arts educators and students to more reflective, imaginative and participatory ways of being-in-the-world, while simultaneously developing deeper historical, cultural, technical, and aesthetic understandings of the art forms they are engaged with.

Keywords

arts education, phenomenology, critical pedagogy, arts inquiry, creative multimedia

Introduction

The field of arts-based research involves examining the process of creative practice (often from the first-person perspective) to gain better understandings of a range of concerns that impact human well-being (Barone & Eisner, 2012; Knowles & Cole, 2008; Leavy, 2015). In pedagogical settings, such forms of inquiry may be developed in collaboration with students as a way of helping them engage critically and aesthetically with the worlds they inhabit (Bresler, 2007). At its best, arts inquiry for education does not focus on adhering to a fixed set of practices and outcomes – a curriculum for “everyone everywhere” (Noddings, 1995, 31) – but rather strives to foster an understanding of arts education as a critical and transformational process of self and world-making. Increasingly, arts-based inquiry develops alongside the growing field of research and theory that explores the applications of technology for music and arts education. Indeed, there now exists an impressive range of literature that examines multimedia technology at the intersection of pedagogy and creative practice, including the use of iPods, cell phones and other readily available devices and software (Finney & Burnard, 2010; O’Neill & Pesulo, 2013; Simoni, 2013; Slater & Adam, 2012).

In general, the growing use of new digital technologies in music and arts education is seen as a positive development. For example, Burnard (2007) discusses the important roles of technology and creativity for promoting pedagogical change, arguing for an understanding of “creativity as an essential human attribute lying at the heart of all learning,” and where technology is understood “as tools that mediate how creative activity occurs” (p. 37). And indeed, a number of recent studies have examined how the

creative use of technology may afford new understandings of the dynamic interaction between sound, image and space (e.g. Wilson & Brown, 2012). This said, some thinkers remain cautious, suggesting that a non-critical celebration of new technologies may contribute to a passive reliance on digital devices, a false sense of one's own creative engagement, and to the commodification and marketization of education (Taylor, 2011; Wishart, 1992). As a result, it is argued that our engagement with technology for education should be subject to on-going critical analysis – that we must remain careful not to let technology simply drive our perceptions and desires, but rather use technology critically and creatively to challenge taken-for-granted attitudes and develop new ways of engaging with the world that are meaningful and relevant to our lives. In line with such concerns, a number of thinkers have begun to develop approaches to arts research, creative technology and education that are based in phenomenology and critical pedagogy (Macedo, 2012).

In what follows, I attempt to contribute to this project through an exploration of two multimedia arts inquiry projects. I begin by offering a basic outline of what phenomenological inquiry entails. Here I examine Ihde's (1976) phenomenology of the 'auditory dimension' as an introductory example that is relevant to creative multimedia studies. Following this, I develop the relationship between phenomenology, critical pedagogy, and creative praxis in the arts. Drawing on the resulting insights, I then present the multimedia projects and discuss the possibilities they offer for developing richer understandings of the creative multi-media process, as well as the pedagogical meaning of art making more generally. Most importantly, I attempt to show how such projects might open arts educators and students to more reflective, imaginative and participatory ways of being-in-the-world, while simultaneously developing deeper historical, cultural, technical, and aesthetic understandings of the art forms they are engaged with. I conclude by suggesting a few additional possibilities for educational praxis and research.

Phenomenology & Arts Education

Phenomenology is a philosophy of experience, of consciousness, perception, knowledge and being. It has antecedents in a range of ancient and modern philosophical traditions. Phenomenology proper, however, is generally understood to begin with the work of the Moravian logician, Edmund Husserl. Writing at the end of the 19th century, Husserl became concerned that the successes of the positive sciences had resulted in a worldview that was increasingly focused on technological progress, thus obscuring "the questions which are decisive for a genuine humanity" (1970, 10). In response to this he sought to re-establish the human element by developing a new 'science', which takes human experience as its explicit basis. Indeed, it should be noted that Husserl's phenomenology was critically motivated – an orientation that continues to characterize the thought of many phenomenologists working today.

Throughout its development in Husserl's writings, and in the work of the many impressive thinkers that followed him (e.g. Heidegger, 1962, 1982; Merleau-Ponty, 2002), the phenomenological approach has been adapted and transformed in various (and sometimes quite radical) ways to explore a wide range of phenomena (Gallagher, 2012). And although many of these inquiries employ difficult theoretical concepts and

complex terminology, the basic approach initiated by Husserl can nevertheless be described fairly clearly. The phenomenological perspective recognises that our conscious experience is always directed towards things and events (including our own bodies, thoughts and imagination). That is, it shows that experience is intentional – it is always the experience of ‘something’ and that that ‘something’ is always experienced in a certain way (Gallagher, 2012). The real importance of phenomenology, however, lies in the way it examines the structure of consciousness and intentionality (Ihde, 1976, 1977). Indeed, an important early step taken in phenomenological inquiry involves an attempt to ‘suspend’ or ‘bracket’ (epoché) assumptions and judgements and attend to the phenomenon at hand in the most open and direct way possible. Put simply, this process reveals how many of our perceptions and understandings are in fact the products of ways of attending to the world that have become so ingrained that they appear to take on a fixed reality of their own. This results in the development of so-called ‘natural attitudes’ (Merleau-Ponty, 2002) towards the things, activities and relationships that characterize our lives; attitudes we often simply take-for-granted as the way things are.

Phenomenology examines such assumptions in terms of the processes of historical (personal, cultural) sedimentation that give rise to them so that new understandings and possibilities may be revealed. In doing so, it initiates a process of inquiry into the structure of consciousness that begins with the what (noema) of experience as it appears in the non-reflective context of the natural attitude. The inquirer then attempts to identify and bracket (epoché) assumptions and judgements in order to move from the prescriptive ‘literal-mindedness’ of the sedimented natural attitude and better attend to the phenomena as it is given directly to experience. This leads to an examination of the how of experience, revealing the modes of experience (noesis) and the way the shifting interplay of such modes may reveal new understandings and possibilities. The phenomenologist then questions back to the who (I-ego) of experience, disclosing the ‘self’ as a transforming embodied agent who plays an active role in the on-going construction of experience. Importantly, this process may proceed in an on-going ‘circular’ way to reveal ever richer (polymorphic) ways of attending to the phenomena at hand.

In brief, while the dominant intellectual trends associated with positivist thinking have emphasised an objectivist approach to experience, phenomenological inquiry affords a rather different story. It reveals experience not in terms of some kind of dualist schema where a fixed or pre-given ‘world out there’ is represented ‘internally’ in the mind – an essentially passive cause and response process. Rather, it is explored as a recursive, circular or oscillating phenomenon, where self and world engage in an on-going, relational process of co-constitution. In other words, phenomenological inquiry highlights the active, adaptive, exploratory and creative nature of perception and consciousness. And it shows how through sustained reflective analysis we may build up deeper understandings and open new possibilities. There are, of course, many phenomenological accounts that demonstrate how this is so. For the sake of brevity, however, I consider next just one example that will be relevant to the multi-media projects I discuss further on.

The auditory dimension

In chapter four of Don Ihde's (1976) monograph, *Listening and Voice*, he offers a brief, yet highly illuminating introductory reflection on the experience of sound, which also reveals fundamental insights into vision and the experience of movement. He begins the chapter by asking, "What is it to listen phenomenologically?" His response follows the basic method of inquiry I began to sketch out above.

Ihde starts by identifying and "deconstructing" certain "beliefs" that may intrude into his attempt to listen "to the things themselves" (p.49). In the process he reveals a common tendency to atomize the senses – a tendency that results, for example, in the abstract 'pairing' of sight and sound as two seemingly distinct (comparative) dimensions within experience. With this assumption noted, Ihde initiates an exploration into the modes of visual and auditory experience to develop a richer understanding of how they relate to each other. Initially, Ihde concerns himself with the 'mute' objects that occupy the office where he writes. These consist of mundane things like chairs, tables and a box of paper clips resting on the desk in front of him. But the sudden appearance of a fly in the room introduces a new type of material entity – one that is characterised by movement. Ihde observes that the fly's movement is "etched" against the stability of the room – "if it may speed its way at all it must do so against the ultimate foundation of a stable background" (p. 50). But what, he asks, does this mean for sound? Here he notes that if silence marks the boundary or horizon of sound, then the static mute object (e.g. the box of paper clips) stands "beyond this horizon", while nevertheless remaining "silently present." He also observes that the introduction of movement brings sound with it (e.g. the fly's buzzing and so on). Phenomenologically, sound and movement belong together and thus the experience of sound 'overlaps' with the visual dimension of moving entities.

Developing these insights further – now in the context of space – Ihde describes walking into the Cathedral of Notre-Dame in Paris for the first time. Here he notes the initial experience of space in terms of the monumental visible architecture that defines the cathedral in its (almost) empty state. Ihde then discusses the experience of returning later to attend a high mass. Now the space is filled with people and the sound of singing, "the mute walls echo and re-echo" (p. 51); the space has been brought momentarily back to life, and "the 'paired' regions of sight and sound 'synthesize' in dramatic richness" (p. 51). However, Ihde also notes that even though the descriptions of the office and the cathedral reveal the 'overlapping' and 'synthesis' of the visual and auditory dimensions in movement, space and time, there nevertheless remains an "excess" of sight over sound in the realm of the mute object (the silent walls of the cathedral and the non-moving objects in the office). He then asks, if there is a comparable 'region' where sound exceeds vision, an "area where sight cannot enter, and which, like silence to sound, offers a clue to the horizon of vision" (p. 51).

In response to this question, Ihde then considers the experience of walking along a dark country path, where the visual dimension is severely curtailed. Here he becomes keenly aware of every sound and notes that the darkness renders the presence of sound more dramatic when he cannot see. However, he questions whether darkness can really be considered as marking the boundary of the visual horizon. This is clarified through a meditation on the experience of wind. As Ihde observes, although the wind is heard and

felt, it is not visible directly. Rather, it is only ‘seen’ in its effects, in “what it has done in passing by” (p. 51). He notes, “I hear its howling and I feel its chill but ... no matter how hard I look I cannot see the wind...” The experience of wind extends beyond the horizon of sight. This leads Ihde to suggest that it is invisibility, and not darkness, that characterises the boundary of sight. Indeed, darkness and invisibility are not synonymous; darkness is a characteristic of the visual modality, but sonic experiences of movement, location and space can and do occur without seeing (or being able to see) anything (including darkness). Thus, the activity of “listening makes the invisible present” in a way similar to how looking makes the inaudible ‘mute object’ present in the visual dimension (p. 51).

Through these observations Ihde is now able to make several summary approximations about the relationship between the auditory and visual dimensions that may advance the abstract pairing of sight and sound mentioned above (pp. 52-54). He suggests that it is now possible to map two ‘regions’ that overlap, but not perfectly so (see figure 1). Indeed, each region may be understood to maintain its own horizon within which a range of entities may be discerned. In the visual region we find entities that are stable and most often mute (x); and those that are in motion and often “accompanied” by sounds ($\rightarrow y \rightarrow$). This visible region may be understood as bounded by the “horizon of invisibility.” Within the auditory region we also find two categories of sound presence, which are bounded by “the horizon of silence.” There are those sonic entities that “accompany” moving visual entities ($\rightarrow y \rightarrow$) and those for which no immediate visible presence is found ($-z-$) – e.g. the kind of entities that characterize ‘acousmatic’ listening (Chion, 1994). However, as Ihde points out, inasmuch as all sounds are perceived as occurring in time, as “events”, they are all likely to be associated with action and thus with the “realm of the verb” (p. 51).

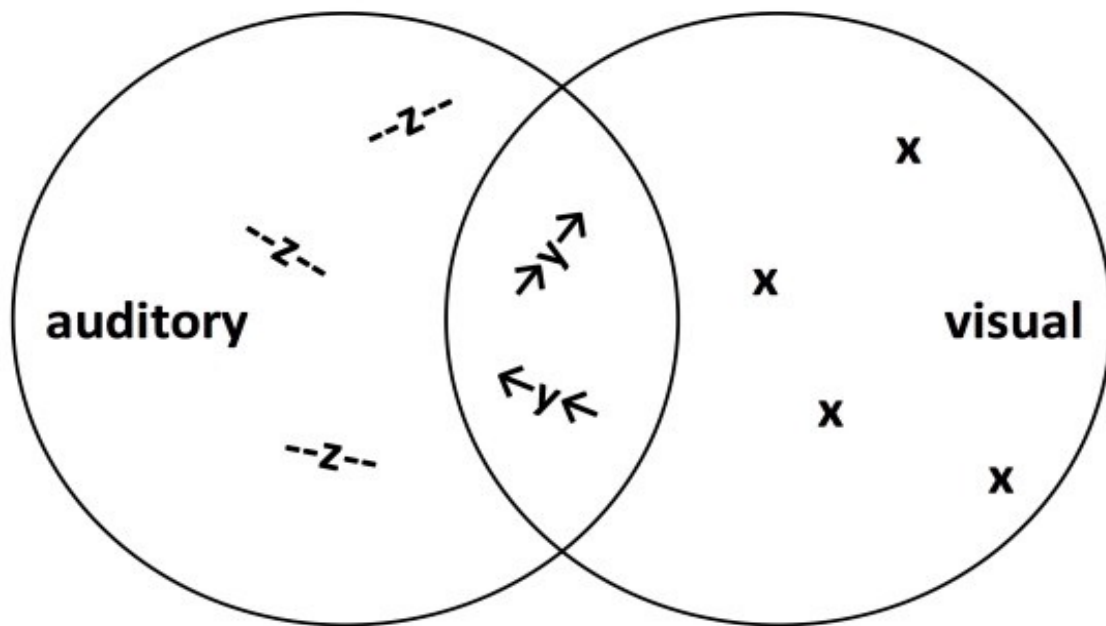


Figure 1. A summary of Ihde's mapping of the auditory and visual regions (1976 p. 52-54)

In brief, this preliminary phenomenological 'mapping' of the auditory and visual dimensions allows us to see that "what is taken as horizontal (or absent) in one 'region' is taken as a presence for the other" (p. 54). Entities of type x that appear in the visual region also lie within the field of silence and are thus 'closed' to auditory experience. Likewise, entities of type $-z-$ emerge in the auditory region, but are not present to the visual dimension. However, presences of category $\rightarrow y \rightarrow$ involve a perceptual "synthesis" of both regions. It is also important to note that the perception of a $-z-$ type entity in the acoustic environment often initiates a search to transform $-z-$ in to $\rightarrow y \rightarrow$ (see also Chion, 1994). Here Ihde uses the example of the bird watcher, who most often hears the bird first and then seeks for it visually – as he writes, "sounds are often thought to be anticipatory cues for ultimate visual fulfilments" (55). Additionally, x type entities may be manipulated in space, thereby momentarily transforming their phenomenological status from mute objects to sounding objects; through experience we come to recognize the sounds of such normally static mute objects when they are put into motion by some external chain of events. Here Ihde brings to mind how one might, while hanging a picture on the wall, know where to search for a dropped tack by the sound it makes as it rolls under the piano (p. 55). Lastly, Ihde notes that through the use of technology the auditory dimension may be explored in a number of new ways. For example, through amplified listening we may experience sonic worlds that were previously silent (e.g. insects). Additionally, various 'hermeneutic' devices afford the 'translation' of sound into the visual dimension, making the invisible visible (e.g. oscilloscopes, sonography, echo-location, radar and sonar, ultra-sound, spectrograms and so on).

Following this chapter, Ihde goes on to explore the 'I' of auditory consciousness. Here he reflects on how his experience and understanding has begun to transform thanks to his analysis, and he develops a range of fascinating new perspectives. But while the

introductory inquiry discussed above provides only a very general approximation of the the auditory and visual dimensions, it nevertheless asks us to begin to attend to experience in new ways. Indeed, even this brief account offers a much more nuanced model of the what and how of experience than we usually entertain in non-reflective day-to-day engagements. And once in possession of such understandings we may begin to develop them both philosophically and aesthetically. That is, we may begin to apply them to a range of phenomena in order to move beyond the taken-for-granted perspectives (fixed, prescriptive, non-reflective) towards a more open, reflective phenomenological attitude – one that actively explores the possibilities of experience, thus opening new ways of engaging with the world. It follows, then, that the fundamental insights offered by an inquiry like Ihde's may have a great deal to offer creative artists working in multimedia contexts, for whom a deep understanding of the relationship between the auditory and visual dimensions is essential.

In my discussion of the multi-media projects below I will develop the insights into the visual and auditory dimensions just discussed, and introduce a number of other relevant phenomenological perspectives. First, however, I would like to outline the significance of phenomenology for education to better ground the pedagogical considerations that follow.

Arts education and the phenomenological attitude

The discussion above offers only a very basic outline of what phenomenological inquiry may entail. Ihde's texts (1974, 1976, 1977) contain many more useful insights. And a number of other authors offer excellent and accessible introductions to phenomenology. Like Ihde, some (Clifton, 1983; Ferrera, 1991; van der Schyff, forthcoming) engage readers in actual phenomenological experiments that involve the exploration of visual and auditory phenomena; others introduce and explain the historical development and uses of phenomenology in various contexts (e.g. Gallagher, 2012; van Manen, 2014). While such texts are essential for anyone wishing to gain a proper understanding of phenomenology, it is beyond the scope of this paper to discuss them in detail. The main point I would like to consider here is the important role the cultivation of a 'phenomenological attitude' may play for education, and, more specifically, for developing practice-based curricula in creative sound and media production.

While examinations of sensory experience, such as Ihde's, are an essential starting place for developing a phenomenological attitude (Merleau-Ponty, 2002), this orientation may take us much further to explore and critically rethink our experience of cultures, places and institutions we live through. With this in mind, it is important to note that the phenomenological perspective challenges a number of standard Western pedagogical assumptions, most centrally, the idea that learning and 'knowledge' can be reduced to the depersonalized transfer of pre-given (objective) information, facts and procedures from teacher to student. Indeed, the phenomenological attitude has influenced the thinking of a number of critical scholars who problematize this assumption (Arendt, 1993; Bowman, 2004; Greene, 1995; Kincheloe, 2003, 2008; Thomson, 2001).

This can be seen, for example, in the work of Paulo Freire (2002; Freire & Illich, 1975) whose concept of critical consciousness or 'conscientization' draws on phenomenology

(see Torres, 2014). Here Freire examines the varieties of social consciousness, and discovers that they may be organised into three main categories. These involve, firstly, the “semi-transitive” state associated with thinking that is dominated by social conditioning. This level of consciousness is characterized by its quasi adherence to an assumed ‘objective reality’ – its epistemic possibilities are prescribed by that imposed reality, and thus it does not possess the critical distance to authentically engage with reality, to act on it in order to transform it. Second, Freire suggests a “transitive-naïve” type of consciousness that exhibits, among other things, a tendency for facile explanations and over simplification in the interpretation of problems; as well as a preference for rhetoric and reification over dialectic. Third, he posits what he refers to as the “transitive-critical” consciousness. This form of consciousness affords the development of richer structural perceptions; it allows us to look beyond taken-for-granted or imposed ways of perceiving and thinking and engage with experience in new ways. As such, transitive-critical consciousness may be understood to resonate closely with the phenomenological attitude.

In brief, developing the transitive-critical consciousness is liberating when it allows us to see that “the epistemological cycle does not end at the level of acquisition of extant knowledge, but continues through the stage of creation of new knowledge” (Freire & Illich, 1975, 28; see Torres, 2014). This orientation lies at the heart of critical pedagogy, which seeks to identify and decentre the assumptions and power relations that obscure such possibilities, and to thus reveal education as a process of self and world-making (Giroux, 2011; Kincheloe, 2003). By this light, education may only be understood as ‘authentic’ when it engages and empowers this critically creative potential of the human mind – i.e. “when the practice of revealing reality constitutes a dynamic and dialectic unity with the practice of transforming reality” (Freire & Illich, 1975, 28).

Following the thought of Freire, a number of writers have demonstrated the enormous role the arts may play in realizing these potentials (e.g. Greene, 1995). While creative practice in the arts, critical pedagogy and phenomenology are not simply synonymous with each other, they do overlap and reinforce each other in important ways, with each seeking richer and transformational understandings of human experience. As Ihde (1977) writes, the arts practice their own forms of epoché (ways of suspending taken-for-granted attitudes and perceptions). Indeed, if perception is understood as the foundation of knowledge, then the arts may also be understood to explore and illuminate the most basic ways we make sense of the world. However, the arts also extend into the cultural and historical worlds we inhabit. It follows, then, that the cultivation of a general phenomenological attitude through the arts may indeed support the development of the transitive-critical consciousness and social conscientization discussed by Freire (2002).

Put simply, the arts may initiate, reflect and extend phenomenological and critically-transitive insights when they transform the mundane, introduce new perspectives and thus challenge taken-for-granted ways of perceiving, knowing and being. Maxine Greene (1992) discusses how the arts have the power to “shock” us out of our complacent attitudes – to “release the imagination” so that we may engage more fully with the possibilities of our own experience and thus develop more open, reflective and empathetic relationships with other agents and cultures. Along these lines, a number of

thinkers (e.g. Smith, 1979) have suggested phenomenologically-inspired frameworks for education that begin with students' analyses of direct perception, that proceed through the development of theoretical concepts, often involving (critical) discussion and guidance from teachers, peers and other sources (e.g. readings), and that then involve the integration of new concepts with existing understandings. From this perspective new knowledge and categories are not imposed, but rather emerge through phenomenological analysis and praxis (Clifton, 1983; Ferrera, 1984, 1991).

Here it is also important to note the relevance of this last concept, praxis, which looks beyond the idea of the arts simply as 'practice' – as something one does to achieve some specific end. Rather, praxis involves the development and integration of a range of technical, theoretical, cultural and ethical understandings that are relevant to the lives of students and teachers in order to reveal music and arts education as “a socially rooted, complex, coherent and cooperative activity that grows over time into its own ethical world” (Higgins 2012, 224). Importantly, praxial pedagogical approaches take the unique lived experiences of students and teachers seriously as a central aspect of any curriculum (Elliott & Silverman, 2015; van der Schyff, 2016). This notion of praxis also resonates with a number of phenomenologically-informed perspectives on education – most notably perhaps with the idea of 'education as formation' or *Bildung*. While this concept has been developed in a number of ways (Brook, 2009; Peters, 2009; Silander et al., 2012), it essentially involves “a creative process in which a person, through his or her own actions, shapes and 'develops' himself or herself and his or her cultural environment” (Silander et al., 2012, 3). From this perspective a fundamental role of education is to create environments where students may begin to engage in this process – where students and teachers may express themselves authentically; becoming self-aware of their own development not simply as externally dictated or as the result of some fixed method (Regelski, 2002), but rather through the formation of new ways of perceiving and thinking that afford richer ways of being-in-the-world. This involves the development of caring (Noddings, 1995) and open-ended educational 'ecologies' where teachers encourage such development through the introduction of a range of relevant activities that challenge students to participate actively in their own learning processes.

Importantly, by this view, educators cannot simply 'teach by the book'. Rather they must acquire a deep first-person understanding of the perceptual and reflective processes they seek to initiate and explore with their students. In other words, they must continually develop their own practice as creative learners so that they may introduce effective projects that engage their students critically and phenomenologically. This, as I began to discuss in the introduction, is why arts-based research is so important for education. More than an academic exercise, arts inquiry projects – developed in connection with relevant critical and phenomenological frameworks – may afford new perspectives and possibilities for the educator, allowing her to more effectively introduce, develop and discuss similar projects in collaboration with students. Indeed, by developing richer understandings of the experience of learning through art-making the teacher may become more than a simple repository of facts and techniques. She may, in her own unique way, come to more deeply embody the process of learning itself, and thus, by example, encourage students to explore their own potentials and become 'master learners' themselves.

Two Multimedia Arts Inquiry Projects

With these concerns in mind, I now turn to consider the two creative multimedia projects mentioned above. For the first piece I created sound for a pre-existing silent film; for the second I created both the visual and auditory dimensions. Additionally, because I wanted to explore how similar projects might be developed in educational contexts, I decided to impose a couple of simple parameters. First, I would have to use technology that would be easily available and relevant to the lives of students. For example, while music and sound students might be encouraged to develop their skills on a more advanced, but easily available, digital audio workstation (DAW), they could start by collecting video and sound with common everyday devices such as iPods, cell phones or tablets, or by researching public domain internet sources. Second, because art and culture do not exist in a vacuum, I decided that in the process of developing each project I should attempt to ‘dialogue’ with particular art movements, artists, and/or places. In this way, I could explore first-hand how such projects might foster a more engaged, ‘phenomenological attitude’. That is, how they might help students move from “onlooker consciousness” to “participatory consciousness” (Bortoft, 1996; see also Cascone, 2014), and thus offer effective ways of exploring the relationship between sound, image, movement, culture and place through their own critical and creative engagements with the world.

Ghosts Before Breakfast



For the first project I chose to score a silent film by the German artist, Hans Richter. Richter is closely associated with the Dadaist movement that developed in Europe during World War I. And his short film, *Ghosts Before Breakfast* (1927), beautifully captures its political and aesthetic spirit. As I watched the film over and over I was struck not only by its originality, and the wit and virtuosity with which it was constructed, but also by the message of Dada itself and its relevance for the 21st century. As a highly playful but nevertheless subversive art movement, Dada strove to shock people out of a complacent attitude towards the world in which they lived. For the Dada artists, this was the same attitude that led to the humdrum drudgery, consumerism and regimentation of modern bureaucratised life, as well as the increasing use of rational (technological-scientific) means to realise and justify irrational ends (which culminated in the horrors of the War). And Indeed, an art movement such as Dada can be seen as encouraging ‘transitive-critical’ consciousness when it abstracts and aestheticises the mundane objects, activities, and institutions we live with and through, thus loosening the sedimented or natural attitudes that tend to frame non-reflective experience. Here one might consider Marcel Duchamp’s ‘readymades’ or the politically-charged collages of Hanna Hoch and John Heartfield. And likewise, in Richter’s film even inanimate material objects are possessed by a spirit that moves them to break free of their taken-for-granted functions and relationships: fire hoses dance; falling teacups reassemble themselves; firearms refuse to aim; targets refuse to be aimed at; and the dehumanizing march to war or the factory becomes a playful absurdist choreography.

With this in mind, Ihde’s (1976) phenomenology of the auditory and visual dimensions (above) may offer a useful framework for analysing the perceptual and creative processes involved in scoring a silent film like this. For example, we may note, most obviously perhaps, that although the experience of viewing the unscored film is characterised by movement there is no accompanying auditory dimension. That is, the experience seems to be characterised by those moving $\rightarrow y \rightarrow$ type entities that normally involve a synthesis of both sight and sound. Here, however, the auditory dimension is not given and must be ‘found’ (or imagined and created). Interestingly, this inverts the habitual phenomenological relationship between $\rightarrow y \rightarrow$ and $-z-$ type entities (those moving sound-making entities that are not initially present in the visual dimension, but that are often sought after). Moreover, many of the moving entities in *Ghosts Before Breakfast* are the types of inanimate objects that we normally experience as mute (x types) unless they are moved by some external force (i.e. they are not entities that move themselves). In the film, however, such objects do move, and apparently by their own volition, or by some force that remains within the horizon of invisibility (e.g. the wind, or in this case, ghosts). Again, Richter uses the technology available to him brilliantly, playing with and transforming these relationships we take for granted in day-to-day life. In doing so, he opens a world of possibilities for those of us, who, a century later, wish to accept the task of bringing an auditory dimension to his film.

For me the challenge was not simply to accompany Richter’s imagery, but to create a sonic world that would dialogue with it. Following the Dadaist aesthetic, I would have to develop a sonic pallet that introduced sounds that were both absurd and familiar, but that (like the film) always placed the familiar in an unfamiliar context. Moreover, the sound world I created would have to ‘animate’ the moving imagery – it would have to

‘make present’ the invisible forces that bring the otherwise ‘mute objects’ to life. Additionally, I also wanted to give the flavour of what I imagined to be a mix of sounds and music that resonated with the historical context of the film, but that were also integrated with sounds closer to today. For inspiration I turned to the work of early *Musique Concrète* and electronic music pioneers like Pierre Schaeffer (2014), Pierre Henry and Edgar Varèse, as well as recorded performances on early electronic instruments (e.g. the Theremin). I also refreshed my understanding of the historical context of both Dada and early experimental music through various readings (Ades, 2006; Dack, 2013; Holmes, 1985; Manning, 1985; Richter, 1997; Wallace, 2011).

Collecting and organising the sonic material I was going to use was both challenging and revealing. I spent a few days simply searching for sounds by experimenting with the parameters of various software synths, collecting anything that caught my ear in my large library of sound effects and by recording an array of ‘found’ sounds (I kept a portable recording device with me much of the time as I didn’t want to miss anything). This last process was perhaps the most informative. As I experimented with the relationship between these sounds and the moving images of the film I discovered that many of the environmental sounds that I had previously taken-for-granted, ignored, or found annoying, could be appreciated in new ways: a truck idling outside; a phone ringing; a creaky door closing; a jet flying overhead. As a number of field or ‘soundscape’ recordists have noted, even the simple act of capturing audio can afford valuable new perspectives (Cascone, 2014; Cox, 2015; Lane & Carlyle, 2013). And indeed, it was just this heightened sense of possibility that I needed if I was to join Richter in the process of transforming the mundane into the novel. In the end, I developed a mix of sound effects (e.g. race car engines, fax machines); recorded sounds from my day-to-day environment (bicycle wheels, traffic and household sounds, radio noises); synthesised models that echoed electronic instruments developed in the first half of the 20th century; as well as a solo recording of the great early jazz drummer, Laurence ‘Baby’ Dodds (1946).

The process of scoring Richter’s film afforded me the opportunity to push my skills with the audio software (Logic) and to explore new creative possibilities for recording techniques (e.g. extreme close miking) and mixing-editing (juxtaposing seemingly unrelated sounds in order to develop new ones or to discover previously unconsidered relationships). It also allowed me to play with expected causal relations between the visual and auditory dimensions by associating images and sounds that do not normally belong together. With this in mind, Schaeffer’s (1966) phenomenological listening techniques – which were set in motion through his interactions with emerging mid-20th century audio recording technologies – may offer many useful insights. Schaeffer offers numerous ways of attending to and analysing sounds (or ‘sonic objects’) that have been abstracted from their sources and contexts (i.e. acousmatic listening). Along these lines, readers may also wish to consider Michel Chion’s (1994) modes of (cinematic) listening. Extending many of Schaeffer’s insights, Chion draws out a number of interesting reflections on the experience of causality in the auditory dimension, with a focus on developing the ‘active’ forms of perception associated with what he calls ‘reduced listening’ (see also Chion, 1983; Smalley, 1986, 1997). Put simply, Chion argues for the phenomenological importance of reduced acousmatic listening when it

allows us to bracket assumptions about visual causes and attend more closely to the sounds themselves, thereby revealing sonic traits that might normally remain hidden.

Developing similar projects in pedagogical contexts might, among other things, offer ways to explore the idea of sound recording as a creative process – that is, to look beyond recording simply as a replicating or ‘repeating’ function and explore it as a ‘compositional’ process (Attali, 2014); as a way of developing an “imaginative perception” (Cascone, 2014; Droumeva, 2015). Indeed, such projects may foster new understandings and possibilities for sound and meaning-making, especially in terms of attending to and transforming taken-for-granted perceptions. This could involve developing old methods and assumptions in new ways, as well as the recycling of older documents and technologies in new contexts (e.g. through sampling, looping etc.; Sterne, 2003). Equally importantly, the process of researching and creatively ‘dialoguing’ with artists and their works, as well as with aesthetic-political movements and relevant historical factors might accomplish a number of more general pedagogical goals that resonate with the phenomenological and critical concerns discussed above. These include: i) breaking down dualist assumptions by explicitly enmeshing the student-artist in the research as an active participant, as opposed to a detached onlooker; ii) decentring language and text as the primary tools of learning and meaning-making; and iii) highlighting the meaning of art-making as a way of attending to the world in new ways, where radical shifts in aesthetic perceptions, and critical engagements with historical movements, may lead to important inquiries into self, culture and society (Benson, 2001; Johnson, 2007; van der Schyff, 2015).

Berlin HBF



The footage (audio and video) for Berlin HBF was collected with an iPod during a two-hour stop over at an enormous multi-level train station in Berlin. At the time I captured

the video I was very interested in early 20th century film and photography (e.g. the Russian Constructivists, German Expressionists, and the American, Paul Strand). In the spirit of what we now refer to as ‘modernism’, the artists of this period used the camera to develop new ways of experiencing the world. Their imagery often explores everyday themes viewed from unusual vantage points and in unusual contexts: extreme angles and close ups; slow, stop and reverse motion; animation; juxtaposition of images; over exposure; negative images; montage or ‘jump cuts’ (see Wallace, 2011). The Berlin station provides an excellent place to gather such footage. It is constructed in such a way that one can gain simultaneous views of its various levels; its glass and metal floors and barriers make for a wonderful play of reflection, shadow and perspective. As per the self-imposed parameters mention above, I edited and manipulated the video footage using only the tools available to me through iMovie.

Not surprisingly perhaps, this location also offers an outstanding acoustic environment – where the local ‘soundscape’ (Schafer, 1994) and the ‘aural architecture’ (Blessner & Salter, 2007) it plays out in are highlighted by the heightened forms of phenomenological awareness associated with sound and video collection. In this space the interplay of ‘noise’ and the meaningful (iconic, indexical, and symbolic) audio signals provides a fascinating play of sound and image: words, music, and other sonic markers presented through loud speakers; the movements and voices of people waiting, going here and there; the arrival and departure of trains; as well as the continuous reflection, reverberation and mixing of such sounds throughout the station.

I decided to develop a rather minimalist sound score to accompany the imagery – one that would not force specific emotional responses. Instead, I hoped to keep the feeling of the work ‘open’ so that the audience might be invited into it – to look, listen and develop their own relationships rather than be shown. In the end, I used the sounds of the station environment itself mixed with electronic manipulations that play with the various hums, rumbles, rhythms and ringings of the trains themselves. To conclude I added an ‘epilogue’ view from the train inspired by the bold colours and shapes of expressionism – one that moves increasingly towards total abstraction in the visual modality; and where the auditory field finally takes over and approaches something more like ‘music’.

Similar ‘environmentally-based’ projects might provide an excellent opportunity for students to reflect on the urban spaces they live through – which, like the Berlin train station itself, may be understood as multi-layered, relational and constantly transforming thanks to the various ways people inhabit them (Hosokawa, 1984). And here again, Ihde’s reflections on sound, vision and space are illuminating. As with the experience of the cathedral discussed above, the train station may also be explored in terms of the unique way its architecture interacts with the entities that move within and through it – the sources of sounds may be searched for, but not always found; movement, objects and space may be attended to and juxtaposed in a range of ways. The process of developing such projects with students could thus inspire more pluralistic, phenomenological (Ihde, 1974; Macedo, 2013) or ‘enactive’ perspectives (van der Schyff, 2015; Varela et al., 1993) on what the experience of sonic environments entails, as well as a deeper recognition of sound as a primordial backdrop to social existence.

This all resonates with R.M. Schafer's (1994, 1986) original vision for 'soundscape studies' as an interdisciplinary field with strong pedagogical (and phenomenological) aspirations in applied contexts. And indeed, Schafer's broad historical, architectural, geographical, and cultural surveys of the human and natural soundscapes, as well as his phenomenological exercises for 'clairaudience' or 'ear cleaning', continue to hold great relevance for education. Today, however, artists, students and teachers have access to unprecedented creative opportunities afforded by technology – most notably the ability to collect relatively high-quality video and audio from user-friendly devices that fit in the palm of their hands. 'iPod culture' (Bull, 2008) has rapidly developed into a distinctly multi-media and multi-modal phenomenon. In brief, we may now easily bring images and sounds of the city home with us, and through creative projects such as I have discussed, transform how our environments are perceived (see also Droumeva, 2015). With this in mind, a project like Berlin HBF could be developed further by feeding the video and sound material back into the original environment as a multi-media installation, perhaps spread across multiple screens, projections and audio outputs.

Conclusion

The process of scoring *Ghosts Before Breakfast* involved a direct encounter with a specific work (Richter's film) and a cultural movement (Dada). By contrast, Berlin HBF developed image and sound through the lens of a more general aesthetic sensibility (modernist film) in an environmental context. In different ways, however, both initiated an investigation into the space where lived experience – the sounds, places and perceptions of everyday life – meets culture, history and 'the aesthetic'. In pedagogical contexts, similar projects could integrate a wide range of concerns that are traditionally approached separately if at all in contemporary education. As I have suggested, this may afford teachers and students a means of developing knowledge of various historical figures, works and cultural movements, and living environments in ways that do not divorce such inquiries from creative practice. Indeed, exploring these themes in the context of lived experience highlights their relevance for the life of the artist-student, potentially encouraging a more critical, transformative and culturally literate understanding of what art making entails. Along these lines, this praxis-based approach might also aid students and educators in developing useful theoretical-aesthetic understandings that might otherwise remain obscure when their relevance is not immediately apparent for the creative life of the student. In other words, this approach could help educators introduce complex critical and phenomenological concepts through practice, thereby allowing them to be grasped more efficiently and comprehensively – i.e. from a range of lived intellectual, embodied, emotional, social and aesthetic vantage points.

Lastly, such projects may offer a way for students to develop technique in media production within the living context of art making and to explore the techniques and challenges facing artists who work in other disciplines. This could foster a broader and more inclusive appreciation of the creative process, as well as a more open-ended and collaborative aesthetic sensibility. Indeed, the next step for the approach I have outlined here will involve documenting how such projects might be developed by

phenomenologically and critically engaged students; and what new understandings are revealed in the process. Along these lines, it would be very interesting to explore similar projects in the context of theatre, music and dance, interdisciplinary improvisation and ecological and environmental studies (e.g. bio-acoustics; see Krause, 2013), or to attempt larger scale multi-person collaborative works that bring together students, artists and researchers across a range of disciplines, including, for example, architecture and the sciences. This would also add an important social aspect to such creative research projects – one that is lacking in the more or less solitary processes involved in developing the works discussed above. In brief, such projects could form an important part of the collaborative, interdisciplinary and creative pedagogical environments associated with the idea of education as ‘formation’ (Bildung) discussed in this paper (Macedo, 2013).

Of course, many more possibilities remain to be explored. Nevertheless, I hope that the processes and ideas I have explored here might contribute to richer accounts of how sound and media studies may be developed in creative, critically reflective, praxis-based pedagogical contexts; that they will be useful to artist-teachers who wish to introduce multi-media projects into their educational practice; and that they might inspire emerging creative ‘sound students’ (Sterne, 2012) who are just beginning to develop and share their sonic imaginations.

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Bio

Dylan van der Schyff is a performing musician, music teacher, and a researcher in philosophy of music and music education. As a performer he has contributed to over 100 recordings, spanning the fields of jazz, free improvisation, experimental, electronic and 'new music'. He has also participated in numerous collaborative projects involving theatre dance and film. Dylan's academic work engages a range of interdisciplinary knowledge and research to explore questions related to how and why music and the arts are meaningful for human beings. His publications appear or are forthcoming in journals such as *Phenomenology and Practice*, *Frontiers in Psychology*, *Psychomusicology*, *Action, Criticism and Theory for Music Education*, and *Phenomenology and the Cognitive Sciences*. Dylan's current PhD research in the Faculty of Education at Simon Fraser University is funded by the Social Sciences and Humanities Research Council of Canada.