



PERFORMANCE
PHILOSOPHY

EXPLORING SONIC WORLDS: THE SIGNIFICANCE OF INSTRUMENTALITY

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Introduction

Growing numbers of performers, composers, and theorists working in contemporary music today frequently explore practices that blend standardised musical tools and methods (such as instrumentation, notation, and concert presentation formats) with contemporary technologies and approaches drawn from both musical and non-musical disciplines. These explorations have resulted in analysis and writing seeking to describe and understand contemporary music practices and their role in the evolution of Western art music. Particular focus has been placed on the way musicians engage a wide range of materials for both sonic and non-sonic purposes in their work, and to further probe questions surrounding the instrumentality of these materials. Regarding 'non-sonic' materials in a musical context, the most common are gesture, lighting, gaming technology, stage sets or space, and other techniques that draw from various performance-based artforms. The roots of these practices and their accompanying discussions relate to twentieth-century musical concepts such as John Cage's 'all-sound music' (Cage 1973), the sub-discipline of instrumental theatre exemplified by Mauricio Kagel's work and others, or the happenings staged by Fluxus artists in the 1960s, all of which employed a vast range of instruments, objects and materials drawn from music and everyday life.

While the question of what can be used as an instrument has long been considered fertile ground for creative musical practice, a wide range of artists have built upon these historic examples to embed interdisciplinarity and intermediality more deeply in new work. Recent explorations in this area have further developed the use of the 'non-sonic' towards a 'more-than-sonic' approach to instrumental materials: How can materials be used both for sounding and seeing in musical performance? How does a more-than-sonic approach to instrumental materials and performance techniques influence audience engagement with the subject matter? How can we harness the power of 'things' through sound to help us understand our place in the world (Bennett 2011)? In what way is aesthetic experience paradigmatic of everyday perceptual experience (Noë 2015)? And how do artworks possess a claim to truth that shapes our understanding of the world (Heidegger 2013; Vattimo 2010)? Perhaps a result of these questions, instrumental materials are increasingly being used to fulfil multiple roles in a performance context. For example, materials might function as both instrument and set design simultaneously, such as in Speak Percussion's *Polar Force* (2018) and Chamber Made's *SYSTEM_ERROR* (2021). *Polar Force* is an investigation of sound, wind and light inspired by the Antarctic landscape and set in a white domed structure reminiscent of a laboratory. In the centre of this performance laboratory is a row of apparatus that appear at first to be scientific research equipment but are revealed by a pair of percussionists to be the musical instruments. *SYSTEM_ERROR* is a theatrical work exploring the relationship between human and technological systems. It is set in a sparsely filled space, dominated by a projection screen at the rear of the stage and electrical tape on the floor. As the work unfolds, it becomes clear that the tape on the floor is not only part of the set but is also a musical instrument. The electrical tape is conductive, functioning as a live circuit that the performers dance upon to activate electronic sound and an accompanying lighting design. In these works, the materials form an instrumental infrastructure within and of the work. In other work that can be described as instrumental sculpture, materials function as both instrument and sculpture, such as in Simon Løeffler's *e* (2015), where a percussion trio performs on a structure of fluorescent lighting tubes. This move towards the more-than-sonic in the form of instrumental infrastructure and instrumental sculpture are representative of practices that build upon a long history of instrumental development in Western art music using an interconnected meshwork of tools, technologies, and methods. Although much of the literature on these practices looks through the lens of individual compositional practice or explores a particular sub-discipline of contemporary practice (see 'music in the expanded field' (Ciciliani 2017), 'the new discipline' (Walshe 2016), 'non-cochlear music' (Kim-Cohen 2009), for example), the key characteristics of these practices are not restricted to a single 'type' of creator (e.g., composer, performer, improviser), nor are they restricted to a particular instrument, style, or genre. Rather, approaches to creative practice inform all aspects and stages in the creation of new work in a range of contexts, are highly collaborative, and, crucially, rely on technique transferral to facilitate the blurring of boundaries between artforms, materials and their role or contribution to performance work, which we will refer to as post-instrumental practice (Stene 2014; Devenish 2021). Importantly, these practices do not reject traditional or established modes of music making but build upon and extend them using twenty-first-century tools and methods to speak to a contemporary context.

While there is much to be discussed with respect to these practices and processes, in this paper we are concerned with what may be described as the ‘revealing’ character that post-instrumental practice facilitates. The blending of perceptual engagement facilitated by post-instrumental practice results in a mode of aesthetic experience that offers a unique engagement with the world. Post-instrumental ‘musical’ practice extends beyond the sonic and draws audiences into an engagement with the auditory and the visual concurrently and therefore has an overall outcome where emphasis is placed on cognitive aesthetic contemplation—audience members are drawn to consider the relationship between the instruments being played and the subsequent sounds, for instance. Specifically, we are interested in how works informed by this approach can lead to new ways of engagement with real-world concepts and materials. This way of thinking echoes the thought of German philosopher, Martin Heidegger, particularly his idea of ‘revealing’ or ‘unconcealment’ (*aletheia*), which refers to the fundamental ground of truth (Heidegger 2013). While Heidegger does not discount the commonplace view of truth as ‘correctness’ (Malpas 2014), he argues that the foundation of truth is ‘unconcealment’, where aesthetic experience is an exemplar. For Heidegger, truth is not merely that which is verifiable but is that which is illuminated or ‘revealed’ through our engagement with the world. The truth of a painting, for instance, is not only its verifiable characteristics such as the period in which it was painted, the artist who painted it, the material on which it was painted, and the painting’s form, content, and molecular structure. The truth of the painting also relates to the way in which it reveals a certain character of the world to the person experiencing the artwork; perhaps a landscape painting draws attention to a certain character of the painted landscape that the spectator had never considered or noticed before. Thus, the artwork has ‘revealed’ truth about the world to the individual who has experienced it. The truth an artwork reveals is tied to the dialecticity between artwork and audience. That is, precisely *what* an artwork reveals will be particular to the relationship between artwork and person because what is revealed must be something *new*—something that the person was not previously aware of. That is not to suggest, however, that truth is merely subjective or relational. The audience member is not free to project whatever meaning they please upon the artwork. What is revealed must be given by and relate to the material objectivity of the artwork. The relationship is hermeneutical—there is a to-and-fro or back and forth between subject and object, artwork and audience.

Traditionally, musical works tend to reveal something of the sonic character of the world. For example, we might consider the way in which *musique concrète* artists ‘reveal’ a certain musicality in what may otherwise be considered banal or everyday sound. Luc Ferrari’s *Presque Rien No. 1* (1970), for instance, began with field recordings of a small fishing village, where Ferrari would leave a microphone recording on his windowsill from 4am–6am every morning. Ferrari begins with banal, utterly familiar sounds and then through his compositional process creates an intriguing soundscape that amplifies and draws out certain characteristics of the fishing village that may otherwise pass us by. To the extent that artworks reveal or disclose a character of the world previously ‘hidden’, they possess a claim to truth—they reveal truth about the world in which we find ourselves. Post-instrumental works such as *Polar Force*, mentioned above, by wedding the musical with the visual, reveal the world in ways that conventional music does not. For example, while one may listen to Ferrari’s *Presque Rien No. 1* with their eyes closed and still have the ‘full’

experience of the revealing character of the work, much would be concealed if one were to prioritise either the auditory or the visual character of *Polar Force* at the expense of the other. It is the way in which *Alluvial Gold*, the case study that will be discussed in depth below, reveals the world through the interrelation of music, sculpture, visuals, and story, which further relates to notions of instrumentality, technique transferral, and multi-functionality, that is of particular interest.

The aim of this paper is to outline the way in which post-instrumental practices in new music, by virtue of their focus on engaging with a range of tools or instrumental materials in performance, (re)structure or alter the listener's engagement with the world. All works of art, especially from a hermeneutic philosophical perspective, where aesthetic engagement involves a conversational to-and-fro between interpreter and artwork (Gadamer 2013), reveal the world to those who experience them in some way. Music, for instance, thematizes sound and makes us appreciate sound and the sonorous character of the world in a way that 'everyday' experiences of sound do not. Musical practices that employ instrumental materials that are diverse in form, material, and function, however, have the capacity to extend our engagement with the world beyond what can be achieved within traditional Western art music practices that use standardised instrumentation in conventional ways. While there are various ways in which this may occur, here we investigate the way in which these practices can reveal a certain 'musicality' of the world that is always there but is commonly overlooked or concealed. Post-instrumental practice, it is argued, draws attention to the sonic stories and possibilities of 'things' that are not typically thought to possess an innate instrumentality, not only through simply including these materials within an instrumental set up (as a percussionist might include a stone or piece of metal within a multi-percussion setup of objects), or in how they are sounded by the performer, but in how they are presented or used in multiple ways across the sonic and the visual.

By experiencing musical works that employ unconventional instrumental materials that are used to fulfil plural sonic and non-sonic roles in performance, a certain character—a certain truth or possibility—of the world beyond the instrumental material alone may be revealed to the audience. Thus, these works can facilitate a broader conceptual engagement with environmental or social concerns, for instance (as will be discussed below). That is, by revealing musical characteristics or possibilities of otherwise non-musical things, audience members may, in the ideal, be drawn to consider those things/instruments as not merely commodities to be used and consumed but as things that possess a wealth of possibilities and beauty.

In what follows, this notion of revealing will be discussed using *Alluvial Gold* (Devenish, James, and Coates 2022) as a case study. The choice of a work by one of the present authors is a conscious choice, as this facilitates insight into the artistic research framework of the post-instrumental process, as well as analysis of the completed work. An analysis and discussion of the completed work alone would not yield a complete picture of the 'revealing' character of the work. This paper will proceed as follows: first, our case study, *Alluvial Gold*, is described as is common in artistic research methodologies, with a focus on both the aims of the work and the instrumentation employed. As well as audio examples and figures, brief excerpts of creative text written in *italics*

introduce each section and are included to further illustrate the nature of the work and situate the reader. Second, we discuss the relationship between the performer and instrument(s). We offer a distinction between merely drawing attention to sound in what might be considered a 'blunt' or 'scientific' sense and drawing attention to sound in a 'poetic' or 'musical' sense. Third, we consider the relationship between the work performed and the audience, with a particular consideration of what the work 'reveals'. Following this exploration of the way in which *Alluvial Gold* reveals a certain character of the world to the audience, we conclude by arguing that post-instrumental practices can offer a particularly remarkable way to encounter the world anew.

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Drifting just above the riverbed, close to the crushed shells, the rocks, the matter upon them. Sediment made beautiful by filtered light rippled with shadows, green then gold. The slowly drifting vision is paired with slowly drifting sound, floating through the space. Singing bowls produce complex, ringing pitches, their beating interactions with ceramic bowls blurred by sine tones emitted from the surrounding speakers. Vibraphone tones pulse gently as the slowly rotating fans beneath them breathe air into the sound world as the vision moves to shallower water. Here the light is clearer, grains of sand and sediment articulated by the light. The sand obscures everything, the individual presence of each grain heard in the grain of a bow quietly sounding a single low vibraphone tone. Kelp and anemones drift into focus, as single pitches, then clustered chords of ceramic and metallic materials are gently added to the sound world. Immersed in floating sound, our sense of direction, our sense of perception floats to match sound with source.

* * *

Alluvial Gold: Background

Alluvial Gold (2022) is a 50-minute performance-installation work for percussion, sculptural instruments, field recordings, electronics, and video projection by percussionist Louise Devenish, composer Stuart James, and visual artist Erin Coates. *Alluvial Gold* draws audiences into the often forgotten and changing worlds below river surfaces, taking the histories, human practices, and ecological matter within and around metropolitan rivers in Australia as a point of departure. The project started with the Swan River in Perth, Western Australia, known as Derbarl Yerrigan in Whadjuk Noongar language. During the Swan River Settlement establishment in Western Australia in the mid-1800s and continuing until the 1910s, native shellfish reefs in the Derbarl Yerrigan were heavily dredged and ground up for mortar, roads, and building materials at sites across the city, likely including Heathcote Goolugatup, the arts precinct where *Alluvial Gold* was developed. The heart of Perth city, many surrounding suburbs, and roads are built upon and around Derbarl Yerrigan, and much of the population comes into regular sight or contact with some part of the river. However, what lies beneath the surface is rarely highlighted. Similar histories of dredging and other human interventions can be found in river systems across southern Australia,

particularly in areas used as colonial ports or trading routes, heavily impacting and changing estuarine ecology in these river systems.

The artistic team took a post-instrumental approach to the creation of this work and had three main aims:

1. Create an interdisciplinary work using percussion performance, electroacoustic composition, sculpture, instrumental objects, field recordings, film, video projection, and drawing.
2. Develop the work using a distributed, non-discipline-dominant order of creation: a collaboration where all artists have input into each component of the work at all stages of development regardless of discipline.
3. Produce a modular suite of work, with various components to exist in multiple formats and therefore able to be experienced as a piece of visual art in exhibition, as instrument in performance, or both simultaneously.

The resulting work explores the confluence of multiple narratives connected to rivers, from the continuing impacts of industrialisation since European colonisation, the sonic ecology and chemistry of larger river systems, and the sonic properties of river systems and water. *Alluvial Gold* has since been presented both as an exhibition and as performance season, including presentation of all components, and presentation of individual combinations of components.¹ The pluralities of presentation modes and combinations offers different formats for audiences to engage with the river and parts of its history, illuminated in different ways.

Below, we will explore some of the ways in which *Alluvial Gold* might be said to 'reveal' certain characteristics of the world enhanced by its 'post-instrumental' nature. While all artworks *are artworks* precisely because they possess this 'revealing' character, we are particularly interested in exploring how those elements that make the work 'post-instrumental' reveal the world in ways that may not otherwise be possible via other musical practices. Thus, we focus on the composer's/player's use of a range of instrumental materials, the interweaving of visual and sonic elements, and the 'story' of dredging that sits at the centre of the work. We argue that *Alluvial Gold* 'reveals' truths about the river, and thus the world, that are typically right in front of us but are otherwise obscured or overlooked.

Instrumental materials

Alluvial Gold uses standardised percussion instruments (metal), human-made objects not originally designed for musical use (metal, ceramic, glass), natural materials (shell, seedpods, water), sculptural instruments modelled on dolphin bones, native oyster shells, and estuarine ecology (metal, porcelain, shell). The sculptural instruments, conceptualised by Coates, point to ecological stories under the river surface. Circular, electronically sonified curtains of massed oyster shells reminds us of the now-extinct native oysters that were a casualty to dredging activities, and a set


of dolphin bones cast in bronze and porcelain from a skeleton held by the WA Maritime Museum shows evidence of the bone damage resulting from the introduction of heavy metal pollutants into the river by human industry. The sculptural bronze bones were poured using wax moulds, and the black porcelain using slip cast moulds. In the porcelain bones, the damaged areas were highlighted using gold leaf. These instruments are coupled with field recordings of water and air sounds within and around the river, and further developed using live electronic processing.² The total setup is organised around two multi-percussion 'stations', each comprising numerous instruments that could be engaged simultaneously. The first station can be understood as an 'expanded vibraphone', the second as an 'expanded bass drum'. The main components of the expanded vibraphone were a specific pitch set of crotales, sculptures, ceramic bowls, and metal bowls, selected to diversify the range, timbre or tuning of the vibraphone's standard sound world, while also considering the practicalities of each expanded setup. Throughout the work, instrumental materials at each station, as listed in Table 1, are played individually and also used as extensions of one another in various combinations. For example, the bronze dolphin bones (shown below in Figure 3) produce light, sparkling clusters of harmonics when struck and spun, and are highlighted as a solo instrument in the central improvisational interlude, whereas in movement four they are used as an extension of the vibraphone's range and timbre.

The other station was the expanded bass drum. Although the bass drum was the central instrument, its role was primarily as a resonator or vibrational surface. Shown below in Figure 1, this station comprised a 36-inch concert bass drum, laid horizontally and prepared throughout the work with oyster shells.³ At times, a speaker monitor placed beneath the bass drum transmitted low frequency fixed media (including sine tones and samples of dredging machinery in action), to activate the skin of the bass drum by sympathetic resonance. At other times in the work, the skin of the bass drum was activated simply by friction, dragging a superball mallet. In *Alluvial Gold*, the bass drum was not a percussion instrument to be struck, but a resonator for recorded sound, and a vibrational surface upon which loose oyster shells were placed. This allowed an additional textural, clustered sound to be drawn from the oyster shells, which were free to tremor and crash against each other without being muted by a performer's hands or mallets. Although this approach to the bass drum for abstract sonic explorations has appeared in the work of percussionists such as Lê Quan Ninh, among others (see for example, Zach 2020; Schack-Arnott 2019), in *Alluvial Gold* this practice is used for both abstract and representational reasons. The visible disruption of the shells resting on the bass drum skin and instrumental chaos caused by vibrations from recordings of dredging machinery, made visible in performance, is suggestive of the disruption and chaos caused by dredging oyster shell reefs otherwise concealed under water.



Figure 1: The bass drum station in the Alluvial Gold setup. Photo credit: Nik Babic.

From these acoustic materials, electronics were then developed with the aim to further extend the instrumental range or capabilities of each station, and to blur the sonic space between them using both live and fixed electronics to create a tapestry of sonic material. Layers of notated and improvised material are performed before they are captured and processed live to create a mysterious world of floating sounds that spin off one another through the performance space. For example, in the fourth movement heard in listening example 1, the combination of vibraphone with motorised fans on a very slow setting, with ceramic bowls and bronze bones tuned just a few cents higher than the vibraphone, and layers of electronics comprising sliding and sinking sine tones, produces a textural wash of sound. The placement of a quadraphonic speaker array around the audience (and in front of the percussion setup) blends the material, making it difficult for the listener to perceive how and from where various sonic effects are being produced.

 Listen to audio recording of excerpt of the fourth movement, titled *Alluvial Fans and Meanders*.
<https://soundcloud.com/performancephilosophy/alluvial-gold-excerpt1>

Instrument	Implement	Activation method
Water	Oyster shells	Swirled with lip of oyster shells Small, single drops poured from cup of oyster shell
Oyster shells	Bass drum skin	Skin set vibrating by speaker set underneath Skin set vibrating by rolling with yarn mallets, or rubbing superball
	Hands	Pile of shells slowly rustled in bowl Rustled in chime array
	Sensors	Samples activated by sensors (light responsive)
Bass drum	Oyster shells	Placed as single shells Dropped from a low height in small handfuls Poured from a bowl held 30cm above skin in cascades
	Mallets: Yarn mallet Superball Shoebrush	Struck Rubbed across surface of skin Dragged across surface of skin
	Hands	Fingertips
	Microphone feedback, electronic sound	Activated by vibrations from the loudspeakers
Crotales	Bow Hard plastic mallet Water Children's finger cymbal	Bowed Struck Dipped into water to bend pitch Struck lightly, off-centre
Dolphin bones (bronze, porcelain)	Small hard plastic mallet	Struck
Vibraphone	Soft rubber mallet Medium yarn mallet Hard yarn mallet Light timbale sticks Custom thread+wood mallets with rubber sleeve Bow Children's finger cymbal	Struck Struck Struck Struck Struck Bowed, and manipulated using porcelain resonator Struck lightly in centre of bar
Cymbal	Medium yarn mallet Bow	Struck Bowed
Ceramic bowls and temple bowls	Hard yarn mallet Custom thread+wood mallets with rubber sleeve	Struck Struck
Capiz shell chimes, oyster shell chimes, seed pod chimes	Hands	Rustled

Table 1. Instruments, implements and activation methods used in Alluvial Gold (2021).



Figure 2: The expanded vibraphone station within the Alluvial Gold setup.



Figure 3: Close-up of the bronze and porcelain dolphin bones in Alluvial Gold, created from moulds of a dolphin skeleton housed in the WA Maritime Museum, and hung using gold chain. Bronze and porcelain were selected for both aesthetic and sonic possibilities, and the hanging points were determined by calculating the nodal points of each bone for maximum resonance. Photo supplied: Erin Coates.

The two instrumental stations—expanded vibraphone and expanded bass drum—were nestled against a 3-x5-metre sonified oyster shell curtain and fabric panels in the pre-premiere of the combined installation-performance outcome of the project. Shown below in Figure 4, the original oyster shell curtain is fitted with sensors used to trigger audio samples of the percussive instruments and hydrophone river recordings. This was later adapted into a series of circular curtains and integrated into a set design, shown in Figure 5. The setup is immersed in video projection of underwater footage of the riverbed and surface, as well as air bubbles, shell, crustaceans, algae, moss, and plants. The performance space is saturated in both the sonic and the visual, and it is this combination that allows us to encounter certain aspects of the river in a new way. As mentioned above, the audience is surrounded by a quadraphonic speaker array, placed at a distance from the instrumental setup that plays with perception. The placement of the speakers conceals the source of the live electronic sound, further hidden by the blend of pre-recorded, fixed audio material with live processing and amplification from the speakers, and the acoustic sound reverberating in the performance space. This leads audiences to question which sounds are acoustic, which sounds are electronic, and which sounds are a composite of acoustic and electronic sound, and which are natural interactions of sound and space.



*Figure 4: The original oyster shell curtain from Alluvial Gold, hung at Heathcote Goolugatup, Perth.
Photo supplied: Erin Coates.*



Figure 5: The largest of the circular oyster shell curtains in Alluvial Gold, hung at Perth Institute of Contemporary Arts. Photo credit: Edify Media.

Having provided an overview of the aims and design of *Alluvial Gold* from the perspective of the creators, the next section will discuss how the use of diverse instrumental materials facilitates a unique cognitive engagement with the world for the audience. We will focus primarily on the interweaving of story (the dredging of Derbarl Yerrigan), instrumentation (the use of oyster shells and custom designed instruments such as the ceramic dolphin bones), and visual theatricality (the way in which the audience sees and can recognise that sounds are being created by specific instrumentation). By exploring the way in which these three elements are irreducibly entwined, we offer an analysis of the way in which *Alluvial Gold* engenders a unique perceptual aesthetic experience as a result of the post-instrumental approach taken by the creators.



Listen to excerpt from the third movement, titled *The Cascades*.

<https://soundcloud.com/performancephilosophy/alluvial-gold-excerpt2>

Short, intermittent bursts of bubbles prick a soundscape of muffled underwater rippling noise, recorded beneath the surface of the Derbarl Yerrigan. Light attacks (striking vibraphone pitches almost inaudibly) occur in unison with the bubble soundscape, creating an illusion of cause and effect. Which sounds are metallic, which are air and water? The bubbles reach the surface of the river as the surface comes into view, unrecognisable at first, reflecting the sky, reflecting light from the sun. The muffled underwater soundscape grows into a roaring, rush of watery sound of the river cascades. Individual bubbles are lost in the rush of sound.

Instrumentality as a mode of engagement with the world

As already mentioned, a key characteristic of post-instrumental practice is the exploration of instrumentality. Rather than attempt to define precisely what is and is not an instrument, instrumentality refers to the way in which any ‘thing’ can be appropriated into a musical context such that the ‘thing’s’ musicality is drawn out in performance. Explorations of instrumentality are a key feature of post-instrumental practices, aiding in the expansion of the already vast array of everyday objects or natural materials employed in a musical context. This often involves exploring not only the sonic identity of materials but also their instrumentality in a non-sonic sense (for example, their visual or reflective qualities). Instrumentality has a much broader implications than the term ‘instrument’, where what classifies something as an ‘instrument’ has more to do with culture and tradition than anything else. As Hardjowirogo (2017) points out, in Western culture a radio is not commonly considered to be an ‘instrument’, despite the fact that it is more or less exclusively used as a device to produce sound. In the hands of John Cage, however, particularly, his *Imaginary Landscape No. 4* (1951), the radio is used precisely as an instrument. Culturally at least, Cage’s work has done little to alter most people’s understanding of radios—they are still unlikely to be referred to as an ‘instrument’ in the same way that a piano would be. While many people would likely resist labelling a radio an ‘instrument’, few would argue that radios do not at least possess the *potential* to be used as instruments in particular contexts. And so, anything from which sound can be extracted, by whatever means, possesses musical potential, and therefore has a musical identity. It is precisely a thing’s ‘instrumentality’ that makes it an instrument within certain cultural contexts. Issues of defining precisely what a musical instrument is aside, the idea of ‘instrumentality’ is apt to describing what is at issue in post-instrumental practice.

The idea of appropriation is central to post-instrumental practice insofar as things that are not typically regarded as musical instruments are appropriated into a musical context. Everyday household items such as ping pong balls, hair combs, vibrators, and knives, for instance, are frequently appropriated for musical use. Performers rely on technique transferral to play a range of ‘things’ that may, over the career of the performer, be a ‘one-off’ instrument. It is quickly becoming standard that contemporary music performers must be able to transfer their technique from one instrument to another. While technique transferral is a key skill for performers of all instrumental families in various ways (strings, woodwinds, brass, percussion, etc.), it is perhaps most clearly recognised and understood in terms of percussion where, in simple terms, the percussionist transfers their knowledge of how to strike traditional instruments such as timpani and cymbals to other things such as everyday urban objects, natural materials, and instrumental materials made especially for a particular work, such as the casts of dolphin bones used in *Alluvial Gold*.

While the idea of instrumentality has been effectively used to address the way in which performers play a range of instruments (Hardjowirogo 2017; Stene 2014; Bittencourt 2019), the idea of instrumentality also refers to a mode of engaging with the world that is typically unacknowledged

in the music literature. What the idea of instrumentality brings to the fore is not only the way in which performers make music from non-traditional instruments but the way in which things in the world possess a certain musical potential, and the way in which drawing attention to the musicality of things can alter a person's relationship with the world, however slight. A consideration of instrumentality leads us beyond an exclusively musical context toward a consideration of how post-instrumental practice unveils and thematises a certain musical character of things that typically passes us by in everyday experience.

The blending of visual and auditory elements that is common in post-instrumental practice is significant for the revealing character of *Alluvial Gold*. As noted, from an exclusively auditory perspective demonstrated in Listening Examples 1 and 2 above, it is not always clear what instrument is generating what sound. Indeed, heard only as a recording, it is unlikely that audience members would be able to identify oyster shells, for instance, as the generator of sounds. A result of the visual component of the work however, audience members can complement their auditory experience with visual information. In some respects, the way in which a post-instrumental approach facilitates blending of sonic and visual elements or a certain theatricality may be seen to stand in stark opposition to Pierre Schaeffer's acousmatic listening (2017, 64–72), where he is concerned only with the materiality of the sound itself, separate from the instrument that generated that sound. Post-instrumental practice, in contrast, often celebrates the relationship between sounds and the objects that generate those sounds. Indeed, an important aspect of *Alluvial Gold* is that the audience notices the way in which casts of dolphin bones and oyster shells are being used to generate sound.

Since these 'things' are not commonplace instruments, the performer's engagement with these instruments is particularly intriguing. The player's engagement with sculptural instruments that clearly and visibly reference an aspect of the river and our impact upon it—and the fact that audience members can discern that the player is engaging with those instruments—heightens the cognitive dimension of aesthetic experience. That is, the work is not merely sonic, nor is it merely visual or the wedding of sonic and visual art components. Rather, the work is thought provoking and elicits contemplation. Of course, all aesthetic experience involves a cognitive aspect (Davey 2013; Gadamer 2013), but works emerging from a creative process influenced by post-instrumental practices, especially given its emphasis on performance and wedding the sonic with the visual, heightens and draws attention to the thought-provoking character of art—particularly with respect to instrumentation and instrumentality—more so than traditional artworks, if only because audience members inevitably come to recognise and understand the role and possibilities of certain things/instruments.

Sound art, for instance, also typically incorporates these ideas to generate sound and encourage musical listening to the world. Christina Kubisch's *Electrical Walks* that she curated in various cities between 2004 and 2017 (Kubisch), for example, require participants to wear specially designed headphones that amplify the electromagnetic fields present in the environment—one hears the hums and buzzes of telegraph lines, ATMs, cell phones, light globes, and so forth (Kim-Cohen 2009, 109–110). Unquestionably, such works are thought provoking—participants hear sounds that they

might not otherwise know existed, despite those sounds being emanated from everyday things that they routinely pass by. Those sounds may even possess a certain beauty and musicality to the extent that the 'walk' may constitute a musical work and not merely a thought-provoking experience. But as Kim-Cohen (2009) has pointed out, the 'blunt materiality' (115) of Kubisch's *Electrical Walks* perhaps discloses an otherwise 'hidden' character of the city, but it comes across as 'scientific' disclosure at the expense of possessing any real 'aesthetic value' (112).

The literal and didactic nature of *Electrical Walks* results in a 'revealing' character that is scientific or technological rather than poetic or artistic. Simply drawing attention to something is not necessarily artistic. As Heidegger says, highlighting the difference between 'everyday' writing and 'artistic' or 'poetic' writing, 'the poet also uses the word—not, however, like ordinary speakers and writers who have to use them up, but rather in such a way that the word only now becomes and remains truly a word' (2013, 46). In drawing attention to something such as the sonorous character of what is typically considered to be a non-musical thing, artists must not merely make the thing sound as a carpenter makes a board sound as they hammer it, but they must make it sound as it has never sounded before, it must sound 'musically'. Like the poet who does not 'use words up', but instead allows the word to come forth *as a word*, the musician is tasked with bringing forth the *musicality* of things, as opposed to merely making them 'sound'. To put it another way, as Kant writes, the work of art 'evokes much thought, yet without the possibility of any definite thought whatever, i.e., *concept*, being adequate to it' (Kant 2008, 142). That is, works of art may reveal the world and be thought provoking, but insofar as they are *works of art*, they must not be didactic, what they convey must go *beyond* the concept.

The revealing character facilitated by a post-instrumental approach to musical practice—or any practice—cannot be too blunt or didactic if it is to go beyond the concept, as Kant asserts, with which Heidegger would agree. It must resist being reduced to explanation. And so, the challenge for those engaged in post-instrumental practice is making their work 'art'. It is the role of the scientist to explain the ecological impact that the dredging of the Swan River/Derbarl Yerrigan in exclusively ecological terms. It is the role of natural artifact museums to put those things that were dredged on display for viewer contemplation. *Alluvial Gold* refers to ecological impact and displays natural artifacts for contemplation, but it does so 'poetically' or 'musically', such that the aesthetic contemplation it elicits cannot be reduced to a concept or explanation. Let us now turn to that experience and discuss some of the things that *Alluvial Gold* made be said to reveal to those who experience it.

* * *



Video example 1: Excerpts from *Alluvial Gold*. <https://vimeo.com/835375151>

Dolphin rib bones and vertebrae hung from gold chains. Cast from black porcelain and bronze, signs of bone disease are highlighted in gold leaf clinging to irregularities on their otherwise smooth surfaces. These bones were cast from a preserved dolphin skeleton, the irregularities attributed to the impacts of heavy metals present in the river. Near the bones hangs a curtain of scrubbed oyster shells interlinked like chainmail with gold metal rings. A fine wire is threaded through the rings, with small sensors clinging to it. From a distance, the shells are still, quiet, appearing inert. Responsive to light, the sensors hidden within the weave of shells signal disruption. Electronic sound is triggered as we move towards it, the intensity of the disruption responsive to human proximity.

* * *

Experiencing *Alluvial Gold*

To the extent that *Alluvial Gold* appropriates a range of 'things' and employs them within a musical context, *Alluvial Gold* may be said to reveal a certain musicality of those 'things' it appropriates. While there are countless ways to experience music, many of which, in the age of technology, threaten music's status as 'art' (McAuliffe 2020), in the discussion to follow we are interested in a mode of aesthetic engagement that McAuliffe has described as 'improvisational' (2020). That is, we are concerned with a mode of engagement where listeners attend and respond to that which they encounter in the happening of the event. Rather than allow the music to be 'background sound', as it were, or an object that one analyses and reduces to its formal structure, improvisational engagement consists in the audience engaging with the work on its own terms—the audience allows the work to guide their experience, allows the work to reveal itself, and yet, the audience is

not merely passive, they actively participate in the happening of the work. In the language of philosophy, the improvisation of aesthetic experience is analogous to hermeneutical engagement (Gadamer 2013). It is from this perspective of improvisational engagement that we offer the following description of *Alluvial Gold*.

When the audience experiences *Alluvial Gold* they are drawn into an engagement not merely with the work as an object but with the *world*—the work thematizes a certain character of the world that we each find ourselves both situated in and engaged with. That is, unlike many forms of ‘entertainment’ that attempt (if unsuccessfully) to shield us from or allow us to escape the world, where Netflix is an obvious example, *Alluvial Gold* does not attempt to offer escapism. Instead, the blend of visual and auditory phenomena, where the audience sees Devenish performing with oyster shells and bronze dolphin bones, for example, draws the audience into thoughtful aesthetic contemplation. The work is not only something sensible but something that illuminates a certain character of the world by drawing us into the world, or, better, *its world*, which, of course, is not distinct from *the world* that we all inhabit. As the French phenomenologist Mikel Dufrenne writes, ‘there is nothing but *the world*, and yet the aesthetic object is pregnant with *a world of its own*’ (1973, 149). The work draws the audience into an engagement with *the world*, but not the world as a whole; rather, the world as it is given in the happening of the work. The work presents the world, or a certain musical or artistic character of the world, to the audience.

Precisely ‘what’ will be presented cannot be determined in advance, however, for ‘revealing’ is always a revealing ‘to someone’. What is revealed is never independent of the prior understanding of the individual who experiences it. As noted, this is not to suggest that aesthetic experience is merely subjective or relative. What is revealed by the happening of the work comes from the objectivity of the work itself. However, the work possesses infinite possibilities—it can reveal elements of its world in countless ways—the individual, however, is never predisposed to encounter those possibilities in any complete or absolute sense (therefore we can attend to the same works again and again and continually find something new in those works). Rather, by virtue of their prior understanding of music and the world more generally, the individual receives certain, limited, possibilities for aesthetic engagement. What the work reveals emerges from the dialectic between presentation and reception.

Instrumentation plays a significant role with respect to what the work reveals, as does the multi-modal nature of the work, as discussed above. Both the sonorous character of the sculptural instruments and objects, and the fact that audiences can visually identify those instruments as the source of those sounds contributes to the elevated cognitive engagement of the audience experiencing the work. For example, there is a delicacy and fragility, an innocence perhaps, that comes forth as Devenish plays the oyster shells in a bowl of water. Devenish’s performance highlights the musicality of oyster shells and reminds us that the earth is not merely something to be ‘used’ and ‘consumed’—it is not something that has to be ‘used up’, as Heidegger might say. *Alluvial Gold* encourages the audience to take a ‘step back’ from the world as we ordinarily perceive it so that they might expand their horizons. The work allows a certain musical character of oyster shells to stand out against the non-musical backdrop that we usually attribute to oyster shells.

Alluvial Gold does not merely make the oyster shells 'sound', however. Devenish's performance draws attention to the 'musicality' of oyster shells and by drawing the audience into thoughtful consideration of the musicality of oyster shells, highlights the otherwise 'hidden' depth of the world more generally. What other sonorous, beautiful, or sublime characteristics of the world are *there* with us in everyday experience that we typically overlook or pay no attention to?

Moreover, if we consider the way in which Devenish's playing of oyster shells is, approximately 35 minutes into the work, underpinned by deep, ominous electronic sounds and recordings of dredging machinery in operation that grumble below the fragility of Devenish's contributions, we are reminded that there can be an immense power that underpins the world's fragility. Thus, not only does the work illuminate a certain character of the earth that is immediately present to the audience—the oyster shells, for instance—but it encourages thoughtful engagement with the complex relationality of the world. Oyster shells do not exist independently from the rest of the world. And so, to return to the fact that *Alluvial Gold* was conceived in response to the way in which oyster shells were dredged from the Swan River/Derbarl Yerrigan in Perth, the audience may begin to consider whether the dredging of the oyster shells may have implications beyond those individual shells and beyond that period of dredging.⁴ And, in the ideal, consider how all actions go beyond the immediate situation in which those actions are enacted. We may say that what the work asks us to consider is this: If we proceed thoughtlessly, as those who dredged the river arguably did, we increase our chances of encountering unforeseen and perhaps dire consequences in the future.

If we live with the recognition that things in the world typically go beyond what we ordinarily consider to be the limits of the 'use' they are presently known to serve and acknowledge the complex relationality of things in the world, we are led to consider the world not as a mere commodity, or something that we control or are the rulers of, but as something that extends beyond the individual, beyond a single human lifetime, and, indeed, beyond human beings. The significance of *Alluvial Gold* is that it offers a means to expand our horizons, for it reveals the world, which involves illuminating *our place in the world* by drawing us into an active engagement with the musicality of the world.

Post-instrumental practice as a means to encounter the world anew

The character of processes and work that reflect post-instrumental approaches to music creation offer the opportunity to rethink the limits and possibilities of musical practice, and their relevance in our contemporary context. By virtue of the emphasis on instrumentality, technique transferral and multi-functionality, post-instrumental practice offers new ways for us to encounter and engage with the world. As noted, this engagement necessarily includes but also extends beyond music and so has the potential to reconfigure our relationship with the world more broadly—engagement with art can influence ethical and environmental decisions about river dredging, for instance. Post-instrumental practice does not necessarily change the world—it is not so naive as to seek a revolution—but it does, or at least *can*, illuminate and provide thoughtful access to the world in ways that differ from 'traditional' musical practice.

Of course, all great works of art reveals the world in the way we have described in their own way. And the avant-garde has regularly appropriated everyday 'things' into an artistic context. Our claim is not that post-instrumental practice 'reveals' the world any more or less than other artforms. Our aim has been to take those initial first steps to acknowledge the ways in which post-instrumental practice contributes to this tradition of appropriating and revealing differently to other artforms by virtue of the way in which it routinely involves the wedding of the auditory and the visual, performer's technique transferral, the use of a range of instrumental materials, and so forth. While 'instrumentality', 'technique transferral', and 'multi-modality' are not necessarily particular to post-instrumental practice, they are certainly emphasised in ways that are worth discussing in terms of post-instrumental practice. As we have attempted to demonstrate, post-instrumental practice offers a unique blend of musicality, visuality, and conceptuality. And so, in the ideal, post-instrumental practice offers a unique form of aesthetic experience that can reveal the world and draw attention to both the horizon of our knowledge and the possibilities that await.

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Notes

¹ For example, an excerpt of the short 10-minute film titled *Alluvium* can be viewed here: <http://www.erincoates.net/alluvium>. The video used in this film work is reconfigured into a spatialised projection design, and the sound components rearranged for live performance.

² The artists acknowledge support and advice from the City of Melville and Whadjuk Noongar Working Party regarding thoughtful recording in the river for this project.

³ The oyster shells used in *Alluvial Gold* were not collected from the Derbarl Yerrigan during the making of this work, as the artists did not wish to contribute to the removal of matter from the river. The artists used recycled shells collected from restaurants and oyster shuckers, inspired by Australian shell recycling initiative Shuck Don't Chuck. This initiative collects oyster, mussel and scallop shells from restaurants that are otherwise destined for landfill. The shells are then cured in the sun, then used as a foundation for reef reconstruction projects that aim to counteract the impacts of dredging on oyster populations, by providing suitable 'settlement substrate' for juvenile oysters to grow on. <https://www.natureaustralia.org.au/what-we-do/our-priorities/oceans/ocean-stories/shuck-dont-chuck-shell-recycling/>

⁴ The audience may, of course, be drawn to consider any number of other scenarios. We do not deny that there is a chance an audience member could be drawn to the commodification of the natural world for entertainment purposes, for example. There is always a plurality of ways in which revealing may occur, specific to the relationship between that particular audience member and the work of art. We are suggesting, however, that given the broader context of *Alluvial Gold* that this 'negative' revealing is a less likely scenario.

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Dr Louise Devenish is a percussionist whose creative practice blends performance, artistic research methodologies, and creative collaboration with composers, visual artists, designers and improvisors. As a soloist and with ensembles Decibel, Speak Percussion and others, Louise has appeared at festivals including MONA FOMA, Shanghai World Expo, Ojai Music Festival, Tage für Neue Musik, Darmstädter Ferienkurse, Tongyeong International Music Festival and Huddersfield Contemporary Music Festival. Her performances can be heard on international labels HatArt, ezz-thetics, Immediata, Navona, Tall Poppies, and room40. Louise is currently undertaking an Australian Research Council DECRA Fellowship at Monash University, where she is director of artistic research project The Sound Collectors Lab, and Percussion Coordinator. Louise's creative work has been recognised by a Churchill Fellowship, WA Music Awards, and numerous APRA AMCOS Art Music Awards, including Performance of the Year Award and Luminary Award. Her writing on new music is published in academic books and journals, industry publications, and zines.

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