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CREATING UTOPIA

Imagining and Making Futures Art, Architecture and Sustainability

Lorne Sculpture Biennale Inaugural Conference 2018

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ABOUT THE E-JOURNAL

The UNESCO Observatory refereed e-journal that promotes multidisciplinary research in the Arts and Education and arose out of a recognised need for knowledge sharing in the field. The publication of diverse arts and cultural experiences within a multi-disciplinary context informs the development of future initiatives in this expanding field. There are many instances where the arts work successfully in collaboration with formerly non-traditional partners such as the sciences and health care, and this peer-reviewed journal aims to publish examples of excellence. Valuable contributions from international researchers are providing evidence of the impact of the arts on individuals, groups and organisations across all sectors of society. The UN-ESCO Observatory refereed e-journal is a clearing house of research which can be used to support advocacy processes; to improve practice; influence policy making, and benefit the integration of the arts in formal and non-formal educational systems across communities, regions and countries.

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COVER IMAGE

Leon Walker Photography at The Lorne Sculpture Biennale 2018

EDITOR'S LETTER

The sixth Lorne Sculpture Biennale, March 2018, was a vibrant festival celebrating the best of Australian and international sculpture. The stunning Lorne foreshore became a picturesque pedestal for a curated landscape of sculptures, presented alongside an exciting program of events devoted to pressing global issues of nature and endangerment, under the distinguished curation and visionary direction of Lara Nicholls, curator at the NGA Canberra. The inaugural conference, Creating Utopia Imagining and Making Futures: Art, Architecture and Sustainability was held at Qdos Gallery, Lorne, as part of the Biennale's curatorial theme of 'Landfall, Nature + Humanity + Art'. Keynote and invited speakers - conservationists, visual artists, architects and academics - reflected on issues and processes of social and environmental degradation, transformation and regeneration. The presentations came from a diverse and thought-provoking range of viewpoints offering innovative, and well researched future directions to the world's mounting problems.

Creating Utopia examined the green revolution – greater than the industrial revolution and happening faster than the digital revolution. The speakers were introduced by the inimitable Design Professor, Chris Ryan, whose elegant and thoughtful comments to each presenter added a distinctive contribution. Mona Doctor-Pingel, an architect from Auroville, India delivered her keynote address, 'Journeying to Oneness through architecture in Auroville, South India', discussing the natural and built landscapes found in the unique, social utopia that is Auroville, with an emphasis on experimental building techniques using local materials and craft principles, inspired by biology. I would like to thank all the presenters for their valuable contributions and this issue, volume 6, issue 1 of the 'UNESCO journal, multi-disciplinary research in the arts' www.unescoejournal.com is testament to their important research and life's work.

The conference was considered by all who attended to be a wonderful success. Inspired by the beautiful setting amidst the gum trees and singing birds surrounding the Qdos Gallery. Sincere thanks to all who attended, the excellent list of speakers, the team - Graeme Wilkie OAM for his overall, tireless support: Lara Nicholls the LSB curator for her helpful ideas and professionalism; Gillian Oliver for the superb food; Laurel Guymer, the behind the scenes angel of 'La Perouse' at Lorne who managed the bookings and accommodation and our diligent rapporteur, Jeremy Laing. The excellent Deakin intern student managed all computer glitches, problems and presentation hurdles. A very sincere thankyou to Evelyn Firstenberg who generously and professionally edited all the conference papers and most importantly, a very special thankyou to Seraphina Nicholls who has tirelessly and superbly designed and managed the collation and publication of this special issue. These people and others, the LSB committee and particularly Deakin University who gave generously for the LSB Education Program, enabled the 'Creating Utopia' conference to make a significant contribution to issues relating to climate change, environmental and global futures and the role of the arts and sustainable planning.

Lindy Joubert

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Remains the Property of Dirt and Broken Glass

Dr. Rosemary Woodcock Deakin University

ABSTRACT

This paper describes a practice-led project 'Merri Creek to the MCG', featuring broken glass sourced from along the Merri Creek in Melbourne's north. The status and function of the glass is ambiguous but rich in possibilities, with the glass fragments connecting my practice with issues of soil sustainability. I draw upon aspects of Parmenides' poem on the nature of 'what is' to explore the workings of language, in particular how poetic language can open up otherwise tightly construed discourses.

The often-strained relations between science and art discourses is a theme around which I explore a practice centered on soil, a practice that has become less about 'art' and more an activity resembling 'science'. Through 'duologue'- defined as an awkward bumping together of discourses - I propose that science can be playfully reimagined, by artists, through forms of 'doing science' that are poetic in scope and intent, while connecting to matters of soil sustainability.

KEYWORDS

Discourses of art-science | Parmenides | Propositional poetry | Duologue | T.S Eliot | Practice-led research

Introduction

"The horses' hair was the chestnut red of certain fir trees Thel had seen back on the high spine, and their manes, long and rough, felt exactly like handfuls of the trees' hairy fibrous bark: indeed, looking closely at it, he couldn't see any difference. He laughed.

Then the small herd in the enclosure bolted and ran around the inside of the fence, all in a mass, their manes and long russet hair flowing behind them as if they were underwater, and he laughed again. 'A horse is a fish made of trees'... said Thel."

(Robinson, 2000:73)

The passage above is exemplary of the way ordinary prose language can be made to do extraordinary things. As a work of fiction employing the conventions of narrative storytelling, it is not surprising that extraordinary things arise. In addition to producing Thel, his world, and others in that world, this assemblage of words also produces Thel's time spent in his encounter with the horses and Thel's awareness of himself thinking things through. We, also, experience all these things, albeit vicariously. How a particular arrangement of words can elicit in us an experience of language, in addition to carrying semantic content, is one of the themes explored below. Poetry is an obvious candidate for this task, but I am also interested in how ostensibly more 'propositional' discourses of the sciences might be worked in similar ways. Ultimately, it is the capacity of a word to be one thing in one instance and something else in another that unites a poem with a scientific proof and a shopping list. In this sense, all letters, words and whole sentences are fragments of the amorphous and diaphanous totality of a language. In Death and the Labyrinth, John Ashbury cites Michel Leiris: "Roussel here rediscovered one of the most ancient and widely used patterns of the human mind: the formation of myths starting from words. That is... transposition of what was at first a simple fact of language into a dramatic action" (Foucault, 1987:xxiv). What draws me to the horse-fish-tree sentence, and others like it, is how clearly it demonstrates the principle that, even if not 'true', a propositional statement can produce a new being (a horse that is a fish made from trees) - a being that is made from the stuff of words.

Parmenides' poem On Nature¹ was his only known work. Written more than 2000 years ago, and preserved in the form of copied and re-copied quotations or 'fragments' over the centuries by different people (including Plato), the poem was intended as a guide for would-be philosophers. Parmenides was struck by the most fundamental of all propositions, namely, 'that there are things' (rather than that there be 'nothing'). Parmenides chose to write poetry rather than prose for a pragmatic rather than aesthetic reason: he wanted to attract, and make his remarkable axiom "by being, it is" accessible to the widest possible audience. Although most people in Parmenides' time could not read, there was an appetite for new ideas. In order to make his teachings as accessible as possible for the purposes of steering 'mortals' along the right path toward 'truth' as opposed to 'opinion', Parmenides employed "easily recognizable Hesiodic images (day and night roads, ethereal gates, winged chariots, gracious daughters of the Sun)" (Cordero, 2004:21). In an important sense, Parmenides' use of poetic language to deliver a course in philosophy elicits in us an awareness of the experience of language: literally, what it is like to be reading it or listening to it. Perhaps, like Roussel, Parmenides was an "indefatigable versifier" (Foucault, 1987:138). Parmenides' poem is 'poetic', but because the writing is so fragmented, getting lost at the level of semantics, and thereby losing sight of the words themselves, it would be almost impossible (even for a reader of the original Greek) to understand. In this respect, I think of the axiom of 'estrangement' which Shklovsky (1917) proposed as a technique for bringing our attention to the stuff of aesthetic experience.

Grounded Practice

I have always been a picker-upper of things, and the origins of the broader project to which this paper refers arise from this same desultory habit. What has now become a practice-led research project in the domain of creative arts, with occasional exhibitions and conference presentations in that context, started from the unselfconscious routine of picking up pieces of broken glass along the Merri Creek walking tracks in Melbourne's north. I did not intentionally set out to build this into a 'practice', but (because of the repetition) such routines always carry the potential for breakthrough into other activity and contexts. In whatever way it may be defined, my practice guarantees a ready supply of primary research material, and this in turn affords both a rationale for its continuation and a degree of sustainability, but no discernible goal. The sheer availability of broken glass fragments still to be found in this area obviates the need for a planned outcome, or at least defers it. It is more reasonable to keep going than to stop, because I will work out the affordances of the practice along the way. To quote Parmenides quite out of context, picking up broken glass has become for me "a habit ingrained" (Farrington, 1961:54), but while for Parmenides the "manifold [sensory] experience" of such a habit is to be regarded with suspicion, for me it is a point of departure for creative practice.

All good practice yields its own critique, and in the process, mine began raising the question whether it was necessary or useful to think of it as 'art'. Was this due to there being no specific goal in mind, or the lack of concerted effort to account for the aesthetic dimensions of the object of the enquiry?

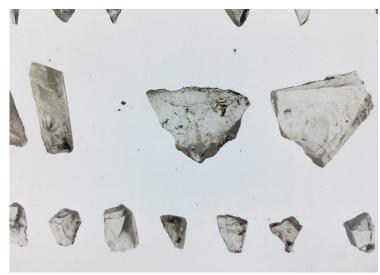
Aesthetics is no longer the chief concern of contemporary art practice or critique (although it is still alive and well). Yet, if it is not art, what is it (or what else is it)? On reflection (imagining observing it from the outside), my practice may more resemble someone 'doing science' than what a casual observer would think of as someone 'making art'.

Since the practice involves going out in the field and collecting, classifying, documenting, testing hypotheses (about how the glass gets out of the soil) and reporting upon findings (exhibiting), there is a non-exclusive 'scienticity' in the form of the practice I carry out. But it is clearly not science.



Figure 1 (Top) Discursive practice: 'scientistic' display of glass fragments (image: R Woodcock)

Figure 2 (Bottom) Discursive practice: 'scientistic' display of glass fragments, detail (image: R Woodcock)



From the perspective of the infinitely more inclusive criteria of Art (to a fault according to some critics, e.g. Elkins, 2008), a de-emphasis on the urgency to produce 'art' has shifted contemporary art practice toward reflection on how art functions outside its own discourse, and, as a process of critical enquiry, toward redefining what art can be (e.g., art as social practice; public art; citizen science!). If a discourse defines itself according to the rules that "permit certain statements to be made; what rules order these statements; what rules permit us to identify some statements as true and others as false..." (Philp, 1985:69), then my practice explores those discursive 'rules' that emerge "when an object of discourse is modified or transformed" (Philp, 1985:69).

It was not until I started paying attention to the ground from which the fragments of glass emerge that my thoughts began to turn to the problem of the art-science divide: to questions of epistemology (what counts as 'knowledge' in a given system), and of disciplinary boundaries and rules of practice. Is it productive to allow poetic language (or other acts) to stand in for, or at least accompany, the propositional prose of science when it comes to working out and communicating important matters such as soil husbandry? How to avoid contributing to pseudoscience or 'alternative facts'! The word 'ground' accounts for the generic and formless stuff we walk on, and toward which everything falls, but 'soil' enjoys the status of occupying no less than four scientific subdisciplines: soil physics, soil chemistry, soil biology and soil pedology. The word 'dirt' carries mostly filthy connotations, including 'soiled', but less so 'grounded'. Does attention to the words themselves, and their literary or imagistic dimensions, inhibit good practice for an artist who appears (and only appears) to be doing science? Is this approach bad for the soil sciences? What would Parmenides say, or Roussel? If it is the case that "words hurl themselves in pursuit of objects" (Foucault, 1987:138), then perhaps I am in good company.

Dirt and broken glass remain the primary source of both material and conceptual references for the ideas about art and science discussed below. In the context of the Creating Utopia Conference 2018², in which themes of planetary and humanitarian unrest are the terms of reference for discussion and debate, the specificities of one's individual creative practice can be difficult to define and even harder to defend. What can an artist and the particularities of her practice bring to this forum if no definitive practical connection can be made between the art practice, its outcomes, and the problems raised in the conference? How would such a practice produce knowledge of relevance to such problems, when those problems are so wicked? One strategy is to stop talking about art and carry on practising regardless. The internal logic of any practice is in how it keeps going, not what it does or at what rate it progresses. This is not, for me, about an emancipation from art, or a denial of art's relevance to processes and objects of enquiry in these "catastrophic times" (Stengers, 2015[2009]). Rather, it is a strategy for the continued unfolding of an activity in relation to those objects. This is despite those misgivings, combined with the image of a changed and changing climate ever-present, and driven by interest and curiosity. It could be labelled 'art' or 'science' or 'art-science' or 'practice-led research', or even simply (the neologism) 'practicing'. Or it could be all of those things: and, and, and, and. Ultimately, the goal of doing neither art nor science is to work a field with no fences, head down, hands in the dirt, 'mi campo es tu campo', making and explaining new knowledge in a vernacular neither can entirely claim as its own.

This paper explores the practices of 'dialogue' and of 'dialectics' by proposing the concept of a 'duologue'. This playful rewording produces a 'duologic' to supplement the dialectical, in order to develop methodologies for practice-led research that are neither properly scientific nor necessarily artistic, while mindfully and fruitfully indebted to both discourses. Whether neologisms amount to new knowledge or whether they contribute to further mystification is something to be kept in mind³. Nevertheless, disciplines are defined by the discursive practices that members use to produce their bodies of knowledge according to disciplinary boundaries, with this knowledge made manifest and communicable by means of specialist methods, techniques, tools, concepts, and terminologies that arise from within those practices.

The purpose of a duologue, then, would be to reveal the softer, less defined edges of disciplinary discourse, such that others outside those domains might join in. As David Marshall points out, there is a plurality of "multiple, overlapping, and competing publics" (Marshall et al, 2016) at large, whose collective interests, skills, tool sets, terminologies and stories amount to a rich array of knowledges and insights that surely expands across many disciplinary divides. A field without a fence is a wonderful image4.

Ground Glass

In the Sciences, over the past several decades it has become increasingly more difficult for researchers to conduct 'blue sky' research driven purely by interest and curiosity (Braben, 2008). Having a definitive outcome in mind that translates into discoveries or innovation is what attracts the funding and drives research workflows across the whole of academia. There is less and less time and space to play. I do not have a science background, but I did go to art school, and I do read a lot of science fiction. I am interested in science, and in art, and in how we use language in different ways in different contexts for different purposes. I make up new terminologies and play with texts, but I am neither a linguist nor a philologist. My approach is to work slowly, taking advantage of the combinatorial 'stickiness' of words to accrue pathways towards new knowledge in domains outside my expertise, for even if encountered as solitary individuals torn from context, words always refer to the totality of the language from which they have come temporarily unstuck. Across the sciences of soil and of vision, there are many ways to exploit the inherent affordances of poetic language to trick propositional statements into saying things about matters I know little about in a dialect that I do understand.

Prior to featuring a municipal rubbish tip, the Merri Creek in this area was mined for its bluestone, but thousands of years prior to white settlement this region of the Merri Creek was home to the Wurundjeri-willam people of the Woi wurrung clans (Moreland City Council, 2010). Beginning with the Batman 'treaty' of 1835 and the subdivision of land around what is now Moreland, Brunswick and Broadmeadows, there followed a rapid expansion of industries around quarrying, brickmaking and farming into the late 1800s, in addition to housing, transport and commercial development, all of which served to scatter, bury or remove the traces of aboriginal settlement in the region:

Most of the Aboriginal archaeological sites present in the Moreland area at the time of European settlement have probably been destroyed. These sites are likely to have included scarred trees, interments, shell middens, stone artefact scatters, eel and fish traps, stone arrangements and other ceremonial sites.

(Moreland City Council, 2010: 26)

Perhaps, at the very least, the glass fragments stand as a reminder of how a living place - a source of and for community - can be worn down, not only through the instruments of colonisation but also through the blunt forces of digging up, filling in, and levelling off. The broken glass thereby makes tangible the mistakes of the past, and through its slow, collective persistence, it continues to tell such stories.

The broken glass also performs other tasks. Firstly, it draws attention to the inherent properties of glass; and secondly, it directs attention to the soil from which it comes.

The process of collecting the glass has generated rules of practice, one of which is that I only allow myself to collect the pieces that I can already see at the soil surface, whether partially or completely exposed. No excavating! The glass must be already given up by the soil. However, I do allow myself to dig around an already exposed fragment in order to free it from the soil. In fact, there is no need to excavate because numerous feet and bicycles, as well as rain and wind erosion do that work for me, constantly. Ultimately, then, mine is a collaborative practice with a number of anonymous and unaware publics. For the 'Merri Creek to the MCG' project, I am effectively already working with multiple teams of research assistants, which include anyone (and their dog) who has ever trodden my tracks. Unwittingly, these others have contributed to the work carried out in removing and collecting the glass. As a collaboration, my interaction with others participating in this practice is itself fragmentary. I must thank them for their hard work.

Soil

That I now possess several hundred fragments of broken glass is one thing (the collection over time of any particular object becomes monumental: difficult to stop, impossible to throw away); what to do with these objects is another (there are numerous ways to make art objects out of them). But my interest is in how the broken glass functions in a less alluring way. It was from picking up the pieces of glass that I began to notice, and then to think about, the ground. The soil is often deeply cracked and appears almost black after rain, so from being just 'the ground', it progresses to 'a type of soil'. Science arose as I became curious to learn what type of soil it was. Other than through the process of erosion by methods mentioned above, I also wanted to know how the glass could extract itself from this heavy, sticky soil.

The local area is predominantly covered by a class of soil called black vertisol, consisting of volcanic basalt (hence its black colour) and sedimental accrual which gives the soil its clay consistency. The geology of the wider region begins 400 million years ago, when marine siltstone and sandstone were left behind after the ocean receded.

Then, 65 million years ago a non-marine sedimental sandy layer built up, and was in turn eroded to form the valley system of the Merri Creek corridor. Approximately 0.8 to 4.6 million years ago, volcanic eruption (at Hayes Hill near Donnybrook, and Mt Fraser near Beveridge in Victoria) sent basaltic lava "on an epic journey along the ancestral valleys of the Merri and Darebin Creeks and into the valley of the Yarra River as far as the CBD" (Merri Creek Management Committee, 2014).

Vertisol is defined as a 'cracking clay type' soil with a characteristic 'self mulching' or 'churning' behavior, where coarse fragments such as stones, and my glass fragments, are pushed upward with the swelling soil. Had I found the answer to my question as to how the glass might naturally come out of the soil? Did the answer corroborate the fact that 'Merri Creek mud' (as it is referred to in the Melbourne Cricketing community) stopped being spread over the MCG ground in the mid 1980s because it was so bumpy?⁵ In addition to these wonderful attributes, vertisol has 'lenticular' properties caused by stress shear in the soil over alternate wet and dry cycles, from which it is also prone to argilliturbation, "disturbance from the expansion and contractions" due to the cycles of wetting and drying. (Driessen et al, 2001).

The shrink-swell behaviour produces 'gilgais' ('small water holes'), a local indigenous term to describe depressions in the ground which appear over time. The term gilgai is widely used to describe this behaviour specific to vertisols around the world. Gilgais have important connections to water, serving as a temporary source of moisture and seasonal foraging for indigenous people. Gilgais are generally considered a nuisance for farmers because the movement of soil associated with gilgai formation damages building foundations and roads, and the hollows and hummocks result in large undulations that interfere with crop harvesting (Schaetzl and Anderson, 2007:283). For me, the gilgais evoke images of the ground alive and breathing, with its up and down shrink-swell movement, below the threshold of human awareness, gently spewing out broken glass and other detritus.

Soil is alive. The topsoil that thinly coats our planet is a living thing, and we are reminded of the intricate biology of soil and the multitudes of bacteria that keep it healthy and fertile. However, the black vertisol seems not only alive in a biological sense. It displays 'behaviours', and so is shot through with manifold discursive possibilities (what does it want?). In addition to the four soil sciences, its 'lenticular' properties bring in the vision sciences (lens, literally 'lentil shaped'), with the glass fragments being like tiny windows for looking down into the soil.

Figure, 3 Black vertisol soil showing characteristic deep cracking behaviour and self-mulching (image: R Woodcock)



Pieces that bear embossed text carry differing messages, from branding ("ALWAYS", a brand of pickles), to instruction ("DO NOT"; "FILL"). The text-bearing fragments orient the observer to regard the glass pieces as facing up, not down. They are then lenses facing out of the soil, functioning to send messages to those paying attention to the ground; edicts in the form of scattered propositional statements, or hints thereof in broken-up words. The implication is that the soil is peering up at us as well, through its dirty cryptic glasses.

The text-bearing fragments are rendered incompatible with dirt because of their properties as glass, and yet soil and glass share a connection in the cosmological scheme of things. Oxygen (O) is the third most abundant element in the universe and the element silicon (Si) is the seventh. Oxygen is the most common element on Earth, followed by silicon. Approximately 30 percent of breathable air consists of diatomic oxygen gas (O2), which when combined with silicon, forms silica (SiO2), or sand. Glass is formed, elementally, from sand and fire. Glass is a fire made of sand.

Glass

Human civilisation is often measured as a progression of the material instruments of most contemporary practical value, giving us the Stone Age, the Iron Age and the Bronze Age. We are now living in 'the Glass Age' (Corning, 2011). Glass is definitively peculiar, having the "mechanical rigidity of crystals, but the random disordered arrangement of molecules that characterizes liquids" (Corning, 2011). Glass attracts apocrypha, such as 'cathedral glass' (the belief that over time window glass will gradually thicken at the bottom 'because glass is really a liquid'), and the mythical vitrum flexile, the supposed incident in which a glass bowl is thrown to the floor only to bounce back unharmed (although not without a subsequent beheading), a story which appeared in Pliny's Natural History, Petronius' Satyricon, and Dio Cassius' Roman History (Corning, 2011). Glass is not without controversy in more contemporary times, as various 'improved definitions' spark debate about the nature of a material that "appears solid on a short time scale but continuously relaxes towards the liquid state" (Zanotto and Mauro, 2017). Whatever its internal logic in the liquid-solid debate, glass is one of the most durable synthetic materials on the planet, bound by its fabulous crystalline structure to outlast plastic. Perfume bottles, windows, picture glazing, test tubes and optic fibre all testify to the 'glass age' of frontier materials, with improvements in food storage, microscopy, and home renovation. Against this grand narrative, my collection of dirty fragments of glass is rendered both useless and worthless. Yet as objects in a collection, they reference not only their original use-value as bottles and jars, but also their potential commodification (via art practice) into objects of aesthetic and potentially market value.

Certainly, the fragments of dirty glass are rather lovely as they reflect, bend, transmit and absorb light with spectacular inaccuracy. There is something in there being broken, incomplete and dirty, yet still definitively glass with all its specular properties, that gives the broken glass pieces an important status as fragments. They are more potent as objects in an in-between state, neither useful nor without use, than if they were to be made into objects of decorative contemplation.

Dirty and broken, they are perhaps analogous to the vitrum flexile: 'broken' only from the perspective of some-one who expects functional glass bottles and jars to serve as sterile containers for milk or jam.

Fragments

Parmenides of Elea was born sometime between 544 and 541 BCE. and is recognized as one of the most influential of the early Presocratic philosophers. (Cordero, 2004:6). Even without the centuries-old arguments among other philosophers about how to interpret this or that fragment of his writing, a suitable account of Parmenides' contribution to Western philosophy lies well beyond the scope of the discussion here. Nonetheless, Parmenides is relevant for a number of reasons which I hope will become clear below. First, his ideas about doing philosophy were absolutely ground breaking (to use a pun), yet they exist only in the form of the 152 remaining lines of text. Most are in the form of long passages, but many are in fragments consisting sometimes of only two or three words: "rooted in water" is the total content of fragment 16 (Coxon, 2009:92). Second, these pieces only survive because of hand copying of Parmenides' fragments by many others, including Plato, over many centuries. The fragments still carry epistemic importance for Western thinking today.

Not only are they an indirect record of what Parmenides actually thought or wrote (enriched in the process by many other minds) but their trajectory - as distributed fragments signalling a single source from the distant past - is incomprehensibly slow, and perilously indirect. Fragment 2 contains Parmenides' 'thesis' "By being, it is", which "postulates the existence of being, ... quoted for the first time by Proclus [in his commentary on Plato's Timaeus] a thousand years after it was written" (Cordero, 2004:14). As 'fragments' they are an incomplete work since "the version of Parmenides' Poem we possess is not complete. Passages that weren't quoted by anybody will remain unknown forever" (Cordero, 2004:13-14; emphasis his).

Artwork

The relevance of Parmenides' poem is becoming obvious, I suspect. Many of the glass fragments feature embossed text consisting of whole, typically capitalised, words and short statements ("WATER" "JAR" "NOT TO" "REMAINS THE PROPERTY OF"), or fragments of words and single letters ("UR", "ERTY", "OTT", "S"), a direct record of the original casting in glass factories such as IO Glass in Spotswood in Melbourne's industrial west⁶. The range of vocabulary of the collection as a whole is limited: no pronouns or adjectives, few adverbs, and much repetition. This lexicon will never be completed, because there are always new pieces with different content to be found and added to it. However, at some level the vocabulary of the glass fragments must be finite: at the point of manufacture seventy or eighty years ago, there were only so many things to say of a bottle or a jar; about whose property it remains, what are its contents, and what can or cannot be done with it once empty. There are notable repetitions, with variations on "PROPERTY" and "BOTTLE" being the most common.

Nonetheless, despite their limitations as literature, the glass pieces instantiate the persuasive power of the written word: they make us read them. Devoid of practical use, disassembled and fragmented as they make their immeasurably slow progress up through the soil, they appear on its surface as producers of immanent poetic texts. They are use full.

FILL exhibition (Tokyo, 2017)

The title of this exhibition combines the Japanese katakana character 're' with the word "fill" to give 'REFILL'. The works exhibited on this occasion brought the discourses of vision science and soil geomorphology together in duologic relations, featuring the fragments of broken glass (Figures 1, 2 & 9), and other items in a number of works set out in 'scientistic' displays. As a fragment, I could never be sure that the $\[\]$ ("re") was not in fact half of an upside down broken capital 'M'. It was the last piece I found, by chance, just before leaving Melbourne for Tokyo, but it gave me the title of the exhibition as a ready-made duologue of English prose and Japanese syllabary.

Pulfrich/Prufrock allusion

The Pulfrich illusion (Carl P. Pulfrich 1858-1927) relates to a phenomenon that occurs when viewing a two-dimensional moving image in which the foreground elements pass left-to-right in front of background elements passing right-to-left, such as when observing video footage of a carousel in motion: if one eye or the other is filtered, for example by placing sunglasses over one eye only, an illusion of three dimensions is typically experienced as the foreground elements appear to 'pop out' in front of the background. The apparent three-dimensional structure of the imagery has its basis at the neurological level of visual processing. The visual cortex processes motion and depth stimuli in tandem, but since all visual stimuli are first received on the retina of the right and left eyes as separate 'images', any interference that produces a lag in one eye or the other (such as via the sunglasses method above), can produce a false depth signal.



Figure 4 the Pulfrich/Prufrock glass cake stand object (image: R Woodcock)

The name Pulfrich is so close to that of Prufrock that in a moment of distraction I mistook one for the other. Duologue! Prufrock is of course the subject of T S Eliot's poem 'The Love Song of J. Arthur Prufrock'. The Pulfrich/Prufrock allusion (working title) is a revolving 'high tea' cake stand on which a number of glass fragments are displayed: a reference to Prufrock considering "Should I, after tea and cakes and ices, / Have the strength to force the moment to its crisis?" (Eliot, 1917:13). In the Pulfrich/Prufrock piece, 'poems' are set out in lines of broken glass circling three decorative glass plates arranged as a tiered cake stand. Ordinary drinking glasses provide the central column. The whole object is made from glass and is designed to be viewed in semi-transparent (dirty) silhouette. Each plate features a looped sentence when the structure is rotated (read) clockwise:

Top plate: JC LONGS FOR MILK NOT THIS





Middle plate: CONTAINS OTHER LEGAL PROPERTY OF SHE ONLY Bottom plate: ALWAYS RETURN THIS BOTTLED MILK & WATER



Figure 5 (Top Left) "THIS"

Figure. 7 "& WATER"

(image: R Woodcock) (image: R Woodcock)

Figure 6 (*Top Right*) "FOR MILK"

(image: R Woodcock)

Reading up and down the plates, starting at random points in the sentence, or reversing the motion, are among the options available for assembling different combinations of words, in order to produce alternative or opposing sets of instructions. There are no rhymes, and ultimately only repetitions, because the total vocabulary of the Pulfrich-Prufrock piece is approximately twenty words. Figs. 4-7 show the physical construction of the Pulfrich-Prufrock object, although this is not how the piece is intended to be exhibited. Only its projected shadow is to be seen, cast onto a white sheet by shining a light from the other side, with this image captured in the form of a stop-motion animation to produce the Pulfrich/Prufrock allusion. In the resulting animated sequence, the figure of the cake stand is discernible, although it is not clear what the object is. As the embossed glass pieces press against the white cloth while the object slowly turns, they each reveal the words they carry. In this way the broken glass performs endlessly repeating sentences. Perhaps they are poems?

'THIS BOTTLE THIS JAR' features three pieces of glass sourced from the Merri Creek, aligned to make a sentence based on two empty propositions. Like the empty bottle and the empty jar, long lost but of which these two fragments solidly remain, 'THIS BOTTLE THIS JAR' demonstrates the ability of broken language to voice its broken self. Together, the texts suggest a faltering attempt to speak about something, something involving a specific bottle and a jar. But which is it? Paralleling the epistemic dilemma of Parmenides' mortals, we are obliged to make a choice between one and the other.



Figure 8 "THIS BOTTLE THIS JAR" (image: R Woodcock)

'Duoscopic iteration 2' is a device that exploits the separability of the left and right eyes' respective retinal imagery in normal binocular vision. It plays tricks with the observer's assumptions about the reliability of perceptual experience, and the inherent leakiness of stereoscopic vision. Like the duologic discussed in this paper, the duoscope is a technique for breaking apart the seamless totality of a given system, in this case, the human binocular vision system. Roussel seems to have explored a form of duoscopy in How I Wrote Certain of My Books (published posthumously), where he explains that his last published work, New Impressions of Africa, was to have contained a description of a small pair of opera glasses:

"whose two lenses, two millimetres in diameter and meant to be held up to the eye, contained photographs on glass depicting Cairo bazaars on one side and a bank of the Nile at Luxor on the other"

(Winkfield, 1995:27).

Roussel's opera glasses are impossibly small and therefore quite useless, and this is no doubt the point.

Duologue and the Possibilities of Discursive Practice

Dirt on the glass, glass in the dirt. This is my entry into the discourses of soil science, where, conducting my own 'grounded theory', I gather the fragments and ponder the limitations and possibilities of using dirty broken glass to explore optics and lenses. I encounter two disparate entities, each underwritten by its own branch of the sciences, each occupying incompatible discourses: soil (dirty, but also fecund) and glass (of clarity and scopophilia, yet sterile).

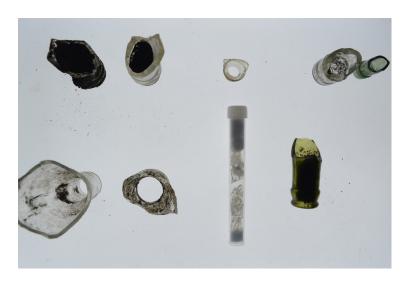


Figure 9 Glass fragments with optical instruments (image: R Woodcock)

The third reason for my interest in Parmenides is that he chose to write a poem, not a work of prose. With its rich imagistic and discursive language, the poetry was intended to attract and reach the widest audience. It allowed for interpretation, and was ambiguous even to his peers. Proclus wrote that Parmenides' writing was "obscure because of his poetic expression" (Johansen, 2016:1-2). Ambiguity ('obscurity') is anathema to science proper, a point powerfully made by Alan Sokal in his infamous 'hoax' article (Sokal, 1996). One of the central themes of Parmenides' poem is the radical distinction made between the two possible paths of 'truth' and 'opinion'. For Parmenides, opinion is linked to sensory experience, a necessary part of lived experience but not to be trusted with regard to discovering the ultimate truth of reality:

Parmenides asserts:

"Let not the habit engrained by manifold experience force you along this [sensory] path, to make an instrument of the blind eye, the echoing ear, and the tongue, but test by reason my contribution to the great debate."

(Farrington, 1961:54).

In the poem, there is a stunning image of 'two-headedness', which Parmenides employs with great effect to illustrate the dangers of relying on the senses ('opinions') which would lead a thinker "to suppose that there are things that are not" (Cordero, 2004:130). If mortals following the wrong path have two heads, it is because "with one they look at being and with the other at non-being." Cordero explains that this conjunction is a source of fundamental error for 'mortals', who "are incapable of accepting the principle of non-contradiction and the excluded middle, which requires a 'decision': either the one or the other" (Cordero, 2004:130). But let us extrapolate this 'two-headedness' from Parmenides' individual mortals and apply it to entire discourses in a positive appraisal of 'two-headed thinking'. It would be more open to a blurring of methodologies and realms of self-knowledge than Parmenides would probably permit, but two-headedness implies one body having the advantage of double vision, alternating views and an openness to suggestion. Parmenides' image of two-headed mortals aligns with the notion of 'duologue', and pertains to Latour wanting to "know how the sciences can be both realist and constructivist, immediate and intermediary, reliable and fragile, near and far" (Latour, 1999:30).

The concept of 'duologue' can be explained through the imagery of two parties talking at, or through, each other, or perhaps despite each other. This action is not so much a clash of discourses as an awkward bumping together. Where dialogue involves a sharing of views through the flow of verbal exchange, duologue draws attention to the frictive boundaries where two discourses meet, and where a clash of discourses implies such boundaries are robust, such as the "-" in art-science, so that members bounce cleanly off one another and move on. The duologic allows for some gainful stickiness and scope for ambiguity, with an awareness of the experience in retrospect, recalling an oddly rich and unsettling experience.

Viktor Shklovsky (1893-1984) developed the concept of 'estrangement' (ostranenie) as a technique for extending the possibilities of aesthetic experience. In the same way, the duologic concerns the blurring of boundaries, not to ease tensions or smooth the way of discourses encountering and mingling with each other, but precisely the opposite. Like art's purpose for Shklovsky, including the experiential domain of poetic language, the purpose of the duologic is to 'defamiliarize', "to make objects 'unfamiliar,' to make forms difficult, to increase the difficulty and length of perception because the process of perception is an aesthetic end in itself and must be prolonged." (Shklovsky, 1917).

The duologic questions the division between theory and practice, itself not a "given" but "a divide that has been made" (Latour, 1999: 267) which serves not only the 'war between the sciences' (the focus of Pandora's Hope), but also that between art and science, and so defines the practice of 'art-science' with a capital "-". As Murray Krieger writes, at a much earlier time in the 'art-science wars', poetry:

"...can promote the modifications, shades of meaning, and paradoxes which characterize reality below the level of scientific or philosophic abstractions... [A]Ithough both poetry and science can share the common language of specificity, only poetry can so control it as to make its statements concrete and yet non-referential - that is, concrete only because they are cross-referential, because they point to each other rather than point atomistically to the outside world"

(Krieger, (1977 [1956]):142).



Figure 10 Glass fragments (class. lips and necks) (image: R Woodcock)

Conclusion

Soil's vital importance to planetary life and the well-being of all those who live here is unquestionable. Is it unreasonable, then, to defend a practice that is neither usefully scientific nor particularly concerned about making art, when so much is at stake? I hope it is both reasonable and fruitful, not just because the method is open-ended, inclusive and unlikely to do further damage (although it may annoy some people), but because it responds to another problem of some significance as well: what Agamben (after Walter Benjamin) defines as the 'destruction of experience' brought about by Western epistemology having framed 'being human ("Man")' in terms of possessing, rather than experiencing language (Agamben, 1993[1978]). Were the seeds of this destruction planted in Parmenides' one, fragmented poem all those centuries ago when he posited sensory experience against reason in the pursuit of truth? To be fair, Parmenides was not the only culprit, but Parmenidean Eleaticism is characterized by a "separation of philosophy [and therefore scientific method] from its roots in practical life." (Farrington, 1961:57).

Mine is a slow, gritty, artless practice that anyone could do. Since it involves removing from a public parkland potentially dangerous rubbish that continues to work its way out of the soil, the practice can be said to perform a 'public good'. In fact, it has been mistaken for that very activity by passersby, although the mistake is actually mine. In fact, what I am doing precisely is removing pieces of broken glass from the ground where people, dogs and bicycles frequently tread.

This incidental aspect of my practice turns out to be important, in that it affords a tangible and therefore communicable connection to other people and their experiences of the area, because I so frequently move about in a half-crouching shuffle (the more easily to spot more glasses if I happen not to be wearing mine), I draw others' attention first to me and then to the ground, because that's where my attention is so obviously directed. What have you lost? Nothing, I'm just looking. What are you doing? Picking up bits of broken glass. Good on you! So perhaps also, in a small and indirect way, my practice contributes to their experience of experiencing the ground on which they tread; slowing down, pausing, reflecting, noticing what's there. In addition to this minor community service, then, the glass pieces instantiate a more far-reaching significance to the area because they reference an industrial and colonial past that is very much still 'there'.

I have proposed the notion of 'duologue', which I define through metaphor as an awkward, ideationally sticky bumping together of disparate discourses, akin to Krieger's image of 'mutual pointing', but less conscientiously geared for debate. In the context of the problematics of collaborative 'art-science' and other inter-disciplinary practices, the 'duologic' presupposes a mode of working in that awkward space between disciplines, a space never entirely flat or clear of fragments of leftover discourses, and that is neither 'scientific' nor 'artistic', but 'two-headed'. We are familiar with the concept of the dialectic being the operation between two opposing ideas or sets of beliefs (theses) through which the process of argument, consideration and debate produces first antithesis and then synthesis. While Horkheimer's and Adorno's dialectic (Adorno, 1990; Horkheimer and Adorno, 2002) is more mediative and less instrumentalist than that of Plato, Marx or Hegel, in general there is an assumption that the dialectical process will yield a resolution, a synthesis of the two opposing sides to produce a new and more productive position, with a goal and purpose in mind: an end to the argument.

While the Sokal incident is now long past and many of the arguments settled (cf. Sokal, 2017; Alan Sokal's website documents the original 'hoax' and ensuing dialogue through subsequent publications), there is still a sense of trepidation for the non-scientist in stepping into the field to make claims about 'doing science', even if playfully and with great respect. But in the realm of the duologic, the two theses (discourses) do not oppose each other, because there is no intention to bump. A duologue presupposes a disinterested, non-confrontational encounter but one with scope for empathy.

Because there is no promise of further 'sophistication' for either side, there is therefore no need for competitive behaviour.

I have called my project Merri Creek to the MCG. As chief investigator, one of the objects of the enquiry is 'ways of engaging and working with others' to explore the possibilities of knowledge transfer. By not setting disciplinary rules or boundaries, and by not having a specified goal in advance, and through a duologic process described above, some workable projects will, I hope, emerge. It is through the ebbs and flows of interactions with other stakeholders - including all the 'publics' knowingly or otherwise associated historically, geographically or in other ways with the Merri Creek and its dirt and broken glass - that such a project might work.



Figure 11 Still from animation (showing the glass pieces re-positioned) (image: Y Horaguchi used with permission)

NOTES

- 1. The poem is known as On Nature, but there is no evidence that Parmenides used that title.
- 2 Creating Utopia: Imagining and Making Futures. Art, Architecture and Sustainability Conference held in Lorne, Victoria, March 2018
- 3 The word 'terminology' is itself a neologism, coined from a hybrid of Medieval Latin (terminus "word", "expression") and Greek (logia, "speaking of; dealing with"). Source: https://www.etymonline.com Accessed 22 **April 2018**
- 4 "A field without a fence" is a line from a song by the band Me Without You. It is, also, in the form of 'Fields Without Fences', an organization based in the USA dedicated to permaculture and land-care practices using inclusive practices.
- 5 Actually, Merri Creek soil is still used at the MCG, but only in the dropin cricket wickets for the cricket season. Email exchange with the Head Curator of the Melbourne Cricket Club (MCG): "as far as I'm aware (and I spoke to the supplier about this very topic a couple of months ago) we still use the same black soil supplier we have always used and he still gets the soil from the same Merri Creek area." 14 April 2016
- 6. IO Glass (Owens-Illinois Inc.)

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