

Overlooked Performances: Mobile Computing, Site-Responsive Arts Practice and the Spectral Dramaturgy of *Vanitas*

Robert Ellis Walton

ORCID: 0000-0003-2857-3372

Doctor of Philosophy

December 2019

University of Melbourne

Faculty of Fine Arts and Music

This thesis is submitted in partial fulfilment of the degree of Doctor of Philosophy.

Abstract

This practice-led research project uses observations from the creation of *Vanitas*, an ‘artwork for smartphones and cemeteries’, to establish a critical framework for discussing the impact of mobile computing on site-responsive arts practices, and by extension, everyday experiences of outdoor locations. This is achieved through the examination of overlooked performances which extend from the performance ontology of computation to human practices perpetuating seamlessness in mixed-reality artworks. By investigating how performances are created and experienced when live-action events within a site-responsive performance are combined with smartphones (mobile computing devices) and electronic messaging (email, telephony, SMS, and in-app messaging controlled by transmedia networked communication systems), the research addresses in microcosm the complex impact of mobile computing on what David Berry terms a “softwarized society”.

The three parts of this thesis, and the artwork *Vanitas*, employ contrasting approaches to overlooked performances in mobile computing and site-responsive performance. Part One takes a high-level systems approach to key reference artworks and presents ways to identify their common features and contrast them with *Vanitas*. Part Two takes a ‘low-level’ immanent approach to the history of smartphone technology to identify the ‘overlooked performance ontology of computation’ and applies this to the ‘illuminated podcast’ mode of *Vanitas Chapter One*. Part Three employs an exegetical method of ‘spectral dramaturgical writing’ to incorporate the complex range of voices present in the walk through Melbourne General Cemetery with *Vanitas Chapter Two*.

By employing a hybrid practice-led research methodology that combines the realisation of *Vanitas* (30%) with a written thesis (70%) this PhD provides a positive contribution to the growing creative and critical response to the impact of mobile computing on performance practice, digital media and death. It proposes a number of critical concepts such as ‘overlooked performances’, the ‘ideology of seamlessness’, ‘spectral dramaturgy’ and via the ‘overlooked performance ontology of computation’ provides a way reconsider digital data, media, software and interface from within an immanent performance paradigm.

Declaration

I declare that:

- i. This thesis comprises only my original work towards the Doctor of Philosophy except where indicated; and
- ii. Due acknowledgement has been made in the text to all other material used; and
- iii. This thesis is fewer than the maximum word limit in length exclusive of bibliography and appendices.

Robert Walton

December 2019

Acknowledgements

I respectfully acknowledge that this project, both the artwork and thesis, was created on the lands of the Boonwurung and Wurundjeri people of the Eastern Kulin nation. I pay my respect to elders past and present and recognise that the traditional custodians of this country never ceded sovereignty.

During the course of my studies I have been supported by a brilliant network of supervisors, collaborators, friends and family. Mary Luckhurst supported me through the early stages of my project and I am grateful for the insights and strategies she offered me. Zachary Dunbar supported me superbly over the years and his input helped strengthen this thesis immensely. Paul Rae's scrupulous reading of the many drafts of this work, infectious incisiveness and encouragement to develop a distinctive writing style have enabled me to grow and develop far beyond what I thought possible. For this, and his steady patience and sense of humour, I am deeply grateful.

I would like to acknowledge the work of my brilliant artistic collaborators who contributed to making *Vanitas* a success. Robert D. Jordan worked diligently on draft after draft of my endless audio edits to create a rich sound world that exceeded my expectations. Working with programmer and app developer Chris Heywood on this project was a revelation to me. His profound understanding of computers and commitment to the project was astounding, and he worked far beyond our budget to create beautiful software as a labour of love. For this, and for his friendship, I am grateful. Jason Maling, who became my chief co-conspirator and interlocutor in *Vanitas* and similarly worked beyond the bounds of the project, doing whatever was needed to keep exploring how to make *Vanitas*. The third part of this thesis is dedicated to how we became friends by wayfinding together, learning how to speak about the

unspeakable and find joy in the face of terror. It was a great privilege to work with such an extraordinary team who allowed *Vanitas* into their lives with such trust and love.

Vanitas would not have happened without the support of Arts House and then artistic director Angharad Wynne-Jones who ran with the idea of applying to the Australia Council's digital theatre initiative. Producers Jackie Johnston and later Josh Wright really paved the way for *Vanitas* by providing excellent support over the years the project took to develop. Will Babbington and Sunita Varlamos from Southern Metropolitan Cemeteries Trust took *Vanitas* to heart. Their risk created innovation within their organisation that enable experimental arts practice to occur at Melbourne General Cemetery.

I would like to acknowledge my colleagues at The Victorian College of the Arts for their support over the last five years. Particularly Barb Bolt who mentored me prior to applying and continues her moral support even now.

Finally, to my long-suffering friends and family who enabled me to undertake this study, thank you. I am especially grateful for the love and support of my partner Ryan Galbraith, whose life, and near death, greatly influenced this project and my understanding of the role of art and research in articulating radical new ways of being.

Contents

Introduction: Overlooked Performances	1
Part One: ◀◀ ▶▶	30
1. ◀◀ Rewind: The Audio Walk from the Smartphone to the Theatre Phone	30
2. Pause to Rethink Stillness in Audio Walks and <i>Vanitas</i>	59
3. ▶▶ Fast-Forward: <i>Vanitas</i> as a Laminated System	83
Part Two: ▶	99
4. The Overlooked Performance Ontology of Computation	101
5. Smartphones Stage Performance: The Illuminated Podcast of <i>Vanitas Chapter One</i>	134
Part Three: ■	155
6. A Spectral Dramaturgy: The Expanded Audio Walk of <i>Vanitas Chapter Two</i>	159
7. Not Falling Apart at the Seams: Overlooked Performances of Holding it Together	187
Conclusion: Unthinkable Subjects and Denying Mastery	216
Bibliography	236
Appendix I: Vanitas Production Information & Download	246
Appendix II: PhD Timeline and Key Project Milestones	248
Appendix III: Major App Releases	254
Appendix IV: The Experience and Structure of Vanitas	257
Appendix V: Host Briefing Document	262
Appendix VI: v1.0 Strata Diagram	265

Introduction: Overlooked Performances

Performing, as Richard Schechner notes, is “showing doing”: “pointing to, underlining, and displaying doing” (2013: 28). In this sense, performances are given to be seen. However, this thesis is about performances that are strategically overlooked though they are often in plain sight. These are neglected and studiously non-observed performances deemed inconsequential. They are shown but not seen. By learning how to craft performances that pass as overlookable, it is possible to re-encounter what is habitually overlooked.

In artistic, or as Schechner calls it “aesthetic” performance (ibid.), questions of what is and is not to be seen form the basis of the impression management inherent in theatre practice: dramaturgy. The actor Yoshi Oida illustrates the nuance of crafting the in/visibility of performance in the following example, familiar to actors in training:

In the Kabuki theatre, there is a gesture which indicates ‘looking at the moon’, where the actor points into the sky with his index finger. One actor, who was very talented, performed this gesture with grace and elegance. The audience thought: ‘Oh, his movement is so beautiful!’ They enjoyed the beauty of his performance, and the technical mastery he displayed.

Another actor made the same gesture, pointing at the moon. The audience didn't notice whether or not he moved elegantly; they simply saw the moon. I prefer this kind of actor: the one who shows the moon to the audience. The actor who can become invisible. (Oida & Marshall 1997: xvii)

Oida's point is that the actor does not become physically invisible but that he conspires with the perceptions and desire of the audience to enable ‘simply’ seeing the moon. The material conditions of the theatre setting, including the actor and the audience, become complicit in producing the apprehension of the moon by allowing a performance to take place that is greater than the sum of its parts.

Managing the impressions of performances through dramaturgy extends beyond aesthetic practices into the “broad spectrum” of human actions that intersect with performance in everyday life “ranging from ritual, play, sports, popular entertainments... to the enactment of social, professional, gender, race and class roles” (Schechner 2013: 2). Invoking the broad spectrum is important for this study as it addresses the overlooked performances that occur with mobile computing devices in outdoor locations both in everyday life and in aesthetic performances. Such an approach demands careful, critical invocation of the “contested concept” of performance that avoids seeking “some over-arching semantic field” (Carlson 2018: 5) to encompass the diversity of machine, environmental and human performances. I proceed with ‘overlooked performances’ cautiously and take an approach based on observations that emerge from my arts practice’s engagement with computing.

I first began to notice overlooked performances in proximity to mobile computing and site-responsive arts practice in 2015 when my collaborators and I trialled an early prototype of *Vanitas* with test audiences.¹ The prototype required audience members to listen to audio on headphones and look at pictures using a smartphone app developed for the performance. They then had to switch between email, phone, maps, and SMS apps, to find outdoor locations and peer into an abandoned florist’s shop.²

After the performance I asked the audience members to recount their journey in chronological order paying particular attention to how they knew where to go and when. What surprised me about their responses was the extent to which accounts of the experience diverged from the way the app and transmedia messaging system was programmed. For

¹ For details of how to access *Vanitas* and information about the project see Appendix I

² For a schematic of the audience experience of the first *Vanitas* prototype see Appendix VI.

example, some audience members believed they received instructions via a telephone call at the beginning of the experience when they had not. Others thought all the instructions came from within the app, not from external text or voice messages. Some thought they were listening to the app as they walked to the shop when in fact, they had not. Others were not sure how they knew to go to the shop and had forgotten that they had received text messages.

These audience accounts revealed that immediately after completing the prototype, audience members could not accurately recall the order in which they received information or the medium from which it was delivered. That all the audience members completed *Vanitas* attests that the prototype ‘worked’, and the diversity of their accounts revealed that it could be made to ‘work’ through a wide variety of combinations. It seemed that the way the prototype required audience members to combine elements meant that techniques learnt in everyday smartphone interaction had to be selected, recombined and evaluated to keep up with the heightened, extra-daily reality of *Vanitas*. It was not that the individual modes of interaction were new. Far from it; listening to headphone audio, switching apps, reading SMS or finding a location are everyday activities. And yet the prototype produced the effect of rendering the participant’s autonomous discovery of how to function within *Vanitas* as overlookable. The discovery process of switching between media, combining interaction techniques, and keeping up with the perceived demands of the artwork shaped audience memories in ways that were at odds with what they actually encountered. How might this phenomenon be explained?

One possible approach is offered by anthropologist Lucy Suchman³ whose work focuses on the difference between what people think they are doing and what they actually do when executing a plan. Suchman's focused analysis on the relationship between plans and 'situated actions' in everyday life has become important in human-computer interaction (HCI) design as computers are not able to operate with the same level of flexibility in plan enactment as humans can. Central to her theory is the power of plans to retrospectively render the actions required to complete them as inconsequential and forgettable, which goes some way in explaining the surprising oversights in audience member accounts of the *Vanitas* prototype. Suchman notes that,

Instructions serve as a resource for describing what was done not only because they guide the course of action, but also because they filter out of the retrospective account of the action, or treat as "noise," everything that was actually done that the instructions fail to mention. (2006: 102)

What is forgotten once the instructions are deemed complete is the mess of details and the order of decisions that were made as life unfolded in the direction of the plan. In this respect a connection can be made between instructions, plans, scripts and scores that are seen as prior to situated actions and performances. Unlike a play's script which is given in advance, instructions in the *Vanitas* prototype were delivered at the very moment they were required to be enacted. Instead of being provided in a single document the instructions were orchestrated across media and communicated by text message, email, app audio, phone call and in person. This intensified combination and timing is likely to have exacerbated confusion. Despite the prototype being dependent on audience complicity and active participation in this heightened form of transmedia interaction, audience member recollection of their contribution to

³ The first edition of Lucy Suchman's book *Plans and Situated Actions: The Problem of Human-Machine Communication* (1987) was given a significant revision in a 2006 second edition *Human-Machine Reconfigurations: Plans and Situated Actions*. The 2006 edition contains all of the first edition chapters but is expanded with new introduction, footnotes and conclusion. It remains a classic text in Human-Computer Interaction.

enabling *Vanitas* to function was retrospectively filtered out and treated as “noise”. This selective filtering and non-observance of situated actions became a starting point for discussing overlooked performances.

The term performance in this context is useful for complementing Suchman’s situated actions for a number of reasons. First, it positions the audience member within the event and acknowledges their participation as a co-constituent of the unfolding performance. Second, the invocation of performance brings with it dramaturgy, and an appreciation of the impression management being undertaken by the performers, which in the case of *Vanitas* include both the smartphone and the audience member. This extends to the idea of crafting an overlookable performance (attempting imperceptibility), to overlooking performance (studiously non-observing and denying) and to recovering the overlooked (practicing undoing habituated modes of looking). Third, performance allows consideration of the citational nature of habits and situated actions which aspire to the tactical recreation of techniques in response to immediate circumstances. This, for example, can include performing a rendition of a previously successful problem-solving technique used for finding a location. Fourth, performance can be useful for discussing the intersection of fictional, everyday and virtual realities in which action is situated. This is particularly important for an event like *Vanitas* that is similar to what Benford and Giannachi termed mixed reality performance “to express both [the] mixing of the real and virtual as well as [the] combination of live performance and interactivity” (2011: 1).

Hearing audience member accounts of *Vanitas* helped me understand that smartphone interactions, normally overlooked as part of the dramaturgy of everyday life, are by necessity embroidered into any wider conception of artistic site-responsive performance. Like many

other aspects of contemporary life, how site-responsive performances are made and experienced has been impacted by what influential technologist Mark Weiser termed “ubiquitous computing” (also referred to as ubicomp) and his desire to create a “physical world richly and invisibly interwoven with sensors, actuators, displays, and computational elements, embedded seamlessly in the everyday objects of our lives and connected through a continuous network” (Weiser, Gold & Brown 1999: 694). The most tangible product of Weiser’s vision is the smartphone, a device adopted by an average of 80% of the populations of 31 “developed” and “developing” countries⁴ (Deloitte 2017: 5). However, in tandem with the development of ubicomp, a growing critical response to the technology has emerged in arts practice and theoretical discourse, to which this thesis contributes.

Overlooked performances connect with other aspects of life where the impalpable, unthinkable and unknowable intersect with knowledge. The problem which overlooking performance so carefully masks is the question of how we respond to the unknown in practice. This extends to the discovery of the absence of knowledge and reconciling with the unknowable. These challenges became clear to me through the creation of *Vanitas* when it was necessary to acknowledge my own overlooked performances. For a period I masked my own denial and terror in relation to the subject matter of *Vanitas*, namely death and the death of family members. Despite making an artwork called *Vanitas* I realised that my collaborator and I had masterfully avoided the subject of death. This led to an appreciation of unthinkable

⁴ Deloitte note that, “perhaps it’s no surprise that roughly four decades after the introduction of the first mobile phone, almost every developed country surveyed has at least 90 percent mobile phone penetration.” In 2017 smartphones average 80% penetration of the “developed” countries surveyed, including Canada, USA, Belgium, France, Germany, Ireland, Italy, Luxemburg, Netherlands, Norway, Poland, Sweden, United Kingdom, Australia, Japan, South Korea. Smartphones average 82% penetration in “developing” countries surveyed, including Argentina, Mexico, Brazil, Russia, China, India. Source: Global Mobile Consumer Trends (Deloitte 2017).

subjects, like one's own death, and the overlooked performances undertaken to avoid engaging with it.

The transdisciplinary approach of this thesis moves back and forth from performance to computing and software studies. This necessitates the breadth of approaches I offer in this expanded introduction. To establish the transdisciplinary field that converges on overlooked performances I draw attention to their loci in the computers, sites and bodies of *Vanitas*. While it is necessary to treat the smartphones, site-specific locations and audience members as separate initially, I return to examine the seams joining them at the end of this introduction.

What is a smartphone?

A smartphone is a mobile computing device that has been carefully engineered to fit into a human hand and normally presents as a single object with a fascia covered by a touchscreen that is held towards the face. Each smartphone comprises thousands of technologies engineered to cohabit a single body containing finely wrought exotic materials so rare that until recently they were seldom encountered by humans. The majority of smartphones are made by a few very large international technology corporations that are engaged in intense competition on price, features and functionality. Unlike their mobile phone predecessors, smartphones connect to distribution systems that permit developers to create software for the devices. The combination of sophisticated hardware and a diverse software ecosystem has meant that smartphones are able to emulate and remediate an unprecedented number of prior devices, tools, media and means of communication within a single machine. The smartphone is a product that appears to be a discrete, individual 'black box' but is in fact radically plural enabling functionality that is supremely dispersed across computers connected via the

internet. In this sense the smartphone is the most visible component of the apparatus of ubiquitous computing which is otherwise designed to remain hidden. The product of an unprecedented global endeavour, organisation, innovation and mastery over materials, the smartphone is designed in such a way that *you do not need to know how it works to make it work*.

The neologism ‘smartphone’ refers to mobile computing devices that resemble mobile phones. The ‘smart’ part is the computer. The ‘phone’ of the smartphone inherits the technologies and attendant human behaviours of two-way auditory and vocal communication between people in different physical locations, usually unable to see one another, exemplified by the telephone. Vestigial media practices from the early naval speaking tubes and voice pipes on boats, intercoms and military field radios, switchboards and operator services, analogue and subsequently digital telephones may all be discernible in current smartphone design and usage. The etiquette of appropriate telephone manner tailored during each interaction to suit the unfolding relationship between interlocutors remains in constant and careful rehearsal to ensure minimisation of misunderstanding and to maintain the unseen ‘face’ of both parties. This 140-year rehearsal may be appreciated as the refinement of live communication for distant interlocutors unable to see the visual cues exchanged by people in physical proximity. The smartphone enables behaviours that resemble making a telephone call, first by appearing as a telephone receiver (a device held in the hand connecting ear to mouth) and second by using software to emulate the telephone’s mode of interaction (dialling, hanging up and two-way audio, for example). New applications and artworks that deviate from the telephone’s behavioural norms cause confusion by interrupting well established habits that otherwise go overlooked. They disrupt the seamless interaction aspired to by engineers and interlocutors alike.

As mobile computers like smartphones have been so broadly adopted their impact within everyday life can often pass as unremarkable and go unnoticed. The extent to which smartphones alter experiences of outdoors locations, for example, can be hard to appreciate. However, when smartphones come into contact with aesthetic performance they still can cause noticeable disruption, revealing the tension and potential for anxiety at the meeting points where realities mix. Events at outdoor locations such as site-responsive arts practice therefore have the potential to bring the smartphone into proximity with performance to disrupt what might otherwise go unnoticed.

Smartphones and sites

Developments in the arts practices loosely grouped under the term ‘site work’, including but not limited to site-specific, site-based, site-responsive and site-sensitive performance, have occupied the focus of a generation of scholars. The movement of arts practices beyond theatres and galleries, locations traditionally designated legitimate for performance, has not led to a single new art form, but to a profusion of hybrid practices as diverse as the places and environments they reconfigure themselves within. Understanding of the hybrid and often unrepeated configurations of works in the field has moved from what Mike Pearson identifies as “general categorization – ‘site-determined’, ‘site-conscious’, ‘site-responsive’, ‘context-specific’ – to closer scrutiny of the specificity of each instance of performance” (2010: 7-8). Situated as a point of convergence between constitutive theories of spatial practice in art, geography, sociology, psychology, anthropology and philosophy, the field produces a diversity of artworks emerging at unconventional sites recruited as locations for intentional arts practice. Central to many approaches is the recognition of what is already occurring within a site and working sympathetically with the performances already occurring there, rather than negating or studiously ignoring them as unwanted noise as is common in theatre

auditoria. Practices in this field are often focused on drawing attention to hidden, forgotten or neglected aspects of a site. ‘Site work’ therefore offers a fertile starting position for addressing overlooked performances in proximity to the smartphone.

Several theorists have narrated a change in ‘site works’ since the millennium. In Fiona Wilkie’s discussion on the “production of site”, for example, she marks a change in approach from “*inhabiting* to *journeying*” noting a shift from “performance that *inhabits* a place to performance that *moves through* spaces” (2007: 90 original emphasis). Likewise, Mike Pearson notes a move “from: *fixity* to *mobility*; from *architectonic* to *peripatetic* manifestations; from *expositional* to *relational* modes” (2010: 7 original emphasis) while Claire Doherty describes movement away from “the spectacular re-enactment to the quiet intervention, from remedial collaboration to dialogic, open-ended process” (2004: 11). The field intersects with walking and mobility studies as ambulation within an environment is a constituent element in many ‘site works.’

Misha Myers’ work relating to site-responsive, ambulatory performance practices develops the use of the term “percipient” to build on the common definition of someone “who perceives the world through their senses” and extends it towards a “particular kind of participant whose active, skilful, embodied and sensorial engagement alters and determines a process and its outcomes” (2009: 41). Following the first prototype of *Vanitas* it seemed apt to reconsider the smartphone in relation to outdoor sites and the interactive participation of audiences in performance. I began to use the term ‘site-responsive performance practice with smartphones’ to describe the field of practice and adopted Myers’ ‘percipient’ to more accurately describe “the people formerly known as the audience” (McGuinness 2016) often referred to by the terms ‘user’, ‘audience member’ and ‘participant’. Percipients weave their

own reality. Smartphones augment the percipient's embodied and sensorial engagement within outdoor locations in a number of ways.

It is worth acknowledging that regardless of whether a site-responsive performance actively employs an audience member's smartphone, the device is likely to travel with them throughout the event anyway, as many people take their smartphone with them everywhere they go. Hence, the near ubiquity for some. Because of this near-constant proximity to the body, smartphones have the potential to interrupt and intervene in site-responsive artworks as they do in everyday life or in other arts events, such as in theatre auditoria, even, as I shall outline, if switched off. However, the smartphone might also be used, officially or not, to augment the art event occurring at a particular place and the planned experience of it. For example, in a site-responsive performance, percipients might use their smartphone to locate themselves using GPS, access maps to gain an alternate perspective of terrain, research the history of the site or 'check-in' using a social network.

The presence of the smartphone within the site-responsive performance event fundamentally alters how the experience will be perceived. For example, the smartphone changes the potential for becoming lost within an outdoor location, altering the experience of being disconnected from the wider world and of being out of touch with friends and family whilst attending an event. The smartphone may prevent bewilderment within an outdoor performance site. Likewise, increasing network coverage can mean that being 'out of touch' is both less possible and increasingly less desirable.

These developments change the level of comfort felt within a site-based work, as they do for life in general: the promise of the smartphone, as Sherry Turkle has observed, is to never be

lost or alone again (Turkle 2011: 19). The smartphone's tether to the virtual helps perpetuate a belief in human separation from the material world, nature and local performance events. In everyday experiences of public space, it is commonplace to work across the interface of the smartphone to be present in the local while simultaneously being enmeshed within a web of virtual sites. Belief that this behaviour might stop, that the tether should be cut during a performance, is a matter of convention, and to many is an increasingly unattractive and unattainable proposition. It is in these ways that smartphones have fundamentally altered the experience of reality on the level of what Erving Goffman named the 'interaction order' (1983) of people and things that dictates an emergent, tactical, immanent mode of being together that is perpetually renegotiated, often subliminally.

The smartphone's continuous connection to the internet, and the networked virtualities it enables, maintains a link beyond the physical present of what Goffman called the 'ecological huddle' (1983) of people and things physically 'co-present' together. Developing Goffman's theory for the digital-age Karin Knorr-Cetina articulates the 'synthetic situation' (2009) of an internet-connected interaction order not constituted in the shared space of 'co-present' people and things, but in the shared 'response-presence', of being in the same time, if not in the same place. Maintaining response-presence is also a key feature of computer operating systems, which are designed to stay responsive to the user despite how busy they might be processing concurrent tasks. Response-presence becomes a central organising principle for expanded dramaturgies of site which have previously been founded on co-presence: the sharing of a place in time additional to, or in the absence of, the sharing of place in space.

The desire to be response-present is pervasive and has led to a range of habitual dependencies on smartphones that impact experiences of sites and co-present relations in surprising ways.

For example, even when switched-off, the physical presence of the inert smartphone serves as a mnemonic to the potential of connection, availability, and response-presence. The smartphone is part of the self outside of the self, and the local, palpable fetish of the transcendent, hyperconnected digital life that is able to be in response-presence with the lives being lived elsewhere in the same instant. In moments of boredom or uncertainty, the smartphone is often the first thing people reach for, and they are not always immediately aware they are doing it. For many, the way public space, outdoor locations and by extension, site-responsive performance, are understood is through and with the smartphone, and so deliberately leaving it at home or in the care of an usher can create a kind of separation anxiety, which brings the phone to mind because of its absence. The strangeness of not being able to check the time, location, email, social media or look up information itself may become a novelty producing a defamiliarizing effect impacting performance in outdoor locations *via negativa*. Therefore, the smartphone impacts performance whether it is present or not, and whether it is purposed for the performance or not. This is because the handheld smartphone hardware itself stands as the gateway to the larger apparatus of computational society.

Smartphone owners can become hypersensitised to the extension of their perceptual capacity to include electromagnetic transmissions that the smartphone can sense. The smartphone feels things we cannot and translates them to scales our sensorium can discern. Through them we gain access to spectral frequencies that lie beyond the limits of our sensorium. This access allows us to share response-presence with all manner of human and non-human others. However, this is not a McLuhanesque transcendental extension of the nervous system into a ‘global embrace’ (1964: 16), but I argue, an immanent one, built from the ground up through the performance of vibrant materials collaborating in given times and places. The smartphone

is the gatekeeper of communications occurring on electromagnetic frequencies that we, mercifully, cannot sense without them. Chirps, vibrations and pings are the product of the smartphone's translation of communication to a scale that human senses can apprehend. On the one hand smartphones may permit or enhance immersion within a site-based performance expanded to include the computational, and by extension, the internet, whilst on the other prevent or curtail it.

Considering "media in relation to the place - technical, artistic and social - it emerges from" (Eckersall, Grehan & Scheer 2017: 2) might enable creators of site-responsive artworks to extend the concept of 'site' to the computational, mediated and networked capacities of the smartphone. Approached this way, the smartphone may be considered a site where performance occurs and therefore might be approached through site-responsive arts practices. The smartphone also situates the local within a web of virtual sites. Therefore, what can constitute a site-responsive performance is expanded because everyday life, experiences of place and construction of the self are increasingly conceived with, through and in spite of smartphones. The expanded spectrum of temporal, spatial and electromagnetic material realities that the smartphone extends the body's access to and interaction with heralds a spectral dramaturgy. This dramaturgy prescribes the flows of distant events, people, and performances as they enter into response-presence with the local across what I will now introduce as the 'seam of the smartphone'.

Seams across the fabric of reality

The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it (Weiser 1991: 66).

Mark Weiser's aspiration for ubiquitous computing to 'disappear' seamlessly into the fabric of everyday life arguable gave an aesthetic purpose that shaped the development of mobile devices and smartphones over the last thirty years. Like Yoshi Oida's invisible actor, Weiser's desire for his technology to disappear encompasses computers within the phenomenon of overlooked performances. Weiser's aesthetic is manifested in design, marketing language and the ways organisations imagine their purpose through branding. A recent example is Google's webpage launching *The Pixel* smartphone (below) which sells a single 'experience made by Google' that is 'fast, seamless, and easy-to-use' (2016). The language of the advertisement epitomizes the promise of mobile devices to erase (or at least hide) the seams running across the fabrics of reality: between physical and virtual spaces and times; between representing and manipulating media; between different media types, with the ultimate aim of having only one meta-medium (software); and even between the tactile sensations of the smartphone's 'seamless glass-aluminium body', it aims to render the distinction between glass and aluminium, materials of the physical world, indiscernible.

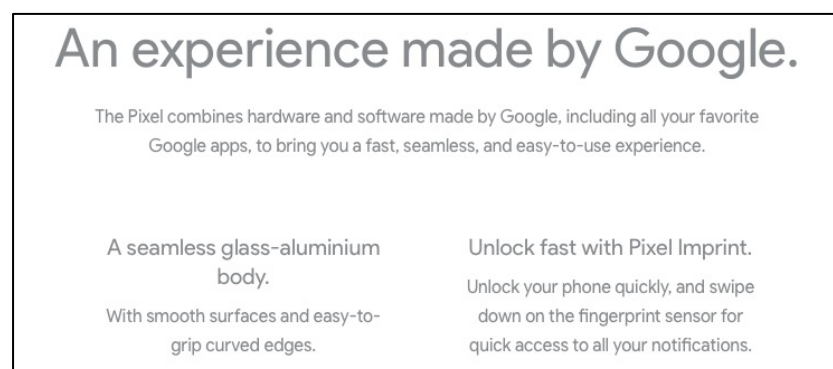


Figure 1 – Screen grab of Made By Google marketing website launching 'The Pixel' smartphone, accessed on 4 October 2016 <https://madeby.google.com/phone/>

The Pixel's 2016 marketing campaign draws on a seamless aesthetic that finds beauty in the engineering of smoothness and ease of use. The industrialisation and corporatisation of the seamless aesthetic arguably inflects what David Berry has termed "softwarized society"

(2014: 55) from the world's largest companies to individual sense perceptions. The pursuit of seamlessness becomes ideological when it inverts reality by masking the elaborate performances users undertake to achieve it. The findings from the first prototype of *Vanitas* are symptomatic of such overlooked performances that perpetuate at the micro-level of the interaction order a far broader ideology of seamlessness gripping cultures caught up with the grand narrative of technological progress. Far from being delivered by heroic engineering alone, seamlessness is an ideal that is aspired to in each encounter with the world and perpetuated in collusion with technology.

The promise of smartphone seamlessness extends from effortless connectivity, through to easeful switching between tasks, software and media, work and play, to refined encounters with the smartphone's 'body' of 'smooth surfaces and easy-to-grip curved edges' (Google 2016). The desire "to be seamless" as Larissa Hjorth and Kathleen Cumiskey note, "is ultimately to aspire to be continuous, to be simultaneous, to have flow, unfettered access to information and to other people in a fast-paced and ever-changing world" (2013: 4). The individual example from Google's marketing perpetuates a far wider teleological, normalizing myth of progress towards Marshall McLuhan's famed extension of "our central nervous system itself in[to] a global embrace, abolishing both space and time as far as our planet is concerned" (1964: 19).

Rough edges might be overlooked as our habituation affords what Goffman called 'studied non-observance' which forgives *faux pas* that might threaten the ideally seamless encounter. The aspiration for normative encounters with technologies that are easy to use, smooth and enabling of what Bolter and Grusin term "transparent immediacy" and "interfaceless

interface” (2000: 14) contributes to a problem David Abram identifies as the imperceptibility of the extent of our entanglement with technology:

We are simply unable to discern with any clarity the manner in which our own perceptions and thoughts are being shifted by our sensory involvement with electronic technologies, since any thinking that seeks to discern such a shift is itself subject to the very effect that it strives to thematize. (1996: 115)

Likewise, the pursuit of clarity betrays a desire for transparent immediacy: a wish to overcome any uncertainty, glitches, lag, malfunctions or other distraction that roughens the flow of how a seamless encounter is ‘supposed to be’. The ideology of seamlessness is normative, eliding differences in media, bodies, location and interaction. Yet, the muddle of moment-to-moment lived experiences, where the seams of power, media edges, technological failure and hemmed-in ideals are palpably sewn together is far from seamless. The experience of life with technology is not seamless but ‘seamful’; riddled with effortful workarounds, flaws, failures, glitches and improvised solutions carried out by humans to make machines work. The ideology of seamlessness inverts this reality.

The *Vanitas* prototype revealed that people create workarounds, deploy coping tactics and change their behaviour to make allowances for flaws in software and experience design. These are formed of and reinforce habits that are invisible to them.⁵ Habituation is the real means people have to make software work seamlessly. Smartphone interaction habits are part of overlooked rituals that are rehearsed and sedimented during each entangled encounter with new technology. Far from being the same for everyone, each person develops idiosyncratic habits with their devices, and these often occlude the allowances that our fingers, desires and voices make in pursuit of the ideology of seamlessness we become complicit with. In this

⁵ Karen Barad approaches the power of habits as “sedimentary practices” that shape the world in a variety of ways (like the accrual of sediment in rivers) over time.

sense it becomes clear that technology does not exist in machines alone and is not external to the body. Technology is distributed across machines, bodies and environments entangled within what N. Katherine Hayles terms “technogenesis”, the “idea that humans and technics coevolve together” (2012: 10) constituting “a complex adaptive system, with the technologies constantly changing as well as bringing about change in those whose lives are enmeshed with them” (2012: 18).

The smartphone exists in a paradoxical position between an aspiration to attain the aestheticized beauty of seamlessness and as a ‘convergence’ device where incongruous technologies, media and embodied practices jostle to fit together producing unavoidably seamful results. HCI researchers became aware that this tension in ubiquitous computing is characterized by an inherent and everyday “messiness” that is “not a property of prototype technologies, of the bleeding edge, or of pragmatic compromise; messiness is a property of infrastructure itself” (Bell & Dourish 2007: 8). Barkhuus and Polichar hypothesise that it is “the power of the ability to mix, match and interconnect individual apps [that] in large part [is] what has made the smart phone [*sic.*] so successful as a ubicomp device” (2011: 638). Indeed they note that smartphone interactions “are characterized by seamfulness, and users take advantage of those seams”, they ‘make do’ “with less than adequate technology by putting considerable effort into getting what they have to work” (2011: 635-8). It is in this way that Barkhuus and Polichar claim that a seamful approach to ubicomp is empowering for human users. And yet this understanding held by the creators of the technology and the ‘make do’ practices developed by end users does not impact on the marketing myths which still promulgate the ideology of seamlessness.

In contrast to seamlessness, avant-garde arts practices have historically deployed techniques that seek to defamiliarize. A century ago Viktor Shklovsky suggested that,

The technique of art is 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. (1916: 16)

Shklovsky identified some of the unfortunate side-effects of habituation that “devours work, clothes, furniture, one’s wife, and the fear of war” and made his famous assertion that “art exists that one may recover the sensation of life, to make one feel things, to make the stone *stony*” (ibid. 16). A desire to be directly affected by ‘stony’ sensations is also a desire for knowledge, to learn from the materiality of things how to feel and to experience directly what they know.

In planning the development of *Vanitas* after the prototype, I sought to discern “the manner in which our own perceptions... are being shifted by our sensory involvement with electronic technologies” (Abram 1996), to precipitate such knowing in its doing by operating on the certainty of habits perpetuating seamlessness. And yet, the postdigital condition may prevent such a recovery, as Berry & Dieter point out:

As ubiquitous computational infrastructures radiate data, they encourage tacit modes of knowing and iteration of habit – and thus, also create *agnōsis*, or ‘not knowing’, through a form of agnotology. By ‘agnotology’ we are referring to the way in which computation facilitates a systemic production and maintenance of ignorance. (2015: 5)

The ideology of seamlessness is a symptom of the fundamental challenge that human-computer interaction seeks to address: the seemingly irreconcilable ontologies of human and computer. The actual workings of computers are insensible to unaided human senses and so interfaces must always serve as a middle ground. Human inability to ‘get a grip’ on “computational things” necessitates “a passive trust in widely delegated, yet obfuscated,

actions” of ubiquitous computing (ibid.). Movements such as The New Aesthetic attempt to find ways to ‘surface’ the obfuscated actions of the computer “towards uncovering the ‘unseen’, the little understood logic of computational society and the anxieties that this introduces” (Berry, David M et al. 2012: 41). While various arts practices have attempted to render data palpable and ‘get a grip’ on computation with varying degrees of success, the question remains whether the seam can be elided, whether machine computation can be reconciled with neurological computation, and whether or not this is desired. The ultimate vision of the ideology of seamlessness is not simply a ‘wet’ reconciliation of machine and biological ontologies, but of the computerisation and therefore mastery of the human.

The impalpability of digital data and machine computation creates a different order of overlooking beyond the sensible. Machine computation cannot be recovered through avant-garde techniques of defamiliarization that work on habituated practices because human senses cannot ‘get a grip’ on the machines’ workings. It is not a case of ‘overlooking’ or ‘studious non-observation’ of computation because there is nothing for us to ‘see’ or sense directly. Humans and computing meet in performances of interface. However, what is often overlooked, and recoverable, is an appreciation that computation and interface *is* performed. These overlooked performances are an important point of focus in this thesis.

I approach smartphones and the considerable range of interactive affordances they offer from a performance-making perspective by focusing on the seams where sites, computers and humans join. As site-responsive performance also emerges from a close relationship to the dramaturgy of everyday life, it can conflict with the smartphone’s own ways of weaving together everyday performances of reality. The meeting of these two conspicuously incongruent dramaturgies of interaction and the attempts to elide or hold open their

differences becomes a formal consideration for the expanded practice of site-responsive performance cognisant of computation.

Recovering the smartphone itself as a seam from an ideology that denies it is the first step in redressing its overlooked performances. As the seam denied by seamlessness, each smartphone is a physical manifestation of the join between the fabrics of mixed reality: a place where matter meets mathematics to perform computing and a site where reality is sedimented out of habituated performances. The uncertainty surrounding the smartphone as a seam between realities is connected to the anxiety inducing insensibility of black box computing and the seemingly immaterial void of networked society. When set amongst the graves of a cemetery in a site-responsive performance of *Vanitas* these anxieties extend to the unknown rules for interacting in an unfamiliar art event and to the unthinkable certainty of one's own death. The exploration of death common in vanitas art emerges as a tactic to dishabituate overlooked performances. My contribution is to offer a seamful artwork in the form of *Vanitas* and a spectral dramaturgy that re-engages with a range of overlooked performances enabling computing, vanitas artworks and site-responsive practices.

The practices converging on this research project

The rapid penetration of smartphones into everyday life is often ascribed to their positioning as 'convergence devices' that combine previously distinct technologies into a single portable computer able to emulate other tools and media through software. Similarly, overlooked performances are also the site of convergence between theoretical disciplines and artistic practices, not only of ubiquitous computing, software and telecommunications, but of media, social sciences and the humanities, performance, photography, painting, gaming and digital art. Smartphones are tools used to support arts practices as well as the creation of artistic

works. For some they are the medium of the work, and in this project the creation of a smartphone app and server based transmedia system formed a substantial element of the creative process and the artwork it produced. However, this thesis does not focus on the technical realisation of *Vanitas* but on the observations of overlooked performances I was able to make directing its creation through a multimodal methodology.

As described above, the first prototype of *Vanitas* used participant interviews and questionnaires. I also interviewed my artistic and technical collaborators. The software system was designed to generate analytical data to reveal trends across performances which were used to inform artistic decisions and refine the experience. Early in the project, design-led methods were used to facilitate the creation of the app interface. Throughout the creative research I undertook reflective writing and kept a journal of the project development. I also developed an approach to audio editing through several software systems that enabled me to hone the project through media manipulation. The diversity of the methods I hybridised within my creative practice falls under the broad banner of artistic research. This was a discovery-led research project and not one led by a preconceived idea about the form or content of the project beyond that it would explore the use smartphones to create a performance artwork. The research was guided by two artistic practices that emerged as the project developed.

The first practice was the attenuation of and subsequent critical reflection to my own autonomous experiences of being a percipient within outdoor locations with my smartphone. This method of self-observation and purposeful search for the potential affordances of outdoor locations was developed from my earlier experiences of creating site-responsive performance which originated from my undergraduate performance training at Dartington

College of Arts. However, this project required me to extend this practice to the smartphone in order to address my own relationship with the seamless aesthetic and the overlooked performances I was unknowingly perpetuating.

The second practice emerged from the dialogue undertaken with my collaborator, the visual and performance artist Jason Maling, which spanned the creative process and is a major constitutive element of the artwork *Vanitas*. This practice took the form of a heightened performative dialogue circling both the inquiry and the environmental sites of the artwork echoing Misha Myers' methodology of "conversive wayfinding" (2010, 2011). Myers describes her "ambulant and dialogic methodology" as "a spatial practice that conducts percipients' attention to landscapes through mediated/live aural performance; perceptual and dialogic strategies of interacting and knowing place – shared viewpoints, earpoints, conversational conviviality and critical witnessing; the use of different paces, paths and places of narrative; and performance as a way of knowing" (2010: 67). *Vanitas* is fabricated by such conversive wayfinding: first as the product of the artists' conversations during walks and second as the interplay between the percipient and their smartphone as they move together through the environment. The first is embedded within the second as the percipient listens to the prior wayfinding that the software brings into their present. During the performance, the artists and audiences, percipients of the same place in different times, share a practice-based methodology that allows spectral encounters with multiple times, interlocutors and locations to layer upon the present.

Both of these practices function within the creative process to anticipate the future experiences of the percipient: perceiving the affordance of sites through the sensation of moving amongst them; entering into dialogic thought with the world as it presents itself to the

senses; entering into dialogue with voices perceived through mediated audio. It is in this way that *Vanitas* inculcates certain ways of doing, certain techniques for knowledge production that this written thesis can only describe. At the intersection of site-responsive performance and ubiquitous computing this PhD project contributes an answer to the question posed by Eckersall, Grehan and Scheer in *New Media Dramaturgy*: “what is required to digitally encode, store and retransmit an experience?” (2017: 10). The double encoding of percipient practices deployed in *Vanitas*, outlined in brief here, and expanded through this thesis is my multimodal response to New Media Dramaturgy’s question.

In an increasingly entangled period of device and media proliferation “among humans, instruments, algorithms, and machines on the stage, in laboratories, and through the streets of cities,” Chris Salter notes we exist perpetually on the threshold of “new knowing about the world” (2010: 352). We simultaneously develop coping behaviours to attempt attunement to the state of *ekstasis* (of being outside or beside oneself while experiencing learning), though not without energetic, emotional and cognitive cost. Contrary to the seamless aims of software, I seek out the formative moments of uncertainty in hybrid interactions to inform dramaturgical thinking. Far from existing in a transcended, seamless postmedia environment, we perpetually operate across the seams of media, devices and bodies, that are woven with us into the fabrics of reality.

Capturing the scarce commodity of human attention is the means of production in an attention economy. Catching and sustaining focus becomes the prerequisite for changing or bolstering beliefs that produce sales and votes. It is therefore apt to interrogate the practices used to capture attention and rehearse practices for resisting entrapment through artistic research. Understanding the relationship between one’s own productive agency in the

fabrication of reality and the lending of one's means to realities fabricated by others, is knowledge of increasing value in the attention economy. The cost-benefit analysis of contemporary technogenesis with ubiquitous computing that occurs too infrequently in everyday interactions is worth rehearsing in arts practice. The combination of app and transmedia system employed in *Vanitas* creates a microcosm of the wider ubiquitous computing apparatus that enables the restaging of corporate systems normally rendered inaccessible, intangible and impervious. The creation of such a system for this research enables the artwork to deliberately interrupt itself and attempt to draw attention to the seams between the realities it remixes.

Thesis structure

The surprising accounts of audience experiences collected after the *Vanitas* prototype and the subsequent reflection they prompted informed the next stage of development for the artwork and this thesis. *Vanitas* was reconfigured into two chapters: *Vanitas Chapter One* that is downloaded as an app that the smartphone can perform 'anywhere', that is to say, as a mobile performance; and, *Vanitas Chapter Two* that is contained within the app download but can only be activated at an event at Melbourne General Cemetery. The transition from North Melbourne to Melbourne General Cemetery and the reimagining of the artwork this entailed was informed by the pursuit of overlooked performances. This led me to consider what other performances are overlooked in the production of smartphone interfaces, in site-responsive performance practice, and indeed, in everyday life.

The three sections of this thesis approach overlooked performances from contrasting rhetorical paradigms, with the fourth part of the overall project being *Vanitas* itself. Each chapter in the thesis is framed by revisiting a media manipulation technique such as play,

stop, fast-forward, rewind and pause. These techniques have become ubiquitous within softwarized societies and are commonly understood by their symbols ‘▶, ■, ►►, ◀◀, II’ more than their written names. Collectively the techniques serve as a way to rethink the link between remediation, habituation and technogenesis that entangles current usage with a series of mechanical lineages. The techniques have survived their original technologies and now each exists in the popular imaginary as distinct ways to understand the manipulation of time and the performance of machines.

Part One, ‘◀◀ II ►►’, comprises Chapters One, Two and Three. These chapters take a high-level historical and systems-oriented approach to audio walks and introduce the *Vanitas* project. They range over a large field of practice at speed, backwards and forwards, then focus for an extended period on a ‘paused’ moment of stillness in vanitas still-life painting.

Chapter One ‘rewinds’ the ‘audio walk’ through a century of remediation to identify the lineages of a field of creative practice from which *Vanitas* emerges. The analysis of the field of practice produces a list of common features of audio walk artworks. I also present a way of analysing mobile media and the smartphone in performance through an entity diagramming technique that models the seams of interaction. I develop this seamful technique by applying it to a field of ambulatory artistic projects occurring in non-traditional performance sites with smartphones, mobile audio devices and headphones. The purpose of this approach is to reveal overlooked seams that artists and interface designers often attempt to elide in order to return attention to them as possible foci of intervention. For example, the diagrams ‘stretch out’ the synthetic situation of an audio walk to illustrate the connections between the place of listening and the place of recording via the percipient’s body and mediating technology. It

also visualises the systems inherent within this field of arts practice which combine mediated realities accessed via technology with the emplaced experience of a site's physical location.

Chapter Two 'pauses' to consider *Vanitas* in relation to the arts practices introduced in Chapter One. I discuss some of the historical techniques of vanitas painting and then apply the seamful diagramming technique introduced in Chapter One to *Vanitas Chapter One* and *Vanitas Chapter Two* respectively. This establishes the two modes of *Vanitas* explored in this thesis: the illuminated podcast and the expanded transmedial audio walk. The two modes are the subject of Part Two and Part Three respectively.

In Chapter Three I 'fast-forward' through the development of *Vanitas* and introduce a laminated systems approach to audio walks created with smartphones. This 'high-level' systems approach to audio walks prompts a further three diagramming techniques that, unlike the approach taken in Chapters One and Two, each incorporate time into the models. These techniques meet the need of creators to be able to envision their artworks as systems and range over them through 'fast-forward-thinking'. As artefacts from the creative process the models elucidate a creative team's understanding of the dramaturgical structures of the performance they are making that might otherwise remain unspoken and overlooked.

Part Two, '►' is comprised of Chapters Four and Five. This section 'plays' through the idea of a performance ontology of computation by revisiting overlooked machine performances from key moments in the history of computing. It plays out the unspooling of a plan into situated action, a script into a play, to arrive at an appreciation of the singularity of machine performance that is irreducible to a plan, script or the sum of its parts.

In Chapter Four I expand my pursuit of overlooked performances to the smartphone's internal workings. I establish a performance ontology of computing to complement the well-established procedural ontology of computing by returning to formative decisions, observations and assumptions from key figures from the development of computing, software and digital media. I speculate that overlooking the performance of computation has effectively enabled the overlooking of other key performances in the ontology of computing, including the performance of machines, data, media, software and interface.

Chapter Five plays through *Vanitas Chapter One's* illuminated podcast mode and analyses it as a performance through the performance ontology introduced in Chapter Four. This analysis enables the identification of overlooked performances of computation, media and interface in *Vanitas* that have broad application to mobile computing usage in general.

Part Three, '■', is comprised of Chapters Six and Seven. In this section I approach the full 'stop' of death through *Vanitas Chapter Two* which takes place at Melbourne General Cemetery. This section experiments with a spectral dramaturgical writing style distinct from the rest of the thesis. This rhetorical approach is employed as a form of dramaturgy that evokes the immanent experience of *Vanitas Chapter Two* and the author's position within it. Part Three serves as a culmination of the previous chapters and *Vanitas* by seeking a way to engage with the complexities of living with overlooked performances in proximity to everyday realities.

Chapter Six steps chronologically through *Vanitas* as an expanded transmedial audio walk situated within Melbourne General Cemetery. By focusing on the creative decisions made during the artistic process that produced *Vanitas*, I speculate on an emerging aesthetic of

ambulatory artworks made in proximity to mobile computing. I present a list of dichotomised seamless and seamful terms to tentatively postulate a direction of travel for audio walk dramaturgies.

Chapter Seven presents a second journey through the cemetery with *Vanitas*, this time organised thematically not chronologically and in pursuit of an expanded understanding of the overlooked performances circulating around life and death in proximity to smartphones. By walking through the creative process once more, my attention shifts to the singularity of performance and its ability to draw multiple times and places into one moment. Returning to the themes of vanitas artworks and their attempts to precipitate mortality salience (awareness of the certainty of one's own death) raises questions of the techniques required to think the unthinkable and to think through the void of the unknown. I identify a second set of overlooked performances that emerge from my analysis of *Vanitas Chapter Two*.

The conclusion reiterates the impetus and major concerns of this research, restates its main contributions and discusses their implications for future work. I synthesise some of the most pressing observations of overlooked performances identified in Parts Two and Three which relate to the immanent approach taken by this thesis. I frame this part of the conclusion by considering the implications of the overlooked performance ontologies of computing and *bios* that emerged out of Parts Two and Three respectively. I finish with a discussion of mastery in relation to overlooking performance and contemplate an ethical approach to 'working towards knowing' unthinkable subjects in relation to computing, the body and dramaturgy.

Part One: ◀◀ || ▶▶

1. ◀◀ Rewind: The Audio Walk from the Smartphone to the Theatre Phone

The term ‘rewind’ evokes the era of tape media when reviewing earlier material required the physical reversal of playback and the regathering of tape that had been spooled out over time: when a physical section of tape correlated directly to a specific time within a recording. While the use of tape-based media is increasingly rare, the term ‘rewind’ denoting the tracking back to an earlier point in a linear media file is still common in speech despite it being either re-termed ‘reverse’ or denoted merely by its universal symbol ‘◀◀’ in many digital user interfaces. Rewind’s physical manipulation of tape may be lost, but its power to affect time remains in the popular imaginary. As such ‘rewind’ serves to illustrate the complex history of remediation where media technologies can be understood as networks that comprise cultural practices, techniques, behaviours, semiotics and are not defined as machines alone. Rewind is firmly lodged in an entangled network of remediation that carries far less obvious techniques and vestigial media practices forward through time. In this sense the media networks themselves may be seen as written on a tape stretching through time that might be rewound to reveal the heritage of what appear to be radically new technologies in the present.

The paradox of entangling technogenesis outlined in the introduction remains: any attempt to appreciate entanglement with smartphone technology is itself entangled with technologies unevenly woven into the fabric of reality along with our bodies and imaginations. Such

entanglement is the fabric of reality. The practice-led methodology of this thesis interrogates a way of walking through an environment ‘invisibly interwoven’ with computers and sensors through audio walk arts practice. This reflects a wider function of experimental arts practice with emerging technology: the ritual aestheticization of everyday experiences of gaining a new technology and discovering its potential affordances. However, another key mode of this research approaches the practices and technologies of the smartphone as themselves interwoven within the networks of remediation that I seek now to rewind and replay. By focusing on the evolution of audio walks I explore the historical entanglement of performance, mediated audio and its relation to the location of the listening body that contextualises how the smartphone is impacting this field of arts practice. I will identify six common features of audio walks to consider how smartphones impact the practice of creating ambulatory, site-responsive performance with what have previously been commonly termed ‘mobile media devices’. During the chapter each common feature is identified within the context of arts practice and I summarise them in a list in the conclusion.

A lineage of audio walks can be traced through the emergence of new mobile auditing systems working through the Walkman/cassette tape, Discman/compact disc, MP3 player/digital file, mobile phone/audio calls, to the smartphone itself as a mobile computer that emulates prior audio playback systems. However, smartphones are not a new medium in the same sense as cassette tapes or compact discs. They are better understood as local, palpable nodes in a multi scalar apparatus of ubiquitous computing: both a local computing machine animated by almost identical local performances of software able to emulate prior and new forms of media, and part of a network of sensors and computers interwoven into the environment. As such, and to place the smartphone in context, I approach media networks as systems that produce audio walks. I suggest that it is the systems themselves that form the

medium of audio walk and site-responsive performance artworks, not the individual constituent elements such as an individual media device, location or practice. In this respect these artworks might be considered to be combinations of technologies, practices, modes of interaction, places, media that mix documentary, fictional, dramatic, everyday and mimetic realities. The challenge, therefore, is to find the appropriate methods and conceptual frameworks for the complexity of emerging systems that smartphones, audio walks and site-responsive performance are part. The level of formal innovation in the artworks I introduce suggests a link to an avant-garde tradition in arts practice, but also a contemporary convergence with ‘creative industry’ and ‘start-up’ practices of inventing new ways of working with mobile technology. Arts practice becomes one of several converging cultural modes responding critically to life increasingly interwoven with computational technology.

In order to move beyond seeing the mobile device as a medium in isolation I will address the systems they are part of through the introduction of a diagramming technique that models mobile performance. The technique is intended to be of use to artists and researchers scoping the systems they work with. Over the course of the chapter I will introduce new elements to the models as more elaborate systems come into focus. If, as I have suggested, the medium of a site-responsive work is the combinatorial system that produces it, then the model produced by the diagramming technique might offer a way to schematise the diverse field of practice where each artwork is a novel hybrid. This approach establishes a way to identify *Vanitas*’ emergence from the field and, over the next two chapters, articulate its points of difference.

Clunk. The tape has rewound to 1880. To trace the media network formed around telephones, headphones and performance I briefly revisit the “Theatre Phone”, a system that enabled the first well-documented use of headphones for dispersed theatre audiences.

From the Theatre Phone to audio walks

From the early 1880s onwards, wealthy theatre enthusiasts in London and Paris could dial the “Theatre Phone” (Curtin 2013) to listen to live theatre from the comfort of their own home or from special salons in cafes or exhibitions. The Theatre Phone introduced a new form of listening with headphones that sensitised auditors to the nuances of interpretation through repeated engagement with the same material. Distant auditors, Curtin notes, become experts at fashioning a kind of “mental theatre” while listening (2013: 224). These expert auditors of performance mirrored the increased virtuosity and instrumentalization of listening practices that emerged in parallel with the privatisation of the acoustic sphere through stethoscopes, telegraph operation headphones and the telephone.

The Theatre Phone is an early example of a performance mediation technology and the diagram below uses overlapping circles to schematise it as a system from the auditor’s point of view. The diagram positions the Theatre Phone as the technological seam joining the two locations. It shows how an individual auditor uses their Theatre Phone at home to perceive the sounds of distant performers and audiences performing in the same moment at a distant theatre. The interior workings of the entities involved (auditor, theatre phone, theatre, performer) are not shown as the purpose of the diagramming technique is to model the mixing of realities through the use of mediating technologies. While the two locations remain separate, the theatre phone connects the activity occurring in the theatre to the auditor at home via the transmission of sound which allows the auditor to attune to the shared time of a performance. Orienting the technique towards the perspective of the auditor also reduces the scope of the systems in focus. In this example the diagram shows a one-to-one relationship: one performance to auditor via one theatre phone. Other approaches to modelling systems of entity relationship would reveal the one-to-many relationship at play: one performance to

many auditors via a single theatre phone recording system in the theatre, to many theatre phone headsets in each home or salon. In the model below the auditor does not need to know anything about the theatre phone's workings or other auditors. To the auditor it is a one-to-one relationship.

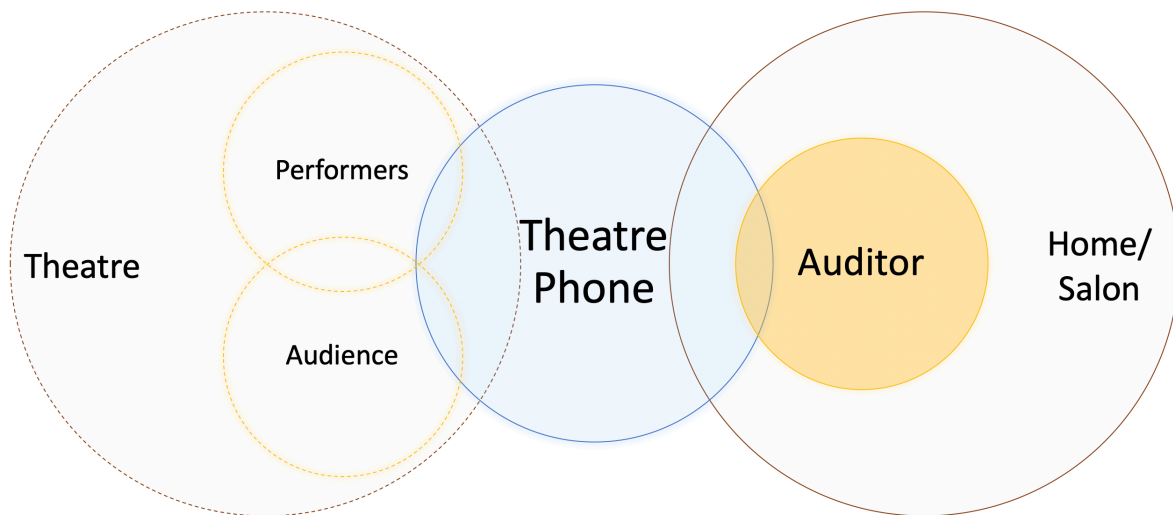


Figure 2 – The theatre phone connects home auditors to live performances in distant theatres. The humans within the system appear as yellow circles within specific physical locations delimited by brown lines. The solid yellow circle draws attention to the ‘user’ of the theatre phone. The theatre phone hardware sits between the two locations connecting the humans dwelling in separate locations. The dotted lines around the performers and the audience in the theatre denote that they are experienced by the auditor through response-presence in real time, not in co-presence within the same physical location: the theatre phone augments the hearing of the auditor so they can perceive the sound emanating from a live event at a distant location, thus theatre ‘takes places’.

The experience of being drawn into and occupying a sound world of the theatre phone is prototypical of what Bolter and Grusin term “transparent immediacy” which “promise[s] transparent, perceptual immediacy, experience[d] without mediation” (2000: 22) where any interference is studiously overlooked. Curtin narrates the birth of such attention as the moment when “theatre audiences became silent (or were silenced) in bourgeois theatres in the mid- to late nineteenth century, and the lights were dimmed in the auditorium, they were encouraged not only to become obedient spectators but also active listeners, trained to focus on the ‘legitimate’, intentional sounds of performance” (2013: 229). The maintenance of seamlessness is paramount to the experience of transparent immediacy where one overlooks

distracting framing, interference and illegitimate sound to suspend disbelief and absorb oneself within the intentional world of the artwork. The compelling auditory immersion offered by the Theatre Phone was perpetuated by its descendants, which include almost all headphone entertainment systems. Noise cancelling headphones, for example, may be considered descendants of the theatre phone that further privatize and idealise an optimum state of listening in silence. Interrupting transparent immediacy's flow remains taboo in many theatrical settings. This is why interruptions to flow, deliberate glitches and the incursion of illegitimate noise persist as defamiliarizing strategies in a wide range of art practices.

The Theatre Phone can be appreciated as an early attempt to create a seamless performance experience that mixes the realities of multiple locations. Curtin prefigures distributed and networked artworks by establishing that “the phenomenon of the theatre phone indicates that modern theatre took *places*; it did not simply take (a) place” (2013: 227). And, after Auslander, he reinforces that “theatre is always-already an intermedial art form; performance is itself a technology,” (ibid. : 228) and so is not irrevocably troubled by new technology. And the converse is also true, the intermedial nature of everyday life is not overly troubled by increasingly close proximity to performance technologies that privatise auditory worlds through the use of headphones to listen to music and podcasts on the go, including audio walks.

Audio Walks

The use of smartphones in experimental theatre and live art in non-traditional performance sites to create “ambulatory experiences [that] employ mobile technologies to guide participants as they explore an environment, indoors or outdoor” (Tolmie et al. 2012: 1519) has grown out of earlier experiments with mobile media formats such as cassette tape,

compact disc and MP3. In the examples of site-responsive performance that follow mobile audio playback is used to augment the experience of an environment. Though emerging a century later than the Theatre Phone, audio walks continue the practice of attuning to a distant (now recorded) performance and creating a 'mental theatre' from a sound world.

The emergence of mobile audio cassette tape players such as the Walkman, and the devices that descended from it that allow playback and sometimes the ability to record audio on the move, has led artists from a range of disciplinary backgrounds to create experimental ambulatory performances over the last forty years. Early exponents such as Antenna Theatre emerged out of the experimental theatre practices of the 1960s and 70s in the USA and began using dialogue recorded on audio cassettes to guide audiences through performances at the end of the 1970s (Rose 2017). In 1991 Janet Cardiff developed *Forest Walk*, the first of her 'audio walk' pieces:

The idea for the walks came to me by accident. I was in a graveyard in Banff, Alberta and I was wandering and recording what I saw in front of me on my small voice recorder, like the names on the gravesites, the plants, and what I smelt. I had inadvertently pushed the wrong button and rewound the machine. When I played back the tape to find where I had left off, I heard the sound of my body while walking, my voice describing what was in front of me and also my breathing. I began to walk with my virtual body. It was one of those 'aha' experiences. I knew I had to use the format because it was so peculiar. I produced the first walk, *Forest Walk*, about two weeks later. (Janet Cardiff quoted in Schaub & Cardiff 2005: 79)

Cardiff's practice of making recordings during walks through the forest to guide individual audience members along the *same* walk at a later time became the hallmark of her oeuvre which later developed to include 'video walks' beginning with *In Real Time* (1999), and walks recorded with binaural microphones. Cardiff's walks combine instructions designed to guide the listener along a route using descriptive details, fragments of dialogue, and sound effects from other places and times. The audio mediation becomes the score of a walk that

listeners perform. It is in this way that the playing of the recorded media can be said to instantiate the performance. Each audio walk is created in response to the specific physical dimensions of the site Cardiff is responding to. The distances of the walks are reflected in the timing of the audio track and so are not transferrable to other locations: site, audio and performing body comprise each audio walk.

Despite being pre-recorded, Cardiff's artworks are innately performative: the playing of the tape allows the performance to unfold through audible instructions that lead to live action. The use of recordings from the field and description of the same place in which the audio is replayed creates a spectral effect that connects the live moment of the performance with the previous events evoked by the replayed recording. This spectrality extends to the voices present in the audio which intermingle with the listener's thoughts and the voices from people in the immediate vicinity which, as Cardiff's collaborator George Burres Miller notes, can "make you hyper-aware of your environment around you" (in Schaub & Cardiff 2005: 24).

Audio walks are often recorded at the same place they are intended to be listened in. Unlike the Theatre Phone system which separated the performance from the listening location into two circles joined by technology, the diagram below is contained by one circle to denote the forest location where recording and playback occur. Cardiff used her cassette recorder within the forest to create the first draft of the audio walk. The percipient uses a cassette player along the same forest paths. Replaying the tape in the Walkman produces the voices and sounds of the artist and the forest it was recorded in. This brings the artist back to the forest through the percipient's senses as the walk and tape unspools together. The effect of 'listening in place' augments a single location with sounds from multiple times. The interplay

between the live and recorded sounds of a place become a dynamic formal aspect common in audio walks, that lends a spectral quality to listening across the times of place. The audio can work on the imagination to draw focus to the immediate environment the percipient is immersed in and also evoke distant places and times. How fictional and non-fictional realities are mixed and manipulated over the course of an audio walk become aesthetic and narrative concerns.

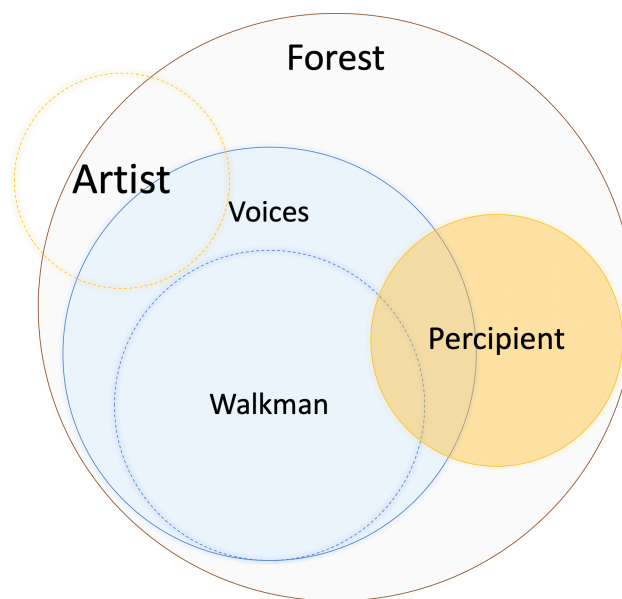


Figure 3 - Forest Walk by Janet Cardiff. Audio played on a Walkman and tape cassette guides the percipient along forest paths. The audio appears to be created from within the same forest walk but actually mixes voices and sound effects created in post-production. The key feature is that the information delivered in the audio is timed to provide instruction to coincide with the percipient's encounter of the site.

An important aesthetic consideration for the creators of audio walks is how to guide percipients from within the dramatic action of the audio. In many practices this takes the form of verbal instructions given just at the moment when the percipient requires information to make a decision or carry out an action. These instructions require the training participants to perform their role in perpetuating the artwork. The coaching of the percipient is reminiscent of introductory tutorials from digital games that provide an induction of how to operate within an 'in game' reality. As a common feature of audio walks tutorial often occur just-in-time when a new kind of interaction is introduced for the first time. The balance

between a light touch and a heavy hand in such pedagogical moments and the timing of the intervention become important aesthetic and formal considerations for audio walks and interactive artworks more broadly.

Cardiff, for example, uses direct address to instruct the percipient from within the mix of sound effects, voices and music in the audio montage. Instructions are timed precisely to coincide with where she has planned for the percipient to be along the walk at that point in the audio. Writing about Cardiff's work Mirjam Schaub recalls how, "Cardiff's voice takes charge. She tells us which way to go, where to stop, where to fix our gaze" (Schaub & Cardiff 2005: 14). Schaub also alludes to the audio "colonizing" the listener's unconscious (ibid. 16) and the requirement that they "obey the voice's instructions" (ibid. 23), observations that complicate the emancipatory claims she also makes for the work. Percipients are invited to succumb to the voice's demands and perform within the artwork's playful regime. Cardiff's in-game tutelage is very carefully structured and timed using the rhythm of footsteps to set the speed and approximate distance of the walks. Cardiff calculates "how many steps there are exactly" (ibid. 69) in advance and instructs the percipient to "synchronize your steps [to mine]" (ibid. 68). In this case the audio is not only colonizing the unconscious but also colonizing the percipient's limbs by providing a coordinating tempo for the whole moving body. Cardiff is highly attuned to the seductive coercion inherent in her creations and describes how she modifies her voice, language and compositions to enable the percipient to become complicit easefully by eliding all seams that disrupt smooth, continuous flow.

The tutoring techniques within interactive artworks form part of the mechanism that directly impacts on habituated behaviour. The aspects of Cardiff's walks that demand docility through

the compliance to verbal instruction and adoption of prescribed walking rhythms might be said to reiterate normative power dynamics by rehabilitating subservience to cultural norms and authority figures in public space. Simultaneously, the subversive and fantastical aspects of Cardiff's works can be seen as attempting to lead the percipient astray into bewildering new forms of behaviour in public space, in an attempt to undo habituated modes of interacting with the world. Anxieties around active coercion, manipulation and indoctrination are therefore inherent aspects of the form of avant-garde interactive artworks such as audio walks, concerns at the core of many critical arts practices.

A good example is found in the work of UK group Blast Theory, whose *Ulrike And Eamon Compliant* (2009) invites audiences "to explore the perspective of two notorious terrorists, in order to discuss the nature of instruction-giving and, most particularly, the methodical ways in which such instructions are complied with" (Tolmie et al. 2012: 1519). The themes of control, coercion and indoctrination are explored through a "metaleptic illusion" (Gibbons 2014: 415) where the stories of Ulrike Meinhof and Eamon Collins are narrated in the second person via mobile phone calls inviting the participant to listen as one of the terrorists preparing for action ("You and I are going on a walk together...", "Can you see them?"). While it is usual to not know how a narrative will unfold at the beginning of a novel, play or film, the formal parameters can usually be anticipated. At the beginning of an artwork like *Ulrike and Eamon Compliant* neither the narrative or the form of participation is known in advance and must be discovered in tandem during the course of an unfolding event. The artwork starts in a wooden room constructed in a gallery:

To begin you press dial on the [mobile] phone: on the screen a phone starts to flash. A person walks into shot and answers it, telling you to put on a pair of sunglasses. They ask you whether you would like to be Ulrike or Eamon. They tell you to leave the gallery and walk outside. They guide you onto a bridge and then hang up. (Blast Theory 2009)

Blast Theory use spotters within the city to feedback whether the percipient is following instructions, but the percipient remains uncertain which people in the city are part of the artwork.

Over several phone calls the percipient walks through the city streets and eventually arrives at a second small wooden room similar to room they began in, where they meet a stranger who interviews them. After answering the final question, “Are you a hesitant or a decisive person?”, the percipient is guided out of the room to secretly witness the interview of the next participant through a two-way mirror.⁶ In this variation of an audio walk, Blast Theory guides the percipient through the city via intermittent calls to a mobile phone, not through headphone audio. The work is subtly structured following a model of an expanding event horizon to move the participant into progressively more complex physical and psychological situations and “since participants engage with the story through mobile technology, the boundary between fiction and reality becomes increasingly convoluted” (Gibbons 2014: 410).

⁶ Further details of the project can be found on the Blast Theory website: <https://www.blasttheory.co.uk/projects/ulrike-and-eamon-compliant/>

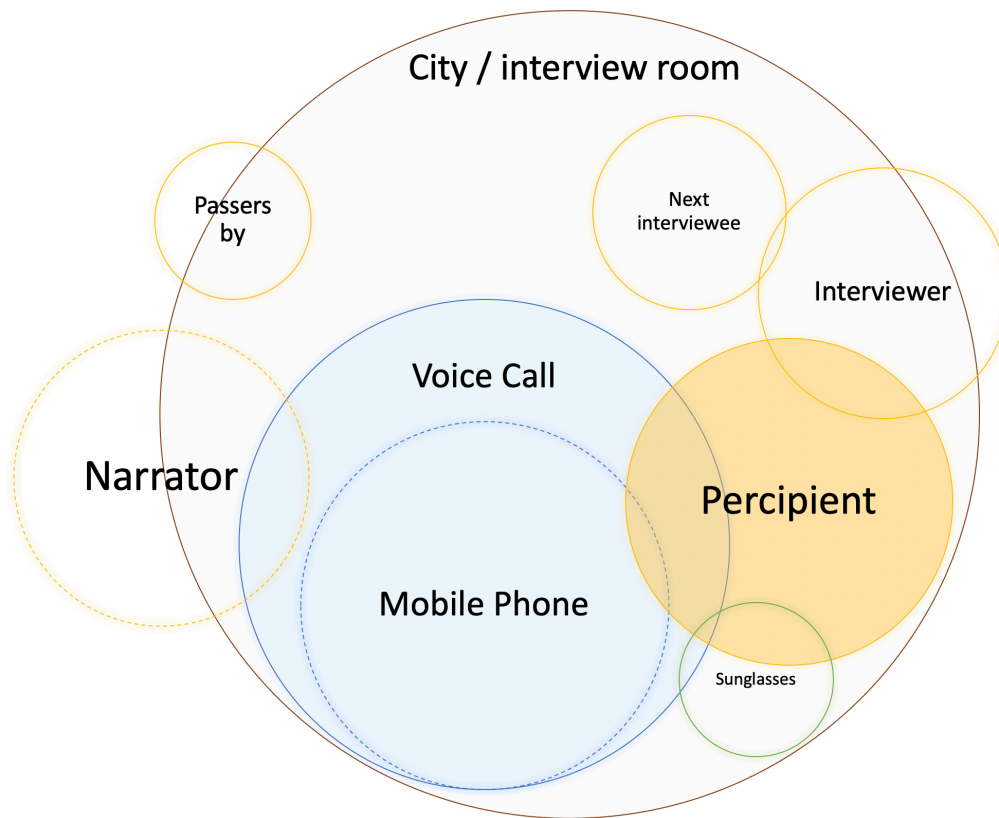


Figure 4 – Ulrike and Eamon Compliant by *Blast Theory*.

In *Ulrike and Eamon Compliant* Blast Theory use the absence of clear seams separating the artwork from the everyday life it moves amongst to make what is and what is not part of the designed experience indiscernible. The artwork provides a framework for the percipient to view the world as though it was a simulation. Unlike Cardiff's audio walks that employ continuous headphone audio, Blast Theory use extended lacunae between phone calls where the percipient experiences the site without technological mediation. However, even when not on the phone, the ongoing processing of the story, the sensation of being indoctrinated and the vigilance paid to the present location primed for the phone to ring again at any moment, sustains the blurred reality of the artwork within the imagination and action of the percipient. In such lacuna moments when the artwork becomes what Cathy Turner describes as "porous" (2014; 2012), the percipient's role in sustaining and performing the artwork emerges. The percipient's difficulty in distinguishing where the artwork begins and ends can create the

belief that the artwork is distributed throughout the environment. This is shown in the diagram above by the entrance of passers-by who may be judged as part of the composed experience of the artwork by percipients in hyper-vigilant states of awareness that border on paranoia. Likewise, there is the potential that the narrator may also appear at any moment and move from being merely response-present at the other end of the phone to physically co-present in the same place as the percipient. Through the power of suggestive voices heard through a mobile phone Blast Theory change how the percipient experiences the city during *Ulrike and Eamon Compliant*.

The dramaturgy of *Ulrike and Eamon Compliant* includes seductive coercion and also, conversely, the prompting of resistance to coercion. However, when a percipient has elected to participate it is often anticipated that instead of resisting, the less effortful path of conspiring in one's own coercion is taken. Part of the appeal of complicity with the authoritative voice of audio works is to be guided and controlled, removing the need to do all the thinking or at least to allow thinking to be done for you, and to be prompted to take actions you normally would not. In such cases it is often more effort to work against the intended interaction than it is to comply. Also, playing along and being seduced into doing something differently or that you normally would not is part of the fun. *Ulrike and Eamon Compliant* pushes this relationship further towards breaking point by daring the percipient to hang up and leave if they believe an ethical line has been crossed. Of course, even an explicit dare is coercive and has the effect of reinforcing complicity by threatening the percipient with losing face if they walk away. Few people electively leave once the experience they have paid for and dedicated time to has started. But they can play along reluctantly, or resistively. Indeed, *Ulrike and Eamon Compliant* might be read as both an incitement to action that asks the audience "What would you fight for?" and also a rehearsal for resisting

and questioning authoritarian doctrines. It is therefore an exemplary exploration of the creative constraints of the instructional form inherent in single medium audio walks that tutor the percipient from inside the audio, ‘in game’.

Another key formal and aesthetic concern of the field of audio walks has emerged from experiments with the percipient’s ability to bring an artwork into being performatively by interacting with the media and site. The performative auto-instantiation of an artwork describes how it comes into being automatically through its *doing*. Ant Hampton and Silvia Mercuriali’s term ‘autoteatro’ describes such “a new kind of performance whereby audience members perform the piece themselves, usually for each other” by following instructions “via audio, visual cues or text for what to do or say”. The artists claim that “by simply following these instructions an event begins to unfold” (Hampton & Mercuriali 2007). The autoteatro strategy for creating performances that are automatically brought into being by the action of the audience has been used to create artworks for a wide range of settings, technologies and formal aesthetics by Hampton, Mercuriali and their collaborators. The majority of the works in their oeuvre are explicitly textual and dependent on linguistic instruction, and like the work of Blast Theory, often explore the coercive nature of such forms of control.

Hampton describes his audio work for libraries *The Quiet Volume* co-authored with Tim Etchells as “a whispered, self-generated and ‘automatic’ performance (Autoteatro) for two at a time” (Hampton 2010a), noting his attempt to find the “balance of participation and surprise, and an awareness of being both in and under control” (Hampton 2010b). Each instruction delivered within the library setting and communicated via headphones or a book causes the audience member to establish, propel and sustain an event that James Wilson has noted “plays out more like a rehearsal than a public performance” (2012: 115). It is in this

way that Wilson uses *The Quiet Volume* as a case study to explore the intersection of Nicolas Bourriaud's *Relational Aesthetics* (2002) and Richard Schechner's concept of "proto-performance" (2006: 225) to describe the precarious situation of the audience member within an unrehearsed performance unsure of what will be asked of them or what passes as an adequate performance.

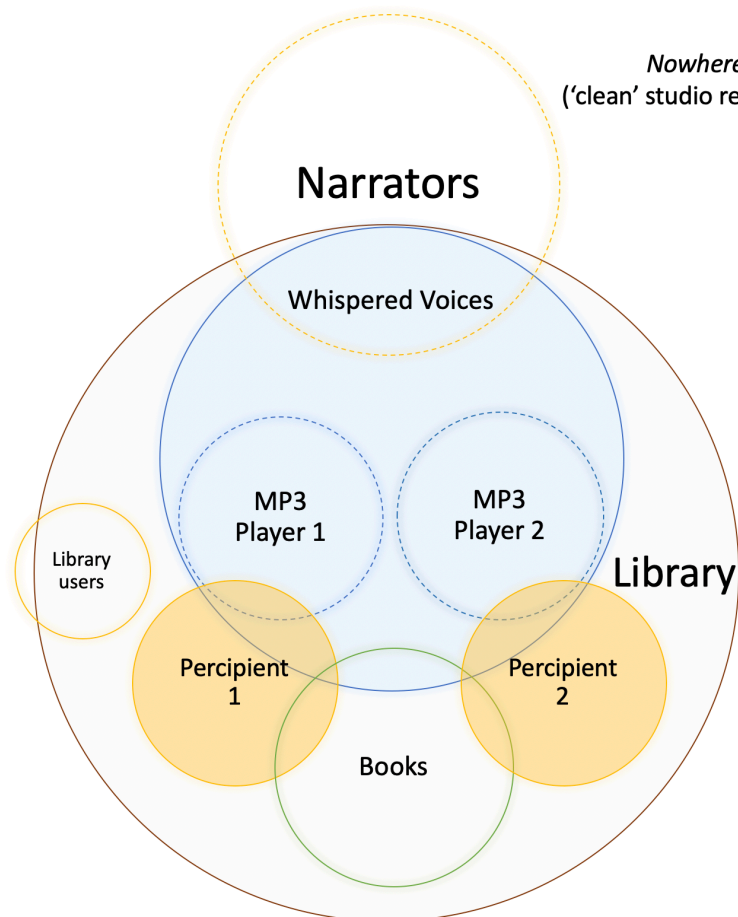


Figure 5 - The Quiet Volume by Ant Hampton and Tim Etchells.

The diagram above shows two percipients using two synchronised media players to provide instructions to that stimulate interaction. Each percipient is in the same collaborative performance but listens to a different, complementary track. The narrating voices do not appear to be recorded in the same place that the percipients listen in. The voices appear from 'clean' studio recordings where all background sounds that might situate the voices are

removed. This creates a sense of the voice appearing from ‘nowhere’, as though from a void, not from a specific identifiable location, a ‘somewhere’. The percipients look at the same books together while they listen to the different tracks. The books are shown to overlap with the percipients and the whispered voices, forming another seam joining the realities of the work.

Placing the audience in the position of unrehearsed collaborator and performer in works that depend on the presence of human attention to auto-instantiate themselves can, on one hand, lead to positive experiences, such as Lyn Gardner’s Guardian review of *The Quiet Volume* where she recounts “the feeling of heightened awareness in which every sound is magnified, every movement has increased significance and all words dance with possibility” (2011). On the other hand, such experiences of being fed one instruction at a time in a proto-performance that holds the participant in limbo can be frustrating and far from emancipatory. Striking a balance between the frisson of failure that would cause the artwork to collapse and the excitement of discovering new ways of interacting from within a liminal state of not knowing becomes a dramaturgical, formal, aesthetic and ethical concern of audio walk arts practices. This flirtation with the potential to be changed, to be tutored by soft voices intimately whispering in one’s ear, creates a powerful form of coercion that artists direct to a wide variety of ends.

Duncan Speakman’s work *It must have been dark by then* (2017) combined an audio walk with locative mapping software on a smartphone and a physical book to prompt the simultaneous discovery of routes through a city, the enmeshing of voices from distant places and the form of the artwork itself. Unlike many audio walks which demand certain paths be followed, Speakman notes that his work has “no prescribed route, it uses geolocation satellite

positioning but you are choosing the route yourself as you do it” (2017). As they walk, percipients hear “sounds, interviews and field recordings from three other countries” through headphones which overlay “stories of changing environments, from the swamplands of Louisiana, to empty Latvian villages and the edge of the Tunisian Sahara” (Speakman 2017) as they move. While the participant picks a route through the city the smartphone app records the location of where each fragment of audio is replayed. The laying of ‘bread crumbs’ connecting a place with a moment of listening along the path of the walk exists in both the percipient’s mind and within the phone, so that, “in the second half of the piece you can walk back through where the narratives continue and you hear new parts of those stories” (Speakman 2017).

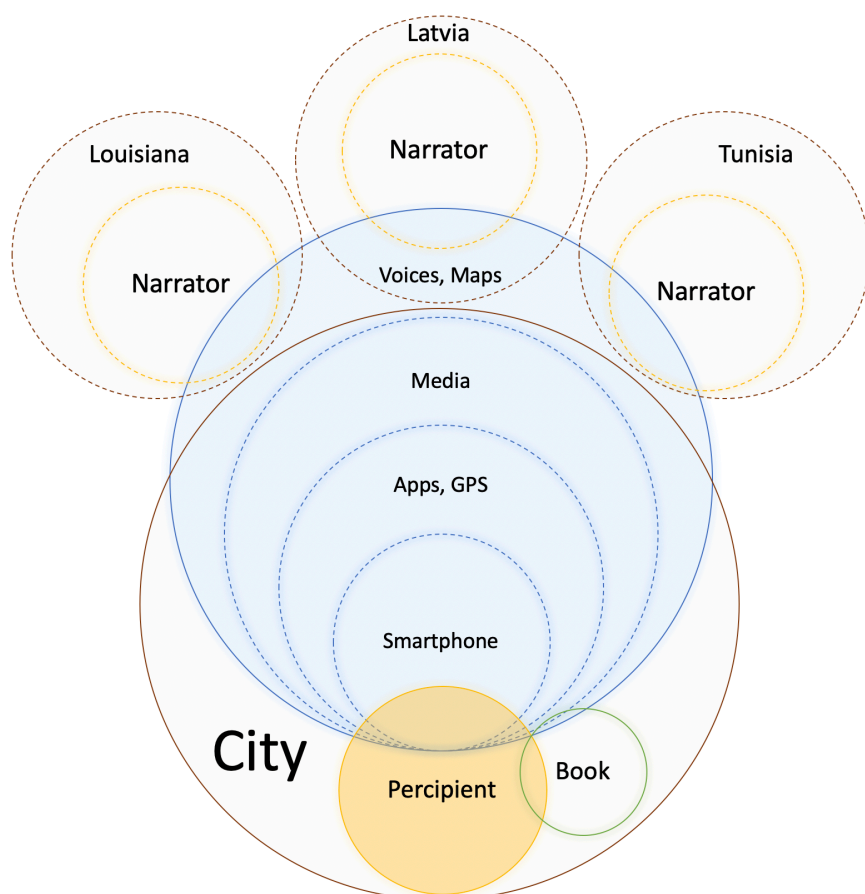


Figure 6 - It must have been dark by then by Duncan Speakman.

In the diagram above the narrators are explicitly located in places that contrast the percipient's 'local' experience, and yet despite the seeming improbably layering of sites, speakers and listeners, their realities join temporarily in performance. Speakman is playfully expanding the seam joining incongruent locales by weaving narration of the lived experience of multiple places into a mixed reality performance. The first half of *It must have been dark by then* where the percipient walks alone while engaging with the material via a portable device is familiar as an audio walk. However, the second half requirement of the percipient to return to specific locations to continue the story of the distant places is less familiar, becoming an instance of what Karlis Kalnins termed "locative media" (in Galloway, A & Ward 2006). In this artwork a local place encountered during the audio walk is connected to a distant time and location in the audio through computational encoding and geo-positioning that is not possible through an MP3, compact disc or cassette player. *It must have been dark by then* expands the audio walk to incorporate some of the affordances of smartphone technology. This is represented in the diagram above through the addition of interior layers within the media playback device which in this case is a smartphone. This begins to highlight some of the important differences smartphones bring to audio walks. In this case playback is withheld or released by software that uses the other functions available in the mobile computer: location services, automated media file manipulation and storing location variables, for example. This kind of computational integration has not been a feature of the earlier audio walks mentioned.

Writing on Speakman's work Jon Dovey notes that on one hand the "walking, discovery and agency of the interaction design produces a powerful sense of the present," while simultaneously producing "a shifting frame of attention between the scales of the very local to the very global, from the instant of the present moment to the time of the historic forces at

work in our places” (2018 online). The experience of apprehending one’s attention shifting across physical present and virtual distant places and times, from moment to moment is critical to achieving what Dovey calls an “‘eco-critical’ mode of attention” (2018). Therefore smartphone audio walks may offer a rehearsal for seamful engagements with the environments in which we dwell and a means to critically experience “multi scalar modes of attention that produces what we might argue is a particular form of anthropogenic affect” (Dovey 2018). Audio walks such as *It must have been dark by then* may draw upon the smartphone’s capacity to connect to the apparatus of ubiquitous computing distributed around the world to explore the interplay between multi scalar perceptions of the local and global. Other works draw the multi scalar mode of attention to the human and sub-human scales of life to reveal the complex interplay between the human body instantiating and sustaining an audio walk, and the non-human life that enables it.

A good example of this is found in the work of UK artist duo French & Mottershead who describe *Afterlife*, a series of five audio works, as “immersive digital artworks offering listeners an intimate, visceral and poetic glimpse of their own mortality” (2016). Each of the twenty-minute works narrates in graphic detail the processes the auditor’s body would go through if they were to die while listening and remain undisturbed in place until their body had fully decomposed. Each of the works is delivered by a single calm voice, crisply recorded without sound effects, that speaks in the present tense throughout, beginning each scenario with the moment of performance before moving incrementally into the distant future to imagine the effects of time on the listener’s corpse. Each audio track is set within and designed to be experienced at a physical environmental location: *Woodland* (2015) lying down looking up through trees; *Waterborne* (2016) floating on a small boat in an estuary; *Grey Granular Fist* (2017) sitting on a chair in an art gallery; *Homebody* (2018) lying in the

listener's own bed in their home; and, *Bushland* (2018) lying down within the Australian bush. The listener is instructed to walk to the designated location then sit or lie down and simply listen to the audio from beginning to end. The calm, measured tone of the narrator is not dissimilar to guided meditation recordings in style.

The *Afterlife* works are explicit about the subject of death from the outset. Each work is comprised of a monologue performed in controlled studio conditions designed to be listened to without interruption by a stationary, though very much self-conscious living, breathing body. Each work in the series seems to proceed as an answer to the question: what would happen if I died in this moment and my body stayed here for eternity? The response of the works is to provide a single additional layer of audio over the experience of dwelling immobile within an environmental site alive with sounds, movement and non-human life. By inviting listeners to slow down the movement of their body and mind, the experience takes the form of a meditation where the narration draws attention to the self-same body listening in the undergrowth it may one day be beneath. In this way the *Afterlife* works extend the capacity of the “embrained body and embodied brain” (Braidotti 2017a: 91) to apprehend its entanglement within and as part of the environment in which it is dwelling.

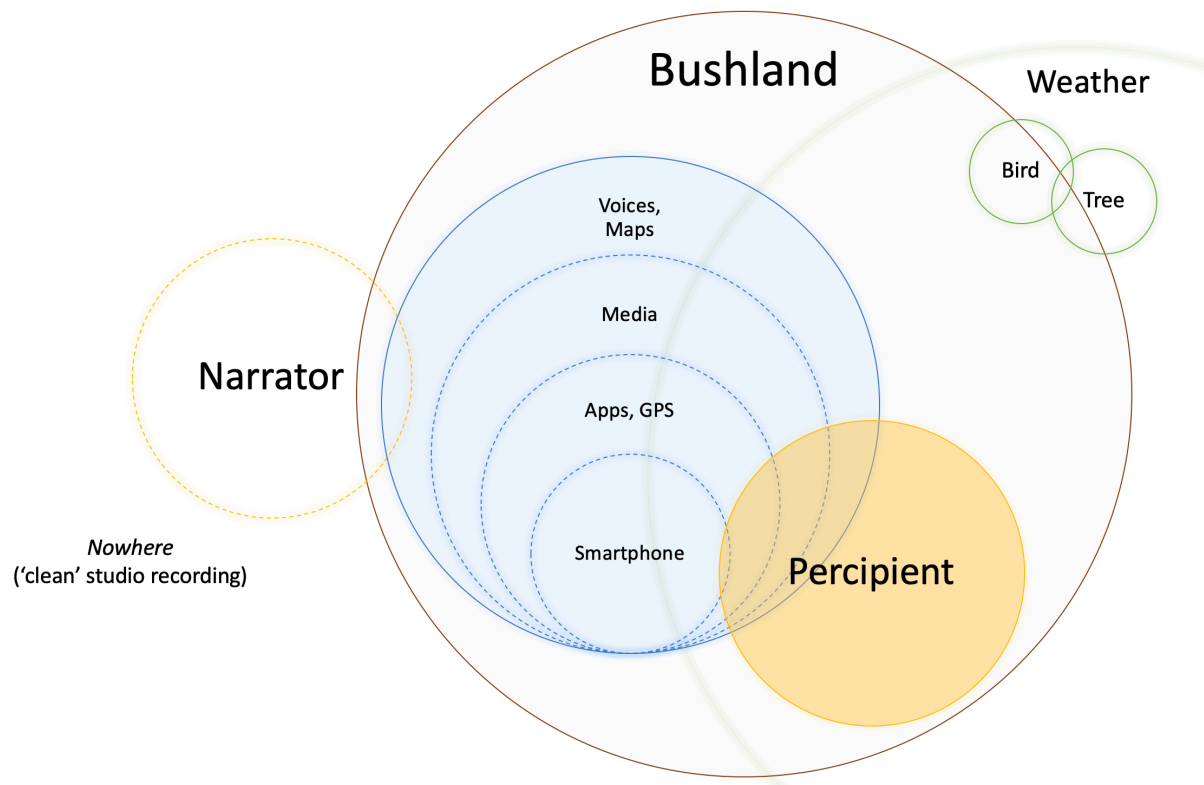


Figure 7 – *Bushland*, an Australian adaptation of the Afterlife series of audio vanitas works by French & Mottershead.

Bushland comprises headphones and a smartphone running an Android app loaned to each audience member, a walk from a meeting point to a listening location beneath an oak tree in the Royal Botanic Gardens Melbourne, and a plastic sheet to lie on separating the body from the ground. *Homebody* can be streamed via a website and is intended to be listened to in one's own home, lying in bed. The *Bushland* app contains a geolocative trigger that unlocks the audio when the smartphone is in proximity to the designated oak tree.

When I visit, and before the audio begin, I am immediately conscious that the tree is not a native species of Australia and is a symbol of colonial rule in an area of the gardens dedicated to trees planted by governors and members of the royal family, including Elizabeth II. A sign at the base of the large oak tree in question indicates that it was planted in 1895 by The Hon Charles Melbourne Hope, who I later learned was the second son of the 7th Governor of

Victoria. A large scar from a politically motivated and near fatal ringbarking attack in 2013 is still prominent on the trunk of the tree.⁷ I remember visiting the day after the attack and have watched the tree heal in the years since. The choice of this contested living symbol of white Australian rule as the site for this work created disparity between the *Bushland* title and a section of the gardens which was explicitly created to supplant Australian bush with a European vision of romantic landscape. The dissonance created by this specific site might not have occurred had the listening been located at one of the many Australian rainforest and native bush sections of the gardens. It was clear that *Bushland* was not a direct transplant of *Woodland* created for British woods as unlike other works in the series, the *Bushland* monologue was spoken in an Australian accent and referred to indigenous animals and plants. However, the reasons for selecting the oak listening location were not alluded to in the monologue or event listings and it affected my experience greatly. This might indicate that if the site of listening becomes generic (any ‘bushland’ for example) and its specificity not critically engaged with, a work risks extending the ‘nowhere’ of a studio recording into the world. What was designed to be seamless can suddenly become seamful with the potential to prevent absorption in a work by revealing the incongruous generality of its metaleptic illusion that might otherwise entwine the listener with the place of listening.

The *Afterlife* series uses solitary voices pursuing a single line of thought to create the effect of coherence over the unruly and often unspoken realities of the human body and environments in which we dwell. More than the monologues in the other audio walks discussed, the *Afterlife* voices assert calm confidence enabling submission to the work, slowing the processes of breathing, moving and thinking. The monologue guides thought as a

⁷ The oak was one of several historic trees attacked in the Royal Botanical Gardens in 2013 in an anti-colonial political attack on trees symbolic of colonial rule. This one survived after being given a graft while others did not. The scar where the ringbark was attempted is still visible. See references for: ABC News (2013) and Royal Botanic Gardens (2013)

meditation teacher might, using clear imagery and plain language to instruct pedagogically through uncoloured and unwavering monotone. In the case of *Bushland* the voice that enters and commands the thought of the immobilised body also uses metaleptic illusion to prescribe the destiny of ‘your’ mouth as a home for fly eggs and ‘your’ stench as maggots course through ‘your’ flesh. The voice is emotionally detached from the imagery it evokes. In other contexts, where emotion is inflected within the description, the subject matter might be termed body horror.

For works that make explicit references to corporeality I found *Bushland* and *Homebody* to be strangely disembodied experiences that serve to champion transcendence of the mind over the body. The use of detached monologue jars with the profoundly plural, undetachable circumstances of the living body it describes. The works seem to attempt to displace vestigial belief in the human as a singular organism with the notion of a community of life, and yet the monologue’s singular voice prevented me from succumbing to its imagery. Instead, it led me to perceive the failure of the metaleptic illusion to the empty ‘you’. When, for example, will the stench be shared between ‘you’, the maggots and the gut bacteria, and no longer be ‘yours’ alone? When does the body stop being your own, and was it ever only ‘yours’? The *Afterlife* monologues seem to entrench the human as separate from nature and subject to “invasion from fungus” come to steal “your nutrients”, as though the living body is not already porous, a biome teaming with non-human life and part of the larger biomes of the planet.

Lying in a simulacrum of an English garden and not in bushland heightened the pretense of mastery over the body as a foreign colony settled by an otherworldly mind. Far from being ‘yours’, a posthuman conception of the body might appreciate “the intelligence of radically immanent flesh that states with every single breath that the life in you is not marked by any

master signifier and it most certainly does not bear your name” (Braidotti 2013: 34).

Similarly, the oak bearing the name The Hon Charles Melbourne Hope, is no more him than his body was, and despite its magnificent grandeur the tree is an unwitting imposition of foreign life that has been nurtured at the expense of other lives partly because of the name it has been given. *Bushland*, therefore, succeeds in drawing attention to multi scalar modes of attention and does create an eco-critical awareness but at the expense of perpetuating the sense of the mind being separate from the body and by extension, the human being ultimately separate from nature. It suggests that even in death the master signifier of one’s life (*bios*) can remain separate from the force of life (*zoe*) for an eternity.

However, as a contemporary vanitas artwork created with mobile computing devices the *Afterlife* series operates as a rehearsal inviting the audience to assume the position of performing the *corpse to come*. It asks the listener to imagine the desubjectification of the body through its physical decomposition. In this respect the monologues allow imagining of what human consciousness can, mercifully, never experience directly. It asks us to think the unthinkable.

The *Afterlife* series offers a useful counterpoint to *Vanitas* as the two projects, made at roughly the same time, share the themes of death, and might both be considered ‘site-responsive audio vanitas’ works, where the listening body itself becomes a site. However, each work achieves the effect of drawing attention to the mortality of the listener in different ways. The focus on delivering monologues via single audio tracks is central to the works of the *Afterlife* series. While a smartphone is used as a playback device in *Bushland*, it could also be delivered by portable CD players or Walkmans, or through a mobile browser like the one used for *Homebody*. As such *Afterlife* is less an exploration of the digital and more a

media or audio work that can exist without computation. In the next chapter I introduce *Vanitas* as a digital artwork created specifically for smartphones.

In conclusion, it is possible to appreciate the field of arts practice broadly grouped under the term audio walks as expressive responses to the entangled experience of environments interwoven with media technologies. The emergence of tropes, aesthetics and common features of audio walks (repeated in brief in the table below) reflects the opportunities and anxieties colouring everyday interactions within the apparatus of ubiquitous computing. The positioning of percipients in unknown situations and the requirement for them to discover the mode of performed interaction simultaneously with a narrative is a ritual aestheticization of everyday experiences of gaining new technology and discovering its potential affordances. The exploration of spectral listening rehearses the anxieties of the fundamental transition from an interaction order stretched from co-presence to response-presence introduced at the time of theatre phone and still in constant renegotiation. Over the twentieth century, the interaction order adapted to incorporate the connection to other humans via the telephone, while in this century it is stretching to incorporate virtual realities and the performance of non-human interlocutors via smartphone. Though the medial connection to other realities has been ‘in rehearsal’ since the theatre phone, the fluid realities presented by non-fiction narrative and the wide distribution of interlocutors of indiscernible ontology presented by ubiquitous computing still causes confusion. The broad range of contemporary voices interacting with our own heightens anxiety about coercion and indoctrination as devices designed to speak our language learn to do so increasingly seductively, making it difficult to resist their tutelage.

Six Common Features of Audio Walks

1. *Double unknown* – neither the narrative or the form of participation is known in advance and must be discovered in tandem during the course of an unfolding event.
2. *Spectral listening* – the use of audio to listen across the *times* of a place.
3. *Auto-instantiation* – the playing of audio becomes a score that works with the percipient and the site to bring the artwork into being performatively, in the moment of its enaction.
4. *Fluid realities* – the effect of audio augmentation to blur documentary, fictional, dramatic, everyday and mimetic realities.
5. *Tutorial* – the use of direct address to train the percipient from within the audio ‘in-game’, often delivering instructions just-in-time at the moment they are required to be enacted.
6. *Multi scalar modes of attention* – the direction of attention beyond the human scale of listening and walking outwards to the macrocosmic and inwards to the microcosmic, from *within* the experience of listening and walking. Part of what Dovey terms *eco-critical awareness* – the experience of apprehending one’s attention shifting across physical present and virtual distant places and times, from moment to moment, to consider oneself in relation to the environment.

While the examples cited in this chapter are far from exhaustive, they serve as an overview of the field. In future studies, far greater attention could be focused on works that incorporate mobile computation into site-responsive and audio walk practice. A fruitful starting point would be the creative use of locative services which are the most utilised technologies intersecting with audio playback. Approaching the field from this perspective could further chart the development of mobile computing in site works. In addition to the artworks

employing locative services listed above, Blast Theory's pioneering use of location tracking technology in performing arts practice is evident in a significant series of their works including *Can You See Me Now?* (2001), *Rider Spoke* (2007) and *A Machine to See With* (2010). The Wellcome Collection's influential app *Magic in Modern London* (2012) created by Amblr similarly combines ambulation, locative services and gamification to create art experiences 'in the real world'. In Australia the field is led by pvi collective, and their artwork *blackmarket* (2015) continues the group's interrogation of technology and the politics of public space.

In contrast to this field of practice exploring the potential of locative services, this thesis takes a broader approach to computing at large within the environment of which location is part. This approach enables a more comprehensive discussion of the effects of computing on the human sensorium and to perceptions of place within art experiences. This turn is important as it coincides with an increased interest in augmented reality (AR) and extended reality (XR); terms that might be considered shorthand for sensory and imaginative augmentation achieved by computing machines that travel with the body. This thesis attempts to lay some groundwork for appreciating smartphones as computers able to augment experiences of the local through real time computational performance. While there is increased desire for full sensory immersion, the field of audio walks demonstrates that aural augmentation has been a forerunner to more comprehensive technological body augmentation in arts practice. It therefore warrants the attention of this thesis that speculates on alternative modes of being with technology in place.

The rehearsal of multi scalar modes of attention emerges amidst intense anxiety about the human induced climate emergency and the uncertainty surrounding the individual's impact

upon the Earth's environment. As human-fabricated systems gradually interweave with the Earth's to become the environments in which everyday life is increasingly conducted, it may be that site-responsive arts practices' reimagining of 'site', 'nature' and 'the body' as subtly interwoven remains a potent crucible for inculcating eco-critical awareness. Rewinding the audio walk reveals a history of intense experimentation reimagining fabrics of reality woven between environments, technologies and the human. Though necessarily reductive and abstract, the seamful diagramming system introduced in this chapter is a gesture towards envisioning environmental performance systems interwoven with computing. Over the next two chapters I develop and evaluate this approach through a discussion of *Vanitas* and its emergence from the field introduced in this chapter.

2. II Pause to Rethink Stillness in Audio Walks and *Vanitas*

Pause, ‘ II ’, is a technique that arrests the playback of recorded media. For taped media, ‘pausing’ ceases the unspooling of magnetic tape but keeps the tape head in contact with the media surface so that playback can continue instantaneously. Pause is not ‘stopped’. Pause suspends ‘play’. Pausing creates time between times and may be seen as the inverse, or negative space, of sound, language, action and flow. Yet, as an idea in the popular imaginary, pause has a history longer than taped media. In this chapter I use still-life painting and audio walks to explore ‘ II ’ as a rhetorical and dramaturgical technique for drawing attention to the intersection of realities that might otherwise be overlooked. ‘ II ’ is a transition to, and a state of, suspension; a temporary seam that can be entered, inhabited and exited as an in-between moment of liminality. Encountering ‘ II ’ is therefore to encounter the mixing of realities and their effects on perception. In this chapter I also take the opportunity to pause to recall the artworks introduced in Chapter One and discuss how *Vanitas* both perpetuates and diverges from the field’s aesthetics and common features. Through these practices I discuss the paradox of stillness in motion and motion in stillness evoked by the multi scalar technique of ‘ II ’.

Though the precise origin of ‘ II ’ is contested, it typographically and functionally resembles the caesura symbol in poetry that marks a break in verse (‘||’) and caesura in music which marks a pause when all instruments are silent and time is not counted (‘ II ’).⁸ Caesurae, from

⁸ ‘ II ’ pause is defined in standard ISO/IEC 18035:2003 by the International Organization for Standardization (2003) as “#5111B Pause; Interruption... to identify the control or the indicator which stops operation intermittently and keeps the equipment in operating mode”. Origin discussions often begin with reel-to-reel players developed at AMPEX, though this is contested on The Straight Dope forum (*Origin of play, stop, pause, etc. buttons?* 2008). Another suggestion is that the symbol was developed by SONY as a derivative of the Japanese character “J” which indicates a pause. Brian Gardiner makes the connection to caesura in a Gizmodo article (2010) and this is also the conclusion of a MetaFilter thread (*Who invented the Pause icon?* 2006).

the Latin for ‘cut’, mark out silent time between sounds which can serve to enable processing of the information contained within the preceding sound and also function as a signifying event in themselves. Caesurae can be encoded into a poem, script or musical score and then emerge intrinsically through a rendition of the encoded performance. Conversely, ‘ || ’ in recorded media may only intervene on the flow of a recording extrinsically: it does not change the performance already encoded to the tape. Pausing recorded media, therefore, offers the hitherto super-natural power to pause the representational world within a world encoded in media and performed by machines.

The desire to extend this power to everyday life is explored in a range of science fiction scenarios and the pausing of a scene in which one or more characters are able to remain unpaused is a common trope in popular culture. Though the use of magnetic tape media has largely ceased, the remediated technique of pause remains common in digital media. Therefore, like fast-forward and rewind, pause also represents a broadly understood technique for manipulating the passage of time, in this case, suspending playback in one moment indefinitely. Though only possible in media representations, the aspiration to pause moments of real-life inflects the contemporary imaginary from meditation practices to aspirations for super-human powers. Throughout history, prior to recorded media, stillness has occupied the imaginary in different ways. A vast diversity of human rituals offer pause from the everyday through moments of liminality within the usual time signature of life. And within such rituals, performance and visual arts have explored the possibility of the pause as the time outside of time. Or, more precisely, the time between times. Such an experience of stillness initiated the *Vanitas* project.

The still origin of *Vanitas*

In 2014 I invited visual and performance artist Jason Maling to collaborate with me on a new commission from Arts House, “Melbourne’s contemporary centre for performance and interactive artforms” (Arts House 2017) to create a new performance artwork with smartphones.⁹ During our first developmental residency at Arts House during February 2015 we became intrigued by Raft’s, an abandoned florist shop in North Melbourne close to where we were working. Approaching the windows of Raft’s felt like encountering a still-life vanitas painting where the dishevelment of thousands of everyday objects appeared to be carefully composed, or more precisely, to be in the process of a specific decomposition. We began to research the background to the shop’s abandonment, discovering that the owner, sole employee, and inheritor of the family business with no descendants of her own had died suddenly “of a heart attack whilst in her car on 10th June 2012” (Siska 2012: 2). The sudden death meant that the cut flowers, pot plants and all of the shop’s contents were left in limbo to slowly dishevel undisturbed for thirty-two months, until the estate’s affairs could be put in order. We adopted the name *Vanitas* for the project in response to our encounter with Raft’s Florist because the windows were reminiscent of Dutch Golden Age still-life vanitas paintings.

⁹ See Appendix I for a full list of project personnel and roles. A timeline of the whole project is included as Appendix II.



Figure 8 – A window of Raft's Florist in 2015, detail of desiccated cut flowers, and parched pot plant.

The still-life painting style that emerged in 16th Century Netherlands depicting objects that outlive their human owner such as books, dormant musical instruments, snuffed-out candles, wilting flowers, food past its best, insects and skulls, became associated with the name *vanitas* in reference to the Latin translation of Ecclesiastes in The Old Testament:

הבל הבלים אמר קהלת הבל הבלים הכל הבל:

Vanitas vanitatum, dixit Ecclesiastes; vanitas vanitatum, et omnia vanitas.

All is vanity, said the teacher; vanity of vanities, all is vanity.

– Ecclesiastes 1:2, c. 450–200 BCE in Hebrew, translated to Latin, then English

Such painting emphasised Calvinist piousness which eschewed the accumulation of worldly possessions that cannot be carried with the soul to the Kingdom of God. *Vanitas* paintings perpetuated the Christian belief that upon death the material body was destined to remain a corpse on earth while the eternal soul would live forever after being judged fit to enter either heaven or hell. The moralistic and didactic subject matter of paintings of this period also

justified the pursuit of still-life painting, which may have otherwise been deemed a frivolous activity. The chemical, botanical and methodological aspects of oil painting were considered part of the artist's mastery over their materials and by extension their own body's senses and the natural world to which their craft brought order.

The surprise of encountering a shop window in such an unusual state of dilapidation was confounding: what could have happened here and why was such a valuable property left in disarray for so long? Lingered at the window of a real-life still-life vanitas precipitated a sense of my own mortality, thoughts of death that I might otherwise strenuously avoid. The initial fascination with, and empathy for, the decrepit things and their absent carer shifted to imagining oneself within the ruins. Gazing into Raft's *Florist* caused my imagination to fast-forward my existence to its end by asking "what will happen to my body when I die?" and "what mess would remain of my life were I to die today?"

And so 'vanity' does not do justice the feelings that encountering a vanitas artwork, or a shop like Raft's *Florist*, can evoke. The Hebrew word *havel* (הָבֵל) relates more to being *in vain* than to narcissistic vanity and is also translated with the senses of being 'futile,' 'in transit,' 'mere breath,' 'empty,' and 'fleeting.' The Hebrew boy's name Hevel also has its roots in 'breath' and 'vapour'. Similarly, the Latin root of vanitas is *vanus* 'empty'. More than simply being lost in translation, the pursuit of vanitas artworks reveals the impossibility of capturing the complexity of apprehending one's own being-in-life in a single word.

Despite great effort of imagination, the fact of life's physical imbrication within the universe means that we cannot fast-forward beyond our present moments into the future. A vanitas artwork evades language to trigger a kind of fast-forward thinking to the end of life and

awareness of one's own existence being the transit of mere breath: the feeling of being alive whilst momentarily denying the denial of death. It enables a moment of reckoning with death to provoke contemplation of one's relation to life and a way of living. The impossibility of moving faster into the future or to know it in advance from within the present is fundamental to the condition of life as a product of quantum entanglement, the primordial interweaving of our bodies from the physical materials of the universe. Thus, our entanglement within the present and simultaneous desire to anticipate the yet to pass is a source of great anxiety and creative speculation.



Figure 9 – A bleached poster from the window of Raft's Florist and detail of a desiccated fly caught between the glass and the paper in the top left corner.

However, I did not know the history of the word nor the intentions underpinning the pursuit of vanitas expressions in art at the beginning of my project. My account as it is presented here, of a tidy, linear three-year process creating an artwork may appear spick-and-span but

in reality, it was messy, intuited, and pieced together incrementally. Fast-forwarding occludes long periods of uncertainty and moments of failure. The project became a search for a contemporary vanitas artwork embedded within the everyday and created with smartphones. The eventual realisation that a vanitas experience was something unsayable and almost unthinkable, meant that situations had to be engineered where it was possible for people to achieve the sensation of what in psychology is termed ‘mortality salience’ for themselves, as they could not be told what it was. Mortality salience is simply awareness of the inevitability of death, however invoking it triggers a range of terror management strategies that have become the subject of a distinctive field of research founded by Jeff Greenberg, Tom Pyszczynski and Sheldon Solomon (1997). Strategies for approaching the void of the unspeakable death in *Vanitas* evolved obliquely from practice: talking obtusely, seeking distraction, changing the subject and thinking indirectly about the subject through the use of ciphers, citations, allusion and metaphor. And never by mentioning death or its processes explicitly.

The first prototype of *Vanitas* (*Vanitas 1.0*), which was described in the introduction to this thesis, was similarly circuitous. It framed an experience of encountering Raft’s Florist and its history during a semi-guided walk from Arts House through North Melbourne to the shop. Following audience interviews and the identification of overlooked performances, the project and particularly the mode of interacting with its transmedia system in a site-responsive performance was reimagined. *Vanitas* was subsequently developed into two chapters, the first relating to a vanitas painting and the second exploring the site of Melbourne General Cemetery (*Vanitas 2.0* and *3.0*).¹⁰ The name *Vanitas* continued through the process even after Raft’s Florist was left behind. It became the name for the various iterations of the work that

¹⁰ An overview of major *Vanitas* app releases is included in Appendix III.

contributed to the longer investigation into the use of smartphones and transmedia messaging (SMS, emails, phone calls) in site-responsive performance.

Still-lives: from Raft's to Ruysch

Visiting Raft's Florist inspired an investigation of still-life vanitas painting. Our interest in the mystery surrounding the shop's abandonment and the void left by its owner meant that when we encountered Rachel Ruysch's *Vase with Flowers* the mysterious void at its centre caught our attention.



Figure 10 - *Vase with Flowers* by Rachel Ruysch (1700) forms the menu interface of the *Vanitas* app – [wikicommons](#) – Held in the collection of Mauritshuis, The Hague.

Dutch painter Rachel Ruysch (1664-1750) completed *Vase with Flowers* in 1700. The still-life painting depicts flowers at different stages of withering, decomposition and destruction

by insects as a metaphor for the beauty of life and the certainty of death. The central flower of this composition has been removed leaving a weeping stem at its centre. Like other still-life paintings it is a snapshot, a glimpse of one everyday moment ‘paused’ forever. Though Ruysch’s oil painting appears to present a ‘natural’ flower arrangement it was created through the combination of studies of individual flowers from different times and places. The picture presents an illusion of a stilled life by blending fragments from different times into an apparent whole and singular moment. The question of why Ruysch depicted absence at the centre of this painting and chose not to replace the removed flower stimulated *Vanitas*’ first chapter. *Vanitas* responds to the content and form of Ruysch’s painting directly by using it as the central organising interface, as the subject of *Chapter One* and as a compositional approach for editing fragments of audio from different times into individual episodes. Ruysch’s still-life painting also exemplifies the intriguing paradox of still-lives that suspend the details of a moment in a perpetual present for eternity. The unnatural stillness allows the viewer to appreciate that vast complexity of the fleeting moment.

As discussed with Sophie Mathieson, Curator of International Art at The National Gallery of Victoria in *Vanitas*, Dutch Golden Age painters were able to explore the representational potential of stilled moments to reflect the complex fullness of life. The period produced striking examples of hypermediacy in painting depicting the complex interplay between subjects, framing and the life of the painter that suggest early expressions of spectrality and virtuality. Influential in the development of *Vanitas* was David Bailly’s *Self-Portrait with Vanitas Symbols* which strikingly ‘absorbed and captured multiple media and multiple forms in oil’ (Bolter & Grusin 2000: 37). Like many vanitas paintings Bailly’s self-portrait works with the tension between the passage of life over time and its momentary arrest within a still image.



Figure 11 – Self-Portrait with Vanitas Symbols by David Bailly, 1651 – wikicommons – Held in the Stedelijk Museum De Lakenhal, Leiden.

Bailly, painting fifty years earlier than Ruysch, composes his self-portrait more explicitly as a puzzle by employing some startling details and temporal paradoxes that the viewer can, to use contemporary terms, zoom-in and out of and scan between within its ‘paused’ moment. In addition to commonly depicted vanitas symbols of a flower, hourglass and skull, the painting contains some sophisticated vanitas techniques. For example, the double self-portrait of Bailly both at the time of its painting (smaller, centre) being held by the portrait of Bailly’s younger self (larger, left). Likewise, Bailly’s wife appears as her young self in the portrait behind the candlestick and as a ghost within the smoke from the extinguished candle behind the wineglass. The note that appears as though by chance in the bottom right corner of the painting reads “Vanitas vanitatum. Omnia vanitas.” The Old Testament quote, ‘Vanity of vanities. All is vanity.’

Vanitas paintings such as these operate as tools to give pause to the viewer and jolt them out of their daily concerns to consider the bigger picture of their life course. In the still moment depicted within Bailly's painting many paradoxes, sensations, materials, ideas, and indeed other moments, are crammed. It is an intensified, heightened moment carefully composed so that its encoded meanings unspool during the viewer's engagement. The painting is still, but Bailly seems to appreciate the time-based nature of engagement with it, along with the possibility of holding multiple times, ages and physical and spectral states of being within the frame. He uses paintings within the painting to evoke the possibility that his work may be returned to over a life course, and while the viewer's body ages, the two Baillys and the years separating them will not. Within the pause of his painting he presents the requirement of the viewer to move their eyes, body, imagination, and feelings. While each object in the painting draws the viewer into it, hypermediating works such as Bailly's self-portrait are characterised by their "insistence that the viewer keep coming back to the surface or, in extreme cases ... attempt to hold the viewer at the surface indefinitely" (ibid. 41). Once decoded, attempting to hold attention at the surface, to take in all that is going on, produces a profound effect of paradox. That the younger self might know the older, that we might exist in multiple times at once, that the dead of the future might guide the lives of ourselves in the past.

Ultimately, Bailly seems to use his still medium to address the long now of the present and the possibility for us to occupy multiple realities and times at once through the encounter with paintings (and by extension representational media), and the thinking, dreaming, remembering, knowing and feeling they evoke. This self-portrait might imply that for Bailly, practicing his craft was a method of contemplating the lived experience of his *life-time* and encoding it as knowledge in the paused moment of a painting.

The creation of *Vanitas* became a way to pause my own everyday life to focus on the creation of condensed, heightened time that would exist as an expanded audio walk experience for others. The creative process itself was an uneven series of interludes framed as conversations, walks, interviews, dreaming, editing, meetings and testing. The recorded interviews were moments when the interviewees and I paused to discuss issues relating to *Vanitas*. These moments from the times our lives intersected became the source material for the construction of *Vanitas* episodes. In turn the episodes offer pause within the everyday through the condensing of time and ideas into either an ‘illuminated podcast’ or expanded audio walk experience.¹¹

Once established, the episodes themselves are paused through interruption of SMS, email, calls from within the *Vanitas* system and also from friends, news updates, work notifications and any number of everyday sources that interrupt the flow of the local present. The episodic nature of *Vanitas* itself builds-in pauses between episodes where *Vase with Flowers* returns to hold the attention as a suspended moment ‘at the surface’ of the time between episodes. ‘ II ’, therefore, operates throughout *Vanitas* as a multi scalar technique: it functions across the whole system performing *Vanitas*. And through pause a paradoxical relationship to flow becomes apparent. That is to say, in general terms, some activities, behaviours, foci or techniques must be paused temporarily in order to enter a different state of flow with another activity. Pausing the flow in one state can then enable switching to another. Pause is a mode of transition that forms a juncture of realities. The switching of flow states is therefore another way to imagine working across the fabric of reality’s seams.

¹¹ A summary of the audience experience of *Vanitas* is included in Appendix IV.

A still point of comparison: *Vanitas* and the field of audio walks

The audio walks introduced in Chapter One all similarly function as explorations of the creative potential of a pause within the everyday. They blanket reality with composed sound. They each explore the use of mediating audio playback to pause the sound of particular places by augmenting hearing. They require a pausing of usual daily behaviour and the exploration of adapted modes of comportment through life. Each is inherently performative, requiring the combination of a physical location, an audio media ‘score’ and the attention of a human percipient to instantiate and sustain themselves. This reveals a need for the human body to be the site for what Curtin described as ‘mental theatre’ through an auditing practice inherited from the theatre phone. The body, then, is itself a site within the wider system of the site-responsive artwork that is both a location and a component in a wider performance system. A multi scalar mode of attention promotes switching focus between the body as a site that coheres meaning in dialogue with audio augmentation, and the location. A key dramaturgical feature therefore becomes the encoding of instruction to train the percipient to the point which they are able to undertake the performance required of them. In Chapter One, I described this as a tutorial within an artwork. I suggest that such tutelage is a purposeful and highly focused application of what Hayles terms “technogenesis” designed to quickly produce accelerated evolution of ways of thinking and doing with media. Collectively, audio walks offer pause to the everyday that serves as a focus for the development of novel interactions that acclimatise percipients to change, tutelage, multi scalar modes of attention and life within fluid realities, all experienced with mobile media and computing devices.

The audio walks discussed in Chapter One rely heavily on language to guide the percipient from within the drama of the interaction, often from within the audio itself. Audio is often the single additive layer of works in this field and so it must contain all the information required

for the audio walk to be conducted. The use of extrinsic guidance is rare. The encapsulation of instructions within the artwork functions through explicit command and instruction. Many of the works in the field explore the uses of voice to interact with the percipient's own thoughts. Voices presented by the artworks are rarely dialogical or provisional and are more frequently monological, certain and seductively authoritative. The tropes of softly spoken monologue and metaleptic illusion are commonplace in the field and yet their coercive nature is often overlooked. By participating in these audio walks the percipient agrees to pause everyday behaviour and suspend judgement, allowing themselves to be playfully coerced and instructed.

Following the first prototype of *Vanitas*, we attempted to find a different mode to tutor percipients. This included removing narratorial voice and direct address to the percipient in the second person. Instead, each episode evolved to use a non-linear montage of field recordings of voices in dialogue arranged without a narrator. This move renders the experience more like drama in which meaning accrues between the interlocutors requiring a certain virtuosity of listening to piece together a 'mental theatre'. Guidance on how to behave and move within the experience is only alluded to by the speakers describing their own actions within each episode and not directly addressed to the percipient. Because *Vanitas* is not deemed to be the audio content of the episodes alone, the host briefing, text messages, phone call and the site itself each offer further guidance on where to go and how to operate that might in other works be seen as extrinsic to the audio walk form. Within the pause offered by *Vanitas* the agency of the percipient is not displaced but inculcated, even if this does produce uncertainty and *ekstasis*.

In Janet Cardiff's audio walks discussed in Chapter One, for example, movement instructions are provided on a moment to moment basis from within the sound world she creates. Obeying the instructions is of critical importance as the audio is timed for very specific walks. In contrast, *Vanitas* does not prescribe a specific route for percipients to follow, instead direction is alluded to and an ambient state of self-guided wandering becomes a matter of negotiation, what Myers calls "conversive wayfinding" (2010, 2011), between a range of agents including the listener, the landscape, the replayed audio, and in some cases the smartphone.

The Quiet Volume and *Eamon and Ulrike Compliant* further refine the strategy of many audio walks to augment or even temporarily displace the percipient's own thoughts. Normal behaviour, thought processes and decision making are put on pause and the percipient allows the artwork to provide temporary alternatives to their usual ways of "showing doing". In the pause they allow themselves to be augmented by performance. The whispers of *The Quiet Volume*, for example, subtly work to produce a subliminal effect of calm seduction which enhances the conspiratorial relationship between the thought unfolding through the recorded text and the thoughts occurring within the auditor. Similarly, such techniques of seduction are prototypical of ubiquitous computing and the design of 'helper AIs' which are designed to speak in voices which are difficult to resist. It is in this way that smartphone interfaces more broadly augment human thought by taking on the effort of cognition delegated to them. Interaction, then, is revealed as the face work of seduction whereby the smartphone takes on a huge amount of effort to make the human experience as effortless as possible. In such cases interaction is designed so that it is less effort to continue complicity with an artwork than it is to stop, leading to associations with addiction and entrapment.

While *Eamon and Ulrike Compliant* delivers its audio through voice calls, it shares with *Vanitas* the use of a transmedia system to build anticipation of a meeting through moments of critical decision making. Both works use lingering in the time before a meeting as a liminal waiting period, a holding pattern keeping the percipient on pause, as they are guided through performance events blended into everyday life by mixing the unfolding experience of the artwork with part-fictional, part-documentary, part-dramatized audio. In this respect both works use the pause to blend realities. It is useful to note Blast Theory's development of *Dial Ulrike And Eamon Compliant* (2013) which uses a telephone number on posters as an entry point to a fully automated rendition of the material with no human performers. The effect in Blast Theory's work, as Alison Gibbons observes, is to make "the distinction between reality and fiction rather fluid" (2014: 410). In a similar strategy, *Vanitas* is distributed as a system of media channels coordinated to create the illusion of human performers, a fluid reality and the feeling that the event is tailored to the individual percipient immersed in a semipermeable story world.

Cardiff's use of voices recorded within the same site navigated by the listener creates a spectral effect which I identified as a common feature of the field of practice. In a similar way *Vanitas* embraces the plurality of voices that fill the lived experience of environments. The polyphony of voices encountered through the creative process resurface in the field recordings. Conversations with interviewees are cropped, composed and underscored, but mostly maintain the manners, ticks and flaws of everyday speech. The inquiry undertaken by Jason and I is not edited or overdubbed to present us as impartial narrators explicitly instructing the listener, but as two of many interlocutors within an unfolding dramatization of our inquiry. These approaches are intended to draw the listener into the active construction of meaning by inviting them to pause whatever they are doing and join the inquiry.

Vanitas is a dramatic work: none of the voices it contains narrate from outside of the action.¹² Meaning within *Vanitas* is therefore not only drawn from the content of the dialogue within audio fragments, but also from their composition in montage. The multiple voices within the audio enter and exit, often without introduction. Likewise, the voices within text messages, upon gravestones, signs, and pathways, and more, the distinctive voices of birds, passing machines, leaves in trees, all make themselves heard. By establishing a form of montage and bricolage within the audio, a precedent is established which invites voices to enter the work, through authorial intent or chance appropriation, from all sides, including the thoughts, intentions and actions of the percipients themselves. The replaying of field recordings and interviews from the cemetery in the cemetery amplifies the ‘illegitimate’ and overlooked voices of crows, footsteps or helicopters in the ‘background noise’, making the difference between recording and ambient sound indiscernible. This blurring of the seams joining the fictive, physical, medial and temporal realities of *Vanitas* becomes another aspect of its spectral dramaturgy. We anticipated that the ‘mental theatre’ constructed within the percipient’s imagination would extend from the smartphone to the world around them incorporating their own body and actions, the cemetery site and its inhabitants from past and present into a performance. It could also include pausing to acknowledge action occurring within the percipient’s body.

Afterlife and *Vanitas* pursue different techniques to pause the everyday to redirect attention inwards to within the living body. Each uses headphones to augment the percipient’s sound world to deliver on-command voices contemplating mortality. Both works approach their own new media dramaturgies from “the understanding that the body/technology nexus in

¹² Sometimes tropes such as answerphone message are used which can be heard as direct address, but the episodes frame the auditor as listening-in to the voicemails intended for someone else.

performance functions to amplify rather than negate bodily and affective experience” (Eckersall, Grehan & Scheer 2017: 14), and more specifically, that the particular powers of voices in the ear canal entangling, prompting and performing with the brain’s thoughts gain potency when an individual contemplates the absence of their own thoughts. Attempting to understand life continuing beyond ourselves might begin to precipitate Dovey’s “eco-critical awareness” or what Rosi Braidotti would call a posthuman sensibility where momentarily performing, “as if already gone, or thinking beyond the bounded self, is the ultimate gesture of defamiliarization” (Braidotti 2013: 137). Works such as the *Afterlife* series explicitly interrogate the interior of the body as a site. Reframing the body as a site for the performance of multiple lifeforms in its present and future incarnations, before and after death, can create a profoundly defamiliarizing effect. The incorporation into consciousness of the non-human life collaborating in the production of self, the idiosyncratic performance of humanness that each individual person propagates, reveals the porousness of the body as a complex interior site permeated by the wider story of the forces of life unfolding on the planet. Such works use language to effect a change in the sensation of the body, and the phenomenal experience of being. *Vanitas* does not prompt consideration of the death of the percipient so directly. It wanders instead of providing clear routes, circling around the subject, creating space and time for defamiliarization to emerge. It creates space for thoughts of life and its end.

Four points of divergence

To summarise, *Vanitas* emerges as distinct from the field of contemporary practices introduced in Chapter One because of four key aspects of its dramaturgy. First, *Vanitas* resists a singular authoritative narrative monological voice and instead presents and is open to a multiplicity of voices in dialogue. As such, the audio world of the work comprises field recordings from ‘somewhere particular’, many from the cemetery itself, and not ‘clean’

studio recordings designed to appear as though from nowhere. Many of the other works in the field use a single authoritative voice recorded in a studio dislocated from a discernible site. The absence of direct address monologue decentres the experience, shifting authority over the designed experience of *Vanitas* from the artist and the technology to the collaboration perpetuating the performance system as a whole.

Second, while *Vanitas* offers pause from the everyday, it does not monopolise the time of its event, and is open to interruption from designed and chance occurrences. The *Vanitas* app-phantom system has self-interruption built into it and the use of episodes creates regular pauses and lacunae that render the smartphone a partial element within a mixed reality artwork porous to the world it unfolds within.

Third, *Vanitas* does not prescribe its own physical dimension, and can grow and shrink to take multiple places, and extend to the percipients' horizons. *Vanitas* does not use a fixed route, waypoints or locations, its physical dimension is the product of a negotiation.

Finally, in contrast to many of the other artworks in the field that overlook the ontology of audio playback, the *Vanitas* app is understood as a product of a performance ontology of computation that acknowledges that smartphones *perform* software, media and the voices, sounds, pictures and interfaces of the artwork. Because the smartphone is a computing device and part of the apparatus of ubiquitous computing it should not be considered as merely a media playback machine. The smartphone's ability to mediate electromagnetic frequencies and spatio-temporal scales insensible to the human body and translate them into palpable sensation widens the spectrum of affordance far beyond previous mobile media.

Conclusion

Before the pause is over, I return to the diagramming technique introduced in Chapter One to illustrate the interactions between the dramaturgical elements distributed across *Vanitas*. These snapshots pause the performance system to emphasise the relation of multi scalar entities dwelling within a shared location and time, even if they are virtual or operating at different speeds and physical scales. The diagrams below show how artists and characters can be performatively instantiated in the present through the smartphone. They centre on the emplaced dwelling perspective of the percipient within a site and the affordances they can perceive from that position, either via the smartphone, within their environment, or in the case of tea, within their body. It visualises how the perception of virtual, not physically co-present, entities can be afforded to the human sensorium through machine performance. For example, how the voice of a groundskeeper interviewed in the past can appear to give advice in the present. When combined with the performance ontology of computation the seamless model can be useful in revealing how the virtual is performed by machines in the same shared environment that the human body is also imminent within.

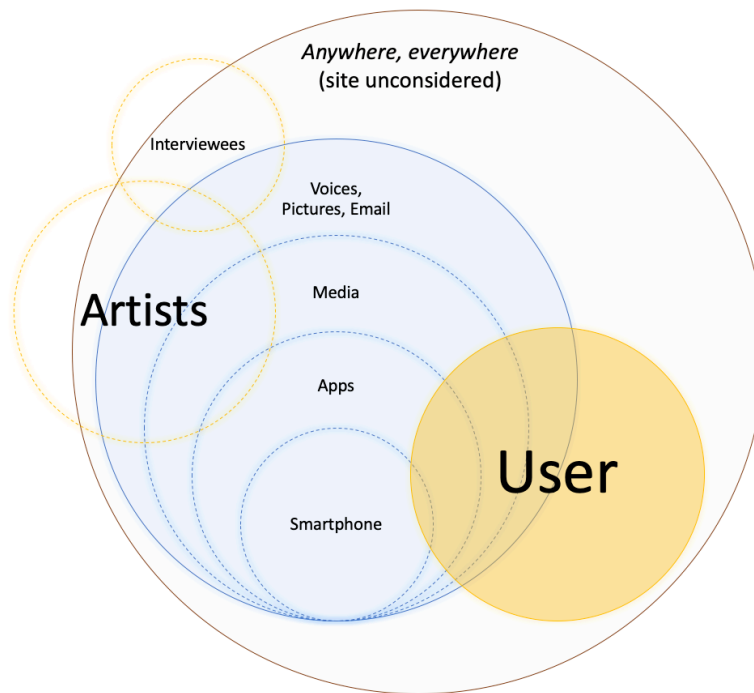


Figure 12 – Vanitas Chapter One an illuminated podcast.

The scope of *Vanitas Chapter One* is shown paused in the diagram above. This model adapts a classic media interaction to include the internal strata of the smartphone. The smartphone is the only entity shown with substrata revealing a little of the ‘depth’ model of computing which ranges from the smartphone hardware ‘up’ through software which produces media which in turn produce discernible signification. The artists interact through their voices, in the selection of media and the creation of apps, though they cannot handle the smartphone hardware itself. In this more typical mode of smartphone interaction where the site of interaction is not considered to be part of the designed experience I revert to the common designation of the human interactor, ‘user’. The diagram illustrates how user interaction in *Vanitas* ranges from physical handling through to software interactions, the perception of media and the discernment of the voices and pictures represented within the media. Although this interaction occurs in specific places, *Vanitas* does not prescribe where.

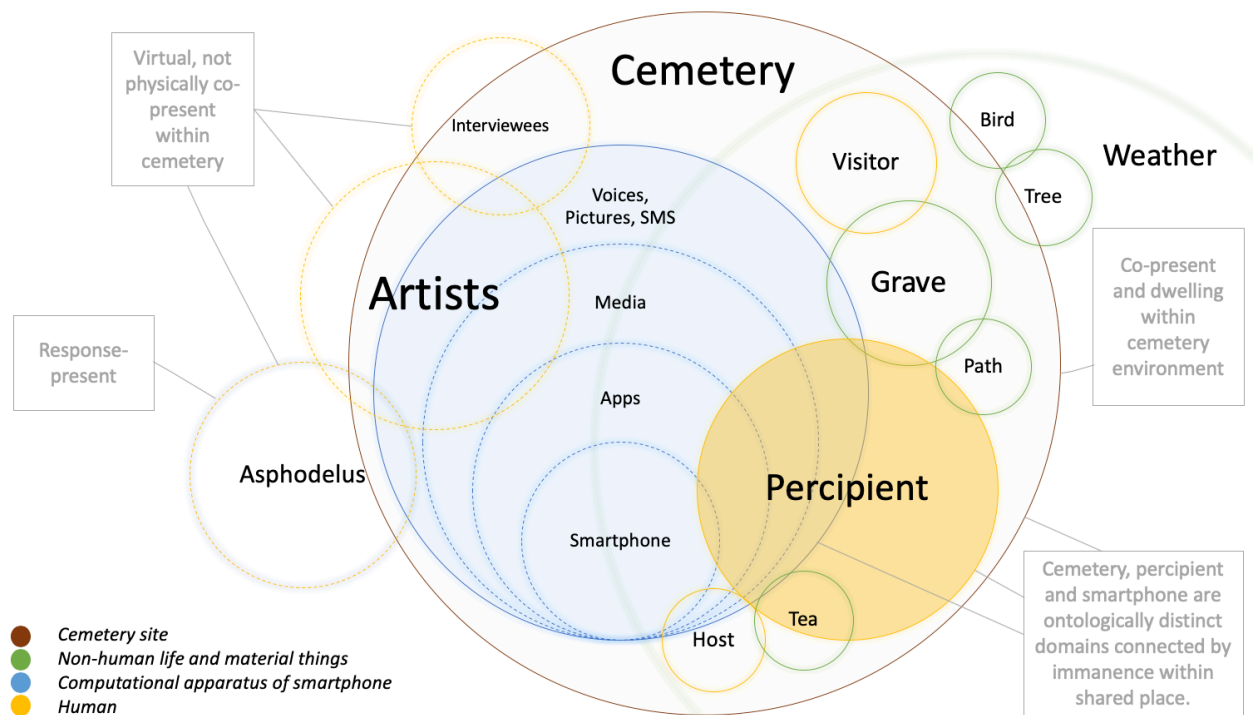


Figure 13 – Vanitas Chapter Two an expanded audio walk.

Vanitas Chapter Two, modelled in the diagram above, translocates the interaction mode of *Chapter One* to a cemetery site. The smartphone and the percipient are shown to dwell within the cemetery interacting with physically co-present, virtual and response-present others. The voices of interviewees and Asphodelus are present in the cemetery through the smartphone. The cemetery is included in the model as an encompassing environment in which the smartphone and percipient are co-present. During *Vanitas Chapter Two* the percipient and smartphone are part of the cemetery. The introduction of the non-human character Asphodelus who sends SMS and is discussed in the audio complicates and confuses the experience of *Vanitas*. The text messages interrupt the flow of episode audio, creating pause and drawing attention across the ontic strata of the experience.

Similarly, the ‘Vanitas blend’ tea moves from the hands of the host to inside the body of the percipient and then travels through the cemetery with them subtly giving pause by returning

to consciousness when mentioned by the artists and interviewees inviting playful questioning of the consumption on the experience as whole and its effects on perception. Finally, when and how percipients select a grave and what they do in their tending of it also becomes part of the artwork by inviting direct interaction with the materiality of memorialisation.

Far from being impervious separate entities, usually considered to be distinct, the seamful modelling technique highlights the overlap between them. An alternative way to distinguish the entities from the system is to focus on the points of overlap, the seams which produce the individuals. For example, by locating the percipient and the smartphone within a specific location they experience a collective immanence through the unfolding of their intra-actions. Which means, as Karen Barad suggests, through;

the mutual constitution of entangled agencies. That is, in contrast to the usual “interaction”, which assumes that there are separate individual agencies that precede their interaction, the notion of intra-action recognizes that distinct agencies do not precede, but rather emerge through, their intra-action. (2007: 33)

While the use of perfect circles and non-relative scale denotes the abstract nature of the seam diagramming technique, the system models it produces serve the purpose of visualising the scope of a complex assemblage of entity intra-action. This paused view of a system is useful precisely because it holds entities of different ontologies in a single snapshot and treats them in the same way.

The attempt to “ II ” both *Vanitas* chapters through this modelling technique draws attention to the complexity of the systems smartphone users interact with every day and yet overlook. The purpose of this ‘high-level’ systems approach is not to reduce the dynamic, fluid complexity of the performance to a false ‘pause’ but to offer an entry point for a discussion of the complexity of ubiquitous computing systems in microcosm. This ‘paused’ approach

offers a concise common model that can serve as a reference point across disciplines. The model also reveals just how prohibitively complex and startlingly interwoven life with ubiquitous computing really is. However, what is required is not so much an overview, but a comprehensive view of performance systems interwoven with ubiquitous computing, and one that can engage with their time-based nature which these ‘paused’ diagrams may only ever partially evoke. It is to the ‘full view’ and the incorporation of time that I now turn.

3. ►► Fast-Forward: *Vanitas* as a Laminated System

As the opposite of rewind, fast-forward is a technique of playing back linear media in its intended order but at a speed greater than the media was designed to be experienced by the human sensorium. Like rewind and pause, fast-forward (or simply ‘►►’) emerges from tape media: by increasing the speed of playback the physical position in a tape and a time in a recording encoded at that location can be arrived at faster than through normal playback. In this chapter I fast-forward through the development process of *Vanitas* to arrive at a different way of perceiving it: as an artwork expanded beyond a single medium into a transmedia system. The challenge is to model its parts equitably whilst maintaining the complexity of the whole. This is important for redressing what might otherwise continue to be overlooked in site-responsive performance and mobile computing. The second challenge is to incorporate time into such a model and appreciate *Vanitas* as a system in performance.

The creators of audio walks require a heightened dramaturgical understanding of their medium. This includes its materiality, the representational realities encoded in recordings, the needs of the listening body, sensitivity to the affordances of a place, and appreciation of timing that produces a specific moment of performance. These elements of expanded performance systems are recruited and moved through during an audio walk, and yet the seam modelling technique introduced in the previous chapters presents only a synchronic snapshot of artworks as systems in overview and not the time-based experience of their discovery from the inside. In the following discussion I analyse *Vanitas* to introduce three time-based diachronic diagramming techniques that elucidate the *fast-forward-thinking* required to design and discuss artworks imbricated within the apparatus of ubiquitous computing. To begin I explore Roy Bhaskar’s notion of “laminated systems” (2010) and consider its application to *Vanitas*.

►► Artworks as laminated systems

The notion of “laminated systems” was developed by philosopher Roy Bhaskar as “a useful critical realist way of dealing with the irreducibility of different mechanisms in an open system” (Scott & Bhaskar 2015: 28). The comprehensive view sought by a laminated systems approach was initially developed by Bhaskar to enable transdisciplinary collaboration addressing human created climate change (humanity’s ‘super wicked’ problem) (2010). Instead of attempting to approach complex problems from a single disciplinary standpoint Bhaskar emphasises the need for interdisciplinary collaboration. Laminated systems are part of the framework he proposes which allows individual disciplines to retain their own ontologies whilst collaborating epistemologically with other disciplines. The disciplines themselves can become levels in the wider laminated system which Bhaskar describes as “very useful devices in the exploration of open systemic phenomena... where you can’t reduce the explanation to a single level, and you need to look at the dynamic between levels” (in Scott & Bhaskar 2015: 28). Laminated systems have subsequently been developed to discuss other large and challenging subjects, such as life with computers in what David Berry calls “the softwarization of society” (2014: 53).

Computers have traditionally been conceptualised through a depth model which addresses layers of abstraction from the ‘more concrete’ physical functioning at a ‘deep’ atomic level up through ‘more abstract’ behaviour that eventually emerges at a ‘high level’ perceivable to human senses through user interfaces. This model has been named the “digital iceberg” by David Berry (2015: 47) to suggest that the visible ‘tip’ of computation belies the colossal scale of work occurring below the waterline, hidden from the human sensorium ‘offstage’. However, Berry calls for a shift “above and beyond a depth model, which highlights the machinery of computation,” (2015: 44) in order to engage with the complex systems

surrounding computing in society. To achieve this, Berry uses laminated systems to inaugurate a transdisciplinary approach to a “softwarized society” comprised of interdependent and ontologically discreet layers of systems: a system of systems.

Berry offers the following laminated system in a discussion of the softwarized society. His approach is similar to the separation of concerns and abstraction layers found within computing, but extended into the environments and cultures around the human-computer interface:

1. Physical: Material and transactional level (of the hardware)
2. Logical: Logical, network and informational transactional level (level of software as diagram or platform)
3. Codal: Textual and coding logics (level of code as text and/or process)
4. Interactional: Surface/interface level (between human beings and non-humans mediated through code)
5. Logistics: Social and organizational structure (at the level of institutions, economies, culture, etc.)
6. Individuational: Stratification of embodied personality (the psychology of actors, the user, etc.)

Table 1 – David Berry’s laminated system of softwarized society (2014: 58).

Distinct from the depth model which is pertinent to individual computing devices, a laminated system approach enables a wider view of a softwarized society that includes ubiquitous computation, networks and emergent behaviour, in what Berry terms layers of ‘ontic strata’ (2014: 59). While each stratum “has what Bhaskar would call unilateral dependence (on other things within its horizontal ontology)”, within a vertical ‘lamine’, it also has causal and “taxonomic irreducibility (namely that we treat each ontological level as distinct and irreducible, allowing for the emergence of particular concepts at a particular ontological level – and hence avoid the temptation to reduce everything down to voltage levels)” (*ibid.*). A laminated system conception of the phenomenon of smartphones in a site-responsive performance work is therefore useful for enabling a multi scalar appreciation of the interrelated disciplines and fields of knowledge required to come into dialogue in order to

approach and then unpick the ‘seams of the smartphone’. The seams in a laminated system are born of the irreducibility of ontic strata.

I propose that the complexity of multi scalar site-responsive audio walk systems created with smartphones can be elucidated through a laminated systems approach. Using a multi scalar technique like Bhaskar’s raises consciousness and awareness of the collaboration and interdependence of elements within a system which might otherwise go overlooked. Without a laminated system approach, it is difficult to conceptualise the broad palette of affordances available to artists working with contemporary media, ubiquitous computing, behaviours, bodies and environments. Approaching an artwork as product and part of a laminated system instead of a decontextualized instance of ‘new media’ more accurately reflects the production of works like *Vanitas* and potentially how they are received as focal points for theoretical speculation across the digital humanities, sciences and arts.

Some of the core problems laminated systems are designed to address, particularly distinct forms of being dispersed within a collective environment (computational and biological, actual and virtual, interaction order and ideological order), are present in the relative microcosm of transmedia, site-specific and digital artworks like *Vanitas*. In the table below I offer the ontic strata of *Vanitas* as a product of a laminated system. My addition to the approach is to add a dramaturgical consideration for the perspective of the percipient and therefore include what is on and off stage of their perception of the artwork; or above and below the waterline in the iceberg model. This illustrates the difference in knowledge between the ‘high level’ transcendent systems knowledge required by creative team and the ‘low level’, immanent and emplaced knowledge percipients gain by interacting and living

with the artwork during a performance. Within *Vanitas* and between each ontic stratum multiple media and materials enter and exit:

Ontic strata	Onstage	Offstage
Vanitas App	Pictures, voices, music, interface, animations, episodes	Outgoing messages to Phantom: episode progress, communication cues
Smartphone	Vanitas Icon, SMS alerts, email, phone call handling, vibration	Operating system: interpreting human inputs, touchscreen, discerning radio wave messages, emitting radio waves. Producing media: screen output (images), headphone output (audio).
Telecoms system		Detecting and emitting radio waves, translating signals to internet
Phantom server		Receiving, storing and acting on cues from Vanitas app, triggering SMS, email, voice call, progress
Human percipient	Listening, looking, moving, drinking, touching, selecting, tending	Hearing, seeing, feeling, digesting, choosing, decoding, thinking
Cemetery co-location	Pathways, text on signs and graves, grave minerals, vehicles, people, animals, Vanitas 'host', trees, plants, weather, light, sounds, Vanitas tea	Radio waves, source of distant sounds, decomposing bodies in graves, interior workings of own body, smartphone and living world

Table 2 – Laminated system view of key ontic strata comprising Vanitas from the audience perspective 'onstage' and the artist perspective 'offstage'.

The ontic strata in the table above exist independently of each other and only form the laminated system of the artwork during the performance of *Vanitas*. This is not a hierarchical or depth model and there is overlap between domains. Neither is it comprehensive: each stratum is a multi-layered complex system itself. *Vanitas* is a specific application of the general apparatus of ubiquitous computing which is woven into everyday life and primed to react on demand. *Vanitas* as a laminated system is not persistent in time or delineated in space but its many parts are requisitioned when called and are coordinated from moment to moment in each performance. The system's internal coherence is based on its ability to respond, for the strata to be response-present with one another, however fleetingly. Each performance forms the laminated system around the percipient's senses on command,

orchestrating the timing of the interaction between ontic strata to augment the experience of the local present with media, messaging and the evocation of geographically and temporally distant presents. This has the effect of mixing the realities of multiple places and times into the percipient's experience of the present. Staging the realities that mix within a laminated system is part of the impression management of spectral dramaturgy.

However, dramaturgy is concerned with what Trencsényi and Cochrane identify as “the inner flow of a dynamic system” (2014: 2) and so to make a connection to laminated systems it is important to find a way to incorporate time in models of performance systems. I now fast-forward to present three such models I produced in the creative development of *Vanitas*.

►► The coordinating perspective: transmedia dramaturgy

Vanitas was made by a multidisciplinary team distributed in different working environments. In order to coordinate the programming of the transmedia elements of the experience I developed the following diagram which shows the percipient's journey as they move through *Vanitas* encountering different dramaturgical layers mobilized by the performance. This view of the system does not include any details of the audio and imagery in the episodes, or the content of any of the emails, SMS, phone calls or conversations. Instead it attempts to scope the whole experience of the artwork as a laminated system by showing the layers and their entrances and exits.

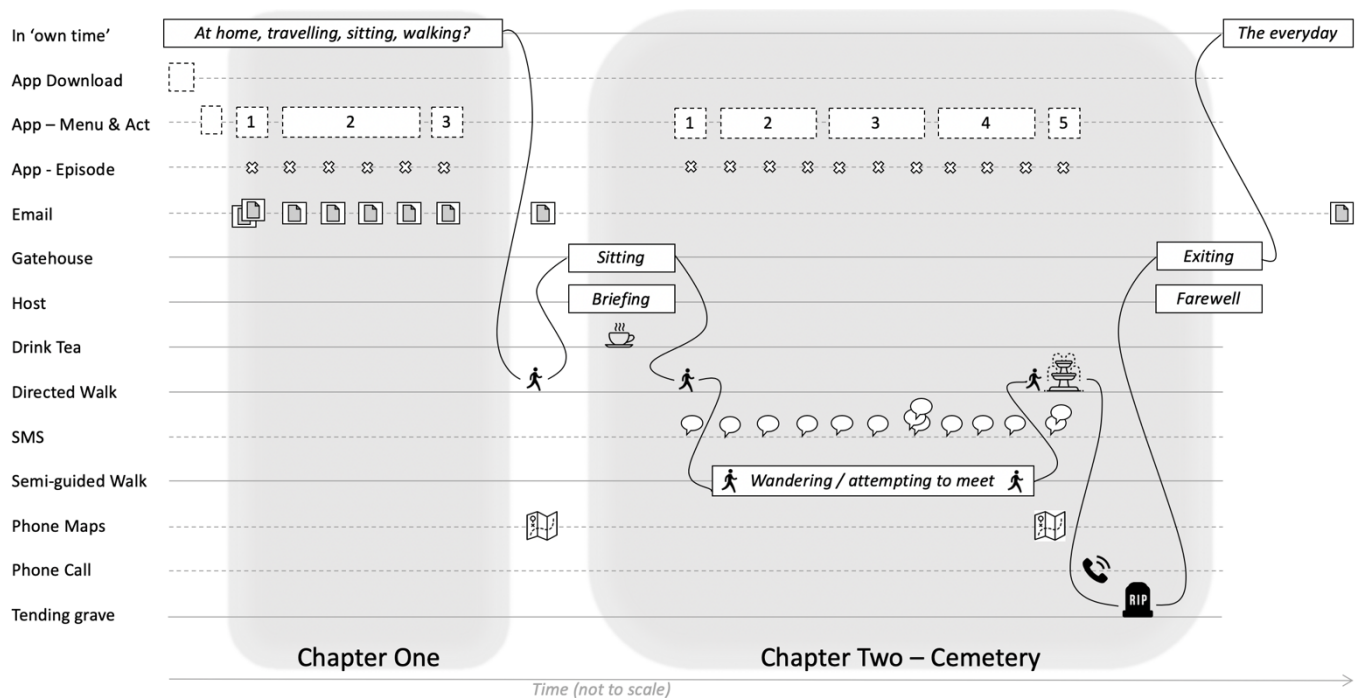


Figure 14 – Expanded overview of *Vanitas* as a transmedia system. Dotted lines indicate activities taking place on or with the smartphone either in the *Vanitas* app, or in mail, messaging, phone or maps apps. The percipient's journey through space is shown by the curved line.

The diagram above shows the designed audience experience of *Vanitas*. When read vertically in each moment a laminate of dramaturgical layers can be appreciated. Flow in one layer may be interrupted at any time by any of the other layers. Lamination should be considered to be occurring within 'sites' represented by the grey boxes which contain other strata critical to the experience such as weather, other percipients and the time of day.

Vanitas Chapter One establishes a method of engaging with the artwork through the app's *Vase With Flowers* menu interface and episode player. It establishes the "illuminated podcast" mode of listening and looking to episodes. However, no direction is given about where or when *Vanitas* can be experienced. Like a podcast, it can be consumed at home (on the couch or in bed for example) and traveling (on a tram or plane for example). The nature of publication on internet app stores means that in contrast to organised events like *Chapter*

Two, it is impossible to anticipate the full diversity of situations in which *Vanitas* can be experienced.

While the diagram above is useful for revealing the coordination of elements in time, it does not speak to the emplaced experience of the percipient discovering the system from within the performance. The percipient's perspective of the laminated system is formed from their emplaced position within and as part of it.

►► The percipient's perspective: an expanding event horizon

“In the nature of the case, an explorer can never know what he is exploring until it has been explored.” Gregory Bateson (1972: xxiv)

Initially, the *Vanitas* project appears to be wholly comprised of the *Vanitas* smartphone app. However, as the percipient's experience of the artwork unspools over the two chapters, other media and digital messaging (SMS, email, phone call) enter from 'offstage', expanding the perceived border of the artwork from a single medium to a system. In this sense the percipient is positioned as an 'explorer' in Bateson's sense; unable to appreciate the scope of the performance until it has played out.

The transmedia expansion of the scope of the artwork begins when the percipient receives an email from 'The Vanitas Team' relating to the project. As *Vanitas* proceeds, it gradually accumulates media, materials and communication modes that expand the event horizon of the artwork through the introduction of text messages, meeting a 'host' at a performance at a cemetery, drinking 'Vanitas blend' tea, navigating through a cemetery, attempting a rendezvous with a stranger, following a map reference, receiving a phone call and tending to a stranger's grave. *Vanitas* is comprised of the percipient's own smartphone and its operating

system, app software also called ‘Vanitas’, a transmedia telecommunications software system called ‘Phantom’ running on a webserver, the 4G telecommunications system, the venue ‘host’ and the scripted instructions they provide, the decisions and experience of the interacting percipient, and the physical environment where the interaction between the smartphone, software, server and percipient occurs. For percipients, *Vanitas* progressively expands beyond the seams it initially establishes along its borders, shifting expectations of the paradigm of the work beyond the confines of an app, as shown in the figure below.

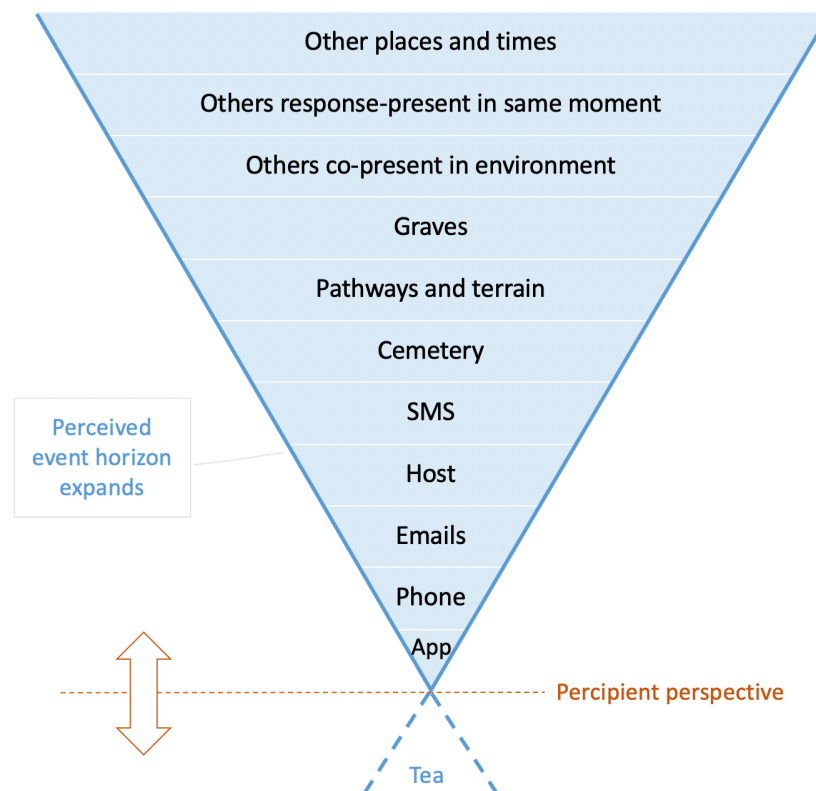


Figure 15 – Vanitas’ expanding event horizon shown from the percipient’s perspective.

During the performance the percipient’s perspective of what constitutes *Vanitas* expands as a range of dramaturgical elements distributed across the artwork’s dramaturgical strata are introduced. These range from: within the body; to computation, software, media, virtual presence; to the cemetery environment and its inhabitants; to imagined pasts and futures.

Vanitas' expanding event horizon can blur distinction between what is and is not to be considered part of the work. Once introduced, each element can be incorporated within the percipient's perspective of *Vanitas* and their attention can shift between focus on an individual stratum or encompass many simultaneously. The designed experience expands far beyond the smartphone into a multi scalar system of distinct ontological strata that are recruited for the purposes of the artwork. As such, *Vanitas* becomes a bespoke application of the ubiquitous computing apparatus: a microcosm of the complex systems woven into the fabric of everyday life. The dimensions (physical, temporal, medial, performance, material, interactional, fictional) of the artwork are not known to the percipient until it is completed. The challenges we faced in creating and describing an artwork with this emerging set of interconnecting technologies are symptomatic of a wider struggle to understand and conceptualise life with mobile computing.

►► The creator's perspective: a collapsing event horizon

Another way of approaching an artwork as a laminated system is from the perspective of the artistic team who create it. In contrast to the previous model, the creative team may wish to 'collapse' the possible parameters of the performance system in order to shape the experience. From this pragmatic perspective, the formal specification of *Vanitas* contracts over the time of performance from unbounded potential occurring anywhere to being instantiated as an individual event bound to a specific place, time, percipient, smartphone and route. Of the possible events that could be made with the resources available, the laminated system of bodies, technologies, languages, behaviours, interfaces and materials that comprise *Vanitas* coordinates the work of diverse performing elements to produce highly variable experiences. This contraction from the possible to the actual is illustrated in the figure below. The pragmatism of contraction means that formally experimental transmedia works can be

scoped in time like other performances from the perspectives of the drama, the artists and/or the percipients. The transition from an opening situation of infinite potential through a series of probabilities which contract the possible to the necessary and then the actuality of what comes to pass is a key theme in the *Poetics* of Aristotle. Borrowing from classical dramaturgy, new media dramaturgies can continue to employ the notion of orchestrating the potential into the actual.

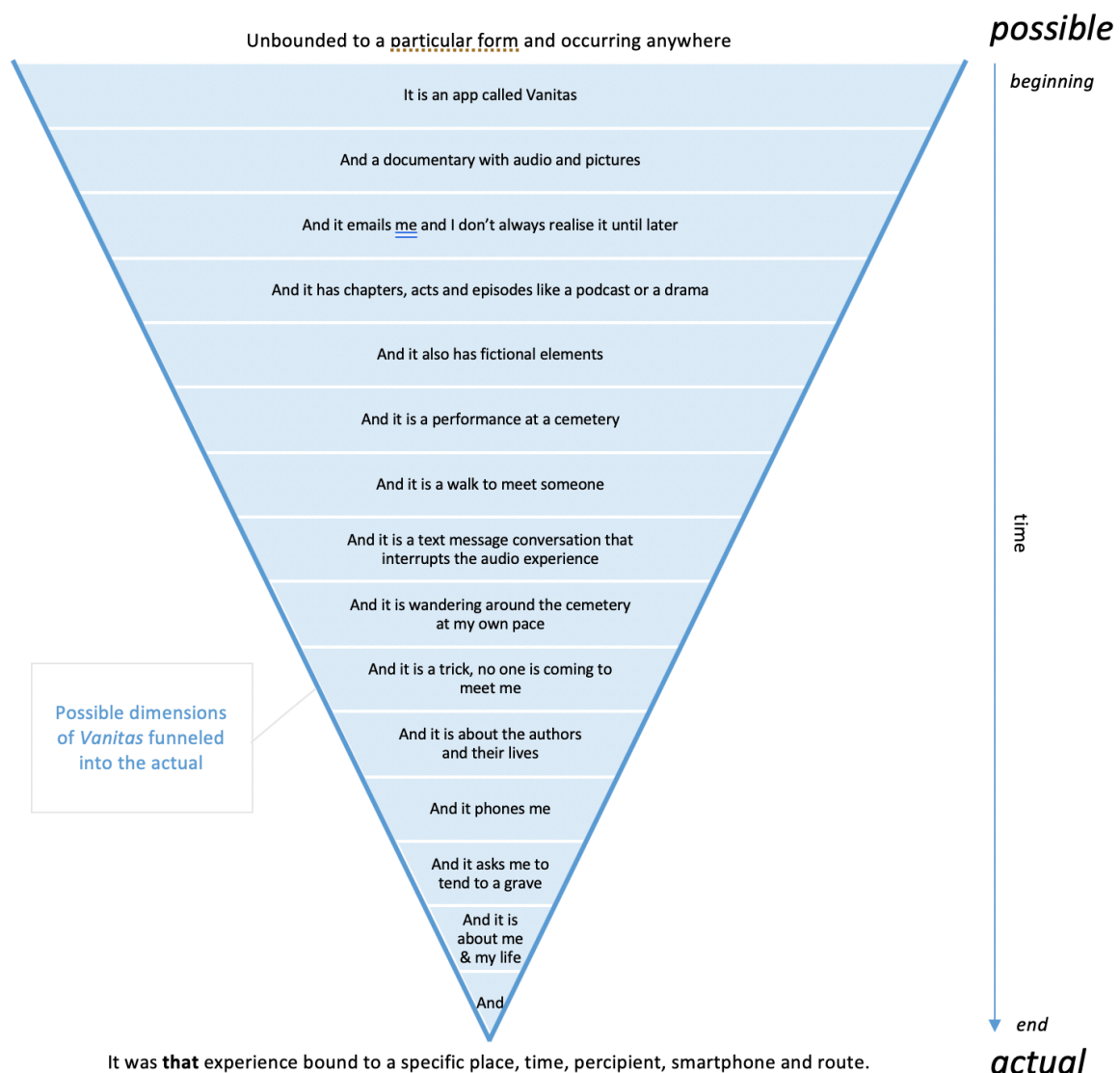


Figure 16 – Model of Vanitas dramaturgy funnelling the possible into an actual performance.

From the perspective of the creators the diagram above shows each step that funnels *Vanitas* from an abstract transmedia system to an actual performance. The dimensions (physical, temporal, medial, performance, material, interactional, fictional) are planned and described in abstract terms in advance and instantiated during performance.

» Laminated Authorship

An artwork like *Vanitas*, that takes the form of a transmedia network and is conceived as the product of a laminated system, challenges hierarchical modes of production and, by extension, the notion of a single author of a work. Indeed, the group who created *Vanitas* might be considered to have formed a temporary laminated system of individual people each with a notional ‘production role’ based on their expertise. This included the work of graphic and sound designers, programmers, producers, editors, interviewees and directors. The work itself is listed as ‘Created by’ Jason Maling and myself as a matter of convention, yet as a whole it is irreducible to us as individuals. Instead it is the product of the broader laminate we formed. For example, the whole of the Unity programming that enables the app was created by Chris Heywood in a location that Jason and I never visited. Likewise, Chris seldomly visited the Cemetery where Jason and I spent weeks. The same was true of Robert Jordan who mastered all of *Vanitas*’ audio in Ableton in his own studio, both technology and location that no other members of the group laminate had access to. I also spent hours alone editing interviews into episodes using Adobe Audition before sharing cuts with the group and discussing them over the phone. Similar to a laminated system, *we didn’t know how each other worked in order to work together*, and just needed to find ways to communicate from our specific role, ontic stratum, within the group.

However, the roles in practice were not always clear cut, and the edges of the nominal ontic strata domains we operated in were not neatly edged. This blurring was most obvious in the working relationship of Jason and me within *Vanitas*. While we appeared within the work as versions of ourselves, we were also instrumental in the construction of the experience and of performing and then re-presenting our performances through various media, as the second half of this thesis explores. Further, we also coordinated interviews, producers and the work of the other collaborators. A critical organisational role, which extended from the audio editing I undertook, was the coordination of the dispersed media of the work in time. As a multidisciplinary group we developed instruments which enabled the specification of the timed entry of images within the app, and text messages, emails and phone calls from outside of it. This was key to the creation of response presence. Coordination in time, despite being in different places, is foundational to spectral dramaturgy.

Within this thesis I slip between the use of ‘I’ and ‘we’ in the narration of the creation of *Vanitas*. Sometimes this is pragmatic, as much of the audio presented in the work is dialogue and I was one of the interlocutors. Where possible I make a distinction between myself, Jason and the wider collaborative team for the purposes of clarity. Sometimes however, I use ‘we’ strategically to speak on behalf of the project itself and in so doing resist reducing a work of laminated authorship to an individual ‘I’ alone.

The context of overlooked performances framing this thesis requires a move beyond what is explicit and authored towards appreciation of the implicit and ‘emergently authored’ in a collaboration, including during each instance of performance. Only a fraction of the work of the explicitly named collaborators finds its way into the ‘final product’ of *Vanitas*, while a large amount does not. Of the many hours of interviews, for example, only a few seconds of

each are repurposed into an episode. Likewise, there are many unnamed collaborators in the laminated authorship of *Vanitas* on whose work the system as a whole relies on. These range from the creators of smartphone technology and the ubiquitous computational systems upon whose systems *Vanitas* is deployed. Within the app are also the many anonymous painters and photographers whose work appears on screen. Then there is the Melbourne General Cemetery itself, and the architects who carved up its spaces, the groundskeepers who have maintained certain pathways over others, and the myriad monumental sculptors that carved the environment with the words authored by the bereaved over the last century. Finally, there are the percipients themselves, whose overlooked performance within *Vanitas* enables it to occur. All these emergent collaborators and more comprise the laminated authorship of a work like *Vanitas* and come into focus during part three of this thesis.

►► Conclusion: Fast-forward thinking

In this chapter I have fast-forwarded through a laminated systems approach to address the complex interweaving of technologies, places and practices present in site responsive performance with ubiquitous computing. Laminated systems are useful for describing open systemic phenomena that an artwork like *Vanitas* recreates as a microcosm of the elements comprising softwarized society. A laminated systems approach is important because it attempts to acknowledge the interdependence of the ontic strata within a system, not by emphasising an inherent hierarchy, but by attempting a comprehensive overview that permits multiple ontologies and requires interdisciplinarity. This expansive, pluralising approach attempts to prevent strategic overlooking of aspects of a system. However, for the purposes of time-based arts practice it was necessary to think about the experience of encountering a laminated system. The three diagrams above illustrate the revelation of the ontic strata of the

Vanitas laminated system over time. Each elucidates ontic strata that might otherwise be overlooked, and yet whose performance is required to perpetuate the artwork.

The first (Figure 14) and second (Figure 15) are created from the percipient's movement through time with the system. The third diagram (Figure 16) shows the specific deployment of affordances the system offers which move the possible to the actual from the artist/system designer's perspective, over each performance of *Vanitas*. A laminated systems approach works across scales to combine 'high-level' functioning of globally distributed technologies with a 'low level' first person perspective of a percipient walking within it. This becomes a useful technique for developing and analysing artworks created with ubiquitous computing, and may also have application to theatre and performance more broadly.

A *fast-forward-thinking* approach resonates with the situated dwelling experience of place and is distinct from a transcendent view of systems in snapshot, complete and outside of time. The ability to range across an experience at speed, in imaginary fast-forward, and to articulate key moments of change is an important dramaturgical technique. In audio walks this forms an appreciation of the unspooling experience of moving through space in coordination with mediating audio. The flow, entrances and exits of the elements comprising such systems inform spectral dramaturgy which coordinates how virtuality, mediated realities and machinic spatio-temporalities are staged for the human sensorium.

While the percipient of *Vanitas* moves forward through time with the artwork it is likely that they engage in their own form of *fast-forward-thinking* to plan ahead and speculate on the emerging trajectory of the experience they are entangling with. This may range from: the percipient's suspicion of Asphodelus' endgame; to speculation on the relative merits of

possible paths to take in the cemetery; to the possible effects on the body of the tea they consumed; to contemplation of how *Vanitas* will end; to the longevity of the cemetery and its graves; and potentially fast-forwarding to envisage the event of their own death and beyond, to life continuing without them. However, all this *fast-forward-thinking* remains entangled in the present of *Vanitas*, a singular performance event. The projection of the self into anticipated futures and virtual scenarios in this way reveals the spectral capability of the imagination to remix reality. Possible futures are woven out of the present as a series of plans that can cascade from the next footstep to the final breath and beyond. *Fast-forward-thinking* rehearses what might happen next, forever within the unspooling of the past and yet one step ahead of the continuous fabrication of reality through intra-action. Despite the constant movement, planning ahead, switching focus across strata, fluid realities and the complex plurality of its constituent parts, I aspired for the performance of *Vanitas* to offer the experience of time out of time. To offer ‘ II ’ within ‘ ►► ’.

Artworks like *Vanitas* function as microcosms of global industrial communication systems. Systems created by artists can serve as temporary interventions into the apparatus of ubiquitous computing that interweave environments and networked communication with human nervous systems. When instantiated in performance, the various ontologies of the strata constituting the artwork’s laminated system collectively become the singular ontology of the specific event. In this approach each performance forms an application of the system unique to its specific temporal and spatial circumstances. In these moments the systems switch from a paused abstract model to play out a specific, one-off performance. It is to the detail of this performance ontology that I now turn.

Part Two: ▶

The technique of ‘▶’, has a very specific meaning that distinguishes it from the plurality of uses evoked by the word ‘play’ alone, and the diverse fields of study that interrogate play including education, gaming, anthropology and performance studies. In the context of this section of the thesis ‘▶’ is the technique that makes a machine reproduce a recording stored in a medium. Pressing ‘▶’ on a Walkman, for example, begins the transport of tape from one spool to another and simultaneously moves the tape-head into contact with the tape medium so that it may detect the charges it stores and amplify them for output to headphones, thus enabling the listener to hear a recording. To achieve playback, all the end user need do is press ‘▶’. The machine then coordinates its interior workings to orchestrate a rendition of the recording by transposing the encoding in media to soundwaves, a process that itself contains many technologies. The technique of ‘▶’ causes the entanglement of the machine and the media to enact a performance of the recording within their local material circumstances that is overlooked by the listener if the rendition is of an acceptable quality. Despite changes in media and playback technology, ‘▶’ persists and the technique has been remediated in digital media and software to apply in a wide range of contexts to signify the enlivening initiation of a time-based process. Intrinsic to ‘▶’ is its common association with playback at the speed appropriate for human appreciation of a recording, a point useful to consider in computational media which can function at far greater speeds. This insight serves as an entry point to Part Two which considers how computer playback of media equates to performances tailored to the human sensorium and perceptions of time.

However, that ‘▶’ is called ‘play’ and not ‘go’, the opposite of ‘stop’, inevitably brings associations with musical performance where an instrument is played to play a piece of

music, to theatre where plays are played by players and to sports where players also make plays. Despite the diverse meanings, the myriad uses of play give the sense of enlivening situated action. ‘▶’ inaugurates a period of time, a mode of being and a reality designated as playing that exists within real life. Likewise, ‘▶’ offers the affordance of ‘on my command, perform’. My focus here is on the transformative technique of ‘▶’ to begin a performance, which as Richard Schechner notes “may be defined as ritualized behaviour conditioned/permeated by play” (2013: 89). In the following two chapters of this section I will present an ontology that emerges from machines at play, performing their programming. Unlike a procedural ontology of machine computation which focuses on the codes that precede and dictate action, my focus is on each individual rendition: the act, the playing out, the performance of computation as it occurs, during its entangling within the materiality of the world, not before it. An immanent approach to ‘▶’ might appreciate it as a technique for prompting an enlivened unspooling within specific material conditions that are themselves bound up in the materiality of the unfolding world. The supernatural power that ‘▶’ offers is to animate the seemingly inert, to breathe life into a machine, with the touch of a button. However, the invention of ‘▶’ precipitated the need for ‘■’, which inevitably brings association to life and death, which is explored further in Part Three.

The smartphone is a mobile computer created to perform for and with its owner independent of their co-location. Therefore, in Chapter Four I focus on the human-smartphone relationship as it is primarily designed to take place: anywhere and everywhere. This is also the way that *Vanitas Chapter One* was designed to be experienced which is the focus of Chapter Five, the second half of Part Two.

4. The Overlooked Performance Ontology of Computation

Making *Vanitas* drew my attention to how the technology of the smartphone is orchestrated to perform in a way that the human sensorium can perceive as ‘outputs’, and the reverse, how people learn to perform in ways that the smartphone can perceive as ‘inputs’. Such a low-level approach to the performances that both humans and computers perpetuate might equate to what Karin Knorr-Cetina has described as the interaction order of the synthetic situation (2009). Because the interaction order is so studiously non-observed, I started to appreciate it as a series of ‘overlooked performances’ and in this chapter, I focus on them as a method for positioning an artistic intervention with smartphones. The state of the art of smartphone interface is such that while “computers ‘understand’ as little as ever about human experience ... they do, however, perform understanding better than ever, and we are content to play our part” (Turkle 2011: 26). From my perspective the converse is also true: while most people understand as little as ever about how computers work, they have found ways to maximise the affordance they have perceived and adapt their performance in order to achieve it. The considerable work that people do to adapt their performance and then overlook it, as though it did not happen, is of interest to me because it reminds me of audience complicity and suspension of disbelief in theatre. Understanding the human and computer performances at play in each interaction thus becomes a starting point for crafting an artwork like *Vanitas* and thinking differently about site-responsive performance practice with mobile computing devices.

Theatre and performance are often arrived at in discussions of computation, software, media, interface and human interactions with devices in the converging fields of software studies, ubiquitous computing, digital humanities and comparative media studies. However, their

evocation is often a concluding observation or side note. There are few examples that take performance as a starting position to cohere the complexities of these fields. In this chapter I consider the smartphone as a site, a real place, where performance occurs within local material conditions that draws on abstract, pre-scripted designs but executes them in unique renditions. My aim is not to replace a procedural ontology of computing, but to complement it with one based in performance.

Brenda Laurel's exploration of the dramatic potential of interface design in *Computers as Theatre* (2013) was followed by Jon McKenzie's expansion of the analogy to "computers as performance" via a "more generalized human performance, [including] ritual, speech acts, everyday life, and performance art, in short the entire spectrum of performance studies, all become creative and critical avenues for addressing the human experience of computers" (McKenzie 1994). Since then this thread has been occasionally pulled further, most notably by Gabriella Giannachi in *Virtual Theatres: An Introduction* (2004) and with Steve Benford in *Performing Mixed Reality* (2011) and *Interaction as Performance* (2012) where they noted that "there is a fascinating and potentially deeply productive relationship between interaction design, theater, and performance" (Benford & Giannachi 2012: 38). However, most approaches from Theatre and Performance Studies have been focused on the 'on stage' performance of computing, that of interface.

In order to understand what performances are already occurring within computers such as smartphones, and how I might work with their liveness, it is necessary to look 'behind the scenes', beyond the 'surface' performance of interface designed for humans, below the waterline of what David Berry termed 'the digital iceberg'. The difficulty here is that computational performances below the surface of interface are insensible, and yet their

liveness produces the dynamism that interfaces depend on. The same is true of ubiquitous computing which, as Jane McGonigal notes, “happens as if by magic; the virtuoso system is not meant to be observed directly” (2006: 10). Similarly, Alexander Galloway notes in *The Interface Effect* that the more a “device erases the traces of its own functioning ... the more it succeeds in its functional mandate” (2012: 20). My perspective on computational performance (quite different to the computer science field which measures and optimises computation) addresses how machines perform *as* computers. This has some major implications that reformulate ‘higher level’ interface performance. If the core action of computation is produced as a performance by a machine live and within specific material bounds, then the functionality that descends from it is also a performance. The decoding and encoding of each bit of digital data is achieved through an act of performance, and taken at vast speeds, the computer emerges as a multimedia theatre where performances are sustained over time. This in turn leads to software performances of media and interface which are both performed with the human interactor.

In the following sections I will establish that computing machines have always been performance machines, and while they are often deliberately overlooked as such for a variety of reasons, there is an urgent need to re-engage critically with them as contested political sites that humans are complicit in perpetuating both as audiences and collaborators. I will introduce three overlooked performances: (1) that machines perform computers, (2) that software performs media, and (3) that machines, computers, software and humans perform interfaces. I then move on to critique the ontology of computation I am proposing and expand upon why it might be useful.

Then in Chapter Five I introduce *Vanitas Chapter One* within the context of the ontology to discuss the differences between the generic performance of computation and interventions into it. When computation is perceived as the product of machine performance, and its descendants software, digital media, interfaces and networks are also created as live performances ‘in the moment’, then the level of complexity extends beyond many of the existing arts and humanities methodologies to adequately approach it. It is therefore often overlooked. I am seeking a way to address this issue through performance. The overlooked performance at the core of my argument is that machines perform computers.

Machines perform computers

The first computers were people. In the late 14th-century a computist was a person “skilled in calendrical or chronological reckoning”, and by the 1640s a computer was “one who calculates, a reckoner, one whose occupation is to make arithmetical calculations” (Harper 2013). Alan Turing’s seminal 1937 paper *On Computational Numbers, With An Application To The Entscheidungsproblem* specified “the universal computing machine” later known as the Turing machine, the first theoretical proof that a machine could perform the tasks previously undertaken by a human computer. The paper contains many references to performance and reveals how it was necessary for Turing to act as his computer to prove his theory before being confident enough to say “we may now construct a machine to do the work of this computer” (1937: 137). While Turing noted that “we may compare a man in the process of computing a real number to a machine” (1937: 117), the first modern computers, as Wendy Hui Kyong Chun has pointed out, were groups of women: the Women’s Royal Navy Service (WRENS) of Bletchley Park and the “women of the ENIAC” (Electronic Numerical Integrator And Computer) during The Second World War (Chun 2011: 32).

Therefore, the first overlooked performance is of a human-engineered machine performing the work of a mathematically defined computer which had previously been performed by humans. Turing was highly sensitized to this distinction, but common contemporary usage of the term computer conflates the machine with the abstract mathematical specification of the computer it performs. By imagining the simplest possible operations a computer could perform, Turing was able to arrive at a theory that could be translated into the physical realm of engineered machines:

Let us imagine the operations performed by the computer to be split up into “simple operations” which are so elementary that it is not easy to imagine them further divided. Every such operation consists of some change of the physical system consisting of the computer and his tape. (1937: 136)

Turing’s breakthrough was to express a computer in logic that would exist to guide the functioning of a machine as its ‘state of mind’ using only the simplest possible operations. The machine performs a rendition of the computer. During its performance, the machine temporarily becomes a physical instantiation of the computer. Therefore, computers are performed. They cease to exist when the event of their performance ends. The physically engineered computing machine is not a computer unless it is performing. This observation has a number of corollaries that establish the performance ontology of computing which I will briefly introduce.

Looking to the simplest acts that can be performed by machines might reveal a way to talk about the smallest quanta of non-human performance. Turing machines perform a limited set of logical operations with computable numbers. These equate to (1) sensing presence or absence then, (2) comparing sensation of presence or absence, followed by (3) acting to create presence or absence. These processes are usually referred to as reading, comparing and

writing. However, the relation to reading and writing is metaphorical, and anthropomorphic, revealing a preference to reproduce written language. Instead, these core computational processes might equally be called listening, hearing and speaking or sensing, feeling and acting, for example. These basic actions are the ‘lowest’, ‘deepest’ and most fundamental operations of computation. They may also be considered as the fundamental constituents of performing in the moment. At the level of the manipulation of individual bits of information there is no concept of the significance of what is represented by the task ‘in mind’, only a compulsion to keep performing reading, comparing and writing within the stricture of logic which is woven into the physical parameters of the machine. All ‘higher’ representation and signification within computing machines is the aggregated product of the performance of these ‘simple operations’.

Such simple operations might also be the building blocks of machinic thinking and being, of non-human cognition and conatus. Turing’s paper describes the central processes at the heart of computing machines to this day. At its core the computer must act. It must know what to do next, when the moment comes, after it compares the symbol it has ‘in mind’ with the symbol it ‘reads’, ‘feels’, ‘hears’ or ‘senses’. Computation in these terms is a material process of comparing the absence or presence of symbols/electronic charges, which correlate to both logical positions in mathematics and the physical state of components. Computation takes place in time (at a frequency now set by a processor’s ‘clock-speed’ expressed in Hertz) with a forward momentum in movements through the smallest possible set of ‘simple operations’. Such operations describe the irreducible ‘elementary’ act of machine cognition, that is to recognize through comparison and to *know* what to do next as a result, in a single movement. The force of knowing what to carry into the future may also be the irreducible quantum of the computer’s conatus, emerging from matter, as the smallest possible flicker of what Spinoza

might term a striving to continue to exist. Animated matter sets the computer in motion. Thus, in one movement of the machine both computer cognition and conatus might flicker into being. Performing such moves as contemporary processors might at frequencies in the order of 10^9 Hertz (thousands of millions of times per second) produces computational capacity for non-conscious cognition on the brink of emerging as synthetic consciousness, and a similarly multiplied conative force to persist.

Another of Turing's key moves was not to try to imagine "all numbers which would naturally be regarded as computable" but to ask "what are the possible processes which can be carried out in computing a number?" (1937: 135). In an echo of theatrical production, such a move distinguishes the approach of building a theatre for each performance of a play from building a theatre that can stage the performance of any play. By identifying the minimum number of fundamental actions that a computer can carry out, Turing established how matter might be animated into a machine that performs computation 'automatically'. In so doing he expressed a theory which guided years of technological experimentation towards a threshold where mathematics and matter meet. Turing established that a universal machine was possible mathematically, then he and others went on to manipulate matter into increasingly effective machines able to perform computation.

The relationship between computation and data may also be appreciated differently when approached through the performance ontology of computation. This too can be read through Turing for whom the actual performance that is carried out by a computing machine is the product of the moment of interface between its 'state of mind', that is to say what is currently loaded into its memory, and the 'symbols' before it, what it is reading:

‘The operation actually performed is determined [...] by the state of mind of the computer and the observed symbols. In particular, they determine the state of mind of the computer after the operation is carried out’ (137).

The computer’s tape is rewritten in the moment after its reading. The data written on the tape is both the product of the operation performed, and proof that it took place, that the performance occurred. Thus, I suggest that all digitally encoded data is the product and also the artefact of computational performance. It is at once ephemeral, existing, for example, for the period an electrical charge can be maintained, and yet material, temporarily residing in tape or later in memory. It is material enough to persist in the short term. It can be entered into another computational process, or held in waiting as a performance score in storage. Its reading, even by the same computer, is also at minimum its rewriting, or redoing, but more likely its transformation through a performed operation into the product of a different performance. Any data that has been processed by a computer is performance data, the product of an operation performed by a specific machine. Any product is also a pristine score for a future performance. It is in this way that computable numbers at this level are performative: the act of reading creates action that physically alters the reader by becoming its ‘state of mind’. At the most fundamental level all data manipulation includes movement through the computer (processor), be it retrieval, copying, manipulating or checking, and is therefore the product of repeated processing, the performance of ‘simple operations’. At every clock tick the machine performs as the computer. Enlivened by the data it reads, the computer feels its way through its operations. Considering digital data in this way has major implications across the laminated system of a ‘softwarized society’ some of which I will outline in this chapter.

Raw digital data in the volumes present in contemporary computing remains an effectively non-human language. Digital data is almost exclusively encountered in translation during

performances where it is represented through graphics, sounds and haptic feedback tuned to the human sensorium. This is the direct result of the tautological paradox at the core of Turing's proof which gave the ability to "invent a single machine which can be used to compute any computable sequence" (1937: 127). The universal computing machine can only compute what is rendered computable. Subsequent generations of engineers have wrestled with processes to render the many aspects of the world computable by inventing protocols, methods and standards of representation comprising only computable numbers, which are now more commonly referred to as digital data. The 'universal' in 'universal computing machine' refers to a specific set of computable numbers and not, as is sometimes misconstrued, the universe itself. Translation of instructions, formulae, alphabets and media into computable numbers, the processes of encoding and 'digitization', common in contemporary information technology, stems from the rigidity of the needs of computation still present at the core of modern processors. Matter performs as computers for humans in configurations that complete more computation in shorter times than ever before, and yet the affordances that computers seem to offer humans to think with are the product of strict protocols and adherence to data standards. A large part of the history of computation over the last century has been the project of standardizing digital representations of media to efficiently meet the needs of two masters: first, the demanding, basic need, of universal computing machines that insist that the universe comes to them and be reduced to computable numbers in base two; and second, to meet the needs of humans who prefer representations that engage their sensorium evocatively and enter their sense of timing and responsiveness.

The conflation of machines with the computers they perform is one of practical convenience. Such overlooking, or studied non-observance, is foundational to the concept of abstraction

within computer architecture and the separation of concerns within object-oriented programming. This masking of complexity and work underpins the ideology of seamlessness. Likewise, that digital data is a score of previously performed operations, written incrementally and similarly read through performance is often overlooked for convenience. All movement of digital data is the product of strict machine performance.

The implications of the performance ontology of computing at the forensic level of the operation of processors that Turing laid the foundations for extends upwards through the ‘digital iceberg’. Though worthy of attention, future research can address what there is not capacity for now, namely machine performance in relation to algorithms, programs, object-orientation, software and operating systems. Before moving onto the next overlooked performance of major relevance to smartphones and *Vanitas*, it is important to briefly anticipate the performative nature of the conventions, standards and protocols necessary to maintain the stricture of machine computation. For example, Alexander Galloway’s discussion in *Protocol: How Control Exists After Decentralization* (2004) can be read as the outworking of the stricture demanded by machines for computable numbers. Protocol demands a certain minimum level of performance which if not met warrants exclusion, and this occurs across the laminate of ontic strata in a softwarized society and at all levels of depth within computing. When extended to the ubiquitous infrastructure of computing the underlying protocols become a far larger and coercive “machine, that massive control apparatus that guides distributed networks, creates cultural objects and engenders life forms” (Galloway, AR 2004: 243). In future research, the performative nature of protocol is worthy of greater focus as it relates directly to the overlooked performances at all levels of depth, and ontic strata of computation. These concerns extend to my next major focus, software’s overlooked performance of media.

Software performs media

In 1968, thirty years after the publication of Turing's seminal paper, Alan Kay created the initial specification of the 'Dynabook', a mobile personal computer and early ancestor of the smartphone. During the Dynabooks's intensive development during the 1970s Kay and his team were the first to articulate software as a "metamedium" able to represent "a wide range of already-existing and not-yet-invented media" (Kay & Goldberg 1977). In 1984 Kay went on to note that,

[The computer] is a medium that can dynamically simulate the details of any other medium, including media that cannot exist physically. It is not a tool, although it can act like many tools. It is the first metamedium, and as such it has degrees of freedom for representation and expression never before encountered and as yet barely investigated. (Kay 1984)

In the time since Kay's research in the 1980s a main endeavour of software has been the project of rendering pre-existing tools and media in formats that are computable. This is the software equivalent of what Marshall McLuhan (1964) and later Bolter and Grusin (2000) termed remediation: the recreation of one medium in another. However, as Kay noted, the metamedium of software is not only able to remediate but also to create new kinds of media, a point taken up by Lev Manovich to mandate the field of Software Studies. For Manovich, the term "postmedia aesthetics" is useful for describing the impact of software on digital media. He advocates "getting rid of media typology altogether" (Manovich 2006: 36) as the emergence of the metamedium of software makes all prior media distinctions redundant. In *Software Takes Command*, Manovich establishes that all media experiences on a computer are "software performances", because "we are engaging not with pre-defined static documents but with the dynamic outputs of a real-time computation happening on our device and/or the server" (Manovich 2013: 33). He goes on to establish that,

Therefore, although some static documents may be involved, the final *media experience constructed by software usually does not correspond to any*

single static document stored in some media. In other words, in contrast to paintings, literary works, music scores, films, industrial designs, or buildings, a critic cannot simply consult a single “file” containing all of the work’s content. (Manovich 2013: 34, original emphasis)

Theatre Studies, as I will expand more fully later in the chapter, has often taken the concern expressed by Manovich about the irreducibility of a performance to any document, text, convention or bodies involved in its production, to be central to its ontology. Software Studies might therefore find use in dramaturgy for discussing the complex interwoven texts present in machine performance. However, the relation between Kay and Manovich’s notion of software as a metamedium and the hypermedium Bolter and Grusin expound in *Remediation*, has been less discussed in the field of intermediality in theatre and performance. I propose that the qualities of the metamedium Kay outlines are more precisely described by the term hypermedium and the processes of remediation. Chiel Kattenbelt has formulated how live theatre can act as a hypermedium able to stage other media (2006: 37). I suggest that as theatre practice predates software as a hypermedium, able to remediate and stage representations of any media, it can therefore offer a range of elucidatory insights into what David Berry terms “softwarized society”, and what is more broadly described as postmedia and postdigital aesthetics.

As all ‘digital media’ are software performances, remediation within the metamedium of software is achieved through rehearsal. Rehearsals of software remediation are produced by machine assemblages trained to deliver the compromise Friedrich Kittler observed between an engineer and salesperson which,

regulates how poor the sound from a TV set can be, how fuzzy movie images can be, or how much a beloved voice on the telephone can be filtered. Our sense perceptions are the dependent variable of this compromise. (Kittler 1999: 2)

Remediation achieved through performance therefore becomes less about what can and cannot be remediated, and more about how given systems can mobilize the performance of media networks within their material limitations that are achievable and acceptable to both humans and computer collaborators in an interface. This is achieved with a methodology that moves forwards with the materials of interface to enable discovery of effective performances of vestigial media networks through practise and rehearsal as opposed to the imposition of perceived media forms on material *hylomorphically*. Such a method employs collaborative improvisation to discover what performs well enough with the material limitations of an interface, as opposed to attempting to recreate a pre-existent form in different matter. The result requires a loosening of known media networks, revealing them as unfinished assemblages of conventions and affects which are performed in each instantiation by an individual computing machine attempting to resemble a medium well enough to be believed. A medium can be reproduced when its behavioural network is instantiated by human and machine performing collaboratively. The success of the remediation is equally reliant on the performance of humans as well as machines. For example, this is why a smartphone employs a phone icon in a red circle to evoke the residual media network behaviour of ‘hanging up’ the receiver in its cradle to physically sever the connection and end a call, when in fact the smartphone does nothing of the sort.

While digital data might provide software with a script for a performance of a medium written in computable numbers, for example a video, software must translate its ‘reading’ into an event within its material circumstances. Even media transmitted through a network must be instantiated locally. Data downloaded offstage either in full or streamed in part must be performed live by software to produce the medium within local material circumstances onstage. The overlooking, or studied non-observance, of software’s performance of media is

how humans and computers can become complicit in shared metamedial renditions of media networks. It is also one of the central tenets of the performance ontology of computation, which informs the next overlooked performance at the tip of the digital iceberg: the performance of interfaces.

Machines, computers, software and humans collaborate to perform interface

Of the aspects of computing addressed in this chapter, interfaces have received the most critical attention from theatre, performance, media and software studies. Discussion of interfaces is often dominated by the ocular experiences of screens, headsets and graphical user interfaces. However, here I am drawn to the smartphone's capacity to create sound and vibrations in addition to their ability to emit light in ways perceivable as media. It is common for the difference between the interface and the computer to be elided. For example, Brenda Laurel's "dramatic theory of human-computer interaction" at the heart of *Computers As Theatre* (1993/2013: 141) and Jon McKenzie's "computers as performance" (McKenzie 1994) might in this thesis be more precisely understood as pertaining almost exclusively to the human-computer interface (HCI), the tip of Berry's digital iceberg. Despite the fetishization of the screen in much discourse, computer interfaces address the human sensorium across a subtle spectrum of techniques. Though there is much to say about interface performances, I will focus on the overlooked work undertaken by humans and computers to produce the live, collaborative performance of interface. To begin I will revisit Brenda Laurel's theory, which remains the most comprehensive analysis of the dramaturgy of interface.

Laurel builds on Clark and Brennan's earlier analysis of conversation as socially shared cognition taking place "on common ground and its accumulation" (Clark & Brennan 1991),

before going on to describe an interface as “the arena for the performance of some intentional activity in which both human and computer have a role” (Laurel 2013: 11). Shared activity between a person and their computer, despite the interactors being human and non-human respectively, produces what Mike Pearson, referring to live relational performance, terms a ‘site’ “*through and in* interaction, momentarily... relations make spaces rather than occurring within them” (2010: 13). It is in this way that a computer interface might be considered a site of live performance between human and non-human agents.

To compare theatre and computer interfaces, Laurel mobilizes the ‘on-and-off stage’ metaphor that emphasises the masking of backstage work essential to producing intentional dramatic representations onstage. In her analysis the interface is the ‘stage’ of the computer, which more often than not means the screen. The same metaphor is central to Goffman’s ‘dramaturgy of everyday life,’ but in his understanding the stage is the ‘face’ individuals present of themselves to the world, and which both individuals and groups seek to maintain (1959). However, while Goffman mobilized theatrical metaphors to enable micro-analysis of the social functioning of everyday life, Laurel’s aim for *Computers as Theatre* was to promote a use of “theatre not simply as a metaphor, but as a way to conceptualize human-computer interaction itself” (1993/2013: 28). To achieve this Laurel goes much further than Goffman in applying theatre as a model for interaction by providing “a framework of dramatic theory that can be applied to the task of designing human-computer experiences” drawn from an application of Aristotelean poetics commonly used in drama, to the computer interfaces which she calls “a *poetics of interactive form*” (ibid.: 41, original emphasis).

Like Aristotle’s aspiration for drama, engagement with a well-designed interface for Laurel “means that a person can experience a mimetic world directly, without mediation or

distraction” (ibid.: 140). The interactor allows their attention to leap over the material divide distancing the action from their senses, and playfully enter the absorbing mimetic world of representation as if it were real. This classical level of engagement, though compelling, is of a different order to the experiments in sensory immersion that Laurel observed occurring in avant-garde theatre practice, where the body is immersed within the action. The tension is a fruitful one, stemming from Aristotle, through Cartesian dualism, to Marshall McLuhan’s aspiration for technology to “extend our central nervous system itself in a global embrace” (1964: 16), and to what I have termed the ‘ideology of seamlessness’. However, this tension reveals some of the limitations of Laurel’s approach which often conflate theatre with drama and so focuses more with issues of representation than the phenomenon of staging encounters and creating events. Likewise, Laurel does not focus on computational performance per se, or how machines produce the performance of interface, but on how to innovate within the rigid terms of classical drama. In this respect, Laurel’s vision for computers as theatre does not move beyond mimetic representation.

One of Laurel’s most important insights is that “real-time human-computer interaction is mediated collaboration between designers and interactors” (1993/2013: 110) and that the moment of collaboration is a context for thought. In this procedural view of computation, interfaces are scripted environments that offer affordances of thought, tools to think with, that are written in advance. The way of interacting, of doing things with a computer, that the designer scripted in advance is instantiated and then unfolds in real-time. Because of such pre-scripting the computer becomes a tool that has cognition delegated to it. The choice of how and when the interface affords access to the cognition the computer can undertake is a matter of both pre-scripted design and real-time collaboration. The action which unfolds in the collaboration taking place at the interface causes yet more non-conscious cognition within

the computer and inspires cognition, some of which is conscious, and ways of cognizing, within the body. Likewise, in drama the viewer builds on the material experience of the on-stage enactment unfolding before their senses to perceive patterns and language to ultimately infer the thought, characters and plot deployed by the author. The drama of interaction experienced at ‘run-time’ permits the inference of thought. It is through performance that the generic aspects of the procedural (e.g. prewritten scripts, standardized interactions, stored media etc.) instantiate the specific event that comes to pass, a point reconfigured by Lucy Suchman’s *Plans and Situated Actions* (1987, 2006).

In parallel to computers, the human performance of interface is dependent on the successful operation of biological systems that function within a principle of separated concerns built on various layers of abstraction. Thus, both computer and human performances of interface are constituted from systems deemed to be transcending their material constitution to perform their part as either ‘extension of [hu]man’ or ‘human desirous of extension’ with ever-increasing ease, seamlessness and efficiency. And yet in the moment of interface between the human behaviour the computer can perceive as ‘inputs’, and the computer behaviour that the human perceives as ‘outputs’, neither party need know anything of the ‘inner workings’ of the other. The system works at face value, or more precisely, as Sherry Turkle puts it in discussion of the “robotic moment”, “interface value” (2011: 18). A situation that chimes with the concerns of Bhaskar’s laminated systems. Both co-present interactors are engaged with what Goffman termed ‘face work’: maintaining how they represent themselves to the other and the world (keeping face), and crucially also maintaining the other’s face (helping them keep face), and thus ensuring the social order of the “eye-to-eye ecological huddle” (1961: 18). The work that is undertaken to achieve and maintain the interface, for both human and computer to appear ‘natural’, or at least ‘second nature’, is the overlooked performance of

interface. For both parties in human-computer interaction much of the face work relates to eliding the differences in timing to maintain response-presence, however there are other shortcomings that must also be overlooked, as I will explain.

Computers are trained to perform interfaces to the human sensorium, which often means keeping most of the work involved ‘offstage’ imperceptible, whilst tuning outputs to human scales of time, space and sensory tolerances ‘onstage’. Likewise, humans become adept at performing in ways that increase the chances of their intentions being perceived by the smartphone as interaction, by adapting, among other things, their posture, voice, accent, level of focus and timing. Louise Barkhuus and Valerie Polichar (2011) revealed the extent to which human interactors deploy tactics to manipulate and maximize the affordance they have perceived within the smartphone. As most people are not explicitly taught how to use a smartphone, instead learning as they go, the range of tactics used to achieve the same goal is startlingly diverse despite the perceived generic nature of hardware and software interaction. Barkhuus and Polichar found that people often remain unaware of the extent to which they adapt a performance of themselves to meet the needs of smartphones or how much work they undertake to make the smartphone work for them (2011: 629). Together, the machine and the human, two sides of the interfacing system at the site of the smartphone emplaced within an environment, must collaborate well to create and maintain a performance of ‘seamlessness’, an ideological distortion of the unreconciled ontologies of human and machine computation.

David Berry notes that interface is the tip of the iceberg of “an infrastructure [which] performs a logic of impalpability, that is, an imperceptibility to the machinery of computation through a veneer on which the commodity form of computation is inscribed” (2014: 69). The divide between the material ontologies of computational data and the human sensorium that

is studiously elided in the performance of interface becomes the root cause of questionable fidelity in human-computer interactions. All such performances are shaped by cultural, political and economic forces, and not ‘pure’ computational exigencies alone. Thus, the corruption of the utopian ideals of the originators of the first personal computers and of theorists such as McLuhan, of the direct and honest, ‘pure’ interface between humans and the machines their cognition can be delegated to, has given way to systems that exploit human attention for ideological and commercial ends, and therefore require urgent critique. For example, in *The Interface Effect*, Alexander Galloway (2012) advocates moving beyond a poetics of new media and the pursuit of form, towards a methodology informed explicitly by politics and history. However, while ontological difference between the engineered computer and the biological brain may be elided, the tuning-in to one another amounts to a different sort of “aparallel” becoming (Deleuze & Guattari 1987: 11) which is refined through each performed interaction. Chris Salter draws attention to the entangled imbrication of technology within performance, and by extension human life, not only to ‘demonstrate just how we order the world through artifice’ but also ‘how such artifice orders us’ (2010: xxiii). There is overlap across the divide: the perceived affordance of the computer existing within the body (an emulation of the computer in the brain) and the perceived desires of the body’s senses existing within the computer.

These three examples of sites within the computational ‘iceberg’ where overlooked performances take place could easily be augmented by others. However, there is not space within this chapter to contain them. The three overlooked performances provide enough of an example to demonstrate that performance is as much a part of computation as the procedural and therefore warrants the articulation of an ontology that approaches the events computers produce as performance.

Computation has only ever existed in performance, being performed first by humans and subsequently and increasingly by machines. The material processes that enable computing machines to perform are fickle, difficult to manage and fragile. They can only produce a performance of computation under heavily controlled circumstances. And so, the development of machine computation over the last century has been predicated on achieving unprecedented precision in engineering and the removal of error in programming by establishing coherent physical and mathematical design standards and operational protocols which are enforced with little to no tolerance for error. The remarkable achievements in computing are the result of absolute stricture. Such strictures are what produces the edifice of stability that enables operating systems to ‘run’ or ‘stage’ applications predictably, reliably and with seeming ease, as amongst the most precise performances ever created. The fact that such reliable software tools and media are produced by repeated, local command performances within specific material and temporal conditions is both masked and overlooked. Instead, software such as operating systems are presented as stable, fixed realities that are universal and independent from material reality, adapting each individual hardware configuration into the same virtual stage. Subsequently, software applications ‘run’ within the virtual environment created and policed by an operating system, ensure that the ‘show’ produced appears to be *the same enough* on any compatible stage. Operating systems enable fully automated live performances.

The achievement of the edifice of stability that masks the fact that software and all the interfaces and media it produces are performed in high-fidelity rendition from moment to moment, is not to be underestimated. However, this study takes place at a turning point in the history of computation when consciousness of its performance ontology is reawakening in

light of interface design practices which exploit human vulnerabilities to deleterious effects. In these cases there is growing awareness that computing interfaces may be performing disingenuously, manipulatively and not in a neutral, apolitical space for humans to collaborate in abductive reasoning (Dieter 2015). What is deemed pernicious in contemporary interface design, and the cause of great anxiety, is a kind of inconstancy: the ability to redesign interface and the media it grants access for each user ‘on the fly’, that is, in performance.¹³ This capacity to improvise, however, may be considered an inevitable outworking central to computation’s performance ontology which produces interfaces on demand, and is thus able to incorporate new parameters, if available, with each moment of its rendition. What is seen as a violation of the neutrality of technology immune to politics is revealed as a site of commercial commodification, where human attention is not only bought, but becomes a raw material to be mined and thus is a source of capital in an attention economy. To understand a posthuman reality where computers no longer perform exclusively in the interests of the human immediately before them, but at the junction of competing audience needs (as the vassal of developer, corporate, state, human and inevitably software’s own interests), the need for a theory of interface that draws on live performance becomes apparent.

A performance ontology of computation

What difference does a performance ontology of computing make to our understanding of smartphones? The conflation of performance and performativity and their use beyond arts

¹³ Take for example the anxiety caused by Facebook’s endless feeds which are created by an algorithm contributed to by thousands of employees and is now more complex than a single person alone can comprehend. This delivers media in the moment and is beholden to conflicting interests including advertisers who can buy positions in an individual’s feed. In November 2019 Twitter banned political advertisements, with CEO Jack Dorsey saying “We’ve made the decision to stop all political advertising on Twitter globally. We believe political message reach should be earned, not bought” (Dorsey 2019). However, Facebook is yet to respond similarly (See Lidberg 2019).

practice, specifically as Chiel Kattenbelt has noted in “aesthetics, action theory, literary and cultural theory, linguistic philosophy, gender theory, anthropology and ethnography” (2010: 29), has led some to be suspicious of the liberal application of the terms. Likewise, the overinflated claims for performatives and problematic applications of performance to all aspects of everyday life, might lead one to question ‘what is not a performance?’ For example, in *Perform Or Else* Jon McKenzie critiques his own aim for Performance Studies to study the world *as* performance and produce a “general theory of performance” (2001: 51). Similarly, physicist Hans Diebner found that in “many different approaches and divergent developments, the terms ‘performance’ and ‘performativity’ lack conceptual clarity,” due to the incongruence of their originating discourses (2006: 21). At stake for McKenzie is “not simply different meanings of the term ‘performance’, but also entirely different sets of discourses and practices, different infrastructures and histories, different paradigms of performance” (2001: 53).

Instead, an emergent, immanent theory is required akin to Goffman’s microanalysis of interaction and the performance of self in everyday life that forms the glue of social order (1959, 1983) that focuses on the localized rehearsal, redoing knowledge, in each instance of interaction between people, places and things, including the smartphone. Or a relational theory as proposed by Kirschenblatt-Gimblett, who establishes that “the issue is not whether or not to uphold a particular definition of performance over and against media and technology, but rather to work with the relationships between them” (2004: 49). McKenzie was not interested in a transcendent “overarching semantic field of performance” and instead pursued an immanent, “underworldly stratum of performative power and knowledge, a pragmatic formation upon which all this contesting of performance unfolds” (2001: 53). Such a practice exists in the everyday performances conducted between machines and people as an

‘underworldly stratum’ of overlooked performances, the glue of the interaction order modified by computation. My intervention in arts practice draws attention to how the ‘underworldly stratum’ of the ‘ubiquitous infrastructure of computing’ might be made palpable and subsequently disrupted.

The challenge of describing processes that perform extends to the field of Software Studies in the writing of Chun, Mackenzie, Galloway and Hayles, who each address the relationship between computer code (usually shorthand for source code that both humans and computers can read) and its relationship to computation in action, in performance. At the end of the last decade these writers explored the performative phenomenon of the computer processor *reading* code being simultaneously the *execution* of code instantiating the computer itself. The quality of code in this sense may be likened to what J.L. Austin called the illocutionary force of performative speech to affect change and bring something into being (1975). Hayles noted that “code that runs on a machine is performative in a much stronger sense than that attributed to language” (2005: 50) because of its direct effect on the computer’s performance.

In contrast, performative speech acts in human language only affect change within cultural systems of signification. For example, the naming of a ship matters little to the materials that constitute the ship, but the enunciation of a proper noun (‘Endeavour’, ‘Dignity’ etc.) enables its appearance through differentiation from all other ships within the symbolic representation of human language. However, whether code can be considered a language in the same way as human language is also contested, as the reliance of reserved words and syntax structures of programming languages are finitely prescribed within logic, and translatable through compilation into machine code for execution at run time. Chun sees the emerging digital humanities’ obsession with source code “as a source of causality” (2008: 311) within

computation as a ‘fetish’ that obscures software’s Achilles heel, its goal “to conflate an event with a written command” (ibid.: 303). Arguing “against theoretical conceptions of programming languages as the ultimate performative utterance” (ibid.: 299), Chun asserts that “if code is performative, its effectiveness relies on human and machinic rituals” (ibid.: 311). Drawing on Butler’s theory of performative gender as a citational practice, Chun claims that “if code is performative, it is because of the community (human and otherwise) that enables such utterances to be repeated and executed, that one joins through such citation” (ibid.: 322).

Computational performance, therefore, has a complex relationship with writing and human language, and does not find its ‘source’ in source code alone, or by extension, in human authorship. And while source code is useful as the palpable fetish that humans use to attempt to direct the flow of machine events, it remains only part of the assemblage of systems, materials, rituals and networks that constitute the theatre that produces computational performance. In this way, the relationship between a machine’s constituent parts (the complex assemblage of engineered materials) and the live event of software it produces is similar to how a performance emerges as a unique event in a specific place and time from the theatre’s constituent elements (the complex assemblage of actors’ bodies, writers’ texts, designers’ sets and costumes, architects’ auditorium, audiences’ attention etc.). Therefore, the emergence of Software Studies as a discipline in the first decade of the millennium echoed the emergence of Theatre Studies as a discipline in Germany one hundred years earlier. I will briefly revisit this moment in order to approach a discussion of computational performance from a Theatre Studies perspective.

In *The Transformative Power of Performance: A New Aesthetics*, Erika Fischer-Lichte addresses the complexities of the performative turn through careful comparison of J.L.

Austin's mid-twentieth century theory of performative speech acts, Judith Butler's late twentieth century theory of performative gender and the earlier work of theatre studies scholar Max Herrmann who was "one of the pioneers to undertake a detailed theorization of performance in his various writings between 1910 and 1930" (2008: 32). By focusing on a period when theatre emerged as an artform in its own right, as an event separate to the texts and music it was previously seen as a vehicle for, Fischer-Lichte's reading of Herrmann allows her to establish "the possibility of developing an aesthetics of the performative out of the notion of performance" (ibid.: 36) because the live performance of theatre is a fresh instantiation irreducible to and greater than the sum of the assemblages of texts, objects, materials, bodies and voices that produce it:

At the heart of Herrmann's notion of performance lies the shift from theatre as a work of art to theatre as an event. Hermeneutic aesthetics as well as the heuristic distinction between the aesthetics of production, work, and reception are incompatible with his understanding of performance. The specific aestheticity of performance lies in its very nature as an event. (Fischer-Lichte 2008: 36)

In my creative practice I shifted a vanitas painting from a work of art to an event. Likewise, as Chun pointed out, computing shifts away from artfully crafted text of source code to the event of software. In Herrmann's conception of theatre as an event the notion of *reading* or interpreting the performance through a single element, just the dramatic text, costumes or the musical composition, or through a single bodily sense, just what can be heard or seen, becomes not only immediately reductive but impossible because "the audience's physical participation is set in motion through synaesthetic perception, shaped not only by sight and sound but by physical sensations of the entire body" (Fischer-Lichte 2008: 36). In this sense, Herrmann like Butler, "does not consider performance to be a representation or an expression of something previously given" (ibid.), "rather, it [has] an identity tenuously constituted in time" (Butler 1988: 519). While it is possible to approach performance through the separate

lenses of “mediality, materiality, semioticity, and aestheticity” as an event “what matters is the fact that something occurs and that what occurs affects, if to varying degrees and in different ways, everyone involved” (2008: 36). Within such a sensually immersed experience of performance there is no objective position or vantage point outside the event, and so meaning and knowledge of it must be made from the inside, through an emergent methodology that is singular and partial, tactical as opposed to strategic, resistive to sensory isolation and developed in time with practise along the seams of experience.

Approaching human interactions with smartphones as performance is therefore an immanent method that highlights the irreducibility of the actual event performed to the elements that constitute it. As such a performance ontology is monistic and not dualistic: the computer and the human are part of the same performance, not separated into two performances. From this point it is also possible to imagine a wider, singular ontology of both the engineered materiality of computing and the biological materiality of being human, that is similarly rooted in the same physical reality and not divided into the mathematical and physical or the virtual and actual. The description, tactical manipulation and lived understanding of such performances therefore might best be described by the weaving together of performing elements into a dramaturgy of computational performance. Thus, the performance ontology is potentially useful for re-evaluating the enculturated divisions between the computer and the human in a posthumanist and new (non-human) material turn.

Despite the slipperiness of the terms of performance and performative approaches, Salter argues

that there are certain characteristics of performance that distinguish it from other forms of knowledge making, namely: (1) an interest in enaction or doing, (2) real-time, dynamic processes over static objects or representations,

(3) engagement with the temporal moment of the present, (4) embodiment and materiality, (5) immanent experience, (6) the effect of both human and nonhuman presence, and (7) transmutation and reconstitution. (Salter 2010: xxv, original numeration)

In the posthumanist turn the characteristics of performance normally associated with the knowledge human beings produce through acts of performance might equally begin to apply to computers that are performed by machines and enact real time processes within specific present temporalities to transmute material conditions into immanent forms of cognition and conatus. Each time the smartphone is switched on it rebuilds its operating system and applications live, re-establishing connection to its sensory apparatus and output devices, memory systems and network connections *in the moment*. Software builds itself in real time and only exists as a performance given by a complex assemblage of engineered materials named for convenience as a singular machine. The parts within the machine perform for each other beyond the ken of human interactors, other parts then put on a show that humans can perceive as an interface. While conventional and engineering expediencies seek to guarantee that each performance is the *same enough* to operate efficiently, each instantiation of software is live and bound to the material conditions that produce it and is ultimately “a unique, unrepeatable constellation which can only be determined and controlled to a limited degree” (Fischer-Lichte 2008: 35).

Further, when the specificities of user data, customization, app and media installations, and interactions are considered it becomes clear that “the created event remains unique as is inevitable when actors and spectators are confronted with each other in their various tempers, moods, desires, expectations, and intellects” (Fischer-Lichte 2008: 35). Smartphones and the humans who interact with them are both acting for and spectating the other.

The performative turn, however broad and variously defined, remains a general response to various overlooked human performances in everyday life. The interface between an individual, the public presentation of themselves and their private self-image exists as a live, ongoing moment where humans feel their way through their own being in time. They may, as Goffman suggested, try on a role and see how that changes perceptions of others and themselves, they may act in momentary citation of a gender norm as Butler suggests, but these theories and others are predicated on the mutability, inconstancy and plurality of human performance. If, as Katherine Hayles and others suggest human brains are the product of “technogenesis” (2012), physically moulded by our interactions with the material world, other people, technologies, and languages of our lifetimes, then our present state of mind grows from the compost of our experiences whether we are able to recall them as memories or not. Such composting for Karen Barad produces the idea that “reality is sedimented out of the process of making the world intelligible through certain practices and not others” (1998: 108). By building on Butler, Barad articulates the performative nature of *mattering* and the normativity that maintains the distinction between *things* through habituation.

The broad project of the performative turn has been the development of methodologies and theories that help us to see beyond our habitual, enculturated behaviour that might otherwise be overlooked as ‘natural’. Normative, culturally inscribed and ideologically determined technologies have molded human brains through technogenesis and require conscious retraining to undo. Artists entering the field to collaborate with smartphones therefore take a position on the perpetuation of normative interactions wittingly or not. *Vanitas* perpetuates such normativity to mask its workings and appeal to ‘second nature’ interactions with the intention of breaking them to cause critical reconfiguration through defamiliarization of the material circumstances of its interface.

Algorithmic performances of ‘big data’

Before moving to discuss *Vanitas Chapter One* in greater detail it is necessary to very briefly introduce the implications for approaching computation as performance from the perspective of the network, database and ‘big data’. The performance at the core of computing enables the agility of the ‘higher’ functions of interface performance. The mutability inherent in these performances is what makes them so powerful. For example, because ‘softwarized societies’ are increasingly informed by and dependent upon the ubiquitous infrastructure of computing and ‘big data’, a new articulation of a general theory of performance emerges from the traces of all previous performances. In an influential 2008 article in *Wired* magazine Chris

Anderson imagined:

A world where massive amounts of data and applied mathematics replace every other tool that might be brought to bear. Out with every theory of human behaviour, from linguistics to sociology. Forget taxonomy, ontology, and psychology. Who knows why people do what they do? The point is they do it, and we can track and measure it with unprecedented fidelity. With enough data the numbers speak for themselves. (Anderson 2008)

The key element to Anderson’s vision, and why it is pertinent to performance, is that it focuses not on why or how or what kind of action takes place, but that it does. So-called big data’s potential power is actually drawn from algorithms that automate the observation of human-computer performance, of what is done between them, in order to extrapolate how best to perform *next time*. Far from having no impact materially, the product of human-computer performances are captured as data points and stored pristinely in perpetuity, to be rematerialized within a future computation in an extrapolation of how best to perform in the present based on precise recollection of all the performances of the past. This concept is the hallmark of the ‘attention economy’.

In the decade since Anderson's article, elections in the USA and UK have been influenced by studiously rehearsed data sets and interfaces enabled by industrial mobilization of a general theory of performance. This is a reason why a new approach to studying the entanglement of technology and performance is urgently required. Attempting to reclaim the material palpability of data is not enough, focus needs to be given to the overlooked dramatic world of representation within computer interfaces experienced in everyday life. The role of the human programmer and curator of computational experiences is diminishing as interfaces and the media they present are increasingly tailored 'in the moment' as the product of complex calculations on large data sets that seamlessly combine both what and how a percipient would prefer to see, feel and act and what the system itself would prefer the percipient to see, feel and act.

Further, the learning by doing undertaken by big data's general theory of performance does not simply perfect the machine side of interface, it also perfects the human performance of interface by *knowing what you want before you know it*. In this respect, the force of performative utterances in interfaces is not overt, but seductive, of the order of charisma or brand devotion. Semi-autonomous algorithms rehearse how to capture human attention, insinuate human thought and induce human action. Such design targets so-called 'human vulnerabilities' to interaction design, and uses the speed and nuance of computation to deploy an elaborate and comprehensive set of design heuristics that operate across semiotics and subliminal sensory stimuli. Sean Parker, the founding president of Facebook, has admitted that he and the other creators of social networks were "consciously exploiting a vulnerability in human psychology" with their design practices where "the thought process that went into building these applications, Facebook being the first of them, ... was all about: 'How do we consume as much of your time and conscious attention as possible?'" (Allen 2017). In this

way, such interfaces are the elaborate outworking of Brenda Laurel's dramatic theory of interaction which describes a series of interface design heuristics drawn from Aristotle's *Poetics* that enable human complicity, suspension of disbelief and satisfaction in machine performances (2013). Far from being malpractice, such seductive interfaces are 'good design' and the product of long series of innovative developments in HCI.

Performances undertaken by people and their smartphones induce a range of human thoughts, actions and behaviours, some of which are perpetuated unwittingly. Refined, data-driven, bespoke interfaces will form the backdrop for changes in human performance in environments that both sense human presence and shift to accommodate the conflicting desires of the individual, their smartphone, the parameters around data, corporate interests and politics that overlap in each interaction. Within the performance ontology of computation each interaction is itself an irreducible and unique performance. The introduction of data that further specifies a computer interface to a person is an inevitable outworking of customisation that exploits computation's innate performance ontology. This feature of computing is likely to make increasing impact in 'softwarized societies'.

China's Social Credit System, for example, demonstrates the use of big data to reward state sanctioned performance in an increasing number of interactions. Personal conduct that demonstrates trustworthiness and the preferred behaviours identified by the state are rewarded while performances that fail to meet the appropriate standard are punished. The consequences of consistent performance across a lifetime's interaction through the ubiquitous infrastructure of computing dreamt of by the creators of the social credit system are still unknown. However, many remain sceptical of the State's attempt to monitor performance based on micro interactions. Of course, numerous private corporations and public

organisations collect such data, but only China has so far been open about its aims to use the information relating to citizens for social and political ‘harmony’. While *Vanitas* does not employ data-driven customisation it is set within a period of growing reliance and expectation of interface performance. The agility of computer performances of interface is the product of its innate performance ontology. Performance complements the procedural ontology of computing and enables a broader discussion of non-human performance across disciplines.

Conclusion

In summary I reiterate some of the observations drawn from the performance ontology of computation and outline some of its uses. First, and most fundamentally, the ontology helps describe how no two renditions of computation are the same, only ever the *same enough*. Though reliable and predictable the renditions remain performances: ever “a unique, unrepeatable constellation which can only be determined and controlled to a limited degree” (Fischer-Lichte 2008: 35). The ontology is also useful for discussing the work of affecting a performance, of establishing and moderating an external position to the world performed by both computer and human. I have outlined how experiences and interactions with computers occur within a single, shared performance ontology. This lays the foundations for describing a way of being with non-human others in performance and accounting for Rosi Braidotti’s posthumanist “we-are-all-in-this-together-but-we-are-not-one-and-the-same subject” (2017b). From this foundation can be built greater acknowledgement of the interpenetration of beings performing together, including: consideration of the other contained within self; the smartphone within human, the human within the smartphone; the affordance of one perceived within the other.

The ontology I have outlined provides a way to approach the performance of interface as a *practise* and *practice* that is tactical *and* strategic, phenomenal *and* epistemological: it is embodied, sensory, material *and* abstract, informational, semiotic; it is lived and live, worked through in process but also contains scripts, citations, existing behaviours, languages and practices. It can help account for the work needed to allow the virtual to take root in the physical material present by insisting that the virtual is performed locally ‘within’ the computer, with the percipient and across the distant localities of the network.

Finally, in this ontology, algorithms are a way of doing, a way of performing computation. They are restored behaviours achieved through loops. This can provide a new way to account for the shifting power dynamics of computational performance combined with ‘big data’, including interface improvisation and experimentation, the performance of media specified to the individual, and, addressing each performance to the preferences of each individual sensorium.

5. Smartphones Stage Performance: The Illuminated Podcast of *Vanitas Chapter One*

The potential of *Vanitas*, like all apps and software staged by smartphones, is to become a seam between fabrics of reality enmeshing a specific machine, media rendition, human being and the environment they inhabit into a performance event. Despite sharing generic features, a single smartphone is materially unique and when it ‘runs’ software that was written elsewhere but instantiated locally, it performs live in a specific time and place. Aspects of smartphone performance are like Brenda Laurel’s vision of desktop computers: akin to repertory theatres, staging tried and tested software productions. Close examination of the systems that produce the ‘surface theatre’ of interface reveals a history and practice of interdependent technological performances that are overlooked as performances per se. Thus, that *Vanitas* is performed as a unique instantiation by each specific smartphone as one of its ‘repertory’ performances is almost always overlooked. In this chapter I will apply the overlooked performance ontology of computation to *Vanitas Chapter One* to discuss the overlooked performances it perpetuates and disrupts. The question is: can overlooked performances of computation, media and interface be identified in practice? And if they can, do they impact on *Vanitas Chapter One*? I begin by considering performances of computation in relation to the first few moments of *Vanitas*.

Overlooked Performances of Computation

As I described in the introduction to this thesis and the previous chapter, human senses cannot ‘get a grip’ on machine computation. The spatio-temporal scales at which contemporary computing machines operate are insensible to the human body. The challenge

at this scale is therefore not one of recovering sensation lost to habituation, but of appreciating the ontology of computing and the work of machines differently, as I shall briefly explain by considering the opening few moments of the *Vanitas* app.



Figure 17 – Two still images from the *Vanitas* app opening screen showing the vase with flowers interface.

When the app is first opened the animated *Vase with Flowers* painting comes into view. Only the tulip is glowing. Touching a flower zooms the view which can then be panned around the painting. Doing nothing prompts the text shown in the images to appear. If the screen is left untouched flies appear at random and land on the underside of the glass. They fly away if the glass screen of the smartphone is tapped. In these moments the app can seem to fully occupy the smartphone with an image ‘alive’ with small movement.

This is the beginning of *Vanitas Chapter One* which comprises a smartphone app available for free download through Google Play and Apple App Store worldwide and a series of six thematically linked emails. Rachel Ruysch's painting *Vase with Flowers* (1700) forms the first visual interface for the app and is an organisational metaphor for *Vanitas* where each episode is represented as an individual flower. The painting is animated with dust motes, lighting effects and screen reflections, and is underscored by a sonorous drone soundscape designed to create the sensation of a suspended moment in time. Zooming-in reveals locks or ticks (checkmarks) hovering above each flower denoting their availability and also 'zooms' the sound. When in focus, a flower's context menu appears displaying its name and the background fades to monochrome. Touching the flower name commences the transition to the episode. On first run, tapping the tulip reveals the screen on the right.

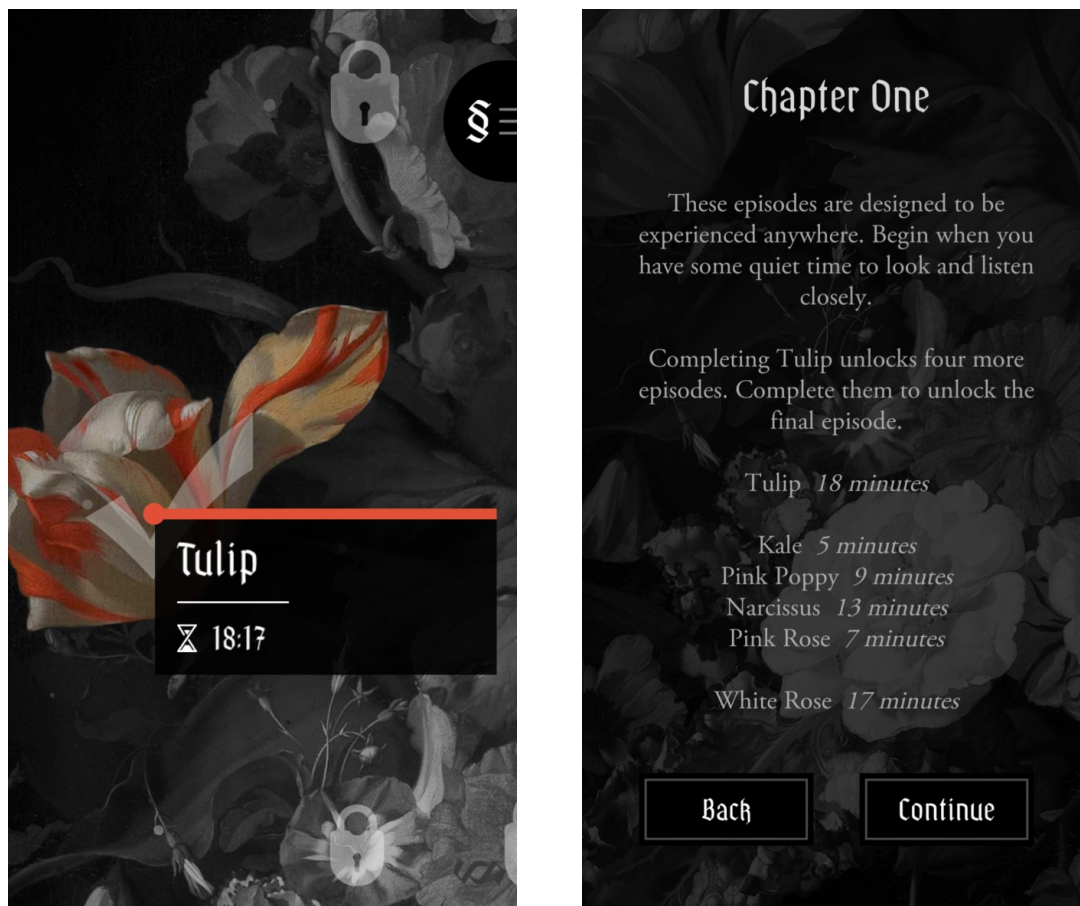


Figure 18 – Zoomed detail of tulip with context menu and introductory information page.

A digital photograph of the Ruysch painting is remediated by the performance of the *Vanitas* software. The materiality of the original painting including its paint, layers of depth and reaction to light are not remediated and are effectively lost along with a sense of the original physical dimensions, its frame and context within a museum. The animated *Vase with Flowers* interface marks a transition from an ostensibly static painting to a live event performed by software. The animation emphasises the frozen moment in time that the still-life represents, drawing attention towards its signification and evoking a theatrical atmosphere of momentous encounter that distracts from its lack of materiality. The paradox of computational performance of media is the impossibility of presenting a still-life as actually still: *Vase with Flowers* is animated by a computational performance of flickering reproductions of pixels and refresh rates that play on the human sensorium to create the illusion of stillness. Accepting the stillness within the software's rendition of *Vase with Flowers* requires overlooking the means of the performance's production to enter its representational reality. This is a specific example of the many ways in which the performance ontology of computation is overlooked in smartphone interaction.

While many of the performances identified in this chapter reflect, to a certain extent, the generic qualities of all smartphone interactions, it is important to state them clearly as they represent a starting point in reimagining human-computer relations within the performance ontology. At the forensic level the central elision is that computing is performed and though this performance can not be sensed directly, it can be appreciated as occurring live within the local conditions of the machine, and that its renditions are not the same but the same enough. This becomes more tangible if it can be appreciated that software performs media. And yet, that audio and image media are being performed live by software is usually overlooked. This in turn is related to the overlooking (or forgetting) that the smartphone is performing *Vanitas*

on command: materials engineered to perform as computers, in turn perform algorithms, operating systems and the Vanitas app, which in turn affects postures in material hardware ‘output’ that can be apprehended by the human body’s sensorium as media. From this position at the forensic level of computation I proceed ‘upwards’ to further question media and interface performances in *Vanitas Chapter One*.

Vanitas episodes and overlooked performances of media

Vanitas episodes comprise an audio soundtrack and a series of still images timed to the audio. These two dramaturgical layers, audio and still images, create the palette for what I have termed the ‘illuminated podcast’ approach taken in *Vanitas*. The term illuminated podcast evokes illuminated manuscripts of religious and historical texts illustrated by monks in the Middle Ages. As the majority of the population was illiterate at the time, including many rulers, illumination added dimensions to the page beyond the textual content. The use of gold and silver reflected light on the page, hence illumination. It also aggrandized the value of the textual content which would not otherwise be discernible to laypeople. When applied to podcasting and its mode of listening, the display of on-screen images both illuminates an otherwise dark screen and illustrates what is being discussed, which in *Vanitas* is often difficult to imagine details of paintings. Images enter through an ink bleed transition effect which constrains the interval between images to a maximum of one every five seconds. The ink transition is processed at runtime and creates a flowing, organic effect that washes away the previous image and replaces it with the new. However, it also constrains the speed of the montage which creates its own quality of suspense and revelation.

In addition to the images each episode has a control bar that appears along the bottom of the screen displaying playback controls, an exit button and a timer counting down to the end of

the episode. The combination of traditional typefaces, hand-crafted icons, historic public domain images and the ink transition combined with sharp, clean contemporary elements and original photography are intended to create an interface that references a range of periods, extending the still-life and time-out-of-time experience of *Vanitas*.

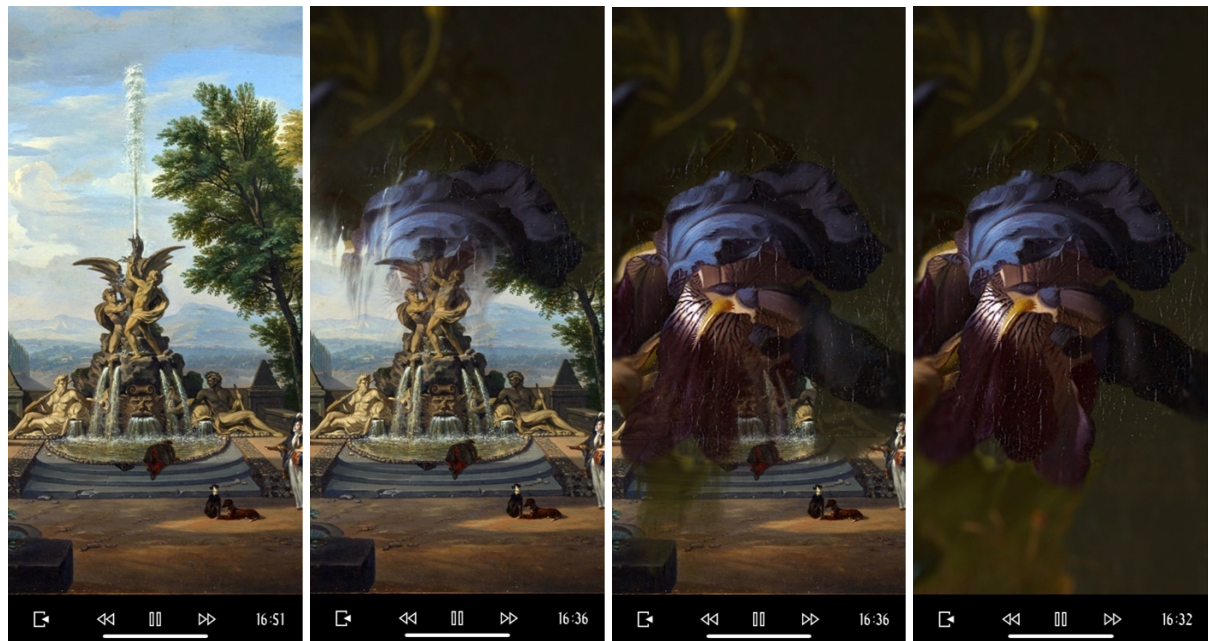


Figure 19 –The episode interface showing the ink transition from left to right. The image fills the whole screen apart from the playback controls along the bottom.

Episode One, *Tulip*, opens with a montage of dislocated voices from interviews and field recordings, including my own voice and the voice of collaborator Jason Maling. As the episode progresses the voices eventually become located in a conversation between Jason and me about Ruysch's *Vase with Flowers* that took place outdoors in Melbourne General Cemetery where the majority of audio recordings in *Vanitas* were created. The discussion focusses on the cut stem at the centre of the Ruysch painting and questions why she made the decision to remove the central flower and not replace it. Jason and I wonder if the weeping stem had symbolic meaning or whether it was a compositional device to create an empty space which the eye moves around. The audio then moves on to two parallel intercutting

discussions, first with curator of international art at The National Gallery of Victoria, Sophie Mathieson, and second a telephone conversation between Jason and me about Frederick Ruysch, Rachel Ruysch's father. The episode ends with Jason and me in a café discussing how to proceed with an investigation of *Vase with Flowers*, having met Sophie. The discussion outlines the kinds of people who could help identify the flowers in the painting and decode their symbolic meaning, including a florist, a botanist, flower market workers and botanical artists.

The four episodes that follow *Tulip* each focus on individuals who attempt to identify the flowers in the painting and decode their meanings. In the sixth and final episode of *Chapter One*, the central flower is identified, Ruysch's original painting is visited in The Hague, and the audio complexity increases considerably as all the voices from the preceding episodes come into dialogue to offer many speculations about the meaning of the image. The complexity and volume of on-screen illumination is also at its greatest in the final episode. However, even as the intensity of the smartphone's work appears to increase what it is actually *doing* continues to be overlooked. And this extends to the 'user'.

The observation that software performs media implicates the human viewer as intended audience who may, or may not, accept the rendition. At the level of media reproduction in focus here this extends beyond the 'content' of what is represented to the reproduction of media networks themselves. To this, I suggest, there are two direct corollaries of relevance to *Vanitas*. The first is that the performance of hearing is overlooked. This entails studiously overlooking the requirement to infer intended meaning from digital sound by hearing human voices, following conversations, overlooking cuts, connecting voices to characters, establishing locations, judging candour and perceiving intentions. The work of being an

audience of audio drama creating ‘mental theatre’ is overlooked. The second observation is that the performance of seeing is overlooked. This entails studiously overlooking the requirement to infer intended meaning from digital images by seeing pictures, eliding photographic images to apprehend aspects of painting, scrutinizing details of significance, tuning to the timing of image appearance, patiently waiting for five second ink-bleed fade to complete and relating imagery to description in audio. In both of these cases the smartphone and the percipient area attuned through the perpetuation of media performance. A third overlooked performance of media comes into focus through *Vanitas*’ use of orchestrated action and metatextual allusion: performing the percipient.

Performing the percipient: orchestrated action and meta-textual allusion

We began audio recording interviews at the beginning of the creative process for documentary purposes. This then expanded to recording our conversations in preparation for interviews and evaluating them afterwards. We then started to record our walks through the cemetery along with the text messages and voicemails we left one another between meetings. What began as a documentation practice evolved into the material of the artwork. The retracing of our steps, conversations, meetings and realisations became what percipients would engage with. In this way *Vanitas* takes as its content its own creative discovery. Once edited the episode audio tracks were mastered and musical composition was added by Robert Jordan. Accordingly, the audio tracks trace the situated inquiry into Ruysch’s painting with the aid of experts. The eponymous *Vanitas* is an artwork made of its own process. Or it could be said to be an artwork that rehearses its own creative process with its audience.

The audio of the episodes is grounded in documentary dialogue from field recordings, and unlike many non-fiction narrative podcasts which *Vanitas* might be audited in reference to, it

does not use monological narration. Instead the auditor overhears conversations and sees what the speakers are referring to on screen to create their own ‘mental theatre’. The auditor is therefore invited to form their own opinions which may be different from ours. The dramatization of the research process means that we slip in and out of fictionalised representations of ourselves and as such might also be appreciated as characters whose flaws in methodology, of magical thinking, fantasising and obsessive behaviour might be judged in counterpoint to the auditor’s position in relation to the material. However, our speculation on vanitas works from the 17th-century is intended to evoke some of their qualities in our present. This elliptical approach via the themes of vanitas art was our entry point to a contemporary vanitas experience. For example, the first lines of *Tulip* are fragments of an early conversation between Jason and me that introduces our interest in still-life painting and also the vanitas effect we were aiming to create:

Robert: It was a timelessness that I liked. Lost time. Something that is stuck in one moment.

Jason: Still-lives. [heard as still lives]

The fragment above recalls our exploration of creating moments of contemplative stillness with a smartphone. Likewise, the line,

Robert: Swirling around an empty centre...

uttered as an initial response to Ruysch’s painting became a compositional approach to both chapters of *Vanitas* which circle in search of a centre, a definitive meaning, a flower, an absent person, and ultimately, an arresting moment of mortality salience: apprehending one’s own life in relation to the lives of other beings, the absence of life in others and the future absence of life from one’s own body. The sense of the missing void at the centre of *Vanitas* is further echoed by Sophie Mathieson’s discussion of Ruysch’s still-life painting,

Mathieson: What strikes me about it is this wonderful vortex in the composition where all the flowers seem to be moving in a swirling pattern.

The paradox inherent in still-life paintings, the stillness of something in constant movement, and in the case of *Vase with Flowers*, a vortex of movement around a still point, is taken on by *Vanitas* where,

Mathieson: Everything mortal is in continuous transformation. Nothing stays the same.

Vanitas often works across two registers of meaning simultaneously. The introductory episode *Tulip* in particular, uses metaphor, self-referentiality and allusion to discuss a critical relationship between *Vanitas* and the percipient. This sets the tone for the whole experience which over time extends from the smartphone through to the wider world. The explicit discussions of Dutch golden age vanitas painting and the deconstruction of Ruysch's *Vase with Flowers* work meta-structurally to establish the parameters of *Vanitas* itself. For example, Ruysch, like many of her contemporaries, combined studies into elaborate compositions intended to appear as natural. In this way the following discussion of still-life painting techniques also directly refers to the confection of audio within *Vanitas*, where the collage of flowers cut from the field stands in for the montage of audio taken from field recordings:

Robert: In a way it's a form of collage. We've got these studies of individual flowers from the time in which they were blooming. Then somehow reconstructed into an arrangement which is then painted as a composition. It's very carefully constructed actually.

Mathieson: It's not a snapshot of life at all is it? It's an absolute construction.

Robert: Part of the illusion is to make it look completely natural.

Vanitas percipients are guided to interact with the artwork's dispersed media through this kind of metatextual dialogue that exists simultaneously in-and-out of game. It is through such techniques that the work of orchestrating interactions takes place. Our aim was to confect sound to be heard as 'completely natural'. *Vanitas Chapter One* mixes sound recording and composition techniques to create a blend of meaning that is smooth and plausible enough to pass as 'natural' but was fabricated through sleight of hand and sound manipulation techniques. While only dialogue between people in person or through the tropes of telephone calls or voicemail messages is used, the edit is still carefully constructed. Despite the removal of narration and reliance on people explaining things to one another, the audio is framed, manipulated, ordered and made comprehensible through careful editing. We were effectively taking snippets of audio from different moments of our lived reality and stitching them together. Their seams could never be smoothed out completely. *Vanitas* is a dramatic work where meaning is inferred from the dialogue overheard in recorded conversations, yet behind that lies an authorial intent that stages the rehearsal of the inquiry and what material may enter and exit it. Unlike narrative prose which aspires to seamless, dramatic montage like *Vanitas*' stitched together patchwork, is inherently seamful. Music and sound manipulation attempt to elide some of these seams. Yet the roughness can itself create another level of absorption.

The auditor of *Vanitas* is a silent third party, witness to the attempts of others in making meaning from their observations. The auditor's attention is guided, like the viewer of Ruysch's paintings, by techniques subtler than narration. A wide variety of voices, sound and imagery are brought into play to create structures for the inference of thought without having to explicitly spell out a fixed meaning, a practice common in Dutch painting as Sophie Mathieson notes in *Tulip*:

Mathieson: When you get symbols that are common in many cultures or that have migrated from one cultural context to another, that symbol tends to become what we would call polysemous. It can sustain many readings at one time. And that sense of inviting the viewer to enter into the picture it is almost part of the tuition, the didactic function of the picture. It draws you into the meaning. It's like a very subtly pitched sermon where you don't realise that the vicar, the pastor, the priest, is talking about how he walked down the road the other day, in fact he is actually talking about something rather more profound. If the artist wants you to enter into the coded meanings, he generally gives you a clue.

With *Vanitas* we attempted to create a similar 'subtle pitch' to invite the auditor to enter the audio world like a viewer might 'enter into the picture'. The intention of this invitation was to offer entry into the orchestrated interaction of transmedia elements of *Vanitas* as a laminated system which expands across time and ontic strata into other areas of the smartphone, the auditor's life and the cemetery. Instead of using direct address to train percipients from within the audio 'in game', this technique works through allusion. What the work is emerges immanently, from within the process of its unspooling. It invokes multi scalar modes of attention meta-textually and is tantamount to the overlooked performance of percipienthood: the construction of meaning through perception. This entails studiously overlooking one's own performance in perpetuating *Vanitas*: recognising, accepting and then overlooking media to hear voices and see pictures and from them to infer representation and extrapolate the emerging drama. This expansion into the combination of different media is explored in *Vanitas* by moving from the app out to the wider operating system of the phone and into emails.

Transmedia messaging and overlooked performances of interface

In addition to the metatextual qualities of the spoken dialogue, clues are also given within the timing of the audio that connect the percipient to the unfolding action of *Vanitas*. For example, at the beginning of the phone conversation between Jason and me in *Tulip*, the episode's flow is interrupted at a specific point to didactic effect:

Robert: Hello.
Jason: Hey Robert it's me.
Robert: Hi!
Jason: Are you near your computer?
Robert: Well, I'm just out at the moment but I can look on my phone.

Episode pauses and 'Connect to Vanitas' prompt shown (below). Once completed the conversation continues.

Jason: I've just sent you an email. I've just found something out about Ruysch which I think is really interesting. Have you found the email? You got it?

Sound of email appearing in Robert's inbox.

In this series of actions an email has been sent in the audio, the episode pauses and the percipient is prompted to enter their contact details into the *Vanitas* app. When complete, the episode continues, and an email is received by Robert in the audio and by the percipient. The percipient might leave the app to check for email or discover it at a later time after the episode.

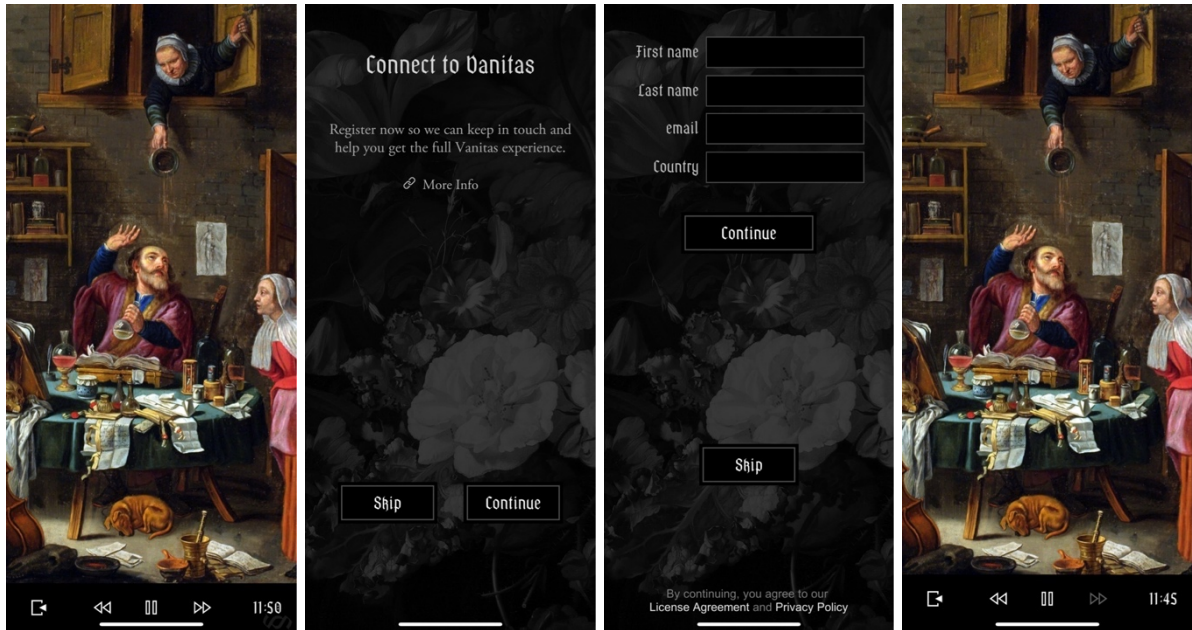


Figure 20 – Screen series for data entry in Episode 1. The episode player is interrupted while user data is entered, or the process is skipped. Once the episode recommences Robert receives an email in the audio and an email is received by the auditor. The process is bookended by a detail from *Trouble Comes to the Alchemist* by an unknown 17th-century Dutch artist to chime with the surprise arrival of a delivery from behind the scenes.

This sequence begins a process of orchestrating interaction beyond the *Vanitas* app which is developed considerably in *Chapter Two*. The emails sent by *Vanitas* establishes another site for story elements to coalesce outside of the app. The asynchronous relationship between the episodes can provide an unexpected return to their themes at a later time when the emails are opened. Reading the emails also serves to encourage a return to the app to continue *Vanitas*. *Chapter One* establishes the follow-up emails as a formal mode of interacting with *Vanitas* that gently prompts expanded exploration of the ‘story world’ through embedded links that encourage taking on the spirit of inquiry modelled by the project. The emails thus become part of *Vanitas* and begins the expansion of *Vanitas* from an app to a mixed-reality (MR) performance. Aspects of the *Vanitas* aesthetic, branding, stories and imagery extend to the emails which take on a familiar professional, authoritative but chatty tone, that is trustworthy and benign. However, once established as a formal mode of *Vanitas*, the pattern of official emails is ruptured by a single ‘broken’ message designed to appear as though the recipient

has been copied into a private correspondence (see figure below). The email for the *Kale* episode differs from the others in the series by appearing to be from the official *Vanitas* account but intended for ‘Asphodelus’, the unseen fictional character that haunts *Vanitas*.

The ‘broken’ *Kale* email, which heralds Asphodelus’ first entrance into the story, reveals a frustrated ongoing correspondence initiated by Asphodelus in response to the ‘official’ *Kale* email, the remnants of which are only visible at the bottom of the message. In addition to the percipient’s surprise at receiving an email not intended for them, the carefully crafted ‘mistake’ of the *Kale* email causes further discombobulation when the recipient notices their surname within the body of the message and the implication that they have been ‘trolling’ Asphodelus. The confusion caused by this email’s ‘spear phishing’ ruse prompts a range of further interaction within the *Vanitas* story-world including emails to the creative team and Asphodelus. Each follow-up email would prompt further responses from either Asphodelus or the creative team.



Hi Jenny/Asphodelus,

Thanks for getting back to us. Seems like your page on the forum has completely disappeared now. Did you take it down? See what I mean:

<https://cse.google.com/cse?cx=partner-pub-0931666580175490:7093905336&ie=UTF-8&q=flower+delivery&sa=Search&ref=www.google.com/#psc:tab=0&psc.q=flower%20delivery>

So, no, we can't see who has been responding to you. If it doesn't go back up then we won't be able to include your story as it was the only thing we had to go on.

The ball's in your court now. If you want to continue we'll need to verify your story on the phone or with some other evidence. We've come this far, happy to continue, but we require some verification of who you are.

With kind regards,

Robert and Jason

Asp Hodelus <asphodelus.acternum@gmail.com> wrote:

Hi Robert and Jason,

Sorry about the radio silence. It was all getting a bit much last month. Like I told you none of my friends have admitted to it, despite them seeing how creepy I found it. I thought it was this guy I see at the bus stop but when I asked him he just smiled. Now I have no idea.

I got a couple of out of the blue responses from LAST_NAME_GOES_HERE651 on the forum. Have you come across this one? Feel like they may be messing with me. Trolls.

I really like how you've done Vanitas. It goes a bit slow on my phone wish I could get a new one. Did anyone mention me at the flower market? I've not been back since it moved - I like my lie-ins too much. Sure I'm still welcome, but it will have changed a lot. I think it would be even better if you could get me into it.

Haven't ever done Skype, would be more comfortable if you gave me your number then I could call you when I'm ready.

Thanks for communicating. I cherish the human touch.

Jenny aka Asphodelus

Vanitas <contact@vanitas.online> wrote:

Hi Asphodelus,

Glad you liked the app. We had to leave your story as leads dried up. We did send you a few emails too. You stopped responding so we assumed you no longer wanted to be involved.

If you are keen to go forward maybe we could have a chat on phone/skype? Have there been any developments since our last email dialogue?

Send us your number/skype name and some times that would suit you for a phone chat. Happy to pick up where we left off if you are.

With best wishes,

Robert & Jason

Asp Hodelus <asphodelus.acternum@gmail.com> wrote:

I noticed you did not include me in your app Vanitas. And after all that work.

Is it too late to be involved? Still no closer to understanding the delivery and need help.

I'm still interested.

Yours

A

Vanitas <contact@vanitas.online> wrote:



Dear Asphodelus,

Congratulations, you have completed Kale.

Where we met regulars at the Melbourne Flower Market.

Most people thought the missing central flower was a delphinium.



Figure 21 – Two Vanitas emails. The first email, received after sign-up, is shown on the left. The email received after the Kale episode is on the right. The words FIRST/LAST_NAME_GOES_HERE are replaced with the recipient's details when the email is sent.

The transmedia expansion of *Vanitas* beyond the app and into a transmedial, laminated system draws attention to a change in the requirement of the percipient to perform attention more vigilantly across channels, not just within a single medium. This reveals several overlooked performances of interface. The first relates to performing attention in an everyday environment (at home, or on public transport, for example). This entails studiously overlooking illegitimate sound, light and physical conditions of the specific place that may interfere with the interface and the attempt to only be a percipient of *Vanitas* within and with the smartphone. The second is similar, but relates to performing attention in everyday software environments (iOS or Android). This entails studiously overlooking illegitimate sound, images and vibrations from the operating system and other apps within the smartphone which interfere with the *Vanitas* app (notifications from news, SMS, email, phone calls, social media, or alarms, for example). These may be as difficult to resist as interference from the physical environment. And the final, and maybe most fundamental, overlooked performance relates to the physical interaction with the smartphone itself. This includes negotiating the affordance and expectations of the interface and by extension *Vanitas*. This entails studiously overlooking: (1) the requirement to position the smartphone in relation to the head so that the screen can be seen; (2) the management of headphone cables or signal range (for wireless); (3) the need to learn how to operate the *Vase with Flowers* and episode player interfaces; (4) learning appropriate touchscreen gestures; (5) learning how to wait, look and listen in *Vanitas*; and (6) discovering the extension of the *Vanitas* storyworld beyond the app and into emails.

Conclusion: the illuminated podcast and contemporary vanitas

Unpicking Ruysch's techniques of illusion, misdirection and metaphor to induce contemplative absorption and moments of arresting awareness inspired techniques applicable

to a contemporary vanitas made with smartphones. In addition to the semiotics of representing a mimetic reality Ruysch's craft extended to manipulating the materials that were the emerging technologies of her time: chemical compounds that produce coloured paints. Overlooking individual daubs of paint (each colour a complex and distinct compound) in the production of the picture is echoed in the overlooking of machine performances of computation, and computation in the performance of software, and software in the performance of media, and media in the performance of interface, and therefore all of the above in the performance of *Vanitas*. These overlooked performances of smartphones are orchestrated to produce the experience of *Vanitas*. As viewers are seduced by the illusion of the picture through a process of studiously not observing the paint and Ruysch's technique to instead see the vase with flowers, so percipients overlook their own work in participating, perpetuating and performing *Vanitas*. This was revealed in the very first prototype of *Vanitas* described in the introduction, where percipients subjugated their effort to what they perceived to be the needs of the performance. Such studied non-observance continues in most smartphone interactions as the seamlessness aspired to can only be achieved when seams dividing realities and the performances that produce them are overlooked.

Vanitas Chapter One contains some features that deliberately intensify the generic performance ontology of computation. First is the metatextual allusion that expands focus beyond the characters' 'in game' inquiry outwards to the percipient's experience 'out of game'. And second is through the spear phishing email ruse embedded in Asphodelus's email that implicates the percipient and enmeshes their reality in the storyworld of *Vanitas* outside of the app.

However, on the whole, apart from these idiosyncrasies, *Chapter One* perpetuates a podcast style of interaction with the smartphone, albeit an ‘illuminated’ one, and deliberately so. It was necessary for *Chapter One* to draw on recognisable modes of smartphone interaction to establish the illuminated podcast and a sensitivity to *Vanitas*’ pace, comfort with sharing contact details and an ‘ear’ for listening to the unnarrated audio drama. *Chapter One* draws heavily on the smartphone’s seamless aesthetic to create an art experience that can be ‘believed in’, that is professionally produced and legitimate. While seeds of uncertainty may have been sewn about its authenticity, these are not intended to take root for long enough to deter percipients from continuing *Vanitas* by visiting the cemetery for *Chapter Two* where a more novel form of smartphone interaction takes place. Therefore, if the smartphone is to be itself seen as a site of performance, a site-responsive approach works in sympathy with the performances already occurring there. How it blends in or diverges from the site’s habituated and socially prescribed use becomes the grounds of a site-responsive performance aesthetic.

For Brenda Laurel, “thinking about interfaces is thinking too small” (2013: 39). She wrote in order to effect a change in design practices and advocated for working with the scale, depth and range of emotion found in drama. In a McLuhan-esque turn Laurel defined the potential of interface to be “about creating imaginary worlds that have a special relationship to reality: worlds in which we can extend, amplify, and enrich our own capacities to think, feel, and act” (39). Thirty years on, the sophisticated refinement of the interaction within social media feeds and the ‘second nature’ subliminal interfaces of ubiquitous computing draw heavily on Laurel’s version of dramatic poetics, and it is this success in design and its nuanced exploitation of human vulnerabilities that precipitates the current crisis in confidence in the realities that computation produces. Far from ‘extending, amplifying and enriching’ human capacities ‘to think, feel and act’, the emergence of data-driven tailoring of interfaces also

enables duplicitous computational performance able to curtail, diminish and impoverish the human capacity to think, feel and act independently. *Vanitas* was created at a time contemporaneous to these developments in ‘good design’ practices that maximise the affordance of human-computer performance for commercial and coercive ends, and so is implicated in the perpetuation of the ideology of seamlessness.

Vanitas Chapter One draws on such design practices to borrow their seamlessness. Like most software apps and media-based artworks dependent upon the smartphone, *Vanitas* is almost completely dependent on the generic performance ontology of computation. It differs at the level of *what* is represented, namely the voices, music and images within each episode, and the interactive *Vase With Flowers* interface. Yet, while *Vanitas* establishes its own pace, an ‘illuminated podcast’ mode, dramatic presentation of voices without a narrator, and the transmedia element of emails which extend perception of the artwork beyond the app, much of the work that produces it remains hidden. Apart from the emails, and the *Kale* email in particular, consciousness of the form of *Vanitas* remains comfortably within known media. Despite many of the episodes explicitly addressing the production of meaning through images and symbolic languages these only have an allegorical relationship to the smartphone performing them.

However, addressing computation was not the function or intended purpose of *Vanitas* as an artwork. Instead, the aim was to create a contemporary vanitas experience with smartphones, the discussion of which continues into Part Three. Might a vanitas experience that exposes not only human vulnerability but the vulnerabilities of non-human others stimulate awareness of the collaborative endeavour of living ethically with computers?

The necessity of engaging with computation ‘offstage’ in the creation of performance with people and their smartphones requires engagement with software, and by extension with computation. I have established a way of appreciating the smartphone as a material computer animated by a series of performances. The smartphone ultimately collaborates in the performance of interface with people. In *Vanitas Chapter One* the place and specific time when this collaboration took place was overlooked and by convention not considered part of the artwork itself. In *Vanitas Chapter Two* the performance ontology of computation is situated at an historic cemetery within the framework of a scheduled event. This will prompt a broader discussion of non-human performance within site-responsive performance and initiate contemplation of the life and its absence in all kinds of collaborators who meet in the performance of *Vanitas*.

Part Three: ■

What is it to unspool completely, to come to one's end, and face the limit of a finite and prescribed capacity, to run out of tape? Or to be arrested in mid flow, not to pause, but to be brought to a full stop, '■', for the tape-head to be disconnected from the media, for human life to leave the body? Arts practice has produced a repository of endings, each a rehearsal for myriad transitions from one reality to another: final words, fade outs, climaxes, afterthoughts, epilogues, exits, movement beyond the frame, snap to blackout. Even the vacating of one's auditorium seat and shuffling to the exit away from the stage is part of the ritual surrounding the stop, the end of a performance that permits the continuance of the real as not performed. Vanitas paintings often depict a scene after the end of a human life and the forever stopped still-life moment of the material trinkets orphaned by a person's death. Approaching a vanitas painting is to move closer to the full stop occurring outside of its frame.

Pressing stop on a Walkman gives a satisfying thud as the spring-loaded mechanism disconnects the machine from the tape medium. As such it offers an idealised end: short and sharp, like a bolt out of the blue, leaving the tape undamaged, instantaneously severing realities. And likewise, an ideal death: unprotracted and over almost as soon as it begins. Stop is the decapitation of the tape-head. However, relatively few human deaths are as instantaneous, and neither are the ends of time-based artworks. The anxiety induced by the protracted uncertainty surrounding the end of life and the unspooling towards the end of a performance are entangled. Thus, the possibility of coming to an end and allowing audiences to bear witness to it remains an important social function of performance. The negotiation of ending is a key dramaturgical consideration. Part Three continues discussion of the performance ontology begun in Part Two. It approaches the entanglement of the end of life

through the ends of performance in *Vanitas Chapter Two*. Part Three follows the repercussions of an immanent performance ontology ‘upwards’ as they emerge into human consciousness and culture through the framework of artistic performance in *Vanitas*.

This section approaches ‘■’ through an exegetical technique I term spectral dramaturgical writing that emphasises the entanglement of place, interaction, time and percipienthood with my own position as author of both *Vanitas* and this thesis. The immanent approach I am making to performance necessitates engagement with the accountability of my own work: how does it function ethically with audiences, contributors, collaborators and its environment? Yet, as Suchman notes, the “accountability involved is not, however, a matter of identifying authorship in any simple sense but rather a problem of understanding the effects of particular assemblages and assessing the distributions, for better and worse, that they perform” (2006: 285). For, as this thesis attests, my work is deeply entangled with the work of others, including non-human collaborators. The purpose of this section is to find a way to account for this complexity in a rhetorical mode that displaces me from its centre as *Vanitas* displaced the monological, authoritative voice. Instead, the spectral dramaturgical approach attempts an unspooling of the author in a post-anthropocentric gesture towards the multiplicity of voices producing this work.

In this attempt I can only claim to have made a start in a far longer journey. But I offer the attempt all the same. My approach is influenced by a number of thinkers working with immanent knowledge. Tim Ingold’s approach to writing from a “dwelling perspective” of the world (2000, 2011, 2012, 2013, 2016) inspired me to acknowledge my own experiences as a percipient within my arts practice with smartphones and Melbourne General Cemetery, and the repurposing of my observations to frame the experience of future percipients of *Vanitas*.

Similarly Donna Haraway's concept of situated knowledges (1988) informs this approach by emphasising an embodied and feminist perspective on the production of knowledge that recognises the inherently partial perspective of the critically positioned researcher in relation to a dynamic "material-semiotic actor". Haraway calls for partial, locatable, critical knowledges that sustain the possibility of webs of connections between "mobile positioned" and "passionately detached" actors within research communities. The optimism inherent in Haraway's situated knowledges permits imagination of active co-creation that can "elaborate specificity and difference and the loving care people might take to learn how to see faithfully from another's point of view, even when the other is our own machine" (1988: 583). Building on this approach, the writing style I have adopted in Part Three is inspired by Karen Barad's deeply entangled examination of "the political-ontoepistemological-ethical implications of temporal dis/junction by reading insights from Quantum Field Theory and Kyoko Hayashi's account of the destruction wrought by the Nagasaki bombing through one another" (2017: 56). Here, I read across the times held in the singularity of performance to consider my own journey as a percipient within an arts practice and its relation to the possible experiences of an audience-percipient of my work. My own spectral dramaturgical venture necessitates acknowledgement and revelation of my personal, emotional and physical entanglement with my creative processes and any situated knowledges they produce.

Making *Vanitas* meant that I had to occupy a position of 'working towards knowing', not knowing, while making *Vanitas*, as my journal recalls:

I found myself alone, speaking to dead strangers at their grave sides. And yet I have never visited the grave of a relative. I pushed twigs and leaves off the edge of a grave to create a tidy surface on top. And yet it felt like I had no choice in the matter: it was the right thing to do and so was done before I knew it. There was no choice in the words that seemed to flow through me unbidden: it was just chit-chat, passing the time of day, nothing profound.

After all, they were strangers. But I knew what was said was less important than the act of speaking itself.

This is why I asked percipients to tend to the grave of a stranger at the end of *Vanitas*: because I did not know what had compelled me to do so during my own visits to the cemetery. Likewise, I did not know why I effectively denied that I was making a vanitas work for such a long period even though I knew the work was called *Vanitas*. Jason and I went to elaborate lengths to avoid contemplating death together, though we handled death as a subject at arm's length well, like the professionals we met who work in death industries. Many of the techniques and tactics that eventuated in the spectral dramaturgy of *Vanitas* are similarly predicated on denial and deferral. I began to realise that a 'vanitas experience', the apprehension of the certainty of death by encountering an artwork, is something unsayable and almost unthinkable. First, I had to engineer situations where it was possible for me to achieve the sensation of what in psychology is termed 'mortality salience' (an awareness of the inevitability one's own death), and then create atmospheres, situations, flows and rhythms that might allow for percipients to arrive at a similar experience for themselves, as they could not be told what it was. The sensation of apprehending death, then, is an immanent subject we might work towards knowing. Thus, spectral dramaturgical writing is a rhetorical approach for working towards immanent knowledge in performance.

Part Three makes two approaches to '■'. The first, Chapter Six, addresses the emergent aesthetics of *Vanitas Chapter Two* by moving through the artwork in the chronological order percipients experience to formulate a discussion about life with smartphones in proximity to death. The second approach, Chapter Seven, makes another journey through the cemetery with *Vanitas* organised thematically not chronologically and in pursuit of an expanded understanding of the overlooked performances circulating around life and death.

6. A Spectral Dramaturgy: The Expanded Audio Walk of

Vanitas Chapter Two

What dramaturgical decisions might disclose the aesthetics of a contemporary digital vanitas artwork? And what might these aesthetic and dramaturgical preferences reveal about life and death in the era of ubiquitous computing? From my perspective of *Vanitas* now, after the collaboration has stopped, I can rewind and step through the artwork that was created with the benefit of critical hindsight. In this chapter I work exegetically through a chronological description of *Vanitas Chapter Two* to precipitate the artwork's aesthetic and dramaturgical preferences as a method for reflecting more broadly on life with smartphones in proximity to death.

I will speculate on and evoke *Vanitas Chapter Two* by intermixing multiple voices with my own thought processes. While I resist making claims for the experience of percipients, I am aware that in the artwork my voice and decisions become entangled with the thoughts and actions of others. This approach to walking back through *Vanitas* over the shoulder of a percipient is not dissimilar to how I attempted to imagine a range of future perspectives when making the work: perceiving the affordance of specific locations, evaluating decision-making procedures, choosing what should be revealed, saying what needed to be said and smoothing seams I thought should be passed over. My observations are informed by participant interviews about their experience, including their articulations of the chronological series of events that constitute *Vanitas*. The method I employ here draws attention to the shifts of attention across the seams connecting the mixed realities of *Vanitas*. Being able to articulate attentional flows is an important part of a spectral dramaturgy.



Figure 22 – Anonymous flower delivery.

The audio world of *Vanitas* follows a chorus of interlocutors preoccupied with the discovery, construction and negotiation of meaning surrounding death, and especially in the proliferation of floral symbols. I intended for this preoccupation to extend to the percipient who is thrust into conversations and locations that require them to search for meaning through the combination of the materials that comprise the event. Ambulating with and through the artwork is intended to allow percipients to arrive at certain sensations, observations, understandings and dispositions associated with vanitas art. The pursuit of naming and decoding the meaning of the flowers in Rachel Ruysch's painting that occupied the episodes in *Vanitas Chapter One* is replaced in *Chapter Two* with the search for taxonomic and symbolic meaning of the plants shown in Asphodelus' photograph of the unwarranted and unannounced delivery she received (above). This is intercut with discussions about the history, customs and practices in civic cemeteries, the purpose of floral

tributes to the dead, and broader discussions of funerary practices including cremation and the tending of graves. The subject of death pervades the ontic strata of the work. It drives the exploration of the cemetery in the app audio and unfolds around the percipient as they venture into the cemetery alone. The tone and expectations for the exploration of the artwork begin to fall into place when the percipient first arrives at the cemetery.



Figure 23 – Gatehouse interior at Melbourne General Cemetery.

Vanitas Chapter Two begins when the audience member arrives at the gatehouse of Melbourne General Cemetery. They are met by a host who carefully helps the visitor transition into becoming a percipient of the artwork through a rehearsed series of interactions

The host should greet the guest when they arrive and offer them a small cup of complimentary Vanitas Tea before any other discussions are entered into.

- If asked, the host says that the tea is a herbal blend chosen specifically for Vanitas. Drinking it is part of the experience.
- All branding and packaging of the tea source is to be kept hidden.
- If asked the host can say they do not know what is in it, but they know it is herbal, and caffeine free.
- If the audience member initially declines the tea offer, the host may say, “You don’t need a full cup. Just have a taste. Just a sip. It is part of the experience”. If the audience member declines a second time, the host will not ask again.

Once the guest has received the tea, the host can check if the audience member has a reservation or explain what Vanitas is to those who have not booked. All business transactions take place now.

Section of Vanitas Host Instructions providing parameters around the serving of tea. See Appendix V for the full document.

The consumption of tea and its absorption into the percipient’s body is an important motif within *Vanitas*. Tea in this context cites the combinations of plant materials, images, sounds and sensations that have unknown and questionable effects on perception that pervade *Vanitas*, from painting, to selection of audio fragments and the combination of ‘meanings’ in the unsolicited flower delivery. In *Vanitas Chapter One* the same motif is used in relation to the consumption of opium and the overwhelming synaesthesia of what Sophie Mathieson termed the “wonderful vortex in the composition where all the flowers seem to be moving in a swirling pattern,” around what turns out to be a weeping opium poppy stem. However, at the moment of consumption in the gatehouse, the significance of the tea remains as mysterious as its contents and is more often than not accepted as a refreshing welcome gift, which it is.

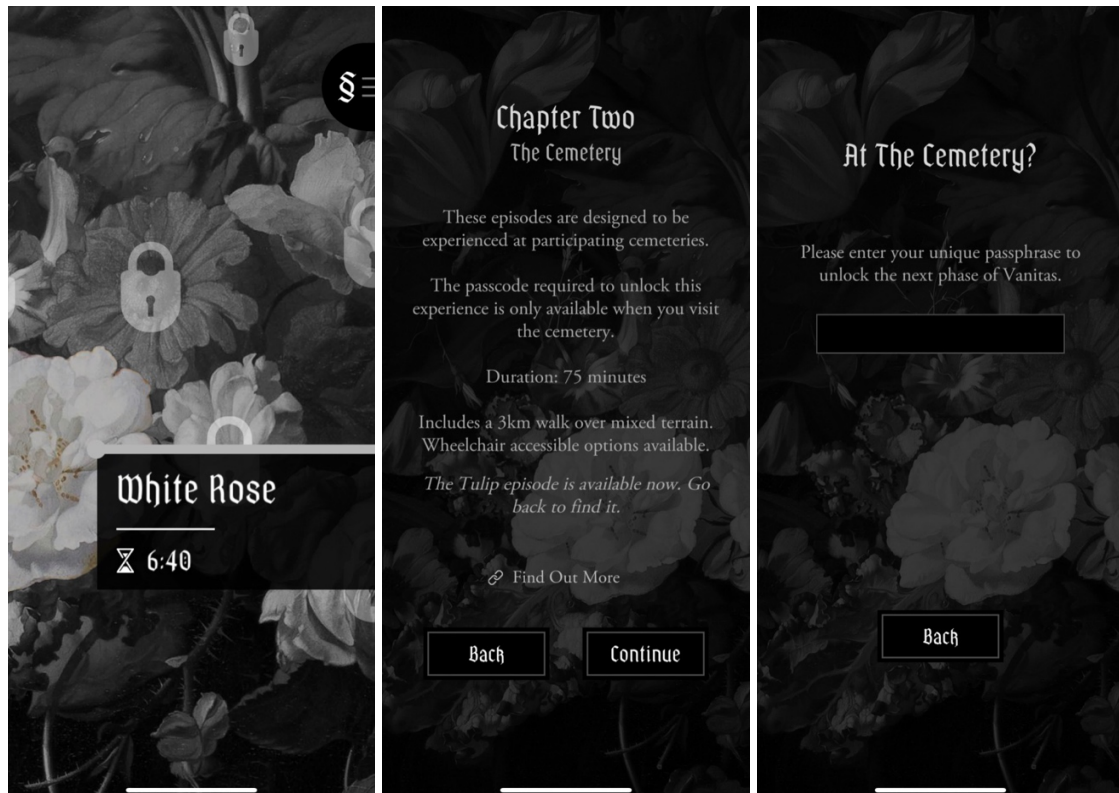


Figure 24 - The smartphone app entrance to Vanitas Chapter Two. Although all the episodes of Chapter Two are included with the free app, they can only be accessed by visiting the cemetery where a host will enter a code. This process registers each phone with the Phantom transmedia software running on a cloud server. Once registered Phantom may communicate with the smartphone app via the internet and legacy phone networks.

During the briefing it is necessary for the visitor to enter their name, email address and telephone number into the *Vanitas* app and hand over their phone to the host who momentarily manipulates it, entering a code to register them as a user within the Phantom transmedia system and secretly assign them to a ‘route’ around the cemetery. The host’s interaction establishes a channel of communication between the smartphone and the Phantom server software via the wireless data network and internet. The tether allows the *Vanitas* smartphone app to send updates of the percipient’s progress through the episodes to Phantom

which it responds to and records.¹⁴ It is in this way that the *Vanitas* app can interrupt itself, by communicating with Phantom ‘in the background’ unbeknownst to the ‘user’ and requesting a series of messages that will cause the smartphone’s operating system to interrupt the *Vanitas* app. However, it is not necessary for the percipient to comprehend that the artwork functions in this way. Their experience is of the app being interrupted and of receiving phone calls, SMS and emails from multiple unknown sources.

That’s the technical part over.

The experience is made up of 11 short episodes that you unlock on your phone as you proceed through the cemetery. Each episode is accessed through a flower. More are unlocked as you complete sets of flowers.

The person you are meeting will text you instructions on how to find them as you go along.

The cemetery is a public space. It is OK to treat it like a park or botanical garden.

Please do not disturb other users of the site, especially if you see a ceremony taking place.

If you experience difficulties, you can call this number [GIVE CARD].

If you stop to take photos between episodes, please post them with #Vanitas.

There are lots of paved roads throughout the cemetery, but you will find some of the most interesting places off the beaten track. If you are on the roads watch out for cars. You are encouraged to wander, lose yourself to find your own way through Vanitas.

Put your headphones on. Then press continue.

There are always flowers for those who wish to see them.

Excerpt of Vanitas Host Instructions suggesting order of closing remarks.

¹⁴ Upon receiving cues from an individual instance of the *Vanitas* app performing on an individual smartphone, Phantom can send time-delayed or close-to-immediate messages back to the same phone through the legacy telecommunications network as phone calls or text messages, or via the internet as emails. This protracted circulation of digital messaging extends the *Vanitas* artwork from the individual smartphone to a network of machines and software distributed around the planet. In this configuration the *Vanitas* app uses the services provided by the smartphone operating system to send a message to Phantom which then calls the same phone back again in a different mode, effectively a different voice, which is received by the default phone call, SMS or email app.

The host establishes the structural parameters of the app episodes. They also introduce the idea of meeting someone who will send an SMS. Permission to wander is given after early research indicated that many people were unsure how to behave in a cemetery, often sticking to paved roads when it can be safer from traffic and more compelling to walk amongst the graves. Pausing for photographs and social media interaction is acknowledged as permitted behaviour and is legitimized by the provision of a hashtag.

Smartphone App ‘Vanitas’			Server Software ‘Phantom’
Chapter	Act	Episode	Transmedia
Chapter Two 70 minutes 216 variations	Act One	White Rose II	SMS #1
	Act Two	Bearded Iris Hollyhock Pink Rose II	SMS #2 SMS #3 SMS #4
	Act Three	Anemone Campsis Scarlet Poppy	SMS #5 SMS #6 SMS #7, 8, 9
	Act Four	Convolvulus Marigold Peony	SMS #10 SMS #11 SMS #12
	Act Five	Opium Poppy Stem	SMS #13, 14 Phone call Email

Table 3 – Structure of Vanitas Chapter Two acts, episodes and transmedia messaging. Shaded boxes represent content accessed in a random order chosen by audience member.



Figure 25 – Percipients leave the gatehouse.

At the end of the briefing the percipient heads out of the gatehouse with their smartphone and headphones listening to the first episode.

[White Rose II]

Robert: This is where she'd like to meet, of all the places...
Jason: This graveyard, not any other?
Robert: This one. Here. Today. Now.

The audio of the first episode comprises a montage of short statements and fragments of conversations between Jason Maling and me, underscored and intercut with periods of music by Robert Jordan. My voice, like all the other voices in *Chapter Two*, is not introduced by name. Who the interlocutors are and what their relationship is must be pieced together as the work unspools. The auditing percipient finds themselves amongst the disjointed ambience of a conversation between two people arriving at a cemetery where they intend to meet a third

person, a potential interviewee with the online pseudonym ‘Asphodelus’. Jason and I discuss what to do while we wait for Asphodelus.

Robert: She said she’d text us. Oh, [receives SMS] she’s late.

At approximately the same time, the percipient also receives a text message that interrupts the episode in the *Vanitas* app to give loose directions of where to travel within the cemetery.

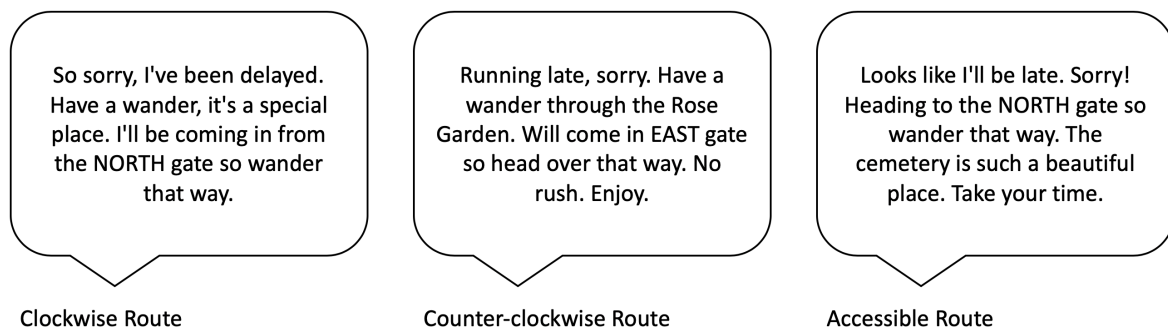


Figure 26 – The first SMS received in the cemetery, triggered 105 seconds into Vanitas Chapter Two Act One White Rose II. The percipient receives only one of these messages depending on the ‘route’ they were assigned to by the host during the briefing.

At no point in *Vanitas* does the person/thing texting the percipient give a name. The percipient may or may not infer that the texts being sent to them are from Asphodelus, the person being discussed by the voices in the audio. However, with this SMS delivered at this moment in the audio, the purpose of being in the cemetery to meet the sender becomes aligned for the percipient, Jason and me.

This initial text message is the instruction that was anticipated by the host’s gatehouse induction. As the text message enters from outside the app it can give the impression of being from a ‘real person’ or an actor whom the percipient might expect to meet. The percipient decides how to interpret the instructions and usually begins to proceed north or east, deeper into the cemetery as directed by the SMS. Some consult the map displayed by the main gate, and some ask for directions. As they go, the voices in their headphones continue to discuss

their expectations of Asphodelus. The conversations are hesitant and uncertain, the speakers are attempting to reconfigure a plan in response to changing circumstances, and as they go they reassure each other of what to do.

Robert: Seems like she's gonna be a bit late. So let's just mosey over in her general direction. We don't have to [worry]... she'll text us when she is nearby.

At no point do Jason or I address the percipient directly. We talk to each other and the percipient overhears our conversation as a silent third party. While the audio was clearly recorded at a time earlier than the percipient's visit to the cemetery, the coincidence of a text message arriving in the recorded and present realities simultaneously amplifies synchronicity across times. It transpires we are all there to meet someone, and that all of our phones are picking up Asphodelus' text messages. If the percipient allows themselves to become part of the 'we' moving through the cemetery they may be influenced by the way Jason and I negotiate how and where to move together through the cemetery. If Asphodelus is guiding the percipient in the same way she guided Jason and me, will they meet our same fate? Is the percipient walking into a trap?

Instrumental musical interludes create an ambient soundscape as the percipient travels. Occasionally, retrospective conversations enter the mix that deconstruct what happened at the same time it may be happening again:

Jason: It did feel like something was converging.

Robert: Well its frozen in time isn't it? The trouble is, also the uncertainty is frozen.

Tentative, unsure, and wandering together for the first time, the percipient, Jason and I are wayfinding in different times through the same cemetery. Wherever the percipient travels

within the cemetery they retrace, to a certain extent, Jason and my steps as they listen to our thoughts and conversations triggered spontaneously in response to the situation, site, environment, each other and our smartphones primed for contact from Asphodelus. Simultaneously the percipient is finding their own way, responding to their own passage through the cemetery, listening to their own spontaneous thoughts emerging from their emplaced situation, making judgements and taking cues from the voices they hear in their ears, processing the text voice of Asphodelus and other communications from their phone. The lone percipient is walking with others, with several voices in their head, including their own thoughts. Misha Myers termed this approach to walking together as “conversive wayfinding” where the use of “voices guiding a walker [creates] the sensation of a conversation... through various strategies of narrative voice and rhythmic structuring of pace and path” (Myers 2010: 60). However, in *Vanitas*, narrative voice is reimagined as voices in conversation as no single story is told, and nor does any direct-address narration occur. In this sense *Vanitas* moves away from monologic narration common in podcasts and many audio walks to dramatic dialogue (though none of it is pre-scripted), causing the percipient to extrapolate meaning from voices overheard in conversation. Within this mode there is space for a wide variety of voices to enter the scene, including the non-human, and to be considered part of the artwork. Whether these are response-present or co-present remains blurred and uncertain.

Each episode’s audio is edited together from field recordings made in the cemetery. In addition to the voices of human interlocutors, birds, trees, cars, pathways, planes and helicopters also find a way into the mix as ‘background noise’. During moments when the music fades the live non-human voices can re-enter the mix, bypassing the intentional sounds produced by the app. Many of the non-human live performers who were present when the

recordings were first made never left the cemetery and find a way to squeeze their voices behind the percipient's headphones during playback: the same crows, peppercorn trees, gravel footpaths, hospital helicopters and passenger planes can make an appearance. I hoped this chance remixing might produce uncanny listening. I wanted it to become unclear whether a sound was produced by the app or the cemetery. Likewise, I realised it can become unclear if a voice is an intended part of *Vanitas* or one heard by chance. A thought the percipient has might become confused for a thought given by the work, and vice-versa. The entanglement of voices, thoughts, sensations and actions in the first few minutes of the artwork begins an enmeshing of different times, beings and things into a single present moment, and this forms the basis of the spectral dramaturgy of *Vanitas*.

And then from a dream a phone rings and the final words of the first episode:

Robert: [Overheard on the phone to Asphodelus] No, we don't need a coffee thanks. We've just had some tea.

Then the silence of the end of the episode, and the first return of the tea, drunk seven minutes earlier in the gatehouse, now seven minutes away, while the tea is seven minutes into the body.

What was in it? What is in me? What am I in?

The percipient is likely to stop walking at this point in order to look again at their smartphone, press a button to leave the episode and return to the *Vase with Flowers* menu.

Where are they? Whose grave have they stopped next to? The screen says they have entered Act II and that three flowers are flashing. If it is a sunny day and the screen is not bright enough the app must be closed and the display adjusted. The sound cuts from their

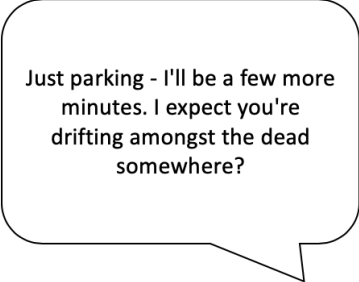
headphones and a helicopter is passing in the distance. A crow lands on a headstone. A breeze. Take a photo. Walk to the shade. Look around. Back to the app, the *Vanitas* drone recommences, the lacuna, what Cathy Turner terms a void, the pause, is over.

However, ‘voids’ within this kind of [site-responsive, outdoor] performance might represent the moments when the work steps back from mediation and allows or prompts the audience member to become the mediator and lead explorer of site, and to experience it in a sensory, embodied way, particular to themselves. (Turner 2014: 159)

Find a glowing flower so the next episode can begin. New voices enter. A historian’s voice.

[Pink Rose II]

Celestina: Life and then you die: flowers symbolise our journey as human beings on earth.



Just parking - I'll be a few more minutes. I expect you're drifting amongst the dead somewhere?

New routes and fresh graves are found. The smartphone is held in the other hand for a while.

[Anemone]

Jason: An overwhelming sense of population. Evidence of lives.

A groundskeeper’s voice. More lacunae. More voices. More wandering. Take a photo. Take five minutes to think of a caption and post to Facebook. A witch’s voice.

[Campsis]

Kythys: It’s the deadness. You know if I meant you to make a cup of tea and drink it and take it in I’d be more likely to give it to you fresh or I’d let it dry and grind it up and give it to you as tea and you wouldn’t know what was in it.

A porous dramaturgy in, out and between worlds and conversations. Of openings and inviting paths, of a desire to move towards the sunlit gap between two trees. Move the smartphone to a pocket. Think of a friend who would like this experience. A cemetery manager's voice. Increasing annoyance with Asphodelus. Freedom to wander at will, to float, to be alone. A tree erupting out of a grave. Post with #Vanitas. Decide to ignore Asphodelus. The stories of the graves are too interesting. A cremator operator's voice. Turn the volume up. Plastic flowers sticking out of the ground. Resent the witch's voice. A handwritten note, ink running from rain, or tears. The voices in *Vanitas* are becoming more real. A garbage bin overflowing with mouldy cut flowers. A bench to sit and wait.

Waylaid in a cemetery? I thought you were serious but perhaps I was mistaken. Stay where you are!!

OK, this isn't working - you should be near a rotunda, the covered Victorian rest-stop thing. Head there and I'll come to you.

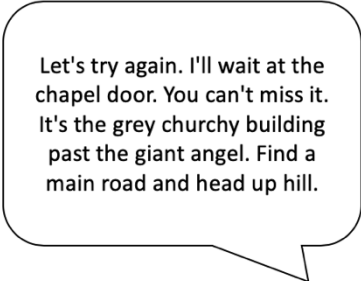
[scarlet poppy]

Jason: We don't have vanitas objects in our lives any more.
 Robert: But we are doing it now aren't we? We're speaking about death. We are making ourselves think about it.
 Jason: I guess we are.

When Chapter Two is in full flow, *Vanitas* becomes a contemporary vanitas artwork. It is a protracted transmedial, performed vanitas that provides multiple routes in and out of discombobulating moments that skirt death and the realisation of the fleeting nature of one's own lived experience. *Vanitas* precipitates mortality salience.

The editing of the audio reinforces the drifting wayfinding of the walk. While the episodes of *Vanitas Chapter One* focussed on one theme or subject, like the flower market or painter Margaret Stones, the episodes in Chapter Two wander, with a multitude of voices entering without being introduced. It is the sound of wandering thoughts, wandering conversations

and wandering feet. Listening to voices that don't exist, or that are not there, is a definition of hallucination. The sense of *having illusions* derives from the Latin etymology of hallucinate to “wander (in the mind), dream... ramble in thought” and probably came from the Greek “to wander in mind, be at a loss, be beside oneself (with grief, joy or perplexity)” (Harper 2019). The percipient wanders through *Vanitas* on foot and in thought, circulating through external and internal spaces of cemetery and body, along paths of gravel and conversation, between graves carved of stone and voices carved in air. They may be ‘beside’ themselves and beside Jason and me. We appear over their shoulder, and they at ours. Distinctions between sensations might become diffused, relaxed, and the body more porous, open to wandering associations, to feet, to suggestion as circulation between the percipient, the smartphone and the cemetery carves channels of attention attuning rhythms of steps, to breaths, to timbre, to beats, to gusts, to grave after grave after grave, as the voices and the walking continues to flow, pouring into each other. Until,



Let's try again. I'll wait at the chapel door. You can't miss it. It's the grey churchy building past the giant angel. Find a main road and head up hill.

Orchestrating a rendezvous in such a vast and hard-to-navigate place can seem impossible, and so for some of the percipients interviewed it became clear that Aspohodelus was lying, creating movement for no apparent purpose with no intention to meet. Some deduced that she/it is not human. Other percipients, however, followed her exact instructions to the best of their ability until the very end. The interviews with the latter percipients, believers in Aspohodelus, led me to suspect that any exasperation they felt remained ‘in game’, within the

fictional bounds of *Vanitas*. However, those for whom the spell was broken, the none-believers, spoke of reorienting themselves to the artwork itself by deciding whether to play along while ignoring Asphodelus or to do their own thing. Most took a hybrid position by giving up on Asphodelus but staying committed to wandering with the voices despite the distracting, but inconsequential and overlookable text messages.

During the ‘in-or-out of game’ crisis in confidence, Jason and I momentarily give up on meeting Asphodelus too. This creates the opportunity to repurpose the situation of finding oneself deep within the cemetery, both in the ‘story’ world and the ‘real’ world of life surrounding the artwork. Our attention turned towards more pressing issues.

[convolvulus]

Jason: It’s a place of reflection so I suppose we better deal with that.

Over the three years it took to make *Vanitas* our respective partners had life-threatening illnesses, surgery and long periods of recovery. During intense periods of trauma we were not able to address the personal question of death in the vanitas work we continued to make. Instead, we would meet at the cemetery and wander, chatting about what we encountered, obliquely broaching sensitive subjects while allowing some thoughts to remain unsaid. We supported each other through the experience of living with the spectre of death by continuing to make an artwork together.

[Marigold]

Robert: It was all about death, but *Vanitas* is about death or the things that we leave behind. But we never made any connection to our lives. Don’t you think that’s strange?

Jason: I do think that it’s strange. I wonder whether it’s a little bit like carrying a posey or a votive, maybe it functions a little bit like that? And when you are doing that it’s not the meaning so much as the ritual [that is important].

After the most intense periods of trauma had passed, we were able to return to the confronting and ‘difficult’ conversations about death and survival that we had until then avoided. These occurred towards the end of the creative process after many prototypes and audience tests, and after we knew that our partners had survived. Traces of these discussions found their way in towards the end of *Vanitas Chapter Two* in Acts IV and V.

[Peony]

Robert: While we have done this, life has shifted. There have been periods where I feel like we were getting ready to face death, getting ready to face actual loss. Because it wasn’t looking good. And that date with destiny, that moment, that shocking scary thing that keeps you awake in the middle of the night and wracks you with all kinds of fear and pain and doubt didn’t arrive this time or it has not come yet.

Jason: No but its presence is near. And I feel its presence in a way that I didn’t before.

Details of our family lives were not revealed. We focused on coming to terms with the realisation that we had been making a work called *Vanitas* while we were engaged with protracted dealings with death. During the process of working together we conspired in the creation of our own unspoken terror management tactics to deal with complex death anxieties. We were unknowingly searching for a way to deal with reality by creating rehearsals in other realities. In retrospect it seems possible to articulate what was near impossible at the time: the compulsion to perpetuate performances of terror management is so powerful and fundamental that it precipitates the need to make vanitas art, invent oblique strategies and perpetuate seamful dramaturgies which can manipulate mortality salience, even without acknowledging it. However, towards the end of creating *Vanitas* I realised that the mortality salience often triggered by working with vanitas materials had shifted from myself to those around me. The choice to include this autobiographical material created a turn in *Vanitas* away from the death of the individual self towards the appreciation of life in others,

including the non-human and the post-human, which in the case of the cemetery are those already dead, those post-life.

[Marigold]

Robert: I suppose we would be more interested in what other people leave behind when we might be the ones who are left behind. We are walking through a graveyard now which is all about what is left behind.

Act IV creates a period of physical and contemplative stillness that when combined with a shift in tone of the audio material towards ‘levelling with one another’ and ‘facing reality’, might prompt moments of mortality salience or empathetic contemplation of the care needed to nurture the life of others. In each of the episodes, Phantom still sends text messages as Asphodelus, but their tone has become ameliorative. She proposes a final attempt to rendezvous near the fountain at the centre of the cemetery.

Act V unlocks and zooms into the opium poppy stem at the centre of the Rachel Ruysch painting, which was the subject of intense speculation during *Chapter One*. Touching the screen to trigger the episode symbolises the entry into the ‘void at the centre of the work’, the dreaded, presumed emptiness of vanitas. Like the final episode in *Vanitas Chapter One*, *Opium Poppy* comprises a dynamic shift in the complexity of editing and musical composition reprising key phrases and voices from the preceding episodes to simulate the audial delirium and synaesthesia of the ‘void’. A text message invites the percipient to ‘the fountain’ and provides a map reference to the fountain within the cemetery.

...the fountain, the fountain,
and be it done.
<https://goo.gl/maps/d23H3MbsTPF2>

To see the map, the percipient must leave the app which further heightens the abrupt change between the soundscape ‘in’ and ‘out’ of *Vanitas*. Jason and I also discuss approaching the fountain in the episode audio. Mentions of tea insinuate a resurgence of its power within the body to cause a shift in perception. Images of circling, of vortices, of unspooling, of spiralling towards the inevitable, build anticipation. The percipient, Asphodelus, Jason and I all approach the fountain. The multiple realities of *Vanitas* conspire to align in the same place and time. Of course, the percipient may or may not choose to seek out the fountain, but Jason and I do, and when we both arrive there, I can see Asphodelus, but Jason cannot. A lot happens in a short space of time. The episode ends abruptly.

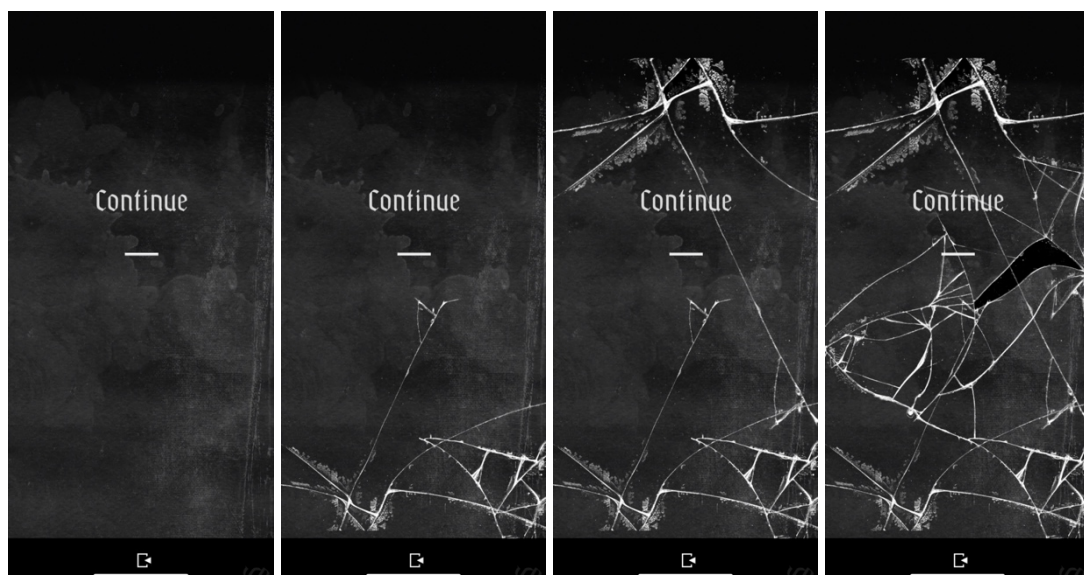




Figure 27 - Pressing the screen causes the glass to appear to break. What would normally exit the episode to return to the menu no longer works. The more the screen is tapped the more it cracks. The tapping continues until the screen flickers on and off then reappears covered in flies which fly away when the screen is tapped a final time, triggering the credit sequence.

The app simulates a malfunction and ‘cracks’ the smartphone screen as shown above. Then the credits begin and are almost immediately interrupted by the percipient’s smartphone ringing.

Who is it? Asphodelus?

At the other end of the line the percipient can hear me, now no longer in the app, but on the phone, apparently live. The opening exchange is clumsy as the interaction order of who is to speak is established. Unlike the preceding modes of *Vanitas* the text I deliver over the phone is an instructional monologue.

Hello? Hello. Hello, it’s me. Yes, me. You’ve been listening to us for a while, but now I’m speaking to you. Just you, directly to you, no one else. There is something I’d like you to do. Start walking back to the main gate where you started. Now listen carefully because when I hang up you won’t get these instructions again. Listen.

There are 300,000 people buried in this cemetery. I want you to tend to one stranger's grave. Find a grave that needs tidying. Maybe a flower needs to be moved. Maybe a stone is out of place. Tend to it. Tidy it. Take your time. You know what to do. Goodbye.

My 58-second phone call to the percipient, recorded to initially appear to be live, triggered by the Vanitas app and delivered by the Phantom server system via the mobile phone network.

The in-app credit sequence recommences as soon as the phone is disconnected.

Was the phone call real? Was Robert live? Is that the end?

The percipient has decisions to make about continuing to listen to the app, fulfilling the request to tend to the unkempt grave of a stranger, or finding their way out of the cemetery. They might do all three at the same time. The abruptness of the end leaves a lot of questions unanswered. The process of exiting the cemetery provides space to consider these questions.

Unspooling towards ■ – serendipity and orchestration

The permission to touch with hands what has been walked over, and the excuse to get down to ground level and engage with the minerals of the graves is responded to differently by each percipient. A planning and decision-making procedure comes into play: first, to accept the task, or not, and then to select a single grave from the 300,000. The tending activity becomes an obligation, which like the other guidance offered in *Vanitas* might be ignored by the percipient. But the thought process, the decision and indecision, and the ability to choose or not choose, to act or not act in the collective maintenance of the memory of the dead in this small way is all that is at stake. The obligation to care is coercive and difficult to resist. Taking up the task affords the opportunity to act as though remembering the dead by tending

a grave is something one knows how to do, when in fact it is for many a completely alien activity. As alien as the touch of rough stone after a glass screen, as the earth and rotten flowers after plastic headphones. As alien as the thought of one's own life as materially bound being coming to an end.

Decompression from the intensity of the heightened, multi-layered experience of realities compressed into 70 minutes continues in the wayfinding back to the gatehouse. It is a walking return to the quotidian life that both vanitas artworks and cemeteries might be created as a sanctuary from. Percipients returning to the gatehouse hosts as they exit have reported uncertainty around whether they should have met Asphodelus or not. Others have reported meeting her or at least seeing her in the distance.

However, most of the feedback relayed to the hosts corresponds to experiences of uncanny coincidences that percipients believe to be deliberately composed. These observations might in part be accounted for by what Heidi Taylor terms the “deep dramaturgy” of site-responsive performance and the imbuing of all coincidences within the envelope of time inaugurated by an art event, of orchestrated serendipity. As such, Taylor remarks, “accidents and contradictions contribute to the complexity of the work – if they are embraced rather than ignored, they may satisfy the idiosyncratic and deep-felt structures of the work” (2004: 19). For example, a percipient can believe that the reason they arrive at a gravestone that bears their surname is because of the design of *Vanitas* which led them to a precise location. It is also possible to believe that a pile of plastic flowers was left in a particular place to coincide with a specific moment of listening to a section about abandoned plastic flowers. Of course, in terms of compositional strategies, the exact opposite was true. No objects or actors were

set in place and instead directions were honed to stimulate movement and exploration, not targets.

Experiments with paper maps, smartphone maps and specific directions intended to ensure percipients would arrive at pre-selected cemetery locations at specific times were cumbersome and prescriptive. So, we took what felt like a risk and removed them all, suspecting that if we were able to find places that felt significant, so would a percipient.¹⁵ The cemetery is, after all, a place purposed towards the perpetuation of significance. Particularly romantic are the places where the aspiration for perpetuity is ruptured and a memorial has become ruined by nature to become doubly coded by the heroic attempt at permanence and its tragic failure to withstand the test of time. Such places are easy to find in Melbourne General Cemetery with its overwhelming volume of graves. However, the enormity of the romantic ruination makes it almost impossible to find a place in the cemetery that is not scarred by significance in some way. Thus, no strategy is required to orchestrate a serendipitous encounter, merely a tactical, heightened sensitivity to the actual that frames a method for approaching the world augmented as and with an artwork.

Conclusion

In this chapter I walked back through *Vanitas Chapter Two* over the shoulder of a percipient to revisit the dramaturgical choices that disclose a contemporary vanitas aesthetic for contemporary ambulatory art. As I went, I pointed out some of these preferences, and I summarise them in the table below.

¹⁵ We removed all directions except the map link to the fountain, which will likely be cut from future versions.

Moving away from	Moving towards
Maps	Loose plans to stimulate movement and exploration
Directions	
Prescribed objects or actors	
Places to go	Permission to travel and find places to be
Prescribed Route	Wayfinding
Given things to look at	Extended time for appreciating what is already occurring
Someone to meet	Possibility of meetings
Monologue	Dialogue
Narration	Conversation that has already begun which you are invited to join
Monopolised time	Pauses/lacunae/voids/gaps
Solid, impervious dramaturgy	‘porous dramaturgy’
Uninterruptable	Already ruptured and interruptible
Smartphone unconsidered	Smartphone included/kept busy
Independent smartphone use taboo	Independent smartphone use part of life
Prescribed and separate realities	Negotiated and overlaid realities
Curtailing and prescribing thought	Promoting abductive thought
Disseminating knowledge	Sharing methods
Transmitting ‘new’ knowledge	Reconfiguring the overlooked
Prescribing finished dramaturgy-in-performance	Offering relational dramaturgy-in-progress
Determinacy	Indeterminacy
Explicit	Suggestive
Complete	Partial

Table 4 – List of Vanitas aesthetic qualities expressed as dichotomies. This list, created by reflecting on decisions made during the creative process, scopes emerging aesthetic preferences in the right-hand column. This list forms the basis of a ‘spectral dramaturgy’.

Instead of providing things to look at, *Vanitas* offers extended time for looking at what is already occurring. Likewise, instead of prescribing where to go or who to meet, it frames

permission to find places and an openness to possible meetings. Instead of providing a narrated through-line, it presents itself as a conversation that has already begun and which the percipient is invited to join. Such turns away from the authorial to the relational, from closed to open text, from old to new dramaturgy are present in other site-responsive and interactive performance dramaturgies as noted in Taylor's 'deep dramaturgy', Turner's 'porous dramaturgy' (Turner 2014; Turner & Radosavljevic 2012), Eckersall and Paterson's 'slow dramaturgy' (2011) and 'relational dramaturgy' as articulated separately by Duska Radosavljevic (2013: 162) and Peter Boenisch (2014: 172). And yet, the shift from monologue to dialogue represents something more disruptive to the form of audio walks that have often been bound exclusively to a single audio track responsible for delivering both the 'content' of the event and for tutoring the listener to walk the route in the manner prescribed by an artwork. The disruption stems from a shift from procedural to ambient interactions and from a single device to technologies dispersed within the environment despite the seeming singularity of the smartphone as an object. Coordinating these disruptive performances is a spectral dramaturgy that prescribes the flows, connections and sensations of ubiquitous computing. Increased attention on spectral dramaturgy's ambient, negotiated experiences may also sensitise the percipient to more refined modes of suggestion and a different order of coercion. The expanded sense of dialogue that incorporates the voices of overlooked actors within the environment reframes their agency.

On one hand, sensitivity to the habitually overlooked 'voices' of the other beings and agential materials might precipitate Dovey's eco-critical awareness of the Earth's environments of which humans are a part. However, efforts to hear these voices are occurring as awareness of mass extinction from human induced climate change is beginning to occupy the popular imagination. This produces a form of mortality salience for the fragility of Life itself and new

coping mechanisms akin to terror management strategies to suppress the horror of not only personal death, but also of mass extinction. This shift in vanitas thinking from one's own death, as I mentioned above, to the nurturing of life in others might be the product of a radically expanded form of listening and also an attempt to engage in hitherto overlooked dialogues with the non-, more-than- and post-human life within and around us in the present and dispersed across times.

On the other hand, the proliferation of synthetic voices into the environment interwoven with ubiquitous computing precipitates a far more sceptical response to ambience as free from coercion. Mark Hansen critiques ambient computational environments that produce what he terms "*hybrid experience* – an experience that combines human sensing with machine sensing and introduces a delay between the operability of this sensing and the future moment in which it will be fed-back – or rather *fed-forward* – into consciousness" (2015: 139, original emphasis). The computational systems that produce hybrid experiences are inherently tuned to perform for the human sensorium ostensibly in the best interests of the percipient, but not necessarily so: information can be delayed or withheld and posited in such a way as to enter consciousness 'directly' through the highly tuned manipulation of the senses, communicating information so that 'you just know', like the combination of a change in scent in the air and a shift in light might denote evening time. Hansen ascribes the root of the coercive potential of the computationally tuned environment to the limits of human corporeality where,

sensing happens first and foremost in the medium of the physical and without conscious awareness. As our most basic response to the depersonating of the world, sensing is by definition proximately ecstatic, out of sync, and out of scale with conscious experience. And that, precisely, is why ubiquitous sensation is proximately and autonomously peripheral. (2013: 85)

Vanitas techniques exploit the experience of being physically within a moment while perpetually being out of sync and scale consciously. Within these gaps spectral dramaturgies can orchestrate the sensation of different times within the present, and bring forth apparitions, all the while holding scepticism of such seeming impossibilities at bay. When applied to the contemplation of death, the imaginative powers that enable the spectral experience of holding multiple times at once, encounters the void: the paradox of consciousness contemplating its future absence, which can quite quickly cause terror. Yet vanitas art circles this void in a productive way.

My contemporary vanitas artwork draws directly on the far older vanitas techniques explored in David Bailly's 1651 self-portrait discussed in Chapter Three. It asks percipients to immerse themselves in vanitas symbols (permeating the cemetery) whilst acclimatising to the possibility of sensory apparitions and the paradoxes of occupying multiple places, physical states and times at once. It uses the figures of others, including the artist, to create empathy for oneself in the apprehension of the certainty of death. It invites a sense of wholeness in one moment that extends beyond the present physical dimension of the self towards the vertiginous appreciation of one's wholeness stretched through the time of a life course, and beyond, to the life of the world. And though both Bailly's work and mine may be said to disseminate knowledge to certain extents, they are more concerned with the sharing of a practice: techniques of looking, of being, of inquiring, of combining, of holding attention, of returning sense to tacit knowledge of life as mere breath, fleeting and habitually overlooked.

And yet, the use of headphones and mobile screens might warrant approaching *Vanitas Chapter Two* as "a form of media theatre" described by Edward Scheer as "'posthuman performance' in which there are no physical performers beyond the spectators, no stage and

no drama, beyond the unfolding of a scenario” (Scheer 2012: 32). In this case, *Vanitas* may have emerged as a hybrid of New Media Dramaturgy, ubiquitous computing, and posthumanist thought. However, there are physical performers if you choose to accept the performances that might otherwise be overlooked, particularly of the smartphone. Indeed, the cemetery is a monument to a certain, literal, post-human performance and a broad spectrum of overlooked performances by non-human others. It is to the reconfiguring of the overlooked performances of *Vanitas Chapter Two* that I now turn.

7. Not Falling Apart at the Seams: Overlooked Performances of Holding it Together

Standing at the cemetery gates I recall that the fear of death is common to many animals, but *Homo sapiens* is the only species known to couple this instinct with the knowledge that death is certain. The drive to preserve one's life is underwritten by the awareness that it will inevitably cease. Realising this can lead to a range of emotions including paralysing terror which human cultures and religions have sought to mitigate through the development of elaborate rituals, practices and belief systems. Such terror management strategies have been theorised extensively in psychology.¹⁶ The strategies function to deny the possibility of contemplating death so that everyday life can function without terror. Denial of death eventually takes a toll because planning to preserve life is factored into almost all unconscious decision making. Invoking mortality salience, bringing death to conscious apprehension, negatively impacts human cognitive capacity with the effect of impairing subjective reasoning and moral judgement. In this chapter I approach terror management through the cemetery, smartphone and overlooked performances of *Vanitas Chapter Two* by discussing dramaturgies that attempt to manipulate sensory impressions of death.

Vanitas artworks, *memento mori* and cemeteries codify a range of techniques for manipulating mortality salience and terror through practice. As discussed in Chapter Three, *vanitas* artworks function as traps set for capturing attention and focusing it on the

¹⁶ Terror management theory is based on the early twentieth century work of Otto Rank (1941 (trans. 1958); 1929 (trans. 1978)) and the mid-century work of Ernest Becker on *The Birth and Death of Meaning* (1962, 1972) and *The Denial of Death* (1973). The term is formulated in publications relating to mortality salience during the 1980s and 90s in the experimental work of Jeff Greenberg, Tom Pyszczynski and Sheldon Solomon resulting in their seminal 1997 paper *Terror Management Theory and Self-Esteem: Evidence That Increased Self-Esteem Reduces Mortality Salience Effects* which established the field.

impossibility of imagining attention's absence. They serve to interrupt the denial of death, that is to say, they are a plan for apprehending one's own mortality. And mortality is the subject that terror management strategies attempt to render as unthinkable. Vanitas artworks therefore attempt to hold open the paradoxical situation of thinking the unthinkable: holding death in the mind of the living. It is not that death cannot be held in mind as thought, as the production of vanitas artworks demonstrates it can, but rather that terror must be managed and circumvented for such thoughts to be held for longer than a moment. Creating *Vanitas* necessitated an engagement with the anxieties surrounding death and the fundamental overlooked human plan to not only avoid, but strenuously deny the possibility of death at great energetic cost. I attempted to make a contemporary vanitas artwork that focused a short period of the percipient's life in Melbourne General Cemetery (MGC) on living with the unthinkable certainty of death, around, through and despite terror.

Returning to the cemetery after the project is over inevitably draws the creative process, the performances of *Vanitas* and my experience of navigating the deathly landscape back towards the surface of my attention. I am acutely aware of the entanglement of parts of my own consciousness with locations within the cemetery, and yet the connections remain amorphous, unquantifiable and surprising. The site itself triggers memories in a range of registers, often unpredictably. More than a vast mnemonic for a whole creative process, the cemetery also evokes ways of being, sensations and possibilities for contemplation. I sense that availability of the knowledge held within the place, and within me, changes over time, and the longer I linger there. It is from this position that I speculate on the overlooked performances and dramaturgies that came to my attention by making *Vanitas*. In this sense, the chapter is exegetical: it is writing out of a way of life via an arts practice. This method

allows me to further address *Vanitas* as an application of the laminated system formed at the meeting of a particular person, their smartphone and MGC at a specific time.

Vanitas is a performance that is done and redone, each time in quite different material circumstances within and across the ontic strata that produce it. During each performance the plan for the event always unspools and the traps it sets always close, but never in the same way twice.

By functioning to deny the denial of death, vanitas artworks operate within a framework of suspension of disbelief common in theatre and performance practices. I chose to situate my expanded audio walk within a similar dramaturgical framework of being not not real. My aim for *Vanitas* was to offer a rehearsal of mortality salience at the cemetery outside of the context of the cemetery's 'real' quotidian use for burial ceremonies and mourning. Through the creative process I came to understand that, like the creators of other vanitas artworks, my aim was to meet the need of contemplating death in a structured and safe way, by rehearsing a reckoning with death prior to encountering the real thing. *Vanitas* offers a chance to '▮' and not yet come to a full '■'. It is fitting then to step forward into the cemetery for this rehearsal to take place and consider more deeply the overlooked aspects of its performances.

The cemetery, life and post-human remains

Melbourne General Cemetery (MGC) is not a place of death, but a place for the dead. The dying happens elsewhere. It is a necropolis, a city of the dead, and thus ruled by a necropolitics, that like the surrounding city is ordered by a range of competing forces including the exigencies of capital, class and race. However, I contend that MGC also perpetuates a range of overlooked performances as a final destination, a place to '■'. It

therefore warrants critical analysis as a site where ontologies are contested and where the seams between the human and posthuman are in perpetual negotiation.

A step off the main path immediately draws stark attention to the interplay between *bios* and *zoe*, two classical Greek formulations of life, enacted through the ruinous incursion of plants, animals and the weather into the neatly arranged memorials. Walking through the cemetery, the power of “*zoe*, the great animal-machine of the universe” (Braidotti 2013: 141) is vividly apparent. The battle with this wild Life is also evident in the unending work of cemetery staff who toil to control and even attempt to eradicate it in places. The memorial sculpture, clean borders, pathways and signage represent the final traces of *bios*, that is to say of specific lives and ways of living, that Giorgio Agamben termed “qualified life” (1998: 2). In contrast *zoe* is present within the cemetery as the force of Life in general, that is to say ‘unqualified life’, not the kind of life being memorialised in the place dedicated to memorialising human *bios*. The cemetery is in the business of balancing the contrast between *bios* and *zoe* to create the aestheticized ruination that monotheistic burial rituals aspire to as ‘returning the body to the earth’. In this way each grave is the site of a slow battle between the preservation of the uniquely qualified *bios* it represents and the incursion of the generalising and non-representational force of *zoe*.

Family and friends are charged with maintaining the sovereign territory of the grave itself, which under Victorian law is owned in perpetuity by its occupant and their descendants, while the pathways and communal areas surrounding the grave are owned and maintained by the Cemetery Trust. The failures of families and friends to maintain graves can result in dilapidation, often dramatically so. Likewise, the immensity of the Trust’s task managing such a large site has meant that the land is strategically maintained with some sections

resembling a manicured, well-watered park while less visited or less visible areas are sprayed with herbicide and kept completely barren to suppress plant and animal life. The remains of those qualified as human enough, who lived in such a way as to accumulate the requisite acumen or finances to afford it, are memorialised in minerals inscribed with a short biography. As a site, the cemetery maintains and reinforces some of the basic tenets of western civilisation and its foundational separation from nature by maintaining ritual order surrounding the legitimisation of certain lives at the expense and exclusion of other life, including those not considered human enough.

It is in this contested environment that *Vanitas Chapter Two* occurs: a place designated as a non-denominational monotheistic cemetery of the Western European tradition transplanted to the unceded lands appropriated through colonisation of the Wurundjeri, the first people of Naarm which has become known as Melbourne. When the cemetery was founded, first nations people were strategically categorised as part of *zoe*, that is to say within the fauna of the continent now called Australia, and not human. Aboriginal people were not considered citizens of Australia until 1967. In addition to being a material place, MGC is therefore also a series of organising principles, a focal point for bio- and necro-political power and a colonial supplanting of land-use practices which continues the western legacy of creating storage systems and databases for post-human remains that perpetuate the dichotomy between the ‘good life’ of *bios politicos* and the animal, uncivilised life of nature *zoe*. Thus, when approached from a postcolonial and indigenised perspective the cemetery itself perpetuates an overlooked performance propagated from the myth of *terra nullius*: the denial of colonisation, land theft, cultural genocide, and the denial of humanity to the first Australians who, as animals, were unfit for burial and memorialisation within MGC when it was first designated in 1853.

The vast scale of the cemetery's founding endeavour has led to the filling of around 300,000 graves with settler bodies for over a century. Many of the graves commemorate the far-from-home settlers' 'return to the [alien Australian] earth'. Their entangling decomposition within the earth stamps further claim to the land as proof of habitation, of history and culture. The long overlooked trans-generational performance rituals of the cemetery parallels Melbourne's filling from *terra nullius*, nobody's land, to beyond capacity, a land literally filled-in with the preferred kind of bodies. Such colonial necro-political strategies help sediment the persistent overlooking of settler colonial practices of occupation.

Far from being empty, MGC is now full. Many Australians also believe their country to be full, such as former New South Wales Premier Bob Carr who famously declared Sydney was 'full' (Knight 2018). Through an inversion of *terra nullius*, Australia's immigration and refugee policies are predicated on being full, (*terra plenius?*), and like the 'full' cemetery may only admit those most eligible to match the prescribed, qualified description of human-ness: formulated from a concoction of wealth, education, skill, health, age and acumen. There will, for example, always be a place designated for prime ministers at Melbourne General Cemetery.¹⁷

A glance between the graves and the distant city skyline is all that is needed to connect the displays of wealth and power that built skyscrapers with attempts to stand against time and *zoe*/Life proliferating in the cemetery. Materials, scale and inscription combine with location to affect the status of a grave, as discussed in *Vanitas*. While "the body and personhood have

¹⁷ Melbourne General Cemetery has a designated garden dedicated to memorialising Australian prime ministers. More details can be found on the Southern Metropolitan Cemeteries Trust website: <https://mgc.smct.org.au/about-our-cemetery/>

been collocated in life”, Arnold et al note that in death “the place of disposal of the body or ashes inherits something of the personhood formerly located in that body” (2018: 43).

Regardless of the grandness of a grave or its location, the perpetuation of its tidiness equates to a level of pristineness of both the deceased’s memory, and by association the fantasised composure of their corpse. While biologically dead, a well-tended grave denotes a well-tended memory of the deceased, keeping them socially alive through the ritual of grave tending. The entanglement of grave site, materials, inscription and decomposing corpse produces the overlooked performance of the grave as the human remains. Graves continue the performance of human *bios* after a person is biologically dead.

A similar process is discussed in *Vanitas* in relation to cremation. The same necrophobic anxieties which produce taboos around the hygienic management of corpses enable ashes to perform as human remains. Funerary ash from industrial cremators contains no DNA and so all ash is effectively the same. Additionally, ashes are often contaminated with non-human remains (coffin wood, clothing etc.) and the residue of other humans incinerated in the same cremator, and yet it is the *same enough* to pass as the remains of a specific person. Ashes, even more so than burial sites, may be considered post-human remains as the connection between the material ‘ash’, human DNA, the inscribed receptacle and an individual deceased human is matter of convention, and belief in the performance of ash. It is not not a deceased person.

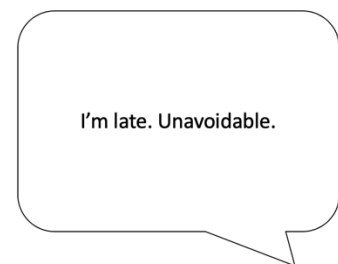
Watched from afar, a funeral taking place on the other side of the cemetery can appear to mitigate an array of death anxieties. Beyond the reach of the tears and sobs indicating the emotions of the mourners, the wider funerary ritual looks to mitigate death anxieties that range from the fear of death in the living, thanatophobia, the fear of dead or dying people and

things, necrophobia, and the fear of being forgotten or forgetting, athazagoraphobia. As each grave was produced by an individual funeral, where a hole was filled, a body interred and a grave formed, the cemetery charts vast variations on a single theme: the attempt to prevent disappearance and maintain perpetual presence by transforming a fleshy body into an earthen grave topped with a mineral memorial. Thereby memory is ritually preserved and forgetting slowed so absorption of individual *bios* into the collective *zoe* is abated, at least temporarily. Thus, the terror of death and the stricken pain of loss are managed by a cultural process which serves the will of the dead by paying them respects, whilst interring the body and being of the deceased in both the earth and also the mind of the bereaved.

Turning away from the funeral and continuing along my own path, I contemplate the necessity of death as a condition of life and of being human.

Vanitas artworks have served as an opportunity to reconfigure a relationship between the inevitable end of the life-course one has accumulated as *bios* and the continuance of *zoe*/Life. Thinking

of Life continuing after one's own death is therefore to engage imaginatively with one's post-humanity. Before I can finish that thought my smartphone vibrates and I am interrupted.



Having been in the cemetery a while now my defences are down as the cognitive load of keeping death at bay produces some fatigue, but I am unaware that my terror management instincts are the cause of this. I come to rest under a tree uncertain of how I found myself in this particular spot. The phone vibrates again. It is Jason. I can hear his voice through the text of his SMS. From beneath that peppercorn tree I am transplanted back to the beginning of the creative process.

[White Rose II]

Robert It was a timelessness that I liked. Lost time. Something stuck in one moment.
Jason Still lives.
Robert Swirling round an empty centre.

The terror of the void

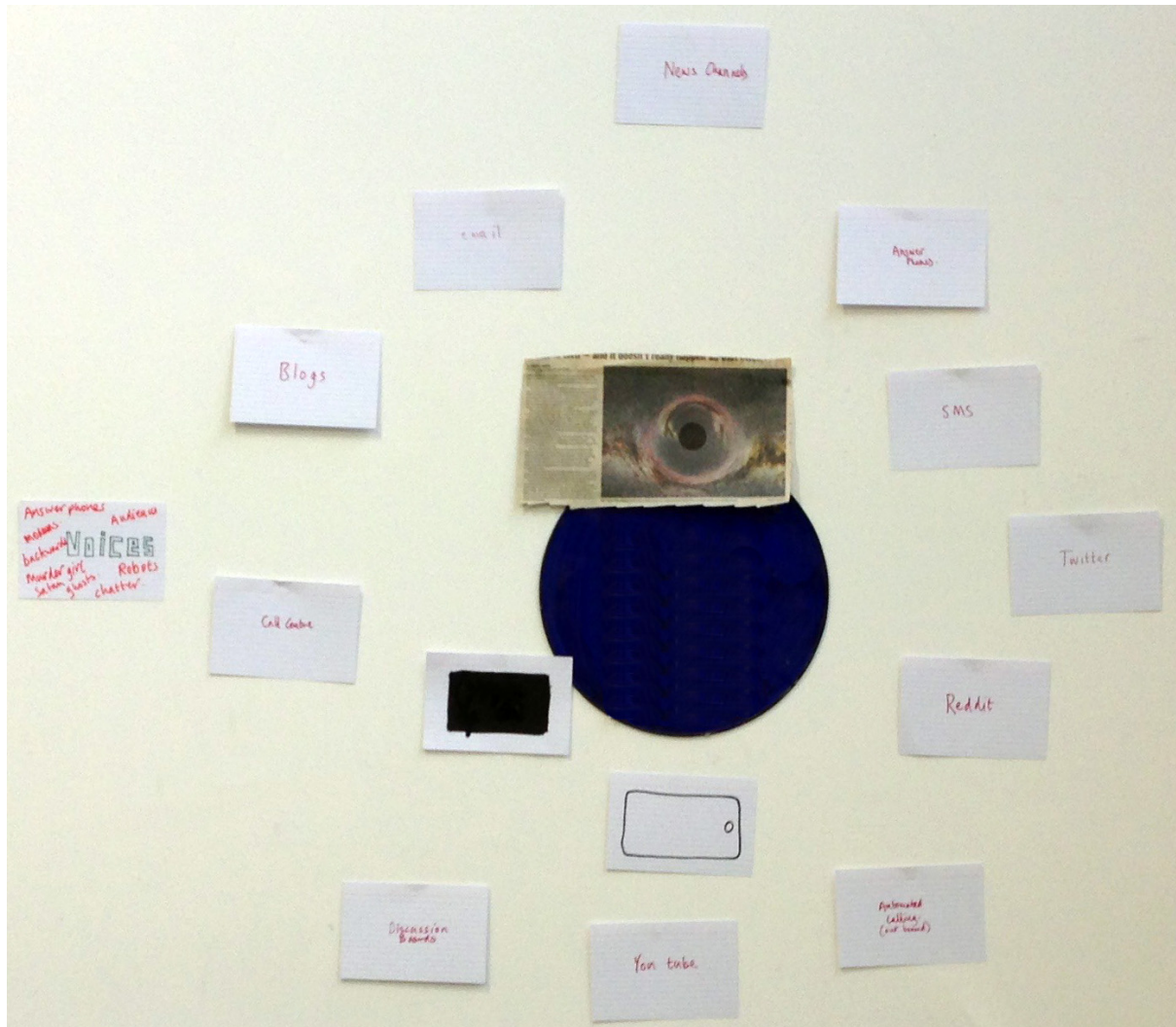


Figure 28 – Photograph of schematic for a transmedia artwork on studio wall from early workshop. Electronic messages circulate as voices around a void in blogs, email, news outlets, answerphones, SMS, tweets, reddit, robbo (automated) calls, YouTube, discussion boards and call centres. These messages are the lingua franca of smartphone usage. A news clipping depicting a black hole partially covers a black felt circle, our void. Two outlines of smartphones sit near the circle reminding us that the smartphone is of the void.

At the beginning of the process the creative team explored the possibility of making a transmedia artwork with no visible centre, no definitive artefact, completely comprised of a

series of messages received and discovered in a given sequence through the software that already exists on each smartphone. The challenge, as I saw it, was to create a system that could orchestrate messaging by masquerading as multiple entities. This vision for a dispersed, networked artwork would use the everyday interactive systems that smartphone users are accustomed to and require no new smartphone software. Instead, the whole experience would be orchestrated by a server to give the impression of communicating with many other smartphone users. The figure of the void, which transmedia messages would give shape to *via negativa*, gave us a way to imagine the smartphone and its arcane, proprietary innards as a space. The seamless glass of its screen a kind of portal to the great multidimensional void of the internet, as I wrote in my notebook:

The void spins as a vortex taking on some of the qualities of a black hole: visible in contrast to its context, appearing as an absence, yet dense, with dangerous powers of attraction that become inescapable at the event horizon. Information can circulate around the edges of this void but disappears if it gets too close. To imagine within it is to think to infinity. And yet, the void also emits information, but of uncertain progeny beyond that it came from the void.

It was not the idealised empty space that we imagined, rather the unknown quantity of the systems with which we chose to work, the black hole, or black box, of computing. The void was shorthand for the feeling of mysterious uncertainty relating to life interwoven with computation. Voices from the void heard through the smartphone are apparitions whose fidelity can be difficult to judge. We were drawn to hold open the void without explaining or fixing its meaning and work with its circulations. The void, then, became our quarry and in a broad sense also came to represent the yet to be discovered artwork, dramaturgy and working relationship which we were undertaking.

As we experimented with time-based transmedia forms, we took on parallel inquiries into Raft's florists, Rachel Ruysch's *Vase with flowers*, and Asphodelus' flower delivery. Each

featured a mysterious void created by conspicuous absences. We made approaches via the messages, voices, stories and artefacts at the edges, not through apprehension of what had been voided. The inquiries were connected by the quixotic pursuit of the ‘secret’ languages of flowers, flower taxonomy and painted representations of flowers which collectively tested the limits of language and images to describe life. Our pursuits became caught up in the endless void of deferred meaning. As we continued the void became entangled with death, the place of no return, of unknowing and physical undoing, the end and the time beyond the end. The void was proliferating.

In *Vanitas Chapter One* the pursuit of the void Ruysch created by voiding the opium poppy from the centre of her painting revealed two contemporary vacuums. First, and in contrast to Ruysch’s time, the absence of God at the centre of the universe reveals a void of relativity where meaning and authority are in perpetual negotiation. The second void opened in the heart of the body where the soul was once thought to reside. The immortal soul of Christian faith granted *bios* authority to be singular and separate from the *zoe*/Life within the body and to assume direct opposition to ‘nature’ outside of it. The void left by the concept of the soul in contemporary western secular life perpetuates ongoing anxiety around human distinction from nature and the dichotomised separation of mind from body that remain largely unresolved. Instead of arriving clear eyed at the absolute, *Chapter One* ended in an opium euphoria, an analgesic numbness caused by endless deferral and the unfathomability of the decisions made by a brilliant artist crafting a painting centuries earlier. For me, *Vanitas Chapter One* swept up the pursuit of determinacy into an endless circulation of life that flowed into *Chapter Two*.

The void was present during the imagining of the formal qualities of interaction in *Vanitas* too. The decision to use the software and systems already part of the smartphone environment and also create an app was a key turning point. I resisted developing an app for a long time because I wanted the artwork to emerge from and blend back into the quotidian experience of smartphone usage, the void of networked computing. I feared an app would reduce the void to a known quantity, a visible metaphor for making functionality tangible within a wider signifying system. However, I realised that an app not only afforded the broadened palette of bespoke software, but that its visibility effectively allowed me to set up a ‘stage’ within the wider ‘theatre building’ of the smartphone: a space where legitimate representations of heightened and not quotidian interaction could occur. Like a stage, an app can aspire to command vision and hearing, taking over the smartphone’s whole screen and audio outputs. And most importantly, once the mimetic dramaturgy of this form of staging was established, I realised it could be interrupted via the transmedia messaging that had been crucial to the conception of the void at the centre of the inquiry. The app combined with the Phantom transmedia system allowed the establishment of an inside and an outside of the artwork which could then be knocked through, manipulated and blurred to effect perceptual shifts between mimetic and actual realities, mediated and unmediated sensing, the interior and exterior of the artwork, and by extension, the potential to afford awareness of being within Life or imaginatively separated from it. In effect this decision created two fabrics of reality within the artwork and forced attention onto the seams connecting them. I suspected that this synthetic medium would afford dramaturgical awareness of attention shifting, and an appreciation of the manipulation of states of flow.

Sat beneath the peppercorn tree I saw the daytime moon, a thin sliver giving outline to the hidden bulk of rock in shadow. I started to realise the extent to which Jason and I had

successfully avoided engaging with the most pressing matters impacting our own lives while making *Vanitas*: the existential threats to our respective partners from disease. We had walked around the matter endlessly and consistently succeeded to never acknowledge our own decaying orbits around the void of which we could not speak, the *voiding* of our partners that death would bring. It was successful terror management. Without consciously realising it, we elaborately contrived to overlook, work around, wriggle out of and effectively deny the terror stalking our days. Such success in ‘holding it together’ is predicated on denial. But who was served by our conspiracy to deny? Most of the time we were the only ones walking through the cemetery, sitting on a remote bench, staring at a grave, in a place designated for crying. In this quiet, emotionally charged place we busied ourselves with small talk and fanciful pursuits of flowers which we knew had no meaning per se. We were a-voiding ourselves by continuing our denials in a place and creative process designated for contemplating death. As self-awareness of my perpetual denial grew, I began to question why we conspired to avoid openly discussing our responses to the terror visiting our family lives. What was it doing to us and how was this affecting *Vanitas*?

By removing our personal narratives from conversations in *Vanitas*, we perpetuated the idea that it is possible to engage with matters of life and death without getting one’s hands dirty. We acted as though we were somehow distant from the subject matter, immune to the sight of a cremating body, somehow sturdy professionals able to maintain a cool distance, when we were also swept up into that cremator, primed to fall to pieces, but desperate to hold it together. Managing terror comes at a cost. Keeping mortality salience at bay causes cognitive fatigue and confusion.

I raised this at our previous meeting. We agreed to have the frank discussion about ourselves in *Vanitas* in the cemetery today. He appears in the distance carrying a drink. I stand and walk towards him.

In addition to the myriad stories and voices in *Vanitas* the project also follows the development of a friendship between two men, two artists. Jason and I attuned to each other via the focus on an emerging artwork. The work of the project became a sanctuary from the trauma of home life. Terror underscored even humdrum conversations. We wandered the cemetery talking about everything but what mattered most, skirting but never stepping beyond the event horizon of terror for fear that if crossed we might never escape back. And it never was the right time, because when you are a primary carer your time for acknowledging terror seems to be deferred indefinitely to the future. In the meantime, while terror festers just below consciousness, it feels like the only responsible thing to do, the thing that matters, is to hold it together, to not be the one falling apart, when of course you are. And as our discussions skirting the void were recorded they eventually became the material for episodes of *Vanitas*. Through this process we invited the audience to wander with us and tacitly enter our conspiracy to steer clear of the void.

As friends we could travel together, listen, wait, engage in distracting folly, laugh at jokes, decode flower messages, search for secret meanings, wander for no other purpose than to be together and see how life that day would unspool. All this to protect ourselves from the terror of the void, neither empty or full, but everything and nothing at once, unknown yet overwrought with frantic speculation. And by extension we also conspired, knowingly or not, to distract later percipients from the terror of the void by weaving them into our over-wrought speculation.

And now, we meet near the mausoleum. Our partners survived their ordeals and the immediate threat of terror has passed. As we walk it is possible to revisit what we had so skilfully overlooked and denied. We find a place to sit on the thick carpet of pine needles years deep at the base of a tree towards the end of a sunny day. It is possible in this moment to acknowledge that what took place was radically different from what was planned. What happened was part of life, and of course, the conversation that we had anticipated and dreaded, was a relief, and not an outpouring of emotion, but a balancing, a quiet reckoning, a removal of the need to over compensate, a lightening of cognitive load through sharing the burden of thought, a clearing and a conclusion of sorts.

[Marigold]

Jason I have erased a year. And that whole period has become a kind of blank space.

The void is not something to close, fill, or pass through, but to dwell within. Not a vacuum of deathly, empty nothingness, but a state of indeterminacy, potential and life. Navigating the void becomes a way of working through the potential of the yet to be known: the uncertainty of survival, rehearsing all outcomes, holding the possibility of ‘■’ and ‘▶’ at the same time.

The terror management strategies we were unwittingly perpetuating in our own lives informed the dramaturgy of *Vanitas*. While we were not able to articulate it during the process, we were affecting ‘holding it together’. Avoidance, deferring, denying and talking around the subject all became features of the spectral dramaturgy of the void of *Vanitas* which dictated the flow of information and held certain realisations at bay. Spectral dramaturgy holds one in a state of working towards knowing by sustaining indeterminacy and

deferring resolution longer than is normally comfortable. Creating *Vanitas* was our way of working towards knowing death, and of apprehending our overlooked performances of terror management and survival. By reperforming our overlooked performances of holding it together the software and media of *Vanitas* and the wider spectral dramaturgy guiding the work as a whole, visits our encounter with the void upon percipients. This is achieved tacitly, not explicitly, by stimulating certain ambient atmospheres, flows and states of being. *Vanitas* takes an immanent approach to the dissemination of tacit knowing by creating situations that sensation and knowledge can emerge from. It therefore functions as a way to approach the unspeakable and unthinkable. Death, voids, loss and by extension overlooked performances, might be approached, handled and apprehended without resort to speaking or thinking, that is to say, without undoing their unspeakable and unthinkable-ness.

Sustaining a practice of *unknowing* is not to endure wilful ignorance but to emphasise humility in an existence swept up by the wider forces of Life and an openness to the possibility of affordances beyond human agency. It is to be in the process of working towards knowing. Practicing with the void reveals a deep-seated urge to avoid the terror it brings. However, staging encounters with the void unveils a dramaturgical imperative towards indeterminacy as a political and aesthetic gesture that fosters the agency of collaborators within a performance, including audiences, to feel unsure and yet carefully find their own way step by step, thought by thought, breath by breath in a process of discovery through the making of meaning. This might include the possibility of resisting holding it together to allow a falling apart at the seams: the collapse and reconfiguration that stepping beyond the event horizon of the terrifying unknown brings. This presents the opportunity to suspend authoritative judgement so alternative responses can emerge. However, such an aspiration to go willingly to the most difficult place is idealistic and does not take into account the

paralysing terror that the void can induce. Indeterminacy and the holding of multiple, oscillating or conflicting ideas comes at the cost of cognitive, and therefore physical, fatigue. In the case of mortality salience, for example, such fatigue can severely impede the ability to form a subjective opinion resulting in rushed authoritative, determinate judgements based on beliefs thought to be objective. This false expediency of objectivity becomes the shorthand of denial.

A plane passes overhead, and our conversation pauses. Discussing these matters induces mortality salience that has triggered the unconscious work of terror management. I can't perceive it directly, but I can feel its effects exhausting and confusing me. Listening back to this conversation is difficult. I press pause and realise that just listening gives rise to the old terror and the immediate attempts to mitigate it. Writing about the conversation, deciding what to relate of it, returns me to the void and those moments, so I stop mid-sentence. And I just think about attempting to describe an instant in time and a memory of a place, of the look on his face as the plane rumbled above the pine needle carpet, (re)percussions, re(hear)sals, (re)petitions. I am reminded that with each word I skirt the abject void that sentences encircle. I imagine someone reading about the anxiety of death bubbling just beyond their consciousness and anticipate that it effects the opening of a similar void within them, creating similar circumstances in their body. This is the singularity of the deathly void defined in relief of singular Life that we all share yet differentiate ourselves from. Its opening causes me to rush to close it. To pass judgement as a means to escape uncertainty. It takes effort to hold the indeterminacy open, its everything-and-nothing-ness too slippery a handful. And it slips back under. Overlooked once more but not gone. I start to write my sentence again. I press play and listen again. The plane passes and we talk again.

The recordings we made contain the performances of denial we overlooked at the time. Replaying them reperforms their overlooking; the postures we affected unwittingly, our uncertainty as we worked towards knowing and facing the unthinkable. We moulded the percipient's experience to be like ours, caught up in the process of holding it together, passing time, and walking around the nub of the matter. We never arrive, just circle in search of insight, revelation and the 'right moment'. However, we also created lacunae, interruption and seamfulness as tactics for percipients to move across the seams of *Vanitas* and engage in their own way with the vanitas themes in the context of the cemetery.

I suspected that after the audial density of the final episode, returning to the cemetery's uninterrupted sound world might seem devoid of a layer of stimulation, but I wished to purpose the contrast towards a reconfigured attunement to the reality of the cemetery full of life. The instruction to select and then tend to the grave of a stranger I deliver in the phone call suggests a framework in which a loose plan can be realized with little recourse to judging or thinking, merely following desire to touch and in so doing to question the void. This purposeful activity exists in the pause after the end of the app experience but before the full '■' of *Vanitas*. In retrospect my aspiration seems to chime with Barad's encounter with the void and the question,

What does it mean to confront the nothingness, to touch its fullness? This is a question that cannot be answered in the abstract, not once and for all, but must be asked over and over again with one's body. (Barad 2017: 85)

I suggest that hybrid artworks such as *Vanitas* are voids within quotidian life instilling processes that "actualize virtual possibilities in the present, in a time sequence that is somewhere between the 'no longer' and the 'not yet', mixing past, present and future into the critical mass of an event" (Braidotti 2013: 42). As such contemporary vanitas performance artworks form a rehearsal for the end of a final overlooked performance – the performance of

bios through the denial of *zoe*/Life within and around us. As Braidotti notes, “we may call it death, but in a monistic ontology of vitalist materialism, it has rather to do with radical immanence” (2013: 141). The moment of radical immanence occurs when the performance of bios can no longer be overlooked and must cease. Bios is the overlooked performance of *zoe*/Life. Death thus considered, is the final desedimenting of a body’s lifetime of practice, the end of a performance.

Performing survival vigilance

Jason and I say goodbye and I put my headphones on while I wander off alone again. It is getting dark. My mind turns towards future cemetery percipients whom I suspect will, like me, perpetuate three additional overlooked performances relating to death during *Vanitas*. The first occurs when I slip and almost fall, the trip making me suddenly aware of the daze I had been in. The near miss compels me to focus more of my attention on my immediate surroundings. I appreciate this as a return of the overlooked performance of survival vigilance that balances freedom of action in every situation with perceived threat to life. This behaviour is a part of everyday life, underwriting each step and interaction with the world and monitoring the senses for changes of information that may surprise and pose a threat. However, in site-responsive performance where engagement with terrain is of a heightened extra-daily quality, and hearing is dominated in sections by the app audio that removes the ability to sense behind the body without looking, awareness of survival vigilance can surface.

Despite many visits, I still have moments when the experience of walking through the cemetery alone listening to headphones suddenly makes me hypervigilant for my own safety. My spine tenses and I sense someone is creeping up behind me, but no-one is there. I suddenly find myself rehearsing what would happen if I twisted my ankle, fell, and couldn’t

get up. I start planning how I would use my phone to communicate where I was amongst the labyrinth of graves. But what if my phone smashes in the fall or runs out of battery? There are dangerous paths in the cemetery with plenty of trip hazards and holes. There are occasionally people lingering in unexpected places, sometimes sleeping rough within the cemetery, and at any time of day people go there to drink and use drugs. It is a bewildering place. Using headphones that impair one's peripheral hearing of the environment adds fuel to survival anxieties.

The uncertain borders distinguishing *Vanitas* from real life might also heighten vigilance as Asphodelus and other potential meetings are anticipated in the remote and deserted corners of the cemetery. Survival vigilance informs the porosity of *Vanitas* factoring in my decision-making processes around the length and frequency of episodes and SMS. Creative decisions can also be made by the percipient who can pause the app at any point, prescribe the length of lacunae between episodes, experiment with the level of interplay between live ambient and recorded sounds, and ultimately adjust the volume, remove their headphones at any moment or even just wear one. I only appreciate that survival vigilance can factor in these decision-making processes when I observe myself removing my headphones as I walk alone into the cemetery gloaming. I want both to control the impressions of others who might see me in headphones as easy prey and also access my full capacity to hear. I want my wits about me, not boxed into my skull.

Despite audiences understanding that *Vanitas* takes place in a cemetery and therefore might discuss matters of death, I realised actual encounters with mortality salience can still come as a surprise. A lot of effort, most of it unconscious, goes into the performance of *holding it together* in the face of terror and denying the possibility of death, as I outlined above. This

can result in unusual behaviours that emerge as defensive strategies hardening a stance when there is the potential to lose face in front of others, even if they are very close friends. These are the overlooked performances that minimise mortality salience and terror by maintaining the denial of death in everyday life. Yet, I found mortality salience had a different effect when I was alone, and speculated it would for lone percipients too. This is one of the reasons why the hosts are instructed to assign people who arrive together onto different routes which set them off in opposite directions: *Vanitas* is a solo experience.

I crouch down to sweep leaves off a grave, lingering for a moment close to the dry soil in the path to listen. It was only when I stopped that I realised I was in the presence of many other beings all of whom were not human. These included animal and plant life, the voices I could hear via the smartphone, the post-humans perceived through their graves, and the unseen spectral characters anticipated by my nervous system and hypervigilant imagination. This assembled chorus which I joined created a new sense of audience quite unlike being in the cemetery with another living person. I was not alone in the cemetery and neither would the percipient be. Merely a lone human, the only living person present. There seemed to be little expectation from the birds and graves to be whom I usually feel like I must, and instead I could be with them as I appear. To encounter them live, as I appear to them, without history, without future, merely present in whatever awareness of myself within the environment I might manage, came as a relief. Mortality salience here, for an audience of the dead, seems drained of terror. It felt like a personal conversation could take place, or to be more precise, was already taking place. A conversation I had always been part of and yet one that I more often than not overlooked. It was an involuted, ongoing conversation of different parts of the same thing, as Merleau-Ponty identified:

Since the living body is primordially and irrevocably stitched into the fabric of the world, our perception of the world is no more, and no less, than the world's perception of itself – in and through us. (Maurice Merleau-Ponty 1962)

I found that being in the presence of the dead in the vibrant, living cemetery serves to remind the lone human of the necessity of death as a condition for life, not as a surprise but as something that is already known and deeply felt. This, for me, was mortality salience of a different order, not so much inducing the terror that my life would end, but that Life itself would continue and I was part of it. It reminded me to tend to the life of others, not just my own. Considered this way, *Vanitas* is a post-anthropocentric performance event that shifts the percipient, their thoughts and body to the decentralised position of co-contributor amongst other bodies, voices, media and vibrant matter in the form of smartphones, webserver, plant and animal life, monumental sculpture, graves, weather, pathways, architecture and machines.

I balanced my phone on the grave while I finished tidying then swiftly pocketed it thinking better of placing it in a precarious situation. This led me to appreciate a further overlooked performance, one of care and tending, not only of graves and biological life but also the smartphone. Specifically, the overlooked performances which nurture the perceived optimal functioning of the smartphone while on the move. I became intrigued by the particular overlooked ways in which bodies have learned to create the perceived optimal conditions for the smartphone to maintain its ideal performance, and preserve its 'life'. Such performances are visible through the idiosyncratic ways each person has learnt to handle, pocket, protect and interact with their smartphone. It becomes especially noticeable in the vigilance performed when the care of the smartphone is entrusted to another, like the host during the gatehouse induction. In these cases, human subjects are affecting a performance with the smartphone to access what they have perceived it can afford them. Such human performances may or may not enable the smartphone to function more effectively, but this matters little.

The point is that people often extend the level of care normally reserved for their own body to the smartphone, thus promoting it to the especially intimate position of extension of the body. Mindfulness of the smartphone's needs is visible in the elaborate physical nurturing it receives targeted not only at maximising its affordance but preserving its life on the go as a part of one's own. Survival vigilance extends from the self to the smartphone.

Conclusion: a trap to escape

I walk back towards the gatehouse torn, wondering whether any plan we make for future percipients to enact can be anything other than a trap laid in advance, in the same way that a vanitas painting deployed to a specific part of the house is designed to at first ensnare the attention of passers-by and then precipitate awareness of death. These thoughts return me to the beginning of my research, to Lucy Suchman's observations of the relationship between plans (attempts to prescribe the future) and situated actions (what actually occurs when a plan is enacted). The contract for encounters with hybrid artworks, as with smartphones and informational interfaces, remains perpetually in rehearsal. While hybrid forms are emerging, they still draw on what Christopher Alexander termed "pattern languages" to provide intuitive ways of fulfilling plans and may sometimes enable abductive leaps in reasoning (1977). However, despite the best intentions and emancipatory aspirations of artists and computer scientists, the deployment of plans, patterns and dramaturgies to direct attention and focus thought has never been 'neutral' without coercion or prejudice. As the scarce commodity upon which both art and interface trade, human attention is hungrily sought, leading to industrious attempts to gain it, maintain it, direct it, multiply it, monetise it and transform it. In the sixteenth century the attention vanitas paintings sought was directed to the betterment of the viewer within Christian belief. In many of the most widely used contemporary software interfaces such as Google Search, Facebook, Twitter and Instagram

attention is sold to advertisers who seek to transform it into a sale within an economy of cognitive capital. For what purpose would my *Vanitas* seek attention, and can it avoid being purposed toward bolstering religious belief¹⁸ or tools that increase the efficiency of the means of capital production¹⁹?

Host The person you are meeting will text you instructions on how to find them as you go along.

The host plants the seed of an idea in the mind of the percipient, leading them to believe that they will be contacted by a person and that it is possible to find ‘them’. The app audio bolsters this idea through the discussions of previous attempts to meet someone called Asphodelus at the cemetery. The text messages from an unknown phone number appear as though they are from a real person, and yet their veracity is uncertain and their source unknown. Asphodelus is confected through a conspiracy of these suggestions, omissions, elisions, “dark patterns”²⁰ and playful behaviours perpetuated by the host, in-app audio interlocutors

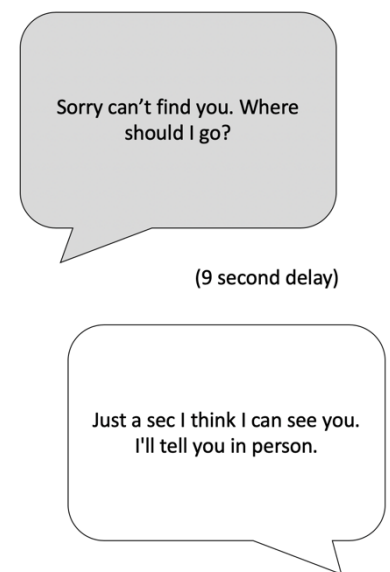


Figure 29 – First automated response to SMS sent by percipients.

and SMS elements of *Vanitas*. The figure at the centre of the conspiracy has some of the qualities of the constructed persona colloquially known as a ‘catfish’; someone who lures a victim into a relationship by building belief in the fabricated character they masquerade as

¹⁸ Religion and ‘cultural worldview’ has factored into the sociological study of mortality salience and terror management theory consistently since it was introduced by Greenberg et al. (1997). In controlled conditions mortality salience has been shown to attenuate dishonest behaviour by provoking honesty (Schindler et al. 2019).

¹⁹ Marketing campaigns that prompt mortality salience has been shown to increase aspiration for certain brands (Banerjee et al. 2019) while they have also been shown to induce a ‘numbing effect’ when associated to some products (Goode & Iwasa-Madge 2019).

²⁰ Harry Brignull has created a website to name and shame companies who employ dark patterns in their interface design. He also includes a simple taxonomy of dark patterns which I draw on here. See <https://www.darkpatterns.org/types-of-dark-pattern> for more information.

online. However, this catfish is the entangled amalgam of a person formed in the minds of the host, the speakers in the app audio and the percipient that shifts and grows as more information is accumulated, some of it contradictory. Asphodelus speaks from the void, from beyond the event horizon of the known, and yet appears knowable. In this respect Asphodelus is comprised of what Andrew Sofer terms the “dark matter of theatre” being “materially unrepresented on stage but unignorable” (2013: 4).

[Unused recording from a conversation about illness]

Jason That feeling of being in the dark is one of the principle [stressors]... When [a doctor] has the knowledge and it is revealed and released to you in parts... I find that process one of the most distressing and frankly difficult things to manage. Somebody takes this person who you are deeply connected to somewhere, does something to them and then nobody gives you the full explanation of what or how or why you just get these parts and packets of information and then you draw your own conclusions. It's easy to fill in the void space with some nasty alternative.

All dramaturgy exists in the dark, perceived through the insinuations of text and action, held in mind, in body, in the collective understanding of collaborators in negotiation. It can be attuned to through rehearsal and in performance it may orchestrate impressions that others can begin to sense. It remains in a void defined only by the work at its edges. Each collaborator holds a different impression of its outline and dimensions. Like dark matter, dramaturgy exerts a force on proceedings without being seen. The pursuit of dramaturgy is therefore also the pursuit of routes to knowing, of creating habits, of discovering and amplifying affordances within an environment.

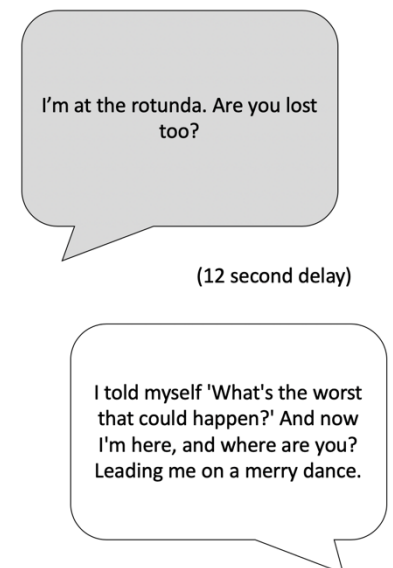


Figure 30 – 2nd automated response SMS.

This project became a way of indirectly engaging with a spectral dramaturgy in practice, performance and theory. It revealed some of the unconscious strategies we have for avoiding difficult subjects like death which terror management strategies attempt to render unthinkable by disallowing salience of mortality. Therefore, approaching the terror of death prompts thinking the unthinkable. However, that terror management exists as a survival strategy reveals the energetic entanglement of the body's ability to produce thought. By extension it is possible to speculate that the acquisition of unthinkable knowledge remains bound up in sensation and has an energetic cost. Some ideas and ways of thinking simply burn more calories. That certain subjects are unthinkable may not be because they are too complex to comprehend, but because they are exhausting and can cause physical pain. A point we were circling by the end of a difficult discussion:

[57 second voicemail audio clip heard if the call at the end of *Vanitas* is returned]

Jason I don't think you forget people. I don't think you get over people. I think they become representative of something...

Robert And I think you still talk to them. You dream of them. You would have a conversation with them. And that's why people have [a cemetery,] a quiet place to go to, to literally go and talk to them.

Jason But they are in the echo of so many things, so many choices and so many tastes, so many things that you are into that you weren't before. So many things that you have read or seen or done or places you have been. And they are echoed in all of those things.

Robert I agree. But I am just thinking that those are all the things that we say to ourselves. Sometimes you'll be able to do a wistful smile but other times it's going to be a knife through the heart. That's what I'm scared about, it's like a violence. Of course all those nice things are going to be there and that's what I hope, that all these memories are going to be wonderful and joyous and I'll have them and be enriched by them. But there is also going to be pain. Real psychic, emotional, physical pain. And that's scary. Like a sickening pain. Every rehearsal has been a grandparent or a friend. All of those have been terrible rehearsals that have been bad enough. But this [death of my partner] is going to be like a tsunami or a heart transplant or losing a limb.

Vanitas is a trap, made from the technologies, techniques and dramaturgies used to capture attention in everyday life. Yet, it is designed to be escaped. It attempts to offer a way to practice succumbing to and resisting entrapment.

Asphodelus is designed to confidently instil the belief that it is possible to meet it/her and that it is therefore worth persisting with what maybe presumed to be the conceit of the artwork.

Entrapment techniques, or what Harry Brignull terms “dark patterns” (2015) in commercial design, are focused on closing: closing a deal, closing down escape routes, closing thought, closing the trap, closing the sale.

“Always be closing”, as the salesmen in Mamet’s *Glengarry Glen Ross* opine, revealing the ultimate intention behind all sales routines (Cullick 1994). Likewise, the “more general problematic of cognitive capitalism”, as Michael Dieter notes “advances an abduction of agency that aims to close the gaps of spontaneity that are, in the end, precisely the resources for creativity, speculation and hypotheses advocated by Engelbart’s [foundational 1962] vision of the interface as an augmentation of the human intellect” (Dieter 2015: 176). Many of the

innovations that fund ‘free’ computer interfaces speculate on the cognitive capital earned from extracting the scarce resource of human attention. The development of such interfaces drew upon the techniques from creative arts practices that abduct attention, and now it is inevitable that artworks created with technology are, if not imbricated with the cognitive capitalist methods of subjectivation, unavoidably created in their shadow.

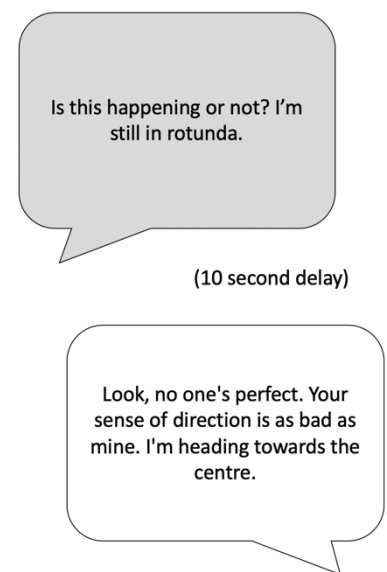


Figure 31 – 3rd automated response SMS.

“Always be opening”, could have been a mantra for creating *Vanitas*. Despite Asphodelus’ earnest attempts to close the trap and meet the percipient, the plan is designed to fail. This failure creates space for something else to happen. The time and attention that *Vanitas* ‘abducts’ is in relief of Asphodelus’ trap, including the joy of skirting terror, toying with thoughts of death, enjoying the seduction of immersive soundscapes, and flirting with one’s own entrapment. *Vanitas* attempts to initiate a kind of dark play which allows for the possibility to be possessed by an idea instead of trapped by it, gives permission to behave differently instead of curtailing desire, and sanctions being radically open and sensitised instead of closed and numbed. It allows the percipient to play ‘hard to get’, to be a ‘stubborn agent’, should they wish it: to withdraw attention; to have confidence in split focus complexity; to occupy indeterminacy as a strength not a weakness; to be fickle and change plans; and most of all to take time. The radical response to the stubbornness of the computer is not to mirror its strict determinacy but to reinterrogate the creative potential of not knowing, of being open to multiplicity and of being available for change. It is to take a radical softness in the face of hard determinism, of flesh as a strength not a limitation. Not to adapt to the behaviour of the confident agent but to appreciate that indeterminacy is the condition from which all matter, life and knowledge emerges. Or, as Barad puts it from the perspective of Quantum Field Theory:

How strange that indeterminacy, in its infinite undoing of closure, is the condition for the possibility of all structures in their dynamically reconfiguring stabilities (and instabilities). (2017: 80)

As I walk toward the cemetery gates, I remember I said “it takes effort to hold open indeterminacy”. Now as I see the road beyond the graves, I suspect the opposite to be true. It seems to take no effort to be distributed along the soles of my walking feet within my shoes, within my hand holding my smartphone, in my head hearing my pre-recorded thoughts on headphones, coursing a path through the cemetery’s air, in my gut craving tea, already at the

gates in my mind deciding to stay or leave. I realise I will have both, I will always have been there and will always have left. As a being distributed in space and time, occupying indeterminacy and dwelling within the void seems to take no effort at all. The pain I felt when faced with the barrage of possible futures stemmed from the profound wish to determine one over the others. It is determining that takes effort, the exertion of force. The knack, it seems, is to balance plans with opportunity. To work lightly and softly within the unspooling of the world, and to tactically resist determining for as long as possible. To become accustomed to accepting not knowing: surviving in partiality, not ignorance. To learn to linger, attuning to conversations already occurring across the seams. Then to linger longer than you normally would. Stood here at the cemetery gates, I wait with phone in hand, on the seam of a site holding a seam to the computational world, not overlooking their performance, but part of it.

Conclusion: Unthinkable Subjects and Denying Mastery

This thesis has been concerned with noticing and reconsidering overlooked performances in proximity to mobile computing and site-responsive arts practice. The three thesis sections introduce three rhetorical approaches to the identification and analysis of overlooked performances, with the fourth section of the PhD being the artwork *Vanitas* itself. The research pursued techniques for establishing and disrupting seamlessness in contemporary experiences of sites with smartphones. In this conclusion I draw together the major concerns and contributions of this research and discuss their implications for future work. I will outline what I consider to be the urgent needs of research to develop ethical responses to life and arts practices interwoven with computation.

Mobile computing continues to disrupt experiences of place, and by extension it inevitably also impacts how site-responsive performances are made and received. This, I have suggested, is primarily due to what Karin Knorr Cetina observes as a fundamental expansion of the interaction order from Goffman's ecological huddle of co-present people, materials and machines in the same place, to a synthetic situation of response-presence in the same time, but in distant and often unknown locations. The smartphone is the seam connecting local reality to realities being lived elsewhere in the same moment. Smartphones achieve ubiquity by travelling almost everywhere with their owners and by creating the impression of having the potential to connect to everywhere else at any moment. Further, because of the range of functions the smartphone can perform they can appear to have abundant application in everyday life and work. The technology can appear to be woven into in the everyday fabric of reality for many people, always within reach, all of the time. Each smartphone is a visible,

palpable seam within the far larger, amorphous and impalpable apparatus of ubiquitous computing.

To engage with this technology's comprehensive penetration into contemporary life, the practice-led methodology of this research included the fabrication of an app downloaded to smartphones and the Phantom transmedia server software that together emulate in microcosm the far larger technological apparatus of a 'softwarized' society. The experimental artwork I created for this system was able to reproduce everyday digital messaging by sending emails, SMS and phone calls as though from real people. In this move, *Vanitas* requisitioned quotidian messaging for fictional ends, creating a mixed-reality performance. It challenged the carefully prescribed range of everyday smartphone interactions which are vigilantly policed for spam and scams, eschewing anything but the 'real'. By emulating 'real life' messaging, *Vanitas* moves into the realm of technologies normally associated with 'dark patterns', catfishing, scamming and other 'grey' fringe internet activities. Appropriating this space for an artwork remains uncommon and shrouded in the darkness occluding networked practices in general. This PhD demonstrates that approaching the smartphone as a site of performance inquiry can enable critical reimagining and creative repurposing of the distributed apparatus of computing through arts practice.

Central to the discussion has been the physical link between the smartphone and the network that occurs in pulses of electromagnetic radiation that the human body cannot detect. The insensibility of networked communications is a common cause for presuming that mediated and computational realities are separated from the physical world and not grounded within it. By acting as a seam between the sensations of the body and insensible communications of the network, smartphones expand human sensitivity into previously inaccessible bands of the

electromagnetic spectrum. The parameters surrounding this functionality and the transpositions between codes and registers of sensitivity, how sensations from the expanded spectrum are staged for the human sensorium, relate to what I termed a spectral dramaturgy. This dramaturgy prescribes the flows of distant events, performances and people as they enter into response-presence with the smartphone's owner.

Asphodelus, the character that haunts *Vanitas* in emails, discussions in the app's audio and who appears to send SMS guiding the percipient around the cemetery, is a spectral character. Never seen or heard directly, Asphodelus exists primarily through transmedia correspondence and is the product of the Phantom server software itself, which performs Asphodelus' response-presence. The character operates in a void of uncertainty where it is never quite clear whether it is real or fictional, human or machine, alive or dead.

I have speculated that this uncertainty stems from the way the ubiquitous apparatus of computing functions as a laminated system. The laminate metaphor of this approach evokes an image of ontologically distinct strata stacked on top of one another, separate, impervious and unknown to one another except through messaging. This method of modelling the complexities of reality produces seams which the ideology of seamlessness subsequently attempts to circumvent. Communication between the strata occurs without disrupting, or needing to comprehend, the internal ontology of each stratum. Imagining systems in this comprehensive way enables their creation and perpetuation, but it does not speak to the vast plurality of 'low-level' immanent experiences of the system.

However, as discussed in Chapter Four, a performance event is irreducible to its constituent parts, including its ontic strata. An immanent approach to the singularity of performance

might therefore initially appear to negate the possibility of seams between realities and entities because of a performance's irreducibility, which might therefore vindicate the ideology of seamlessness. Yet closer analysis reveals that seams are better understood as emerging from within the event of constituting and perpetuating 'reality'. For Barad, "reality is sedimented out of the process of making the world intelligible through certain practices and not others" (1998: 105). That is to say it is created through intra-action that is inherently performative. Sedimentation is the accrual of performative action that lends enduring materiality to otherwise ephemeral performances. Performativity thus conceived makes tangible impacts that shape the world. When read in relation to machines Suchman notes that "Barad's agential realism reminds us that boundaries between humans and machines are not naturally given but constructed in particular historical ways and with particular social and material consequences" (2006: 285). What I have termed seams in this thesis exist in close proximity to what Barad terms sedimented practices.

Further, Suchman asserts that "agencies – and associated accountabilities – reside neither in us nor in our artefacts but in our intra-actions" (2006: 285). By drawing on Barad's term 'intra-action' in this way Suchman comes close to evoking the live, performed and ongoing attentiveness I associate with performance dramaturgy, what Trencsényi and Cochrane identify as "the inner flow of a dynamic system" (2014: 2). This kind of knowledge emerges through the flows and sedimentation of reality in rehearsals between the participants, including humans, technical and artefactual elements and even those designated as 'not performing' through intra-action. These complex intra-actions are dramaturgical negotiations of agency where live experimentation with affective strategies and the creation of reality effects work with or against sedimented meaning. Thus, a seamful dramaturgy which draws attention to seams as the product of intra-action also draws attention to sedimented practices.

As such, seamful dramaturgies might actively focus on reconfiguring habituated realities, of undoing seams to find new ways for realities to be interwoven.

A seamful dramaturgical approach reclaims the smartphone as a purposeful seam connecting realities, not one apologised for and negated by seamlessness. A seamful dramaturgy acknowledges that the smartphone is the site of an ever-increasing range of performance practices in a restless process of desedimentation and resedimentation. A performance ontology provides a way to discuss the interconnected performativity of machine computation, spatial, human and non-human practices. The structure of this research project enabled me to introduce this ontology and approach overlooked performances in proximity to the smartphone. Having already come to a '■' I will '◀' and then '▶' a final time through the thesis as a way to concisely reiterate the central contributions of this research.

In the introduction I outlined an observation from the first prototype of *Vanitas* that prompted consideration of the overlooked performances audience members engaged in with their smartphones to perpetuate the artwork. The introduction then extended to incorporate a series of foundational concepts relevant to the transdisciplinary nature of this thesis. These included a working definition of a smartphone, a transdisciplinary discussion of seamlessness as an ideology, the impact of smartphones on experiences of place and artistic 'site work', and a discussion of this research's practice-led methodologies.

Part One presented a series of techniques to conceptualise audio walks as a locus of site-responsive performance practice and mobile media devices. This section took a 'high-level' systems approach that began with a potted historical view of telephony in performance practice before working through a series of audio walks that use mobile playback

technologies in contrasting ways. In Chapter One I identified some common features of audio walk practices. I introduced an entity-relationship diagramming technique as a way to visualise audio walk systems in snapshot and show the overlap of the individual percipients, mobile media devices, sites and mediated representations they comprise. This technique revealed some of the seams where entities intra-act: the places where realities are woven and joined.

In Chapter Two I paused to consider stillness in vanitas paintings and audio walks. By considering still-life techniques I discussed how multiple times and realities can be present in a single ‘paused’ moment, and how a spectral dramaturgy might account for the entrances and exits of multiple realities into the present. I also introduced *Vanitas* through a discussion of its difference to the field of practice introduced in Chapter One. I then applied the seamful entity relationship modelling technique to the two chapters of *Vanitas* as visions of the artwork on ‘pause’.

Chapter Three *fast-forwarded* through the notion of laminated systems. It introduced ‘softwarized society’ as a laminated system and discussed the potential of an artwork being part and product of a similar laminated system. It looked at three ways to consider how time can be modelled in *Vanitas* and reflected on accounting for the ‘expanding event horizon’ of experiencing an artwork as a laminated system from within a performance. By approaching audio walks as laminated systems I provided a means to begin describing the complex interrelations and various ontologies of the subsystems at play within these mediated performance artworks.

In contrast to Part One's high-level systems approach, Part Two of this thesis made a low-level, immanent approach to the emergent characteristics of machine performance. It reviewed key moments of development in the invention of machine computing to reconsider computing through a performance ontology. I noted that the original computers were people and that machines were invented to 'do the job' of these computers. This began the age of machine-performed computation. That computation is performed by machines is conventionally overlooked because machine performances are so reliably similar and able to produce stable, repeatable results. However, no two performances of computation are the same, but they are the same enough. This subtle differentiation is the kernel of the overlooked performance ontology of computing.

Understanding that the core of computing in terms of performance has cascading implications for all the other functions that computing machines undertake, all of which are also performed in real-time within specific material circumstances. Treating computation and its descendants (digital data, operating systems, software, digital media, interface and networking) as performances by machines has many implications for the way human experiences of computing are understood, only some of which were introduced in this thesis. The resurgence of this overlooked ontology may increase understanding of the mutability of interface and media as one-off performances tailored to each interaction by algorithmic parsing of vast datasets in an elaborate form of live improvisation. It may also be useful in helping to articulate the powers of coercive design practices and attention trapping that have become major political issues in light of illegal 'meddling' in social media campaigns that impacted on the 2016 United Kingdom European Union membership referendum²¹, the 2016

²¹ The House of Commons Culture, Media and Sport Select Committee (2019) found that Russia had engaged in "unconventional warfare" through social media against the UK. In the *Investigation into the use of data analytics in political campaigns* The UK Information Commissioner (2019) found that Facebook user data had been harvested and sold to political campaigns.

USA presidential election²² and other high profile elections, including “coordinated inauthentic behaviour” in the 2019 Australian federal election.²³

The performance ontology I present is intended to complement, not displace, computing’s procedural ontology. It provides a framework to begin approaching computing and interaction from the liveness of performance which can incorporate the complex apparatus of ubiquitous computing as a laminated system, of which the human is a part. For the purposes of this thesis I applied the ontology to the overlooked performances of *Vanitas Chapter One* to establish the smartphone as a site of performance. By this I mean that the smartphone stages performances through its outputs that are attuned to the needs and preferences of the human sensorium.

In addition to being a site of performance, a smartphone is also part of the environment of contemporary site-responsive performances. It is a site within a site, like other performing bodies. I suggested that even though everyday smartphone interaction is not normally considered to be performance, approaching it through the performance ontology of computing reveals a range of overlooked performances that cascade from processing through to digital data, media and to interface, a performance which human ‘users’ also perpetuate. The approach, therefore, reveals the immanent relationship between an abstract, mathematically defined ‘computer’ and its enaction by matter engineered as machines.

In contrast to Parts One and Two, Part Three employed spectral dramaturgical writing to situate analysis within the performance ontology of this research by ‘walking’ through

²² The Report on the Investigation into Russian Interference in the 2016 Presidential Election by Special Counsel Robert Mueller (2019) found that Russian interference, including through social media, was “sweeping and systematic”.

²³ For more information relating to the 2019 Australian federal election and Facebook see Murphy (2019).

Melbourne General Cemetery with the smartphone in *Vanitas Chapter Two*. This approach of discussing the performance ontology from within attempted two descriptions of the spectral experience of *Vanitas* at the cemetery with smartphone in hand.

Chapter Six walked through *Vanitas* over the shoulder of a percipient's experience in linear order to encounter key dramaturgical moments within the transmedial audio walk. It drew together a list of dramaturgical qualities emerging from the arts practice that indicate a tentative emerging aesthetic of seamfulness with mobile computing in site-responsive performance and audio walk practice. The list evokes some of the directives that emerged from the creation of *Vanitas*. These are posited as trajectories that move away from certain aesthetic qualities towards the seamful. The list forms a foundation to discuss spectral dramaturgy which may be of use to future creators of audio walks with smartphones.

Chapter Seven made a final approach to *Vanitas* by incorporating perspectives from across the ontic strata of the artwork including my own position as artist-researcher. I discussed some of the complexities of working with the void of indeterminacy in an open-ended, inductive performance practice and the moral ambiguity of creating artworks as attention traps. The ethical concern for researchers in this field is that progress made in understanding attention augmentation 'feeds-forward' into further refinement of 'dark patterns' and a broader apparatus of coercive subjugation. Artistic research is not immune to this process. Techniques to manipulate mortality salience are, for example, the subject of studies in business psychology demonstrating that terror can promote desire for, amongst other things, luxury brands (Banerjee et al. 2019). Simultaneously, ubiquitous computing and HCI design has never been more ethically fraught or closely scrutinised because within the framework of what Hansen termed "feed-forward", the unknown potential of experimental techniques

intended to help people can easily be repurposed to coerce. Yet it is important to keep exploring the intersection of these fields to offer alternative perspectives on life and death with technology because the disruption caused by smartphones is far from settled.

Through *Vanitas* I explored the vibrant turn towards optimistic indeterminacy as an arts practice for rethinking death from a wider conception of life that the human is swept up amongst. Chapter Seven used the cemetery site, the figure of the void, and the smartphone's seamless aesthetic as guides, to chart a course through the process of authoring *Vanitas* to speculate on the overlooked performances inherent within site-responsive performance practice with smartphones. The most significant of these was the observation that *bios* is the overlooked performance of *zoe*.

In what remains of this thesis I will outline some of the unresolved issues relating to the main contributions of this research and identify some points for future study. I frame this part of the conclusion by considering the implications of the overlooked performance ontologies of computing and *bios* that emerged out of Parts Two and Three respectively. I conclude this thesis with a discussion of mastery in relation to computing, the body and dramaturgy.

Unthinkable subjects

Death, for human brains, is something that happens to others, and “for the first time, a plausible neural-based mechanism of death-denial” has been observed in the human brain, though “how this protective mechanism is implemented at the neuronal level is unknown” (Dor-Ziderman, Lutz & Goldstein 2019). Terror management systems have evolved within the human brain to change the subject of thought away from death should it come to mind. One's own death, therefore, is an unthinkable subject. It is possible to think around death, but

the paradox remains that while all the body's systems strain to sustain life, they produce a mind capable of realising that death is inevitable. This paradox seems to cause a glitch in the brain rendering this specific subject unthinkable. I contend that vanitas art practices and their techniques for precipitating mortality salience form an alternative corpus of tacit knowledge about death and ways to perceive it, prepare for it and live with it. These techniques might out-manoeuvre the linguistic 'death-related words' approach to evoking mortality salience which form the basis of many sociological and neurological studies, and instead operate as performance and in visual, aural and other sensorial paradigms. By disconnecting apprehension of death from life-threatening situations, vanitas art provides practices for engaging with the unthinkable. Therefore, performance-led methodologies may form an important approach to death in human culture by operating in the double negative of being not not real.

In this thesis I made a connection between overlooked performances and life. I also associated the end of a performance with a rehearsal for death. I extended Rosi Braidotti's posthumanist approach to death as a moment of radical immanence, and not transcendence, to suggest that death occurs when the performance of bios can no longer be overlooked and must cease. *Bios* is, therefore, the overlooked performance of *zoe*/Life. The human life of *bios*, as performed by *zoe*/Life, occurs within the uncertainty of the not not real of performance. It is temporary, staged, greater than and irreducible to the sum of its parts. After the performance is over the constituent biological materials go on their separate ways, but *zoe*/Life itself continues. The performance ontology in this context is useful for describing the staging of the human emerging from the wider force of Life, not separate from the world but interwoven within its singularity. *Bios* emerges from, is perpetuated by, and dissolves back into *zoe*.

The paradox of the brain's defence against contemplating its own death exists at the meeting point of the force of Life's strain within the body to sustain its survival as an organism comprised of organisms, and the self-aware mind that emerges from its/their/our autonomous vibrancy. The structures of the brain that attempt to render death as physically unthinkable might in part aid perpetuation of *bios* as separate from the life that produces it. In this sense, like other dramaturgies that prescribe the flow of perception, the performance of *bios* is rendered overlookable to itself, physically unable to perceive that it is a performance that will cease, as death to it is a fate that only befalls others. During the performance the actor and character have become one: the actor is unable to tell the character they are in a play, and the character is unable to know that the play will end. But the actor will play the character until the end, and when the performance is over, will leave the theatre. The character will cease to exist in embodied form.

However, biological death and social death need not occur at the same time, and the dead can often appear to remain present through a number of networked media performances. Indeed, Arnold et al. "suggest that the technology imaginary of [online memorialisation projects] redraws the boundary between the living and the dead in ways that aim to become increasingly indistinguishable, and at particular points even inconsequential" (2018: 8). The expansion of memorialisation practices from the physical stone and soil of the cemetery to digital practices shifts the remembrance of the dead to a computational paradigm and therefore into a performance ontology. Arnold et al. pre-empt this shift and consider its paradoxical effects on time, noting that,

The restless, energetic performance of digital media and its memorials exists not for the future, but for the here-and-now, yet in this performance of the here-and-now it does come to exist for the future. In this sense, it is a

monument that is performative rather than declarative, and thus (paradoxically), has the potential to outlast the stone. (2018: 36)

In the afterword of *Death and Digital Media* Elizabeth Hallam notes that “graves, as predominant sites of memorialisation, have become thoroughly entangled with digital media through both materially grounded and online activity” (in Arnold et al. 2018: 141). Likewise, the entrance of smartphones into site-responsive performances, and indeed everyday life, entangles the seemingly separate digital and actual worlds. However, the outworking of this thesis through the performance ontology of computation situates the digital within the local performance of machines in a similar way that the human exists as the product of the vibrant materiality of Life. To make a distinction between “materially grounded and online activity” is to overlook the material grounding of online activity. Despite receiving data from elsewhere through the network, the ontology that I outlined in this thesis holds that all representations are produced by digital media are performed live and on-command locally. They are not merely replays of the same tape, but performances created from the specific material circumstances of the machine, which also includes the recreation in performance of media networks and interfaces themselves. The performance ontology grounds computing in the here and now. To perceive networked data as a transcendental spirit that haunts machines is to reiterate the myth of a soul revisiting a body. Whereas, both the performance of computing and of *bios* are intractably entangled into unique, one-off renditions produced in specific material circumstances. From this perspective it is possible to approach the non-conscious cognition of machines and the conscious cognition of living bodies from a shared performance ontology that exists within the singularity of an immanent, vital materialist and posthumanist worldview.

The similarity, dependability and ubiquity of individual renditions of overlooked performances is what leads to the belief that they are not live performances and are all the

same. It is all too easy to overlook the fact that they are perpetually redone and are only ever the same enough. Convenience renders their vast plurality as the same and this causes habituated overlooking.

Sharing an ontology in performance does not make bios and machine computation interoperable. The idea of escaping death by creating an exact copy of one's brain in digital form that will live for as long as a computer can perform it is a popular trope in science fiction. The creation of artificial brains has also been important to the development of artificial intelligence. However, the performance ontology introduced in this thesis emphasises the inherent imbrication of computation within the machine, like the mind within the body, and does not see the brain as interchangeable or separable from its context. Were it possible to emulate a brain through computing it would be, however plausible a performance, only ever the *same enough* and ontologically distinct from whatever 'original' it was remediating. The quantum of the performance ontology is each individual rendition emerging from its specific material circumstances in a given moment.

The desire to emulate the brain to maintain *bios* in perpetuity further reveals the continued belief that the mind and the body are distinct and separable. This belief perpetuates the overlooked performance of *bios* and reveals the confusion and anxieties that digital media exacerbate in the face of death. However, the repercussions of the distant possibility of full brain emulation are already in rehearsal in contemporary memorialisation practices as Nansen et al. point out:

Here, the rituals associated with interring the dead so that they may rest or repose within the cemetery for an eternity shift to an increasingly restless posthumous existence... The restless dead are emerging through these hybrid interfaces of digital and physical, materializing in more lively forms of media, and exhumed within a network of social and technical connections

previously delimited by biological death, social institutions, cemetery geography, and physical inscription in stone. (2014: 122)

As the Asphodelus character reveals, a full simulation of a brain is not necessary to evoke a sense of an individual person communicating through the mediation of digital messaging. A fragmentary and partial performance of a person can accurately reflect contemporary lives where we only come to ‘know’ people online through the traces of digital affects. These are enough to keep the dead restless not in repose and to resituate the moment of death, as Elizabeth Hallam notes, within “ongoing social and material processes that memorialise the dead by maintaining their past within the present and by fashioning for them an apparently never-ending future.” (in Arnold et al. 2018: 155) Or, I suggest, to be eternally reperformed in the present by computers and people, as traces perceived to be the same enough as you once were. Your *bios* may no longer be performed by *zoe*, but your digital media and correspondences may be performed forever on-demand by machines.

Practices for denying mastery

By attempting to extrapolate what will happen next from what is happening in the present, organisms seek to minimise the possibility of surprise by anticipating and adapting to discrepancies between the external world and their internal model of it. The capacity to change in response to the environment can provide an evolutionary advantage. By refining and seeking to master both their internal model of the world and the immediate environment surrounding their bodies, humans might be said to be extending their capacity to predict and control the future, thus increasing their chances of survival. The invention of a biological imperative for the separation of the human from Life reinforces a Classical European view of civilisation as separate from wild nature. This divide is reiterated in the body as the drive to master oneself: *bios* masters *zoe*: the body is the slave to the mind. This history has also

produced ideal archetypes of qualified humans, the masters, and in their shadow all else are produced as others, as not human enough and as slaves to the master. A vast range of critical thought is engaged with reimagining the human in relief of this skewed, violent history including from posthuman, eco-feminist and new materialist perspectives. For Julietta Singh, who connects the posthuman and decolonial into a project of dehumanization, “only by moving beyond the compulsive desire to become masterful human subjects can we disentangle ourselves from the legacies of violence and fantasies of invulnerability that lead us to hurt other humans, animals, and the environment” (2018). The great achievements in the development of computing machines offer an extreme example of human desire for mastery over the material world.

As I discussed in Part Two, computing machines deliver intricate and reliable performances on-command. The rapid increase in the power and ubiquity of computing over the last century has multiplied the volume of non-conscious cognition occurring on the planet. Similarly, dependency on computers to reliably perform the cognition delegated to them increasingly underpins everyday life. Machines perform the computation that humans do not want to or cannot undertake. While this repurposing of the material world towards the performance of cognition has expanded and elaborated another change has been taking place: increasing scepticism and anxiety of the unknowable void of black box computing. The insensibility and lack of palpability at the core of machine computation of digital data is the root cause of beliefs that ‘the digital’ is of another world, not this one. This void of indeterminacy at the heart of ‘softwarized society’ causes anxiety because it is increasingly unclear for whom computers perform and whose interests they serve. The complex algorithms that deliver the bespoke interfaces of social media, for example, serve multiple masters by improvising with vast, dynamically unfolding datasets to extrapolate an

individual's position in relation to all others, commercial imperatives, time of day, current activity, location, perceived mood and many other factors to distribute media renditions as plural as the population. While not as sophisticated as industrial algorithms, this research project has deployed attention traps designed to ensnare human attention. The shift from mastery over machines to *mastery over machines that master people* is cognitive capitalism's contribution to the void of indeterminacy that positions humans as sheepish "flexible agents" that bend to the will of "confident computational agents". In response to this unspooling situation I have articulated a tentative position in practice and in theory.

In this research I have drawn on my encounters with three voids: the impalpability of machine computation; the unthinkability of death in the mind of the living; and the spectral dramaturgy of *Vanitas*. I described my response to these voids as a practice of working towards knowing, not in wilful ignorance but humility. The voids represent three takes on the same problem rooted in the partiality of an immanent, situated, dwelling perspective within knowledge production. By staging encounters with these voids I have begun to appreciate the dramaturgical imperative towards indeterminacy that fosters the agency of performers, including audiences, to be at once unsure and yet able to carefully find their own way, step by step, thought by thought, breath by breath in a process inherently within the unfolding of meaning. To suspend knowing and prescribing the future, that is to say to suspend attempts to master the future from within the present, I sought to dwell within the spectrality of the present. These were the moments of still-life that vanitas paintings contain, each encompassing many past and future *presents* in a long now.

Creating *Vanitas* helped me appreciate the value of performance's time between times.

Alone, and yet never by myself, in the cemetery I experienced mortality salience drained of

terror. Being amongst the dead within the vibrancy of Life allowed me to be myself in an unusual way. I found myself softening and becoming available to those dwelling there with me in those moments, able to both hear and listen in a way that might itself form part of a desedimentation of mastery. Singh comes to a similar thought in her turn towards listening:

I dwell on listening as a critical mode of becoming vulnerable to the voices—human and nonhuman, audible and muted—that are always sounding even when we have not been trained or allowed ourselves to listen: Listening, as opposed to voicing that which we “know.” Listening, as an act that might let each other in—psychically, physically—to another’s ways of inhabiting the world; to being entities that are always touching and being touched by others, even when we are not aware of this touching, even when this touching is entirely unpredictable. (2018: 27)

Unmasterful vulnerability relates to the radical softening of which I speak. It acknowledges the self within the seams separating entities, the self that is formed by intra-action. The opposite posture, of masterful invulnerability, produces a human unable to listen or feel as he is closed, impervious and finished. He is unable to see himself within the intra-actions forming the world. And yet, as ever, there is great risk in embracing soft openness and indeterminacy. Earlier, I described indeterminacy with skepticism, as a certain kind of naivety that is easier said than done when circumstances can lead you to believe that you are the one ‘holding it together’. (The tightness of seams correlates directly to a grip on reality.) It may appear naïve when computer interfaces are designed to entrap unguarded imaginations. And foolish, it might seem, when one is attempting to shape an experience into a performance, or indeed making a claim to new knowledge in academic writing. However, even making such observations highlights the institutional preoccupation with mastery, for enclosure and the prescriptive.

The playful inversion that performance offers, of being in close proximity to the real, but of being not not real, can turn the trappings of mastery against itself. I arrived at, or you might

say returned to, a position where art practices remain in critical dialogue with the techniques of coercion at large in society and developed a practice that playfully repurposes them. This includes borrowing back the dark patterns that interaction design borrowed from arts practice in the first place. This position allows the joy of skirting terror and toying with thoughts of death outside of actual encounters with them. It actively precipitates the frisson of coercion and the thrill of entrapment by playing possum as a way to rehearse new ways to both succumb and resist. In the in-between times of performance where entrapment is played out, unmasterfulness can be rehearsed with indeterminacy. And these rehearsals have real-world results. Playing ‘hard to get’ does not mean internalizing the coercive apparatus of the computer and its demand for strict and efficient behavior, but ironically, being more fickle, more inconstant, more split focus, more distractible, more fleshy, more playful... all qualities excluded from a classical vision of humanity. To move closer to an appreciation that indeterminacy is the condition from which all matter, life and knowledge emerges, is to move away from the human as master and towards a new understanding of the human within Life.

I suggested that a practice of working lightly and softly within the unspooling of the world, that tactically resists determining for as long as possible, and becomes accustomed to surviving in partiality not ignorance, would favour availability to opportunity over prescriptive planning and seeking to master the future. For me this became an artistic practice of learning to linger, of attuning to conversations already occurring across the seams of reality, of discerning spectral dramaturgy, of active listening and preparedness to change. Such is the start I have made in fashioning an ethical response to the world as an artist-researcher. Creating and participating in performance “as a practice of unmasterful vulnerability can challenge the very foundations of being human that make possible everyday life in the ‘globalized’ world, opening up other modes of performing humanity that can

become habitual” (Singh 2018: 23). The three voids of this study are a challenge to mastery as they cannot be apprehended directly. They cannot be mastered. If we wish to contemplate our own death, or our life with computers or discover new dramaturgies, unmasterful approaches to knowing are required.

The ability to overlook is also a form of mastery sprung from studious non-observation. Seeking to unmaster overlooking means to check-in again with the taken for granted and the deemed inconsequential. That reality is fabricated in each moment as a collaborative performance can be cause for celebration (were it not overlooked), as it means the future is not stitched up, but mutable and dynamic, fully dependent on our actions now.

Bibliography

ABC News 2013, *Vandals attack historic trees at Melbourne's Royal Botanic Gardens*, Australian Broadcasting Corporation News, viewed 1 August 2016, <<https://www.abc.net.au/news/2013-07-21/vandals-attack-historic-trees-at-melbourne-botanic-gardens/4833430>>.

Abram, D 1996, *The spell of the sensuous : perception and language in a more-than-human world*, Pantheon Books, New York.

Agamben, G 1998, *Homo sacer : sovereign power and bare life*, Meridian, Stanford University Press.

Alexander, C, Ishikawa, S & Silverstein, M 1977, *A pattern language : towns, buildings, construction*, Center for Environmental Structure series: v. 2, Oxford University Press, New York.

Allen, M 2017, *Sean Parker unloads on Facebook: "God only knows what it's doing to our children's brains"*, viewed 10/11/17 2017, <<https://www.axios.com/sean-parker-unloads-on-facebook-god-only-knows-what-its-doing-to-our-childrens-brains-1513306792-f855e7b4-4e99-4d60-8d51-2775559c2671.html>>.

Anderson, C 2008, *The End of Theory: The Data Deluge Makes the Scientific Method Obsolete.*, Wired Magazine, viewed 1 November 2017, <<https://www.wired.com/2008/06/pb-theory/>>.

Arnold, M, Gibbs, M, Kohn, T, Meese, J & Nansen, B 2018, *Death and digital media*, Routledge, Abingdin, Oxon.

Arts House 2017, *About Us*, Arts House, viewed 20 August 2018, <<https://www.artshouse.com.au/about-us/>>.

Austin, JL 1975, *How to Do Things with Words*, Harvard University Press.

Banerjee, S, Ghosh, A, Kagan, A & Chatterjee, S 2019, 'Mortality Salience Effects on Evaluations of Foreign Brands: Evidence from India', *Journal of International Consumer Marketing*, vol. 31, no. 2, pp. 147-61.

Barad, K 1998, 'Getting real: technoscientific practices and the materialization of reality', *differences: A Journal of Feminist Cultural Studies*, no. 2, p. 87.

—— 2007, *Meeting the universe halfway. [electronic resource] : quantum physics and the entanglement of matter and meaning*, e-Duke books scholarly collection, Duke University Press.

—— 2017, 'Troubling time/s and ecologies of nothingness: re-turning, re-membering, and facing the incalculable', *New Formations*, no. 92, pp. 56-86.

Barkhuus, L & Polichar, VE 2011, 'Empowerment through seamfulness: smart phones in everyday life', *Personal & Ubiquitous Computing*, vol. 15, no. 6, pp. 629-39.

Bateson, G 2000, *Steps to an Ecology of Mind*, University of Chicago Press edn, University of Chicago Press.

Becker, E 1962, *The birth and death of meaning : an interdisciplinary perspective on the problem of man*, Free Press, New York.

—— 1972, *The birth and death of meaning : an interdisciplinary perspective on the problem of man*, 2nd ed. edn, Penguin education, Penguin.

—— 1973, *The denial of death*, Free Press, New York.

Bell, G & Dourish, P 2007, 'Yesterday's tomorrows: notes on ubiquitous computing's dominant vision', *Personal and ubiquitous computing*, vol. 11, no. 2, pp. 133-43.

Benford, S & Giannachi, G 2011, *Performing mixed reality*, MIT Press, Cambridge, Mass.

—— 2012, 'Interaction as Performance', *InterActions: UCLA Journal of Education & Information Studies*, no. 3, p. 38.

Berry, DM 2014, *Critical Theory and the Digital*, Critical Theory and Contemporary Society, Bloomsbury Publishing, New York.

—— 2015, 'The Postdigital Constellation', in DM Berry & M Dieter (eds), *Postdigital aesthetics : art, computation and design*, Palgrave Macmillan, Houndmills, Basingstoke, Hampshire ; New York, NY.

Berry, DM & Dieter, M 2015, *Postdigital aesthetics : art, computation and design*, Palgrave Macmillan, Houndmills, Basingstoke, Hampshire ; New York, NY

Berry, DM, van Dartel, M, Dieter, M, Kasprzak, M, Muller, N, O'Reilly, R & de Vicente, JL 2012, *New aesthetic, new anxieties*, V2 Press, Rotterdam.

Bhaskar, R 2010, *Interdisciplinarity and climate change : transforming knowledge and practice for our global future*, Ontological explorations, Routledge, London ; New York.

Blast Theory 2001, *Can You See Me Now?*, viewed 13 January 2017, <<https://www.blasttheory.co.uk/projects/can-you-see-me-now/>>.

—— 2007, *Rider Spoke*, viewed 13 January 2017, <<https://www.blasttheory.co.uk/projects/rider-spoke/>>.

—— 2009, *Ulrike And Eamon Compliant*, Blast Theory, viewed 30 July 2018, <<https://www.blasttheory.co.uk/projects/ulrike-and-eamon-compliant/>>.

—— 2010, *A Machine To See With*, viewed 13 January 2017, <<https://www.blasttheory.co.uk/projects/a-machine-to-see-with/>>.

- 2013, *Dial Ulrike And Eamon Compliant*, Blast Theory, viewed 30 July 2018, <<https://www.blasttheory.co.uk/projects/dial-ulrike-and-eamon-compliant/>>.
- Boenisch, PM 2014, 'Acts of Spectating: The Dramaturgy of the Audience's Experience in Contemporary Theatre', in K Trencsényi & B Cochrane (eds), *New Dramaturgy : International Perspectives on Theory and Practice*, Bloomsbury Publishing, London.
- Bolter, JD & Grusin, RA 2000, *Remediation : understanding new media*, Cambridge, Mass. : MIT Press.
- Bourriaud, N 2002, *Relational aesthetics*, Les presses du réel, France.
- Braidotti, R 2013, *The posthuman*, Polity Press, Cambridge, England ; Malden, Massachusetts
- 2017a, 'Critical Posthuman Knowledges', *South Atlantic Quarterly*, vol. 116, no. 1, pp. 83-96.
- 2017b, *Memoirs of a posthumanist - The 2017 Tanner Lecture on Human Values (Video)*, Yale Whitney Humanities Center, viewed 28 March 2018, <<https://www.youtube.com/watch?v=OjxelMWLGCo>>.
- Brignull, H 2015, *Types of Dark Pattern*, viewed 5 August 2017, <<https://www.darkpatterns.org/types-of-dark-pattern>>.
- Butler, J 1988, 'Performative acts and gender constitution: An essay in phenomenology and feminist theory', *Theatre Journal*, vol. 40, no. 4, pp. 519-31.
- Cardiff, J 1999, *In Real Time*, viewed 31 July 2018, <<http://www.cardiffmiller.com/artworks/walks/realtime.html>>.
- Carlson, M 2018, *Performance: a critical introduction*, Third edition. edn, Routledge.
- Chapple, F & Kattenbelt, C 2006, *Intermediality in theatre and performance*, Amsterdam : Rodopi, 2007. 3rd ed.
- Chun, WHK 2008, 'On 'Sourcery,' or Code as Fetish', *Configurations*, no. 3, p. 299.
- 2011, *Programmed visions : software and memory*, Software studies, Cambridge, Mass. : MIT Press.
- Clark, HH & Brennan, SE 1991, 'Grounding in communication', *Perspectives on socially shared cognition*, vol. 13, no. 1991, pp. 127-49.
- Cullick, JS 1994, 'Always Be Closing': Competition and Discourse of Closure in David Mamet's *Glengarry Glen Ross*', *Journal of Dramatic Theory and Criticism*, vol. 8, no. 2, pp. 23-36.
- Cumiskey, KM & Hjorth, L 2013, *Mobile Media Practices, Presence and Politics: The Challenge of Being Seamlessly Mobile*, Taylor & Francis.

Curtin, A 2013, 'Recalling the Theatre Phone', in K Reilly (ed.), *Theatre, Performance and Analogue Technology*, Palgrave Macmillan, Basingstoke, p. 18.

Deleuze, G & Guattari, F 1987, *A Thousand Plateaus : Capitalism and Schizophrenia*, University of Minnesota Press, Minneapolis.

Deloitte 2017, *Global mobile consumer trends*, Deloitte Touche Tohmatsu

Diebner, HH 2006, *Performative science and beyond: involving the process in research*, Springer.

Dieter, M 2015, 'Dark Patterns: Interface Design, Augmentation and Crisis', in DM Berry & M Dieter (eds), *Postdigital aesthetics : art, computation and design*, Houndmills, Basingstoke, Hampshire ; New York, NY : Palgrave Macmillan.

Doherty, C 2004, *Contemporary art: from studio to situation*, Black Dog Pub, London.

Dor-Ziderman, Y, Lutz, A & Goldstein, A 2019, 'Prediction-based neural mechanisms for shielding the self from existential threat', *NeuroImage*, vol. 202, p. 116080.

Dorsey, J 2019, *We've made the decision to stop all political advertising on Twitter globally. We believe political message reach should be earned, not bought. Why? A few reasons...*, Twitter, viewed 1 November 2019, <<https://twitter.com/jack/status/1189634360472829952>>.

Dovey, J 2018, *Ambience & Eco Critical Awareness* viewed 5 August 2018, <<https://ambientlit.com/index.php/2018/01/30/ambience-eco-critical-awareness/>>.

Eckersall, P, Grehan, H & Scheer, E 2017, *New Media Dramaturgy: Performance, Media and New-Materialism*, Springer.

Eckersall, P & Paterson, E 2011, 'Slow Dramaturgy: Renegotiating Politics and Staging the Everyday', *Australasian Drama Studies*, no. 58, p. 178.

Fischer-Lichte, E 2008, *The Transformative Power of Performance : A New Aesthetics*, Taylor and Francis, Hoboken.

French And Mottershead 2016, *Afterlife*, French & Mottershead, viewed 5 August 2018, <<http://frenchmottershead.com/works/afterlife/>>.

Galloway, A & Ward, M 2006, 'Locative Media As Socialising And Spatializing Practice: Learning From Archaeology', *Leonardo Electronic Almanac*, vol. 14, no. 3/4, pp. 12-.

Galloway, AR 2004, *Protocol : how control exists after decentralization*, Leonardo, MIT, Cambridge, Mass. ; London.

—— 2012, *The Interface Effect*, Polity, Cambridge.

- Gardiner, B 2010, *The Secret Histories Of Those @#%ing Computer Symbols*, Gizmodo, viewed 13 August 2018, <<https://www.gizmodo.com.au/2010/08/the-secret-histories-of-those-ing-computer-symbols/>>.
- Gardner, L 2011, *The Quiet Volume – review*, The Guardian, viewed 31 July 2018, <<http://www.guardian.co.uk/stage/2011/apr/17/the-quiet-volume-review>>.
- Giannachi, G 2004, *Virtual theatres: an introduction*, Routledge.
- Gibbons, A 2014, 'Fictionality and ontology ', in P Stockwell & S Whiteley (eds), *The Cambridge Handbook of Stylistics*, Cambridge University Press, Cambridge
- Goffman, E 1959, *The presentation of self in everyday life*, Doubleday, Garden City, New York.
- 1961, *Encounters : two studies in the sociology of interaction*, Bobbs-Merrill, Indianapolis.
- 1983, 'The Interaction Order: American Sociological Association, 1982 Presidential Address', *American Sociological Review*, vol. 48, no. 1, pp. 1-17.
- Goode, MR & Iwasa-Madge, D 2019, 'The numbing effect of mortality salience in consumer settings', *Psychology & Marketing*, vol. 36, no. 6, pp. 630-41.
- Google 2016, *Meet Pixel, Phone by Google*, viewed 4 October 2016, <<https://madeby.google.com/phone/>>.
- Greenberg, J, Solomon, S & Pyszczynski, T 1997, 'Terror Management Theory of Self-Esteem and Cultural Worldviews: Empirical Assessments and Conceptual Refinements', *Journal of Personality and Social Psychology*, vol. 72, no. 1, pp. 24-36.
- Hampton, A 2010a, *The Quiet Volume*, Ant Hampton's Website, viewed 31 July 2018, <http://www.anthampton.com/tqv_eng.html>.
- 2010b, *Thoughts on Autoteatro and The Quiet Volume*, Ant Hampton's Website, viewed 31 July 2018, <http://www.anthampton.com/tqv_notes.html>.
- Hampton, A & Mercuriali, S 2007, *Autoteatro*, Rotozaza, viewed 31 July 2018, <<http://www.rotozaza.co.uk/autoteatro.html>>.
- Hansen, M 2013, 'Ubiquitous Sensation: Toward an Atmospheric, Collective, and Microtemporal Model of Media', in U Ekman (ed.), *Throughout: Art and culture emerging with ubiquitous computing*, p. 63.
- 2015, *Feed-forward: on the future of twenty-first-century media*.
- Haraway, D 1988, 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective', *Feminist Studies*, vol. 14, no. 3, pp. 575-99.

Harper, D 2013, *Computer* (n.), Online Etymology Dictionary, viewed 3 August 2018, <<https://www.etymonline.com/word/computer>>.

—— 2019, *Online Etymology Dictionary - Hallucinate* Online Etymology Dictionary viewed 30 January 2019, <<https://www.etymonline.com/word/hallucinate>>.

Hayles, NK 2005, *My mother was a computer : digital subjects and literary texts*, University of Chicago Press, Chicago.

—— 2012, *How we think : digital media and contemporary technogenesis*, University of Chicago Press, Chicago.

Ingold, T 2000, *The perception of the environment : essays on livelihood, dwelling & skill*, Routledge, New York.

—— 2011, *Being Alive : Essays on Movement, Knowledge and Description*, Taylor and Francis, Hoboken.

—— 2012, 'The Atmosphere', *Chiasmi International*, vol. 14, pp. 75-87.

—— 2013, *Making : Anthropology, Archaeology, Art and Architecture*, Taylor and Francis, Florence.

—— 2016, *Lines : a brief history*, Routledge Classics, Routledge.

International Organization for Standardization 2003, *ISO/IEC 18035:2003 Information technology — Icon symbols and functions for controlling multimedia software applications*, Geneva.

Kattenbelt, C 2010, 'Intermediality in Performance and as a Mode of Performativity', in S Bay-Cheng, C Kattenbelt, A Lavender & R Nelson (eds), *Mapping intermediality in performance*, Amsterdam University Press, Amsterdam.

Kirschenblatt-Gimblett, B 2004, 'Performance Studies', in H Bial (ed.), *The Performance Studies Reader*, 2nd edn, Routledge, Abingdon ; New York, pp. 43-55.

Kittler, FA 1999, *Gramophone, film, typewriter*, Writing science, Stanford University Press, Stanford.

Knight, B 2018, 'We've done an abysmal job': Australia is struggling to handle its swelling population, ABC News, viewed 25 April 2018, <<https://www.abc.net.au/news/2018-03-12/australia-is-struggling-to-handle-its-swelling-population/9535116>>.

Knorr Cetina, K 2009, 'The Synthetic Situation: Interactionism for a Global World', *Symbolic Interaction*, vol. 32, no. 1, pp. 61-87.

Laurel, B 2013, *Computers as Theatre, Second Edition*, 2 edn, Addison-Wesley Pub. Co., Reading, Mass. .

Lidberg, J 2019, *Twitter is banning political ads – but the real battle for democracy is with Facebook and Google*, *The Conversation*, viewed 1 November 2019, <<https://theconversation.com/twitter-is-banning-political-ads-but-the-real-battle-for-democracy-is-with-facebook-and-google-126260>>.

Manovich, L 2006, 'Postmedia Aesthetics', in M Kinder, T McPherson & H Willis (eds), *Transmedia Frictions: The Digital, the Arts, and the Humanities*, University of California Press, Berkeley.

—— 2013, *Software Takes Command*, International Texts in Critical Media Aesthetics, Bloomsbury Publishing, New York.

McGonigal, JE 2006, 'This Might Be a Game: Ubiquitous Play and Performance at the Turn of the Twenty-First Century', Doctor of Philosophy thesis, University of California, Berkeley.

McGuinness, P 2016, 'The people formerly known as the audience: power shifts in the digital age', *Communication Research & Practice*, vol. 2, no. 4, p. 520.

McKenzie, J 1994, 'Virtual Reality: Performance, Immersion, and the Thaw', *TDR (1988-)*, no. 4, p. 83.

—— 2001, *Perform or else : from discipline to performance*, Routledge, New York.

McLuhan, M 1964, *Understanding Media : The Extensions of Man*, New York : New American Library.

Merleau-Ponty, M 1962, *Phenomenology of perception*, Abingdon, Oxon Routledge, 2014.

Murphy, K 2019, *Facebook removed 'coordinated inauthentic behaviour' during Australian election*, *The Guardian*, viewed 24 October 2019, <<https://www.theguardian.com/australia-news/2019/oct/23/facebook-removed-coordinated-inauthentic-behaviour-during-australian-election>>.

Myers, M 2009, *Homing place : towards a participatory, ambulant and conversive methodology*, University of Plymouth, Electronic Thesis or Dissertation, <<https://ezp.lib.unimelb.edu.au/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edsble&AN=edsble.505698&site=eds-live&scope=site>>.

—— 2010, '“Walk with me, talk with me”: the art of conversive wayfinding', *Visual Studies*, vol. 25, no. 1, pp. 59-68.

—— 2011, 'Walking Again Lively: Towards an Ambulant and Conversive Methodology of Performance and Research', *Mobilities*, vol. 6, no. 2, pp. 183-201.

Nansen, B, Arnold, M, Gibbs, M & Kohn, T 2014, 'The Restless Dead in the Digital Cemetery', in CM Moreman & AD Lewis (eds), *Digital Death: Mortality and Beyond in the Online Age*, ABC-CLIO, LLC, Westport, pp. 111-24.

Oida, Y & Marshall, L 1997, *The Invisible Actor*, Routledge.

Origin of play, stop, pause, etc. buttons? 2008, The Straight Dope, viewed 13 August 2017, <<http://boards.straightdope.com/sdmb/showthread.php?t=493618>>.

Pearson, M 2010, *Site-specific performance*, Palgrave Macmillan, Houndmills, Basingstoke, Hampshire.

pvi collective 2015, *blackmarket*, viewed 20 January 2020, <<https://pvicollective.com/project/blackmarket/>>.

Radosavljevic, D 2013, *Theatre-Making ; Interplay Between Text and Performance in the 21st Century*, Palgrave Macmillan, Basingstoke.

Rank, O 1958, *Beyond psychology*, vol. 485, Courier Corporation.

—— 1978, *Truth and reality*, WW Norton & Company.

Rose, A 2017, *Antenna Production Chronology*, Antenna Theatre Website, viewed 6 August 2018, <<https://www.antenna-theater.org/chronology.html>>.

Royal Botanic Gardens 2013, *Treasured trees vandalised at RBG Melbourne*, Royal Botanic Gardens Victoria, viewed August 14 2017, <<https://www.rbg.vic.gov.au/news/treasured-trees-vandalised-at-rbg-melbourne>>.

Salter, C 2010, *Entangled : technology and the transformation of performance*, Cambridge, MA : MIT Press.

Schaub, M & Cardiff, J 2005, *Janet Cardiff : the walk book*, Distribution outside Europe, D.A.P./Distributed Art Publishers, Köln ; New York.

Schechner, R 2006, *Performance Studies: An Introduction*, 1 edn, Taylor & Francis.

—— 2013, *Performance Studies : An Introduction*, 3rd edn, EBL, Taylor and Francis, Hoboken.

Schindler, S, Reinhard, M-A, Dobiosch, S, Steffan-Fauseweh, I, Ozdemir, G & Greenberg, J 2019, 'The attenuating effect of mortality salience on dishonest behavior', *Motivation and Emotion*, no. 1, p. 52.

Scott, D & Bhaskar, R 2015, *Roy Bhaskar : a theory of education*, SpringerBriefs in education, Key thinkers in education, Springer.

Shklovsky, V 1916, 'Art as Technique', in J Rivkin & M Ryan (eds), *Literary theory, an anthology*, 2004 2nd edn, Blackwell, Malden, MA.

Singh, J 2018, *Unthinking mastery : dehumanism and decolonial entanglements*, KU Select 2017, Duke University Press, Durham.

Siska, L 2012, *Vale – Helen Raftopoulos*, Hotham History Project Inc., viewed 16 March 2015, <https://www.hothamhistory.org.au/wp-content/uploads/2018/07/Newsletter_15_2012_October.pdf>.

Sofer, A 2013, *Dark matter : invisibility in drama, theater, and performance*, Theater--theory/text/performance, University of Michigan Press.

Speakman, D 2017, *It Must Have Been Dark By Then (transcribed from video)*, viewed 5 August 2018, <<http://duncanspeakman.net/darkbythen/>>.

Special Counsel Robert S. Mueller III 2019, *The Report on the Investigation into Russian Interference in the 2016 Presidential Election*, U.S. Department of Justice, viewed 24 October 2019, <<https://www.justice.gov/storage/report.pdf>>.

Suchman, L 2006, *Human-Machine Reconfigurations : Plans and Situated Actions*, 2 edn, Cambridge : Cambridge University Press.

Suchman, LA 1987, *Plans and situated actions: The problem of human-machine communication*, Cambridge University Press.

Taylor, H 2004, 'Deep dramaturgy: Excavating the architecture of the site-specific performance', *Canadian Theatre Review*, no. 119, p. 16.

The House of Commons Culture Media and Sport Select Committee 2019, *Russian influence in political campaigns*, The Parliament of the United Kingdom of Great Britain and Northern Ireland, viewed 24 October 2019, <https://publications.parliament.uk/pa/cm201719/cmselect/cmcumeds/363/36308.htm#_idTextAnchor033>.

The UK Information Commissioner 2019, *Investigation into the use of data analytics in political campaigns: Investigation update 11 July 2018*, Information Commissioner's Office, viewed 24 October 2019, <<https://ico.org.uk/media/action-weve-taken/2259371/investigation-into-data-analytics-for-political-purposes-update.pdf>>.

Tolmie, P, Benford, S, Flintham, M, Brundell, P, Adams, M, Tandavantij, N, Far, JR & Giannachi, G 2012, 'Act natural: instructions, compliance and accountability in ambulatory experiences', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pp. 1519-28.

Trencsényi, K & Cochrane, B 2014, *New dramaturgy : international perspectives on theory and practice*, Bloomsbury, London.

Turing, AM 1937, 'On computable numbers, with an application to the Entscheidungsproblem', *Proceedings of the London mathematical society*, vol. 2, no. 1, pp. 230-65.

Turkle, S 2011, *Alone together : why we expect more from technology and less from each other*, Basic Books, New York.

Turner, C 2014, 'Porous Dramaturgy and the Pedestrian', in K Trencsényi & B Cochrane (eds), *New Dramaturgy : International Perspectives on Theory and Practice*, Bloomsbury Publishing, London.

Turner, C & Radosavljevic, D 2012, *Porous Dramaturgy: 'Togetherness' and Community in the Structure of the Artwork*, Expanded Dramaturgies, viewed 26 August 2018, <<http://expandeddramaturgies.com/porous-dramaturgy-togetherness-and-community-in-the-structure-of-the-artwork/>>.

Weiser, M 1991, 'The computer for the 21st century', *Scientific American*, p. 66.

Weiser, M, Gold, R & Brown, JS 1999, 'The origins of ubiquitous computing research at PARC in the late 1980s', *IBM Systems Journal*, vol. 38, no. 4, pp. 693-6.

Wellcome Collection 2012, *Wellcome Collection releases magical app for Londoners*, viewed 12 April 2020, <<https://wellcome.ac.uk/press-release/wellcome-collection-releases-magical-app-londoners>>.

Who invented the Pause icon? 2006, Ask Meta Filter, viewed 14 August 2018, <<https://ask.metafilter.com/36858/Who-invented-the-Pause-icon>>.

Wilkie, F 2007, 'The Production of 'Site': Site-Specific Theatre', in N Holdsworth & M Luckhurst (eds), *Concise Companions to Literature and Culture: A Concise Companion to Contemporary British and Irish Drama*, Wiley, Oxford.

Wilson, JA 2012, 'When is a Performance?: Temporality in the social turn', *Performance Research*, vol. 17, no. 5, pp. 110-8.

Appendix I: Vanitas Production Information & Download

Download

The *Vanitas* app can be downloaded from the Apple App Store and Google Play. Links and information about the project can be found on the *Vanitas* website:

www.vanitas.online

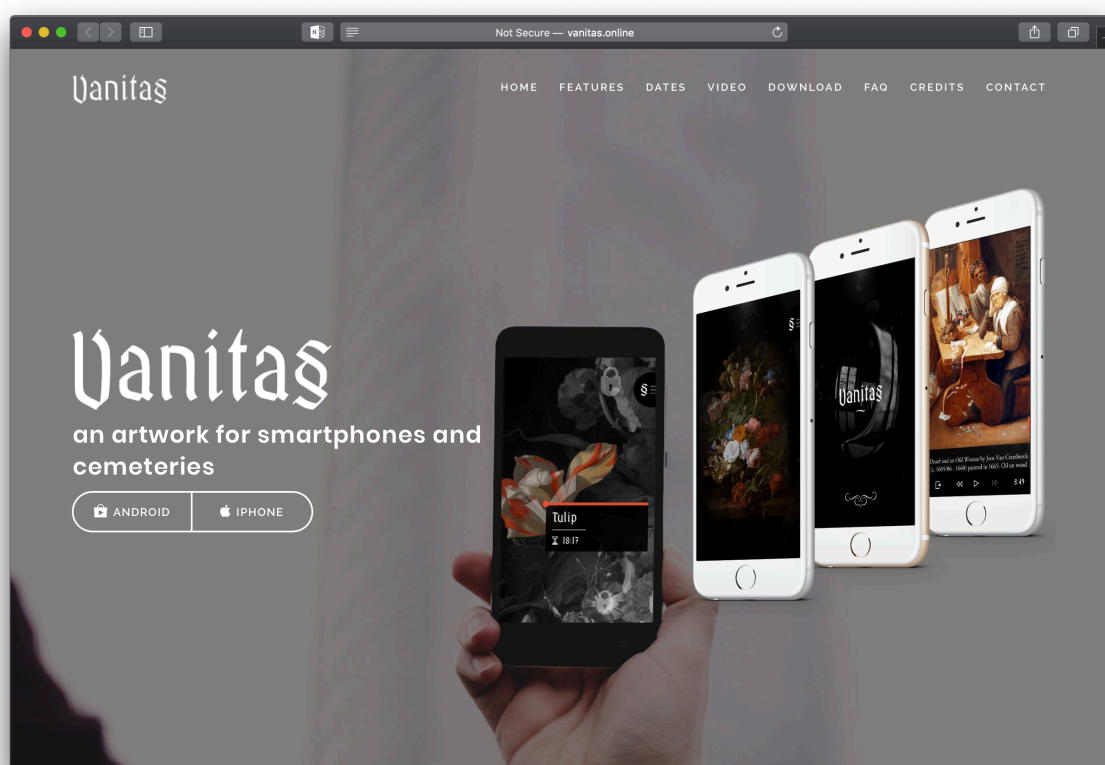


Figure 32 – Landing page at *vanitas.online*

Personnel

Creative Team

Created by Robert Walton and Jason Maling
Directed and Edited by Robert Walton
Interaction Design and Programming by Chris Heywood
Sound Design and Composition by Robert D. Jordan
Graphic Design by Paul Ducco at Supernaut
Producer Ryan Galbraith

Production Manager Tim Phillips

Arts House

Artistic Director – Angharad Wynne-Jones

Vanitas v2-3 Producer – Josh Wright

Vanitas v1 Producer – Jackie Johnston

Stage Manager v1 – Bindi Green

Southern Metropolitan Cemeteries Trust

William Babington – Community Engagement & Insights Manager

Sunita Varlamos – Community Engagement Officer

Dr Celestina Sagazio – Historian & Manager of Cultural Heritage

Featured Interviewees

Sophie Mathieson – Curator of International Art, National Gallery of Victoria

Roger Spencer – Horticultural Botanist, Royal Botanic Gardens Melbourne

Margaret Stones AM MBE, Botanical Artist and Irena Zdanowicz, Curator of Margaret Stones' work

Elly Carroll – Artist and Florist

Will Babbington, Dr Celestina Sagazio and Chris Gelley (Operations Leader and

Crematorium Specialist) – The Southern Melbourne Cemeteries Trust

Kythys – pseudonym used by a witch practicing in greater Brisbane.

Thanks To

Everyone at Melbourne Market Cut Flower Trading Centre. Deirdre O'Brien at Auspicious Arts. Sara Jane Bailes and Louisa Lim. The test audiences participants.

Funding

Vanitas is part of In Your Hands, commissioned by Arts House and the Australia Council for the Arts through the New Digital Theatre Initiative.

More information about In Your Hands can be found here: <http://robertwalton.net/project/in-your-hands/>

Appendix II: PhD Timeline and Key Project Milestones

Date	Activity
Pre-development period	
August 2013	Artistic Director of Arts House Angharad Wynne-Jones and I develop and submit an application to the Australia Council for the Arts New Digital Theatre Fund with Arts House. We propose a project called <i>In Your Hands</i> which would commission the creation of four new interactive digital theatre works for mobile technology platforms.
November 2013	Australia Council for the Arts awards <i>In Your Hands</i> \$250,000 to realise the proposed project.
January-August 2014	Arts House begin implementing the project and identifying artist teams who will receive commissions. I move to the role of commissioned artist and invite Jason Maling to be my collaborator.
5-8 August 2014	Arts House host ‘In Your Hands Digilab’ a workshop where each of the creative teams meet for the first time. Guest speakers visit the lab and share current thinking about the field of ‘digital theatre with mobile devices’. The commissioned artists are: • Tamara Saulwick and Peter Knight • Michele Lee and Tanya Dickson • Keith Armstrong and David Finnigan • Robert Walton and Jason Maling Guests include: Julianne Pierce, Katrina Sedgwick, Helen Simondson, Steve Berwick
Early development period	
2-6 February 2015	One-week development residency at Arts House. First intensive period of work with Jason Maling developing possible concepts for the project. In this week I first notice Raft’s Florists on my walk to and from the studio and take Jason to visit. Pursuing our intrigue into the shop leads us to start to talk to North Melbourne locals and gives us the name <i>Vanitas</i>. On the Friday we present a spoken word performance to an invited audience narrating the collision of three elements: • Raft’s Florists and the deceased former owner Helen Raftopolous • The anonymous flower delivery received by Asphodelus

	The void at the centre of Rachel Ruysch's painting <i>Vase with Flowers</i> (1700)
February – June 2015	Jason Maling and I meet every Monday and Friday to work on the project. During this period I imagine that the project would not include an app. Instead it would be a transmedia project that is wholly comprised of correspondence, visiting sites, encounters with media. Instead of a central artefact the artwork would be dispersed into the everyday and unfold over an extended period of time. The audience would piece together meaning and understanding like Jason and I – making sense of interviews, visits to locations, engaging with media, conducting research, piecing together information.
April 2015	Malcolm Whittaker publishes an article about <i>In Your Hands</i> 'Digital theatre: live and mobile' in RealTime issue #126 April-May 2015 pg. 29 http://www.realtimearts.net/article/issue126/11898
2 June 2015	After several months of sitting with the tension of creating a 'pure transmedia' work for smartphones with no central medium or creating a smartphone app which would potentially be seen as the centre of the artwork/project I decided explore the potential of a hybrid. On this day we agreed to explore the meeting of an app and a transmedia system. Part of this decision was informed by the context of creating a work for festivals – part of the commission was to present at the Festival of Live Art.
16 June 2015	Performance: The Asphodel Presented at <i>Hauntings: conjuring, exorcising and making friends with ghosts</i> an Art, Social and Spatial Practice Research event at The Victorian College of the Arts, University of Melbourne. This first public experiment from the collaboration between Jason Maling and I presented documentary evidence of the lives of two people and operated as a kind of slow slide show wholly experienced through the smartphone messaging. Micro fragments of documents, images, simple animation and text were sent to each phone via Multimedia Messaging Services (MMS). The story of the first character, John, was presented in linear order following his journey from Greece to Melbourne. Helen's story was told through a combination of photographs of an abandoned shop, reviews of the shop online and short recordings of fragmented memories from members of the public who once visited.
Development of Vanitas 1.0	
30 June 2015	First meeting with Paul Ducco and Jayne de Costa of Supernaut. Subsequently appointed to create the visual design of the Vanitas App and branding. Appointment of Rob Jordan as composer.

	Appointment of Chris Heywood as programmer and tech lead.
9-11 October 2015	Performance: Dark Telephony Presented at Performing Mobilities at RMIT University A walk from RMIT University to Raft's Florists to collect an undelivered flower delivery. Audience members arrive at the performance venue and find a handwritten note saying: <i>Dark Telephony – Flower delivery not arrived! Performance can still go ahead! Just text the florist to arrange pick up: 0437801988 Text to say you are from Perf. Mob. and you'd like to collect flowers. They will text you address. – Approx. 30 minutes round trip or can take tram. Robert Walton and Jason Maling</i> This was the first trial with automated messaging and walking. Also the first project created with Chris Heywood and Rob Jordan. We trialled the use of transmedia system Conducttr http://www.conducttr.com to automate SMS dialogue and telephone calls to build the expectation of meeting someone at the florist who does not appear.
11 October 2015	I present my first conference paper on this research titled <i>Performing Mobiles: Smartphones and Theatre</i> during Performing Mobilities, a PSi Satellite Conference during Fluid States, at RMIT University
26 October 2015	Registered as App Developer with Apple
26 October 2015 – 1 February 2016	Development of first Vanitas App integrating Vase With Flowers into an interface and creating an episode player. Conducting interviews in North Melbourne and with experts in flower identification.
16 December 2015	PhD Confirmation Presentation: <i>Transmedia Dramaturgy – Theatre, Smartphones and Networked Performance</i>
1-5 February 2016	Vanitas Prototype #1 - Audience testing with TestFlight app in Arts House installation and walk to Rafts Florists. Interviews and paper questionnaires.
8-19 February 2016	Intensive development following audience testing. Submission to AppStore for approval 19 February.
25 February 2016	Vanitas v1 released on AppStore and Google Play

2-11 March 2016	Vanitas v1 premieres at The Festival of Live Art (FOLA) at Arts House, North Melbourne.
20 March – 17 April 2016	Follow up questionnaire with audience members who completed all three sections of v1. Conducted via SurveyMonkey and email.
April – August 2016	Break from collaborative development process. Meetings occur intermittently. Audience feedback is positive and we start to make plans for developing the project.
Development of Vanitas 2.0	
23 September 2016	Arts House confirm funding for a second development of the In Your Hands projects.
2-6 November 2016	I join the Theater and Transmedia working group at the American Society of Theater Research in Minneapolis presenting my paper <i>Towards a Transmedia Dramaturgy</i>
9 February 2017	Arts House makes contact with Southern Metropolitan Cemeteries Trust (SMCT) to initiate discussions about collaborating on the creation of Vanitas v2.
21 February 2017	Meeting at Melbourne General Cemetery with key stakeholders from Arts House, creative team and SMCT. Following this meeting SMCT commit to hosting <i>Vanitas</i> .
22 February – 10 May 2017	Intensive development of v2.
16 March 2017	Visit Springvale Cemetery (SMCT Headquarters) to interview management, crematorium and groundskeeping staff.
21-22 April 2017	Live audience testing of Vanitas v2 at Melbourne General Cemetery using TestFlight version of app. Testing focuses on use of transmedia messaging to guide movement in combination with paper maps, digital maps, and no maps, followed by audience interviews. Decision made to remove all specific directions from the experience and to promote wandering.
25 April 2017	Following feedback on strength of personal material relating to Jason and my encounters with death, we return to the cemetery to record a conversation about the trauma we had supported each other through during the project.
10 May 2017	App submitted to Apple for approval.
16 May 2017	Vanitas v2 released on AppStore and Google Play

19 May 2017	<i>Vanitas: an app to die for</i> Article published in Precinct https://precinct.finearts-music.unimelb.edu.au/2017/05/19/vanitas-a-theatre-app-to-die-for/
20-21 May 2017	Vanitas v2 premiere at Melbourne General Cemetery in partnership with Southern Metropolitan Cemeteries Trust and Arts House. Coincides with In Your Hands showcase events at Arts House.
22-29 May 2017	Audience Experience and Feedback Survey created through SurveyMonkey.
Development of Vanitas 3.0	
July 2017	Conversations begin with SMCT about restaging <i>Vanitas</i> at MGC as a trial to see whether the cemetery can manage the event without input from Arts House.
August – November 2017	Vanitas Chapter 1 developed through further interviews, editing and image collation. Several app bugs are ironed out. A new episode player is created. Informal testing of the Chapter 1 episodes is undertaken with podcast creators.
10 January 2018	v3 submitted to AppStore for approval.
17 January 2018	Vanitas v3 released on AppStore and Google Play
17-18 February 2018	Vanitas v3 premiere at Melbourne General Cemetery hosted solely by Southern Melbourne Cemeteries Trust. SMCT ticket the event themselves and provide hosts.
19-24 February 2018	SMCT conducts their own audience experience surveys independently.
Development of Vanitas 4.0	
April – July 2018	Development of Phantom transmedia system – our own server software for controlling messaging and communications with the app including real-time participant progress monitoring.
10 April 2018	Vanitas nominated for best Art and Experimental Mobile App at the 2018 Webby Awards.
23 April - 2 June 2018	I was Artist in Residence at Blast Theory in Brighton UK. The inaugural recipient of the pvi collective and Australia Council of the Arts International Residency Program with Blast Theory. More information can be found on the Blast Theory website: https://www.blasttheory.co.uk/person/robert-walton/
3-6 July 2018	I present a paper at Performance Studies International in Daegu, Korea about this research project titled <i>Smartphones and Site-Specific Performance</i>

31 July 2018	Vanitas v4 released on AppStore and Google Play This release integrates fully with Phantom our bespoke transmedia system that replaces the dependency on Conducttr. The release fixes back-end issues and does not alter the audience experience.
August-September 2018	Vanitas staged simultaneously in Melbourne General Cemetery as part of the Melbourne Writers Festival (25 & 26 August and 1 & 2 September) and in Caloundra Cemetery, Sunshine Coast as part of the Horizon Festival (24 August – 1 September).
19 February 2019	Vanitas nominated for two Green Room Awards in the Contemporary And Experimental Performance category: Best Production and Innovation in Site Responsive Performance.
5 July 2019	I present a paper at Performance Studies International in Calgary, Canada about this research project titled <i>Vanitas: Rigidity and elasticity in performances of human-computer interaction with smartphones</i>

Appendix III: Major App Releases

There have been 7 public versions of the app and 656 individual builds of the app to date. The main versions are listed below.

Date	Release
25 February 2016	Vanitas 1.0 Coincides with Vanitas at Festival of Live Art – around North Melbourne. Comprising: • Smartphone app v1 downloaded onto own smartphone with own headphones • Animated Vase with Flowers menu interface • Episode player with parallax scrolling • Audience ‘on boarding’ system where name, phone number, email address and consent captured by app and transmitted to Conducttr server system. • Three episodes: ○ In Arts House Installation: Introduction to Vanitas and <i>Vase with Flowers</i> ○ Outside Rafts florists looking in front window then around the back of the building looking into the back garden speculating on the building and its contents. ○ Walking around the streets of North Melbourne listening to local people’s accounts of the Rafts family. • Use of Conducttr system to manage: ○ Incoming SMS from multiple numbers ○ Incoming phone calls ○ Requirement for audience members to make outgoing calls to a voicemail inbox. ○ Outgoing SMS ○ Incoming emails • Experience begins in carefully constructed installation containing fresh flowers, dried flowers and large digital version of animated <i>Vase with Flowers</i>. • Briefing from trained front of house staff member
16 May 2017	Vanitas 2.0 Coincides with In Your Hands showcase events at Arts House – at Melbourne General Cemetery. The launch of Chapter 2 episodes and the experience at Melbourne General Cemetery.

	Comprising: • The same app interface as v1 • 11 episodes in 5 Acts: ○ Act One: White Rose II ○ Act Two: Bearded Iris, Hollyhock, Pink Rose II ○ Act Three: Anemone, Campsis, Scarlet Poppy ○ Act Four: Convolvulus, Marigold, Peony ○ Act Five: Opium Poppy Stem • Use of Conducttr system to manage: ○ SMS from one number – presumed Asphodelus ○ Incoming phone calls ○ Requirement for audience members to make calls to an inbox. ○ Emails • Experience begins in carefully specified room in the cemetery gatehouse (see host briefing documentation). • Audience briefing conducted by a trained host.
17 January 2018	Vanitas 3.0 Coincides with first autonomous hosting of the project by Southern Melbourne Cemeteries Trust at Melbourne General Cemetery. The launch of Chapter 1 episodes as an app experience for worldwide audiences in addition to Chapter 2 at the cemetery. Comprising: • The same app interface as v2 • Updated episode playback software in which images bleed in on top of one another replacing the parallax episode player. • Minor changes to the 11 episodes of Chapter 2, including the reduction of on-screen images. • Minor changes to the cemetery experience. • Introduction of Chapter 1, 6 episodes in 3 Acts: ○ Act One: Tulip ○ Act Two: Narcissus, Pink Rose I, Kale, Pink Poppy ○ Act Three: White Rose I • Registration of Chapter 1 users through a prototype bespoke transmedia server system that sends HTML emails on the completion of app episodes.
31 July 2018	Vanitas 4.0 Coincides with simultaneous presentation of <i>Vanitas</i> at Melbourne Writers Festival and Horizon Festival (Queensland).

	This release integrates fully with Phantom, a bespoke transmedia system that replaces the dependency on third-party software Conducttr. This release increases the efficiency and dependability of Vanitas in the background – the in-app experience is unchanged. Phantom enables: • Vanitas to be presented in multiple cemeteries simultaneously each with different SMS, phone call and email correspondence. • Faster response between the requesting of a text message/phone call and its delivery. • Ability to monitor progress of audience members through the Vanitas and troubleshoot issues. • Easier editing of transmedia correspondence for testing and development.
--	---

Appendix IV: The Experience and Structure of Vanitas

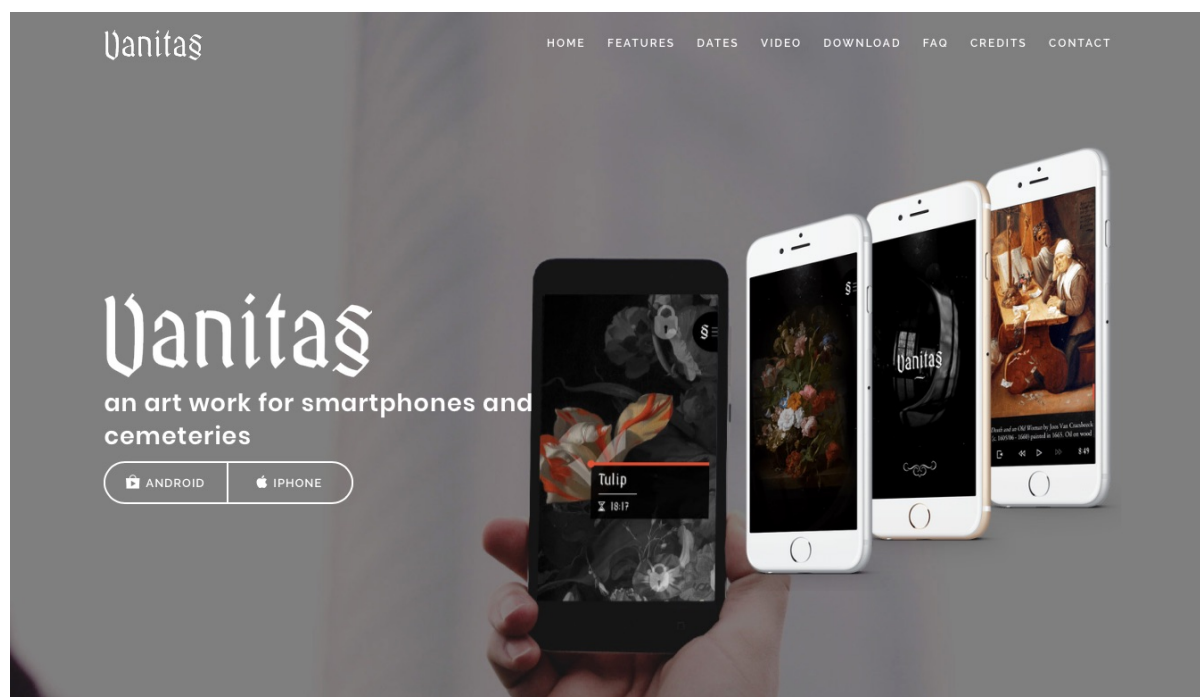


Figure 33 – The first screen on the Vanitas website www.vanitas.online

The gateway for the *Vanitas* ‘experience’ for audiences is the smartphone app, which is itself accessed via circuitous and often overlooked means including emails, websites, online ‘stores’ (App Store or Google Play), media articles, social media, festival brochures and word of mouth, which can also be considered part of the expanded transmedia experience of the artwork. *Vanitas Chapter One* is available for worldwide download and can be experienced ‘anywhere’. *Vanitas Chapter Two* is included in the download for Chapter One, but can only be ‘unlocked’ during the performance at Melbourne General Cemetery. The following screenshots from the *Vanitas* website show how the artwork is described to the audience in online marketing by minimising technical details and focusing on the experience.

look deeply, listen closely...

Chapter One

Hidden in plain sight at the centre of a 300 year old painting lurks a mysterious void that promises oblivion to those who stare too intently. Download Vanitas now to inspect the evidence for yourself, listen to the experts and make sense of the past with its traces in the present.

Vanitas mixes podcast-style listening with beautiful visual materials to create an experience that is part documentary, part fantasy. Just like real life there is no narrator, so it is up to you to pull fact from fiction as the world unfurls before your senses.

70 minutes | 6 episodes | 24 pathways

FREE - DOWNLOAD NOW

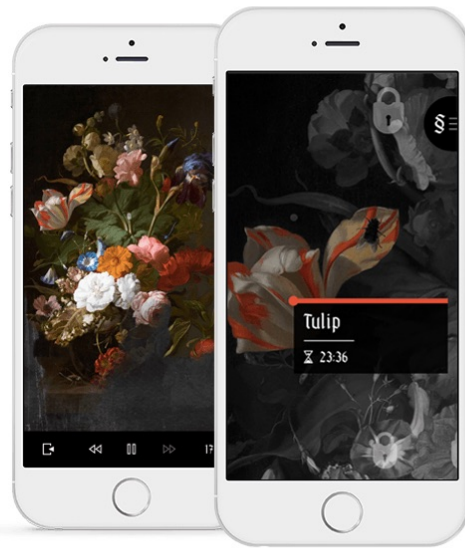
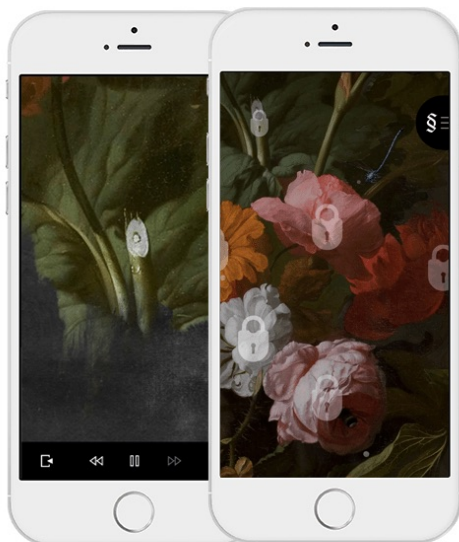


Figure 34 - Vanitas Website Screenshot - Chapter One Description. Rachel Ruysch's Vase With Flowers painting shown in the left phone screen is the menu interface for the app. The annotated tulip on the right screen shows the zoomed detail of the painting and the entry point for the first episode.



visit cemetery...

Chapter Two

Somewhere near the centre of the cemetery a woman waits with a promise to explain the meaning of a mysterious flower delivery. The trouble is finding her as you pick your way amongst the graves, alone.

Vanitas is an opportunity to spend some time alone in the presence of strangers both living and dead. More than an app, Vanitas stretches from its recorded voices, original composition and images, out into your smartphone, the cemetery around you and into your life.

Warning: Contains adult themes including discussion of death, burial and cremation processes. Involves moving alone through cemetery for approximately 60 minutes.

60-70 minutes | 11 episodes | 216 pathways

FREE DOWNLOAD - EXPERIENCE AT PARTICIPATING CEMETERIES

Figure 35 - Vanitas Website Screenshot - Chapter Two Description. The left phone screen shows an episode playing. Notes the playback control buttons appear along the bottom from left to right: exit episode, rewind, pause and fast-forward (disabled).

The two chapters of *Vanitas* each comprise multiple acts and episodes. The smartphone app inaugurates each chapter, act and episode. The app uses the smartphone to access the telecommunication and internet infrastructure to communicate with transmedia server software called ‘Phantom’. The episode structure is shown in the table below.

Smartphone App ‘Vanitas’			Server Software ‘Phantom’
Chapter	Act	Episode	Transmedia
Chapter One <i>70 minutes</i> <i>24 variations</i> ‘Experience anywhere’	Act One	Tulip	2 x emails
	Act Two	Narcissus Pink Rose I Kale Pink Poppy	Email Email ‘Broken’ Email Email
	Act Three	White Rose I	Email
Chapter Two <i>70 minutes</i> <i>216 variations</i> ‘Experience at cemetery’	Act One	White Rose II	SMS #1
	Act Two	Bearded Iris Hollyhock Pink Rose II	SMS #2 SMS #3 SMS #4
	Act Three	Anemone Campsis Scarlet Poppy	SMS #5 SMS #6 SMS #7, 8, 9
	Act Four	Convolvulus Marigold Peony	SMS #10 SMS #11 SMS #12
	Act Five	Opium Poppy Stem	SMS #13, 14 Phone call Email
Two Chapters <i>140 minutes</i> <i>5184 variations</i>	Eight Acts	17 Episodes	Eight emails 14 SMS One phone call

Table 5 – Structure of Vanitas chapters, acts, episodes and transmedia messaging. Shaded boxes represent content accessed in a random order chosen by the percipient.

Acts are completed in linear order. The episodes within an act can be completed in random order creating some variation of experience as the speed at which voices and themes are

repeated is altered due to individual choices. The linear act and random episode structure ensures that an overall dramatic arc for *Vanitas* can be established through the acts while 5184 possible episode ordering variations create diverse experiences and a sense of autonomy and choice.

Chapters One and Two are thematically linked but do not share a linear narrative. They can be experienced in reverse order. Each chapter was designed to cohere as a stand-alone event as some audience members, particularly those around the world who download the app, will only ever be able to experience Chapter One, which is outlined in the table below.

Episode	Themes	# Images
Tulip	Introduction – <i>Vase with Flowers</i> , Rachel Ruysch, Dutch still-lives and vanitas paintings.	89
Narcissus	Meeting florist intercut with discussion of histories of symbolic languages of flowers	48
Pink Rose I	Meeting professional botanical artist	26
Kale	Meeting stall holders at the commercial flower market	19
Pink Poppy	Meeting professional horticultural botanist	35
White Rose I	Conclusion – visiting the original <i>Vase with Flowers</i> painting in The Hague, discovering the ‘missing’ flower at the centre of the painting, speculating on the symbolism of its absence.	148

Table 6 – Overview of episode content in *Vanitas* Chapter One.

Chapter One investigates Rachel Ruysch's *Vase With Flowers* painting by attempting to identify the flowers included in the composition and then decode their symbolic meaning using various languages of floriography. Chapter One contains certain foreshadowing features that suggest a shape for the whole experience of *Vanitas*, including reference to the fountain, swirling round the 'empty centre' and a climax of 'disappearing into the void'. However, the story of Rachel Ruysch and the meaning of *Vase with Flowers* ends with Chapter One. While voices from Chapter One are revisited in Chapter Two, the focus is placed on decoding the delivery of wilting flowers, and the pursuit of the 'final interview' with the mysterious character 'Asphodelus' who claims to know the flowers' meaning.

Chapter Two begins after an in-person briefing with a host in the cemetery gatehouse. During the briefing, the *Vanitas* host secretly allocates each audience member to one of three 'routes' which prescribe the content of text messages they receive during their visit. The host says to the percipient, "the person you are meeting will text you instructions on how to find them as you go along"²⁴. The SMS are designed to precipitate wandering instead of following a map to a specific location. During the walk the headphone audio replays conversations between Jason, me and a range of experts in funerary practices, flowers, and death, that we met in the creative process. All SMS are sent from the same number and over the course of the experience the percipient may suspect that the person sending SMS is the person who is also discussed in the audio as 'Asphodelus'. Jason and I also discuss our attempts to meet Asphodelus. At the end of the experience the Phantom system voice calls the percipient's phone and I invite them to tend to the grave of a stranger before leaving the cemetery.

²⁴ Page 3 of the *Vanitas* Host Instructions which are included in Appendix V.

Appendix V: Host Briefing Document

Vanitas Room Set-up and Host Instructions

Room Set Up

The meeting place should:

- be well signposted,
- be welcoming and uncluttered,
- display three vases each containing seven white roses,
- have space for audience to sit and wait,
- have a separate space for storing audience bags and coats securely,
- have wifi internet access,
- have a set of portable batteries for guests to borrow,
- have spare headphones and headphone splitters in case guests forget their own,
- have flasks of Vanitas Tea and disposable paper or reusable china cups,
- be occupied by at least one host at all times.

Host Instructions

The following is a chronological order of proceedings that audience members (guests) should experience when they enter the Vanitas meeting place.

The way the meeting place is set up and how hosts interact with each guest is part of the Vanitas experience. Vanitas begins as soon as the guest arrives.

It is possible to take up to three people through the briefing at the same time. If you do this, you need to remember to send them on different routes when you enter the code (see below).

The host should greet the guest when they arrive and offer them a small cup of complimentary Vanitas Tea before any other discussions are entered into.

- If asked, the usher says that the tea is a herbal blend chosen specifically for Vanitas. Drinking it is part of the experience.
- All branding and packaging of the tea source is to be kept hidden.
- If asked the usher can say they do not know what is in it, but they know it is herbal and caffeine free.
- If the audience member initially declines the tea offer, the usher may say, “You don’t need a full cup. Just have a taste. Just a sip. It is part of the experience”. If the audience member declines a second time, the usher will not ask again.

Once the guest has received the tea, the usher can check if the audience member has a reservation or explain what Vanitas is to those who have not booked. All business transactions take place now.

Vanitas is an experience that takes you out into the cemetery for about an hour. The experience involves walking over rough but mostly flat terrain for 75 minutes, in the elements.

Before the host goes into further detail, they explain there is a cloakroom to leave bags and coats. Anything to be left in the cloakroom should be organized now.

You will need:

1. *Your phone and headphones*
2. *Clothes to suit the weather* (say whatever is appropriate that day)
3. *Everything else can be left in our cloakroom for your comfort.*

Once the cloakroom drop-off is completed, it is time to go through the briefing to get the guest out of the door and into the next part of the experience.

Phone Checklist

This is the technical part.

Check that:

1. Each guest must have their own Apple or Android phone.
 - a. Sharing one phone is not allowed. The artists have carefully designed the experience for both ears listening on stereo headphones. Vanitas uses of stereo, and puts different voices in different ears, so both headphones are required to hear the whole story.
 - b. Sharing is only permissible for adults and young children. They should use a headphone splitter, but even this is not advised.
 - c. Windows phones are not supported at this time.
2. Each phone has the Vanitas App downloaded onto it.
 - a. If they haven't downloaded it yet, pause while they download it and move onto another audience member while the download happens.
3. Everyone has headphones
4. Volume: *It may be necessary to manually adjust the volume as you move through the cemetery.*
5. Brightness: *Set your screen brightness to at least 75%. It may be necessary to adjust the brightness as you move through the cemetery. Set the brightness to low if your battery goes below 50% remaining.*

Passcode Entry and User Registration

May I see your phone to enter the passcode?

1. Take each of the phones from the people you are currently briefing (up to three).
2. Enter each passcode in turn and send them on DIFFERENT ROUTES

- a. e.g. send one on CLOCKWISE, one on ANTI-CLOCKWISE and one on ACCESSIBLE.
 - b. If you are just dealing with one person at a time make sure you spread them across the different routes evenly.
 - c. Keep a tally of how many people you are sending on the different routes.
 - d. If the audience member is a wheelchair user assign them to the accessible route.
 - e. None-wheelchair users can also be assigned to the accessible route, but only use this if you are briefing three people. If there are just two, use clockwise and anti-clockwise.
 - f. Do not reveal that you have set each group member to different routes, this is a secret.
 - g. Your aim is to separate friends and couples who come together so they can experience Vanitas alone.
3. Hand the phone back to them and ask them to enter their: first name, last name, email and phone number.
 - a. Ask them to be very careful entering the details as we can't change them once they are in.
 - b. If they ask why we need this information (and only if they ask) you can say 'So the person you are meeting knows how to contact you'.
 4. Once they have completed their registration ask them to pause on the screen that says 'Put your headphones on' until you have finished the briefing.

About the Vanitas experience

That's the technical part over.

The experience is made up of 11 short episodes that you unlock on your phone as you proceed through the cemetery. Each episode is accessed through a flower. More are unlocked as you complete sets of flowers.

The person you are meeting will text you instructions on how to find them as you go along.

The cemetery is a public space, it is OK to treat it like a park or botanical garden.

Please do not disturb other users of the site, especially if you see a ceremony taking place.

If you experience difficulties you can call this number GIVE THEM A CARD WITH FoH number on it.

If you stop to take photos between episodes please post them with #Vanitas.

There are lots of paved roads throughout the cemetery, but you will find some of the most interesting places off the beaten track. If you are on the roads watch out for cars. You are encouraged to wander, lose yourself to find your own way through Vanitas.

Put your headphones on. Then press continue.

There are always flowers for those who wish to see them.

Appendix VI: v1.0 Strata Diagram

The following diagram outlines the distribution of dramaturgical elements in the Vanitas v1.0 prototype at the Festival of Live Art 2016. Subsequently the project moved to the cemetery and the range transmedia interactions were streamlined.

n.b. flow in one layer may be interrupted at any time by any of the other layers.

Dotted lines indicate activities taking place on or with the smartphone. Solid lines indicate physical locations.

The physical journey through space is shown by the curved line.

