

School of Design and Art

**The Human Use of the Human Face: The Photographic
Self-Portrait in the Age of the Selfie**

Karen Ann Donnachie

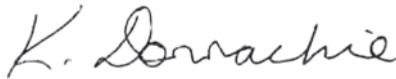
**This thesis is presented for the Degree of
Doctor of Philosophy
of
Curtin University**

December 2015

Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made. This thesis contains no material that has been accepted for any other degree or diploma in any other university.

Signature:

A handwritten signature in black ink, appearing to read 'K. Donachie', written in a cursive style.

Date:

04/12/2015

Abstract

This multidisciplinary, practice explores the phenomenon of the selfie (understood as a networked, vernacular, photographic self-portrait) in order to propose a new critical understanding of the effect this emerging genre has on wider photographic self-portrait practice and photography in general. These explorations happen firstly through the creation of original digital and electronic artworks; secondly through interviews with contemporary artists; and finally through the discussion of cultural and photographic theory. Significantly, “The Human Use of the Human Face” depicts the selfie as more than a mere vernacular object or action and is not satisfied with the dismissal of the selfie as a direct remediation of the traditional self-portrait. Instead this thesis maps the complex, and sometimes controversial genre of amateur self-portraiture as it sits somewhere between performance, narcissism, social tic, intrinsic desire for self-projection and a possibly irrational quest for authenticity in the photographic image.

The selfie, through both its quantity and ubiquity, is contributing to the creation of an unprecedented, indexed, searchable and exponentially growing database of human self-portraiture, as the quantity of images tagged #selfie currently present in social networks easily overwhelms the entire aggregated and recorded history of portraiture known to man prior to 2005.¹ In contrast to the

1 At the current rate the number of photos uploaded to Facebook will be 75 billion per annum. Of these, an estimated 1 million+ selfies are taken each day (as of 2014). <http://techinfographics.com/selfie-infographic-selfiegraphic-facts-and-statistics/> ; For smartphone penetration data see Emarketer, “2 Billion Consumers Worldwide to Get Smart(phones) by 2016.” <http://www.emarketer.com/Article/2-Billion-Consumers-Worldwide-Smartphones-by-2016/1011694>

recent commentary found in the mass media, that often describes the selfie as any combination of celebrity emulation, expression of vanity, sexual promise and self-indulgence—undoubtedly all potential traits of the selfie and worthy of concern—this research explores how the selfie has become a locus for discussions of subjectivity. Specifically, this research inserts notions of human affect, connectedness, belonging and being human into the discussion concerning the motivations behind, and social consequences of, the selfie in three areas: first, second and after-life. Not only the artefact or surface of the image is addressed, but also the physical and social activity of the selfie.

The effect of the selfie on the artistic practice of the photographic self-portrait is an important thread of this research as the photographic/art criticism is lagging—in vocabulary as well as in theory—in the wake of the selfie. Prior to the twentyfirst century, the ‘self-portrait’ that appeared in art/cultural volumes and texts, naturally and universally inferred an artistic practice, (there was in fact no need for disambiguation), instead this thesis is now obliged to distinguish the ‘artist’s self-portrait’ from the selfie, which has gained the dominant position in discussions of self-portraiture. Finally, this research examines the privileged position the selfie holds inside a rapidly expanding and evolving social media ecology as it becomes both vehicle and tool, a symbol of personal, social, cultural and political identities.

Focusing on the human activity of the selfie, this research offers instruments for the survey of current practice, as well as specific tools for the creation of unique selfie (and ‘groupie’) images.

Engaging with New Media, digital, and Post Internet art in its practice, the outcomes of this research comprise a number of interactive, electronic and participatory artworks. These works alternate between embodied and embedded objects and systems, and include printed matter, algorithmically driven lighting installations, a custom programmed social media application (app), and finally hand-built and coded multi-lens cameras. These original camera-objects have multiple triggers that require the co-presence of subject(s), all potential performers and audiences, and allow the otherwise elided, mediated relationship of the selfie image to be brought to the surface, teased or retrograded out of the virtual and into an authentic human exchange. While the artefact (the image) as intangible proof of the encounter is sent to reside in the social flow, the shared, embodied experience remains in/on our own skin, within our ‘wetware.’² This set of selfie-centric tools, are also a reminder of the lingering aura of the camera as technological object and suggest possibilities for new camera objects necessitated by the practice of the selfie, made tangible through open-source, DIY and tinkering cultures.

Ultimately this study on the selfie reflects on what it means to be human, both alone and together, in all domains whether virtual or otherwise, and both in- and outside of time. While the contemporary social urge is to perform, participate, to dialogue and to share through the networked photographic self-portrait, the selfie becomes another human use of the human face.

2 Popularised by Rudy Rucker, the term ‘wetware’ refers to an organism or living material; Rudy Rucker, *Wetware*, (1997); Rucker adopted the term from Bruce Sterling’s *Schizmatrix*. <http://www.rudyrucker.com/blog/2007/08/25/what-is-wetware/>

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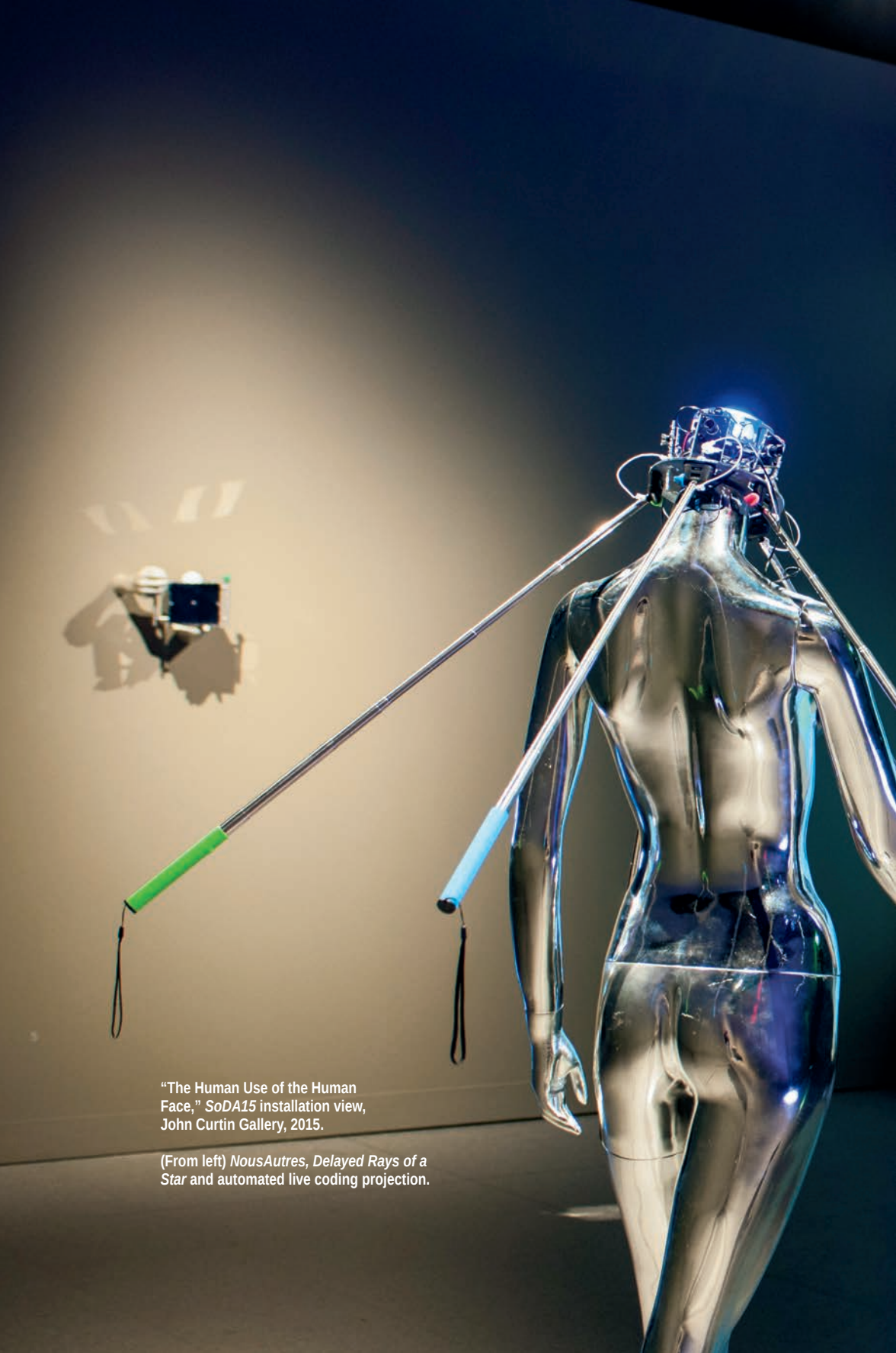
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NousAutres #222 (detail), 2015.

Experimenting the algorithm for the multiplexed image created and automatically broadcast to social media channels by the *NousAutres* camera.





"The Human Use of the Human Face," SoDA15 installation view, John Curtin Gallery, 2015.

(From left) *NousAutres*, *Delayed Rays of a Star* and automated live coding projection.





NousAutres, 2015.

Custom built and programmed
bi-facing 'selfie' camera, electronic
components, acrylic, steel.



NousAutres #264, 2015.

Algorithmically interwoven image created
and automatically broadcast to social media
channels by the two-way *NousAutres* camera.



plyFace, Installation view, John
Curtin Gallery, 2015.

Five of a series of six custom printed
publications with automated audio (code)
reading, transducer, duration 27:09:34.





The Latent Image, Installation view with daughter Indigo, John Curtin Gallery, 2015.

Continuous real-time algorithmic lighting installation projecting facial skin-tones of Instagram #selfie subjects.



plyFace, magazine cover
image (detail), 2015.

3D model of artist wrapped with
appropriated fashion magazine covers.

myShrine.org, Installation view of wall-mounted screen, John Curtin Gallery, 2015.

Social media web app that recasts participant's Facebook profile data into an animated *memento mori* including digital candles which extinguish in real-time.

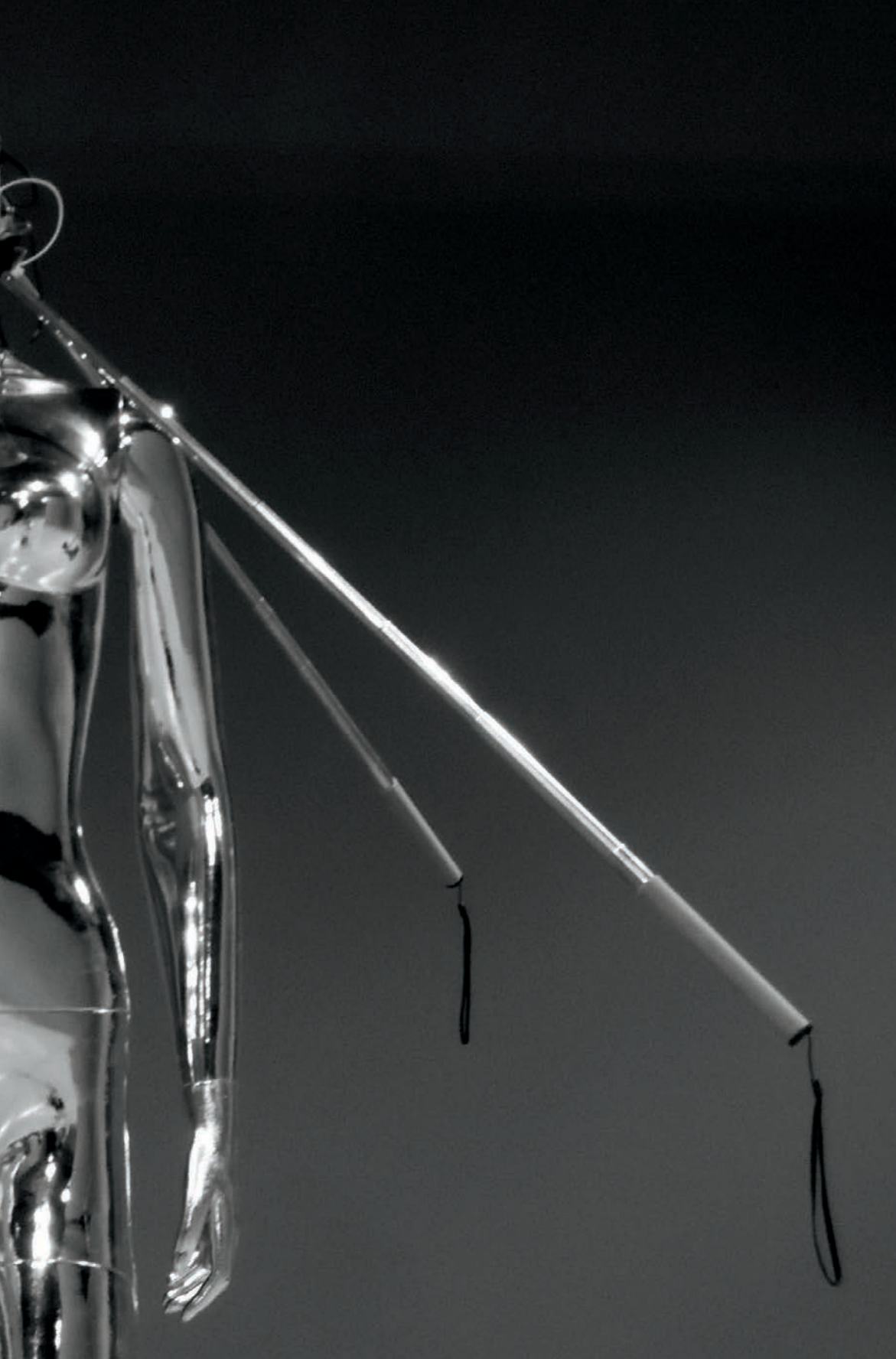




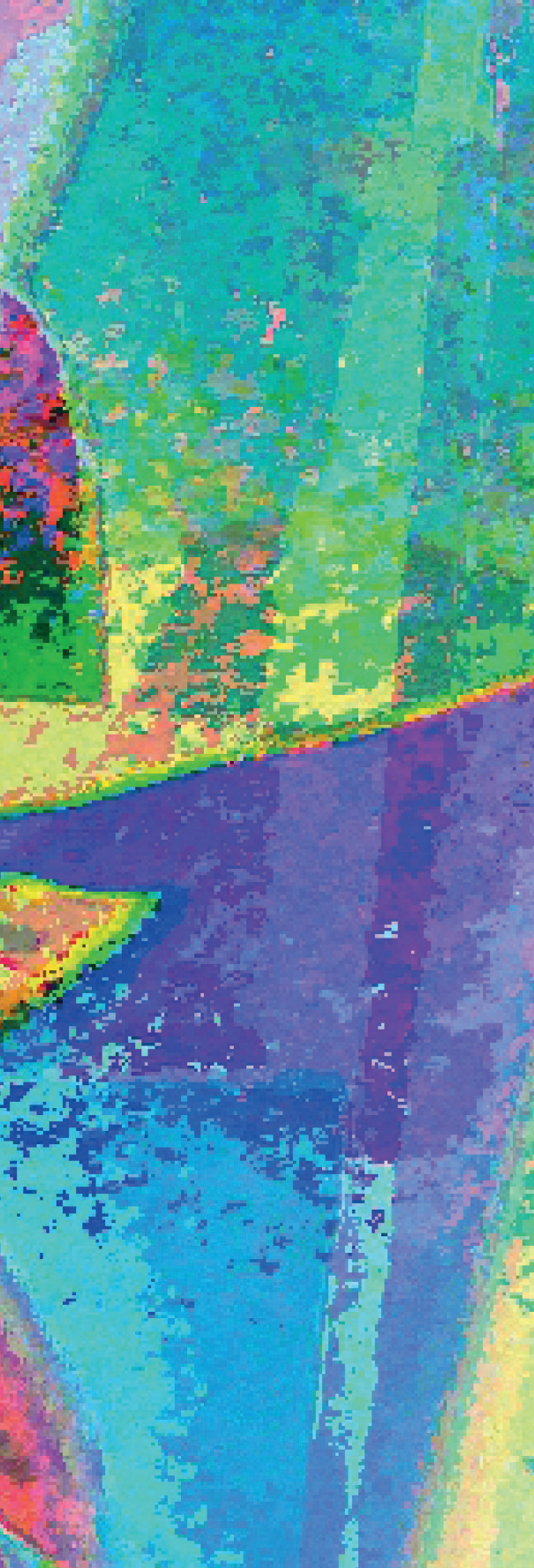
Delayed Rays of a Star, installation view of
advanced prototype, John Curtin Gallery, 2015

Custom built and programmed five-way,
auto-broadcasting 'selfie' camera.
Electronic components, acrylic, selfie
sticks, chromed mannequin.









Delayed Rays of a Star #204, 2015

Generated from custom built
and programmed five-way, auto-
broadcasting 'selfie' camera.

Introduction

The Human Use of the Human Face explores the phenomenon of the selfie in order to propose a new critical understanding of its effect on the photographic self-portrait as art practice specifically, and on photography more generally. Despite the diminutive term ‘selfie,’ the near ubiquitous act of taking one’s own photograph through a camera-phone and subsequent posting to social networks, is arguably redefining the very idea of the photographic self-portrait as cultural object.

Since the advent and exponential rise of the selfie, the self-portrait has been enfolded into general visual dialogue. It now embodies a broad range of human activities from image-centric conversation (consider the highly popular photo-conversational app ‘Snapchat,’ for example) through identity construction and projection, to social and political activism. This is establishing a new position for self-portraiture.

I will argue with this thesis that—through its composition, mode of production, networked distribution, consumption and sheer ubiquity—the selfie consistently emerges as a contemporary photographic phenomenon, as a novel and discrete entity and/or activity. The selfie is unique in its genre; it cannot be simply reduced to a digital remediation of the self-portrait. One of the most significant changes concerns the distribution of participation and authorship. The taking of one’s own portrait among members of the general public, prior to this century, while technologically possible, was not recognised as a culturally significant activity.

This evolution is significant for a number of reasons, not the least of which is that, prior to the selfie—and certainly before the turn of the century—the term ‘self-portrait’ would infer an artistic endeavour (precisely in the absence of a broader public participation). The very language of the self-portrait has to now be modified in order to accommodate the selfie, and especially in this thesis I have felt increasingly obliged to distinguish the self portrait created as art practice. I discuss ‘the artist’s self-portrait’ which is now to be considered but a minor subset of a more general practice of self-portraiture, irrevocably influenced by the selfie phenomenon, if not in practical terms through the engagement with the medium, then at least in critical terms as the contemporary audience has become ‘selfie-literate.’ Significantly, however, the pre-selfie scholarship pertaining to the general history of the self-portrait (not overtly specified as artistic practice) necessarily concerned itself with artists’ self-portraits, so there remains ambiguity in the field while the prevailing vocabulary adjusts to the emergence of the selfie. What is certain, with the ubiquitous and networked selfie, is that the publicly shared, photographic self-portrait is no longer merely a medium for, nor necessarily an artefact of, artistic expression.³

The core of this research resides in the creation of a number of original artworks, algorithms and instruments which individually and collectively address various aspects of the selfie from the material to the philosophical, and offer speculative tools for the creation and distribution of selfies. The accompanying exegesis recounts not only the processes and context of the works but also

3 Alex Williams, “Here I Am Taking My Own Picture.” *The New York Times*, February 19th 2006. http://www.nytimes.com/2006/02/19/fashion/sundaystyles/19SELF.html?pagewanted=all&_r=0

offers reflection on the background and motivations of the selfie both as object and activity. This exegesis is divided into two distinct parts, Part 1 (theory) and Part 2 (works), bookended by this introduction and some conclusions.

This introductory section aims to provide a backdrop to the research processes and themes presented in this thesis. In these pages I present the research question and objectives, followed by a short explanation of the choice of title for this thesis. On the following pages I outline the structural and theoretical framework that supports and organises the theory and creative works. Overarching concepts of affect and a reading of the posthuman are introduced as coordinates to help orient this thesis within broader conceptual landscapes.

The theoretical discussion is followed by a brief pragmatic description of both the thesis document and the accompanying exhibition. This introductory chapter also includes “Methods’: a series of reflections on the practice, tools and terminology adopted by this research, and concludes with a discussion of remediation as a stereotyped critique of new media, and, more specifically, how this may affect our understanding of the selfie.

Research question

What role does the selfie play in contemporary photographic self-portraiture?

This practice-led research is centered on discussions of the networked self-portrait as a tool for communication, identity construction, rhetoric and art. Through a body of interconnected

interactive, algorithmic and hybrid artworks as well as accompanying theoretical discourse in the way of exegesis, this research considers the phenomenal rise of the selfie as digital self-portrait and its contemporary use and perception, in order to better explore and interpret the role it plays in constructing and projecting contemporary (digital) identity, in first, second, and after-life.

Objectives

- To explore the way in which we use the networked self-portrait to build and maintain identity
- To examine the contemporary developments in the use and reach of the photographic self-portrait through the selfie
- To facilitate tangible encounters with the networked self-portrait and the mass projection of self
- To propose new tools and processes for the creation and appreciation of the selfie
- To consider how the selfie may influence the genre of the artists' self-portrait

Attribution of title

The title of this thesis *The Human Use of the Human Face* is borrowed from Norbert Wiener's *The Human Use of Human Beings* (1954), which was a more approachable, philosophical rewriting of—sometimes described as a sequel to—his earlier *Cybernetics; Or Control and Communication in the Animal and the*

Machine (1948).⁴ Wiener's book remains an influential text on the potential for efficient, yet socially fair, systems to be created and economically and socially integrated into society. Coining the term 'cybernetics,' with which he classed systems of communication as tools for power and control, he cautioned military and political misappropriation of automated systems and predicted the dawn of an 'age of communication and control.'⁵

Society can only be understood through a study of the messages and the communication facilities which belong to it; and that in the future development of these messages and communication facilities, messages between man and machines, between machines and man, and between machine and machine, are destined to play an ever increasing part.⁶

Many of Wiener's midcentury descriptions of communications systems can be mapped onto contemporary social media, most notably Facebook, Twitter, Instagram and Snapchat. On this side of the digital divide,⁷ Wiener's prediction has come into its own; we are evolving creatures sharing our existence with and through communication devices surrounding us, integrated into our bodies and environments, we are persistently networked, always 'on.'

A large part of this thesis is in direct response to the overwhelming participation in the exchange of images, especially self-portraits ('selfies'), in social media. If, as Wiener suggests, it is through the

4 Norbert Wiener, *Cybernetics: or, Control and Communication in the Animal and the Machine*, (Cambridge, Mass.: M I T Technology Press, 1948).

5 Wiener, *Cybernetics*.

6 Norbert Wiener and Walter A. Rosenblith, *The Human Use Of Human Beings: Cybernetics and Society*, 1st Avon Discus ed. (New York: Avon Books, 1967), 16.

7 Referring to the digital divide I imply a society in which most citizens have access to the digital devices and networks that facilitate open communication.

study of messages that we better understand society, and increasingly these messages are made up of images of the human face, then I will argue that we need to develop the tools to comprehend the photographic self-portrait and how it is transacted in the dialogue of humans through, and to, machines.

Structural Framework: First, second, and after-life

This thesis comprises works that emerge from a multidisciplinary practice focused on observation, articulation and speculation of selfie culture. Rather than grouping the works according to medium, or in chronological order, the works are presented according to a conceptual framework. Specifically, the order of presentation of the works follows a structure comprising three states: first-life, second-life and after-life. These states, admittedly artificial constructs, are useful for framing not only time, but also space. ‘First-life’ is considered an expression of our biological self, analogical systems and the real world, more tied to our human ‘embodied’ identity and to biological time; ‘second-life’ is considered the state in which the self modulates from embodied to ‘embedded,’ in and through the network in the form of mask, avatar or digital proxy, in a suspended, dilated, syncopated, artificial, or fluid time; and lastly, ‘after-life,’ in which embedded digital selves begin to act with agency, freed from biological identity, through social media, automated systems, in the absence of the human or after their demise, despite, without—or after—time itself.⁸

8 Eugene Thacker, *After-life*, (Chicago: University of Chicago Press, 2010);

It may be opportune to explain my use of the terms ‘embodied’ and ‘embedded’ within this thesis. The terms ‘embodied self’ and ‘embedded self’ are deployed to indicate, respectively, a biological presence ‘in the flesh’ (for example the person or the face) and a virtual proxy of identity, on screen or online (for example through an image or other simulation). In practice, these two states are not clearly demarcated, for they are neither mutually exclusive nor always independent. Rather, in their ‘commingling’ (Haugeland), they reflect the notion of a self as assemblage (Deleuze and Guattari), as a ‘profoundly embodied’ agent (Clark), or cyborg (Haraway; Hayles; Wiener).⁹ While resisting “antagonistic dualisms” and recognising the fluid transition from our biological to our digital identities (and back again), it is, however, useful for this thesis to place embodied and embedded on either ends of a spectrum of virtuality, for the purposes of discussing the use of the face and the self-portrait in social media and beyond.¹⁰ I infer the embodied self (Rucker’s ‘wetware’) to signify a place of biological being, enclosed in skin, reaching for tools (technological, computational) that may extend its capacities and reach within social apparatus. At the other end of this spectrum, I identify the embedded self as an autonomous agent, once created, instantiated, coded and granted

9 John Haugeland, “Mind Embodied and Embedded,” in *Having Thought: Essays in the Metaphysics of the Mind*, (Cambridge, Mass.; London: Harvard University Press, 1998), ch. 9; Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*. (Minneapolis: University of Minnesota Press, 1993); Andy Clark, “Re-inventing ourselves: the plasticity of embodiment, sensing, and mind.” *The Journal of Medicine and Philosophy* (no. 32, 2007); Donna Jeanne Haraway, “A Cyborg Manifesto: Science, Technology and Socialist-Feminism in the Late Twentieth Century,” in *Simians, Cyborgs and Women: The Reinvention of Nature*, (New York: Routledge, 1991) 149-181; N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, (Chicago: The University of Chicago Press, 1999); Wiener, *Cybernetics*

10 Haraway, “A Cyborg Manifesto.”

agency by a human, but now essentially comprising of independent code or software, part of the flows of data online. Between these two states, I imagine a fluid entity that can be considered both an extension of an embodied existence, manipulated by, and capable of generating affect in the original ‘source’ yet also, and contemporaneously, as subject isolated from the human being, with the capacity to be perceived, interpolated and modified as an autonomous agent, embedded in virtual systems. The selfie as artefact and action, and the identities established through the selfie, operate, for the most part, in this middle ground.

These three states, or stages —first-life, second-life and after-life— are particularly useful within the thesis when analysed through theories of affect brought forward principally by the philosophies of Spinoza, Bergson and Deleuze. Affect, in this research, is broadly intended as the potential for art concepts or artefacts to influence the balance of human urges such as pleasure, pain or concern. Brian Massumi, attempts to disambiguate Gilles Deleuze and Félix Guattari’s ‘affect’ as a “prepersonal intensity” which precedes will and consciousness.¹¹ Affect, according to Deleuze and Guattari, should not be confused with emotions or feelings, which are personal or subjective.

Affect, is an integral part of Deleuze and Guattari’s philosophy of ‘assemblage,’ that is, the notion that we are all interdependent, constituent and agentic parts of multiple, constantly morphing machines. The theory of assemblage as proposed by Deleuze

11 Brian Massumi, “Notes on the Translation and Acknowledgements.” In Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*. (Minneapolis: University of Minnesota Press, 1993), xvi.

and Guattari has been mapped to contemporary systems of communication, image making, gaming and social media.¹² The rhizomic structure of the Internet becomes a model for the theories of assemblage as it presents at various times and/or simultaneously as ‘image machine,’ ‘faciality machine,’ ‘distribution machine,’ ‘desiring machine.’ The assemblage of the Internet consists of it facilitating flows and connections, between nodes, subjects and other assemblages.

Because affect is perceived through the changes of intensity that occur in any of the components or nodes of these machines or assemblages, we can say that affect emerges out of relationships, experiences and flows between and through the three states, or stages, of first, second, and after-life.

Greg Seigworth’s summary of Gilles Deleuze’s affect theory includes analysis of Deleuze’s re-reading of Benedict de Spinoza’s theories from the seventeenth century. Deleuze, in his interpretations of Spinoza’s texts, claims to identify (at least) three apparent states of affect (*affectio*, *affectus* and *affect*), he likens them to a point, a line and a plane.¹³ Seigworth summarises these states as refined by Deleuze:

This series of ‘beyondings’—from *affectio* to *affectus* to immanently expressive world (soul)—to an increasing expansion or widening out: from the affective capacity of bodies (corporeal or incorporeal) to interval (as place of passage between intensive

12 David Savat and Tael Harper *Media After Deleuze*, (London: Bloomsbury Publishing, 2016).

13 Gregory J Seigworth, “From Affection To Soul” in *Gilles Deleuze: Key Concepts* ed. Charles Stivale (Chesham: Acumen, 2005), 160; Benedict de Spinoza, *Ethics*, 1677.

states or continuous variation) and, finally, to plane of immanence.¹⁴

Without oversimplifying the concepts presented by affect theorists, this thesis finds it useful to adopt this framework, and can be seen to organise itself according to these three states of affect that more or less map to the three states of first, second and after-life.

First-life within this framework concerns itself with the first dimension, as embodied self, the point (*affectio*) or “the affective capacity of bodies.”¹⁵ Second-life follows the line, where the passage of states and variation occurs, this is where the research focuses on the transition from an embodied to an embedded self (and back again), from subject to object, through observation, digitisation and transposition. Finally, after-life, which concerns itself with the autonomous, nonhuman, infinite, eternal embedded entity, can be framed as the plane, a perpetual ever-expanding autonomy of affect.

Furthermore, this thesis, in its themes of the construction and performance of self and identity through image and communication draws on the Heideggerian notion of ‘Dasein’ (used by Heidegger from 1927, and literally translated as ‘being there’ from ‘Da’:being, and ‘sein’:there) which, put in simple terms is the idea that the self is a human construct resulting from, and shaped by, interaction in the world and with other beings. Heidegger’s most ‘authentic’ self surfaces when the being in the world is combined with a critical understanding of the same, that is to say that the depth of engagement of the individual in the everyday determines the

¹⁴ Ibid, 168.

¹⁵ Ibid, 168.

degree of authenticity. Heidegger's concept of self can be seen as "a temporal, process-oriented being," immersed in a world with other beings, which at the time stood in contrast to a philosophy or conception of self as a separate distinct entity or essence, common amongst philosophers of the modernist school.¹⁶ Part 1, "The Age of the Selfie," speaks further to these discourses of identity, authenticity and performance of self, particularly in social media (immersion with other beings).

On being posthuman

Posthumanism, as a condition determined through technocultural and biomediatric pervasion, renders the human an increasingly unstable category for reflection.¹⁷

This thesis and the correlated works are, in many ways, a response to our contemporary networked state of being, which is simultaneously affected, fragmented, and augmented by the prostheses of the technology (devices)—and related platforms—of communication. In the fields of Internet studies and related sociology, this premise raises the need for discussion and acknowledgement of the 'posthuman condition.' In the discourse surrounding the posthuman condition and its consequences, there are innumerable illustrious voices from N. Katherine Hayles, Jacques Derrida, Niklas Luhman, Slavoj Žižec, Donna Haraway, the recent writings of Dominique Lestel and many more. The

16 Matthew McDonald and Stephen Wearing, "A Reconceptualisation of the Self in Humanistic Psychology: Heidegger, Foucault and the Sociological Turn," in *Journal of Phenomenological Psychology*, 44 (2013), 48.

17 Ivan Callus and Stefan Herbrechter, "Introduction: Posthumanist Subjectivities , Or, Coming After The Subject" (Palgrave-Journals.com, 2012).

definitions of, and consequent speculations on the posthuman are predictably as variegated as classic humanist philosophy.

The very ambiguity of the term posthuman is evident in the argumentation over whether or not we have already concluded a transition to a posthuman phase—due to the observed widespread adoption of mobile, digital and Internet technologies. Indeed N. Katherine Hayles provocatively entitled her 1999 book *How We Became Posthuman*.¹⁸ Other scholars already discount any posthuman discussion as redundant: “once everybody has become posthuman, what would be the urgency of debating the process of becoming posthuman or defining what the characteristics of the posthuman might be?”¹⁹ This would only be a rational basis for debate within the context of the milder variety of posthumanist theory, which is often accused of blurring lines with transhumanism.²⁰ The fact that there is still a subject in the sentence at all, belies both Ploeger’s and Hayles’ notion that it is expected that the human *becomes* posthuman. Indeed Hayles speaks of the multiplicity of agency, that the singular humanist ‘I’ survives the transformation to become articulated, in the posthuman, as ‘we’, or a number of interdependent agents.²¹

18 N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. (Chicago: The University of Chicago Press, 1999)

19 Daniël Ploeger, “Being-Human as Evolving Memory: art and posthumanism in the present tense,” in *Post-Human / Future-Tense*, ed. Nicholas Sagan, (Chicago, IL: PH/FT Press / Proform Technologies, 2010).

20 A transhumanist position maintains that the human augments itself through technology, for example Andy Clark, *Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence* (New York: Oxford University Press, 2004).

21 Hayles, *How We Became Posthuman*, 6.

Whereas, at the other end of the spectrum, radical posthumanism considers the very notion of *being* that happens either before (ante) or after (post) the human, and/or without the human (animality).²² While these disparities complicate discussions of subjectivity and agency, it can be agreed, both in Mansfield's 2001 seminal guide *Subjectivity: Theories of the Self from Freud to Haraway* or the previous decade's *Who Comes After the Subject?* that the discussion surrounding the posthuman condition has certainly marched on from mere evocations of cyborgian futures.²³ Giuseppe Longo infers the complex co-evolution of man and machine:

We can glimpse 'homo technologicus, a symbiotic creature in which biology and technology intimately interact,' so that what results is 'not simply "homo sapiens plus technology", but rather homo sapiens transformed by technology' into 'a new evolutionary unit, undergoing a new kind of evolution in a new environment'²⁴

The term posthuman consistently brings with it a timely assessment of our evolving state as subjects and agents and, as Ivan Callus and Stefan Herbrechter elucidate in their editorial introduction to *Posthumanist Subjectivities*, the consequences are noteworthy. They discuss how human subjectivity itself is brought into question once the posthuman condition is breached with any depth. This of course is of particular interest to making and observing art, as

22 For example Matthew A Taylor's *Universes Without Us* (University of Minnesota Press, 2013); Thierry Bardini and Dominique Lestel, *Journey to the End of the Species*, (Paris: Dis Voir, 2010);

23 Eduardo Cadava, Peter Connor and Jean-Luc Nancy, *Who Comes after the Subject?* (London: Routledge, 1991).

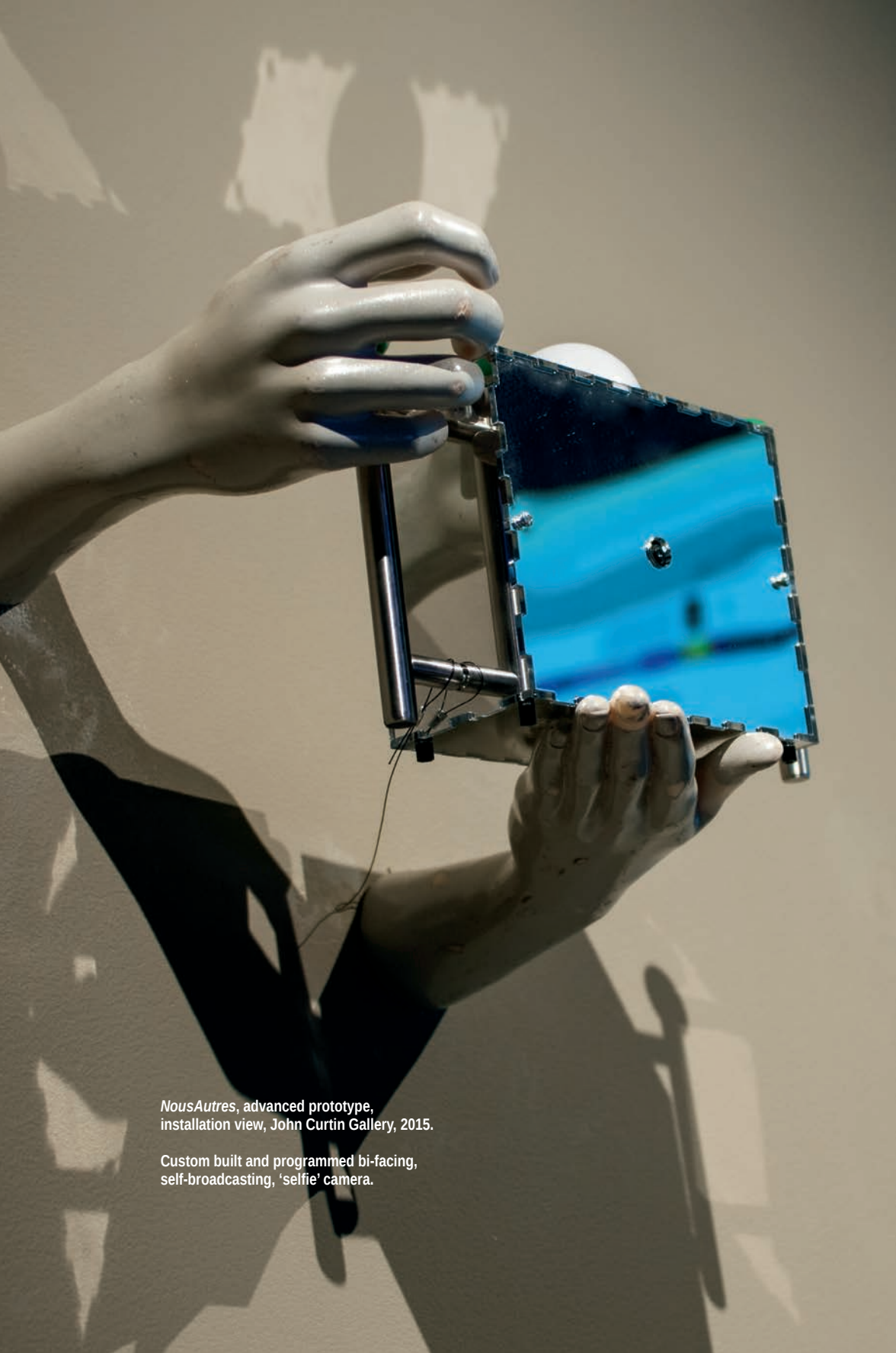
24 Giuseppe O. Longo "Body and Technology : Continuity or discontinuity?" in: L. Fortunati, J.E. Katz and R. Riccini (eds.) *Mediating the Human Body: Communication, Technology and Fashion*, (Mahwah, NJ: Lawrence Erlbaum, 2002), 23.

well as to broader discussions of identity. Callus and Herbrechter's observation that "posthumanism coincides with the archiving, transcription and writing relays of life and lives deferred past human limit" particularly resounds with the 'After-life' section of this thesis.²⁵ This notion is perhaps a key to the work *myShrine*, at once both homage and critique of social media, where our life narratives are shaped and distributed with ever increasing autonomy, and where our memories will be stored long beyond our demise.

From the position of this thesis, it is perhaps possible to make out, distant on the horizon, a shared domain of posthuman theory that sits somewhere between N. Katherine Hayles and Dominique Lestel. Lestel's theories on the posthuman, as Haraway's before him, aim to expand our current definitions of life and living, emphasising the affective influence of connected and co-dependent systems, (things, animals, plants and humans). Lestel reassigns the denomination of 'living' to that with whom or with which we can live our life, rather than (merely) that to which we can attribute a life.²⁶ A theory that, when transposed onto computer systems such as the Internet and in particular social media, immersive environments and digital personae, reveals how our current ethical stance with regard to the human and the other becomes problematic. Meanwhile, Hayles voices a humanistic posthuman hope in her analysis of Posthumanism:

25 Christopher Peterson, "The Posthumanism to Come," *Angelaki*, (16:2, 2011), 127-141

26 Haraway, *A Cyborg Manifesto*; Dominique Lestel "The Animality to Come: The Time of Transpecies Animals Approaches." Paper given at CCAT seminar, Curtin University 7/10/2015



NousAutres, advanced prototype,
installation view, John Curtin Gallery, 2015.

Custom built and programmed bi-facing,
self-broadcasting, 'selfie' camera.

my dream is a version of the posthuman that embraces the possibilities of information technologies without being seduced by fantasies of unlimited power and disembodied immortality, that recognizes and celebrates finitude as a condition of human being, and that understands human life is embedded in a material world of great complexity, one on which we depend for our continued survival.²⁷

Hayles is writing in direct response to a period of Posthuman debate that, she observes, had all but consumed the human body, its flesh and materiality. The Posthuman debate that she refers to, consistently questions the locus of identity, thought and self, surmising that the body and the self (consciousness) are to be considered distinct entities. Instead, Hayles, like Lestel, is more concerned with notions of connectedness and complex systems of co-dependence in the posthuman condition. While Lestel may focus on transpecies interdependence, Hayles relates connection and dependence back to the site of the (human) flesh. Hayles' position is useful as a point of departure for this thesis as it reads the selfie as a node of human connectedness and a gesture of authenticity.

This thesis' title "The Human Use of the Human Face," already belies its tendentially humanist, anthropocentric point of view and a cursory observation of its tangible artefacts reveals a sympathy for phenomenological, human, lived, experience.²⁸ The notions

²⁷ Hayles, *How We Became Posthuman*, 5.

²⁸ The use of the term phenomenological and particularly 'lived experience' in this thesis is influenced by the writings of contemporary feminist theorist Bernadette Wegenstein who draws on phenomenology, psychology and feminism to establish "the human as a form of distributed embodiment ... that does not so much demarcate itself against an environment as extend seamlessly and robustly into the now ubiquitously digitized technosphere." Mark Hansen, "Foreward," in Bernadette Wegenstein, *Getting Under the Skin: The Body and Media Theory*, (Cambridge, Mass; London: The MIT Press, 2006); Edmund Husserl, *The Crisis of the European Sciences and Transcendental Phenomenology*. Evanston: Northwestern University Press, 1970.

of authenticity and human community that emerge in the works and theory are reminiscent of Jean Luc Nancy's discussions of 'Gemeinschaft' or the longing for an immediate 'being together,' or coexistence.²⁹

Yet, as the theory and practice unfold, the initial humanist perspective is repeatedly tested and developed through the theory and the creative process, through phases of detachment, dematerialisation, deferred agency, as well as through the implementation of autonomous systems.

Deleuze and Guattari's theories of assemblage, and their shared concept of 'immanence' become more relevant here as they contribute to the production of subjectivities. Immanence is pre-vital, pre-cognitive:

[Immanence] knows nothing ... of the difference between the artificial and the natural. It knows nothing of the distinction between contents and expressions, or that between forms and formed substances³⁰

Deleuze and Guattari's framework of assemblage may assist us to look beyond the human, individualised phenomenological experience, in order to understand contemporary subjectivities. Assemblage, for Deleuze and Guattari, necessarily includes the material, animal, social and psychological.³¹ It would follow that avatars, artificial intelligent agents, digital puppets, identity, images, news, social media, advertising, desire, gender, technology

29 Jean-Luc Nancy and Peter Connor, *The Inoperative Community, Theory And History Of Literature* (Minneapolis, MN: University of Minnesota Press, 1991).

30 Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*, 69

31 Tael Harper and David Savat, *Media After Deleuze*, (Oxford: Bloomsbury Publishing, 2016), 22.

itself, each represent local assemblages that in turn are also parts of a larger, social assemblage.³²

Departing from the fundamental question of the human use of the human face, namely that the face can, and should, be considered a tool or entity separate to the subject, considered no longer merely affective signifier of identity for human purpose, this thesis tracks the face through the networked self-portrait as it becomes part of these human-human, human-machine and ultimately machine-machine systems. Tael Harper and David Savat in their analysis of media through the lens of Deleuze and Guattari's philosophy write "the face is an assemblage, an ongoing process of assembly, a machine [...] the abstract machine of faciality, and it is this abstract machine around which we organise our faces, though these are never our own."

The face acquires agency as it performs in our stead in virtual systems either in our presence (First-life), our partial absence (Second-life), or after our demise (After-life). Yet in doing so, the face is no longer our own. As such, the face of this thesis modulates through flesh, mask, symbol and apparatus.

This research recognises the consequences, and adopts the artefacts, of a moderate perspective of our 'having become' posthuman. For purposes of calibration, I will outline briefly the

32 Gilles Deleuze and Félix Guattari, *Kafka: Towards a Minor Literature*, translated by Dana Polan. (Minneapolis: University of Minnesota Press, 1986), 82; Edgar Gómez Cruz and Helen Thornham also remind us that "in the digital age, image making is but one element of several connective processes, inclusive of the power dynamics, design of, and normative practices of social networks." — Edgar Gómez Cruz and Helen Thornham, "Selfies Beyond Self-Representation: The (Theoretical) F(R)ictions Of A Practice", in *Journal of Aesthetics and Culture*, 2015, vol 7, doi:<http://dx.doi.org/10.3402/jac.v.7.28073>.

assumptions which underly the work in this thesis, recognising that this is but one of many perspectives of the posthuman condition. This thesis assumes—as integral characteristics of an ordinary/normalised (healthy, western, affluent) contemporary human condition—being networked (having reliable and continuous Internet access); coexisting with/through multiple digital personae (for example social media identities, networked gaming characters); accommodating of new virtual realities and representations of the human and the machine; open-minded toward rights and agency of non-human entities (driverless cars, chatbots); frequenting multiple quotidian virtual spaces; and embracing digital and robotic prostheses (smartphones, Siri, medical aids, navigational aids, drones, autonomous cameras) in almost every aspect of our human/biological nature.

A route is set perhaps, through these meanderings, to a sort of mild posthumanist station, where, conscious of the pluripotentiality of the posthuman, and tolerant of the other in terms of substance, species, time and space, we can momentarily regroup and reflect on these excursions into the posthuman condition.

The structure of the exegesis

This exegesis document is presented in two parts, Part 1 (theory) and Part 2 (works), forwarded by this introduction.

Although this research is practice-led—the artworks precede my interpretation of them and any philosophical or social issues they raise—I acknowledge the challenges of transmitting the knowledge or *raison d'être* of the artefacts of practice as academic

research. With the aim to facilitate the reading of the works, their philosophical and cultural contexts, I have chosen to foreground my theoretical discussions for the purposes of the exegesis (Part 1). In Part 2, which comprises the subsequent discussion of the practical ideation, creation and processes surrounding the individual works, I will return frequently to the concerns or concepts presented in the first part. However, despite any hierarchical order implied by the structure of this exegesis, it should be made clear that Part 1 (theory) and Part 2 (works) can be read separately and/or in inverse order. That is to say that a viewer could also plausibly encounter the works (either through this document or an exhibition setting) prior to reading the critical texts that accompany them.

Part 1 comprises a theoretical interpretation of the selfie, as object and activity—what the selfie is and how it is made, distributed and perceived—articulating a general framework or position that has arisen as a direct result of the practice-led research. I discuss notions of authenticity and connectedness, in an attempt to establish that the selfie is indeed a unique manifestation comprising both object (the image) and activity, and that it has already effected change on the canons of photographic self-portraiture. The central text of Part 1 entitled “Selfies, #me: Glimpses of Authenticity,” is the culmination of a number of individual texts and papers that have been developed, upgraded and refined over the duration of the research, some of which have been separately presented and published in different forms since 2013. Most recently, a shorter version, by the same name, was published (and translated into

German) in a book accompanying the *Ego Update* exhibition on the selfie at NRW-Forum in Düsseldorf, 2015.³³

Part 2 concerns the artworks themselves, and provides more specific commentary and contemporary contextual references, as well as a documentation of the inspiration, processes and outcomes of the works. The works, as anticipated above, are divided into the three main conceptual groupings: first-life, second-life and after-life. A more concrete description of these conceptual groupings may be due and follows here.

‘First-life’ primarily deals with the depiction and projection of our embodied selves and the human-to-human communications that occur through the self-portrait, aided by computer vision as abstracted tool of perception. Questions of reflection, recognition, computer vision systems, the language of code and broader concepts of the face emerge in the discussions of the works *plyFace*, and *myVanity*.

The second group of artworks is gathered under the title of ‘second-life,’ concerning the self-portrait in the virtual environment. The portrait in this area of the research is no longer considered merely a stand-in or reflection of our embodied selves, instead the imaged self is appropriated or alternatively can be granted agency, and therefore more or less independently shapes our digital identity.

33 Karen ann Donnachie, “Selfies, #Me: Glimpses of Authenticity,” in Sinaida Michalskaja Shahin Zarinbal eds. *Ego_Update*, (Düsseldorf, Germany: NRW-Forum, 2015) 50–76; *Ego_Update* also includes noteworthy texts on the selfie by Daniel Rubenstein, Teresa Senft, Jerry Saltz, Adam Levin, Brooke Wendt and Douglas Coupland; Previously I had presented papers on authenticity in the selfie at the *Arts in Society* conference in Rome, and at *Rites of Spring* conference at Curtin University, 2013.

Notions of the archive and normalising forces inherent in computer vision systems are raised in *The Latent Image*, while the camera works *NousAutres* and *Delayed Rays of a Star* address themes of connectedness, authenticity and materiality of the camera object and the selfie ecosystem. Second-life concludes with *#Me: The Artist's Self-Portrait in the Age of the Selfie*, an informal collection of artist-interviews, earmarked for a prospective publication, that discuss the role of the artist's self-portrait as now contested genre of art-practice, and the selfie as locus for performance.³⁴

The third area, 'after-life,' speculates on the role the self-portrait will increasingly play in networked systems, independent of a biological counterpart—in other words, the self-portrait before, after or without a human. The work *myShrine*, explores the notions of a digital footprint, digital immortality, the transaction of social media data and the potential for its use in embedded consciousness, or of embodiment *in absentia*.

The exhibition

This thesis is further articulated through the presentation in the *SoDA15* exhibition at John Curtin Gallery (26 November–13 December, 2015) of many of the artefacts developed during

34 The speculative manuscript *#me: The Artist's Self-portrait in the Age of the Selfie*, is informed by my experience as independent art publisher and author. Together with my partner, Andy Simionato, I have been curating and publishing artists' books since 2002 with the projects *This is a Magazine* and *Atomic Activity Books*. My research led me to understand the urgent need for a book documenting the Artist's self portrait as it evolves and finds its way beyond and through emerging art practices that test the thresholds of the embodied and embedded self and leverage the selfie and the vlogging format through social media, FaceBook, Instagram, Youtube and the like; I have previously introduced some of these discourses in a paper on contemporary net art practice (including the selfie and vlogging formats) at the AAANZ conference in Melbourne, 2013.

the research. These works were collectively presented in the form of an interdependent multimodal installation, and include custom designed and self-programmed multi-lens selfie camera-objects which automatically post to social media, custom printed magazines with accompanying automated reading, an algorithmic light installation and a participatory online artwork that permits the user to recast their Facebook data into their personal shrine. The social media performance resulting from the artist's use of the working cameras *in situ*, as well as some of the algorithmic processes behind the data driven installation were viewable from within the exhibition space through an automated networked projection accessing the dedicated Twitter feeds and other related material.

The works presented at the exhibition are briefly described below, and they will be discussed in more detail in Part 2 of the thesis.

plyFace comprises a set of custom designed and printed magazines containing printed code, accompanied by a corresponding automated twenty-seven hour audio reading. The content of the magazine and audio file in fact reads as a long list of numbers, and given the right translation software, could invoke a 3D image of the artist's face, as acquired through an infrared imaging system. The cover images of the magazine are the model, 'skinned' with relics of established, hegemonic canons of beauty represented by appropriated *Vogue* covers.

myVanity, the second work conceived in the context of first-life, presents itself as a wall-mounted makeup mirror and video-screen

with a row of lightbulbs mounted vertically on either side.³⁵ This glass/screen begins by depicting a video capture of the viewer moving through the space. Through the optics of the video-camera the viewer at first appears simply mediated, perhaps as others would see us. Approaching the artwork, however, the surrounding lights increase in intensity, and the image of our virtual self, our ‘self as other,’ fades away leaving us to contemplate instead, our embodied self, (analogically) reflected in the mirrored surface. This theatrical ‘trick,’ a play of light and a two-way mirror, reveals the transient nature of identity, at once fleeting and reassuring, but also uncanny. As in every encounter with our reflected or embedded image, there is a brief moment of non-recognition when we first catch a glimpse of ourselves, which quickly gives way to a transaction and acknowledgement of the person we see before us. There is a point, a certain distance from the mirror, in which the two selves ‘cross paths.’ Although there may be an urge to reconcile the two figures, to resolve the discordant silhouettes of the face, an accurate superposition is not physically possible, as the technological asymmetry (glass optics vs. human eye) prevents a perfect coupling of the images. This dissonance between the embodied and embedded—or representational—self becomes a leitmotif that echoes throughout this research.

Second-life concerns the embedded self and the way our likeness travels over the threshold into the virtual, taking on its own agency. Several works are presented in this domain. Firstly, *The Latent Image*, a semi-autonomous lighting system controlled by

35 Due to a last-minute re-allocation of space in the John Curtin Gallery, this work could no longer be accommodated in a way that permitted the necessary (restricted) approach of the viewer, and therefore it was not exhibited on the occasion of *SoDA15*.

an algorithm that reads and projects the average facial skin tone of selfies posted to social networks. Leveraging networked data generated by the phenomenal use of the selfie in social media, images tagged #selfie and posted on the Instagram social media platform were retrieved and processed. The resulting skin tone RGB value for each face found was projected by three converging lamps, generating a colour-wash which changed, in real-time.

In the centre of the exhibition space, on a chromed mannequin and, mounted on a wall grasped by two dummy hands, were two advanced prototypes of the conceptual camera works *Delayed Rays of a Star* and *NousAutres*—both custom built and programmed multi-lens ‘selfie-centric’ cameras.³⁶ The final, working cameras were facilitated, demonstrated and performed by the artist whenever possible in- and outside the gallery space.

The *NousAutres* camera, echoing the box shape of the early daguerreotype or pinhole cameras, has two prominent lateral steel handles and is operated by two subjects facing each other, each holding a handle. Two selfies are taken simultaneously (one of each user) which are then algorithmically woven together, the originals are discarded, and the final image is automatically posted to the camera’s own social media.³⁷

Instead, *Delayed Rays of a Star*, mounted on the neck of a chromed female mannequin is conceived as a ‘groupie-cam,’ with five selfie-sticks connected with outward looking cameras. After

36 ‘Selfie-centric’ signifies a camera intended for the purposes of creating #selfie images for social media distribution.

37 This process is deferred if wifi is not available, until the camera’s next wifi access; Twitter feed is available at http://www.twitter.com/us_others

the five triggers in the handles are fired, a single algorithmically calculated image of the combined self-portraits is created then automatically posted to social media.³⁸ In both of these works, the necessary encounter with the other and the simultaneous act of taking the selfie renders tangible the notions of authenticity and human connectedness, both notions which recurrently emerge in this research.

Finally, in the context of the third and concluding area of research, ‘after-life,’ the Internet work *myShrine* re-casts users’ Facebook social status into a shrine, with candles, dressings and a custom central image (profile picture). The work is presented as a screen with the web domain (myshrine.org) displaying a generic user’s shrine. Not only does this work act as an allegorical reading of the social activity surrounding the maintenance of one’s social media profile, but also serves as *memento mori*, raising notions of the digital pristine, celebrity, digital death and immortality. Collaterally, *myShrine* also raises awareness of the time spent curating social media presence and the accumulation and use of the data that one shares through social networks.

Methods (I-V)

In the following pages I will describe some methods that have shaped this research. These methods are an ad-hoc hybridisation of electronic, digital and plastic arts, and reflect the interdisciplinary nature of this practice-led research. I also address some of the current terminology surrounding this field of practice.

38 Twitter feed is available at <http://www.twitter.com/delayedrays>

Methods I: Practice-led research

This thesis locates itself within the domain of practice-led research, and referring to Carole Gray and Julian Malin's 1996 definition, "questions, problems, challenges are identified and formed by the need of the practice."³⁹ Graeme Sullivan suggests that practice-led research can be taken as "a dynamic structure that integrates theory and practice and contributes to *personal*, *social* and *artefactual* systems of understanding" [my emphasis].⁴⁰ This narration of my practice-led processes and outcomes will emphasise, at different times and to varying degrees, these three systems to deepen our understanding of the selfie with regard to the photographic self-portrait.

The practice itself employs a learning-through- doing methodology, in which the 'doing' comprises graphic and 3D design, electronics, photography, statistical analysis, publishing and computational systems, placing it somewhere within the ambiguous field of New Media art. This practice creates artefacts that are not easily defined by a specific medium or discipline (if not this admittedly generic catchall), as the outcomes are inter-relational hybrid works comprising design and construction of original cameras, printed books, screen-based works (both interactive and Internet specific), real-time data-visualisations in the form of light and sound installation, as well as social/participatory works.

39 Carole Gray and Julian Malins, *Visualizing Research: A Guide To The Research Process In Art And Design* (Aldershot: Ashgate, 2004), 3.

40 Graeme Sullivan, "Making Space: The Purpose and Place of Practice-Led Research." In *Practice-Led Research, Research-Led Practice in the Creative Arts*, ed. Roger Dean Hazel Smith. (Edinburgh: Edinburgh University Press, 2009), 47.

These works emerge from, and ultimately constitute a lived experience with the object and activity of the selfie. That is to say that the social and subjective topic of the selfie is experienced through a process of discovery, both in the research journey, as in the experience of the production.

Employing a learning-through-doing methodology, means that often the material nature of the work will surface only after various iterations; the works remain very much in flux as they evolve. Each work orbits elliptically around creation, reflection and research, weaving in and out and up and down between a progression of choices. At times, this process may seem to flirt with chaos, but the lifecycle of the process boils down to the steps listed below. Additionally, in the development and refinement of electronic artworks in particular, a degree of rigour is required in order to work around the limitations of readily available hardware and software systems:

1. Ideation/sketching
(idea, concept, discussion)
2. Conceptual Design
(Structure, ‘Interactive Metaphor’)
3. Intermediate development
(Organisation of interaction, pseudo code)
4. Iterative virtual and/or physical
prototyping \leftrightarrow heuristic evaluation
5. Detailed design (finished model or visual,
pixel-perfect design, working code)
6. Refinement (debugging, economising,
enhancing, documenting)



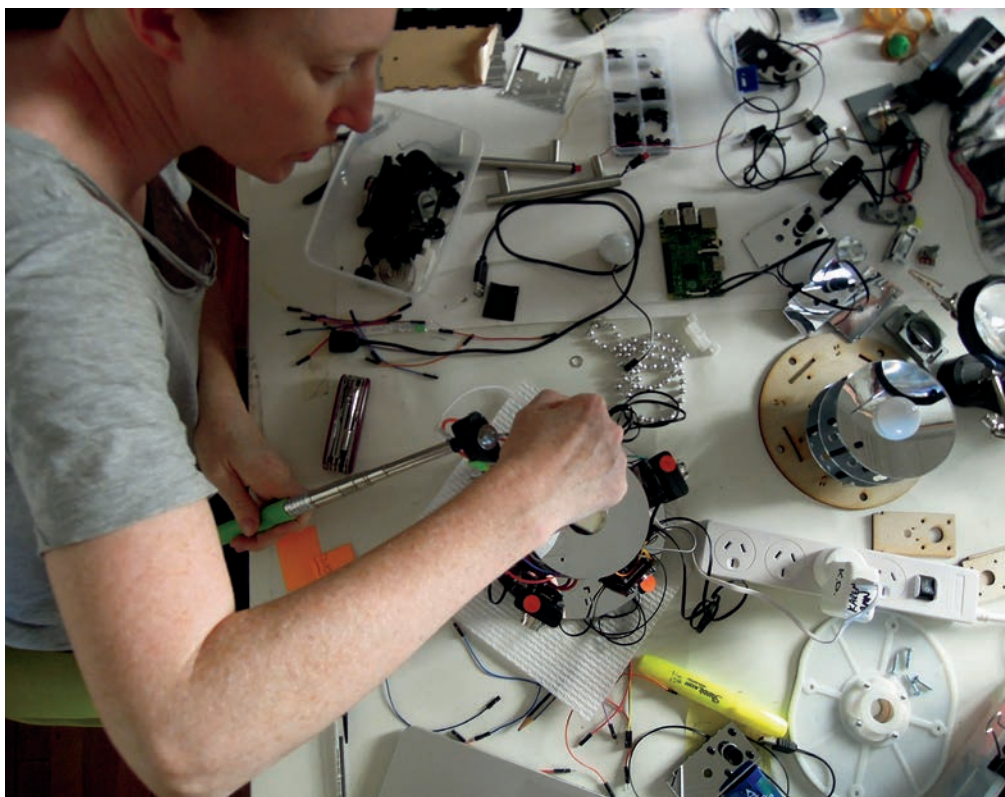
Delayed Rays of a Star, process image, 2015.

Adapting the chromed mannequin to
accommodate the five-way 'selfie' camera.



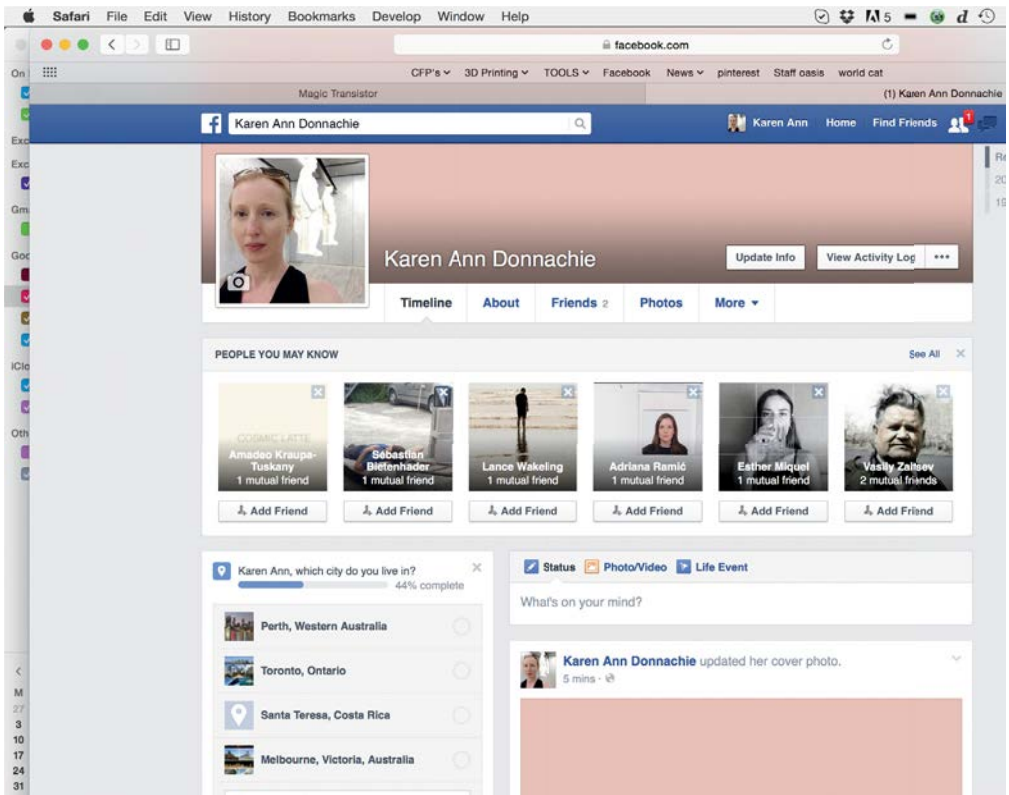
Process image, 2015.

Coding the microprocessors
for the 'selfie' cameras.



Delayed Rays of a Star, process image, 2015.

Adapting the commercially available selfie-sticks for the five-way 'selfie' camera.



#Me: The Artist's Self-Portrait in the Age of the Selfie, process image, 2015.

Interviews conducted in digital environments
and across various social media.

Each of the works presented in the second half of this exegesis have followed this sequence of steps and the reader is invited to take the works also as case studies for this elliptically iterative process.

The theory that is formed around the results is shaped by the needs of the creative practice and the reflection becomes multi/inter/trans-disciplinary in context, for it breaches the boundaries of art theory and history, cultural studies, Internet studies, ethnography and popular culture. The questions raised and explored in this thesis concern both humanities and scientific disciplines, as at times an analytical ‘what’ is intrinsically tied to ‘why’ or ‘what if’ and so the practice calls for ad-hoc methods that bridge realms of the knowable and unknowable, that can reconcile intuition and learned processes, can incorporate the unforeseen and derive value from subjective experience. Jacques de Vos Malan’s *European Scientific Journal* paper regarding the Australian Council of Learned Academies (ACOLA) research into Australian urbanisation, has succinctly described the challenges of transdisciplinary research: “If multidisciplinary research is described as ‘additive’ and interdisciplinary work as ‘interactive,’ then a trans-disciplinary project might be best characterized as ‘holistic.’” He goes on to add that “[transdisciplinarity] ... is therefore complex, contestable ... and inevitably messy.”⁴¹

Transdisciplinarity, whether intended as drawing from multiple sources or creating artefacts pertaining to multiple fields of practice is a challenging objective, not only because it aspires to achieve multiple readings or outcomes, but also precisely

41 Jacques de Vos Malan, “Exploring Challenges Of Transdisciplinary Research: An Australian Case Study,” *European Scientific Journal* Vol.1 (May 2015), 435.

because it requires ambiguity, equivocality, and uncertainty before, during, and after the processes of the research. I can recognise a split-personality emerging in my own work, working with and through code to obtain intentionally incomplete, imperfect and unresolved outcomes. At various times I desire empirical responses to subjective experiences, I seek qualitative responses to intuitive and creative experiments, I even ask that the algorithmic system glitch or fail.⁴² Perhaps if there is need for a framing of the central processes involved it could be considered a system of alternation, endlessly cycling from embodied to embedded experience or from the tangible to the virtual and back again.

Furthermore, the processes and outcomes derive from a variety of stances adopted in relation to the networked self-portrait, these include concentration, observation, interpretation, manipulation, creation, augmentation, projection, reflection and modulation. The purpose of the exegesis then is to provide a map charting the pathways through this making process and interpret the outcomes within a theoretical and reflexive framework.

Methods II: A Post-Studio practice

This research does not employ a specific/stereotyped site for creation—such as the artist’s studio. Instead, appropriating a description Ceci Moss penned for others’ work, it “embrace[s] a wider framework for art production” as suggested by John Baldessari in his “Post-Studio Art” class at CalArts, in which

42 From the reader of this thesis I understand I also ask a great deal, for those approaching this research from a scientific background may only see futility, and those instead approaching from the domain of art may cringe at the dependence on computation.

students were encouraged to “stop daubing away at canvases or chipping away at stone.”⁴³ Moss makes the point that the notion of the artist’s studio as supreme locus for artistic production may indeed be outdated, especially when the work is created in virtual environments, through a laptop computer.

However, before I go ahead and fully adopt the term post-studio, I would like to spend some words on the use of the prefix ‘post,’ which, like its relative term ‘new,’ often accompanies moments in philosophy or cultural change that require a conscious rupture with an established behaviour or attitude (as we have seen in the earlier discussion on the posthuman). Patrick Lichty, and he is not alone in his criticism, recently wrote about the overuse of the appendage of post onto movements and systems:

Post-ism paints us in the corner of refusal without proposition and little else. It breaks the discourse into a molecular one without any potential coherence; it is Babel-ism at its height.⁴⁴

Christopher Peterson has also cautioned “ghosts of ‘posts’ past” in his essay on posthumanism, he calls for us to heed Derrida’s warnings from the early 1970’s regarding grafting appendage of the prefix post onto whatever system or mode of thinking requires updating.

That past ‘posts’ continue to manifest the seemingly ineradicable traces of the -isms from which they claim to have broken free should caution us against

43 Ceci Moss, “Required Reading: The Function of the Studio (when the studio is a laptop) by Caitlin Jones”, *Rhizome*, December 14, 2010. <http://rhizome.org/editorial/2010/dec/14/required-reading/>

44 Patrick Lichty, “Post-Postism,” *Rhizome*, March 10th 2014. <http://rhizome.org/discuss/view/208495/>

acquiescing to a rhetoric of “decisive ruptures” and “epistemological break[s]” that are inevitably “reinscribed in an old cloth that must continually, interminably be undone.”⁴⁵

In the cases of ‘posthuman,’ ‘postmodern,’ and ‘post-studio,’ the use of the prefix ‘post’ does not imply merely a chronological after (as in ‘post-war europe’), and as many philosophers have noted, the use remains an uncomfortable linguistic choice. Arguably such compound nouns offer the benefit of being a cognitive short-cut—in other words it avoids the need to explain the current status quo—however the abbreviated syntax prevents, or at least defers, general overhauls to systems of thinking. Regrettably, this thesis does not offer viable alternatives for the widely adopted ‘post’ ‘isms,’ yet attempts to offset their normalising force by drawing attention to the underlying stereotypes that they proliferate.

Returning to the example that began this tangential discussion, the use of ‘post-studio’ would necessarily presume the notion of ‘studio’ to be a congruous, coherent, established and homogeneous entity. On closer scrutiny, such a presumption quickly becomes problematic and elsewhere in this thesis I attempt to counter such homogenising stereotypes. I will resist, then, also the term ‘post-studio’ as a descriptor—which has been adopted generically to define a locus of practice for graffiti or urban artists, for landscape artists, for digital artists working in virtual space—for it is ambiguous, reductive and in any case subjects itself to operate in juxtaposition to an established, stereotyped ideal.

45 Christopher Peterson, “The Posthumanism to Come,” *iAngelaki*, 16:2 (2011), 127-141.

While this research cannot claim to employ the established ‘studio’ as a site for its labour and experimentation, it is just as undesirous to appropriate the generic ‘post-studio,’ so for all intents and purposes it remains ‘undisciplined.’ However, this unruliness should not be seen as a refusal of the studio per se, but preferably as a signal of the pluripotentiality of contemporary practice, no longer dependent on the economic and cultural systems of privilege (wealth, location, gender), that the successful artist’s studio arguably implied.⁴⁶

That said, my practice, has been for the most part executed somewhere between a keyboard and a screen on Curtin campus, or my home, but also the local park, hotels, airports and apartments around Australia, the UAE, Italy, Germany, France, to speak merely of the physical domains, without listing the Internet domains, software environments, operating systems, social media platforms and virtual worlds that I have frequented. The laboratories I have used for the creation of the artefacts are a mix of online drop-shipment services, various dining room and kitchen tables in Airbnb and artists’ residences, as well as real world workshops and makerspaces.⁴⁷

This research is also, in part, informed by my photographic practice. For two decades, first as model and then as fashion photographer in Europe, I frequented photographic sets that provided a stage for performance. Eventually I found that these sets, highly codified systems for framing identity, have the potential for becoming identity themselves: the negotiation of this identity becomes the

46 Moss, “Required Reading.”

47 Drop shipment is a distribution method in which retailers do not retain the stock themselves but rather transfer order details to wholesalers to fulfill the orders.

essence of the self (brand or subject). I adopt the vocabulary of these sets (perhaps also as an homage to the endangered photographer's studio) as a basis for conversations involving the selfie and our current consumption of images of the face. The photographic studio becomes representative of the twentieth century hegemonic aesthetic systems, which disseminates canons of beauty through fashion magazine editorials and advertising images. This thesis raises questions of the lingering legitimacy and reach of these power structures, now challenged by the ubiquitous self-portraiture of the selfie and a social-media driven celebrity culture.

My own face intermittently appears in the research, yet I do not present this as 'self-portraiture' per se— it lacks intent, consistency and rigour. I prefer to consider my self-portrait in this body of work as a means, rather than an end: a human use of my human face, perhaps. I exploit my self-portrait much in the same way as photographers and clients exploited my face as a model; instead of selling orange-juice, Jaegermeister, apparel or magazines, now it serves as an accessible canvas weighted with social and cultural significance to symbolise (or sell) an idea.

Throughout this research I aim to adopt and document, both through practice and theory, contemporary digital creative processes. What emerges from this practice is that my practice, although digital in nature, is not cleanly encapsulated in some virtual ecosystem within the machinic environment in which it may have been initiated and developed. That is to say this work has not been created in a single software package via a user-friendly interface replete with predetermined features and filters. I am certainly not criticising

these commercial suites (specifically Adobe and similar) for I frequently use such software; it ensures repeatable and predictable results and provides a common platform in which client and artist can communicate and collaborate. Software, in these commercial settings, becomes partner in the artistic transaction and permits a degree of artistic flexibility set within industry-friendly templates and formats. However, the down side to this convenience and validation is that the work ultimately can not become more than an impromptu performance of a pre-existing script. Here I have deliberately referred to the software as script for we should not forget that the various virtual systems—as elaborate and magical as they may appear, merely perform a sequence of actions (scripts) in response to our mouse clicks and menu choices.

For this research I intuited that I would need to rupture as much as possible the predictability, consistency and sterility of industry-aligned programs in order to accommodate experimentation across various media.

Furthermore, I am conscious of the burden of ongoing costs some commercial software suites entail. So with a view to render the research as accessible as possible—as well as ensure the greatest flexibility in process and result—where practical I use open-source and open-design tools, print-on-demand and drop-shipment services, 3D printing, DIY tinkering and self-built systems.

Methods III: Algorithmic systems, software art

As I have personally edited and authored the software that controls the content of the algorithmic systems presented in this thesis,

both the programming and resulting data also becomes content of this research. The materiality of this is more obvious in the work *plyFace* and less overt, yet equally important, in *The Latent Image*, *myShrine*, *NousAutres* and *Delayed Rays of a Star*. As Lev Manovich underlines in his discussions of automated systems, we should not elide the human role, the computer does not act autonomously.⁴⁸ Code, as any other language is culturally, socially and politically specific. Terry Winograd is often cited for his discussions around computing as new forms of writing, suggests that the computer is a ‘language machine’ and simultaneously cautions us that this does not equate to an impartial ‘capture’ of meaning. He writes “symbol structures are ultimately created by people and interpreted by people.”⁴⁹

In algorithmic art, then, while the resulting calculations, data or artefacts of the code are the most obvious outcome, the underlying code should also be recognised as a language that can be used to convey meaning, as a semiotic element (sign or symbol) that affects the algorithms they construct in more ways than simply interpreting binary data between human and machine. Semiotic theory (how these signs and symbols create meaning) is easily transposed onto discourse surrounding code, especially in the context of code in art, and recurring themes of memetics, evolution

48 Lev Manovich , *The Language of New Media* (Cambridge, Mass. ; London: MIT Press, 2001).

49 Terry Winograd proposes ‘hermeneutic constructivism’ as a theory in the ontology of new media and computing as new forms of ‘writing’: “...the computer is a physical embodiment of the symbolic calculations envisaged by Hobbes and Leibniz. As such, it is really not a thinking machine, but a language machine.” —Terry Winograd, James Sheehan and Morton Sosna, eds., *The Boundaries of Humanity: Humans, Animals, Machines*, (Berkeley: University of California Press, 1991).

and contagion theory consistently arise.⁵⁰ Matthew Fuller, in a 1997 essay on the work of Gordon Matta-Clark, described the elision of the underlying architecture of the machine in its exteriority, or its software, already apparent in commercial user interfaces:

Just as when watching a film we miss out the black lines in between the frames flashing past at 24 per second, the invisible walls of software are designed to remain inscrutable.... these subscopic transformation of data inside the computer are simultaneously real and symbolic.⁵¹

Fuller seems to imply that we grow swiftly accustomed to ignoring or eliding the structural components in technology. We adapt quickly to new interface design, and our adoption of the current generation of smart devices and tablets is but another example of this gestural mimetic behavior. Alexander Galloway reiterates this notion in his analysis of interface development when he states “the more intuitive a device becomes, the more it risks falling out of media altogether, becoming as naturalized as air or as common as dirt.”⁵²

Concerned in his text specifically with the interface, Galloway sees a limitation in the common parallel drawn between threshold and interface and argues that thresholds, doorways, windows, spaces of liminal transitions are not exclusive to the interface of the computer but can be teased out in discourses of all art from

50 Kumiko Tanaka-Ishii, *Semiotics of Programming*, (Cambridge: Cambridge University Press, 2010); Gary Genosko, *Critical Semiotics : Theory, from Information to Affect*, (London: Bloomsbury, 2016).

51 Matthew Fuller, “Visceral Facades: taking Matta-Clark’s crowbar to software.” I/O/D, May 1997.

52 Alexander R. Galloway, *The Interface Effect*, (Cambridge, UK; Malden, MA: Polity Press, 2012) 25.

poetry, to painting, to New Media. Galloway expounds on a notion of ‘intraface’ or of intermediate stages of interface, and that in actuality, the interface presents as a doorway or window, but as it also encompasses a metaphysical transition becomes a “medium that does not mediate.”⁵³ Similarly, critics such as Branden Hookway see the Interface as a complex series of negotiations, both interior and exterior, that generate events. Hookway, employing elements deriving from fluid dynamics, sees the interface as “not the properties or essence of a thing but rather the interplay, within a relation, in the shaping of a mutually generated behaviour or action.”⁵⁴

The analysis of Terry Winograd and Fernando Flores, writing from a computer science perspective, locates the interface not only at the exteriority of the human body, where it comes into contact with the technology, but also within human thought processes. Winograd and Flores illustrate, through the common example of driving a car, that many small actions—such as turning a steering wheel, applying pressure to the gas pedal—are tacitly evoked in the modular gross action ‘driving a car.’⁵⁵ Similarly, interface design in computing, according to Winograd and Flores, provides humans a way to invoke a series of tacit underlying events without ‘controlling’ these individual actions.

53 *ibid*, 53.

54 Branden Hookway, *Interface*, (Cambridge, Mass: The MIT Press, 2014), 14.

55 Fernando Flores and Terry Winograd, *Understanding Computers and Cognition* (Norwood, NJ: Ablex Publishing Corporation, 1986).

Hookway's use of fluid dynamics in the observation of the interface also serves well in his discussion of an 'illusory disappearance' in the interface:

the illusory disappearance of the interface is an essential aspect of the operation of a user interface, inasmuch as an operator internalizes the user interface in the course of working through it, so as to subjectively experience that which is opened up by the interface⁵⁶

This disappearance is arguably the basis of machine-assisted human progress, as more and more sophistication can be encapsulated in an apparently singular action, increasing potential productivity. Politically, culturally, and economically, increased productivity is perceived as a common value and so the interface succeeds and evolves. Yet it also abstracts our relations to the machine, we no longer follow gears and axles as they turn in real time in relation to a force exerted. Matthew Fuller reminds us that this, however, does not make the physical properties of the machine any less, and he provocatively challenges the normative forces of human-computer interface design.

Interface design is a discipline that aspires to saying nothing. Instead of trying to crack this invisibility, one technique for investigation is to tease it into overproduction. Why use one mouse-click when ten thousand will do? Why use any visual information when navigation is perfectly possible with sound alone? Why just look at the interface, why not print it out and wear it? Why read text on screen when a far better technology is paper?⁵⁷

⁵⁶ Hookway, *Interface*, 15.

⁵⁷ Fuller, "Visceral Facades."

In broader discourses of design I am often reminded of the case of ‘the green canary.’ The green canary is the ‘alternative’ that is destined to die out, fading into oblivion in the face of the predominant yellow variant. In interface design, especially following the Jakob Nielsen ‘laws’ of heuristics—a set of rule-of-thumb strategies for effective user interface design (UX) established in 1995 that call for consistency, predictability and minimalism—there is little variation in interface design. This can be disappointing (yet also reassuring) in the real world as we experience bland homogenisation of interface surfaces, but at the same time it can provide a resilient and static target for art works looking to test and expose these normalising forces.

The works developed throughout this thesis are self-reflexive in their use and assumption of hardware and code by referencing and highlighting their own artificiality or contrivance. There is deliberate play between ‘materiality’ and a kind of ‘magic.’ By this I infer that at times I exploit the complicity of the user—specifically the tendency to temporarily ignore the existence of the underlying structure of the software or to be distracted by the gestures of the illusionist-machine—at other times the physicality of the object is used to deliberately remind us of the choices or constructs of the process and artefacts. In this way this research responds to Hookway’s call to see interface as “a facing between—as an active and contested boundary condition... that continually tests and redefines its own boundaries as it comes to face with the entities that face it.”⁵⁸

58 Hookway, *Interface*, 10, 12.

Methods IV: Commons and copy-left

The self-programmed on- and off- line software comprising the interactive and dynamic elements of this thesis have been built on hybrid systems of my own code plus adapted open-source code. Where I have customised and/or adopted libraries or tools, all attribution remains in the source-code as per the original author's license (mostly creative commons). Open-source projects (or 'free software'), such as Linux, Processing, Python and many others, embracing 'copy-left' (free dissemination) principles, offer an alternative to the corporate proprietary model symbolized by Microsoft, Apple, Adobe and so on.⁵⁹ Fundamentally, and in stark contrast to copyright-protected software, open-source software is software that provides four kinds of freedom for the user:

1. The freedom to run the program, for any purpose.
2. The freedom to study how the program works and adapt it to specific needs.
3. The freedom to redistribute copies so that someone can help his neighbor.
4. The freedom to improve the program and release these improvements to the public, so that the whole community benefits.⁶⁰

The works *myShrine*, *plyFace*, *NousAutres*, *Delayed Rays of a Star* and *The Latent Image* all implement open-source software systems and thrive in the copy-left ecology exemplified by the

⁵⁹ Copyleft.org, <http://www.copyleft.org>

⁶⁰ Free Software Foundation "The Free Software Definition", <http://www.gnu.org/philosophy/free-sw.html>

GNU, Linux, Arduino and Processing communities. Consequently the code written for this research may be similarly appropriated according to these four freedoms.

Beyond the contextual, practical and theoretical description of each work in the exegesis, and particularly in the spirit of open-source and open-design, I will be releasing the code and design plans back into the same open-source communities that contributed to their realisation.

Methods V: Interviews

For the section entitled “#Me: the Artists’s self-portrait in the age of the selfie,” I researched the impact of the ubiquitous selfie on the practice of artists working in and around the medium of the photographic self-portrait, through a series of interviews. I conversed personally with each of the respondents, within a methodology of informal and conversational qualitative research interviews. This method was chosen as the diversity of practice across the range of subjects was difficult to reconcile within more rigid frameworks. Aside from the diversity of the artists, and, therefore, their styles of interview, the actual format and location for each interview differed: from the more traditional technique of recording our voices in person; to the increasingly common technique of sharing collaborative online documents; to the back-and-forth of emails; Facebook and Google+ message threads; and even meeting in virtual online worlds as avatars.

Beyond the excerpts cited in the chapter ‘#Me’, the full transcripts of the interviews are presented in Appendix B.

Is it New Media?

As mentioned earlier, the subject and many of the outcomes of this thesis in an art context can be broadly categorised as having to do with New Media, but before I go forward I would like to draw attention to this often used term and its inherent shortcomings. Understandably, as digital platforms were introduced to art in the 1970s and 80s, the need arose for a general contextualisation and categorisation of experimental techniques or mediums, of layered, networked and tendentially more rhizomic systems that were rapidly appearing in Internet, multimedia and computer arts. This warranted, perhaps, the emphasis on that ‘new’ which was breaking with the more classical arts and their more linear hierarchies and paradigms. So a series of terms with varying half-lives were coined: cyberarts, digital art, multimedia, interactive art, computer art, and so on, although New Media seems to continue to dominate contemporary critical discussion. Yet, as the premise embedded in this overarching term is the ‘new,’ and as we move into another century and another generation of technology, that which may have convincingly served as the avant-garde in emerging digital (and video) expression either fits oddly into the category of New Media (doesn’t keep up) or, conversely, anchors the spectrum of New Media so far into the past that contemporary works, logically heirs to the term, actually have very little in common aesthetically—and technologically—with their predecessors.

Christiane Paul introduces her book *Digital Art* with a survey of the terminology regarding computer, digital and New Media arts,

concluding with her adoption of the term ‘digital art.’⁶¹ Indeed art historians, critics, curators, and practitioners are all faced with challenges in adequately contextualising and critiquing digital, New Media and Internet art, possibly because, as Julian Stallabrass put it, “Internet is not a medium, as painting is, but rather encompasses simulations of all reproducible media.”⁶² As traditional methods of media are increasingly assimilated into the digital realm through remediation or ordinary systems renewal, any term that was initially coined to distinguish digital practice from analogue, risks becoming redundant or, at the very least, ambiguous. Internet art in its myriad of practices lacks so far the critical attention and the (platform neutral) language that it would require to lift it out of its “ghettoization,”—and here this deliberate use by Stallabrass of such a highly charged term infers an enforced walling off—arguing that previously other New Media such as photography and video art found themselves in a similar predicament.⁶³ Oliver Grau has made similar claims that the technology and art precede the critical language and understanding—interestingly he suggests we draw from the history of ‘media of illusion’:

As yet, digital art still exists in a state of limbo, rather like photography before Stieglitz. The evolution of media of illusion has a long history, and now a new technological variety has appeared; however, it cannot be fully understood without its history.⁶⁴

61 Christiane Paul, *Digital Art*, London ; New York, N.Y.: Thames & Hudson, 2003, 7-11.

62 Karen ann Donnachie, 2013. “Resist the Normalising Forces : Entangled Disciplines in Contemporary Net Art Practice”, conference paper AAANZ, Melbourne, December 9th 2013; Julian Stallabrass, “Can Art History Digest Net Art ?” *Netpioneers 1.0—Contextualising Early Netbased Art* (2009): 165-179.

63 Stallabrass, “Can Art History Digest Net Art?”

64 Oliver Grau, *Virtual Art: From Illusion to Immersion*. Leonardo. (Cambridge: MIT Press, 2003), 3.

Michael Naimark addresses exactly this quandry in his “First Word Art / Last Word Art” in which he delineates that which is experimental and groundbreaking (‘first word art’ invents an art form) vs that which is a virtuouse rendition of any given style or medium (‘last word art’ perfects an artform). He concludes by suggesting that both are necessary and need to be nurtured (for example both the experimental festivals *and* the museum collections) and that the essential difference lies “in the priority of the timeframe.”⁶⁵

Additionally, any discussion of New Media (and Internet) art becomes problematic as we begin to observe unique manifestations of practice informed by a networked presence but no longer belonging to either a virtual nor a real world system, rather flowing and alternating between these systems IRL ⇔ URL (from real life to the Internet and back again). How, for example, do we categorise sculptures or paintings exhibited in gallery spaces that are the result of physical processes driven by code or informed and/or distributed by social media? The sculpture itself would not be (necessarily) interactive or networked, yet the system that permits the sculpture to come into being is. The issue is that the term New Media—and similarly the pseudo-binary demarcation ‘digital art’—is derived from a dichotomy of digital to analog systems, coupled with discourse surrounding democracy of creation and distribution. As these structures are rapidly mutating, the distinction becomes less marked and, with that, these terms become less useful. It is hoped that curators and critics, charged with the task of shaping our

65 Michael Naimark, “First Word Art / Last Word Art.” Accessed 23 march 2016, <http://naimark.net/writing/firstword.html>

critical language, soon find common and meaningful descriptors that may better accommodate Internet art (or art after the Internet), and the wider practice of what we have come to label as New Media art, to afford it a more consistent position in the broader context and language of Art History.

Gene McHugh has championed the term ‘Post-Internet’, to help identify works that challenge on-off-line paradigms. Yet again, I resist the use of the prefix ‘post’, for, despite its simplistic inferral of a chronological ‘after’ (or ‘informed by’), Post-Internet as a term is destined to an awkward future, as logically any moment from here on is Post-Internet, what characteristics will distinguish today’s works from any created in the future? McHugh, in turn rephrasing Lev Manovich, attempts to define Post-Internet as that which accentuates creative artefacts that are informed by Internet systems and processes:

Post-Internet is defined as a result of the contemporary moment: inherently informed by ubiquitous authorship, the development of attention as currency, the collapse of physical space in networked culture, and the infinite reproducibility and mutability of digital materials ... Post-Internet objects and images are developed with concern to their particular materiality as well as their vast variety of methods of presentation and dissemination.⁶⁶

An example of what I understand to be Post-Internet are Parker Ito’s high-gloss paintings that are born out of, and yet resist, reproducibility in social media as they intentionally reflect light and glare when photographed to the point of obfuscating the

66 Artie Vierkant, “The Image Object Post-Internet,” 2010. <http://jstchillin.org/artie/vierkant.html>

work.⁶⁷ Or, perhaps, Miltos Manetas' *Newpressionism*, a movement espousing works which foreground the framing mechanisms, or the 'metascreen' of the Internet and smart devices through on and off-line artworks.⁶⁸ This thesis explicitly addresses these emerging concerns of materiality and distribution, both in its artefacts and methodologies.

Often for convenience, and lack of alternatives, in wider discussions of digital, and Internet art practice (as subsets of New Media), the platform—or device—central to the development or distribution of the work is used as a shortcut nomenclature for its categorisation. So we have 'iPhone art,' 'Instagram art,' 'YouTube performance' and so on. Although this has its advantages in that it renders the work easily accessible and recognisable, by pegging the practice to the app, service or software, we are not only dividing and relegating the artist and any overarching movement that may be emerging across these different media to a position of user or consumer of the platform, but we are also potentially assigning the work an artificial half-life, the expiry of which will coincide with the demise of the dominant technology. This inevitable redundancy presents another pressing matter, as the curation and preservation of ephemeral, platform, technology or system-reliant works requires attention and diligence to ensure their continued accessibility.

67 Interestingly Parker Ito himself nods to Artie Vierkant on his website: "I mean Paint FX was just a rip off of Poster Company, my 3M Scotchlite works were just an extension of Artie Vierkant's Image Objects, and everyone and their mom has made art with, and about stock photography." Parker Ito, Accessed 25 January 2016. <http://www.parkerito.com/docs.html>

68 Miltos Manetas, *Newpressionism*, <http://www.Newpressionism.com>

Edward Shanken, in his ISEA 2010 paper, suggests how New Media art and mainstream contemporary art may converge. He recognises the unfortunate position New Media still holds in the context of art criticism: “mainstream discourses typically dismiss NMA [New Media art] on the basis of its technological form or immateriality, without fully appreciating its theoretical richness, or the conceptual parallels it shares with MCA [mainstream contemporary art].”⁶⁹ Meanwhile New Media art practitioners—auspicing a greater consideration of this genre of contemporary art—are vindicated by Shanken’s defense:

New media not only offers expanded possibilities for art but also offers valuable insights into the aesthetic applications and social implications of science and technology. At its best, it does so in a meta-critical way. In other words, it deploys technological media in a manner that self-reflexively demonstrates how New Media is deeply imbricated in modes of knowledge production, perception, and interaction, and is thus inextricable from corresponding epistemological and ontological transformations.⁷⁰

This research therefore embraces this potential for New Media art to at once create new feelings or new meanings be it through topic, technology or technique, while also bringing our attention to that which has changed within and without the human to allow us this experience. Fundamentally this is a process that every art medium has passed through, and it could be argued that at critical moments in art history, it is the deliberate and concerted challenge to the canons of the medium itself that brings about new ways of seeing.

69 Edward Shanken, “Contemporary Art and New Media: Outline for Developing a Hybrid Discourse,” *ISEA 2010 Conference Proceedings*, 106.

70 Ibid

... Or is it Remediation?

Discussions of remediation frequently arise in academic and general literature on the use of the digital image, digital technologies, selfies or social media, due to the belief that the Internet subsumes other media. There is a tendency for authors narrating New Media history, to begin by listing the innumerable virtual activities that we engage in on a quotidian basis, and how they conform or correspond to pre-Internet or pre-digital cultural behaviour. The interactive metaphors created in graphic user interfaces have facilitated this deterministic view, as they sought to transition users from real to virtual environments.

Given the contemporary shape of HCI, it is important to remember that its origins are personal productivity interactions bound to the desktop, such as word processing and spreadsheets. Indeed, one of the biggest design ideas of the early 1980s was the so-called messy desk metaphor, popularized by the Apple Macintosh: Files and folders were displayed as icons that could be, and were scattered around the display surface.⁷¹

As I discussed earlier, the human-computer interface has subsumed a series of events into simplistic gestures. The desktop environment, with its trashcan, windows and innumerable icons undoubtedly were, and serve still, as heuristic shortcuts to usability and adoption of gesture for software and operating systems, especially for the office worker. Yet the resulting effect—that the virtual environment (largely) recreates an established real world counterpart—can

71 John M. Carroll, “Human Computer Interaction - brief intro,” *Interaction Design Foundation*. Accessed 5 May, 2016, <https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/human-computer-interaction-brief-intro>

have an undermining side effect on New Media. Socio-historical accounts interwoven with art history often conclude with an inference that New Media is merely comprised of remediation. From Marshall McLuhan's often cited "Medium is the Message," through *Remediation* by David Bolter and Richard Grusin, to Rachel Greene's *Internet Art*. 'New' technologies are shown to be contemporary translations or transpositions of 'old' technologies.⁷² Theorists adhering to the writings of Marshall McLuhan often argue the Internet's sublimation of all previous technologies, and consequently art created in the virtual environment would be also a remediation of previous art forms. Julian Stallabrass, in his critique of Rachel Greene's parallel (non-convergent) approach to Internet criticism (in which she separates technological and art-historical perspectives) claims that "we are left with the quasi-Hegelian air of development towards a preordained present."⁷³ That is, Stallabrass takes issue with Greene's reasoning that both establishes causal relations between technology and the art emerging in these technologies, and secondly vaguely explains away the creative innovation as a retooling or manifestation (conscious or not) of an 'influence,' style or zeitgeist.⁷⁴

72 Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media*. (Cambridge, Mass: London; MIT Press, 2000); Marshall McLuhan, *Understanding Media: The Extensions of Man*, (Cambridge, Mass: London; MIT Press, 1964); Rachel Greene, *Internet Art*, (New York: Thames & Hudson, 2004); Oliver Grau, *Virtual Art from Illusion to Immersion*, trans. Gloria Custance, (Cambridge, Mass: London; MIT Press, 2003); Lutz Peter Koepnick and Erin McGlothlin (eds), *After the Digital Divide?: German Aesthetic Theory in the Age of New Media*, (New York: Camden House, 2009)

73 Stallabrass, "Can Art History Digest Net Art?"

74 Stallabrass parallels this to Hegel's theories that all of world history is nothing more than Reason's self-development, to emphasise the deterministic connotations; Georg Wilhelm Friedrich Hegel, *Phenomenology of Spirit*, trans. A. V. Miller, (Oxford: Oxford University Press, 1988)

Alexander Galloway proposes a new stance as he tackles this poor fit of the remediation model on the computer environment in *The Interface Effect*.⁷⁵ He critiques the propositions of Gilles Deleuze, Friedrich Kittler and later Stanley Cavell who have each attempted to define the essence of the computer; as technical media, substrates and artefacts (Kittler); as systems of power (Deleuze); as a medium (Cavell).⁷⁶ Galloway describes the difficulty with which we can categorise the computer, as a problem of metaphysics, and explains his view of the flawed essentialist approach of New Media theorists such as Lev Manovich and Janet Murray with the notion that computers, in their simulation of ontologies, are defining “horizons of possibility.”⁷⁷ His argument follows on to galvanise the debunking of theories of remediation—interpreted as the reissue of one medium as content for another—and through logic that draws on programming, calculus and imagined hypothetical states, concludes that the “computer is in general an ethic.”⁷⁸ In other words, Galloway sees the state or medium of the computer as more about practices and effects than about objects and operations, thus distancing himself from structuralist theorists.

When any form of technological determinism is used as a foundation for the understanding of New Media art, the cost is that technological advancements, unforeseen cultural phenomena and otherwise relevant deviations from standard behaviour are conveniently explained away as being a natural and predictable transformation. These otherwise notable events are thus normalised

⁷⁵ Galloway, *The Interface Effect*, 19.

⁷⁶ Ibid, 19.

⁷⁷ Ibid, 19.

⁷⁸ ibid, 17-24.

and woven into a cohesive narrative by historians, sociologists and cultural observers.⁷⁹

Specifically, this research is based on acknowledgement of the selfie as a radically new activity, and its unique position in relation to the photographic self-portrait and to the photographic object in general. This study indeed challenges the legacy of classical portraiture and resists the idea that the selfie is a direct remediation of the self-portrait.

A statistic that has circulated on the Internet estimates that 10% of all photos *ever* taken were taken in the last 12 months, and every two minutes (or in the time it takes to read two pages of this thesis) more pictures are taken than were created by the whole of humanity in the 1800s.⁸⁰ Moreover, they are publicly available. If this figure is taken to be true, by the time we look up from the page, photographic history—quantitatively speaking—has potentially been overwritten. Of course ubiquity or popularity does not dictate enduring cultural value, and it may provide the very reasons to dismiss it, but it still raises the question of what tools, then, can we use to assimilate and critique vernacular media phenomena (video, photography, selfies, memes, texts)? Can our classical photographic or art theory still bear relevance on contemporary image production when the current pool of visual culture differs radically in the form, function, tools of production, and methods of transmission? Critic Stephen Groening has touched on the issue

79 Jill Walker Rettberg, *Seeing Ourselves Through Technology : How We Use Selfies, Blogs and Wearable Devices to See and Shape Ourselves*. (Palgrave Pivot, 2014)

80 Hunter Schwarz, "How Many Photos Have Been Taken Ever?" on BuzzFeed. Accessed 3 September 2013, <https://www.buzzfeed.com/hunterschwarz/how-many-photos-have-been-taken-ever-6zgy>

(although his specific reference was to the rise in YouTube video culture):

[R]esidues of high/low cultural hierarchies coat academic film and media criticism. That (theatrically released) films are granted in-depth attention to detail, skill, and artistry, while videos which populate the digital displays in our homes, offices, and hands are treated as illustrations of larger socioeconomic trends is, in no small part, due to judgments of taste and the accrual of cultural capital.⁸¹

What Groening is referring to here is evident also in the critical treatment of selfies. Contemporary discourse commonly frames the selfie not as part of a culture of photography, but rather as a social trend, a by-product of “technological, social, and cultural upheavals.”⁸² Yes, it is possible to place the selfie at the intersection of a number of such upheavals, and undeniably the selfie is also dependent on these converging systems, but I will demonstrate throughout this thesis how the selfie is novel, both as a form of visualisation of humanity (artefact) and as a new cultural activity, or pastime (action). The selfie has shaped new techniques of photography (frame, pose, setting); it has inspired new products, accessories, tools and applications of image production and dissemination; has lent itself to cultural, political and social activism; and it has changed the language, context and perception of Photography as a medium. In short, the selfie has produced a rupture with the photograph as we knew it.

81 Stephen Groening, “Introduction: The Aesthetics of Online Videos” in Volume 40, Issue 2: Special Guest-Edited Issue: The Aesthetics of Online Videos, June 2016

82 Groening, “The Aesthetics of Online Videos”, XXXX

Yet, of course, the selfie did not appear in a vacuum, and owes much to the canons of portraiture, modes of self presentation and photographic tools and techniques that have preceded it. Although, this does not warrant the common line of reasoning that reduces the selfie to a node on a linear trajectory stretching back through early photography and renaissance portraiture, indeed all the way back to Parmigianino and his associates.⁸³ In this vein, selfies have been attributed (I believe erroneously, but will discuss why later) to Dürer, Robert Cornelius, and The Beatles.⁸⁴ This promotes a normalisation of the phenomenon and limits its discussion, as it predetermines the language and methods that we can adopt in its observation and experimentation. Similarly, the reduction of the selfie through quantitative or statistical observation to sets of data, open for scientific metric observation—as in Lev Manovich’s *SelfieCity* project or the recent *Dawn of the Selfie Era* quantitative data study—while offering an important macro-perspective, may risk framing the products and authors of the selfie as merely points in a commerce of data.⁸⁵

83 Karl S. Kruszelnicki, “A brief history of the selfie,” ABC Online. 10th August 2014. <http://www.abc.net.au/science/articles/2014/08/12/4065062.htm>

84 “25 Celebrities That Made Selfies Cool Way Before You Bought Your First Camera Phone” *EMGN.com* ; Jenna Cossuto. “See Beatles’ Selfies Before Selfies Were Even Invented” *Life Daily.com* 30 July 2015, <http://www.lifedaily.com/see-beatles-selfies-before-selfies-were-even-invented/>

85 Lev Manovich *SelfieCity*, 2014, <http://selfiecity.net/> ; Flávio Souza, Diego de Las Casas, Vinícius Flores, SunBum Youn, Meeyoung Cha, Daniele Quercia, Virgílio Almeida, *Dawn of the Selfie Era: The Whos, Wheres, and Hows of Selfies on Instagram*, <http://arXiv:1510.05700>; My work *The Latent Image*, a data visualisation work presented in the context of ‘Second-life’ raises the issues of homogenisation and inherent bias in statistical based systems and how this bias may be used and abused for rhetoric.

The selfie as rupture

There have been some significant (as well as some less significant) changes to the activities surrounding the creation, manipulation and distribution of our self-portrait. Indeed the self-portrait, and more generally the portrait—or how human beings have perceived and depicted themselves over the ages—are topics of sustained interest in academic and general publications. The seemingly endless list of books on the subject from this and last century was admittedly intimidating when I began this research. Recently published texts discussing the portrait, self-portrait and its relation to contemporary identity making, include Berger's *Artist Portraits*; Cumming's *A Face to the World*; Jones' *Self/Image*, Bright's *Auto Focus*; Hall's *The Self-Portrait: A Cultural History*; Pointon's *Portrayal*; West's *Portraiture*; Rideal's *Insights* and *Mirror Mirror*; Vann's *Face to Face*; the BBC series *Face*; dozens of notable exhibitions and many journal and general press articles.⁸⁶ It appeared that the topic of portraiture had been exhausted from all perspectives.

Through the immersion in these texts I realised that there was potential for original enquiry into the use and effect of the

86 Shearer West, *Portraiture*, (Oxford ; New York: Oxford University Press, 2004); Amelia Jones, *Self/Image : Technology, Representation And The Contemporary Subject* (London: Routledge, 2006); Roland Kanz and Norbert Wolf, eds *Portraits*, (Köln ; London: Taschen, 2008); Philip Vann, *Face To Face : British self-portraits in the Twentieth Century*. Bristol: Sansom & Company, 2004); Liz Rideal, *Self-portraits*. (London: National Portrait Gallery, 2005); Ernst Rebel, *Self-portraits*, (Köln; London: Taschen, 2008); Cynthis Freeland, *Portraits and Persons: A Philosophical Inquiry*. www.portraitindex.html ; Anthony Bond and Joanna Woodall, *Self Portrait: Renaissance to Contemporary*, National Portrait Gallery (UK: National Portrait Gallery, 2005) ; Laura Cumming, *A Face to the World : On Self-Portraits*. (London: Harper Press, 2009); Susan Bright, *Auto Focus : The Self-Portrait in Contemporary Photography*, 1st American ed. (New York: Monacelli Press, 2010); Marcia Pointon, *Portrayal and the Search for Identity*, (London: Reaktion, 2013) ; Liz Rideal et al., *Mirror, Mirror: Self-Portraits by Women Artists*, (London: National Portrait Gallery, 2001)

amateur, networked self-portrait, and that rather than attempting the impossible task of rewriting the history of the self-portrait as a preface to the study, I could leverage this established discourse to extend the reach of my thesis.

In 2012, as I began my research, the word *selfie* emerged in common speech, and the general press—and later academia—suddenly had a name they could associate to this new genre of self-portraiture as object and activity. This, combined with the recently consolidated scholarship on the photographic self-portrait, meant that the theoretical context was in place for my study of the use of the self-portrait in the age of the *selfie*.

One of the most significant changes that the *selfie* embodies is that regarding authorship, agency, and a general sense of empowerment for the subject/author. The taking of one's self-portrait among members of the general public, prior to this century, while technologically possible, was not recognised as a culturally significant activity (I will establish this further in Part 1). This evolution is significant for a number of reasons, not the least of which is that, prior to the *selfie*—and certainly before the turn of the century—the term 'self-portrait' would infer an artistic endeavour. The very language of the self-portrait has to now be modified in order to accommodate the *selfie*, and especially in this thesis I have felt increasingly obliged to distinguish the self portrait when it is created as art practice. I discuss 'the artist's self-portrait' which is now to be considered but a minor subset of a more general practice of self-portraiture. Significantly, however, the pre-*selfie* scholarship pertaining to the general history of the self-portrait (not

overtly specified as artistic practice) necessarily concerned itself with artists' self-portraits, so there remains ambiguity in the field while the prevailing vocabulary adjusts to the emergence of the selfie.

Alex Williams in a 2006 article attempts to shed light on the emergence of a social, vernacular self-portrait, and he cites long-term archival projects of twentieth century vernacular photography which have revealed that only a minor percentage of photos accumulated (which infers preserved and/or valued) were identifiable as self-portraits.⁸⁷ Contrasting this with the increased activity he observed in 2006 around the amateur self-portrait shared on the Internet, he writes:

And one particular kind of image has especially soared in popularity, particularly among the young: the self-portrait, which has become a kind of folk art for the digital age.⁸⁸

Just a decade on, in the midst of the 'age of the selfie,' survey results of one study that claimed young women (the targeted demographic) dedicated up to five hours per week on the creation and distribution of their selfies.⁸⁹ Does this dedication—possibly quantatively matching the toil of some twentieth century self-portrait artists—perhaps confirm Williams' observation that this

87 Guy Stricherz, the author of *Americans in Kodachrome, 1945-65* a comprehensive review of American domestic photography, remarked on the fact that, of the 100,000+ submissions he received for his publication compiled over 17 years, fewer than 100 slides were self-portraits. [From] Alex Williams, "Here I Am Taking My Own Picture," The New York Times, February 19th 2006. Accessed 3 September 2013 http://www.nytimes.com/2006/02/19/fashion/sundaystyles/19SELF.html?pagewanted=all&_r=0

88 Alex Williams, "Here I Am Taking My Own Picture."

89 "feelunique.com" study cited in <http://www.mirror.co.uk/news/uk-news/selfies-take-up-five-hours-5700345>

new cultural activity of the selfie should be considered an art form, albeit ‘folk art’? If so, what is left to us is to ascertain how the selfie could sit in an ecology of art practice forged from photographic self-portrait. In the chapter “#Me: The Artist’s Self-Portrait,” I converse with some artists about selfies and how they currently perceive and use the self-portrait in their practice.

Within this thesis, I focus on what I believe are the unique behaviours and activities that surround the selfie with particular regard to the current use of the photographic self-portrait. The classic self-portrait, as well as the practice of the artist’s photographic self-portrait of the twentieth century, while not mandatory pre-histories of the selfie, can provide us some cultural and functional background to the artefact of the selfie.

Concluding the Introduction

In this introduction, I have circumscribed the area of focus of this thesis in its material, conceptual and theoretical concerns, defining salient terms and their utility within this thesis. I have outlined the context in which the art is created and the methods that have been adopted within the research.

In the section that follows, 'The Age of the Selfie,' I will discuss what the selfie is and why it matters. I will introduce notions of authenticity and human connectedness that are driving the selfie phenomenon, and argue how the selfie raises questions of identity formation, social media dependency, celebrity idolation, as well as discussing the technological, biological, affective and cultural developments that converge in the activity of the selfie.

Part 1: The Age of the Selfie

#Me: Glimpses of Authenticity

As art institutions, events and monuments have been gate-crashed by stick-wielding selfie-ists, Presidents and Popes are being imaged as they gaze into their glossy handheld devices, and a single selfie has been valued at between between \$800 million and \$1 billion, it is hardly surprising that there has been much discussion of the selfie recently in both scholarly and general press.⁹⁰

While the debate continues as to whether the selfie is a cultural blight or blessing, this research sets out to address the selfie as it stands as object and as activity.⁹¹ In this chapter, I consider the selfie to be a significant phenomenon of contemporary photography, with its unique methods of production and distribution. I will argue that the selfie happens at the crossroads between performance, narcissism, social tic, an intrinsic desire for self-projection and a possibly irrational quest for authenticity in the contemporary photographic image, and that its ubiquity cannot help but change the idea of the photograph as we know it. By examining the way in which the Selfie is made and distributed, and contemplating the motivations driving this particular variety of self-portrait, I theorise

90 According to Maurice Levy, CEO Publicis Groupe, when asked about Ellen DeGeneris' Academy Awards selfie of 2014, staged for Samsung. <http://www.hollywoodreporter.com/news/miptv-ellen-degeneres-oscar-selfie-694562>

91 Dozens of articles in the general press have been published resulting in a media panic regarding the selfie (too many to list, here are but some examples): "The 'Selfie' Obsession: A Chronic, Narcissistic Mental Disorder." 21st Century wire. December 13, 2014 <http://21stcenturywire.com/2014/12/13/selfie-obsession-a-chronic-narcissistic-mental-disorder/>; Helena Blackstone, 2015. "Selfies: The high cost of low confidence." <http://nytlive.nytimes.com/womenintheworld/2015/10/07/selfies-the-high-cost-of-low-confidence/>; Christie Barakat, 2014. "Science Links Selfies to Narcissism, Addiction & Low Self Esteem" <http://www.adweek.com/socialtimes/selfies-narcissism-addiction-low-self-esteem/147769>; Seidman, Gwendolyn. "Are Selfies a Sign of Narcissism and Psychopathy?" <http://www.psychologytoday.com>

on the possible position this emerging genre begins to occupy in contemporary Photography.

The works that have informed and tested this research are discussed in Part 2 of this thesis, and each in their own way evoke the themes that are presented in these pages.

A brief history of the selfie and why it matters

Although the popularisation of the neologism ‘selfie’ is often linked to photographer Jim Krause’s discussions (from 2005 on), Internet folklore would attribute the first use of the word selfie to an Australian sending an MMS (phone message with picture attached) as early as 2002.⁹² Previous to its current use as a photographic genre, it was a lesser-known moniker for fans of the rock band *Self*. It was not until 2012 that the word emerged in general Internet use, and despite its relatively brief existence, the term selfie was granted ‘buzzword of the year’ status in 2012. It was included in the Oxford dictionary from 2013, when it officially graduated to ‘word of the year.’⁹³ In short, the history of the selfie is still being written, with art critic Jerry Saltz describing the genre as “in its Neolithic phase.”⁹⁴ For the purposes of this research, the selfie (and related metadata equivalents or hash tags #selfie, #me, #moisette, #selca, #jidori and

92 “ABC Online (forum posting) 13 September 2002

‘Um, drunk at a mates 21st, I tripped ofer [sic] and landed lip first (with front teeth coming a very close second) on a set of steps. I had a hole about 1cm long right through my bottom lip. And sorry about the focus, it was a selfie.’” Cited in OxfordWords Blog, <http://blog.oxforddictionaries.com/2013/11/word-of-the-year-2013-winner/>

93 Oxford Dictionaries, “Oxford Dictionaries Word of the Year 2013,” In *OxfordWords Blog: Oxford University Press*, 2013.

94 Jerry Saltz, “Art at Arm’s Length: A History of the Selfie,” *New York Magazine*, February 3 2014. Accessed January 30 2014, <http://www.vulture.com/2014/01/history-of-the-selfie.html>

many other culturally specific equivalents) is understood to be the photographic convention in which the subject/author is shown with the camera/device in hand—often photographed through a mirror reflection—or alternatively the camera is turned towards the subject held with an outstretched arm, or, most recently, mounted on a telescopic phone cradle affectionately named ‘selfie-stick,’ and this image has been deliberately labelled (tagged) #selfie.⁹⁵

In October 2013, a Google search performed for the term ‘selfie’ returned 11 million results. Now, in 2016, as this text is being edited, the search results of ‘selfie’ returns “about 355,000,000” entries.⁹⁶ There are also over 269 million images that incorporate the semantic tag #selfie—and 299 million with #me—on the photo-sharing network Instagram as of 2016 (which, until recent changes to Instagram’s access protocols, could be viewed in real time through Tyler Madsen, Erik Carter and Jillian Mayer’s Internet artwork www.selffeed.com).⁹⁷ What remains unquantifiable is the additional number of selfies taken, instantaneously shared and stored on and between individual mobile devices, through dedicated archiving services such as Tumblr, Facebook, mySpace, Flickr, photobucket and many more, as well as mobile software applications such as Snapchat or Shots, the latter created exclusively for the making and sharing of selfies shot with forward facing cameras, devoid of any commentary, filters or other sophistications.⁹⁸ These numbers

95 Other subgenres of selfies have simultaneously emerged, each with its own dominant tag, such as ‘#selfshot’ or ‘#nakie’ for the more explicitly sexual or naked selfie.

96 Google Corporation. Accessed August 9th 2016, <https://www.google.com.au/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=selfie>

97 Tyler Madsen, Erik Carter and Jillian Mayer, “Selffeed,” 2014. <http://www.selffeed.com>

98 See <http://www.shots.me> ; At the current rate the total predicted number of photos uploaded to Facebook in 2015 will be 75 billion.

are significant for the quantity of selfies presently stored in our social networks or online photo repositories easily overwhelms the collective history of portraiture up until the twenty-first century, and is increasing exponentially.

While human beings today are photographing themselves at a phenomenal rate, this appears to be a new behaviour, or at least a significant departure from its precursors. For, despite the fact that the technology to enable self-portraits was available and affordable in western society throughout the twentieth century (from the launch of Kodak's Brownie camera in 1900 through to the age of the Polaroid from the 1970s) it certainly was not a ubiquitous, organised, nor even frequent activity. In fact, Guy Stricherz, the author of *Americans in Kodachrome, 1945-65*, a comprehensive review of post-war American domestic photography, remarked on the fact that of the more than 100,000 photographic submissions he received for his publication compiled over seventeen years, fewer than 100 slides were self-portraits.⁹⁹ Essentially, it would seem, in the twentieth century people did not point the camera at themselves as readily, frequently, and without inhibition as they do today.

Anecdotally, I recall a certain discomfort with the social self-portrait or even portrait in general, many snapshots of myself and friends taken in the late twentieth century include hands waved in front of the lens, as the subject attempts to block the shot. I believe it would be interesting to read cross-generational studies on the levels of inhibition (recalled or perceived) of the vernacular self-

99 Alex Williams, "Here I Am Taking My Own Picture," The New York Times, February 19th 2006. Accessed 3 September 2013 http://www.nytimes.com/2006/02/19/fashion/sundaystyles/19SELF.html?pagewanted=all&_r=0

portrait. While I acknowledge that, generally speaking, twentieth century domestic photography has been critically neglected and relegated to oblivion—so with it any quantity of vernacular self-portraits would remain in similar obscurity—my own perception of late twentieth century culture informs me that taking regular self-portraits just wasn't something you did. Additionally, the current intense discussion—as demonstrated by the steady slew of articles and papers surrounding the phenomenon of the selfie—would testify to its novelty and significance as a genre.

A portrait is not a selfie

The selfie, and the networked self-portrait leading up to the selfie (profile picture), have been framed as the natural successor of the self-portrait. As such, these images have been discussed in recent scholarship on the history of the portrait, and the self-portrait by scholars such as Laura Cumming, Kathy Cleland and Larry Friedlander, who attempt to reconcile our pre-digital perception of the human face, especially the tradition of portraiture, with the contemporary proliferation of digital representations in the networked environment.¹⁰⁰

A long evolution of visual culture, intimately intertwined with evolving notions of identity and society, was necessary to create the conditions for the particular forms of self-representation we encounter on Facebook.¹⁰¹

100 Laura Cumming, 2009. *A Face To The World : On Self-Portraits*. London: Harper Press; Kathy Cleland, "Image Avatars: Self-Other Encounters in a Mediated World," (PhD Diss., Sydney University of technology, 2008); Larry Friedlander, 2011. "Friending the Virgin: Some Thoughts on the Prehistory of Facebook" *SAGE Open*.

101 Friedlander, "Friending the Virgin," 1.



Robert Cornelius, self-portrait. Believed to be the earliest extant American portrait photo. Daguerreotype Collection, Marian S. Carson Collection, Library of Congress, USA, 1839.

Our collective infatuation with the selfie has brought some observers to see them in the most unlikely of places, from the (painted) self-portraiture of Van Eyck, Dürer and Rembrandt to the very first experiments in photography to iconic photographs such as George Harrison's fisheye self-portraits of the late 1960s to the less historic 'Myspace pic' once popular in the now surpassed social network. Historic national archives have been trawled to find proto-selfies such as Robert Cornelius' daguerreotype image (above), frequently cited in such selfie-archaeologies, perhaps in the hope that the selfie can be better analysed within historically established canons. I believe, however, that these endeavours by scholarship and

journalism to deliver us the first selfie, are not always constructive for the understanding of the attributes, significance and poetics that are unique to the selfie. For they dismiss the (actual, twentyfirst century) selfie by eliding precisely its distinguishing features and conflating selfie with photographic self-portrait.

The attribution to Robert Cornelius, for example, of the earliest American self-portrait may arguably be deserved and noteworthy, and indeed many of the first experiments in photography were self-portraits—the artist required a body and the most reliable and economical on hand was their own—yet, its affiliation with the genre of selfie is more tenuous. Such historic self-portraits are not selfies (or even proto-selfies) merely because they fulfil the common prerequisites of being photographic, and self-portraits, and to describe them as such risks reducing their individual accomplishment or significance. To seek the origin of the selfie in previous genres of self-representation also becomes counterproductive for while there may be some formal or functional overlap between the selfie and previous genres of self-portraiture, and I will address that shortly, the selfie consistently emerges as a contemporary manifestation, a discrete entity and/or activity. Through its composition, mode of production, networked distribution, consumption and sheer ubiquity, the selfie is unique in its genre; it cannot be simply reduced to a digital remediation of the self-portrait. This collective quest to uncover the first selfie does however provide one useful clue; it confirms that we already cannot imagine ever having lived without this phenomenon.

Pejoratively, curator and critic Brian Droitcour also underlines the difference between the self-portrait and the selfie in his significantly titled “A Selfie is not a Portrait.”¹⁰² Droitcour’s antipathy for the selfie (in this article) masks nostalgia for a more classical (and imaginably endangered) portrait, while he emphasises the selfie’s artistic shortcomings, as if the significance of the selfie were to depend on its acceptance as portraiture at all. Droitcour’s analysis embodies a dystopian commentary based on the perception of an inundation and dilution of culture through communal networked practice, which would include the act of the selfie. Of course, this reactionary response is hardly without precedence. Gen Doy, remarking on scholars’ reaction to renaissance artists painting non-noble subjects, declared “as early as the sixteenth century, writings on art warned that the portrayal of ordinary, unworthy people would simply degrade the idea of the portrait.”¹⁰³

Art critic Jerry Saltz, in contrast, sees the selfie as a valuable addition to cultural production, with the potential for a new kind of expression:

It’s become a new visual genre—a type of self-portraiture formally distinct from all others in history. Selfies have their own structural autonomy. This is a very big deal for art ... a genre possesses its own formal logic, with tropes and structural wisdom, and lasts a long time, until all the problems it was invented to address have been fully addressed.¹⁰⁴

102 Brian Droitcour, “A Selfie Is Not a Portrait,” *Culture Two* (Brian Droitcour, 2013) <http://culturetwo.wordpress.com/2013/10/24/a-selfie-is-not-a-portrait/>

103 Gen Doy, *Picturing The Self : Changing Views Of The Subject In Visual Culture*, (London: I.B. Tauris, 2005), 25.

104 Saltz, “Art at Arm’s Length.”

I will argue in the following pages that the selfie is a much awaited, unique development of the photograph, comprising an intimacy and humanity without precedence, a complex collective post-human behaviour conceived within the network with the support of the prosthetic camera-phone.

The desire to photograph oneself

It would be useful at this point to discuss the technology serving the selfie in order to further underline the unique nature of the genre. The camera-enabled smartphone is clearly the most prevalent tool for the production and distribution of the selfie at present, and it is forgivable that writers on the subject draw efficient causal inferences between the technology and the social product. The popular explanation is that because we have phones with cameras on them, and we are using these cameras for taking selfies, the camera on the phone was invented for taking selfies, or alternatively (if the user, rather than the technologist is attributed with the invention), selfies suddenly boomed once camera-functions were added to mobile telephony. Even the most cursory research into the history of the camera-phone, however, finds these hypotheses flawed, the camera as accessory to the mobile telephone preceded the onset of the selfie by at least a decade. Already in 1997 mobile phones offered the ability to send a text message with attachments such as photos (MMS). The service was immensely popular and generated unprecedented revenue for cell-phone carriers and camera-phone producers alike that by 2003 the sale of camera-phones outstripped those of digital cameras, but we still didn't see the selfie emerge as a cultural phenomenon until almost 10 years later. Even the

introduction of the now ubiquitous selfie-assisting forward-facing camera from 2007 was primarily designed to promote paid streaming data traffic through the relatively costly video-telephony system, a practice which, despite gaining a memorable mention in David Foster-Wallace's *Infinite Jest*, did not prove as popular as expected. In summary, the subsequent use of the camera-phone as a selfie-cam was neither instant, guided by marketing strategies, nor anticipated.¹⁰⁵ As Christopher Drain and Richard Strong underline:

The smartphone is not the harbinger of changes for humanity. It is the instrument, evidence, and scaffold of changes already wrought, of practices already modified, of memory and perception already altered.¹⁰⁶

In other words, merely because the phenomenon of the selfie and the radical changes occurring in the field of self-representation can be observed through and around the object of the mobile device, we should resist the temptation to attribute it sole causal agency.

Another essential technological pre-requisite for the selfie is the presence and participation in social media, which provides instant distribution and aggregation through a selfie-ready audience. Specifically Instagram, Snapchat, Facebook are all communities which have grown in popularity in the last decade and have been included in the operating systems of smartphones. Yet again in the panorama of social media the technologies were implemented

105 David Foster-Wallace, *Infinite Jest : A Novel*, (Boston ; London: Little, Brown and Company, 1996), 144-151.

106 Christopher Drain and Richard Charles Strong, "Situated Mediation and Technological Reflexivity: Smartphones, Extended Memory, and Limits of Cognitive Enhancement." In *Social Epistemology and Technology: Toward Public Self-Awareness Regarding Technological Mediation*, Edited by Frank Scalabrino. Rowman & Littlefield International (2015, forthcoming).

with the first generation of image-rich communities such as Friendster (2002), Myspace (2003), Six Degrees (1997-2001), and by 2004, when Facebook launched, there were already a myriad of image hosting and sharing services including Flickr (2004) and PhotoBucket (2003).

Lastly, an absolutely indivisible attribute of the selfie is the rigorous use of the semantic label ‘#selfie’. The ‘hashtag’ (the ‘#’ or pound symbol prefixed to an image or phrase) is a user generated semantic meta-appendage to a social media message or image, that allows for sorting, aggregating, making meaning and belonging. The practice informally began on the messaging platform Twitter around 2007 and has now become common practice across almost all social media platforms (#selfie has been a popular tag in Instagram from 2011 on). The relation of the hashtag to the selfie is that the metatag #selfie and the selfie emerged together. The word selfie was always-already a *hashtag*—‘selfie’ is in fact indistinguishable from ‘#selfie’—and this may be significant for a couple of reasons. Firstly the attribution of #selfie to a self-portrait becomes a deliberate affirmation of intent by the author, as they broadcast that which is to be understood to be a sanctioned likeness. Secondly, the emergence of the (brand new) word as ‘#selfie,’ with this contextual significance, reinforces the digital first imperative of both the activity and the artefact. The selfie is imaged and imagined to become part of the group of #selfie images that already exist.¹⁰⁷

107 Prior to this century, a few groupings of portrait photographs have been considered culturally significant, enough to be considered tropes, such as the ‘memento mori’ (a photographic image for remembrance of the dead); the ‘wedding photo’; the school class photo; the photo I.D.; the ‘mug shot’ (the photo taken by the authorities when they make an arrest); sitting on Santa’s lap; and so on. These images of course are all portraits, rather than self-portraits.

There arguably remains a lapse in time (perhaps five to eight years), between the technological capacity (cameraphone + social media), and the actual manifestation of the selfie as a significant cultural phenomenon. For me, this gap is evidence that the converging technology alone does not recount the whole history of the selfie phenomenon.

I suggest that society was not yet ready. Geoffrey Batchen has argued that the mere introduction of any technological capacity within a system does not guarantee its widespread adoption. In his discussions on the beginnings of photography. Batchen details the historical setting for the first photographic systems and proposes that the technology necessary for the daguerreotype far preceded the correlated “desire to photograph.”¹⁰⁸ I see a similar pattern in the fact that throughout all of the twentieth century, despite western society’s broad access to economical domestic cameras capable of capturing self-portraits, and a broadening middle-class who enjoyed capitalism’s new privileges of leisure, prosperity and self-improvement, the selfie (or analogue equivalent) did not emerge.¹⁰⁹ Likewise, the introduction/invention of the camera-enabled smart phone or other similar mobile technology, along with the rise of participation in social media, while certainly facilitating the processes of capture and distribution of the selfie, cannot be

108 Geoffrey Batchen, *Each Wild Idea: Writing, Photography, History*. (Cambridge, Mass.: MIT Press, 2001), 129; The desire to pause time and present a singular moment was also observable in the same era across other art forms, such as poetry or painting, demonstrating that this was an emerging desire, which eventually found outlet through the technological developments of the photograph and brought forth the daguerrotype cameras.

109 Marika Lüders, Lin Prøitz, and Terje Rasmussen, “Emerging Personal Media Genres,” *New Media & Society* 12, No. 6 (2010): 959.

reductively attributed neither the sole nor primary cause of the selfie phenomenon.

Instead, if we return to Batchen's theory and map it to the emergence of the selfie, we could say that in the last 10 years we have witnessed the development of an unprecedented, intrinsic *desire to photograph oneself*, and the rampant success of the social media entwined forward-facing-camera-enabled smart-phone is a strongly correlated phenomenon and serves as the medium through which the selfie can happen. These conclusions have been recently shared by scholar Teresa Senft:

The convergence of the camera with the smartphone is not all that is needed for a selfie—there has to be a human desire to make such picture and—equally important—to share it with one's peers.¹¹⁰

The artist Amalia Ulman, who uses the selfie as medium and social media as platform for her scripted narrative performances, adds a further capitalist dimension to the rise of the selfie. She claims that it is only now in late capitalism that a general public is obliged to create and maintain a public identity through profile pictures and selfies.

Maybe because it wasn't mandatory socially speaking. Only artists were supposed to live off their image: actors, singers, celebrities. People from other professions and backgrounds weren't expected to meet these requirements. Is only new capitalism the

110 Alise Tifentale, "The Networked Camera at Work: Why Every Self-portrait Is Not a Selfie, but Every Selfie is a Photograph," in *Riga Photography Biennial 2016 Catalogue*, reproduced on Echo Gone Wrong website http://echogonewrong.com/the-networked-camera-at-work-why-every-self-portrait-is-not-a-selfie-but-every-selfie-is-a-photograph/#_ftnref2

one exploiting this idea of the commercialised self. It is a must to “be oneself,” “be authentic.”¹¹¹

Ulman goes on to explain the commercialised self as that which may (or not) receive benefits (a job offer or promotion, for example) based on one’s social reputation and following.

The selfie, as a phenomenon, therefore, has roots in converging social, technological and personal systems. Again, we can see the pertinence of theories of apparatus and assemblage.¹¹² It will be interesting to see, in fact, how the selfie evolves when presented with changes to the constituting elements. The introduction of devices such as the Oculus-rift virtual reality headset (and whatever the successor to the short-lived Google glass may be) do not readily accommodate the current manifestation of the selfie—both examples not having a forward-facing camera that can be directed at the user. Only time will tell if the phenomenon of the selfie is able to determine the design or the advancement of the technology itself.

The function of the selfie

Returning to the discussion of the possible function of the selfie, and here is the overlap with classical portraiture to which I referred earlier, our selfies often serve to convey status: a new hairstyle, partner, bff (best friend forever), holiday location, meal, jewellery, bike, device, book, music etc. Risto Sarvas and David Frohlich in

111 Amalia Ulman, Interview with Karen ann Donnachie, for “#Me: The Artist’s Self-Portrait in the Age of the Selfie” in *The Human Use of the Human Face*, see Appendix B for full transcript.

112 The notion that we are all interdependent, constituent and agentic parts of multiple, constantly morphing machines See Introduction for further discussion of assemblage.

their *From Snapshots to Social Media: The Changing Picture of Domestic Photography* see in the selfie the function of construction and communication of social bonds and values, just as the formal family portrait did in the time of the daguerreotype. They use an example of a selfie of a father with his young son on his back and compare it to a formal family portrait taken in 1849. While highlighting the obvious differences in composition and demeanour of the subjects, they note that the social purpose of the two images is quite similar—to emphasise the social bonds between people in the photograph—which would demonstrate membership in the family as idyllic. They conclude with “the functions for which photography was domesticated in the 1840s have persisted for 170 years.”¹¹³ Furthermore, the development of social media provides an extended social fabric on a macro level, possibly offering an antidote to the fragmentation of the family unit on a micro level. Within the rhizomic social structure of the Internet based social media, participation and connection through posting and liking creates social bonds.

While the (self-) portrait serves the function of a medium through which we construct and convey an identity or that fictitious entity we call our self, it raises recurring questions of what that ‘self’ means. Simon Blackburn challenges the commonly held notions of the self and suggests, instead, that our identity is in constant flux.

The times change, and we change with them, and it is futile to look for a self that does not change while all its properties and relationships do so. ‘My self’ is better thought of as ‘my life,’ a process that is extended

¹¹³ Risto Sarvas and David M Frohlich, *From Snapshots To Social Media : The Changing Picture Of Domestic Photography*, (London ; New York: Springer, 2011), 148.

in time and embracing the whole sequence of static instants from birth to death. And the most important things about this process are the relations it has to the social environment: the circle of those others whose takes on me so infuse my take on myself.¹¹⁴

Perhaps then the selfie can aspire to this role, to encapsulate and commemorate the social, static moments and assist with the construction of identity. The selfie allows, or at least implies, an unprecedented self-determination of this digital appearance, as we become experts at posing, framing and otherwise enhancing our self-portraits.

The production and distribution of the selfie has rapidly created the largest ever aggregated, constantly expanding, recursive and searchable public collection of human portraiture. And, while necessarily acknowledging the demographic prejudice of the distribution of the cultural and technological prerequisites, as well as the semantic specificity of the use of the English term selfie, within this subset of humanity, the portraiture accumulating is significantly of and *by* everyone.¹¹⁵ We could auspice that this spontaneous, unprecedented, mass-projection of self is a manifestation of emerging human self-awareness or that the

114 Simon Blackburn, *Mirror, Mirror: The Uses And Abuses Of Self-Love*, (Princeton, New Jersey: Princeton University Press, 2014), 33.

115 Demographic prejudice refers to what is commonly cited as 'the digital divide', i.e. the technology (device, network) required for participation is not universally distributed; Conscious of the linguistic specificity of the term 'selfie,' this thesis' work *The Latent Image*, also interrogates the hashtags #moisette, #selca, #jidori and many others in an attempt to analyse as wide a sample of the phenomenon of the selfie as possible.

process of taking and sharing selfies through the framing device of the screen holds the potential for a Heideggerian revealing.¹¹⁶

Antonio Negri in his “Art and Culture in the Age of Empire” attributes contemporary self-reflection to the reaching of the human space’s outer limit:

But if, with globalization, human space no longer knows multiple limits but only one limit — its external circumference — then once this limit is reached, every subsequent expression can only be directed inward.¹¹⁷

Or perhaps, just as Jacques Lacan’s baby learns of the notion of a distinct self in a mirror, society in the twenty-first century may be testing its own collective identity in the networked self-portrait.¹¹⁸

Child psychologist David Elkind refers to a (predominately teenage) impulse to perform to “the imaginary audience” as a natural part of identity formation.¹¹⁹ This impulse finds expression through the selfie, as the child may test out behaviours, appearances and posture in a private or anonymous setting before floating these behaviours to their networked peers through social media. Extending this behaviour to our adolescent society (and here I speak of maturity, not merely age-group), the selfie becomes an ideal medium for

116 ‘Heideggerian revealing’ refers to a quest for a ‘truth’—something is brought forth only when it passes from concealment into unconcealment, ie. when it is revealed; Martin Heidegger, *The Question Concerning Technology & Other Essays*. Translated by William Lovitt (London; New York: Garland publishing, 1977).

117 Antonio Negri and Max Henninger, “Art and Culture in the Age of Empire and the Time of the Multitudes.” *SubStance* no. 36 (1, 2007), 53.

118 Martin Heidegger, *The Question Concerning Technology & Other Essays*, 21.

119 David Elkind, “Egocentrism in Adolescence” *Child Development*, (38, 1967), 1025-1034.

experimentation of personality for both kids and ‘kidults’ (adults who continue to enjoy childlike activities).¹²⁰

Sarah Gram has expounded gender theories specific to the selfie with reference to the collective Tiqqun’s notions of the ‘Young-Girl.’¹²¹ The Young-Girl, as elaborated by Tiqqun, is not so much a description of any particular natural person, but more a generic classification of an engendered object of late capitalist society— an identity colonised by capital— or “the model citizen of capitalist society.”¹²² As Gram explains, the Young-Girl works to maintain the femininity that provides her “entry into the world of consumer capitalism.”¹²³ The selfie, then, serves the Young-Girl both as “a representation of and [...] public recognition of that labour.”¹²⁴ A manifestation of this phenomenon can be seen in the work of contemporary ‘girlcore’ artists (a term coined by artist Mary Bond) such as Petra Cortright, LaTurbo Avedon, Amalia Soto, Mary Bond and Amalia Ulman, who notably exploit gendered stereotypes in their YouTube, Facebook and Instagram materialisations of Tiqqun’s Young-Girl.¹²⁵

120 The term ‘kidult’ is further explained in Christopher Noxen’s “I Don’t Want to Grow Up!”, in *New York Times*, August 31, 2003.

121 Sarah Gram, “The Young-Girl and the Selfie” In *Text Relations*. Accessed 25 September 2013 <http://text-relations.blogspot.com/2013/03/the-young-girl-and-selfie.html>

122 Gram argues further, that “The Young-Girl is the model citizen of contemporary society not because we worship her, but because by expending her energy on the cultivation of her body, her potential as a revolutionary subject is neutralized. If young girls are the hated bodies of capital (along with immigrant bodies, racialized bodies, LGBT bodies, etc) then they must also be predictable bodies; that is why we spend inordinate amount of money on emphasizing the importance of beauty, the importance of fashion, the importance of youthfulness and desirability and individuality.”; Gram, “The Young-Girl and the Selfie.”

123 Ibid.

124 Ibid.

125 Some of these artists discuss these concerns with me in the chapter “#Me: The Artist’s Self-portrait in the Age of the Selfie.” See Part 2, second-life, in this thesis.

The Narcissus' image pool

Perhaps, as many a commentator has claimed, the selfie is simply a rampant, late capitalist act of vanity, or self-obsession. New media theorist Rosalind Krauss, in her late 1970s critique of the (then nascent) medium of video cautioned an age of narcissism, as many video-artists were turning the camera on themselves:

In that image of self-regard is configured a narcissism so endemic to works of video that I find myself wanting to generalize it as the condition of the entire genre.¹²⁶

Krauss goes on to suggest that she sees a wider problem of narcissism in society, and also alludes to an artist's need to find an audience through mass-distribution, which video art does well. Yet, even Krauss is hesitant to explain away the high correlation she sees between video art and self-reflexive body-centric works. She analyses other possible affordances of the video medium that may contribute to the extraordinary number of works that centre around the body, either as subject or (in the case of video installation) as viewer-target:

Unlike the other visual arts, video is capable of recording and transmitting at the same time producing instant feedback. The body is therefore as it were centered between two machines that are the opening and closing of a parenthesis. The first of these is the camera; the second is the monitor, which re-projects the performer's image with the immediacy of a mirror.¹²⁷

126 Rosalind Krauss, "Video: The Aesthetics of Narcissism." *October*, MIT Press, 1 Spring (1976), 50-64.

127 Ibid

The discussion of a mirror is particularly salient when mapped to discourses surrounding the selfie (I will discuss this specific metaphor relative to the smartphone and the selfie later on). The cameraphone offers precisely the opportunity for simultaneous action and reflection. This element of immediacy—and in general video art's relations with time—is arguably where video changed art. The selfie, thirty years later effects the same change on photography, as it uses the on-device camera, with the screen-audience-network (social media) as immediate mirror.

Interestingly, the video self-portrait, as rampant as Krauss makes it seem in her essay, remained a niche genre of a wider practice of video art and was restricted to an art scene—any domestic or mundane video self-portraiture quantitatively and qualitatively speaking, remained private (in the years pre-YouTube). Krauss cites the works of Vito Acconci, Bruce Nauman, Lynda Benglis as she argues that video art should not be assessed as an art form 'concerned with its technology':

It seems inappropriate to speak of a physical medium in relation to video. For the object (the electronic equipment and its capabilities) has become merely an appurtenance. And instead, video's real medium is a psychological situation, the very terms of which are to withdraw attention from an external object—an Other—and invest it in the Self.¹²⁸

This psychological situation addressing the self and subjectivity has been of central concern also to artists working in the photographic medium. Photographers have explored the full spectrum of self-

128 Ibid

representation from the candid (Nan Goldin, Andy Warhol) to the constructed (Cindy Sherman, Jeff Wall).

The phenomena of photo-sharing/bloggging/social media, provide a similar yet more complex environment for projection and perception of self to that which Krauss was referring, yet the authors are no longer, for the most part, artists but, rather, the general public. In addition, the medium of the video self-portrait did not self-replicate as the networked self-portrait does. While each discrete video (or photograph) would have its own edition, transmission, duplication and collection, it would not automatically aggregate itself to any networked repository or archive, as the selfie does in the hall of mirrors of the Internet, through Facebook, Instagram, Tumblr, and Flickr et al.

In the context of the screen we are constantly renegotiating our identity, placing ourselves in the virtual society that we have constructed and are consuming, we see our photographs on the screen-mirror and indulge in the ambiguous reflection of self, gaze and contemplation. Christopher Lasch, in his 1978 *The Culture of Narcissism*, speaks of an “anxious self-scrutiny” (which could arguably be manifested in the repeated action of the selfie) as serving a purpose—to create “an ironic detachment as an escape from routine.”¹²⁹ That is, no longer able to fully escape self-consciousness and not content with the life (or body) one is living, “[the subject] attempts to transform role-playing into a symbolic elevation of life.”¹³⁰ He argues that, in late capitalism, narcissism is

129 Christopher Lasch, *The Culture Of Narcissism : American Life In An Age Of Diminishing Expectations*, 1st ed. (New York: Norton, 1978), 94.

130 Lasch, *The Culture Of Narcissism*, 33-34.

tendentially pathological, caught in a feedback loop of behaviour and personality, creating a “state of mind in which the world appears as a mirror of the self.”¹³¹ He lists some late capitalist concerns that may drive narcissism:

Specific changes in our society and culture – from bureaucracy, the proliferation of images, therapeutic ideologies, the rationalization of the inner life, the cult of consumption ... dependence on the vicarious warmth provided by others combined with fear of dependence, a sense of inner emptiness, boundless repressed rage ... intense fear of old age and death, altered sense of time, fascination with celebrity, fear of competition, decline of the play spirit, deteriorating relations between men and women...¹³²

There is ample psychoanalytical theory on the motivations and causes of narcissism and the general press is swift to diagnose the pathology in anyone who photographs themselves, but it is suffice to note that possibly due to its seductive concept, there is often ambiguity in the use of the term ‘narcissism.’ In its most reductive form and outside of a clinical environment, narcissism is used to imply anything from simplistic self-affirmation, a Freudian self-love, to selfishness, self-absorption, and even, most recently, exactly the opposite of that. Indeed Teresa Senft cautions the misuse of the term narcissism by the general press and the exaggerated association with the practice of taking selfies, as actually, Senft asserts, there is no recognised (psychological) clinical evidence to suggest that the two are linked.¹³³

131 Ibid, 34.

132 Ibid, 33-34.

133 Teresa Senft, and Nancy K Baym, “What Does a Selfie Say? Investigating a Global Phenomenon” in *International Journal of Communication*, (9, 2015), 1589.

Zizi Papacharissi writes, “while narcissistic behavior may be structured around the self, it is not motivated by selfish desire, but by a desire to better connect the self to society.”¹³⁴ Brian Droitcour also seems to echo this human desire to belong when he writes “the selfie inscribes a body into a network... it asserts a body’s connection to others through a network via their respective devices.”¹³⁵ Meanwhile, curators Kyle Chayka and Marina Galperina comment on the motivation behind the selfie on the occasion of their exhibition *National #Selfie Portrait Gallery* (October 2013, Moving Image Contemporary Art Fair, London), “it’s less about narcissism ... it’s more about being your own digital avatar.”¹³⁶ The avatar serves for virtual identity and connections. The necessity for the image to be networked, in fact, constitutes an essential and definitive quality of the selfie, which arguably only becomes a selfie once shared on social media.

Once delivered to the network, the selfie awaits social approval, often in the form of a like (an approval/promotion function commonly found within social media software) or a reblog (a way of reproducing the image directly within one’s own social stream or blog). Perhaps this pursuit of the like subconsciously responds to the author’s need to replenish “narcissistic supply” (a term coined by Otto Fenichel in 1938 describing a constant need for

134 Zizi Papacharissi, *A Networked Self : Identity, Community And Culture On Social Network Sites*, (London: Routledge, 2011), 269.

135 Droitcour, “A Selfie is not a Portrait.”

136 The installation features a rotating series of short form video selfies (eg. Vine or Instagram video) of 19 emerging artists of the millennial generation commissioned by curators Kyle Chayka and Marina Galperina; Eugene Reznik, “Off Your Phone and On View: The National #Selfie Portrait Gallery,” In *Time Lightbox* (Time Inc., 2013), <http://lightbox.time.com/2013/10/16/off-your-phone-and-on-view-the-national-selfie-portrait-gallery/www.moving-image.info/national-selfie-portrait-gallery>

affirmation in the context of clinical narcissism).¹³⁷ In exchange for the like received, the recipient likes back, and thus social currency is exchanged which reinforces a co-dependency between the author and the audience. In her *New York Times* article “Facebook made me do it,” Jenna Wortham describes the feedback loop of post to like (which encourages more sharing), as “the most addictive element of social media.”¹³⁸

When the authors of the selfie reach out into the network by sharing a self-portrait, they are clearly seeking this human connection to which Papacharissi and Droitcour refer. But also, in the celebrity-focused fabric of social media, they are involved in an arguably irrational quest for a notoriety of their own (paradoxically coupled with anonymity, real or perceived). As David Giles in *Illusions of Immortality* writes, lasting fame or immortality is attainable through the infinite repetition of image or *replication*, the posting of a selfie into the social flow, therefore, holds this potential.¹³⁹ Similarly, Sandra Kemp in *Future Face* uses the imagery circulating during and after the death of Diana, Princess of Wales as an example of the effect of the mass proliferation of image, correlating Diana’s renown to the level of saturation of her effigy.¹⁴⁰ If, as Giles and Kemp both argue, fame is constructed through the number of replications of a celebrity’s image, then the advancement of replicating devices, coupled with a multiplicity of platforms and audiences has “opened

137 Otto Fenichel. “The Drive to Amass Wealth,” *The Psychoanalytic Quarterly*, 1938, 7:78.

138 Jenna Wortham, “Facebook Made Me Do It,” *The New York Times*, June 15, 2013. http://www.nytimes.com/2013/06/16/sunday-review/facebook-made-me-do-it.html?_r=1&

139 David Giles, *Illusions Of Immortality : A Psychology Of Fame And Celebrity*, (Basingstoke: Macmillan, 2000).

140 Sandra Kemp, *Future Face*, (London: Profile Books, 2004), 131.

up opportunities for individuals to reproduce themselves on a phenomenal scale, thus providing an evolutionary rationale for the obsessive pursuit of fame.”¹⁴¹ The irrationality lies in the numbers. Of the millions of selfies shared, only a statistically insignificant number will ever be noticed and replicated to the extent necessary to actually influence one’s renown.

The celebrity selfie

Even the greatest stars,
find their face in the looking glass.¹⁴²

There is also the actual celebrity selfie, a sub-genre championed by performers such as Miley Cyrus, James Franco, Kim Kardashian, Justin Bieber, among others. In this case the subject/author has already attained celebrity status, the act of making/sharing the selfie therefore is not only to consolidate popularity and generate/sustain momentum in social networks, but also to show gratitude to the followers and fans, to give back to the masses. However in the complex economy of social networks this, too, quickly becomes leverage for the celebrity who can garner more interest within their relative industry (agents, writers, producers and directors) the more likes and retweets are generated. So once again taking a selfie is prone to become a selfish activity as it yields social currency for the celebrity.

In a 2014 *New York Magazine* article, Jerry Saltz critiques Kim Kardashian’s popular ‘ass and side-boob selfie,’ and highlights

141 Giles, *Illusions of Immortality*, 53.

142 Kraftwerk, “The Hall of Mirrors.” In *Trans-Europe Express* (Hollywood, Calif.: Capitol, 1977).

the paradoxical ‘unrevealing’ that happens in the picture. Despite the osé nature of her pose and attire, Kardashian carefully masks out her private life from the frame, with her “Japanese screens.”¹⁴³ Saltz notes that she seems entirely comfortable with the display of her body, perhaps as professional tool, yet the rest of her home and possessions are screened away, off-limits to the voyeur audience. His use of the notion of unrevealing and his disappointment with Kardashian’s self-censorship belies an intrinsic requirement that the selfie be an authentic object, which I argue is one of the key elements driving the success of the selfie today.

While undoubtedly shades of vanity, identity construction and quest for celebrity all play their hand to a greater or lesser degree in the phenomenon of the amateur mass projection of self, I argue that even a pandemic of pathological narcissism and/or megalomaniac search for fame, manifesting itself in obsessive self-portraiture, would not be enough, in and of itself, to explain the rise of the selfie. Mere production and dissemination of the self-portrait, that is, the projection of self, would not suffice to sustain the current selfie ecology. We must also question its consumption, or the participation of the viewer as accomplice, or enabler to the alleged narcissist. Thus, leaving aside for the moment the problematic notions of author and intention, we need to contemplate that perhaps the selfie serves some other purpose, has some residual value as photograph, portrait or anthropological artefact?

143 Saltz, “Art at Arm’s Length.”; Kim Kardashian image can be found at <http://instagram.com/p/fjw59uuS7b/#>

In search of the authentic other

The traditional (pre-digital) photograph, as modest and naïve object, if not necessarily representing an absolute truth, would (according to the outmoded discourses of Susan Sontag or Roland Barthes) witness the fact that at one point the subject was materially in front of a camera. Sontag spoke of the photograph “stencilling” reality, while Michael Wentzel, in conversation with Jacques Derrida, (perhaps as provocation) describes the photograph, “as the imprint of the body itself.”¹⁴⁴

Decades on, this idea seems quaint as we are consistently reminded of the contrivance of the photograph as object. The ecology of the digital photograph ostensibly offers infinite opportunities for manipulation of any image. Quotidian exposure and contribution through creation or distribution of memes, or similar remixed and retouched images that populate social media feeds has heightened our awareness of the artificial image. Especially with regard to the human face, we are consistently made aware of the mediated nature of the digitally manipulated portrait—think celebrities or fashion models—which smile at us through our glossy screens, or the covers of magazines.

Perhaps, however this artificiality that we perceive is a consequence of the intrinsic contrivance contained within the photographic act. Jacques Derrida proposes a fundamental understanding of the notion of a photograph as ‘invention’:

144 Susan Sontag, *On Photography*, (New York: Farrar, Straus and Giroux, 1977); Jacques Derrida, *Copy, Archive, Signature: A Conversation on Photography*, edited by Gerhard Richter, translated by Jeff Fort (Stanford: Stanford University Press, 2010), 10.

[O]f course there is a concept of photography as the simple recording of the other as he was, as he appeared there, but it is immediately contaminated by invention in the sense of production, creation, productive imagination. One produces the other there where he is not; therefore I can manipulate a photograph, intervene, transform the referent: I invent him, then, in the sense in which one invents what is not there.¹⁴⁵

The invention that Derrida speaks of in this passage runs deeper than a superficial or cosmetic enhancement of the image through post-production manipulation software; he asserts that the very action of capturing the subject produces a schism between subject and object, and that in this way photography concerns—necessarily and before any other artifice is overlaid—the creation of a new entity. The referent that results depicted in the photographic image, according to Derrida, is thus an invention of the photographer.

Martin Lister and Geoffrey Batchen, as others, have also discussed the role of the photographic image. Each in their own discourse, claim that not being tied any longer to an immaculate notion of truth, the photograph has adopted the role of a cultural, rather than technological, object and that we mediate the meaning in the photographic image rather than merely reading it as representative of some reality. Vilém Flusser, in his prescient essay of 1986 “The Photograph as Post-Industrial Object,” writes how “the new photo will hold objects in contempt,” implying that he too presumed a broadening schism between reality and the photographic image.¹⁴⁶

145 Derrida, *Copy, Archive, Signature*, 43.

146 Vilém Flusser, “The Photograph as Post-Industrial Object: An Essay on the Ontological Standing of Photographs,” *Leonardo*, 19, 4 (1986): 331.

Yet, despite this, in an age of awareness of the contrivance (inherent, potential or actual) of the photograph, there remains an arguably irrational, residual faith, particularly in the selfie as verisimilitude of human *being*, or presence. To resolve this within the framework of Derrida's notion of invention, the referent in the selfie would appear to be a somewhat more 'genuine' replicant of the subject, but invented nonetheless.

When we see a selfie we appreciate it for its candour, its immediacy and ultimately for its honesty. The selfie says "look at me, here, now." Even the prolific celebrity selfie-ist James Franco in his *New York Times* article "Selfies the Attention Grabber," candidly admits to seeking an authentic identification of the other in the selfie "In our age of social networking, the selfie is the new way to look someone right in the eye and say, 'Hello, this is me.'"¹⁴⁷ Saltz re-affirms this notion with emphasis on the immediacy of the image when he equates the selfie to "the cartoon dog who, when asked what time it is, always says, 'Now! Now! Now!'"¹⁴⁸ The selfie manifests itself at an intersection of time and space, and this simultaneity provides the foundation for an authentic act.

The selfie contains and transmits within its visual code the clues to its construction, with the device (camera or camera-phone) often framed within the image in the case of the mirror-selfie, or alternatively if the device is held in the hand and turned on the author, we witness the tell-tale outstretched arm, bent shoulder

147 James Franco, "The Meanings of the Selfie," *New York Times*, (December 29, 2013), http://www.nytimes.com/2013/12/29/arts/the-meanings-of-the-selfie.html?_r=1&

148 Saltz, "Art at Arm's Length."

or more recently the selfie-stick. Liz Losh has coined the term ‘transparent mediation.’

Transparent mediation describes a significant subset of images ... in which the apparatus shooting the photo is present within the frame. ... Showing the hypermediated character of one’s lived experience is actually a strategy to establish credibility and that demonstrating how authentic presence is mediated through a viewer or screen explicitly is a way to communicate trustworthiness.¹⁴⁹

The apparent candidness establishes the image’s technological authenticity. The revealing of the selfie’s architecture including the device, location, and technique, as well as the appendage of descriptive hashtags, geolocative information, timestamp, and other metadata which travels encoded within the image, reinforce our instinct to accept the selfie without reserve, as a true representation of the subject. The setting is a casual protagonist, the choice of a bathroom or bedroom for example may allude to intimacy and solo performance: in it, the subject appears vulnerable or fragile which serves to heighten the candid impression of the selfie.

The detection and deciphering of these technical characteristics combined with a visual interpretation of the elements enframed in the image is what allows us to immediately identify a selfie from other genres of photography. We instinctively apply the rules of its proprietary visual code. Saltz expounds on how easy it is to recognise a selfie, and one rule he shares is “if both your hands are in the picture and it’s not a mirror shot, technically, it’s not a selfie

149 Elizabeth Losh, “Beyond Biometrics: Feminist Media Theory Looks at *Selfiecity*,” In *Selfie City Theory*, accessed 20 August, 2014, <http://selfiecity.net/#dataset>



Selfie in round mirror, 2014.

— it’s a portrait.”¹⁵⁰ The previously mentioned extended arm is one such tell-tale marker of the selfie, and it has been photoshopped onto many a historical image to create surreal ‘selfie moments.’¹⁵¹ Seen from a more affective perspective, this outstretched arm is also encircling the viewer in a virtual embrace, and just as physical contact reinforces sincerity (for example in handshakes) this virtual hug may subconsciously induce us to empathise with the subject. These formal taxonomies surrounding the selfie have been rapidly established and reinforced, which has helped consolidate the selfie’s unique place in contemporary photography.

The selfie and its double

An essential element, and one of the most common of many a selfie, is the mirror. Whether present in the frame of the image (as in most bathroom selfies) or inferred, the mirror is one of a series of screens through which the selfie is made and projected. Gianarco Chieragato and Vilm Torselli, in their essay “L’autoritratto” (“The Self-Portrait”), write of the mirror:

At once a symbol of truth or trickery and almost always a metaphor for something other, necessary accomplice of each self-portrait, means of revelation of our dark side, custodian of our perceived identity,

150 Saltz, “Art at Arm’s Length.”

151 For example, the campaign created by Lowe South Africa for the Cape Times newspaper 2013, showing the extended arm of the selfie, superimposed onto historical images of Churchill, the Kennedys or Kate and William; Lowe and partners, *Cape Times Newspaper Campaign*, 2013.

becomes the true iconographic subject in the self-portrait.¹⁵² [my translation]

While the author, at the moment of the selfie, cannot but be looking at him or herself, reflected in either the mirror, the app or simply the glossy surface of the device, this ambiguous mirror/screen bound to the selfie is the locus of performance, for the selfie is created to be seen, shared, exhibited, it is not literally and solely a mirror for self-reflection. There is already a placement, positioning, appreciation of the self inside the image, and the network, as the selfie is forecast into the subject's social context. This becomes another defining attribute of the selfie, it is shot for networked distribution.

Another homogenising trait of the selfie, is that the image most often consists of a close up of single or multiple faces, in fact the selfie is primarily about the face—the genre even has its own repertoire of facial expressions (among the better known is the ‘duck-face’). Formally speaking, this can be attributed to the mechanical limitation of the camera's focal distance (approximately an arm's length). Yet the mere limitation of field-of-view does not explain away the overwhelming preference for creating close-ups of the face. Arguably it is the combination of a desire to be recognised by others, even on small devices such as smartphones, and the mesmerising effect of our reflection, all of which ultimately affects the framing within the visual codes of the selfie. In a discussion of

152 [Original text] “...assunto nel tempo indifferentemente come simbolo di verità o di inganno e quasi sempre come metafora di qualcosa d’altro, complice indispensabile di ogni autoritratto, mezzo rivelatore del nostro lato oscuro, custode dell’identità cognitiva, diventa nell’autoritratto il vero soggetto iconografico.”; Gianmarco Chieragato and Vilm Torselli, “L’autoritratto (Parte II),” In *Art on Web*, (2008), <http://www.artonweb.it/artemoderna/linguaggiartemoderna/articolo5bis.html>

the cinematic close-up, director Ken Miller cites theorist Mary Ann Doane and concurs, “the face as surface is the perfect complement to the photographic image as surface [...] in combination, we experience surfaces that promise depths, exteriorities that imply interiorities.”¹⁵³ In cinema, as Miller and Doane argue, the close-up momentarily distracts us from the narrative to allow us to reflect, ponder, engage with the face. Miller goes on to discuss the notion of “visual self-inscription,” which could easily be transposed onto the act of the selfie with its “desire to view the self as a mediated other and, in a sense, could also be thought of as a replay of the narcissistic psychic drama of alterity, in which one attempts to find the other in the self and the self in the other.”¹⁵⁴ In other words, it is in composing our selfie close-ups that we objectify our selves while the close-up images (both ours and others’) lure us to distraction with the promise of complexity.

Simon Blackburn reminds us that Narcissus was not in love with himself, as is sometimes implied, he was in love with the *image* of himself and it was his understanding that he could not conjoin his image whilst occupying his body, that was his downfall, and he was cast into a flower.¹⁵⁵ Jean-Luc Nancy has expanded this subject/object rapport we have with our image through his notion of *nous-autres* (us-others):¹⁵⁶

153 Ken Miller, *More Than Fifteen Minutes Of Fame : The Changing Face Of Screen Performance*, Film Cultures V.6 (Peter Lang, 2013), 214.

154 Miller, *More Than Fifteen Minutes Of Fame*, 215.

155 Simon Blackburn, *Mirror, Mirror: the Uses and Abuses of Self Love*. (Princeton, New Jersey: Princeton University Press, 2014), 33.

156 The camera object *NousAutres* is an homage to Nancy’s concept.

... We (others) who are exposed, who are illuminated by the sun, the moon, and the projectors, we (others) who surprise ourselves in viewing ourselves, in turning ourselves into visions, in photosynthesizing ourselves, we humans and shadows of humans, we are our most proper and therefore our strangest, most foreign others.¹⁵⁷

This blurring of subject and object or subject and audience occurs firstly in the process of creating the image as the author actively edits the content, the context, and the framing while gazing upon their own reflection in the capture-device's screen, and then again as the image is shared and cast into a pool of likenesses to reside among others' selfies that look more or less the same. The viewer encounters the selfie (their own and others') almost exclusively on-screen, the very mechanics of which cannot help but reinforce self-reflection due to the glossy surface of the viewing device literally acting as a mirror projecting a persistent translucent reflection over the content. But beyond that, the genre or trope of the selfie—with all the similarities of pose, focal distance, and frame—when experienced on the same device, in the same virtual environment where their own selfies are made and posted, will favour the viewer seeing it as a further refraction or reflection of themselves. The author ultimately consumes his or her own selfie along with all the others in the constant flow of social media. This blending of subject and viewer holds the potential to exacerbate latent narcissistic tendencies of 'bad boundaries' (the inability to distinguish between

157 Jean-Luc Nancy, *The Ground of the Image*, trans. Jeff Fort, (Ashland, Ohio: Fordham University Press ; London : Eurospan [distributor], 2005), 106.

self and other).¹⁵⁸ Nancy has also written of the subject and surface in the portrait “the object of the portrait is, in the strictest sense, the *absolute* subjects: the subject detached from everything that does not belong to it, withdrawn from all exteriority.”¹⁵⁹ Nancy draws our attention also to Hegel’s view of painting as “the midpoint between exteriority and interiority” he proposes that in the very depiction of the subject, a refraction of the subject’s materiality may occur, that we may see a glimpse of the materiality of subject-making.¹⁶⁰ This dichotomy could be further transcribed onto that of the embodied and embedded self as well as the mechanical processes involved in human-computer-interactions.

Once immersed in the social network, Franco argues that “selfies are avatars: Mini-Me’s that we send out to give others a sense of who we are.”¹⁶¹ As we gaze at our reflection (initially physical, ultimately virtual) through the process of the selfie we test our identity and await affirmation. The affirmation, in the form of a like of the photograph, is taken enthusiastically, as a personal appreciation of oneself or of the image. However, as the much sought after ‘like’ consists of a generic positive sign, arguably a mere social tic (comparable to a tip of a hat or a real world thumbs up), the affirmation may be lent with any number of criteria. This ‘like’ is not necessarily, or always, in direct response to the presence

158 Sandy Hotchkiss and James F Masterson *Why Is It Always About You? The Seven Deadly Sins of Narcissism* (Simon & Schuster, 2003), <http://books.simonandschuster.com.au/Why-Is-It-Always-About-You/Sandy-Hotchkiss/9780743214285#sthash.go3iopSR.dpuf>

159 Jean-Luc Nancy and Simon Sparks, *Multiple Arts: The Muses II*, (Stanford, Calif. ; [Great Britain]: Stanford University Press, 2006), 220.

160 Nancy and Sparks, *Multiple Arts*, 225

161 Franco, “The Meanings of the Selfie.”

or appearance of any particular individual portrayed in the image. The image may instead appeal to the viewer on entirely different levels—the user may have other political or social motivation to ‘like’ the image viewed. Yet the author, recipient of the likes, perhaps with a dose of cognitive dissonance, will take them as if supporters *like* what they see, this will then encourage reciprocal ‘like’s and so on.

Ultimately this affirmation cycle provides (albeit fleetingly) both a sense of connection and appreciation, while the selfie, reinforced by the dogmatic qualities of the inclusion of the device, flash, mirror, location and date stamp in the image—meta-photographic elements which lend signatures of a real time (now) and place (here)—may offer a contemporary version of the footprint of our being. This immediacy or reality would offer an antidote to the current dissolution of the photograph as technological object, as each selfie potentially becomes once more an *authentic* image, “true to the moment of creation.”¹⁶² I propose that this quest for authenticity plays a major role in the rise of the selfie; we desire, even require, an authentic encounter with the self and the other.

The triumph of the selfie in contemporary social networks is further consolidated in complex ecologies of recursive self-affirmation and possibly co-dependent narcissism, reinforced by the architecture of social media. Social currency, narcissistic supply and demand, and the lingering quest for immortality are each perpetuated with each new selfie that falls like a drop into the pool of human likenesses into which we may occasionally risk a gaze.

162 Laura Cumming, *A Face To The World : On Self-Portraits*. (London: Harper Press, 2009), 7.

Concluding Part 1

We have discussed in Part 1 of this thesis how the selfie presents, its role(s) in society and how it may differ from previous forms of self-portraiture. Using the classic self-portrait and twentieth century photographic behaviours as a lens, we have established that the selfie embodies a new mode of self-presentation that leverages evolving social media technologies and platforms. We have also analysed the prevailing criticism of the selfie as a (merely) narcissistic act, and we have concluded that it falls short of explaining the ubiquity and popularity of the selfie. With the possibility that humanity is using the selfie to learn about itself, and that the selfie provides a threshold between embodied and embedded self, we have speculated that the selfie is predominately an artefact of human awareness, connectedness and authenticity.

In the following part, I introduce the works, which have both informed and have been shaped by the theories presented thus far. The works are grouped into three sections ‘First-life: Imaging the embodied self,’ ‘Second-life: The embedded self (portrait),’ and ‘After-life: Non-biological identity and the autonomous agent.’

Part 2: Works

First-life: Imaging the embodied self

The machines we build shape our world, our relations with that world, and our sense of self—our very understanding of what it means to be human.¹⁶³

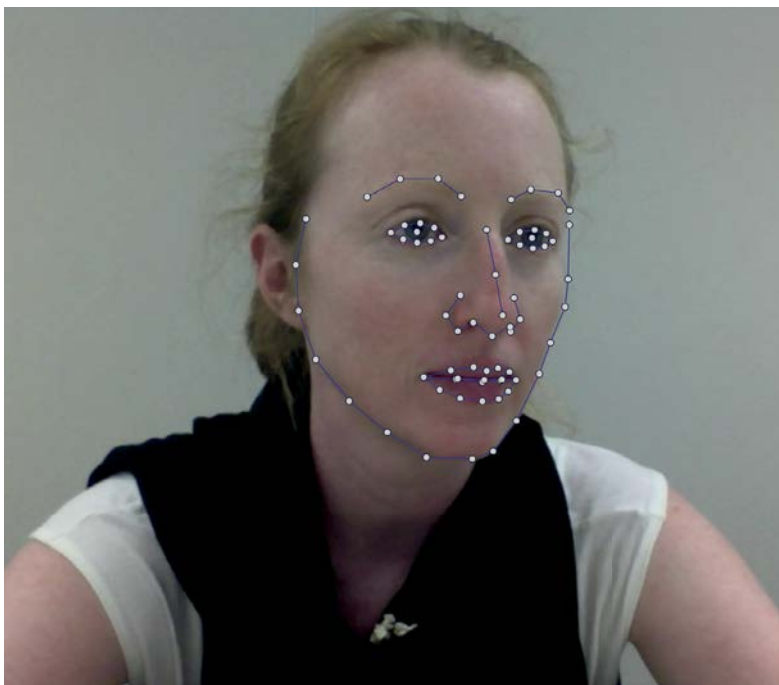
The two works comprising this section, *myVanity* and *plyFace*, draw our focus to the mediated perception of our embodied self within the virtual versions of ourselves created through computer vision, optics and imaging systems.

These two works can be read as proto-networked self-portraits, as they test mediation through virtual imaging. They are concerned with our reflection, recognition and reconstitution of the face, rather than the distribution or projection of the same. These works attempt to expose the otherwise elided role of the systems and processes that constitute our digital images, and subsequently our identities.

Martin Heidegger argues that technology is not a neutral or external manifestation, it is at once a human activity and the “enframing” which allows “unconcealment.” The works *plyFace* and *myVanity* both test these concepts of technology as instrument for ‘revealing.’¹⁶⁴

163 Alexa Wright, Eugenie Shinkle and Alf Linney, “Alter Ego: Computer Reflections of Human Emotions.” Paper presented at the 6th, DAC Conference, Copenhagen, Denmark, 2006.

164 Heidegger; Martin Heidegger, *The Question Concerning Technology & Other Essays*, trans. William Lovitt, (London; New York: Garland publishing, 1977), 21.

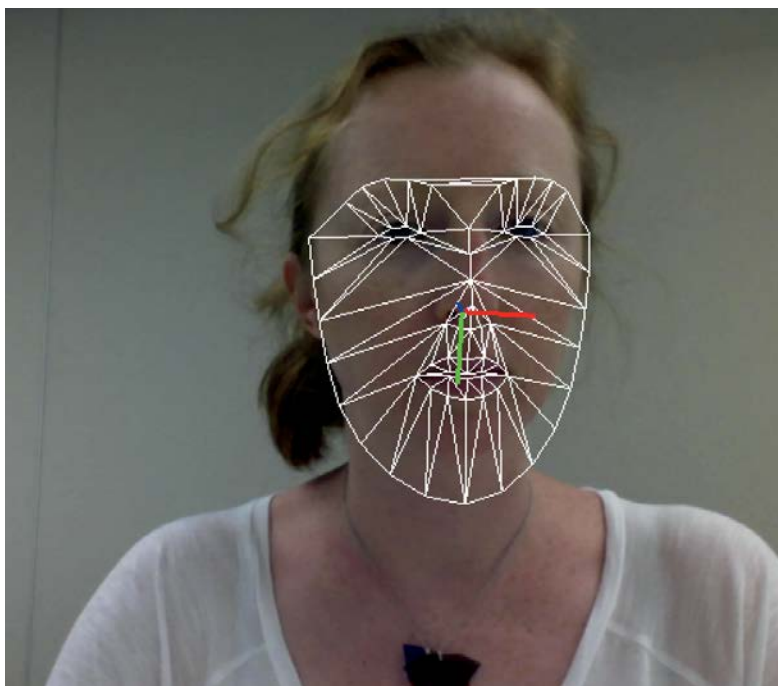


myVanity, early process image, 2013. Isolating the salient points of face-recognition.

myVanity

This early work began with an enquiry into computer vision and face-detection software, specifically how computer vision analyses our faces through a series of abstract geometries in order to find salient points to align with learned associated identities.

In practical terms, I began by experimenting with simple face-recognition software, specifically the collection and comparison of abstracted facial recognition data (points and lines) extracted from images of myself and from the faces of models and celebrities on the covers of magazines.



myVanity, early process image, 2013. Experiments with face-tracking.

“Come across a self-portrait and there is a frisson of recognition, something like chancing upon your own reflection.”¹⁶⁵ The phrase is from a text by Laura Cumming in which she speaks of the interlocking gaze and reciprocal recognition involved in observing oneself as an other, as occurs in self-portraits. I interpret this ‘frisson’ that Cumming describes as that unsettling, uncanny instant of non- or pre-recognition that occurs when we glance into a mirror, or see ourselves depicted on a screen. We hastily patch together the gross-features followed by the salient finer details until we are satisfied we have recognised the subject we are observing. This optical, neurological, psychological process usually happens

¹⁶⁵ Cumming, *A Face to The World*, 96.



myVanity, process image, 2014. Using AR 'mask' while experimenting with Daniel Schiffman's Processing-based face-substitution software.

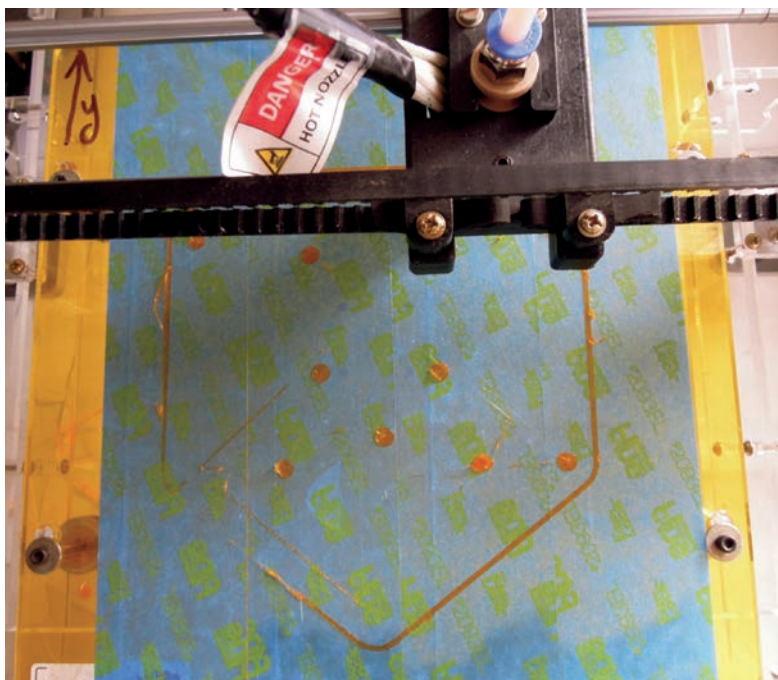
instantaneously. Our self-recognition then supplants non-recognition and we move on, automatically forgetting that initial transient and unsettling state of pre-self-awareness. But what if we were able to protract that original condition? What if we could bring about a greater perception of the underlying psycho-combinatorial process, in order to reveal the logical cascade involved in the identification of the face, of the subject as our 'self'? Could we perhaps unlock a level of understanding of how identity is negotiated and perceived? These were some of the questions that motivated much of my initial experimentation with the interactive mirror work that I later called *myVanity*. However, even if the final



myVanity, process image, 2013. Points and vertices of the face-recognition software are rebuilt into a mask using sticks and balls like molecules.

work addresses many of these original questions, its final form turned out very differently from what I originally ideated.

The work began with experiments that involved combining two primitive tools for performance of identity, the mask and the mirror. From folklore and pagan ritual to religious ceremonies, the mask has been widely used throughout the history of many cultures. In Venice, for instance, from as early as the twelfth century, through the masquerade of the renaissance, to today's "Carnevale di Venezia," the mask has held a privileged position. Primarily these early uses of the mask facilitated the adoption of behaviours diverse from one's class, role or reputation, as they enable a dynamic approach

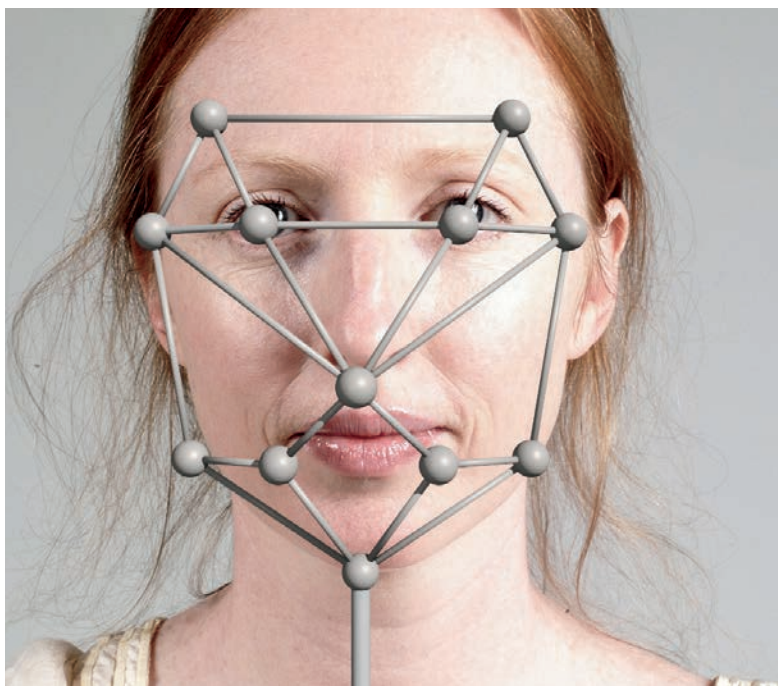


myVanity, process image, 2014. 3-D printing in PLA (plastic) of molecular face-recognition 'mask' to be used for AR (augmented reality) tracking experiments.

to identity that is no longer hierarchical (where an adopted identity replaces the original) but fluid (where multiple identities remain in constant negotiation). My concerns, however, extended beyond these traditional uses of the mask.

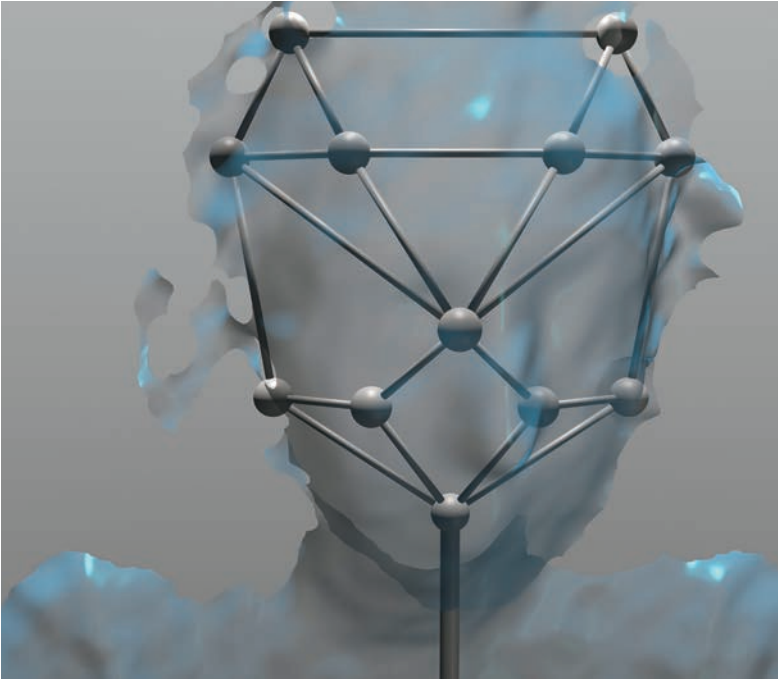
In response to this age of ubiquitous surveillance and automated face recognition, I began by conceiving a work that would be an attempt to re-appropriate the traditional ceramic mask, as found for example in 13-17th century Venice, and heighten its role as a potential vehicle for contemporary identity negotiation.

I began by modelling a mask that physically replicated the virtual points and lines resulting from face-detection software. The mask



myVanity, process image, 2014. A 3D mask created from the twelve points of face-recognition as extracted with the haarcascade face-detection algorithm.

comprised a set of spheres and lines obtained from computer-visualisations of my face. I intended the mask to obfuscate the wearer's own (real) key facial features when placed in front of the face, consequently disturbing any potential facial recognition software, masking one's representation. Contemporaneously, these spheres would act as markers for a custom-made augmented reality (AR) application, which would overlay alternative content over the frame of the mask, thus permitting fluid and multiple transitions between self and alternate identities. As the 'masking' occurs only in the AR application, in other words in the embedded manifestation of the mask, it would be able to substitute virtual



myVanity, process image, 2014. Augmented reality 3-D simulation.

facial data without compromising human-human interaction (the mask remains an open mesh in its material presence).

At this stage of its process, *myVanity* was intended to play with the fluid, hybrid nature of contemporary identity, bringing into question notions of authenticity in the human use of the human face in networked society. Taking advantage of the (still) great discrepancies between current “human and machinic capacities for appearance-based face recognition and identification,” privileging authenticity in the first-life encounter.¹⁶⁶

166 Sarah Kember, “Gender Estimation in Face Recognition Technology: How Smart Algorithms Learn to Discriminate,” *Media Fields Journal* (no.7, 2013), 186.



myVanity, process image, 2014. Augmented reality 3-D simulation.

I proceeded to create the 3d structure of the mask using an openCV haarcascade algorithm applied to my self-portrait, which enabled the extraction of 12 nodes of facial features.¹⁶⁷ This combination of points was sufficient to uniquely identify me through face-recognition software. My early intention was to generate a series of masks, through the precise mathematical positioning of the spheres and relative vertices, that would embody a different person's (unique) set of features and trigger a number of augmented reality results. The work was originally intended as a series of these masks

167 "The face contains over 80 nodal points, but only 14-to-22 [are] stable nodal points—those that do not fluctuate with weight or expression, such as eye socket depth." see Ben Gherezgiher, "Facial Recognition Technology & Osbi," in *The Source*, (Vol. 1, 1, 2004), 2.

of celebrities, historical figures and friends, viewable through an interactive mirror/screen in the form of a vanity. However this was not to be the final work, because of an unanticipated observation, or sudden realisation that proved to be highly influential for the final work.

As all of the works in the research involve some degree of computer programming, I was, by this stage, already dedicating many hours of my daily routine to working at a screen, often finding myself sitting in the same place from early in the day until late. It was after one particularly intense coding session that I found myself sitting in the dark, concentrated on my work, when someone entered the room and switched on the light. On the screen before me I suddenly saw a woman's face, tired eyes, blanched skin and an unkept nest of red hair. A moment passed before I understood that I was of course observing my own reflection in the glossy screen, which with the overhead light had become an improvised mirror. The realisation was that I did not need a material—nor augmented reality—mask to symbolise the transfer of identity or agency from embodied to embedded representation.

Presently, I created a two-way mirror with some commercially available window tinting film applied to a piece of glass (stolen from a framed picture) that I clamped to my computer screen and began to experiment by fading the room's lights up and down while videoing myself. Shortly after the addition of a row of makeup lights the development of the work proceeded rapidly.

I had anticipated incorporating the make-up mirror bulbs running down the sides of the vanity from the original sketches, so I added

an ultrasonic range sensor (which measures proximity by listening for a return echo of a transmitted sound bouncing off obstacles) that would trigger the lights to turn on or become brighter as the viewer approached. When these lights were aligned with the glossy screen, a combination of functions in my computer script simultaneously faded out the live stream video of my face and increased the power of the lights. I had recreated a quasi-analogical mirror, and had found that at a certain distance from the glass, a combination of light intensity, video brightness and video geometry recreated that uncanny instance of Cumming's 'frisson,' or that moment of non-recognition of myself, as the depth and reflections settled from a mediated projection to an analogical reflection. I saw in close sequence the two 'me's, not really the same, yet sufficiently similar. Different in dimensions, tone, depth, but unarguably both me, here, now.

The extension to the realm of role-play or identity substitution of my initial project was suddenly not only redundant, but also could not possibly achieve the same clarity around the moment of pre-recognition. Interactive mirrors that substitute the face of the viewer for another abound (see *alter ego*, *All the Universe is Full of the Lives of Perfect Creatures*, *Faces*, *URME Surveillance*); networked smart mirrors can be fitted in your bathroom that will update you on the weather, news, your social media; and marketing companies are installing interactive dressing mirrors coded to overlay outfits on your body in fashion retail stores.



myVanity, process
image, 2014.

Video footage with
reflective film.



1500154

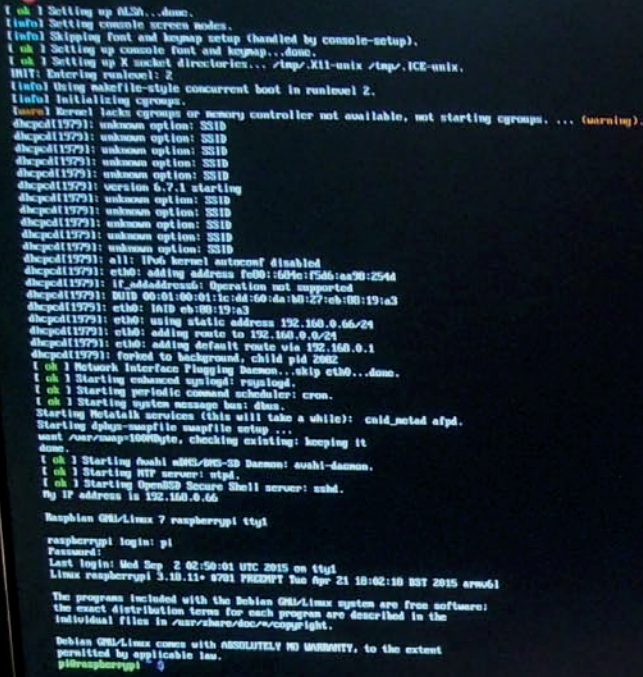


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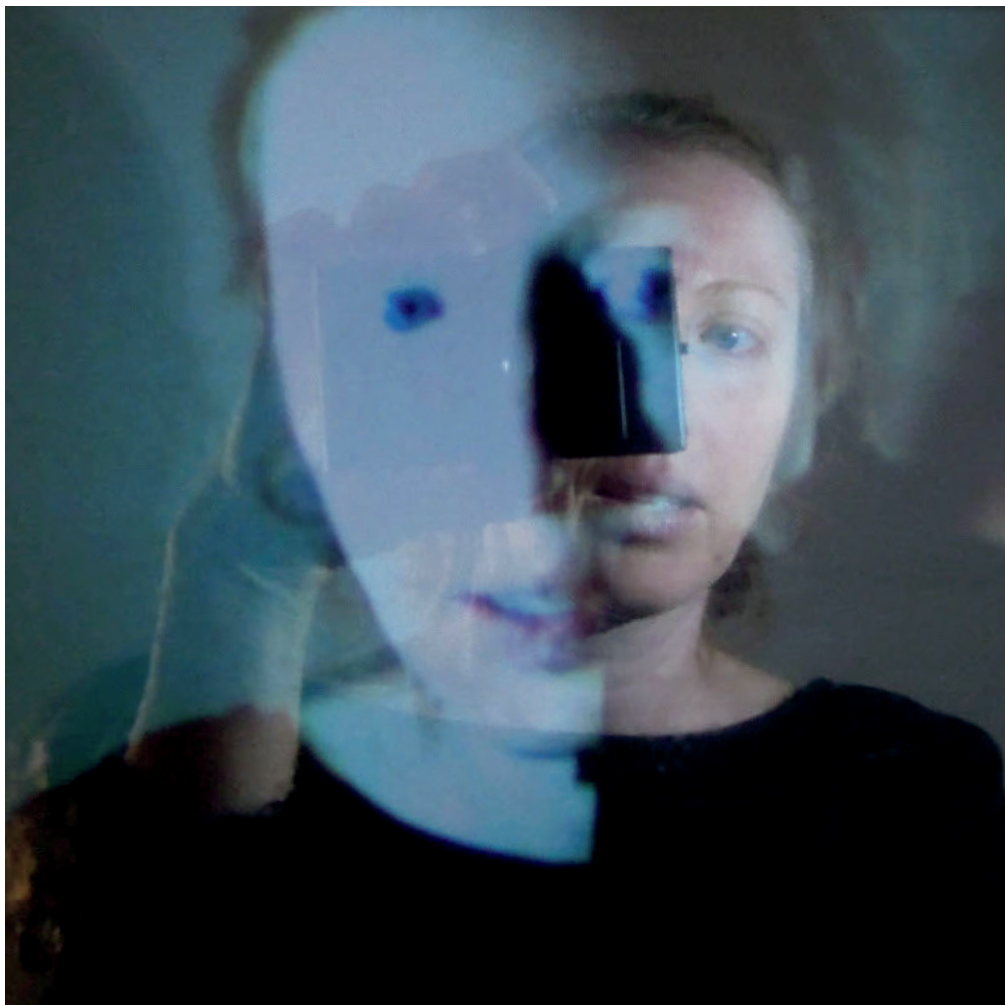




Calibrating the intensity of light
and brightness of video.

THING
BE OK





myVanity, process outcome, 2015.

Results of experiments in aligning
silhouettes of embedded (video) and
embodied (analogue reflection) self.



myVanity, process outcome, 2015.

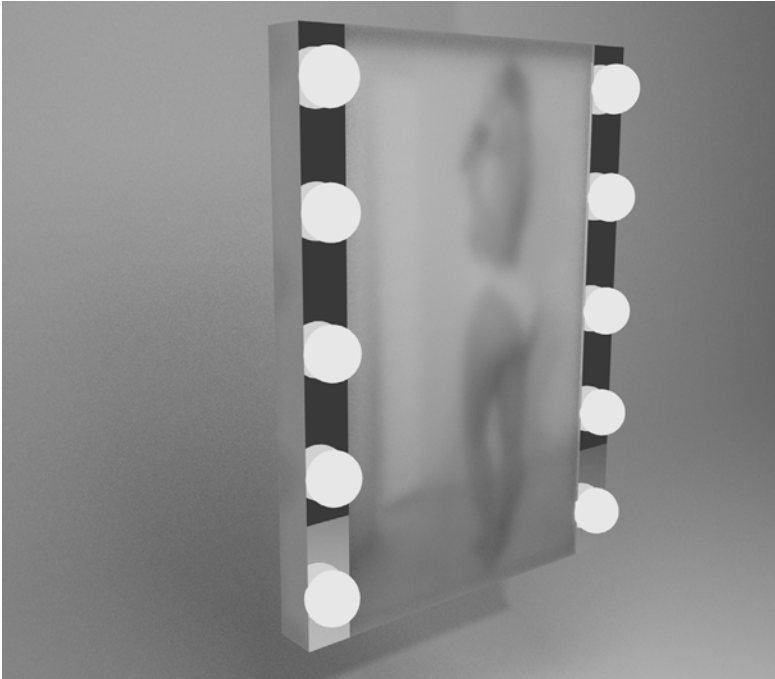
Results of experiments in aligning
silhouettes of embedded (video) and
embodied (analogue reflection) self.

So through this process I found that I wanted to remove the hi-tech ludic distraction, in an attempt to privilege a human, embodied sensation.¹⁶⁸ This premise, or the recognition of the embodied being as self, anti-other, became the basis of this work and informed many of the subsequent projects of my research.

The finished work *myVanity* appears as a mounted makeup mirror, framed by light bulbs. The glass/screen initially depicts a video capture of the participant. Approaching the glass, the lights increase in intensity, transforming the mediated image from a virtual self, or 'self as other,' into the reflected image of our embodied self.¹⁶⁹ This work reveals the transient nature of identity, at once fleeting and reassuring, but also uncanny, as in every encounter with our reflected or embedded self. It attempts to capture that brief moment of non-recognition, or momentary estrangement which gives way to a transaction and finally acknowledgement of the person we see before us. This work attempts to heighten our awareness of that moment in which these two selves cross paths. Although there may

168 Kathy Cleland discusses interactive mirrors in depth in "Image Avatars: Self-Other Encounters in a Mediated World." (PhD diss. Sydney University of technology, 2008) ; See also the exhibition catalogue of *Mirror Mirror: Then and Now*, 2010. Exhibition, Anne & Gordon Samstag Museum of Art, South Australia; Wright, Alexa, Eugenie Shinkle, and Alf Linney. "Alter Ego: Computer Reflections of Human Emotions." Paper presented at the 6th, DAC Conference, Copenhagen, Denmark, 2006; Karolina Sobecka, 2008. *All the Universe is Full of the Lives of Perfect Creatures*, [artwork, exhibited at Science Gallery; Arturo Castro and Kyle McDonald, 2012. *Faces* (Installation and software); Leo Selvaggio, 2015. *URME Surveillance* <http://leoselvaggio.com/urmesurveillance/>

169 To establish a consistent and reliable reading of presence of a subject in front of the work, an ultrasound sensor was added to the frame of the mirror/screen that keeps track of any approaching person. As the viewer draws closer to the screen, the lights around the glass increase in intensity, causing the otherwise transparent mirror to become more opaque, simultaneously the video preview dims reinforcing the effect of the mirror. In order to obtain a stronger uniformity and more reliable video feed, the project was ported to a mac platform with a video preview screen from a high definition webcam through the open-source java-based program Processing, which also reads the data from the range sensor and alters the intensity of the LED lights through a serial connection to an Arduino Leonardo microprocessor.



myVanity, installation sketch, 2015.

be an urge to reconcile the two figures, to resolve the discordant silhouettes of the face, an accurate superposition is not physically possible, as the asymmetry of our biological and mediated faces prevents a perfect coupling of the images. *myVanity* exists in this dissonance, between the embodied self and embedded or representational self.¹⁷⁰

170 Due to a last-minute re-allocation of space in the John Curtin Gallery, this work could no longer be accommodated in a way that permitted the necessary (restricted) approach of the viewer, and therefore it was not exhibited on the occasion of *SoDA15*. The influence and value of this early work can be seen however in many of the works exhibited: in the use of face-detection in *The Latent Image*; in the use of computer vision and sensor systems to understand the thresholds between embodied and embedded identity in *plyFace*; and in the use of the Raspberry Pi microprocessor and cameras in the works *NousAutres* and *Delayed Rays of a Star*.

plyFace: an algorithmic self-portrait in code

```
ply
format ascii 1.0
comment VCGLIB generated
element vertex 13045
property float x
property float y
property float z
property float nx
property float ny
property float nz
property int flags
element face 24809
property list uchar int vertex_indices
property int flags
end_header
2.15093 38.14 18.3053 -0.233042 0.661309 0.826847 0
3.31399 38.7144 18.1737 -0.323564 0.918185 1.14802 0
2.31399 40.0948 16.7878 -0.11871 0.336867 0.421191 0
3.31399 40.0948 17.2526 -0.0162168 0.872481 1.30757 0
1.31399 37.7141 18.1825 -0.36902 0.537098 0.652231 0
1.31399 40.0948 16.7549 -0.0437694 0.798793 1.33216 0
0.313988 38.8537 17.0843 -0.990137 1.27946 1.81517 0
2.31399 37.0948 18.9488 -0.140038 0.597175 1.06715 0
4.87556 40.1053 17.265 -0.0904219 1.25524 1.44009 0
4.81399 38.0948 18.8384 -0.265239 0.635718 1.19119 0
-0.659698 39.0525 16.244 -0.735029 0.312713 0.925753 0
-0.0195444 40.0948 16.4002 -0.599822 0.25519 0.755464 0
6.66821 39.0923 18.2605 4.92665e-05 0.75169 1.04577 0
4.73551 39.089 18.263 -0.067992 0.418796 0.732902 0
0.275298 37.5997 17.9471 -0.284277 0.980138 1.60555 0
1.77955 36.0764 19.2364 -0.279827 0.323918 0.626939 0
3.81399 36.95 19.2267 -0.146521 0.353714 1.12003 0
5.31399 41.0948 16.43 -0.107087 0.179885 0.320888 0
6.31399 38.0948 18.9775 -0.243301 0.860846 1.07741 0
-1.52235 38.0948 17.1693 -0.69764 1.02962 2.38877 0
-0.686012 38.435 17.2669 -0.0814224 0.120168 0.278796 0
7.31399 41.0948 17.0975 -0.0827403 0.640467 0.90882 0
7.93814 40.0439 17.8948 -0.0731272 0.566055 0.803229 0
6.0616 41.4186 16.5003 -0.677835 1.12395 2.03114 0
3.81399 36.0948 19.4967 -0.270546 0.677624 1.01085 0
5.08272 35.1438 20.4738 -0.251117 0.76399 1.06968 0
-1.0269 35.4413 19.0342 -0.287683 0.757746 1.15991 0
-2.68601 38.0948 16.6306 -0.573011 0.744979 1.23782 0
10.314 40.288 18.3934 -0.210143 0.522156 0.650059 0
8.71927 41.1405 17.1932 -0.311078 0.890982 1.04612 0
6.50149 34.8824 21.0682 -0.232503 0.538553 0.791699 0
5.85883 37.1847 19.3134 -0.130678 0.302693 0.444973 0
10.314 41.6905 17.2669 -0.222472 0.486479 0.605644 0 [ ... ]
```

Superficially, the work *plyFace* takes the form of a series of glossy magazines, not unlike many of the luxury-goods fashion periodicals often filled with “high-concept” fashion editorials that both lend support to and help disseminate the hundreds of advertising pages contained within its covers. The work began with a 3D digital self-portrait (a three dimensional matrix of vertices sometimes called a ‘point cloud’), as captured through a computer vision system, rendered on and through the tangible artefact of the magazine. It is rendered *on* the magazine’s cover, and it is rendered *through* the reproduction of the human-readable machine mark-up (specifically in the Stanford Triangle Format protocol indicated by the resulting data file’s suffix ‘.ply’ which has been adopted in the title). In addition to these glossy magazines, the file is also transmitted acoustically as an automated reading.

This work resides in an interstitial space between human and machine interpretability of the face, being potentially and technically an exact geometric replica of my likeness. Paradoxically, despite the work containing all of the necessary information that sufficiently makes up my virtual manifestation, the printed and spoken data—without further software interpretation—generates an indeterminate, unresolved and invisible image to both human and machine alike.

From this perspective, the images used for the covers of the *plyFace* magazines can be described as ‘renders’ of a model of my likeness. Each cover represents a kind of variation as it is ‘skinned’ with appropriated Vogue covers. Using these appropriated images of women as misaligned texture-maps also alludes to my prevailing

struggle to psychologically and aesthetically conform my self-portrait, but I will return to this later. Meanwhile the multiplicity of the images overtly signals my role as artist to filter, choose, make and discard associations, and finally accept the co-existence of all these identities.

A major outcome during the process of developing this work was my deeper understanding of the interdependent yet fluid nature of computer code, and how this abstraction can inform our understanding of ‘reading’ the face. In other words, merely mediating my face into an array of numbers does not equate to reducing my likeness to a native computer format or language. The acquisition, composition and presentation of this alphanumeric data—not only this unique combination, but also this particular file format (the Stanford Triangle Format)—is itself a form of ‘mark-up.’ It already is dependent on a layer of interpretation, abstraction or translation before it can be useful to machine, or human. For the data to be used by machines it requires a software interpreter, for it to be seen by humans, it requires a rendering environment or interface.

The initial computer vision employed for this work was created via a self-programmed system (specifically a self-modified Microsoft Xbox Kinect), which is based on infrared sensors. This means that the interpretation or imaging of my presence, as seen by the Kinect, was exclusive to the machine at the time of capture, as infrared falls below the human-visible spectrum. What was rendered to the screen as I captured the image, for my own convenience, was a two-dimensional human-readable facsimile of the image, but it



plyFace, early process image, 2013. Experimenting with DIY device for infrared imaging.

wasn't until I passed the data into a third-party program, a point-cloud visualiser, that I could really perceive what the computer had 'seen.' This abstraction and simultaneous translation is, of course, applicable to every instance of computer vision, as the mechanics and computation involved, while attempting to mimic the outcomes of human vision, necessarily function through binary code. This process today generally remains concealed. "The most profound technologies are those that tend to disappear. They weave themselves into the fabric of everyday life until they are

indistinguishable from it.”¹⁷¹ Rita Raley writes in depth about the surface/depth tension in computational work and understanding:

Whether conceived as ‘secret,’ ‘inaccessible,’ or an imperceptible background element, the ‘deep’ layers of software, the bottom floors of the tower of the programming languages, elude our cognitive reach.¹⁷²

Many theorists on code write about the opacity, mystification and elusive substance of software systems, which can occur for a number of reasons from poor documentation or excessive personal style (at the level of programming languages), because the code itself requires completion by an algorithm or machine, or because the sub-processes become more and more minute as they reach the proximity of binary instruction and ultimate electrical/physical impulse. Referring to the recurring problem of scale, Matthew Fuller has also remarked that at the lower levels, that is, at the point where the binary operators are triggered by the flow (or not) of electrons, our cognition of such a system would always be limited by the fact that these occur on a subscopic scale.¹⁷³

We have now become accustomed to reading digital images on screens, composed of square-ish, coloured pixels, something that I remember having to reconcile while making my early digital works of the 1990s. At the time, I was still very much used to ‘reading’ either the stochastic dots of the chemical processes involved in photography and film reproduction, or the four-colour process

171 Mark Weiser, “The Computer for the 21st Century,” *Scientific American*, (09/1991).

172 Rita Raley, 2006. “Code.surface || Code.depth” in *Dictung-Digital.org* <http://www.dichtung-digital.org/2006/01/Raley/index.htm>

173 Matthew Fuller, “Visceral Facades: taking Matta-Clark’s crowbar to software.” I/O/D, May 1997

screens of print media. Offset printers' screens, unlike the blocky rectilinear arrangement of pixels of computer screens, traditionally create a rose-like pattern. Today we are habituated to viewing the digital image, we no longer direct our focus to the stepped edges of the square pixels, we have learnt to converse in images' resolution, detail and dimension in mega or kilobytes of information, in bits of colour space, and so on.

On one level, *plyFace* attempts to reveal some of the numerous layers of abstraction and subsequent interpretation that comprise our quotidian image consumption. Our own (human) sight is limited to the reading of a restricted spectrum of reflected light, is further influenced by our immediate environment, our personal response criteria, and thus is subject to fluctuations in perception and comprehension. Similarly, all the way through the various 'shells' of operating systems, interfaces and software, there is a series of interpretations, interpolations and translations. Until we reach the binary signals originally recorded by the light-sensitive sensors, arguably the only step in the process of image-capture that can be referred to as machinic vision with any certainty. These binary signals are represented by the digits one and zero.

The common ground (if we accept that there is one) between all these many 'shells' of abstraction, is the use of the number, agent of Pythagorean *harmonia* (harmony) and traditionally considered the potential key to the meaning of the *kosmos* (the order of things). According to Greek philosophy, harmony underpins beauty. The philosopher and mathematician Pythagoras established his school of thought based on the presumption that coursing beneath

every thing, harmony, creation, nature and culture, there was a mathematical ‘source-code’ (500 BC circa). Once Pythagoras discovered the diatonic (musical) scale, he attempted to apply harmonic intervals to all natural phenomena. Pythagoras proved that music is regulated by mathematics, and in order for harmony to obey mathematics, it follows that the number precedes harmony. Thus Pythagoras and his disciples (known as Canonics) affirmed that “All is Number.” Pythagoras harmonics in mathematics also is influential on the principles of Norbert Wiener’s Cybernetics, as Wiener found applications for harmonic analysis in engineering, as well as other fields.¹⁷⁴

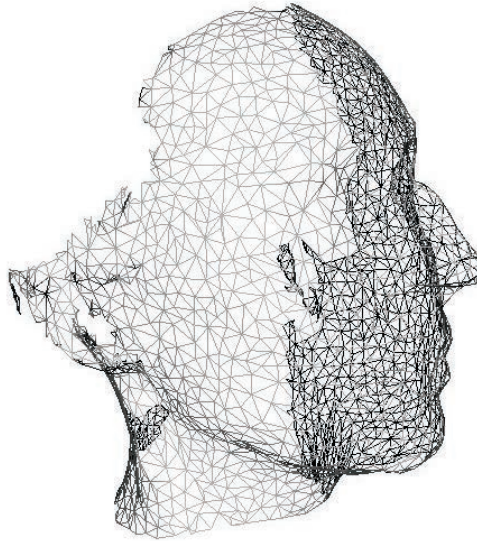
Mathematics, when understood to be a code or system of signifiers, as any other language, lends itself as vehicle or tool in the search for universal truth.

Mathematics is not just calculation. The numerical system may be just a way to represent quantities, but mathematics is more than that; it is also an extreme form of logical reasoning. Mathematics is said to be a (maybe even the) universal language. Even if this is to some extent true, this assumption also tends to give way to an almost religious belief in the power and superiority of calculative reasoning.¹⁷⁵

Art critic Josephine Bosma has made an interesting argument here that mathematics wields superior authority over other language systems, based on a perceived neutrality or lack of human intervention. Pythagoras’ influence, from the magical properties of

174 Irving E. Segal, *Norbert Wiener 1894-1964: A Biographical Memoir*. (Washington DC: National Monument Press, 1992), 389.

175 Josephine Bosma, 2006. “Voice and Code,” in *ISEA2006*. <http://www.josephinebosma.com/web/node/4>



plyFace, wire-frame, 2015.

Kaballa to our sustained quest for new discoveries in and through technology, demonstrates that this (‘almost religious’) belief endures:

As mathematics, the technology of organizing, processing, and steering information is perceived as neutral and aimed at truth or perfection. A relationship to human endeavor and desire is mostly ignored.¹⁷⁶

Instead it is precisely the organising, processing and visualisation of data that is the basis of creative pursuit in both the sciences and arts. Data visualisation is not a neutral science, it is a human construct with a narrative and agenda. It leverages society’s intrinsic trust in numbers and rational logic, is prone to human bias,

¹⁷⁶ Bosma, “Voice and Code.”

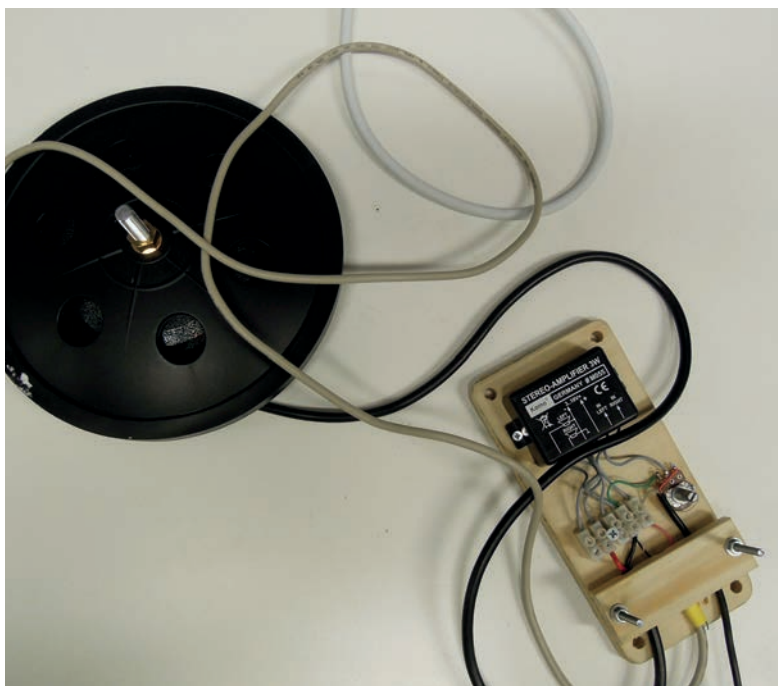
and is often used in cultural and political rhetoric. Yet despite my own algorithmic work depending on this prevailing perception of neutrality and truth—in its blatant use and display of numbers and mathematics—*plyFace* and subsequent works in data and code are as much the outcomes of a series of choices, aesthetic choices, as would be expected in any other artistic practice.

The hundreds of thousands of numbers comprising the coordinates of the vertices that comprise my portrait were initially to be read aloud by the Apple iOS voice of ‘Siri’ (Samantha on Mac OS), arguably the most recognised computer voice since HAL9000 (the malfunctioning ship’s computer in Stanley Kubrick’s 2001 *a Space Odyssey*).¹⁷⁷ This choice was deliberate, I wanted a familiar and friendly female voice for the lengthy recording of numbers read aloud, yet in choosing a mechanical voice, I was aware that it was not an uncommon choice for this genre of works.

Many works have preceded *plyFace* in the vocalisation or performance of code. Historic examples include Radioqualia’s “Free Radio Linux” in which the millions of lines of Linux source code, with the use of a synthetic voice, were webcast in 2001, celebrating the revolutionary nature of Linux as a free software; or Franco Berardi (Bifo)’s performance “[epidemiC] loveletter reading” (2001) in which he read the contents of the ‘I Love You’ virus.¹⁷⁸

177 Kubrick, Stanley. “2001: A Space Odyssey.” Metro-Goldwyn-Mayer, 1968; However, the final audio recording employs the voice of ‘Alex,’ rather than ‘Samantha,’ as the latter had difficulty reading the numbers containing decimal places consistently and accurately.

178 Geoff Cox, *Antithesis : The Dialectics of Software Art*, (Aarhus: Digital Aesthetics Research Center, Aarhus University, 2010), 160; Franco Berardi http://www.digitalcraft.org/iloveyou/loveletter_reading.htm



plyFace, process image, 2015. Transducer and amplifier ready for installation. A sample of the audio file can be found on https://www.mixcloud.com/karen-ann-donnachie/plyface_sample/

The ‘alien’ nature of the synthetic voice is salient in this era as we turn more frequently to ‘hands free’ phone operations that occur with the aid of agents such as Siri; as we are more frequently asked personal details by automated telephone forwarding services; as we are guided through the streets by in-car satellite navigation systems and so on.

Computer voices, no matter how specific their profile, will always have more in common with illusions than with human beings. Like the voice of God, they are perfectly incompatible with anybody. They run parallel to all bodies in this world.¹⁷⁹

179 Anna Zett, “Text to Speech,” 2015, http://soycapitan.de/wp-content/uploads/2015/05/Anna-Zett_Text-to-speech.pdf

Anna Zett has perhaps located the font of ‘alien-ness’ of the synthetic voice, we cannot place a face to the voice as we would with an actor, politician or other celebrity.¹⁸⁰

As the synthetic voice reads the code from *plyFace*, physical vibrations imperceptibly act on the body of the listener, and the regular rhythm of numbers tends toward abstracted sound. The vocalisation of the code could be described as producing a quasi-mantric effect, even arguably provoking a skin-response similar to the contemporary practice of Autonomous Sensory Meridian Response (ASMR or ‘gentle whispering’) in which a tingly sensation or goose bumps are provoked as a source of pleasure or therapy. Bosma describes the potential for the voice to once again remind us what it is to be human:

Audible voice is the most special of our physical extensions. It has no shape and no easily visible material presence, yet it can have great impact, even when used in a whisper. Even if it is invisible, it can still be measured. Voice is produced by (and at the same time produces) a physical resonance. ... Voice can be like our arms and hands: a part of us that reaches out and touches something or someone. Through its resonance, voice has the ability to remind us of our physicality. And it not only literally moves us. Its sound and content remind us of our humanity.¹⁸¹

In Buddhist meditation, the use of mantra is often associated with visualisation; the image that you reproduce in your mind ideally becomes a doorway through which the light of compassion and

180 Indeed the 2013 Spike Jonze film “Her” which concerned an artificial intelligence as operating system, drew on a famous voice, that of Scarlett Johansson, so (by design or by fault) it was difficult to not envisage Scarlett as the AI entity.

181 Bosma, “Voice and Code.”

wisdom can shine. The sound work associated to *plyFace* aspires to evoking similar imagining, or at least it is intended to contribute to a meditative state of enlightenment. However it should be said that any individual's reception of this synthetic voice will be influenced by their own position toward, and experience of, automata and human-like robots.¹⁸²

When we immerse ourselves in a completely foreign language, when others around us share and speak in a 'code' that remains undecipherable for us, we are essentially deprived (or at least isolated from) auditory sensory stimulus. A child learns a first language through exposure to what begins as a stream of undecipherable utterances, again a code.¹⁸³ So what if a cognitive association of the mathematical 'meaning' were to be reinforced while the numbers are read aloud, (for example with a visual cue, an illuminated point within the image or similar)? Could this language potentially be learned? As a thought experiment I attempted to recall how it felt when I first began to code in HTML or work with images in image processing software in the early 1990s. I could not see or imagine an '800 x 600 pixel' image or shape, the measurements to me were too foreign, abstracted. I could not understand the proportion, weight or relationship to the other objects around it; indeed I often

182 The term 'uncanny valley,' coined by Masahiro Mori in 1970, later championed by Jasia Reichart in her 1978 *Robots: Fact, Fiction, and Prediction* in a hypothesis that is used to describe the eeriness or aversion that can occur in the presence of automata, robots or synthetic voices; Jasia Reichart, *Robots: Fact, Fiction, and Prediction*. (London: Penguin Books, 1978).

183 "To make sense out of any utterance, they have to analyze and segment the acoustic stream they hear using its sound and phonological properties. Research confirms that, without external help, infants acquire word knowledge by analyzing and acquiring information using the phonological properties of speech." Jill Lany and J. R. Saffran "Interactions between statistical and semantic information in infant language development." in *Developmental Science* 14:5 (2011): 1207–1219.

used a pixel ruler, a (now practically redundant) tool for measuring screen geometry. Now the pixel dimensions alone evoke a mental image of scale and geometry, I understand the screen and print resolution of the image from those two numbers. I look forward to a similar comprehension of *three*-dimensional space.

The two iterations of the data in *plyFace*, as ink on paper and as sound through air, are two possible performances of a script, composed of 13,045 vertices that constitute my likeness; the self-portrait represents an indeterminacy that serves to disrupt the obsessive finding of a resolution through virtuosity (especially with regard to the replication of human likeness). Instead of entering an ever-spiralling upward cycle of increasing resolution (presumably based on the belief of a potential absolute resolution or closure to the image) this work proceeds with the spirit of glitch, data bending, or other re-interpretative processes and disruptive strategies.¹⁸⁴

In addition to these considerations, *plyFace* would also evoke discussions of surface, depth and materiality common in algorithmic poetry or code-performance. However, the data in this work is not intended as artistic content but is machine-generated (rather than authored) and neither is it, nor does it pretend to be, executable any more than a mathematical description of a rectangle is executable. In fact the artistic scope of the data in this work is merely representational, excavational.

184 Glitch refers to an unanticipated disruption or malfunction in technology; Data bending is a disruptive process that involves altering the raw data of a file to modify the way that is is used or interpreted by a computer (for example editing image or sound files as text documents to then redisplay or play).

We are sometimes eager to assign a certain autonomy to the computer, yet in *plyFace* we begin to unveil the elided agency of designers and programmers. Consider the most obvious of examples of the engineers that devised the scanning device; or those who wrote the basis of the software which can ‘read’ the infrared sensors; the programmers that coded the software to recompile the point-cloud data; or those who devised the file format ‘wrapper’ or even the impagination/design software of the digital ‘print on demand’ press system which produced the physical publication. Machine autonomy, then, can be reframed as human performance and projection through any number of interconnected machine prostheses.

In summary, *plyFace* is created through processes of machinic interpretation of light and infrared waves, human alphanumeric translation, editing and organisation, subsequently mathematically rendered, vocalised, and printed. As computer data it is prone to a number of dangers such as server failure, deletion, malware (malicious software); as physical artefact it carries the frailty of the codex prone to damage by fire, water and even insects; and finally as sound waves it decays with the same entropy as any voice, susceptible to the space and environment through which it travels. *plyFace* remains in limbo between the digital and the physical, suspended between software and wetware.¹⁸⁵

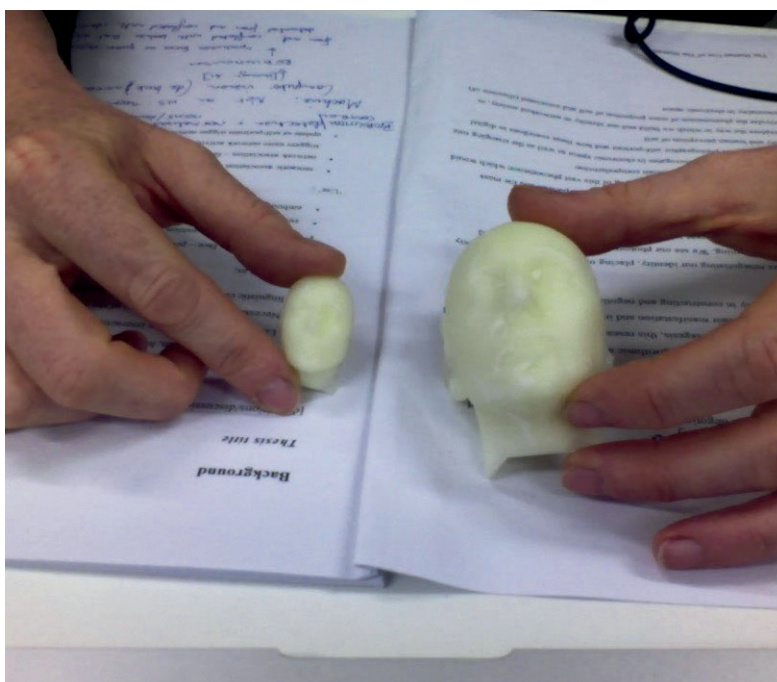
185 Wetware is a term generally adopted to signify biological nervous systems, as opposed to computer hardware or software. The adoption of the term is attributed to Rudy Rucker and his science fiction title of 1988; see Jessica Ruskin, “Eighteenth-Century Wetware” in *Representations*, PDF, <http://web.stanford.edu/dept/HPS/representations1.pdf>

Wrapping the surface

The inhuman in human beings: that is what the face is from the start. It is by nature a close-up, with its inanimate white surfaces, its shining black holes, its emptiness and boredom.¹⁸⁶

The *plyFace* magazine covers (shown on the following pages), are renders of the 3D model, wrapped with appropriated Vogue magazine cover images. The choice of the wrapping image alludes to my prevailing struggle with the established canons of beauty, as mediated through broadcast and print media: a struggle that was most acute during the years of modelling for magazines and fashion houses in Italy in the early 1990s. My commissions in those years involved my assuming the role of the outsider, or the exception that proves the rule. I was often described as ‘la particolare,’ the unusual or diverse face. I rode the wave of the ‘waif’ and ‘grunge’ trends of the early 1990s, which proved to be merely a deviation from the perennial canons of beauty that (the majority of the time) grace the covers of magazines. Later, when I established my studio in Milan, Italy (1995–2010) as photographer, I experienced countless conversations on the highly codified, but always fluid, canons of beauty with commissioning clients, colleagues and of course, the models themselves. In these discussions, it was not unusual to refer to the model (the human) and her likeness (the image) as two distinct entities. Indeed, many of the models would refer to their own likeness as ‘my image.’ This image was permeable, determined in concert by the professionals on the day of the commissioned photographic shoot such as make-up artists,

186 Gilles Deleuze and Felix Guattari, *A Thousand Plateaus : Capitalism and Schizophrenia*, translated by Brian Massumi, (London: Athlone, 1987), 189.



plyFace, process image of 3D prints made from the resulting .ply file, 2015.

lighting-technicians, art-directors and many others. The image was an arbitrary and moving target, a goal to be achieved through the technology and artistry on set. The image however did not have the autonomy of the mask—it transformed and fused with the model. The image and the model were considered as counter-dependent. My role as both model and, later, photographer, was to facilitate the rendering of these shared ideas and ideals.

In the context of the selfie, *plyFace* can perhaps bring us to reflect on how notions of beauty, or the normalising forces that are at work therein, may effect identity construction through the selfie.



plyFace, magazine cover #1 (series of 6), 2015.



plyFace, magazine cover #2 (series of 6), 2015.



plyFace, magazine cover #3 (series of 6), 2015.



plyFace, magazine cover #4 (series of 6), 2015.



plyFace, magazine cover #5 (series of 6), 2015.



plyFace, magazine cover #6 (series of 6), 2015.

Upgrade cycle

In my final year of research, well after *plyFace* was all but completed, indeed almost archived, I had the opportunity to ‘upgrade’ my 3D face scan at the AAL (Alternate Anatomies Lab). I was interested in testing my original notions on the permeability of the face by reproducing the same processes through imaging machines that could acquire the data of my face with a much higher definition. Thanks to the artist Stelarc, and the assistance of Kevin Raxworthy, the data used in *plyFace* as exhibited at *SoDA2015* is in fact this later generation—more efficient—point cloud. The difference between my original ad hoc acquisition of data of my face, and the more recent high-fidelity version can be seen in the two headers (opening statements of the polygon .ply format):

```
ply
format ascii 1.0
element vertex 46034
property float x
property float y
property float z
property float nx
property float ny
property float nz
property float s
property float t
element face 89561
property list uchar uint vertex_indices
property list uchar float texcoord
end_header
```

```
ply
format ascii 1.0
comment VCGLIB generated
element vertex 13045
property float x
property float y
property float z
property float nx
property float ny
property float nz
```



plyFace, process image, 2015. 'Upgrading' the scan at AAL Lab, Curtin University.

```
property int flags
element face 24809
property list uchar int vertex_indices
property int flags
end_header
```

This new version of the work can be considered an evolution, if we consider that in code, as in related systems of aesthetics and language, evolution occurs once three conditions are met: replication, variation and selection.¹⁸⁷

187 The new pointcloud had an interesting effect on the work. Previously the less efficient or 'noisy' code from my own scan contained 46034 vertices and 89561 faces, while the new contains 'merely' 13045 vertices and 24809 faces. This meant that my initial intention to print *plyFace* as multiple volumes—2700 pages over 7 hardcover books—was no longer necessary, for the code would now fit comfortably within 240 pages over three columns allowing me to repurpose the layout of the code for magazine format and indulge this new layer of meaning with the cover images.

Concluding first-life

This initial part of the research, through the two works *plyFace* and *myVanity*, has been concerned primarily with the interpretation and recognition of the self on the threshold of virtual space. They explore the material context of our digitised portrait, the projection of our embodied selves and the human reflection that occurs through the self-portrait, aided by computer vision as abstracted tool of perception. Questions of computer vision systems, the language of code, the elision of the computer system and process, our faith in numerical systems, as well as concepts of how we construct and negotiate with and through the face emerge in these works. These works have helped us understand the substance of the selfie so we are better able to track its passage from human being to human proxy.

However, if we are to get closer to the phenomenon of the selfie and how it is affecting self-portraiture, we cannot limit ourselves to encounters in isolation—as in the case of observing our likeness in a mirror—nor can the discussion be limited to the acquisition and construction of a self-portrait. In order to satisfy a deeper study of the selfie, next we must consider the human use of the human face in *networked* electronic space.

plyFace, process image, 2015.
Screen render of face scan in progress.





The Latent Image, continuous real-time colour
values of facial skin tones of Instagram
#selfie subjects, (detail) 2014-ongoing.

Second-life: The embedded self (portrait)

Technology has moved from being a tool to a prosthetic to becoming part of our cyborg selves.¹⁸⁸

This second group of artworks, organised under the title of ‘second-life,’ draws our focus to the self-portrait as agent in a virtual environment. The self-portrait becomes more than a representation or reflection of our embodied selves, the imaged self assumes agency, and plays a role in the construction and projection of our digital identity. The artworks in this section facilitate encounters with the phenomenon of the selfie and propose new tools and processes for their creation and dissemination. Discussions of computer vision systems in analysis of automated processes and the database in *The Latent Image*, while the camera works *NousAutres* and *Delayed Rays of a Star* address themes of connectedness, authenticity and materiality of the camera object and the selfie. We can begin to track how the selfie becomes an extension of ourselves into the network and a tool for social agency.

This section concludes with *#Me: The Artist’s Self-Portrait in the Age of the Selfie*, an informal collection of artist-interviews, in which I discuss the role of the artist’s self-portrait as now contested genre of art-practice, and the selfie as locus for performance with contemporary practitioners, and consider how the selfie may influence the genre of the artists’ self-portrait.

188 Sherry Turkle, “Technology and Human Vulnerability: A Conversation with MIT’s Sherry Turkle,” *Harvard Business Review*, (September 2003), 50.

The Latent Image

This research, from its very premise, demanded a close study of the seemingly infinite phenomenon of the networked self-portrait. Initially this involved observing and collecting social media profile pictures, by identifying and saving results of specific image search criteria, or aided by dedicated aggregation software for example *www.thefacesoffacebook.com*.¹⁸⁹ Later, I accessed ‘feeds’ (continuous automated streams) of selfies presented through web sites such as *www.selfeed.com* (no longer functioning), which displayed a constantly updating pool of images with the metatag #selfie in (almost) real-time.¹⁹⁰ I dedicated many hours to watching face after face, and learnt to expertly decode the topologies and expressions often associated to the selfie, such as the ‘duckface’ and other pouts, self-effacing frowns, and endless smiles all appearing to be directed at me.

After viewing thousands of images I developed the irrational conviction that *everyone* and *every type of person* was taking selfies. I came to realise that this feeling, which of course was not based on any kind of empirical data, was transmitting to me a sensation of belongingness, and the average face or composited identikit, which makes up the badge of membership into this community of selfie-ists, generally gazes directly at the lens and, for the most part, smiles.

It was this initial struggle to address the massive number of selfie images that led me to my preliminary ideas to create an aggregated

189 Natalia Rojas, “The Faces of Facebook,” 2013. <http://www.thefacesoffacebook.com>

190 Tyler Madsen, Erik Carter and Jillian Mayer, “Selfeed,” 2014. <http://www.selfeed.com>

portrait, intended to reveal patterns, symmetries and perhaps critically consider other canons of beauty hidden within the selfie. Specific existing works, which were of significant influence, included the early aggregated portrait works of Nancy Burson.¹⁹¹ Burson, initially working in analog photography, overlaid a number of images (faces), aligned by salient features, in order to create a single composite image with poignant titles such as *Beauty*, *Mankind* and so on. It should also be noted that these are not new techniques, nor are they exclusive to art purposes. By the 1870s, photographer Francis Galton was already creating composite glass-plate photographs of convicted criminals, attempting to create a profile-portrait from multiple faces that he believed would essentialise the ‘villain.’¹⁹²

In this vein, I set out to create a single, automated, constantly updating work that could somehow contain this endless flow of ‘selfies.’ Perhaps I would be able to essentialise the ‘sefie-ist.’

Technically speaking, this task is not as challenging as it may at first appear, and has certainly become simpler as software tools have become more readily available to non-specialised users. With the combination of tools such as the openCV software (open source computer vision) used for face detection, and access to an automated data stream, creating a single averaged image

191 Nancy Burson’s series of works include *Beauty*, *Mankind* and *Human Race Machine*; Nancy Burson, Richard Carling, and David Kramlich, *Composites: Computer Generated Portraits*. (New York: Beech Tree Books, 1986).

192 David Burbridge “Galton’s 100: An Exploration of Francis Galton’s Imagery Studies,” in *British Journal for the History of Science*, (27, 1994), 443-63.

from many is within reach of anyone with a minimum of computer programming expertise.¹⁹³

Of further aid to the programmer are recent services developed through and for the ‘Internet of Things’ (IoT) and social media. These services—required and honed for the emerging IoT which is essentially ‘thing tracking services’—have developed protocols involving autonomous systems and data hooks (referred to as APIs).¹⁹⁴ These streamlined protocols serve as conduits between data rich platforms so that data may be sourced, aggregated and then shared between one platform and another. These services now connect social media (Twitter, Instagram, Facebook, Flickr and so on), news and broadcast services, personal ‘cloud’ services (Dropbox, Google drive, email providers and so on), as well as ‘IoT-ready’ physical devices (home automation, remote-controlled sensors, input devices, smartphone apps, tracked merchandise and so on) allowing the user to formulate any number of processes. Users create their own ‘recipes’ of data flow which follow a pattern of ‘if this’ happens, ‘then’ do that, often abbreviated to ‘if this, then that.’ Through one of these services (such as the literally named ‘IfThisThenThat’ www.IFTTT.com), I created a script to automate the web-scraping and handling ‘server-side’ of the #selfie images. Meaning that there is no longer any need to store or duplicate the original source material, but rather the #selfie images

193 Cascade file: “The name implies that it has a cascading structure... its a very efficient algorithm and it’s the one that led to the explosive growth of face detection everywhere across devices.”— Adam Harvey interview: <http://www.makemantics.com/research/viola-jones/>

194 API (Application Programming Interface) is essentially a set of procedures established to allow diverse software services to communicate and exchange data.

can be temporarily accessed, processed, and then discarded before delivering the results to the user.

This process returns us to the notions of Norbert Wiener's Cybernetics—the automation of sensorial processes—based on the studies of systems that take in, interpret and distribute data and self align or refine to better serve the process.¹⁹⁵ If we frame these processes within the context of assemblage as we have discussed earlier, we can see how the 'Internet machine' consists of a facilitating of flows and connections, between nodes, subjects and other assemblages.

In current information processes we repeatedly, and for the most part, unconsciously, defer senses to the computer (for example in this particular instance of *The Latent Image*, the 'looking' is accomplished by the machine). Andy Clark in his "Re-inventing Ourselves", speaking of the human-machine interface, suggests that we are biologically capable of expanding our sensory perceptions/boundaries to encompass our digital prostheses. Clark attributes our potential to adapt to the challenges and affordances of machinic and computational systems to the plasticity of our learning processes:

We humans... are biologically disposed towards literal (and repeated) episodes of sensory re-calibration, of bodily re-configuration and of mental extension. Such potential for literal and repeated re-configuration is the mark of what I shall call "profoundly embodied agency."¹⁹⁶

195 Norbert Wiener, *Cybernetics: Or Control and Communication in the Animal and the Machine*, 2d ed., (Cambridge, Mass.: M.I.T. Press, 1965).

196 Andy Clark, "Re-inventing ourselves: the plasticity of embodiment, sensing, and mind." *The Journal of Medicine and Philosophy* (no. 32, 2007), 263.

So *The Latent Image*, as it was first conceived, would leverage this (posthuman or transhuman) potential for ‘seeing’ and sorting, selecting and compositing thousands of images via the assemblage of the Internet machine. Conceptually, however, I was having some difficulties. Since Burson’s *Mankind* and *Human Race Machine*, there have been many works that have emerged that recreate a single ‘averaged image’ from many, such as Jason Salavon’s amalgamations of found images—his playboy centerfolds, graduation day students and weddings series, which are created by averaging the pixel intensity values of the images chosen.¹⁹⁷

Furthermore, other works have emerged that comprise aggregations of the results from online search engines, adopting strategies of ‘data-scraping.’¹⁹⁸ It could be argued that aggregated or averaged images have become a trope within the field of data visualisation and digital image processing.¹⁹⁹

A further consideration is that the aggregated image, and this can be seen in Dan Kolman’s project *Average Tinder Girl*, perhaps ultimately reinforce a visual language that I seek to challenge, in as much that through this composite image, we are reassured

197 Jason Salavon, various series of works including *Portrait*, *Special Moments*, *Every Playboy Centerfold*, <http://www.salavon.com/>

198 Some examples include: Jason Salavon’s data-scraping works from search engine results include <Color> *Wheel*, 2012 and *Good and Evil* ‘12, 2012; Aaron Koblin’s works accessing real time flight data, including *Flight Patterns - Color*, <http://www.aaronkoblin.com/>; Jonathan Harris and Sepandar Kamvar accessing and processing Twitter content in real time, *We Feel Fine*, <http://www.wefeelfine.org>

199 Interestingly Jason Salavon, after almost twenty years, has distanced himself from the technique of averaged images as he finds the trope overused. “I don’t see [myself] doing any more averaging-style amalgamation work. In 1997, when I first blended 120 Playboy centerfolds, I was not aware of anything much like it (I only knew Nancy Burson’s exceptional “morph” work). As it stands now, a once open area of inquiry has become so crowded, I don’t much feel like I have anything left to contribute to this particular conversation.” Jason Salavon, <http://salavon.com/work/Portrait/>

that ‘normal’ is indeed normal, and that our expectations are met with little statistical deviation.²⁰⁰ The blurry edges, soft focus, and smooth features of these images imbue them with a classical romanticism and render them seductive in comparison to the flood of pin-sharp or broad depth of field imagery to which we are accustomed—arguably in the same way that Instagram filters are popular. The problem arose when I understood that rather than raising new questions regarding individuality and identity, the trope of the aggregated portrait lays them to rest. In short, to me, many of these works appear underpinned by a basic assumption: we are, after all, the same, or should aspire to be so. This was not my intention for *The Latent Image*.

As Sarah Kember warns in her discussion of computer vision, through the algorithms of detection and cascade filtering, the artificial intelligence’s underlying directive is to sort subjects (detected objects) into norms and deviants, and this, in turn, can feed bio-political control.²⁰¹ Deleuze and Guattari have also elaborated on the political control inherent in the ‘faciality machine’, as Harper and Savat paraphrase:

This process, this gridding of the face through a set of categories, this mapping, whereby a tolerance is established or, indeed, an enemy. In short, the faciality machine— and it is important to stress any image can function in this way, not simply faces – is a ‘deviance detector’: it computes normalities.²⁰²

200 Dan Kolman’s project is modestly presented more as a ‘how-to’ than a final work; Dan Kolbman, *Average Tinder Girl*, <http://kolbman.xyz/face-avg/post.html>

201 Sarah Kember, “Gender Estimation in Face Recognition Technology.”

202 Harper and Savat, *Media After Deleuze*, 44; Deleuze and Guattari, *A Thousand Plateaus*, 177-179;

In other words, statistical selection, necessary for finding contours that fit a recognisable pattern, face or object, ultimately requires and reinforces thresholds for inclusion. The image being processed is tested against a set of ‘control’ features. Examples of how computer vision has failed through poorly calibrated thresholds or normalcy abound in literature in the field, with notable examples of how Hewlett Packard infamously produced a ‘racist’ face tracking system for their portable computers that could not detect the skin tone of African Americans at all; or how simple ‘point and shoot’ cameras notoriously gave false ‘eyes closed’ warnings on the snapshots of Chinese users; or the struggle of a mother of an albino child who complains “if you try to use red eye reduction, it just colors her entire eye black.”²⁰³ These metrics also have the potential to become homogenising forces, tools for racial profiling and so on. Kember invites us to disrupt the utilitarian computer vision, which, augmented by Artificial Intelligence, itself ultimately a system of reductionism, “produces faces as quasi-objects, at one detached from and conflated with bodies that are, in turn, detached from and conflated with identities.”²⁰⁴ Alexander Galloway similarly speaks of the contemporary “trap of the ‘image’ of the identity-bound individual... of racialized universalism.”²⁰⁵ Returning to Deleuze and Guattari, “Racism never detects the particles of the other; it

203 Although this is admittedly a problem that has plagued imaging technology since its inception, see art project by Adam Broomberg and Oliver Chanarin *To Photograph The Details Of A Dark Horse In Low Light*, <http://www.choppedliver.info/to-photograph-a-dark-horse/> ; “Albinism and Photography,” <http://www.parentofachildwithalbinism.com/photos/albinism-and-photography/> ; “HP computers are racist” YouTube Video, <https://www.youtube.com/watch?v=t4DT3tQqgRM>; General examples of computer bugs and fails, including computer vision, see <http://www.computerworld.com/article/2515483/enterprise-applications/epic-failures--11-infamous-software-bugs.html>

204 Kember, “Gender Estimation in Face Recognition Technology,” 191.

205 Galloway, *The Interface Effect*, 142.

propagates waves of sameness until those who resist identification have been wiped out.”²⁰⁶ In other words, the algorithm’s test requires conformity for computation and analysis to continue, the ‘unconforming’ is discarded, never to be computed.

These concerns became central to my work on *The Latent Image* as I attempted to disrupt rather than reinforce such homogenisation by accentuating the plurality of the values it produces. I took the conscious decision to no longer seek singular, global, or average values but rather to observe (or perhaps conserve) values that are ever changing in these brief projections of human individuality.

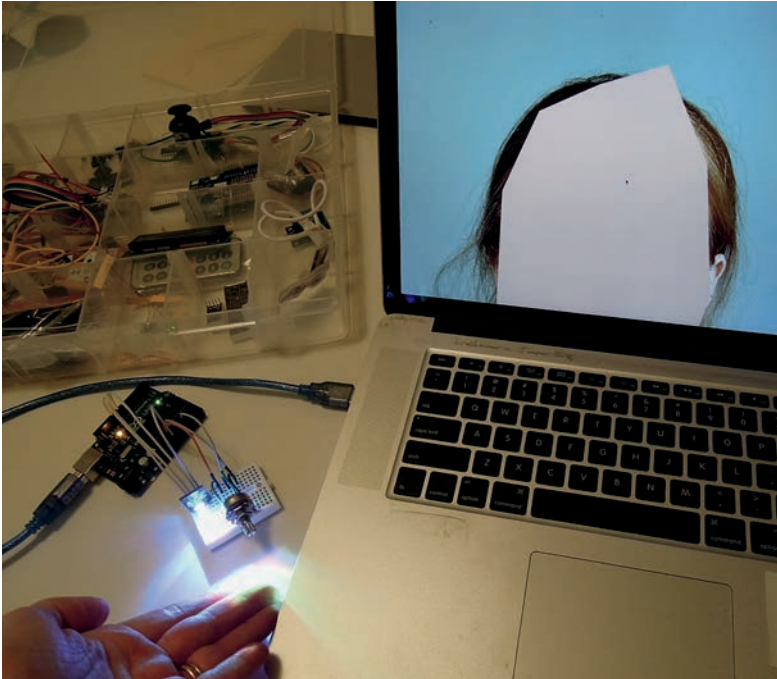
Eventually the element that I discovered could provide me with the duality of being present in every portrait, and yet significantly mutable, was skin colour.²⁰⁷

The process

The Latent Image is a generative work that displays a constantly changing colour value based on the skin tone of faces detected in selfies that are uploaded to social media networks. The custom built program attempts to detect the presence of a human face in

206 Deleuze and Guattari, *A Thousand Plateaus*, 178.

207 Although, one important limitation to recognise from the outset in a work such as *The Latent Image* is that prejudices are inherent in the very system that drives the data, although it is improving all the time. The algorithms used for the face detection are necessarily reliant on a limited (albeit ever-increasing) set of training examples; there is documented limitation on the detection of faces which are not geometrically aligned (tilted, skewed, cropped); and the algorithm stumbles when some features of the face are obfuscated with shrouds, makeup, facial hair, other body parts or objects. So at any given time it is a subset of faces in #selfie images, or rather only ‘detected faces’ in #selfie images that form the basis for the algorithm that drives *The Latent Image*. As the libraries accessed by *The Latent Image* are improved to accurately detect faces in less predictable positions, with or without all salient features in view and with more tolerance in facial geometry and symmetry, the results too will become more inclusive.



The Latent Image, process image, 2014. Arduino microprocessor generating RGB colour according to self-programmed data-scraping algorithm.

every uploaded image that is tagged #selfie (or any one of many multilingual equivalents) and then calculates a single RGB colour of the facial skin tone.²⁰⁸ This skin tone value is updated in real-time according to the constant flow of innumerable selfies posted to the social networking service Instagram around the globe.

The result is an automated algorithmic lighting installation where R(ed), G(reen) and B(lue) values of the lamps are determined

²⁰⁸ Multilingual equivalents used in the search for the selfie include #selca (Korean), #moisette #égoportrait #autoportrait (French), #jidori (Japanese), #autorretrato (Spanish), #autoscatto (Italian), #自拍 (Chinese) as well as #me. The use of the predominant tag #selfie is not limited to English speaking countries either; The skin tone is sourced from an averaging of the colour found within a quadrant of the upper cheek below the eye, left and/or right of the nose and above any areas of facial hair.



The Latent Image, process image, 2015. Further testing with the help of my daughter Indigo to observe the effect of the lighting system on skin.

by the skin tones of the faces in selfies, analysed and updated in real-time. Iterative looping through face-detection-positive results achieved from data-scraped images of multilingual #tag searches in Instagram, provides an uninterrupted flow of changing colour. Because the algorithm extracts and records only the skin tone of each person depicted, before discarding the image and proceeding to the next, the product of the algorithm is limited to precisely an updating set of RGB values. The deliberate choice to not ‘crossfade’ between these values is to preserve and transmit each individual’s value.



The Latent Image, process image, 2015. Testing the transmission of RGB colour information in DMX format from computer to Phillips Selecon PL1 lamps, over wifi.

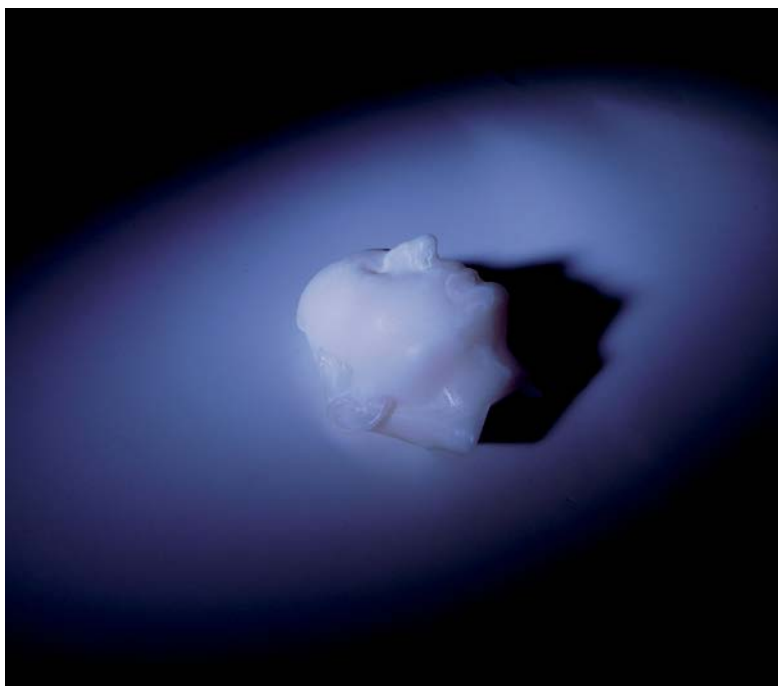
The work instantiates a series of transactions of data between embodied self, the camera, the selfie, social media and the ever-expanding online repository, automated data chain cron job (scheduled data-mining) and finally the face recognition algorithm. All of which progressively reduces the selfie to the skin tone colour information (three numbers) which is passed into an array, translated into a combination of frequency (pulse wave) and intensity (voltage) which determines the shade of colour emitted by the LED lighting. This light reilluminates the environment, the objects in the physical space, and the viewer, on the very surface of their skin.



The Latent Image, process image, 2015. Testing the continuous RGB colour projection with Phillips Selecon PL1 lamps.

Upon observing the actual pixel colour values from my first dataset, some anomalies appeared. Admittedly at the beginning I believed the algorithm to be flawed as it generated colour samples that I thought implausible for any skin tone (purples or greens for example simply ‘felt’ wrong). However, once I sought the context of the original photo (which for the purposes of “debugging” was displayed alongside its extracted colour values), these seemingly peculiar RGB values (for example bright yellow or purple), did in fact appear on an acceptably ‘natural’ image of a human face.²⁰⁹ I realised that our perception, or rather our interpretation of colour is

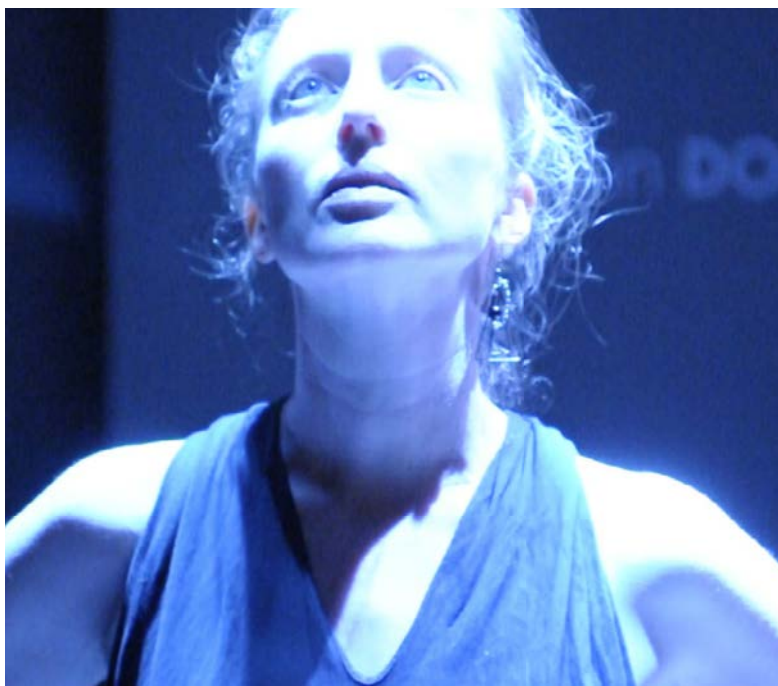
²⁰⁹ In the exhibition, the real-time projection of the process of *The Latent Image* is shown with a detail of the #selfie face, alongside the skin tone derived.



The Latent Image, process image, 2014. Testing the colour wash on 3D prints.

more relative than I had imagined, and it was becoming apparent that I was influenced by my own overriding instinct to normalise and homogenise. That is, we are not tolerant of colour in all of its hues, we will normalise or filter the perceived colours and recast them on to a much narrower spectrum (‘fleshtones’) in order to process and accept the object or subject we have before us as human.

Recently there was a clamorous example of how subjective colour (mis)interpretation can be, in the case of an image of a dress that divided viewers almost equally in their opinion—whether it was a white and gold dress, or a blue and black dress. This debate



The Latent Image, continuous real-time colour values of facial skin tones of Instagram #selfie subjects, (Artist in the installation, 2015).

(‘dressgate’) was enough to become a meme that was shared across much of social media for some days.²¹⁰

The intent and agency of the selfie in this work becomes significant, as the author of the self-portrait must deliberately tag the image as #selfie (or any one of several linguistic equivalents) and the software must also necessarily return a positive result of face detection for the image to be processed. Then the concern of the observed colour matching the subject’s real world skin tones, becomes irrelevant, as

210 Business Insider. Accessed 5 November, 2015. <http://www.businessinsider.com.au/how-to-see-the-dress-as-white-and-gold-and-black-and-blue-2015-2>; The Telegraph. Accessed 5 November 2015. <http://www.telegraph.co.uk/science/2016/03/15/dressgate-if-you-saw-that-dress-as-white-your-brain-was-working/>

any perception of colour and tone is relative and subjective. What can be presumed, however, is that the selfie has been authorised as a worthy representation of the author's self. With this premise in mind, I argue that the skin tone retrieved from the image remains an authentic representation, in that it satisfies an authorised portrayal of the subject, no matter what colour it may be.

Perhaps *The Latent Image* provides a way for us to expand our preconceived canons of normalcy, ethnicity and race. If on a biologically minute level our DNA is composed of the same building blocks, it follows that we also reflect on our epidermis a colour that falls within a limited spectrum of visible light, and in the case of the LED light in *The Latent Image*, resulting from the combination of 255 integer values of R, G and B, clearly a finite set of values. Yet within this field of colour, normalised subsets of flesh-tones or skin tones are surrendered, and human pluripotentiality can emerge. That is, *The Latent Image* demonstrates that, in the images #selfie, exteriority, measured non-subjectively by the colour values of pixels that constitute the human face, is permitted an augmented range of tone and colour. In a selfie I can colourise myself as I wish, potentially problematising, or at least complicating, latent skintone-based bias. Perhaps then, we can develop a far more subtle appreciation of human diversity or rather we can divest the colour of our skin of its default role in cultural normalisation and profiling.²¹¹

211 Byron Kim's series of works entitled *Synecdoche* —in which he created 'monochromes' from oil pastels that represented the skin color of his subjects—similarly disrupts stereotypical racial categorisations. See Donna De Salvo and Maurice Berger, *Face Value: American Portraits*, Parrish Art Museum., Wexner Center for the Visual Arts., and Tampa Museum of Art. Southampton, N.Y (Paris ; New York: Parrish Art Museum ; Flammarion, 1995), 28.

Furthermore, the *Latent Image* algorithm is capable of accumulating a large array (or database) of these skin tone values, and plausibly this data can be re-arranged, analysed, averaged, or visualised for any number of purposes beyond the present artwork.

As a final reflection, the work, animated through the worldwide use of the selfie in social media, attempts to make tangible, literally on the level of skin, how the selfie resides between our interior and exterior self and how, more than a mere object of representation of self, the selfie is a part of a complex human process, or flow of connectedness. With this perspective, I also present *The Latent Image* as a data-visualisation work that may offer opportunities for deeper reflection on notions of representation of race, in our community and through our social networks.

So far, the path of research has explored the notions of reflection of an embodied self, the moment of transition from embodiment to embedded image and the observation of the flow of such embedded images. The next part of this research looks at the creation of tools (specifically camera objects) and practices for creating and distributing the embedded image.

The selfie camera

As this research progressed, more and more frequently the notion of human connectedness and the selfie would rise and bubble, in a warm anthropocentric fuzziness. During this period I also held classes with undergraduate students on the selfie, attempting to illustrate the significance of the action and the object of the selfie. As an exercise, I would send the group out of the classroom to gather a selfie with (or of) a complete stranger, on the student's personal phone. I naïvely presumed that there would be a series of refusals before finding a compliant other and hoped that this would lead to a discussion on privacy, authorship of one's image, securing identity and so forth. Interestingly, the vast majority of the subjects willingly posed for the selfie with little to no resistance, impressing their images happily into the students' smartphones. When I asked the class to tag the photos with the names of their newly conquered subjects, they looked back at me blinking with shame; almost no one had asked the name of the person depicted in the selfie. Moreover, the subjects, all strangers, had been willing to have their photo taken (and taken away) without so much as a handshake or introduction!

I present this anecdote as a means to demonstrate how a selfie is less formal, and more accessible than a traditional photographic 'portrait.' Surprisingly, a selfie (at least in these informal and limited observations of my students over the past three years) does not require the exchange of names or other information, let alone any permission; this would imply that it has become a primary

gesture, a social interaction, as casual as a nod or a smile, and not a private or personal act.

Another, less expected, discussion arose around this task—that many of the students reported a perceptible discomfort in letting a stranger take hold of their smartphone in order to take the selfie. This led me to also consider the imaging object, the camera-phone itself. For the first time in the research I began to address the technological object whose functions are to create, archive and distribute the selfie by considering its design, form, affordances and challenges.

Currently the bias of agency over the smartphone camera is weighted to the owner of the device, possibly given by the complex services, metaphors and data the phone may comprise, in other words our phones are too precious to share. The emotional attachment or dependency on today's technology has reached acute levels.²¹² Scholar and author, Jane Vincent, has written extensively on the connection between emotion and mobile technology and she has coined the term 'electronic emotions' to explain human emotions that are felt (delivered/triggered) as a result of the mobile phone. Through its pervasiveness in every aspect of our social being (as node of connection, as bringer of news, as storer of memories, as companion), Vincent argues, the mobile phone has become charged with affect. She speaks of us having tamed the device:

212 See Sherry Turkle, *Alone Together : Why We Expect More from Technology and Less from Each Other*, (New York: Basic Books, 2011).

We take this feral device and make it our own, putting our own ringtones into it and reflecting ourselves in it. We domesticate it. We would perhaps share things with our mobile phone that we wouldn't share with another person, exploring who we are and using that to build who we would like to present.²¹³

In a more recent text, Vincent has proposed that the mobile phone has become a personal, emotionalised, social robot, co-created by the phone and its user.²¹⁴ The relationship between the human and the phone is reinforced by haptic feedback, sounds, games, faces, messages and memories that comprise the mobile phone assemblage. This may go some way toward explaining why the sharing of this technology, such as passing one's smartphone to someone else, may create some discomfort.

Returning to the selfie, then, the framing of the selfie image is determined by the hand that holds the camera (generally the owner). In the action of taking group-selfies (often tagged as #groupie) it is not unusual to see more than one camera-phone wielded simultaneously. Multiple devices capture the same scene but with each individual device privileging the face of its owner. To re-establish the kind of equality that a distributed agency can bring, there would need to be shared control of the imaging device, but I will return to this notion shortly.

213 Jane Vincent, "Why You Love Your Phone," in *The Economist*, April 25, 2014. <http://www.economist.com/blogs/prospero/2014/04/quick-study-jane-vincent-electronic-emotions>

214 Jane Vincent, "The Mobile Phone: An Emotionalised Social Robot," in Jane Vincent, Sakari Taipale, Bartolomeo Sapio, Giuseppe Lugano, Leopoldina Fortunati (eds.) *Social Robots from a Human Perspective*, (Heidelberg; New York; Dordrecht; London: Springer, 2015), 105-115.

NousAutres: A Dual-selfie Camera

It is, rather, the stigma of the surprise in which the thing that or the one who “takes” the photo and the thing that or the one who “is taken” in the photo are suspended together. At that point, in this stigma (photography itself) both are taken by each other and by surprising or coming upon each other. They are there, intimate and intrusive, strange and familiar to each other, at the same moment, as the same image. The sameness of this image is permeated with the alterity of its two concomitant subjects.²¹⁵

The first camera-work in this series is *NousAutres*—a title borrowed from Jean Luc Nancy’s concept of ‘us-others’ in which he addresses concerns about (in)authenticity or appearance in the image, and suggests reading through a lens of “co-appearance” or “simultaneity of being-with.”²¹⁶

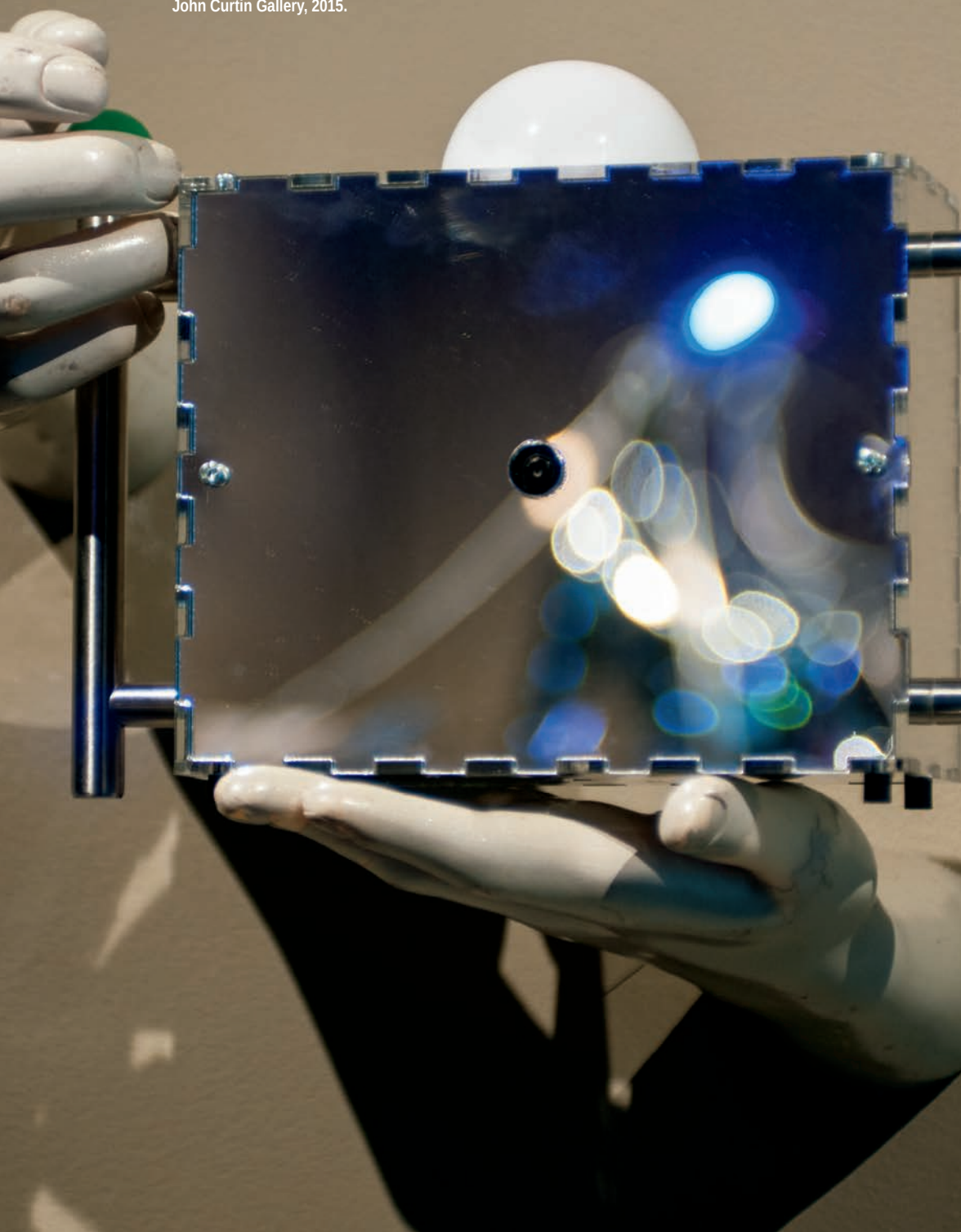
The work consists of the original design, construction and programming of a bi-facing camera which, in order for the image to be made, requires the presence of two individuals, one on either side of the camera unit. The handles are designed to be held contemporaneously by each of the two subject-photographers and contain buttons that when triggered within a predetermined time will capture two simultaneous images from each of the two camera lenses and proceed to process the images.

The fourth and most recent advanced prototype of the camera (which I affectionately call MK IV) is made from mirrored acrylic.

215 Jean Luc Nancy, *The Ground of the Image, he Ground of the Image*, trans. Jeff Fort, (Ashland, Ohio: Fordham University Press; London: Eurospan [distributor], 2005), 104.

216 Jean-Luc Nancy, *Being Singular Plural*, (Stanford, Calif. ; Great Britain: Stanford University Press, 2000), 68.

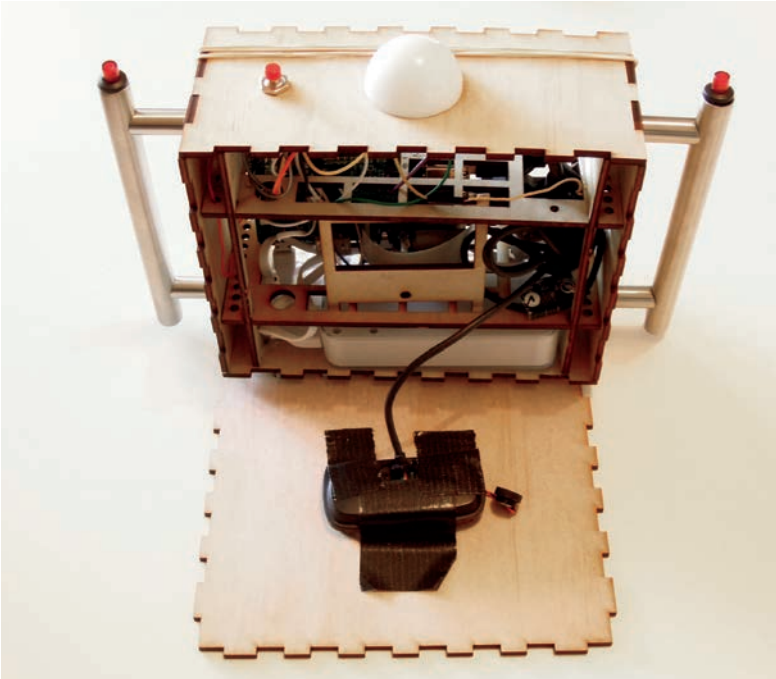
NousAutres, installation view of
advanced, de-activated prototype,
John Curtin Gallery, 2015.



A surface which stands in the stead of any camera screen, allowing each subject to perform the necessary conscious and subconscious pre-portrait rituals in order to fine-tune their pose and expression before pressing the shutter of their handle. Once both ‘shutters’ have been released the ‘flash bulb’ on top of the camera lights up and the front/back images acquired. These images are processed into a single selfie and sent to the Twitter social media platform, automatically hashtagged with a consecutive number, for example *NousAutres* #206. Once the two subjects have triggered their cameras, no additional editing or other intervention is required (or permitted) for this process to occur.

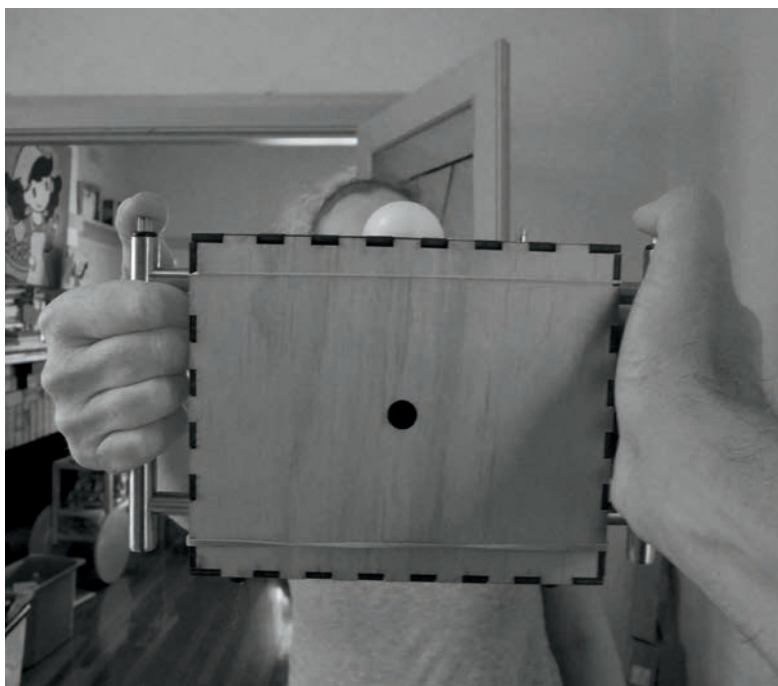
The image created by the camera is an algorithmic blending of the data input from the camera’s two distinct (bi-facing) lenses (or more accurately CCDs), each facing towards a subject on each side of the camera. It should be emphasised that the resulting image is not overlaid, averaged or multiplied in a way that, for example, can be produced with commercial software such as Photoshop (I have already discussed the trope of the aggregated image earlier in the discussion of *The Latent Image*), or even simply through any of the plethora of photo apps and image manipulation software that is widely available.²¹⁷ Instead, the camera creates an image that consists of alternating pixels, mathematically interweaving the two images. The new image is created by placing a row of pixels of Image A followed by a row of pixels of Image B and so on (not unlike how lenticular images are made). This is not merely pedantic programming, because in this way the resulting image manages to maintain an integral (and arguably more authentic)

217 See *The Latent Image* for a deeper discussion of aggregated portraits.



NousAutres, process image, 2015. Early wooden-cased prototype.

representation of each of the original photographs in terms of light and colour values. These values are often compromised through the application of ‘averaging’ algorithmic filters as can be found in Photoshop for example. The result of the *NousAutres* camera is a unique image that remains also permanently divided between two diametrically opposed perspectives, suspended between a here and there, me and you, us and them. Just as Narcissus and his reflection were never to meet, once more the surface of the image is disputed. The myth of Janus is also interesting to contemplate here as at once he is considered the ‘double-faced’ God and also the guardian of thresholds. As a two-way camera, *NousAutres* creates



NousAutres, process image, 2015. Testing the heuristics of the two-way selfie camera.

an image comprising two faces, and as it delivers it automatically to the Internet, like Janus, it provides a passage from embodied to embedded self.

The act of the selfie through this work is markedly a practice of human-to-human connection, in a co-observed performance; the extended arm of one subject (almost) meets the arm of the other subject in a mediated handshake that triggers the camera into producing the empirical evidence of that connection. Proof of contact between two embodied subjects. This outcome is then automatically posted on Twitter, and potentially other social media platforms and represents at once (in a single broadcast of

the event) both subjects, and the instant of their bond. Indeed it is this encounter of the subjects, the social activity of proximity and (almost) touching that permits and forms the image, encapsulating an important element of the selfie. As we have seen in the theoretical discussion around the selfie that opens this thesis, this genre of self-portraiture is underpinned as much by participation as by the (mere) impulse to produce a reflection.

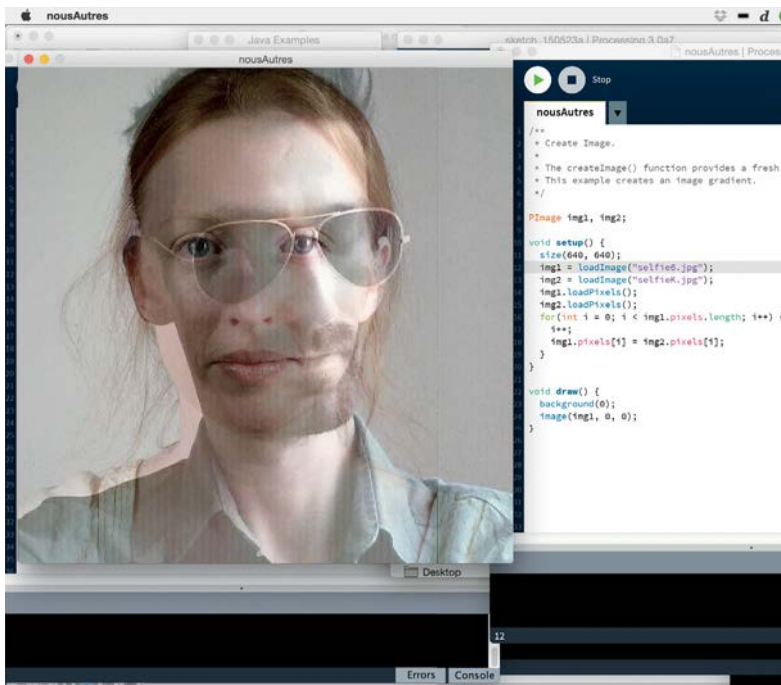
There is deliberately little to no feedback on the device itself, other than some light emitting diode (LED) indicator lights that are required for the most basic of heuristic purposes; red LED lights on one or both handles demonstrate the camera's readiness, the bright white light turns on while the images are being acquired and finally the rainbow flashing lights represent the transmission of the image to the Twitter account. Significantly, the camera obstinately offers no way to review or delete the images that it generates before delivering them to the camera's Twitter and Instagram accounts. The immediate and inexorable projection of the selfie (both as document and as an act of transmission) is perpetuated, the witness of presence is embodied in the co-performer-audience. Authenticity is guaranteed. I imagine a future 'upgrade' to the camera including the provision of a selector (such as an analogue radio dial), which allowing single variations in how the images are combined or filtered, but always, rigorously, without the possibility to view the image before publication.

Once I had started to use the early wooden prototypes of the camera, I understood that it not only was very satisfying capturing dual-selfies, it also became apparent that I had created, more generally, a



NousAutres#475, 2015. Testing the camera as a tool for individual selfie photography.

documentary camera that can authentically and continuously place me in my surrounds without the contrivance of turning the camera back onto myself. In fact, after using this camera for a period, turning one's back on the event, monument, friend or moment that inspires the desire for a selfie seemed unnatural, *NousAutres* makes a selfie without renouncing the inspirational view! If the camera is used while alone, the other becomes simply that which is outside of me: my location, my view. I had inadvertently created what Miltos Manetas might refer to as a *Ñewpressionist* camera, but certainly a camera concerned as much with the framing of

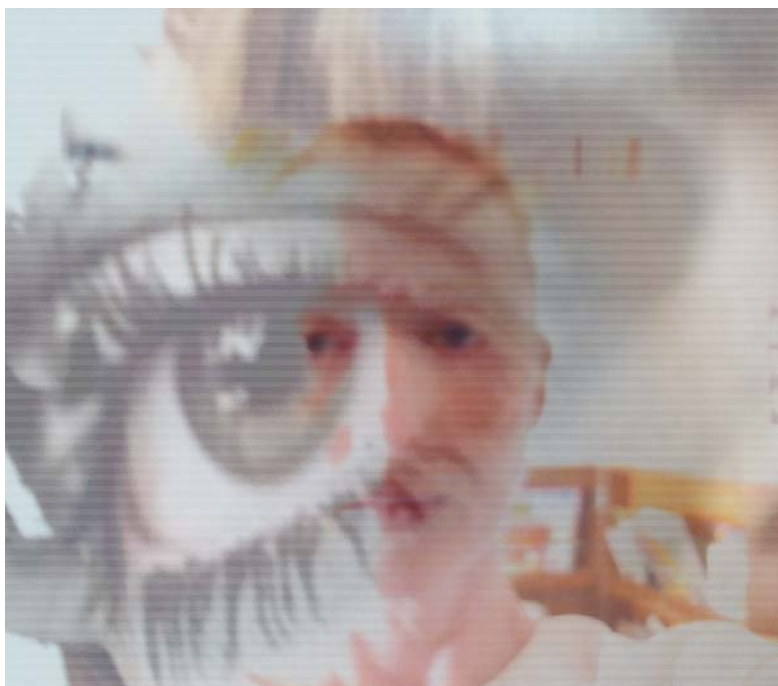


NousAutres, early process image, 2015. Testing the processing algorithm that combines two 'selfies.' This first algorithm alternated the images in vertical rows.

mediated experience as the subject.²¹⁸ It also makes a mirror of any surface, environment, or person I have before me.

As I waited on various parcel deliveries of electronic components from around the world (but mainly China) I continued testing a number of alternative inter-weavings or additions for the images. One of the early results of such experimentation already led me to switch from a vertical interleaf to horizontal when creating the images; it appeared less aggressive on the images. I intuited that this preference for the horizontal interleaving may be the result

218 *Newpressionism* is Miltos Manetas' art movement comprising works which foreground the framing mechanisms, or the 'metascreen' of the Internet through on and off-line artworks. Miltos Manetas, *Newpressionism* <http://www.Newpressionism.com>



NousAutres#264, 2015. An early outcome from experimenting with the camera using the self-programmed algorithm. The final algorithm alternates the images horizontally.

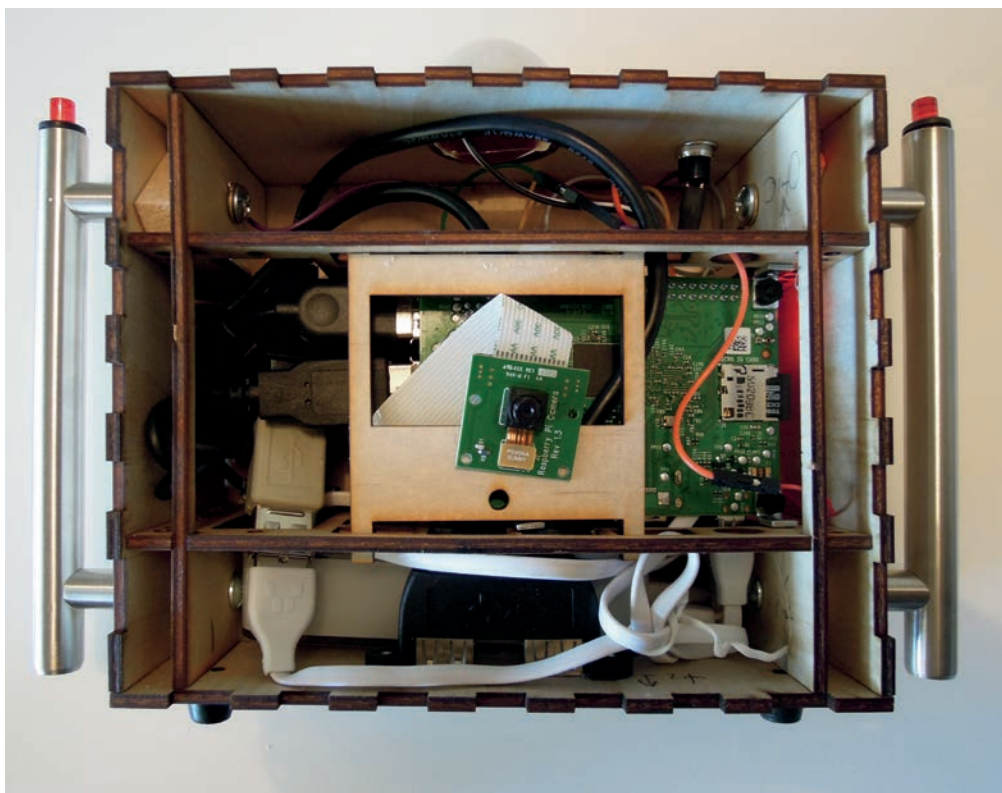
of biological bias, my having become accustomed to Western horizontal reading, (analogue, CRT) television screens with the horizontal scanlines, or the progressive loading of Internet content.

During this period I attempted to develop a deeper understanding of the structure of the underlying code for the camera, of what it was that the camera captured in terms of data. I thought if I found the strengths of the software system then I could leverage alternative calculations without too much additional strain (also referred to as ‘overheads’) on the camera’s microprocessor. I found that essentially, in the python environment on which the *NousAutres* camera is built, through the openCV library, the image is overtly

treated as an array of 'BGR' data. Essentially this means that for each consecutive pixel, three values are stored, each relating to the blue, green and red pixel value (each with an integer or rounded number value within the range of 0-255). Once this was evident, I understood that array manipulation through mathematical 'matrix' functions might have some interesting effects on the image.

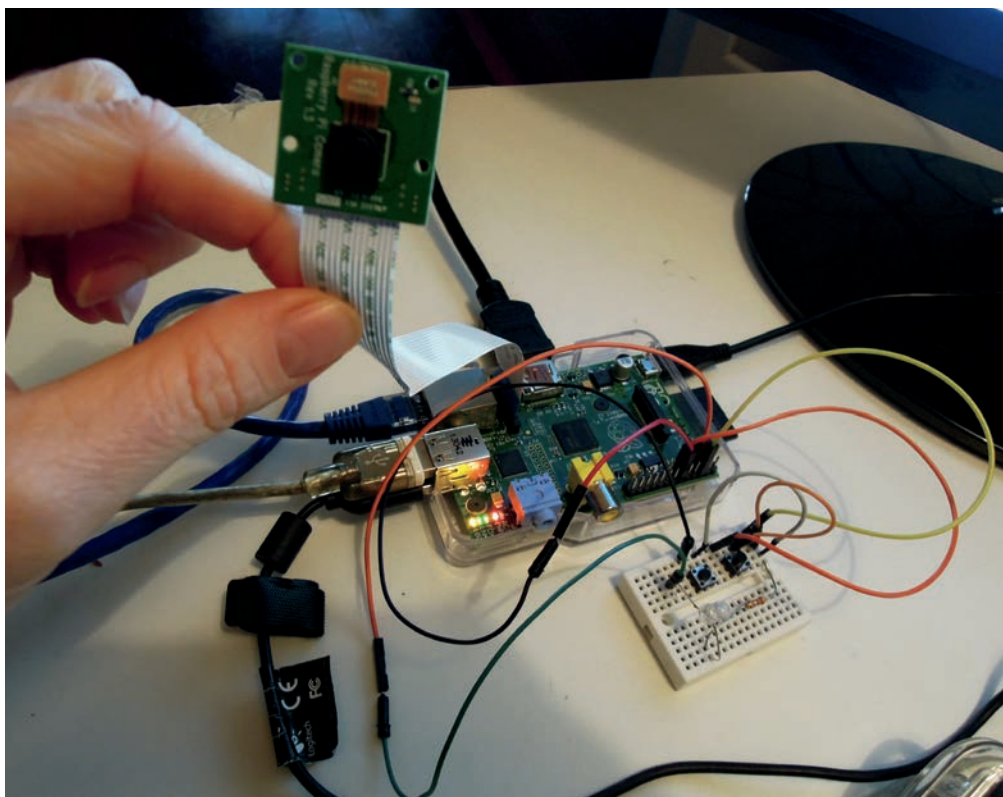
It could be argued that many of these treatments of images could be more easily replicated by making an app compatible with iOS and Android devices. These smartphones, after all, are also equipped with forward and rear facing cameras, so why not leverage this existing device? While such a tempting strategy may appear to resolve some of the formal aims of *NousAutres*, specifically the taking and combining of front and back images, what is lacking is the physicality recuperated by retrograding the fingertip touch of the capacitive screen back to the grip of a hand and a trigger of the thumb. In comparison to the smartphone my cameras may appear oafish and cumbersome, but it is this very substance and materiality that I wish to bring back to the action of the selfie that the sophistication of the smart device interface arguably no longer privileges.²¹⁹ Perhaps the success of the selfie-stick can also be linked to a prevailing predilection for buttons and haptic responses in our human-computer interfaces, but again I promise to return to the discussion of the selfie stick shortly.

219 Interestingly, Teresa Senft has written recently in the NRW-Forum publication *Ego Update* about notions of touch and threshold in our relationship with apps and devices especially in the selfie ecology. Through a discussion of the capacitive touch and haptic feedback of smart devices, specifically in relation to the selfie, she argues that the use of the finger in the creation, editing and dissemination of the selfie renders notions of skin, threshold and boundary perceptible once more; Teresa Senft, 2015. "The Skin of the Selfie" in *Ego Update: The Future of Digital Identity*, Alain Beiber, ed. Düsseldorf: NRW Forum Publications



NousAutres, process image, 2015.

Inside view of an advanced working
prototype, still using wooden casing.



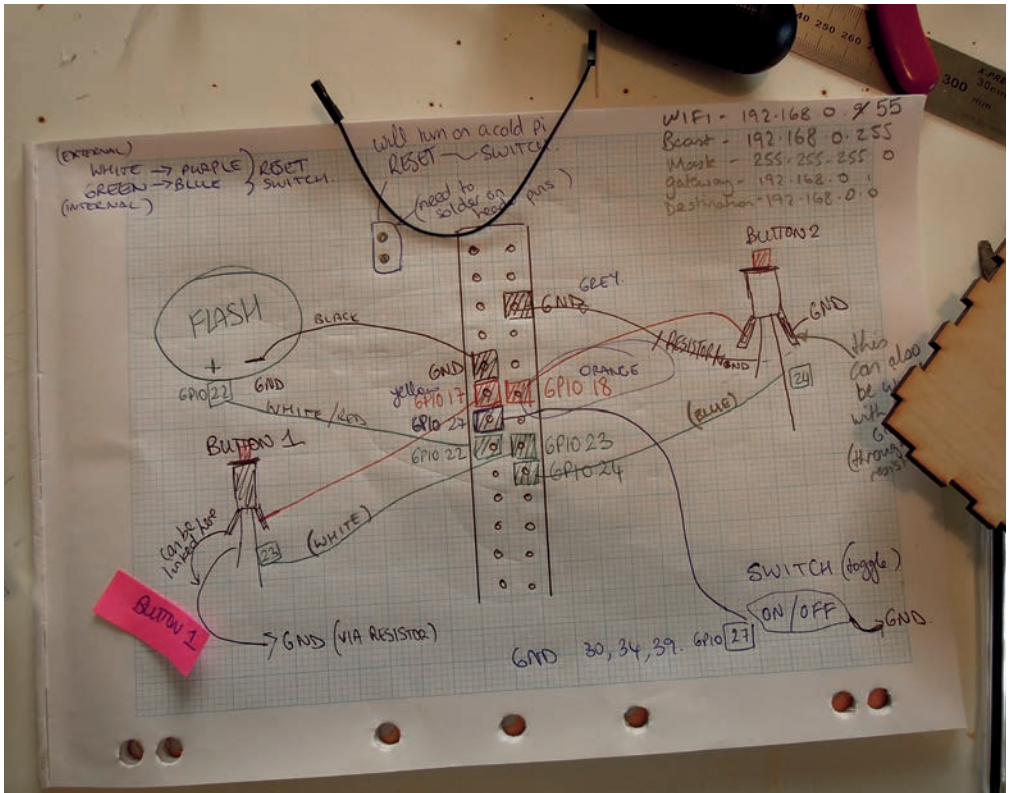
NousAutres, process image, 2015.

Testing the internal digital camera
before integrating into camera body.



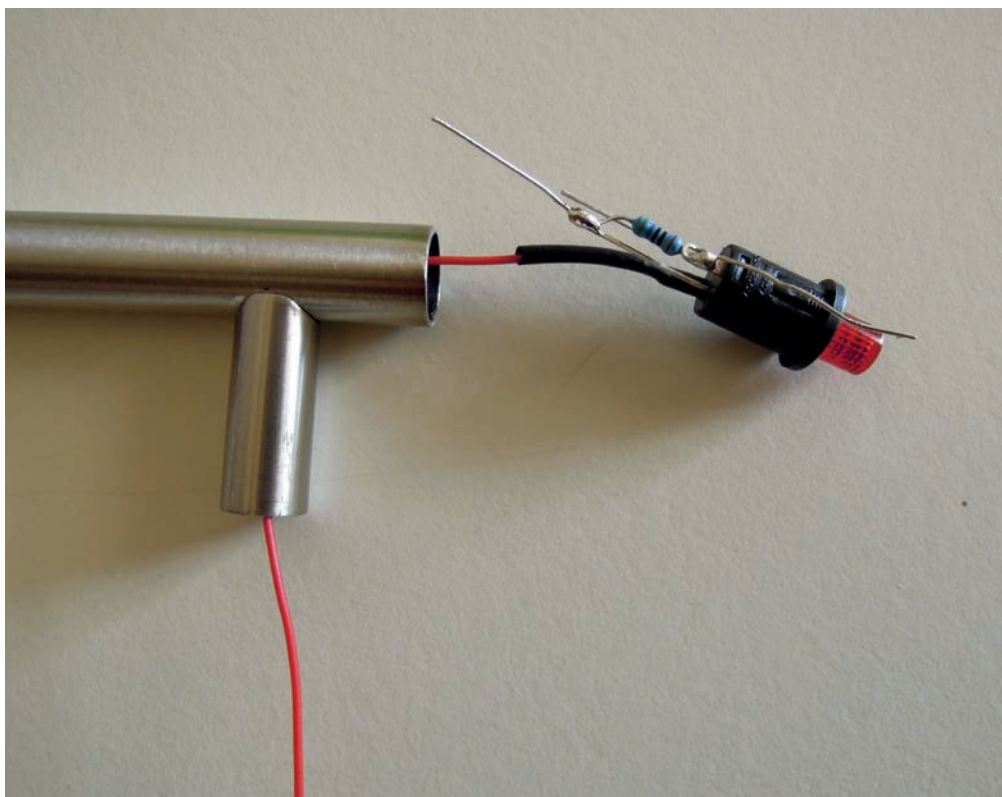
NousAutres, process image, 2015.

Testing the addition of an on-camera flash
for low-light conditions and heuristics.



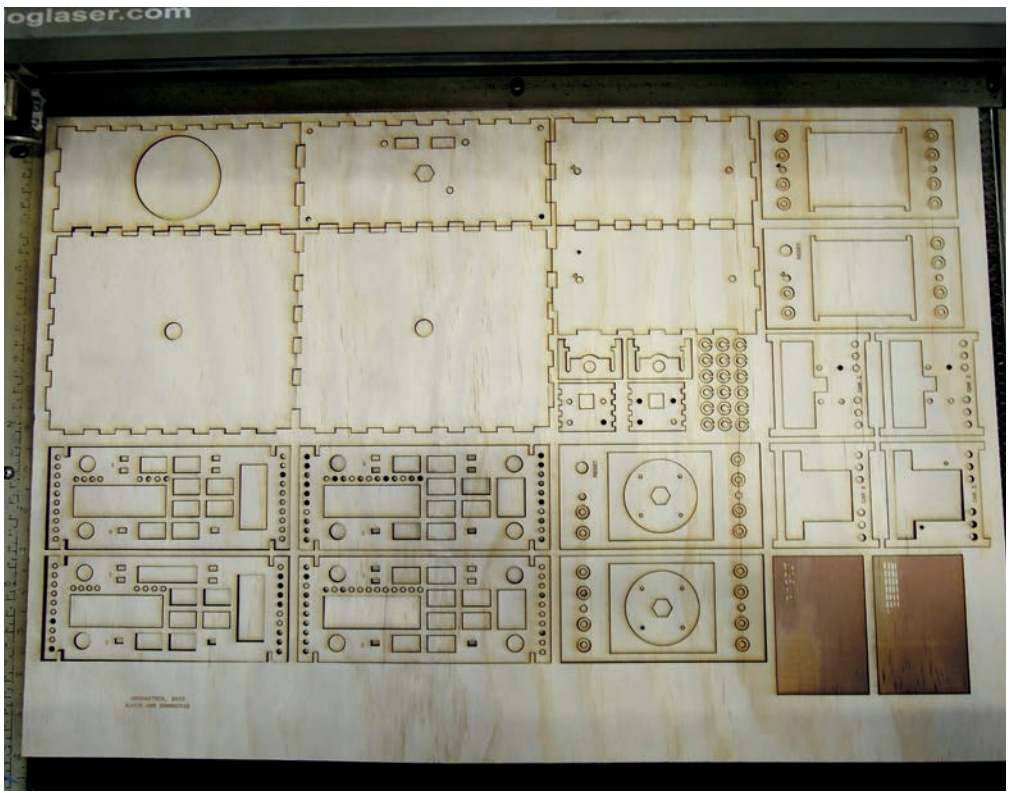
NousAutres, process image, 2015.

One of many sketches of the microprocessor's GPIO port allocation.



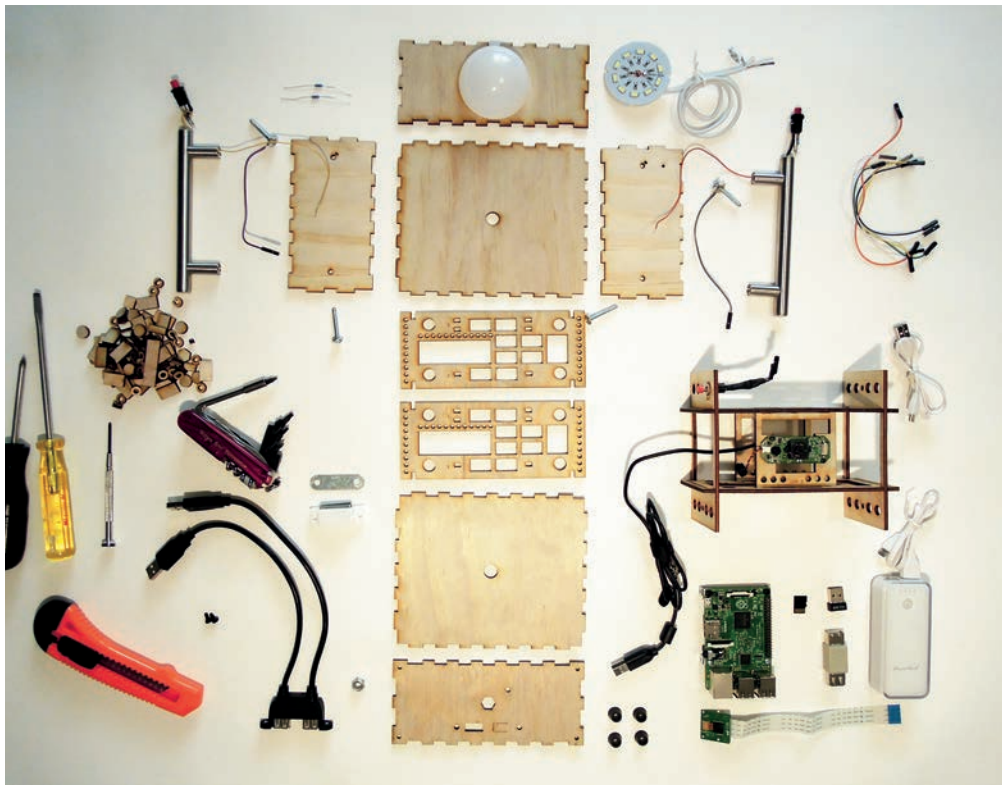
NousAutres, process image, 2015.

Wiring the illuminated switches onto the steel handles, which also provided a natural 'ground' or 'earth' for the system.



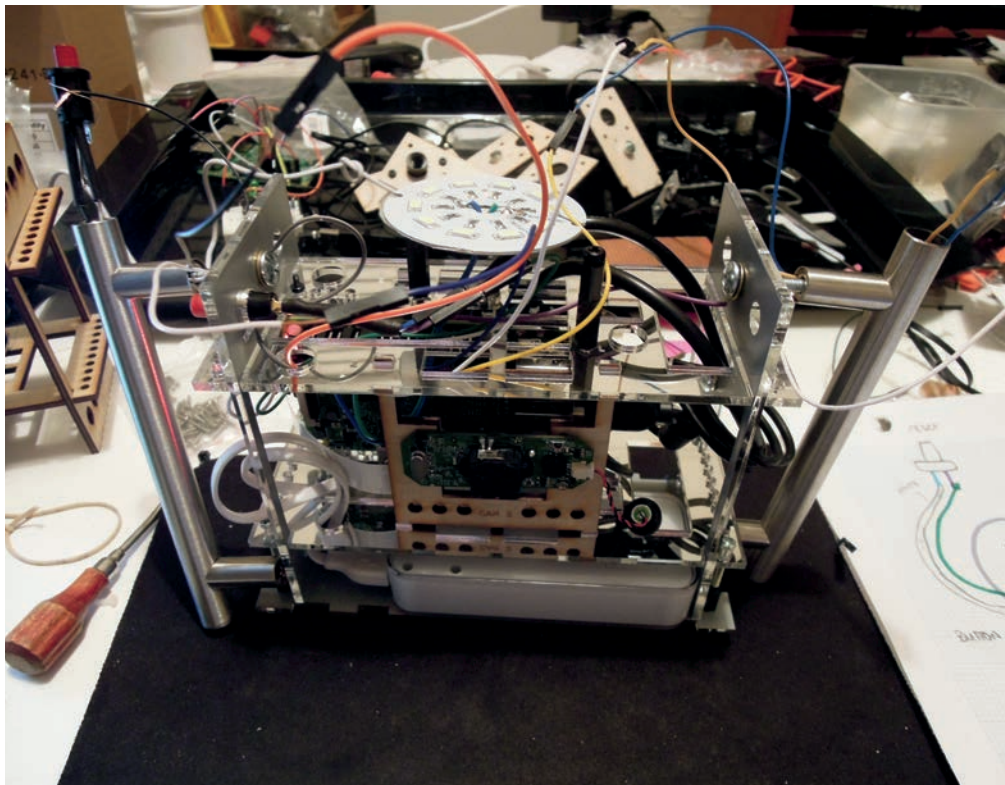
NousAutres, process image, 2015.

One of the several lasercuts for
the building of prototypes.



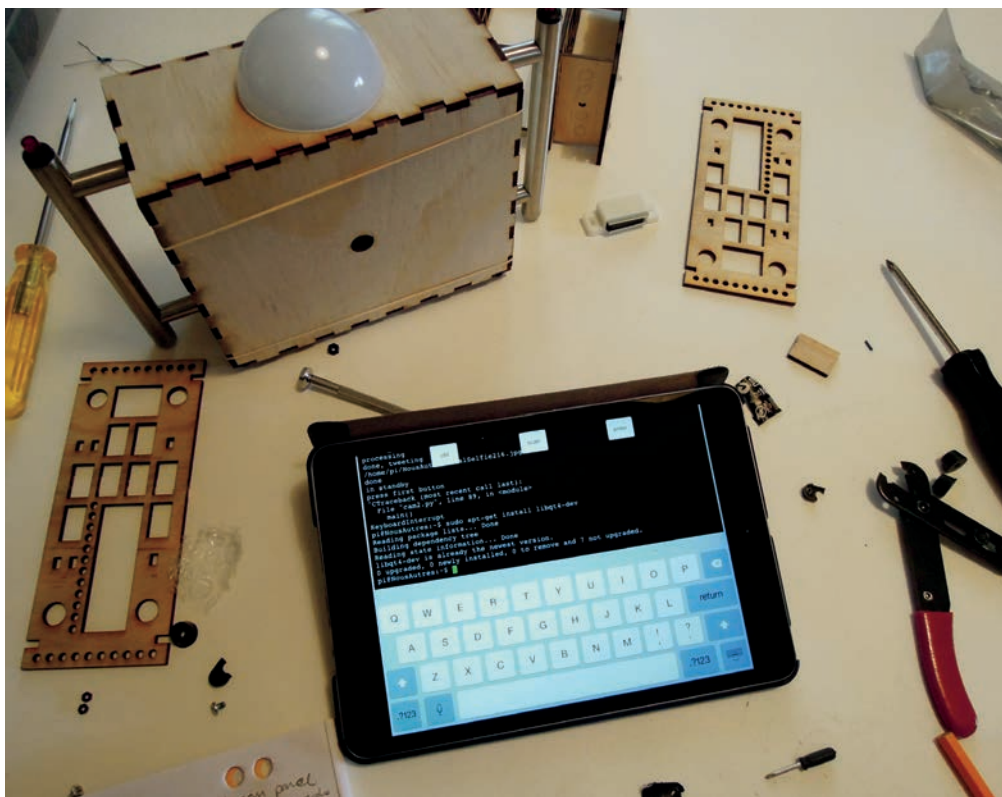
NousAutres, process image, 2015.

General overview of all components required
to construct the functioning prototype.



NousAutres, process image, 2015.

Building an advanced working
prototype with acrylic casing.



NousAutres, process image, 2015.

Running the camera remotely with telnet
(ssh protocol) from handheld device.

Delayed Rays of a Star

The title of this work refers to a popular quote from Roland Barthes' influential text *Camera Lucida*, "the photograph of the missing being, as Sontag says, will touch me like the delayed rays of a star."²²⁰ While it doesn't seem that Sontag actually composed that exact phrase, Barthes refers to the passages in *On Photography* where Sontag speaks of a photograph as "also a trace, something directly stencilled off the real, like a footprint or a death mask," and continues "a photograph is never less than the registering of an emanation (light waves reflected by objects)—a material vestige of its subject."²²¹ The two theorists converge in their exposition of a material chain of touch from subject to object in the photograph. In other words, they argue that a light emission of a distant star, through the optics of the camera, effects a chemical reaction on the film of the camera (or subscopic electronic charge on a digital camera imaging sensor) and through the process of development and transferal, reaffirms a tangible link between the star that was (now distant both in time and space) and the image of the star—or other object illuminated by its reflected light—either printed or projected, which in turn, through human optical and cognitive processes, affects our own being. Leon Marvel suggests the mathematician Al-Kindi, in his ninth century *De radiis stellarum* anticipated the principles of field theory, or even affect theory:

220 Roland Barthes, *Camera Lucida: Reflections On Photography*, 1st American ed. (New York: Hill and Wang, 1981), 81.

221 Susan Sontag, *On Photography*, 154.

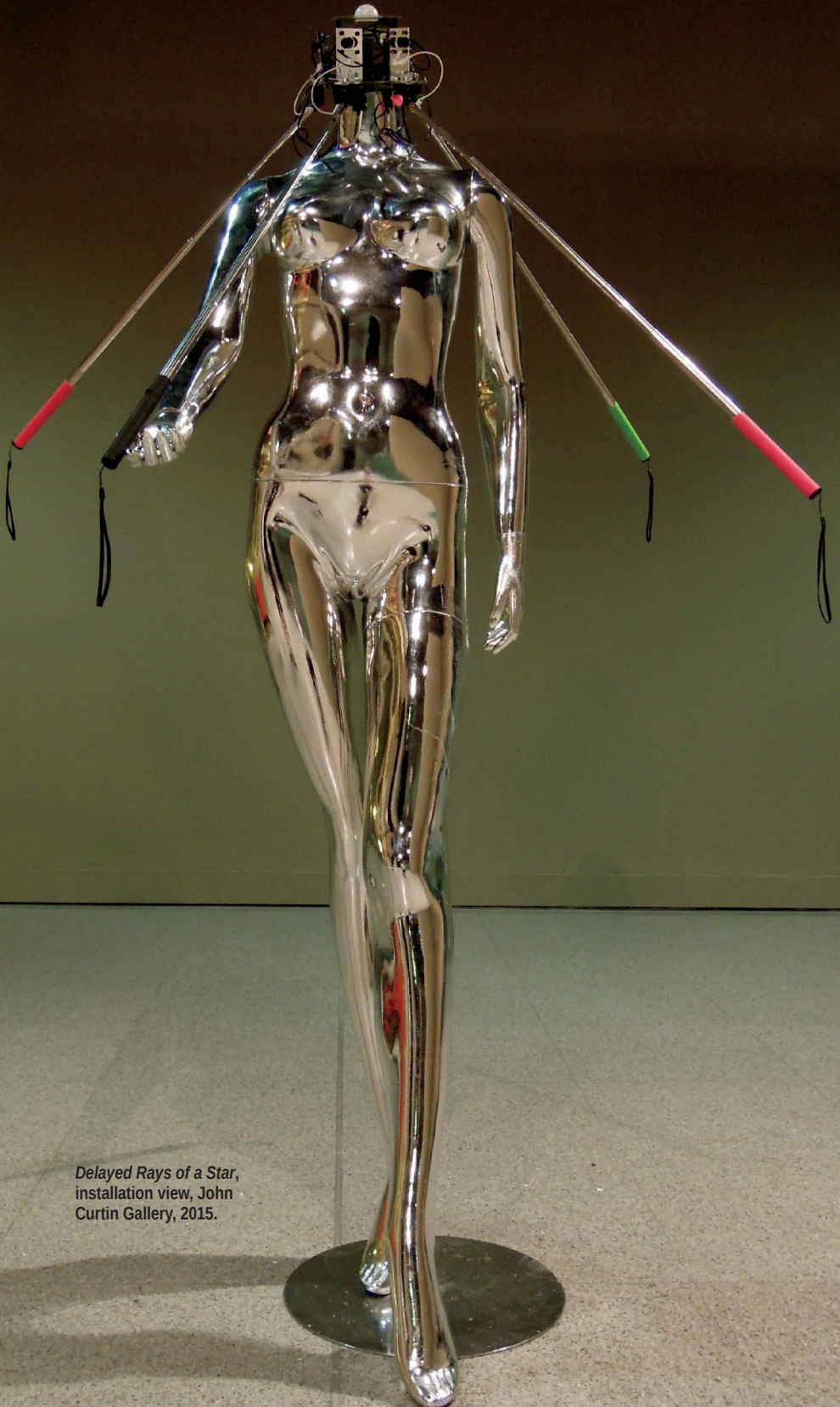


Delayed Rays of a Star #225, 2016.

It is manifest that everything in this world, whether it be substance or accident, produces rays in its own manner like a star.²²²

Delayed Rays of a Star plays with this concept of dislocation in time and space in the taking, the processing, and the projection of the shared image. Firstly the camera object is created in the shape of a five pointed star, the images are taken when triggered on the selfie stick by the hand of each participant, their selfies are woven into a single abstracted image that is posted to Twitter and other social media.

²²² Al-Kindi, cited by Leon Marvell in *Transfigured Light : Philosophy, Science, and the Hermetic Imaginary*, (Bethesda, Md.: Academia Press, 2007), 208.



Delayed Rays of a Star,
installation view, John
Curtin Gallery, 2015.

A tool for group selfies

This work was born from observations of group participation in selfie taking (for example at parties, holidays or other occasions where people gather), sometimes tagged as #groupie. This collective act of the selfie, in contrast to the typical selfie behaviour, which is singular, requires each participant subject to use their own camera-phone and accordingly each device privileges the face of its owner. It is as if in a #groupie, the image that is created is a literal sum of the parts, the picturing of the other is a collateral outcome or perhaps the other person pictured serves as an accessory or status symbol. In order to exacerbate this inclination, coloured selfie-sticks are used in this camera, as a symbol for selfie performance; each stick triggers a selfie that will be added to the previous and following. Or, in other words, the composition of the groupie becomes an equation:

$$\begin{aligned}\text{Groupie} &= \Sigma \text{ selfie} \\ \text{[or]} \\ \text{Groupie} &= \text{selfie} + \text{selfie} + \text{selfie} + \text{selfie} + \\ &\quad \text{selfie}\end{aligned}$$

Delayed Rays of a Star is built from a multi-lens assemblage of modified low cost webcams, consumer electronics such as selfie-sticks, and a self-programmed microprocessor. Together the work permits a collaborative consensual group selfie to emerge from five cameras triggered by, and directed outwards toward, five participants. The process of the image composition is made possible through my programming of the matrix manipulation of five single selfies. Initially as the platform (Processing) allowed simple image blending through its libraries, various blend modes were tested,

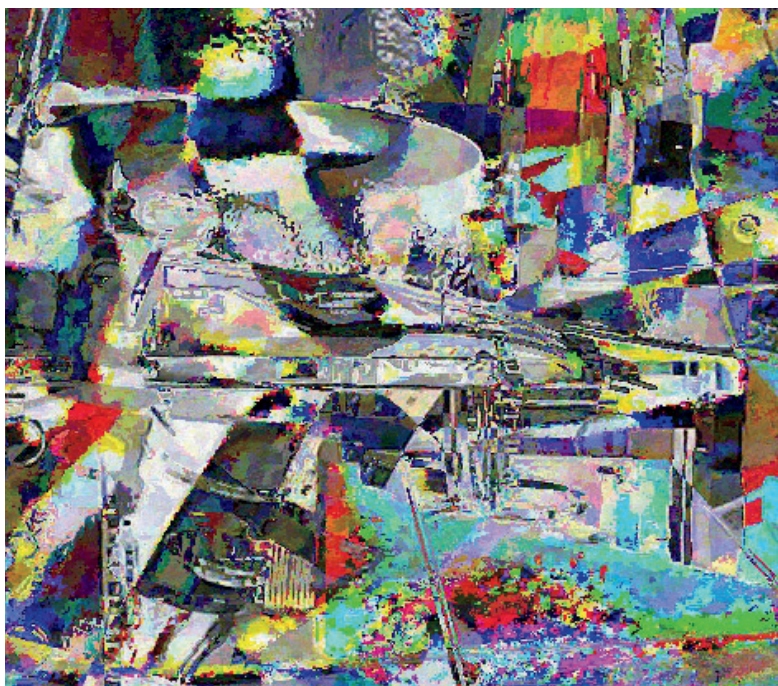


DelayedRaysofaStar #42, 2015. An experiment with an alternative self-programmed 'AND' algorithm used in the self-built five-way facing 'groupie' camera.

with a preference for the 'lighten' algorithm which takes the lightest pixel from the five images, at any given coordinate. The images appeared ghostlike.²²³

Once the algorithm was ported to Raspberry Pi and Python, new possibilities of formula and functions were available. Trials were made with functions such as AND, XOR, XORS, ABSDIF (which gave a surreal Braque-like palette) and compared in various lighting conditions. Eventually, and purely for aesthetic preference, the chosen algorithm currently set as default in *Delayed Rays* is XOR.

²²³ See front cover and page 9.



DelayedRaysofaStar #108, 2015. One of the early outcomes of the final Xor algorithm used in the self-built five-way facing 'groupie' camera.

Conclusions

The formal characteristics of the selfie, as we have seen can be summarised as comprising the self-portrait, an extended arm (or selfie-stick), the mirror, and a shared, networked activity. *NousAutres* and *Delayed Rays of a Star* both embody these features while also guaranteeing a technological and existential authenticity. By creating cameras that require a co-presence of subject(s) and object, of performer and audience, of two selves or alternatively a self and environment, the otherwise elided, mediated relationship is brought to the surface, teased or retrograded out of the virtual and into a heightened awareness of the act and the human exchange.

While the artefact (the image) as intangible proof of the encounter is sent to reside in the social flow, the shared, embodied experience remains in, or on our skin, or ‘wetware.’

In the physicality of the activity, we are also reminded of the physicality of the camera as technological object. With the advent of the smart phone and slim-line digital cameras, photography may be perceived as radically transformed; yet fundamentally the technology remains the same and in many ways has not moved on from the concept of the ‘pin-hole’ camera. Where the camera-work *NousAutres* adopts a shape reminiscent of such an early daguerreotype camera in order to create an algorithmically composed ‘double’ selfie, the following work *Delayed Rays of a Star*, with its nest of seemingly messy, deconstructed electronics, speculates on the possibilities for new camera objects necessitated by the practice of the selfie and the image-rich platforms such as Twitter and Instagram.

For those with more interest in the technical aspects of the cameras, more details and notes concerning the construction and programming can be found in Appendix A.

So far, we have explored the substance and the material aspects, of the selfie; we have seen how selfies reside within a flow of data; and how we can create unique tools with which to engage with and contribute to this phenomenon. The next work *#Me: The Artist’s Self-Portrait In The Age Of The Selfie* comprises a series of conversations with contemporary artists who leverage the selfie as a medium for art production, in order to understand how the selfie is affecting the genre of the (artist’s) self-portrait.

#Me: The Artist's Self-Portrait In The Age Of The Selfie

As previously mentioned in the analysis of the selfie in Part 1, the very language of the self-portrait has now become modified to accommodate the selfie, and I necessarily distinguish the works I discuss here as 'artist's self-portrait,' now considered a subset of a more general practice of self-portraiture. This presents challenges and opportunities for artists working in this genre as their work may be camouflaged, adjudicated, misunderstood, underrated or rendered indistinguishable in the interminable flow of selfies. Yet these challenges are the flipside of the affordances of the platforms of social media which deliver on the promise of an infinite, 'always on' audience for their selfie performance.

The selfie, as a complex photographic object and action, has come to occupy a role between that of simple and immediate memoir, photo id, mirror, and stage, and is rapidly becoming a universal act, action and vehicle for communication, as well as tool for social and political activism.

Simultaneously, as we have previously discussed, through the quantity and ubiquity, the practice of the selfie is contributing to the creation of an unprecedented, indexed, searchable and exponentially growing database of human self-portraiture. Despite repeated attempts by critics and art historians to read the selfie as (merely) the next transformation of the self-portrait, I have argued that, while there may be some formal or functional overlap between the selfie and previous genres of self-portraiture, the selfie consistently emerges as a unique object and/or activity. Similarly,

the artist's self-portrait in the wake of the selfie is necessarily challenging the genre's established canons and concerns.

Just as the photographic self-portrait is an established and respected medium for artist's self portraiture, so too the selfie is garnering critical recognition as cultural artefact. This is happening by the increased attention given to the phenomenon by journalists, curators, scholars and artists themselves. Over the past few years there have been major exhibitions around the world dedicated to the self-portrait in a post-selfie era, such as Sweden's National Museum "Selfies—Now and Then" (Stockholm, May, 2014), "National #Selfie Portrait Gallery" (London, October 2013), "The Selfie Show: An Art Exhibition of Self-Portraits" (MONA, Detroit, May 2015), "Ego-Update" (Düsseldorf, September 2015), "Performing for the Camera" (Tate Modern, March 2016), to name but a few. Some of these exhibitions have been attempts to ignite new interest in classical self-portraiture by leveraging the culture and popularity of the selfie, while others have embraced the selfie and contemporary photographic self-portraiture practice as a genre worthy of its own exhibition. Many of these exhibitions included works by Petra Cortright, Amalia Ulman and LaTurbo Avedon.

It should also be noted that the audience of the artist's self-portrait has also irrevocably changed. Now accustomed to their own practice and consumption of selfies, audience interpretation, engagement and appreciation of self-portraiture is necessarily informed by their daily interaction with selfies.

The selfie vs artist's self-portrait

Up until this stage of my research I had, for the most part, centered my work around developing personal responses to the selfie. By generating a series of perspectives, or attitudes, to the selfie I had attempted to test its structures, substance and meanings. In creating these works I have moved from an understanding of the selfie as an embodied or real life reflection through to representing an autonomous networked avatar or proxy. Yet, although the research thus far has been conscious of the potential audience and networked nature of the selfie, I have yet to fully address the fundamental and dynamic relationships between the selfie and adjacent art practices in general, and specifically those art practices that employ social media platforms as medium. In short, although I felt I had successfully considered the selfie as a static artefact (through aesthetic and topographic explorations), I had yet to explore the selfie as dependent on, and contributing to, the larger, dynamic and fluid systems that it travels within.

Once delivered to the network through social media, my image is no longer a static, detached, and discrete object, instead it auto-assembles and aggregates itself to other selfies across various devices, operating systems and platforms. It no longer belongs to a space of places, but joins a space of flows.²²⁴ How would my works, if they are to fully explore the social activity of the selfie, also enter this flow? More specifically, how would my selfie-works function within art-making? In order to find help in addressing this

224 Manuel Castells, "Space Of Flows, Space Of Places: Materials for a Theory of Urbanism in the Information Age" in Steve Graham (ed.) *The Cybercities Reader* (London: Routledge, 2004), 82-93.

question I turned to other artists experimenting with the selfie as medium for art through a series of interviews that I carried out over the course of my research.

The artists I interviewed are: LaTurbo Avedon, Petra Cortright, Miltos Manetas, Mariko Mori and Amalia Ulman. The interviewed artists were selected due to their explicit use of the digital self-portrait (LaTurbo Avedon, Mariko Mori), or specifically the use of the selfie (Amalia Ulman, Miltos Manetas) or more broadly social media platforms and ephemera (Petra Cortright). These contemporary artists, through the explicit use of self-portraiture, are fashioning their own (sometimes multiple) identities as artists.

I conversed personally with each of the respondents, within a methodology of informal and conversational qualitative research interviews, yet the format and loci for each interview were as diverse as the artists themselves; from the more traditional technique of recording our voices, to the increasingly common technique of sharing online documents, to the back-and-forth of emails, Facebook message threads and even meeting in virtual online worlds as avatars.

I had followed Petra Cortright's work since the early 2000s after meeting in Berlin, in these years her work was influenced by the digital vernacular as she worked in animated gifs, Internet works and webcam performances. My conversation with the artist Miltos Manetas began instead during a long walk, and longer coffees, in the surreal real world simulacrum of cinema at CineCittà, just outside Rome, Italy. Manetas is best known for his founding of the Neen collective, as well as his new-media artworks and related

painting practice. Manetas' strategy is one of appropriation of the selfies of others, often taking images from Internet searches in order to paint them on canvas. It was his insistence on having found the 'aura of the selfie' in Amalia Ulman's work that prompted me to contact Ulman who agreed to develop the interview in a shared Google text document. Ulman's practice involves extended scripted performances articulated through social media, such as "Excellences & Perfections," (performed on Instagram).

LaTurbo Avedon is an artist who exhibits in virtual and real world galleries yet presents as solely an avatar, that is without a recognised real world (human) identity. Her practice comprises image and sculptural works, often constructed around images of herself. For this conversation—which occurred in galleries and clubs of the virtual environment 'Second Life'—I created my own avatar so that we could converse while visiting various Second Life locations.

Finally, the inclusion of the artist Mariko Mori may appear anachronistic in this selection, as she actively rejects social media, and does not use selfies. In fact, she does not use self-portraiture in her current practice. However, our email exchanges were critical to my research, as they offered an opportunity to speak with an artist who had constructed many of her early works around self-portraiture—her iconic images accompanied discourses of cyborgs and digital utopias—to then abandon the genre entirely. I was curious to learn if this shift was somehow related to the onset of mass-portraiture and the associated identity politic the phenomenon brings in its wake. Interviewing Mori happened through a back-and-



Internet Paintings (Selfies), by Miltos Manetas, 2013 (detail). Oil on canvas, 330cm x 200cm, Bogotá, Colombia. Image courtesy the artist.

forth between gallerists, agents and assistants, who would kindly and patiently relay the artist's responses to my many requests for clarification and further explanation.

The advantages of collecting these interviews far outweighed these challenges. Firstly these conversations were an opportunity to restate and redirect my thinking around some of the central concerns of my research; by working with these artists I developed new lenses with which to view the subject of my research, as each artist approached the selfie and self-portraiture in new media from a unique perspective. These interviews provided me with the opportunity to explore perspectives that were previously outside the scope of my experiences.

I have argued previously in this thesis that through the phenomena of the selfie, the self-portrait is no longer the primary domain of the artist, indeed it has become a visual accessory to daily vernacular communication. Throughout this series of interviews and works from selected artists, I ask how contemporary artists are responding to the selfie through their practice, and speculate on the effect this may have on the genre of art self-portraiture.

Outlined in the pages that follow are the interviewees' contributions, along with my reflections, and some tentative conclusions. The reader can find the original transcripts appended to this thesis, citations appearing in this chapter refer to that appendix.

The aura and the selfie

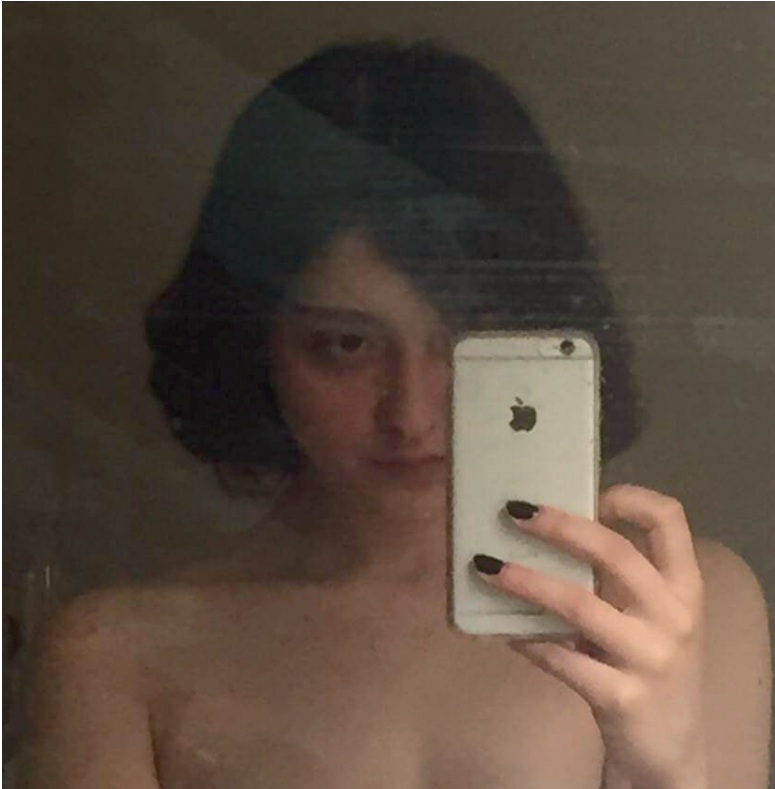
In the first conversation of this series, which began in the gardens of Cinecittà in Rome in 2014, Miltos Manetas claimed seeing an aura in the selfie. We briefly discussed whether previous paradigms and criteria of art (and aura) critique can be mapped to today's networked cultural production. Concerns of reproducibility, popularity, celebrity and social media distribution have disrupted established canons and theory surrounding aura and the art object. I continued this conversation concerning aura with Miltos in 2015, on the wall of the Facebook group "Outside of the Internet There is No Glory."²²⁵

Manetas associates aura to those images that gain agency, taking on a life of their own—a property seen in memes or those select few images that remain in the collective memory. He suggests that Amalia Ulman creates selfies with this aura, comparing her images to classic iconic paintings and sculptures:

Some selfies have an aura, others do not. Amalia Ulman's selfies for example, have it. Amalia Ulman's 'unselfish selfies' remind me of Madonna in the paintings of Raphael and Antonello da Messina, as well of certain Roman sculptures and a few paintings of Picasso.

Maybe aura occurs only when artists are plunging into 'The Database' (what people before computers used to call 'Art History'). When an artist adds another member to that—very special—community of images (images that have a life of their own somehow, images

225 Miltos Manetas conversation, in Alonso Cedillo, *Outside of the Internet There is no Glory*, <https://www.facebook.com/groups/1571475693126226>; See Appendix B for full transcript



Selfie, by Amalia Ulman, 2015. Image courtesy the artist.

that have become memes), a side effect is produced:
aura!²²⁶

Manetas implies that aura is an attainable trait for a lucky or brilliant few, and that a semi-permanence or notoriety may contribute to the establishment of canons that we may use to measure or recognise aura in selfies. Manetas attributes aura to the seemingly ephemeral practice of Amalia Ulman's selfies, which constitute her Instagram performances. Ulman, when asked how she understood Manetas'

226 Manetas, see Appendix B

notion of aura with respect to her own work, replied that, for her, the trait of depth is what distinguishes a work with aura from one without.

The attribution of aura could then pluck a specific selfie out from the flow of selfies, and arguably elevate the work to that of art. Manetas' comparisons with classic masterpieces reminds us, however, of the challenge of framing the selfie as art.

Manetas' own practice incorporates the selfie as a subject. He selects selfies created by others and paints them as larger-than-life oil paintings. Manetas does not ask for permission, although he often paints selfies of friends and acquaintances; he has painted Amalia Ulman's selfies. In Manetas' practice, the selfie serves as muse, as a subject unto itself.

The use of 'found' images (public selfies) as subjects for paintings, I imagine, could be seen as resembling the controversial work of Richard Prince in a practice of appropriation.²²⁷ After all, the subject has contributed to the labour of image-creation (consciously or not), and has already authored their own work. Manetas argues that "the context of the selfie... simply it's public exposure, contemporary Selfies are images born-in-public." Furthermore, when I asked why he paints selfies, Manetas replied: "I don't think it's me

227 Richard Prince, renowned for his unauthorised appropriations, has exhibited 'found' selfies from Instagram in the "New Portraits" exhibition a New York (2014) and in the Gagosian Gallery in London (2015). Prince effectively exhibits and sells (for \$100,000 a piece) enlargements of commented selfies, as his work. Prince allegedly has not asked permission nor attempted to contact the subjects of these self-portraits; Hannah Jane Parkinson, "Instagram, an artist and the \$100,000 selfies – appropriation in the digital age." Accessed 20 July, 2015, <https://www.theguardian.com/technology/2015/jul/18/instagram-artist-richard-prince-selfies>



Internet Paintings (Selfies), by Miltos Manetas, 2013 (detail). Oil on canvas, 330cm x 200cm, Bogotá, Colombia. Image courtesy the artist.

painting Selfies, I think it's Selfies that are painting themselves."²²⁸ By granting the selfie agency in its own becoming a Manetas' oil painting, he demonstrates an endearing deflection to the subject, however, he maintains the classic paradigm of the artist-muse, that is, an artist is intellectually inspired by the subject to bring a work into being.

This process becomes problematic, however, when the image-muse in question is the result of another artist's (self-portrait) practice. I queried Ulman as to her feelings regarding Manetas using her images as subjects of his paintings:

²²⁸ Manetas, see Appendix B

If I'm honest, I've always felt uncomfortable with these paintings. Not because of authorship: once I release an image it can be used in advertising, it can be transformed into a pencil drawn fan art portrait, it could be put in a collage without my head in it, it could be printed to piss all over it. I'm all up for appropriation and replication but in this case, what I'm scared of, is that even when I've already considered these images as artworks myself, Miltos could become a legitimating actor. Which I don't think should be necessary.

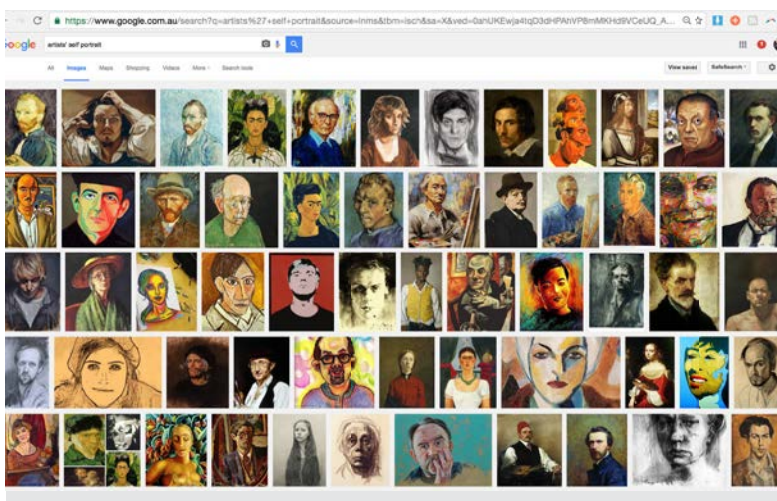
I've never been a muse and I very angrily refuse any attempt to be misread as one.²²⁹

Interestingly, Ulman willingly substantiates the claim that Manetas has made regarding the 'born-in-public' nature of the selfie, as she renounces her authorship in the image's release. Yet, there is a complex system of co-dependence that engulfs artists making selfies and the (more famous) artists who turn those selfies into commercially successful derivative works. Manetas' own discourse would apologetically frame him as merely complying to the nature of the selfie and 'its' desire to be immortalised in this way. Whereas Richard Prince's posture—perhaps as Hannah Jane Parkinson describes it “what is yours is mine”—seems to underline the capitalist system that courses at the base of (his) art, culture, society, economics, and the artist's perceived role in this system as consumer, purveyor, investor, mediator, salesman.²³⁰

The practices of both Prince and Manetas bring us around again to reflect on the notion of a flow of images, that we have become quickly accustomed to this unprecedented database of human likeness and performance that the selfie is constituting. While

229 Amalia Ulman, see Appendix B

230 Parkinson, “Instagram, an artist and the \$100,000 selfies”



Screenshot of Google image search results for “artists’ self portrait.”
Search conducted June 6, 2016.

the ‘Database’ that Manetas referred to earlier is not (only) the contemporary digital archive we are accustomed to accessing through our search engines—he intends the broader universal offline cultural aggregation called ‘Art History.’ It is, however, interesting here to briefly note the defacto role the search engine plays as cultural editor or curator, and not only because Manetas finds his selfies through Internet and Instagram searches.

As we have seen, a #selfie search retrieves millions upon millions of results. However, the search for ‘artists self portrait’ does not (at the time of writing) return any selfies. In fact, a Google image search with those keywords returns scores of thumbnails depicting exclusively drawn and painted self-portraits, both old and new. There were no photographic self-portraits (the closest was an Andy Warhol photo-based screen-print), let alone selfies, in pages and pages of highest ranking thumbnails. Considering the role of

the photographic self-portrait (Cindy Sherman, Nan Goldin, Jeff Wall)—and the selfie—in twentieth and twenty-first century art, this absence is significant and, frankly, incomprehensible.

The complex, self-learning algorithms behind popular Internet search engines (such as Google, Yahoo, Bing) constitute coveted intellectual property at the avant-garde of artificial intelligence research. Yet the results we see in our browser windows reveal themselves at times to be bafflingly myopic. Cultural or semantic bias—perhaps of the programmers, perhaps of their cultural editors, or perhaps through complete lack of design—is evident in the specific field of the artist’s self portrait.

In my conversation with LaTurbo Avedon—a gendered female digital artist who exists exclusively as an avatar—I asked if she were able to explain why the Internet would ‘see’ the artist’s self-portrait exclusively through the mediums of painting or illustration. Her responses seemed to apologise for the algorithms that couldn’t keep up with cultural taste or practice, while also confirming the “bias that an algorithm may possess even if we didn’t intend for it.”²³¹ Despite her being extensively exhibited as a contemporary self-portrait artist, Avedon’s own self-portraits—the artefacts that constitute simultaneously her coming into being through the definition of her likeness, as well as her artistic practice—do not rank highly on Google search results with the query “artist’s self-portrait.” Nor do Amalia Ulman’s, despite her thousands of followers, and this raises questions for the visibility of contemporary self-portrait practice, as well as for the cultural bias inherent in the

231 LaTurbo Avedon in a conversation held in the virtual platform Second Life. See Appendix B for transcript.

oracles (search engines) that we and future generations turn to for semantic association.

Andy Warhol's famous screenprint, in its digitisation and dissemination on the Internet has been labelled 'artist's self-portrait' with enough consistency that search engines find the semantic association relevant and the image ranks highly in searches for self-portraits. While Ulman, LaTurbo, Cortright and their peers adopt tags that label, describe, camouflage their art as selfies, and without deliberate effort (from critics, collectors, scholars) the semantic association may never be forged between their art 'selfies' and the 'artists' self-portrait.' Looking to the future, Avedon predicts:

Genres are essentially becoming hashtags. Over the next few decades I expect "art" to be an incredibly saturated topic to address.

This normalising force operating through the semantic distillation is shaping contemporary cultural consumption. That is perhaps why I feel a pressing need to contextualise these emerging genres.

As we have discussed in the previous chapters and through the works considered thus far, the selfie has established itself as a tool for fashioning identity, whether that identity is proffered as an authentic or 'real' expression of self or as an overt experimentation of behaviour and appearance. Indeed, Avedon deftly leverages the selfie culture's tropes and nuances as she defines her identity, such as in her #nomakeup selfie. Avedon is a true digital native, an artist whose life and art are indivisible, as her 'life' is only constituted through her art practice and the artefacts she creates as legible

symbols of her identity. Her adoption, therefore of the #selfie visual language is playful and yet profound.

When I interviewed Avedon—an interview conducted between the virtual platform Second Life and Google chat—I was conscious of her need or desire to present a congruous identity, despite the obviously infinite possibilities available for her in 2D and 3d drawing and modelling platforms. Interestingly, she has chosen to model her exteriority, the manifestation of her digital persona, with many of the same criteria and restrictions that would pertain to biological or embodied identity, she has created her likeness mirroring normalised, western, young, female, able-bodied human anatomy. Furthermore, Avedon has maintained a rigorous consistency with her image, despite the potential for arbitrary or discontinuous self-representation. She admits:

As I have created my own character I have pencilled myself into a specific frame of visual qualities that have come to represent ‘me,’ but I think that social media and my networked engagement has allowed that set to constantly be in motion.²³²

When we look at Avedon’s oeuvre we can see distinct nodes of evolution or refinement of her image. These nodes in Avedon’s work occur most often during transition from one platform (game or virtual environment) to another:

For example when I moved from Second Life into external renderers, I removed many ‘familiar’ attributes as I rebuilt my new format.”²³³

²³² Avedon, see Appendix B

²³³ Ibid



#Me, process image, 2015. Interviewing LaTurbo Avedon in the mass online virtual world of Second Life.

Avedon goes on to compare these small image transformations to ‘real life people’ getting a haircut or changing their hair colour:

At first it is jarring when you see them on the street, but with the timeline you see the post of this change, and in turn have a series of markers to understand the progression. tomorrow I might decide to only be a created character in Mass Effect, but as people see this new visual identity in my sequence, it will become natural as I continue to make my posts.²³⁴

LaTurbo’s concerns of fluid, yet attributable, identity is problematised by the availability of multiple platforms and

²³⁴ Avedon, see Appendix B

graphics engines that render her image. Just as in real life a selfie altered with a filter or taken in a setting that captures a ‘different’ you, may not fit into a consistent projection of self, and therefore not seem genuine or authentic.

A selfie is a recognised vehicle for candour, immediacy and authenticity, which is why we expect a certain consistency in presentation, even with a fictional persona such as Avedon. Yet there is also an implication of calculated manipulation of one’s image, which would suggest an equal measure of *inauthenticity*, and we have seen many articles in the general press in which the author or critic is swift to wield judgements of narcissism.²³⁵ Ulman leverages this space of ambiguity as a stage for her performance work and contrasts it to her personal selfies:

The pictures of the project *Excellences & Perfections* were intentionally fabricated, scripted ... My iOS Photos, on the other hand, is more related to my real life, or what I’d like to consider as my fabricated genuine self.

Whether one likes it or not; the only authentic Facebook is the one that never happened.²³⁶

The selfie can be perceived as simultaneously authentic and *inauthentic*, as the subject/author may be very convincing in

235 See (among many others): “The ‘Selfie’ Obsession: A Chronic, Narcissistic Mental Disorder.” *21st Century wire*. December 13, 2014 <http://21stcenturywire.com/2014/12/13/selfie-obsession-a-chronic-narcissistic-mental-disorder/> ; Helena Blackstone, “Selfies: The high cost of low confidence,” *New York Times online*, 2015. <http://nytlive.nytimes.com/womenintheworld/2015/10/07/selfies-the-high-cost-of-low-confidence/> ; Christie Barakat, “Science Links Selfies to Narcissism, Addiction & Low Self Esteem,” *Adweek online*, 2014. <http://www.adweek.com/socialtimes/selfies-narcissism-addiction-low-self-esteem/147769>; Gwendolyn Seidman, “Are Selfies a Sign of Narcissism and Psychopathy?” *Psychology Today online*, <http://www.psychologytoday.com>

236 Ulman, see Appendix B

Untextured Self-Portrait,
LaTurbo Avedon, 2015,
courtesy the artist.



transmitting a performed self, or conversely may perform poorly a true self. Alternatively, the subject may be genuinely depicted and true to themselves in an image that is deemed deceitful, due to the overuse of filters, or manipulation, or through discrepancies in the declaration of its time and place, all of which can negatively affect perceived authenticity. Ulman deliberately tampers not only with her scripted performance, but also with this technological authenticity in her work:

Then I had this idea to play with the time, a factor most intrinsic to social media. Then I would mock the idea of instantaneity by uploading and tagging myself in this images chronologically uploaded with 4 months of delay. I'd check in New York while being in London and so on, while keeping the cadence of social media: daily uploads and repetition.

And it is funny how “fake” these uploads seem, how fabricated they become just by changing that factor, the real-time factor. Even when these images are “candid” shots of my daily life I still feel like a massive manipulator and the detachment from these images is immense, compared to the attachment one has to them when uploading them right after capturing the images (which is the most common way of dealing with online uploads).²³⁷

Ulman fragments her virtual identity between her research (the development of a pool of images for her scripted narrative), the online performance (social media delivery), and her personal selfie production.

In contrast, Petra Cortright seems to resist claims of inauthenticity by encompassing her performative self into her identity as artist.

²³⁷ Ulman, see Appendix B.



#got #em #cakes, Amalia Ulman, 2014.

Image from *Excellences & Perfections* series, courtesy the artist.

Everything I make is made by me—I don't see the video render of me as a separate entity or persona—just a fragment or a portrait of me, Petra, the artist, the person.²³⁸

The use of photos on social media as (social) performance is not a prerogative reserved for artists. Already in the era immediately pre-selfie (2007), Andrew Mendelson and Zizi Papacharissi—writing on the social use of Facebook photos—cited Barthes, Goffman, Jacobs and Slater, among others, in discussions

²³⁸ Cortright, see Appendix B.

surrounding the everyday performance of our identity through the use of the vernacular or personal photo.²³⁹ These discussions have only become galvanised since the widespread adoption of #selfie, and it is generally understood that social media is a platform for everyday performance of the self. Ulman attributes the novelty of vernacular photographic self-narrative to the emergence of an ‘image economy’:

Maybe because it wasn’t mandatory socially speaking. Only artists were supposed to live off their image: actors, singers, celebrities. People from other professions and backgrounds weren’t expected to meet these requirements. It is only new capitalism the one exploiting this idea of the commercialised self. It is a must to “be oneself”, “be authentic”.²⁴⁰

Ulman’s narratives in Instagram are underpinned by her #tag use:

The hashtag, in the case of Instagram, is the footnote to a photograph. This is an anchor. Like every other footnote it guides but also limits the possible meaning of the image. But can be something playful too, like with words, you can combine them in a metaphoric or an ironic way. In the case of E&P [Excellences and Perfections] the hashtags were used to bring certain audiences in my field, so I’d emulate the hashtags the girl I was supposed to be would use. So in that case they were used for algorithmic search purposes, to target different audiences.²⁴¹

The use of the hashtag as we have seen, is an intrinsic prerequisite of the selfie, which arguably comes into being through the explicit

239 Andrew L. Mendelson and Zizi Papacharissi, “Look at us collective narcissism in college,” in Z. Papacharissi ed., *A Networked Self: Identity, Community, And Culture On Social Network Sites* (New York; London: Routledge, 2011), 251–273.

240 Ulman, see Appendix B.

241 Amalia Ulman speaking about her “Excellences and Perfections” Instagram performance. See Appendix B for transcript.

self-affirmation of authorial intention. Artists then, can leverage this to contextualise, assemble, associate or deliberately subvert the reading of the image; the hashtag, as semantic tool, becomes a primary material for artists.

While Avedon playfully uses “#nomakeup selfie” on her rendered closeup (left), Ulman is comfortable with using the hashtag as a lure, or a tool for creating a context for the reading of her performance. Similarly, Petra Cortright, in her 2007 seminal ‘girlcam’ work “VVEBCAM” accentuated the use of the hashtag as ‘click-bait’ to attract viewers. The meta-data comprised an “extensive and dizzying list of tags, luring users who happen to search for any of these terms—‘Paris Hilton’ or ‘ESPN,’ for example—to stumble upon this video, and thereafter mirror its enactment of passive viewership.”²⁴² Although, in our interview, Cortright preferred to underline an *aesthetic* choice when referring to the inclusion of hashtags alongside the work:

The use of spamwords to title my works, or to elaborate on Youtube posts, or to even constitute works on their own is similar to the way I work with software, images, found icons, etc. I make the decisions to include or arrange things very quickly -- it's not meant to manipulate data or increase my visibility, really, it has more to do with creating a sense of spamminess around the work that displaces it from being a precious, non-internet object.²⁴³

The discussion of Cortright’s fluid use of tags is interesting also because it reveals another interesting nuance of the network-based artist: the attraction, retention and engagement of audience, has

242 Petra Cortright, *VVEBCAM*, 2007, <http://rhizome.org/artbase/artwork/53474/>

243 Petra Cortright, Interview conducted via email. See Appendix B for transcript.



#nomakeup selfie LaTurbo Avedon, 2014, courtesy the artist.

primarily become the responsibility of the artist. A public for the work is formed through a semi-private dialogue built on the #tags, posts, follows, likes and comments around the work.

Ulman describes the value of the likes and social media feedback both literally as currency and also as validation of her practice and process:

Likes have an intrinsic value to them, like money. In the case of the project it helped quantifying the followers validation and interest on the images. The more likes the better it was for the narrative because this meant it was working, it meant that the manipulation was turning out the way I wanted.²⁴⁴

²⁴⁴ Ulman, see Appendix B.

While each or all of the artists working in social media have a need for feedback, it is interesting to note how the two artist's responses reveal differences between the overt manipulation of narrative by Ulman, and Cortright's claims of authenticity:

I view my work as authentic in as much as I don't approach the selfie or the subject of portraiture with a set attitude or ironic perspective, nor do I perform a planned persona for those works. If a persona comes across, it is a "genuine" persona which arises from the moment in which I'm recording, or is drawn out through the other iconography or images which accompany mine in the video. However, any selfie or webcam video is always me.²⁴⁵

Manetas instead sees the performative elements of the selfie to work against the selfie's authenticity:

contemporary selfies are images born-in-public: like anything we find online—or created on a media platform for that matter—it's difficult for something to become authentic when they are 'born to perform.'²⁴⁶

It is this foggy area of overlap between the 'revealing' of a supposedly authentic self and the deliberate manipulation or fashioning of one's persona that provides a most fertile environment for identity play, by artists.

Selfie as tool for social criticism

Mariko Mori's iconic fictional self-portraits of the 1990's employed identity-play as a means to explore societal constructs and the role of the woman in Japanese society. Mori describes her self-

245 Cortright, see Appendix B.

246 Manetas, see Appendix B.



Still from *Confetti* (for Stella McCartney), Petra Cortright, 2014, courtesy the artist.

portraiture performance works from her ‘cybergeisha’ *Play With Me* (1994), her ‘extraterrestrial-geisha’ *Tea Ceremony* (1995) and the ‘mermaid in Ocean Dome’ portrait *Empty dream* (1995):²⁴⁷

These portraitures are images produced to express social criticism. It is a self portrait but comments on social phenomenon in Japan such as Japanese women in the society.²⁴⁸

Twenty years later, in the age of the selfie, numerous artists similarly use the stereotype of the ‘young girl’ for self-portraiture

247 Martha Garzon, “Mariko Mori: Cybergeishas and technology” in *Contemporary Art* (online), 2011. http://www.marthagarzon.com/contemporary_art/2011/08/mariko-mori-cybergeishas-technonolgy/

248 Mori, see Appendix B.



Still from *Bridal Shower*
(detail), Petra Cortright,
2013, courtesy the artist.

to test and exploit gendered stereotypes in their YouTube, Facebook and Instagram performances. These artists have been described as ‘Girlcore’ artists, and include Petra Cortright, LaTurbo Avedon, Mary Bond, Amalia Ulman, Amalia Soto (aka Molly Soda), among many others.²⁴⁹ Through their style of image making, the methods of transmission and the insertion into the fabric of social media, these artists are structurally and aesthetically changing the way the self-portrait is made and perceived, while also canonising trends, postures and behaviours common to any stereotypes they take on.

The entirely fabricated female persona of LaTurbo Avedon, for example, as well as the other girl-core artists, could each be read as materialisations of what Sarah Gram has referred to as ‘The Young-Girl’ in an essay where she laid bare a capitalist *use* of the selfie, a refreshing antidote to the usual binary rhetoric surrounding selfies which involves feminist readings of the empowerment of self-portraiture versus the submission of the same to the hegemony of the male gaze.²⁵⁰ Cortright describes her own explicit immersion in the genre:

The “girl-core” videos were about negotiating putting my likeness up on the internet to be viewed anonymously, but also about matching it with an attitude and perspective of awareness, coolness, some aloofness, playfulness, some toughness. Those are all values and attitudes I consider part of my “authentic” identity, but separating them out into chronicled video works was very situational back then.²⁵¹

249 ‘Girl-core’ is a term coined by artist Mary Bond, <http://www.selfiemarky.com>

250 Discussed also in Part 1, see page 102.

251 Cortright, see Appendix B.

The work of Ulman is another example of performance which deliberately exploits this very construct. Her Instagram series, such as *Excellences & Perfections*—a carefully scripted narrative performed on social media of a young actress looking to break through in L.A., including staged cosmetic surgery—exasperate exactly this labour of the naturalisation of femininity and attempts to reveal the illusion of effortlessness of the medium.²⁵² Amalia explains this aspect of her performance through the selfie:

One of the main ideas behind the project was to point out the hidden labour in the fabrication of femininity, to throw light over the constructedness of things like #nofilter and “I woke up like this.” [...] The feedback of a selfie functions as a sort of payment because we live, more and more, on an image based economic system.²⁵³

Ulman extends the discussion of image-based economics to encompass all members of capitalist society, “new capitalism [is] the one exploiting this idea of the commercialised self. It is a must to ‘be oneself’, ‘be authentic.’”²⁵⁴ Ulman also sees a direct connection between capitalism’s mandate that we all become objects of commerce, articulated through participation in social media, and the rise of the selfie.

Avedon, meanwhile, personifies ‘girl-core’ in her literal construction of gendered stereotype, having adopted a female human avatar for her embedded representation. This choice begs the question ‘what use can gender serve?’—considering she exists entirely

252 Amalia Ulman, <http://amaliaulman.eu>

253 Ulman, see Appendix B.

254 *ibid*



#frankenboob, Amalia Ulman, 2014.
Image from *Excellences & Perfections* Instagram series, courtesy the artist.

and exclusively as a digital persona, that is, not a (mere) avatar or alter-ego of a real-life artist. Although Avedon, as a virtual entity, extends her self-representation beyond the threshold and into real life galleries through prints of her rendered self (such as in *Ego-Update* at NRW Forum, Dusseldorf, 2015).

Meanwhile, the artist Mariko Mori, has developed her work from futuristic avatar-like self-portraiture and performance, through to suggestive sculptural and installation work. Since *Pure Land* (1997), in which Mori portrayed herself as a shaman in a 3D virtual reality immersive environment, Mori has all but abandoned the representation of her embodied identity, in favour of a representation of higher consciousness.

Enlightenment Capsule (1998) was the first work where self-portraiture was not depicted and transitioned to a three dimensional work. *Dream Temple* (1997-1999) is an epitome of progression to a concentration on the deeper consciousness. The works no longer required an actual body; rather it shaped a way to engage the viewer on a deeper consciousness.²⁵⁵

For Mori, the connectedness (that I argue courses beneath the practice of the selfie) is the basis of her art.

We should realize the connection and embrace the concept of oneness that we are part of the whole. It helps us understand that there is no separation between one and another.”²⁵⁶

While Mori presently employs performance and sculpture over self-portraiture, her concerns are uncannily similar, and perhaps our networked self-portraits are society’s awkward precursors to what Mori describes as ‘deeper consciousness.’

As each of these artists reveal, self-portraiture concerns more than the image itself as reflection of the author. As we have seen, the selfie provides new elements within the contemporary photographic self-portrait, including a simplified, immediate, always-on, networked platform of production and distribution, with its own formal logic and language. Contemporary artists are able to leverage this to bring new dimensions to the artist’s photographic self-portrait. Moreover, they explicitly incorporate and test the selfie’s unique concerns of human connectedness, vanity, mass projection of self, celebrity culture, acceptance and authenticity, collaterally raising issues of gender, class and race politics. In the age of the selfie,

255 Mariko Mori, interview conducted through email. For full transcript see Appendix B.

256 Ibid

the genre of self-portraiture—once the privileged domain of the artist—becomes disputed territory, as everyone takes self-portraits. Yet these artists still manage to bring an aura to the selfie, and in doing so are irrevocably influencing the genre of the artist’s photographic self-portrait.

Complete transcripts can be found in Appendix B.

Concluding Second-life

This chapter has been concerned with the use of the embedded self-portrait as it travels in the network as an extension, avatar, representative (or agentic proxy) of our embodied selves. Through the use of ad hoc data scraping tools and handmade cameras I have experienced, observed and created unique, tangible iterations of the selfie. Through conversations with self-portrait artists I have investigated the affordances this genre brings to the artist’s self-portrait, and performance art.

Our #selfies and avatars may serve as performers of alternative selves and/or (merely) as evidence of our living, biological existence, yet their construction, intent and maintenance is still governed by our real life selves—but what happens beyond this governance?



Selfie with Stelarc in Second Life, 2014.

myShrine.org, research image, 2014.
Shrine of Padre Pio in Venetian church.



After-life: Non-biological identity and the autonomous agent

This chapter presents the potential for a schism to occur between the embodied and the embedded self, as our images are freed from biological identity—through social media, automated systems, in our absence or even after our demise, without (or after) time itself. In short, after exploring the notions of reflection and representation in first, and second-life, we now turn to the self-image in after-life.

The Photograph and Death Mask

As exploited by many thinkers, each in their own way, the photographic act provides a unique convergence of action and artefact; of subject and object; instantaneity and posterity; unicity and duplicity; representation and interpretation; interiority and exteriority; gaze and contemplation, which easily serves as a prop for philosophical musings on life and its absence. The fact that the photograph exists in this irresolvable state of contradiction is what makes it such a perfect vehicle for discussions of the juxtaposition and contrast between life and death.

Indeed, from Barthes to Bazin, from Sontag through Blanchot to Nancy, the analogy of the photograph as death mask populates the pages of Photographic theory. The discussions concerning death and its representation, or preminiscence, in the photograph, can be inevitably traced back to the indexical connotations of the photograph, ie. as representation of a subject which is no longer there, or of the state of a person who no longer exists.

As in the discussion of the selfie and its contested authenticity, we have already seen how we can perhaps reframe previously outmoded ideas of the photograph as “a trace, something directly stencilled off the real, like a footprint or a death mask.”²⁵⁷

Illusion of Immortality in the Network

When we interact in computer mediated environments we leave digital traces of our selves that can contribute to our unique virtual identity. Such a virtual identity (VI) already acts in our absence, such as through functionalities of auto-post, auto-reply, chatbots and so on. With such a transfer of agency, a digital identity no longer depends on a biological counterpart, and would therefore not cease to act after our demise. In other words, digital death does not automatically correspond to biological death, as ripples of our selves extend through the network, pre- and post-dating our (biological) lives. ‘Predating’ is seen in how the preferred platform for announcing and celebrating expectant births is now on social media for many, who often share ultrasound imagery of the unborn foetus, and ‘postdating’ can be seen through phenomena such as message boards and blogs in which a steady stream of ‘last images’ or ‘last tweets’ are published of the recently passed.²⁵⁸ This second phenomenon is what concerns this final work, in which the digital presence of the deceased (or merely absent), is gradually recast into a shrine or monument. This chapter through an introduction to the Internet specific artwork *myShrine* raises these issues and attempts

257 Susan Sontag, *On Photography*, 154.

258 Sub-reddit of last images: <https://www.reddit.com/r/lastimages/>

to provide tools for the reading of our social media presence as a more or less conscious preparation for a digital afterlife.

This work also functions as a critical exploration of micro-celebrity within social networking activities as well as the more general obsessive attention given to the perceived immortality of effigies, echoing Roland Barthes' own preoccupation: "Whether or not the subject is already dead, every photograph is this catastrophe."²⁵⁹

With our daily investment and nurturing of our digital presence, increasingly we find that our biological lifetime and our digital lifetime, while remaining (for the moment) co-dependent, are becoming increasingly asynchronous in their manifestation. For example, a profile picture on a social network need not be recent, but could have been taken in previous (perhaps more flattering) period. Another example, as I mentioned earlier, is the sharing of ultrasound 2d and 3d images of unborn children, these proto-profile images precede the child's *being* as social media has become the preferred platform for announcing and celebrating expectant births; elsewhere I have discussed this notion of 'being imaged' preceding being.²⁶⁰

Approximately 10,000 Facebook users die each day.²⁶¹ Within social networks the recently dead may continue to be tagged in photos, to redistribute material on their timeline, receive birthday

²⁵⁹ Roland Barthes, *Camera Lucida: Reflections On Photography*, 1st American ed. (New York: Hill and Wang, 1981).

²⁶⁰ Karen ann Donnachie and Andy Simionato, "Photo-Finish" in Benjamin Forster & Robert Cook (ed.s) *Un Magazine* (8.2, 2014).

²⁶¹ Each of the major social networking services have taken a diverse stance to the management of digital identity after a user has died, from the simple extinction of an account to the walling off of one's profile so that it is only visible to one's circle of friends; Sub-reddit "last image" <https://www.reddit.com/r/lastimages/>

wishes and even friend requests—not unlike how in real life the dead may continue to receive bills, mail, phone messages and so on for a period. On the Internet, an individual’s photographs, web sites, blogs, conversations in forums and other networked activity do not immediately appear any different upon their biological death; although in time these domains may expire, networking accounts may become deactivated, and photographs will slip down Google Image search ranking eventually falling into obscurity as they are less linked or accessed. I became increasingly interested in how the digital presence of the deceased may be gradually recast into a memorial to be maintained as a monument or else risk fading into a digital obscurity.

At the same time, alongside these growing emotional and economic concerns surrounding the digital after-life is the increased agency we grant to our digital personae, from the auto-reply feature in email software, to auto-acceptance of invitations and calendars, automatic completion of forms, scheduled postings to social media, automatic payments for services and goods, physical and virtual “check-in” at spaces or events, all of which is diligently (and autonomously) broadcast through our social networks. Although not quite (yet) achieving the status of a true digital clone or proxy, there is growing acceptance of sharing agency between our real and our virtual entities. Arguably, it is impossible to discern agency in many of these networks, whether the post or tweet or whatever mediated activity is automated, algorithmically generated or published by an authentic human. Indeed the camera objects *NousAutres* and *Delayed Rays of a Star* tweet their production autonomously. What is extraordinary, then, is that these semi-or

fully autonomous agents, actions, or scripts are almost guaranteed to survive billions of us in the next few decades, carrying into the after-life a new form of identity.

This creates a state of secondary-death, or rather the potential death of our virtual self has generated a perceived need to establish strategies to manage our digital mortality.

A significant number of commercial companies specialise in preserving the increasing number and variety of digital assets after biological death, they provide the management of a kind of final digital will and testimony. Companies like Legacylocker, Datainherit, Entrustet, Deathswitch (to name a few), are already addressing such a complex and potentially lucrative task. The sum monetary worth of an average internet user's digital assets was recently estimated at approximately \$US35000 dollars, which takes into consideration digital media purchased, internet property (websites, channels etc), photographs, various virtual and social currencies and so on.²⁶² These companies then offer themselves as conduits and guarantors of passwords, user profiles, digital documents and accounts that you may wish to pass on, or not, to future generations.

Other companies, instead, offer seemingly futuristic services of perpetuating digital identity. For example, Lifonaut and Intellitar base their services on the premise that a virtual entity (artificial intelligence), with enough training—through the processing of emails, facebook posts, chats, conversations with the human and

262 MacAfee survey on digital assets: Robert Siciliano, "How Do Your Digital Assets Compare?" (May 14, 2013) <https://blogs.mcafee.com/consumer/digital-assets/>



Market Stall in Venice, Italy, 2015.

so on—would be able to speak, act and react in a way that would reflect the human it was based on. More rudimentary avatars already populate our digital environment with chatbots (customer service, training videos etc.) Actors have been regenerated through CG to appear in cinema despite their passing, and the artist Stelarc even in this life has created his virtual alter ego in his *Prosthetic Head*, driven by an A.L.I.C.E. (Artificial Linguistic Internet Computer Entity) chatbot engine, replete with his own philosophical musings, conversations and even humour. It is with increasing frequency (and comfort) that we interact and converse with all these non-human entities.²⁶³

263 Stelarc, *Prosthetic Head*, 2005, <http://stelarc.org/?catID=20241>; See also: Stelarc, “Prosthetic Head. Intelligence, Awareness and Agency” in 1000 days of Theory, 10/19/2005, <http://www.ctheory.net/articles.aspx?id=490>

The growing interest in the digital after-life is rooted in the age-old quest for immortality, but also may be linked to an increasing quest for celebrity, a status that seems to flourish, even in (and occasionally because of) death. As I briefly discussed, the real world replication of Lady Diana's image-effigy contributed to her renown after her violent and fatal accident, which occurred at the infancy of the Internet in 1997, and more recently, with the Internet's greater opportunities for the sharing and distribution of images of deceased celebrities, the circulation of an image portraying Robin Williams from just before his passing, often meta-tagged as 'last image' or 'last photo.'

As the platform (browser, app or social network) for seeing and distributing this image is apparently no different from the environment in which we all can project our own images, there is a blurring of subject, suggesting identifying reactions: "this could be me" (something which didn't readily happen when the images were given to us on tabloids, TV, celluloid or glossy magazines). This shared or blurred platform of distribution contributes to a presumption of, or quest for, celebrity, as irrational as that may be, that we see surfacing in the current practices of the selfie or Instagram photography. As David Giles suggested, there is the potential for lasting fame or immortality in the infinite *replication* of image (as with Diana Princess of Wales), which is inevitably the promise of Instagram, Facebook and Youtube.²⁶⁴ This is coupled with our "general association between computers and mathematical absolutes" as Joanna Bryson suggests, which may "lead us to believe our identity and influence will last substantially longer

264 David Giles, *Illusions Of Immortality* (Basingstoke: Macmillan, 2000).

after death.”²⁶⁵ That is, we trust in the digital pristine and perfection of the computer system, unlike the outmoded photograph which is prone to damage from the elements, humans and time.

myShrine.org

Vanitas Vanitatum

*All the flowers of the spring
Meet to perfume our burying;
These have but their growing prime,
And man does flourish but his time:
Survey our progress from our birth—
We are set, we grow, we turn to earth.
Courts adieu, and all delights,
All bewitching appetites!
Sweetest breath and clearest eye
Like perfumes go out and die;
And consequently this is done
As shadows wait upon the sun.
Vain the ambition of kings
Who seek by trophies and dead things
To leave a living name behind,
And weave but nets to catch the wind.
— John Webster (1580-1634)*

myShrine is a participatory Internet artwork that generates a user’s unique shrine from their Facebook profile.²⁶⁶ Through a custom coded algorithm, a scene reminiscent of the *Vanitas* tradition of paintings is created around the user’s framed profile picture. The

265 Joanna Bryson, “Internet memory and life after death.” *Bereavement care* (no. 31:2, 2012), 70-72. Doi: <http://dx.doi.org/10.1080/02682621.2012.710494>

266 The work is created as an Internet domain and browser window, comprising a combination of HTML (hypertext markup language), PHP (PHP: hypertext processing), Javascript and CSS (cascading style sheets) and accesses the Facebook graph API (developer protocols) to permit the access of data through secure and encrypted transactions, leveraging an authorized proxy login to the Facebook network.

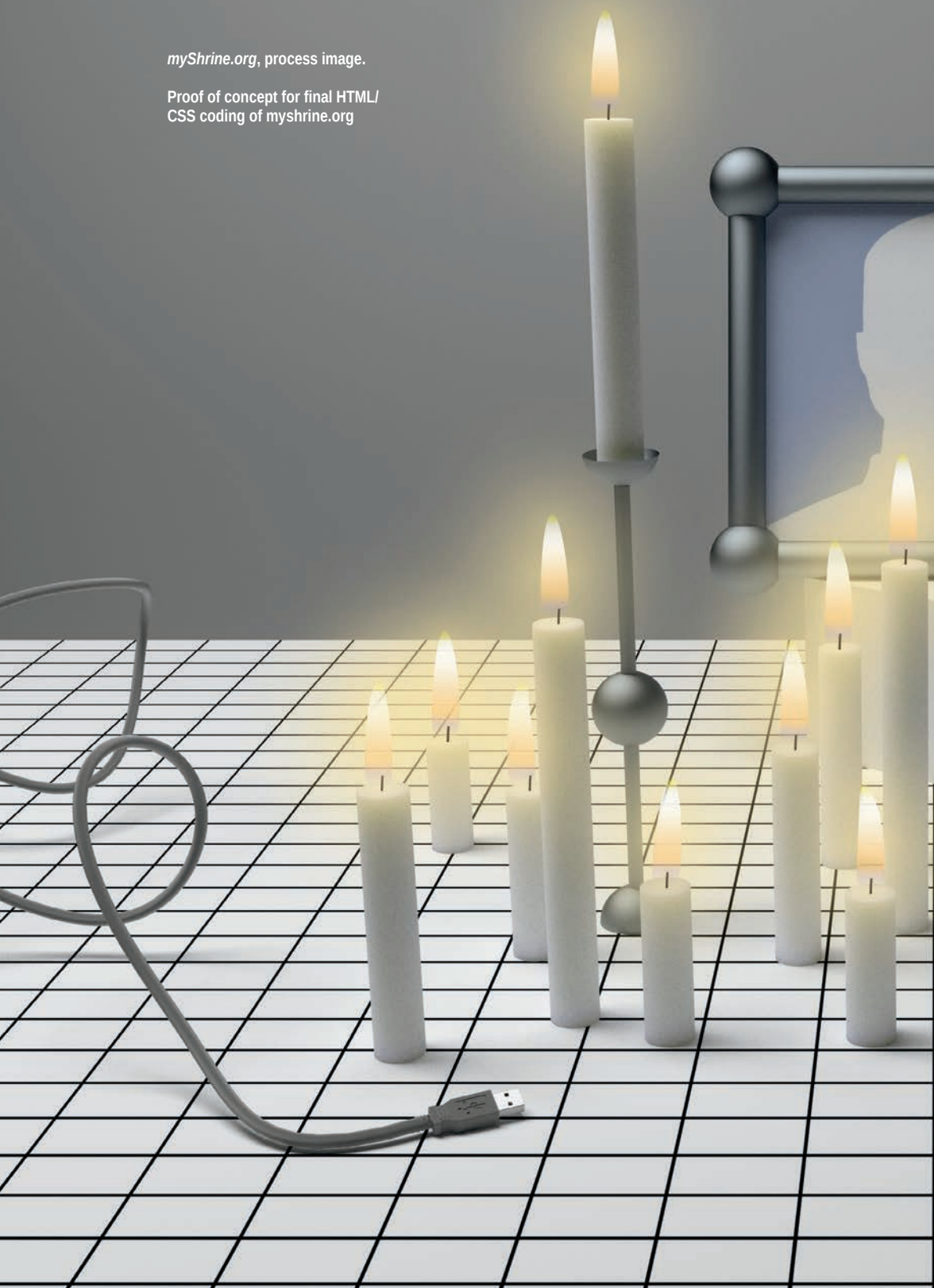
myShrine.org, (detail), 2015.

Candles are distributed on the site according to the number of Facebook friends a user has. These candles burn down in real time, eventually extinguishing and leaving the scene in penumbra.



myShrine.org, process image.

Proof of concept for final HTML/
CSS coding of myshrine.org







myShrine.org, process image,
Facebook shroud sprite, 2015.

choice of profile pictures is a highly loaded act of self-projection, and this is given a central position in the shrine. A user's 'friends,' in this work, equates to a kind of currency which is symbolised and directly translated into the number of candles that burn down (in real-time). In fact, the visibility of the shrine is determined by the number of candles burning, many candles generate a well-illuminated shrine, few or no candles create a dimmer shrine. After a period of time, all shrines fall into *penumbra*, or half-light, as the candles burn down. This artwork questions the immaculate nature of the networked portrait. It allows us to explore the myth of a perpetually pristine, embedded identity and the illusions of immortality.

The symbology of the elements that dress the shrine derive from the literary and visual allegorical works, such as the USB cable winding like a snake, the decaying rose, the frame and the shroud, while the frame is a traditional object of para-image providing a regular boundary that isolates the field of representation as a focus for the gaze.

Some of the elements that appear in *myShrine* according to each visitor's own profile include: fading flowers which represent the passing of time, specific flowers also represent particular sins; bubbles symbolise the brevity of life and suddenness of death; candles illustrate the passing of time, the transient nature of life; the skull is a reminder of the inevitability of death—just as the portrait is only a reflection of a once-living person, the skull is only the form of a once-living head; sea shells, or sometimes a living snail means death (creeping); the shroud is a symbol that can

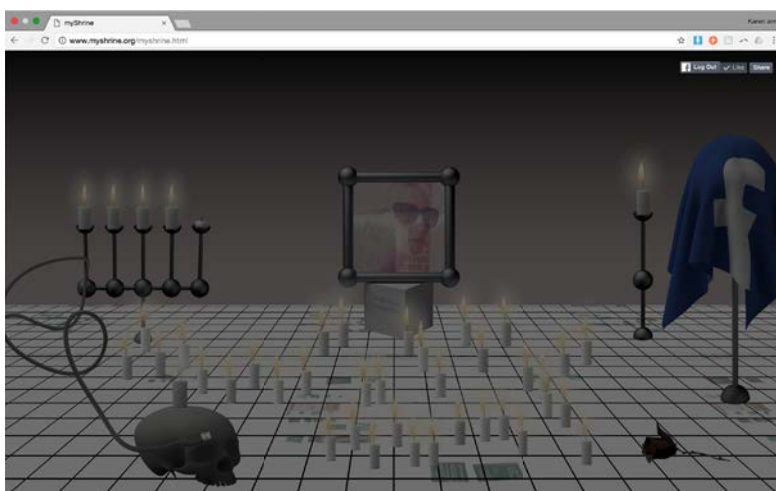


myShrine.org, 2015. Still from Internet web page, shrine generated from author's Facebook profile, after ten minutes.

have multiple interpretations from funeral shroud and death mask, to veil or matrimonial symbol. Penelope's shroud, in Homer's *Odyssey*, represents a daily toil as Penelope would work all day weaving the fabric on the loom for her father's funeral shroud while, privately each night, she would unravel it in order to extend her state of celibacy. Facebook's shroud can be seen as a daily toil that inevitably unravels during absence.

The immaculate embedded identity and the consequent illusion of immortality is threatened by this perceived obscurity represented by the darkness of the browser window, equating to a second digital death.

Once more: "Whether or not the subject is already dead, every photograph is this catastrophe," Barthes often associated the



myShrine.org, 2015. Still from Internet web page, shrine generated from author's Facebook profile, after four hours.

photographic image with mortality as he lingered over the images of his deceased mother in order to catch a glimpse of her essence and speculating his own demise and the deficiency of the photographic image he muses, “my effigy will perpetuate (for the limited time the paper lasts) my identity, not my value.”²⁶⁷ In the digital domain (theoretically) this perpetuation, now unconstrained, suggests an immortality of embedded identity.

myShrine then, is also a response to our preoccupation with the immortality of effigy. Through *myShrine* the chosen Facebook portrait will perpetuate its identity (for the limited time the candle lasts), but not its value, as Pointon writes in *Portrayal*, “with the Internet serving as a graveyard for forgotten portrait images.”²⁶⁸

267 Barthes, *Camera Lucida*, 110.

268 Pointon, *Portrayal*, 14

myShrine becomes an inversion of Wilde's Dorian Gray, we are caught in a cycle of maintaining an eternally pristine alter-ego while all of our biological selves decay.²⁶⁹

Concluding After-Life

Through this final work, *myShrine.org*, we have explored the potential reach of the selfie as it passes into a posthuman domain, or rather as it exists without, or after, its biological counterpart. The use of the profile picture and the selfie in social media responds to, and is reinforced by, a desire for immortality, or (at the very least) digital visibility, which is laid bare in this work through the metaphor of the shrine. *myShrine* offers an allegorical reading in the form of a uniquely generated *memento mori*, in recognition of the individual and collective toil involved in the construction and maintenance of social identity. This work tests the latent premises and purposes on which social media is founded.

269 Oscar Wilde, *The Picture of Dorian Gray*. (London: Dent [etc.], 1976).

Conclusions

The Human Use of the Human Face

This research, in its multi/trans/un-disciplinary experimentation with and through the selfie, brings a new critique to self-portraiture and the contemporary photograph. Through the discussion of cultural and photographic theory, as well as artists' practice in self-portraiture, *The Human Use of the Human Face* allows us to see the selfie as more than a mere vernacular object or action. We can see, through this deeper understanding, that the selfie, by weaving itself into the emerging visual and visceral dialect has already, irrevocably, influenced the photographic self-portrait. By addressing not only the artefact or surface of the image, but also the activity and cultural motivation surrounding the networked self-portrait, we see that the selfie holds a privileged position inside a rapidly expanding and evolving social media ecology and is vehicle, tool, symbol of personal, social, artistic, cultural and political identities.

With the recent hyperbole surrounding the selfie, including perceived risks for our mental state (narcissism), for our privacy (data theft), or for our younger generations (sharing of sexually explicit selfies), this research instead adds to the emerging scholarly discourse with a focus on the potential for authenticity, human affect, connectedness, and belonging in the selfie. In short, for the potential of the selfie to help us consider what it means to *be human*. The selfie is already profoundly affecting the way we image ourselves—individually and collectively—and I have argued that this is affecting photography in general. The making

and curating of art is also influenced as the selfie is leveraged by artists as a genre of visual art and a locus for performance.

This research has explored, both in the practice and in the subsequent reflexive discourse, many of the traits that are unique to the selfie, and has brought original material manifestations of these elements to the public through a series of published texts, which have appeared as chapters in peer reviewed books, in bilingual international exhibition publications, and magazines, as well as a body of networked and exhibited works.

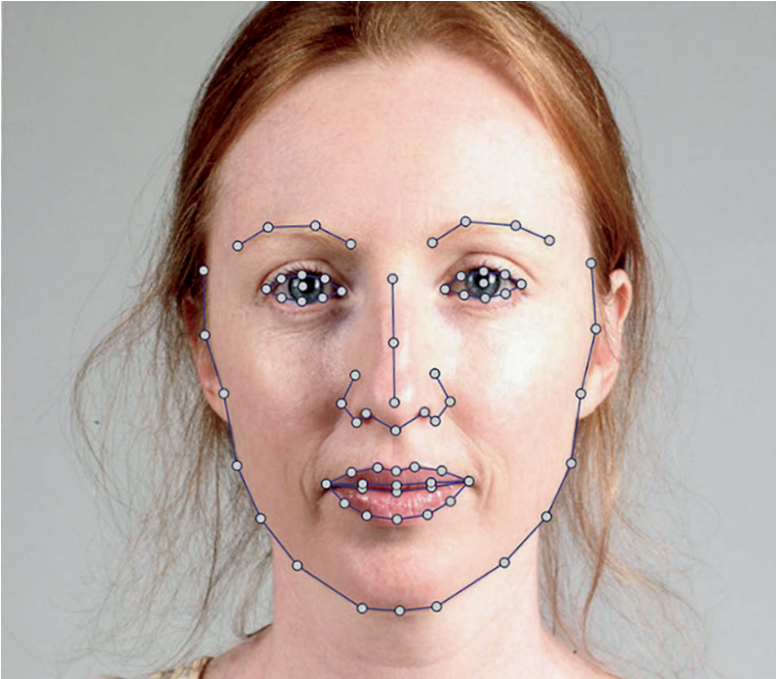
Central to the research are the interrelated new media works, many of which were presented in the culminating exhibition *SoDA15* held at John Curtin Gallery (November 26 – December 13, 2015). These works address diverse modes of making and reading networked self-portraiture, and, by way of provocation, offer instruments for the creation of unique selfie (and groupie) images.

Each artwork explores different aspects of the complex ecology of the selfie and these works have been conceptually organised into three areas: first-life, second-life, and after-life. Each area suggesting the principle domain of human life in which the work interrelates with the selfie.

The two works presented within the general area of ‘first-life’ have both brought tangible but unfamiliar encounters with the imaged self, our virtual other. *myVanity*, in its Janus-like or double-faced role of both mirror and mediated simulation, attempts to prolong that evanescent, fleeting moment of non- or pre-recognition that occurs when we catch a glimpse of ourselves in a reflective surface.



plyFace, magazine
cover (detail), 2015.



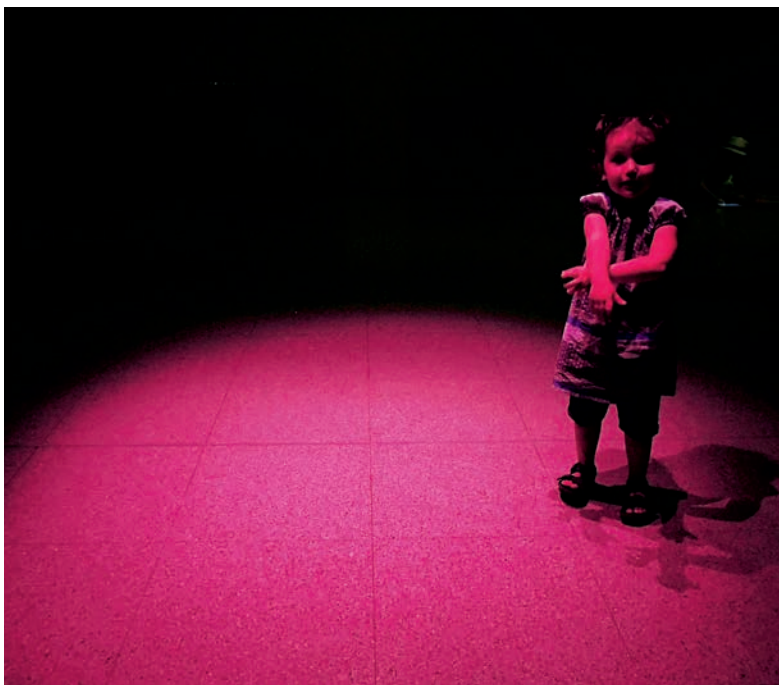
Experiments with face-detection software, process image, 2013.

Optics, cognition and ego converge as we match the self we see to the self we acknowledge as ours. *myVanity* glitches between analogue and digital representation, as the surface flows back and forth between mirror and screen. It is this space within-between that the work activates, evidencing a moment of transition when we catch a glimpse of the process on which our virtual identity depends. Precisely accentuating this process that constitutes the transferral of identity, from embodied (reflection) to embedded (video) self.

If *myVanity* attempts to evidence this interstitial transferral of identity then the work *plyFace* is the attempt to fix some of these

elements in time as a self-portrait in code. *plyFace* draws attention to the underlying and otherwise concealed data that contributes to our digital self-image through editions of custom designed magazines, each replete with the thousands of lines of coordinates that when processed by specific computer software make up the three-dimensional point cloud, or spatial geometry of the artist's face. The magazines are accompanied by the synthetic (computer generated) audio reading of the same data that they contain. *plyFace* explores the way in which computer systems create, translate and transmit our digital resemblance. In purely practical terms the work is an attempt to bring back to the surface, to reveal to more senses at once, the otherwise elided, layered architecture of the digital image. Literally delivering a mantra of numbers in both published and audible form, *plyFace* aspires to evoke deeper, more complex, or at least less superficial, visualisations of the virtual portrait.

The second group of works, gathered together in 'second-life,' focussed on the use and reach of the embedded self-portrait in electronic space. The first of the four works comprising this area of the research is *The Latent Image*, a work that addresses the exponentially growing archive of human portraiture that is being constituted by the selfie as it moves between specific devices and in general through the flows of social media, ultimately residing as packets of data in image repositories and corporate data servers around the world. Significantly, *The Latent Image* resists that impulse towards universality often associated to the archive, and instead seeks to project, or illuminate, onto the viewer's skin the resounding flow of diversity that the selfie embodies. By detecting, isolating and extracting the skin tone of faces depicted



The Latent Image, installation view with my daughter Indigo, 2015.

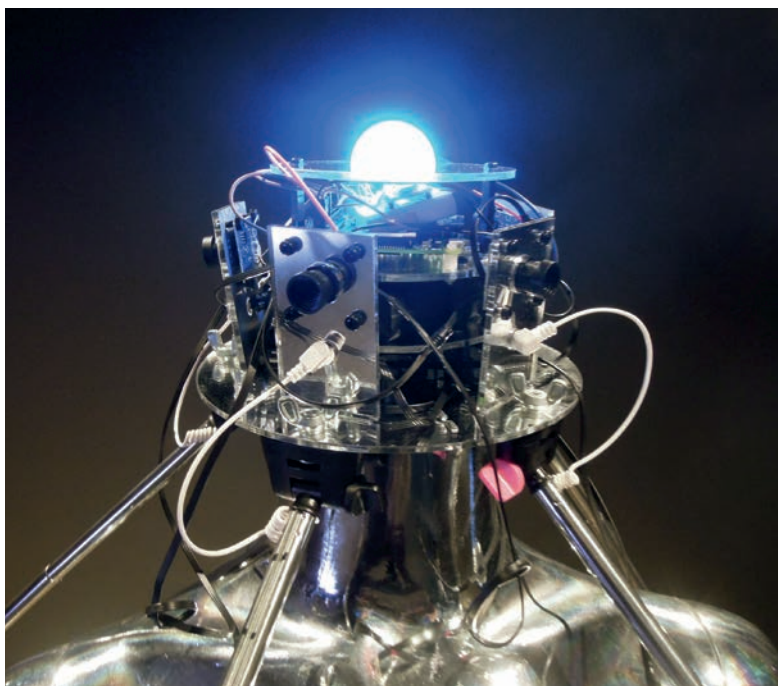
in selfies posted to Instagram from around the world, the algorithm accumulates a large array (database) of skin colour data. The work therefore holds potential for manifold interpretation in many fields. In the *SoDA15* installation the data is projected into the exhibition space—and subsequently onto the skin of the viewer—as coloured light. Because the work presents itself as an ‘empty’ spotlighted area in the exhibition space, it is adopted by some visitors as a convenient space to take their selfie. It follows that this selfie, created from within the light installation, can be posted and tagged as #selfie to Instagram, allowing the image to potentially resurface in the pool of sourced images used to extract the colour for the

lighting projection. A possibility for the visitor to infinitely recast a Technicolor self into the endless ebb and flow of #selfie. In a more general sense, *The Latent Image* collaterally invites us to expand our preconceived canons of normalcy, ethnicity, and race, raising important issues of the bio-political control inherent in the systems of face detection, selection and profiling that it leverages. Finally, the work explores the pluripotentiality of our embedded self-portrait through the observation and repurposing of shared self-representation of #selfies on Instagram. As the constant flow of colours demonstrate, our #selfie skin carries an augmented range of tone and colour, freed of the real-world normative and racial limitations of prevailing ethnic descriptors.

Further research into the activity of the selfie is pursued in the two camera-object works *NousAutres* and *Delayed Rays of a Star*, both also contributing to the ‘second-life’ area of the research. In the ad-hoc role of artist as inventor, I have constructed and programmed two distinct selfie-cameras, or at least two camera-objects that are inspired by and designed for the action of the selfie. These cameras require the co-presence of multiple subjects, that constitute both performer and audience. These multiple subjects can be two or more people, or alternatively, a single person and their environment. Through the accentuated physicality of the camera, and the emphasis on the human action (from shaking hands, to embracing and the one-armed selfie position), the otherwise elided, mediated relationship of the self/other of the singular and group selfie is brought to the surface, teased or retrograded out of the virtual and into an authentic human exchange.

The camera-object *NousAutres* appears as a mirrored box-like bi-facing camera with two polished steel lateral handles and a prominent white lighted dome on the top panel. The camera-object is intended to be used by two facing participants each holding one of the handles, thus introducing the selfie's distinctive posture of the extended arm. When both participants have pressed their respective triggers (located on each handle), the camera-object captures two opposite facing images. These two images are algorithmically woven together into a single #selfie that is automatically posted to the camera's own social media (www.twitter.com/us_others) without any further human action needed.

While the artefact (the image), as intangible proof of the encounter, is automatically sent to reside in the social flow—significantly without further intervention—the shared, embodied experience remains in/on the participants' skin. Through the physicality of this action, we are also reminded of the materiality of the camera as technological object, which, despite the advent of the smart phone and slim-line digital cameras, has not really progressed from the nineteenth century 'pin-hole' camera. Indeed, the camera work *NousAutres*, deliberately contrasts its highly technological elements (such as the self-programmed image-processing algorithms used to interweave the two selfies and post automatically to social media) with its external appearance (adopting a box shape vaguely reminiscent of an early daguerreotype camera). The camera-object attempts in this way to acknowledge the residual integrity of the original camera technology that is otherwise destined to become merely a metaphor—for instance in the use of the traditional camera as icon for smart-device camera applications.



Delayed Rays of a Star, installation detail, 2015.

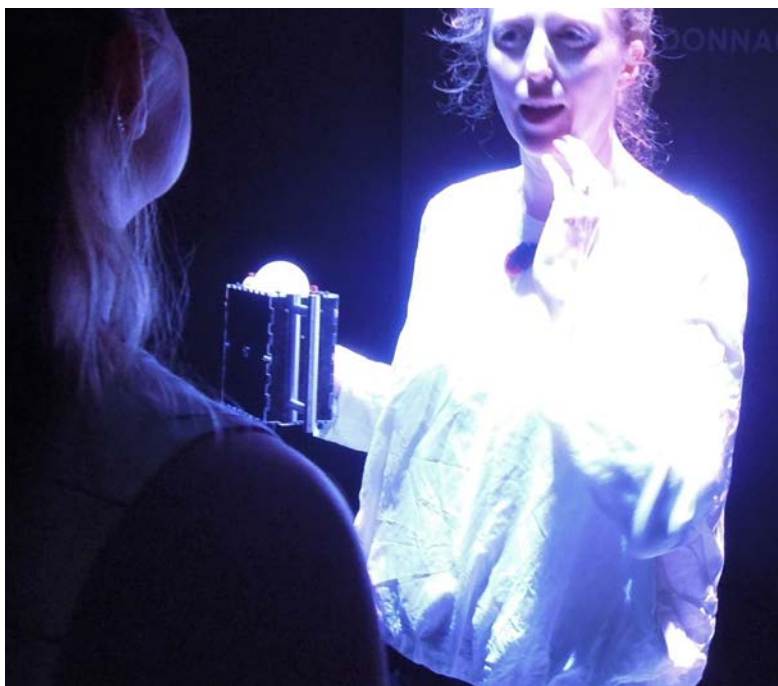
In contrast, *Delayed Rays of a Star*, with its deliberately informal, deconstructed, consumer-electronics collage, requires five participants—each triggering their own camera from a modified selfie stick handle—in order to make an algorithmically combined ‘groupie’ image. Through its unique algorithm *Delayed Rays of a Star* creates what at first appears as an abstract image, but upon closer inspection reveals the singular moment of the action with its algorithmic combination of the human faces that it captured, one at each point of a star. Like *NousAutres*, *Delayed Rays of A Star* also has a dedicated social media channel, in this instance the work

automatically posts every processed image to Twitter through its account www.twitter.com/delayedrays.

These two cameras suggest possibilities for new ways of seeing through photography, inspired through, or perhaps even necessitated by, the practice of the selfie. The camera-objects have been informed and made possible by a contemporary interest in coding, DIY practices and tinkering cultures and the communities that support them. Both the camera-objects that result from this research, as well as the unique images that are created by them, become original artefacts, while the system and processes devised open up numerous opportunities for further experimentation and development.

While the cameras *NousAutres* and *Delayed Rays of a Star* have been created as art objects, the enthusiasm with which they have been received by viewers, co-users and exhibition visitors has prompted discussion of further development and potential production of the cameras. Most likely, and in keeping with the spirit of the communities that develop and support the open-source software that made the works possible, I will be releasing the plans and the original code of *NousAutres* and *Delayed Rays of a Star* back into these communities.

Concluding this ‘second-life’ area of the research is a series of interviews conducted with contemporary artists who leverage the self-portrait in and through contemporary virtual environments. Conversations with Amalia Ulman, Petra Cortright, Miltos Manetas, LaTurbo Avedon and Mariko Mori speak of the aura of the selfie, social media as locus for performance, as well as



Standing inside *The Latent Image*, while holding the *NousAutres* camera, John Curtin Gallery, 2015.

the authenticity and human connectedness in the contemporary photographic image. These conversations are gathered under the working title “#Me: The artists self-portrait in the age of the selfie” and brings further understanding of how the selfie phenomenon has already effected change upon the artist’s self-portrait and how it is currently leveraged in and around art practice.

The final area of my research, ‘after-life,’ concludes this practice-led research with the Internet specific work *myShrine*. The work, which presents itself as an Internet page at the domain www.myshrine.org, requires the participant’s Facebook login credentials to activate. Once the terms are accepted the social media

web app proceeds to recast the participant's Facebook profile into a unique shrine, populating a still-life scene as a contemporary *Vanitas*. The work algorithmically constructs the scene according to the number of the participant's Facebook friends, their images and other public profile information. In recognition of the toil involved in the construction and maintenance of one's social profile, *myShrine* offers a unique reading of the latent premises and purposes on which social media is constructed. The shrine is not static however, and closer observation reveals that the candles illuminating the shrine are gradually burning down, and as these candles burn, the centrally placed profile picture darkens, and eventually, once all the candles extinguish, the shrine falls into obscurity. Through its use of metaphor, painterly composition and even its title, *myShrine* serves as *memento mori*, symbolising the ultimate fate of all our virtual images and identity—without constant attention and social exchange, our images are destined to gradually slip further down search engine rankings (SEO). The perception that our digital presence will eventually become invisible, or perhaps even irretrievable, without our constant dedication is tangible. With this perspective, *myShrine* foregrounds this (human) investment made on social network platforms as payment against negentropy; social currency is rewarded in the *Vanitas*.

The accompanying exegesis that grew from and alongside these works, organised thematically in the three areas, first, second and after-life, was intended not only for facilitating a reading of the works and their processes but also offers a more general theoretical and cultural context on the selfie phenomenon. During the research I have had many opportunities to present these theoretical findings

on the selfie and my research has been published both as conference papers and in books and magazines. These opportunities have allowed me to join a growing community of researchers who are exploring the phenomenon of the selfie from diverse positions and with varying concerns. One such occasion was the inclusion of my essay on the selfie in the book *Ego_Update*—alongside esteemed writers such as Daniel Rubenstein, Adam Levin, Jerry Saltz, Teresa Senft, Brooke Wendt and Douglas Coupland—published on the occasion of an exhibition at NRW-Forum in Düsseldorf, Germany.²⁷⁰ The publication accompanied an extensive survey of art practice in and around the selfie, with artists such as Martin Parr, Erik Kessels, Amalia Ulman, Arvida Byström and many others. Opportunities such as these have permitted me to join important conversations happening around the world on the phenomenon of the selfie.

Practice: past, present, future

The most rewarding, and admittedly entirely unanticipated, development of this practice has included the appropriation and retooling of camera technologies, so some concluding remarks may be required for this dimension of the practice. On moving back to Western Australia, after working two decades as a professional fashion and design photographer in Milan, Italy, I had all but abandoned photography. There were many reasons for this withdrawal from what had essentially been my daily professional practice, but perhaps the most significant was also the most difficult

270 Karen ann Donnachie, “Selfies, #Me: Glimpses of Authenticity,” in Sinaida Michalskaja Shahin Zarinbal eds. *Ego_Update*, (Düsseldorf, Germany: NRW-Forum, 2015) 50–76.



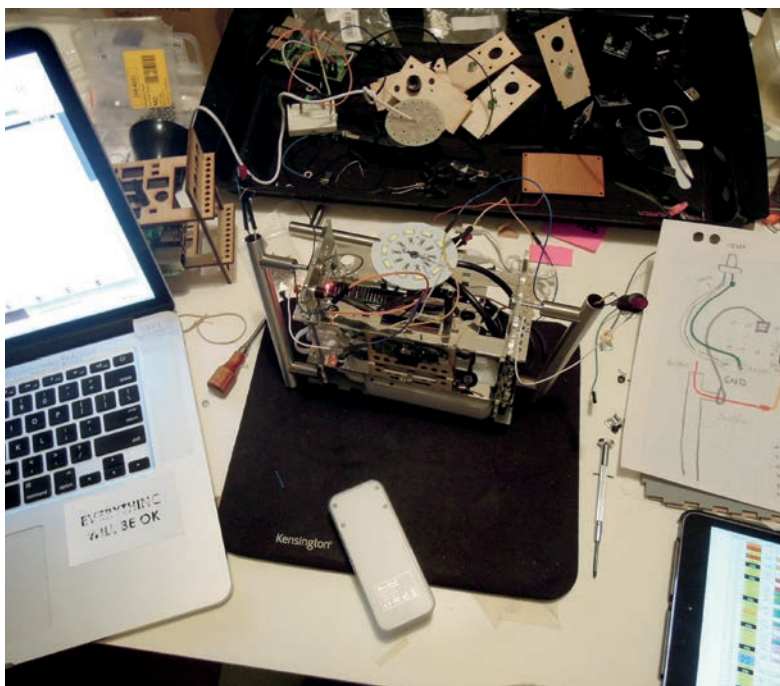
Delayed Rays of a Star, installation
view of de-activated prototype,
John Curtin Gallery, 2015.

to attribute. With the billions of images (sunsets on beaches, kittens, cakes...) available instantaneously through Google image search, I experienced a kind of repulsion to the idea of being responsible for the addition of new photographic images. In hindsight, perhaps the motivation for my initial research proposal of a practice—based on the observation and analysis of the *existing* and ever-expanding database of human portraiture—was masking an intrinsic aversion to produce more images.

Yet, the process and outcomes of the two cameras I have made—*NousAutres* and *Delayed Rays of a Star*—have not only rekindled my passion for the camera as an object of technology and design, but also as a tool useful in the creation of unique images that no longer generate an anxiety in me over the futility of photography as practice. I see a potential for joint agency between myself as photographer and the algorithms I have coded to create unique and complex images. Just as many artists (Harold Cohen, Manfred Mohr, Samuel Monnier, Roman Verostko) have developed practices of co-authorship with algorithmically driven drawing machines, since the 1970's, I see these cameras as co-creators of the final images they post. Interestingly, Manfred Mohr specifically referred to the computer running his drawing program as *partner* in the work.²⁷¹ The term he uses, 'abstract combinatorial framework,' is precisely that which I have created for and with my cameras.

I look forward to extending my speculative camera designs as I imagine potential situations for new custom imaging machines and their applications, leveraging the increased capabilities of computer

271 Manfred Mohr, 'Manfred Mohr Computer Graphics: Une Esthétique Programmée', ed. by A-R-C Musée d'Art Moderne de la Ville de Paris (Paris: A-R-C, 1971), 36.



NousAutres, process image, 2015. One of the many re-builds of the advanced working prototype of the camera.

vision and network systems. This area of the research, which adopts open-source, open-design, copy-left, creative commons and free-software principles, owes much to communities of software developers and engineers. It has proved liberating to be able to sidestep the proprietary ‘black box’ environments of contemporary technology (cameras, smart devices) and prevailing corporate software in the creation and programming of my cameras. Rather than merely consuming imaging technology I now code machines that make, manipulate and distribute images. With this spirit I wish to engage and encourage others to develop their own unique

cameras through opportunities such as workshops, open-sourcing (sharing) of principles, code and design.

This research has irrevocably altered my practice as an artist, and during this period I have acquired new skills including engineering and design techniques, micro-electronics, physical computing, data visualisation, coding languages, developer's protocols for working with social media, exhibition practice, institutional and editorial protocols and editing and writing experience.

As this research draws to completion, I feel there are evolving practices in the field of the networked photographic self-portrait worthy of critical attention that could benefit directly from this study. These practices include the increasing rhetorical use of the selfie as a tool for social, political and cultural action. One recent and controversial example that comes to mind is the use of the tricoloured stripes of the French flag superimposed over Facebook users' profile images as a demonstration of solidarity immediately following the violent attacks in Paris of November 2015. Millions of profile pictures were voluntarily 'tinted' as they were overlayed through a filter made available by Facebook, with results not unlike how the projected skin tones transformed participants in *The Latent Image*. Notions experimented in this work and the thesis in general, could potentially contribute to an understanding of this example of a specific rhetorical and metaphorical use of the human face.

After the encouraging reception of my other writings on the subject of the selfie, I am working towards developing the interviews on the artist's self-portrait in the age of the selfie into its own publication.

Ultimately, I see “The Human Use of the Human Face” as a first step in a call to arms in which we can become makers, and not merely consumers of the image and image-making technologies. In which we feel empowered to break out of a modernist (technodeterministic) reading of electronic art, in order to find new ways to critique and contextualise the selfie as social and creative artefact and action.

This thesis—through both practice and critical discourse—brings into focus the human activity of the selfie, the taking and sharing of self-portraits, as unforeseen and unprecedented predilection for shaping and disseminating ones own likeness. This research, through its theory and artworks, processes and tools, comprises a consideration on what it means to be human, alone and together, in all domains—real or otherwise—in and outside of time. The selfie becomes an authentic human use of the human face as we participate, dialogue and share our likeness.

Appendices and Bibliography

Appendix A: Extended Technical Notes

On the following pages I have included a discursive technical description of the camera works as discussed in Part 2: Second-life. While some of the design and electronics may read too technical for a non-specialist audience, I believe this appendix may be useful not only as a documentation or evidence of an otherwise ‘invisible’ practice, but also ultimately as a knowledge base for colleague practitioners.

*NousAutres*²⁷²

The *NousAutres* camera contains a Raspberry Pi 2 B+ (Pi), a USB battery pack, a Raspberry Pi camera module, a second USB camera, a wifi dongle, two illuminated momentary switches equipped with light emitting diodes (LED) and one large white dome housing the white LED for ‘flash’ as well as the rainbow ‘processing’ light. The simplified construction involves a ‘headless’ (no screen or mouse/keyboard) Pi microprocessor with two shutter triggers, one on each handle, there is also a bright white ‘flash’ LED which is located on the top of the camera initially included for low or back-light situations, which ‘flashes’ at the moment of capture and switches off once the images have been taken. A rainbow LED is illuminated as the images are being processed (quick colour change) and then tweeted (slower colour change). An external USB connector plate is mounted on the bottom, to allow for battery charging and/or keyboard/mouse input connection as required. The Pi can be coded

272 While these notes are specific to *NousAutres*, the same principles of design, heuristics and iterative prototyping have been used for the camera *Delayed Rays of a Star*.

remotely through a console interface (I have tested on both iOS and mac) over SSH/telnet (network protocol).

The Raspberry Pi was chosen as the microprocessor for its flexibility and CPU specifications. The Pi (specifically, the Pi Model 2 B+) is able to handle video/camera and image manipulation beyond the capabilities of other opensource microprocessors, for example Arduino, while remaining relatively inexpensive.²⁷³

Although unfamiliar with the language when I began this research, I chose to work in Python for the programming of the camera's code, as it is an efficient language designed to assist code readability (compared to plausible alternatives such as C/C++ or Java). Python is also open-source, easily installed on the Pi, and through the Python standard and third party contributed libraries is highly flexible in its application. In *NousAutres*, a single Python script is used not only to run the camera software and control the General-purpose input/output (GPIO) connections (buttons, dials and LED), but also to perform the mathematical image data manipulation through its Open Source Computer Vision (Open CV2) library and then post to social media through the Twython library.²⁷⁴ The two cameras enclosed are one Adafruit Pi camera module connected to the built in camera port, and a salvaged Logitech USB camera attached via one of the Pi's four USB ports. The native Pi camera is driven using the picamera library, while the USB camera is accessed through VideoCapture function in the CV2 module. The Twitter API is leveraged through the Twython library for Python

²⁷³ Raspberry Pi, in November 2015, released its \$5 Pi, the cheapest to date.

²⁷⁴ Python: <https://www.python.org/> ; Open CV: <http://opencv.org/>

to gain access to the camera's twitter account and allow automatic posting of the images.²⁷⁵

A python code runs at boot (startup) to start the Pi, check for wifi network availability and sends an email with its current IP (local network address) to facilitate remote access from my iPad or Mac and then waits for user input by way of the camera's buttons. Any activation launches the image-taking sub-process, at which time the LED lights of each handle turn on, indicating readiness. At this stage the camera waits for both shutter buttons to be pressed. Once both shutter buttons are pressed within a limited timeframe, the images are taken are mathematically resized, cropped to square format and interlaced, through an iterative pixel value replacement into a single image array.

Once the image is composed, the Pi connects to the camera's Twitter account through the wifi dongle (if within wifi network, otherwise this is delayed until the next wifi connection is established).²⁷⁶ The tweets consist of the image and a message simply stating the consecutive number of the image (for example "NousAutres #34"). Once this process is complete, the Pi returns to 'standby' mode, with both handle buttons illuminated. If there is no activity over time, the script invokes the sleep mechanism in order to extend battery life, by turning off the LED lights.

275 Raspberry Pi Picamera: <https://www.raspberrypi.org/documentation/usage/camera/python/README.md> ; Twython library: <https://github.com/ryanmcgrath/twython>

276 While this project was still in development, Instagram increased its image resolution to 1080 x 1080 pixels, I have since adapted the code to replicate this format, presuming I will be able to find a way to publish to Instagram rather than Twitter. Also, Instagram now permits rectangular images, although for the moment I will keep to the square format.

A further intention of this project is to post the images created—also, but perhaps instead—to Instagram, as this platform is conceptually more aligned to the selfie and to this project than Twitter, in its chronological presentation of an exclusively image-based timeline. However at the time of writing, the Instagram platform and API allows uploads only from within an ‘app’ interface on iOS or Android devices.

A process of iterative coding was used in the development of this project. Initially, the image-processing algorithm was developed in Processing on Mac with the aid of the openCV library. I began by resizing, cropping and interlacing first two static images, one captured through a USB camera, the second captured through my Mac’s built-in camera, triggered by keystrokes (simulating eventual buttons). I tried both vertical and horizontal interlacing, opting finally for horizontal interlacing as it gave a smoother result (possibly we are used to progressive image loading, TV scan lines and so on which generally produce horizontally oriented noise).

When this process was working successfully (two separate images captured to a single, merged, cropped, square, networked image) the Processing sketch was ported to the Raspberry Pi. Initially processing on the Pi was tested, but the CPU overhead on the Pi caused unacceptable lagging and delay in the process. So I wrote the script in Python basing myself on the mathematics of the Processing sketch.²⁷⁷

Fortunately, both the Python and Raspberry Pi have large communities that are generous with their advice and time, so after

²⁷⁷ This was the first time I had ever written code in Python.

some false starts, I was able to create the script that managed to do the three following tasks required:

1. Drive the physical components – cameras, buttons, LEDs, wifi/ethernet connection
2. Mathematically manipulate the images
3. Broadcast (in this case, Tweet) the images in real time with dynamic file naming and message composition

Lights and buttons were connected through a solderless breadboard, and the two cameras directly connected to the Pi. A sequence of flashing and steady lights was created by exploiting the LEDs contained in illuminated momentary switches, which eventually would be placed on the handles of the camera within reach of the user's thumbs. The feedback of these lights would also leverage established heuristics of the camera's three states: flashing (indicating script in process); steady illuminated (indicating readiness for new capture); and spent (not requiring or expecting interaction).

However, knowing that the Pi was going to be in a box that I had little or no access to, the system needed be as autonomous and fail-proof as possible. Especially important was the issue of error handling

If the Pi was to run 'headless' (without a screen or other external system input), I had to design exception handling so that when any errors occurred, or for whatever reason the camera program needed to be stopped, the script would manage to gracefully quit

the program, close the GPIO ports, flush the memory cache and close the camera utility. If any of these processes were not executed correctly or ‘cleaned up,’ then some LED lights or buttons may be left on (altering the camera’s heuristics), or some memory allocations could be still occupied with the images (potentially damaging the program), or simply these functions would negatively affect the processing overheads and therefore constitute an inefficient use of the microprocessor. A looping ‘standby’ state, or shell script for the Pi, was coded which would awake the camera into a ‘picture-taking mode’ on the touch of a button, this code completes even multiple cycles of image-taking and posting and then after a defined timeout, resumes the standby state.²⁷⁸

Because much of my motivation behind building the camera was to create both a functional and aesthetic object, the design of the camera involved many iterative prototypes firstly laser cut in plywood, then in mirrored acrylic. Each modification improved on heuristic, aesthetic and technical features.

As for the look and feel, I was attracted to the idea of a box reminiscent of the first daguerreotype cameras, but with more dynamic or active surfaces. My interest in post-Internet and post-

278 As the camera is run with a portable power pack, it is possible that the battery may run down to zero. In such a case, the pi will shut down unexpectedly. Because Raspberry Pi modules notoriously do not have any power management (neither software nor hardware) they do not, unfortunately, just fall into a stand-by ‘sleep’ as a laptop might do for instance. Therefore an additional physical reset switch (initially a momentary switch mounted on the top of the camera but later ‘hidden’ in the side panel) was added which can restart a completely shutdown Pi, once the battery is recharged (through the external USB connector built into the base of the camera). Because the Python script that runs the camera launches on startup, this single reset switch is sufficient for the camera to be up and running again.

digital aesthetics also influenced my use of the 'chrome' acrylic, bright colours for the knobs, lights, switches and buttons.

The custom laser cut pattern of the casing has been designed to allow for all of the necessary technological components (a surprising number of elements including micro-processors, switches, buttons, electrical wiring, LEDs, battery, USB cords and other connectors). A series of intersecting panels (shelves) on the inside of the case not only keep the elements in their place and increase the strength of the box, but also allow for air passage around the Raspberry Pi, the microprocessor chip of which can become hot. These panels are designed to create a solid inner 'shell' without the need for any glue or fasteners, permitting the constant and iterative rapid prototyping essential for the development of the project. The cameras are fixed to opposite facing vertical panels so that they remain positioned precisely behind the laser cut holes of the outside panels. It was desirable for aesthetic choice that the external mirrored acrylic have as few screws, catches or other disturbances to its surface as possible and that access to the camera could occur quickly without the need for removing many screws, so great care was taken in securing the six sides of the box together using a combination of techniques. The handles lock the internal 'shell' containing all the electronics and the side panels into a single unit, while the top, bottom, front and back panels are screwed onto this unit with spacers bolted to the inside structure, permitting an immediate access to the internal machine of the camera, but ensuring that the camera is sufficiently sturdy to be handled.

The steel handles (modified retail kitchen drawer handles) have been machined to accommodate the switch and a lateral notch on the inside of the horizontal shaft was added to allow passage of wires to reach the illuminated momentary switches that are used to trigger the camera.²⁷⁹ The camera's ground (drawn from the 'ground' pin on the Raspberry Pi) is supplied to the switches through conductive screws and washers connecting the handles to the box, and then through the steel of the handles themselves.²⁸⁰

Software Code Acknowledgments

The following principle sources contributed to the knowledge and code used in this project:

- Raspberry Pi
- Processing
- Open CV
- Python & Twython
- Picamera

279 Thank you to Adrian Reeve at the Curtin jewellery workshop

280 A note on costs: Comprehensively the internal components cost approximately \$100 AU, sourced from Adafruit (original Raspberry Pi manufacturers), locally from retail electronic component stores as well as various eBay and Aliexpress sellers mostly based in China. The case and handles vary in cost, depending on the material chosen.

Appendix B: Transcripts of artists' interviews

In these pages I include the original transcripts and texts of interviews conducted for the chapter “#Me: The Artist’s Self-portrait in the Age of the Selfie”. I chose to interview five contemporary artists who work with and around photographic self-portraiture to see how in what ways the selfie is incorporated into and affecting their practice. The artists are presented in chronological order from when the interview began: Miltos Manetas, Amalia Ulman, Petra Cortright, LaTurbo Avedon and Mariko Mori.

I. Interview with Miltos Manetas, conducted through posts on “Outside of the Internet there is no Glory,” Facebook page, 2015.

KD: A while ago we had a conversation on selfies and you spoke to me of the ‘aura of the selfie’. Can you explain what you mean and how you would recognise it?

MM: Some selfie have an aura, others do not. Amalia Ulman’s selfies for example. They do have it. Amalia Ulman ‘s ‘unselfish selfies’ remind me of Madonna in the paintings of Raphael and Antonello da Messina, as well of certain Roman sculptures and a few paintings of Picasso.

Maybe aura occurs only when artists are plunging into “The Database” (what people before computers used to call “Art History”). When an artist adds another member to that - very

special- community of images (images that have a life of their own somehow, images that have become memes), a side effect is produced: aura!

If that's true, it's quite ironic because in that case, those selfies don't represent at all the person who is "taking them" but they parasite it instead, they are using it as a mask. The opposite of narcissism ...

KD: Is authenticity important for the selfie? How?

MM: I don't know how "authenticity" relates with Selfie or with anything creative for that matter. Authenticity has to do with the context, a work is never authentic by nature, it becomes authentic only later, when it's old (eg. "an old Master's Masterpiece", a naive but peculiar work from a forgotten artist). The context of the selfie though is simply it's public exposure, contemporary Selfies are images born- in-public: like anything we find online - or created on a media platform for that matter- it's difficult for something to become authentic when they are "born to perform." Still it's possible, at some point they can be authentic artworks, once the present state of the Internet and of the Social Media has transformed into something else..

KD: I was referring to your answer "in that case, those selfies wouldn't represent at all the person who is 'taking them,' they would parasite it instead, using it as a mask." (I understood by this that you usually expect the selfie in some way to 'represent' the person making the image, ie. that it is genuine or authentic.) But why would performance necessarily preclude authenticity?

MM: Selfies”... the term reminds “ little self.” Selfies supposedly are representing the person who is taking them- or if we accept the criticism that the term implies- the person’s “little self.” Usually it’s the Big Egos that are having a problem with Selfies, exactly because they are always struggling to prove themselves. They avoid to take Selfies (and criticise who does), or try hard to put into their Selfies, the evidence of their self-Greatness. In any case, authenticity is not something that interests me by default but only in relation with “The Database” I was referring earlier. In simple words, it’s great to be authentic in comparison to - let’s say, the work of Rubens. But it’s of no importance to be simply authentic (unless you find some way to represent authentically the “little self”. In that case, you would be doing amazing New Naive Art).

KD: In this light, how do you frame your own performance-as-content of the 4th Internet Pavillion?

MM: Performance... only very few from all those the people taking Selfies are “performing”. Performance requires a public that’s in a dialectic relationship with the performer and most people who are working on Social Media, do not know how to create that kind of relationship with their (Social Media) public. A few - such as Amalia Ulman - are very charismatic. Speaking about my own work, I think I am using performance as some kind of special “brush” for my painting. What has always interested me the most, is not life (performance) but that very peculiar state of half-life that we call “painting”. One if it’s characteristics, is that it will always end up “still”: it doesn’t move. I remember a debate I had with Hans Ulrich Obrist in the early days of Internet, when he invited

me to participate at his Museum of Modern Art/ Paris exhibition “Urgent Painting.” He insisted to exhibit there my Jesus swimming.com instead of a canvas, arguing that this website, is “the future of painting”. “But it is something moving Hans Ulrich,” I was objecting, “painting never moves.” Later, I understood, that even if a finished painting “never moves”, an unfinished one, the material for that painting, can be very well be in motion. I realize now, that curators such as HUO, like the amateur artists they are, are more interested exhibiting material for art rather than finished works. That’s also why I start trusting more my Internet experimentation and I decide to give it the time it takes to “become painting.” For the moment, it’s a performance, as it happens, I am “killing it” through documentation (via my Manetastimeline on Facebook), pretty much the same way Marcel Duchamp was killing his ready-made by reproducing them and putting them in little arty suitcases. Once Time will finish it’s job, I hope all of that will become a simple (and quite boring the way Da VINCI’s landscapes are boring), flat half-life of a painting.

KD: In the 2015 Internet Pavillion of the Biennale di Venezia you choose to personally leverage self broadcasting and performance, claiming to be merely ‘looking,’ but you want/require us to watch you looking. How does our gaze contribute to your purpose?

MM: “Looking at the Internet” is also a self-portrait. You see a person looking at the Internet. I had Rembrandt’s self portraits on my mind while I was making the work. Also, it’s not just me.. There are other people who I also invited to look the screen too...

Like most of my works, it's only the beginning, this piece will go one for a long time. It will register many faces and many changes.

I project my face on this work, not for what it is at this moment (just the face of a guy), but as it could become in the future: the face of the artist. When we look at Picasso today, we don't see Pablo-the-man that his friends and relatives used to recognize and like or dislike, we see quite a readymade, a cultural object. His eyes aren't eyes, they have become dots the same kind of dots Damien Hirst is selling. The face of an artist, becomes part of the general landscape, that's why I am putting mine there so exhaustively.

KD: Why do your subjects always look into and out of screens?

MM: this question could be very well turned into a conceptual work of mine: "Why Do my Subjects Look into and out of Computer Screens?"

KD: Why do you paint selfies?

MM: "I don't think it's me painting Selfies, I think it's Selfies that are painting themselves" (from a not-yet-written chapter of "The Autobiography of a Mnem")

KD: In your painting of a selfie, I see your intervention as perhaps time-shifting the image, which otherwise naturally resides within an inexorable flow, receding further and further from our current frame of attention. What relationship do you see between selfies, paintings and time?

MM: [as yet no answer]

III. Interview with Amalia Ulman, conducted through a shared ‘Google Doc’ text document, 2015.

KD: Miltos Manetas suggests that you, above all other Internet artists, are able to create and perpetuate the ‘aura of the selfie’. What do you understand by this notion of ‘aura’ in your work?

AU: This is something I’ve always been very interested in, because that’s something I believe in. I think aura is what transforms craft or graphic design into art. I’ve always used self-portraits as diaries, as unstaged photographs that contain a story. So for me, these images trigger memories of certain episodes of my life and I think that makes the images stronger. This is what Miltos referred to. Aura, for me, is depth.

KD: You have spoken of the “normal” as a core element of your work, and the dedication to its fabrication is the toil of your practice. What is your relationship to authenticity in your work? is this applicable to the selfie in general? or the photograph in general?

AU: It depends on what you are referring to, the pictures of the project *Excellences & Perfections* were intentionally fabricated, scripted; the photographs I upload to my iOS Photo Album are not intentionally fabricated, even though, as I said in previous essays one is never free from social constraints and some sort of expectation or need for validation. Whether one likes it or not; the only authentic facebook is the one that never happened.

KD: Through your title “Perpetual Provisional Selves” you allude to notions of the post-human or a contemporary networked state

of being, which is simultaneously affected, fragmented, and augmented by the prostheses of the technology (devices) and related platforms of communication. Can you discuss this further? Do you see only your fictional social media persona shaped in this way, or is your artist-self also subject to this process?

AU: That's a text I wrote in conjunction with Rob Horning so I will give him credit for that title :-)

My own perception of my online self includes my real life as well as it's supposed representation on the internet, so my interpretation is biased. But I know for sure that most people interpret who I am only by the things I post, which has always been intentionally misleading. In the case of the project, because it was a fictional narrative, in the case of my other photographs, because my own life is difficult to grasp or contain in the structure of a Facebook Timeline, and I use this apparently genuine day to day photos for a broader narrative.

KD: Your work is reminiscent of previous works in the genre of alter-ego, Lynn Hershman's "Roberta Breitmore" series comes to mind. Yet without the explicit adoption of an 'alter-ego', it is at once 'pretend' and 'real life' – can you talk a little about the boundaries of your work and your life, or your persona and your self? How do these both then relate back to the artist Amalia Ulman?

AU: Well, *Excellences & Perfections* was a fiction with a beginning and an end, a story I wrote. Because I was working on other things at the same time (the solo shows *Babyfootprints_Crowsfeet*, *The*

Destruction Of Experience and *Stock Images Of War*), I limited the production of these images and consequent role playing to two days a week. I'd produce enough material to upload during the following days, keeping the photos in folders, so I could allow myself with enough mental space for other things that I considered more fulfilling.

My iOS Photos, on the other hand, is more related to my real life, or what I'd like to consider as my fabricated genuine self.

You hold the power to bring a deliberate end to this performance, how do you approach this inevitability in the work?

AU: Well, it was all about making a point; and this point was the possibility for fiction in social media. Once this was done, I could consider it as finished and move on. In this case, which I consider as a ground zero, the tools were rudimentary: I made it credible through the use of stereotypes. In future occasions I will be able to play creatively with more freedom.

KD: The selfie is a complex image, it manages to play a double act, disrupting traditional binaries of gender. Is the selfie a potential tool for gender dissent?

AU: What I think is important here is the power one has over one's image by taking the photograph oneself. This is something I used to do way before I had a smartphone, when I was very young and used a digital camera with a timer.

Because there is a history of male artist/photographer vs. female muse, I think it is of relevance to be able to portray oneself. And

it is funny that despite the amount of women doing this, very gracefully, men still feel the need to legitimize this practice; like Richard Prince printing all those instagram selfies, like many male photographers who approach young girls to get their picture taken... even though they are obviously good at doing so already.

KD: It's interesting that you mention these patriarchal power structures, and they are tied to the notion of audience and the male gaze. Despite the empowerment of choice and action, selfies, and yours deliberately so, still tend to reproduce patriarchal feminine stereotypes, are you conscious of internalising the (male) gaze and aligning your image to the demands of a male audience?

AU: Yes, what I just mentioned is only a part of it, an important one but not the only aspect of a female selfie. Those photographs I said I took when I was very young were deeply influenced by what reached me through the media. I had no idea what the male gaze was, but, in my ignorance, I'd embrace it happily.

So the first step is to take control over the tools. The second one to take control over the gaze. But how do we do this?

When I dance I'm told to elongate, to make the moves elegant because it looks better: to who? To the audience? To myself? In the mirror? In the camera? I like a better posture better, yes, but because I have a genuine attraction to it or because I have been conditioned from a very early age to consider grace as something beautiful and worth admiring.

I tried for the selfies in *Excellences & Perfections* to exaggerate the requirements of the male gaze to a repulsive extent, and very

successfully the images got more complaints than compliments, which I considered an achievement of sorts. The artifice was uncanny.

My other portraits, I use them as diary entries, so they are not made for an audience as much as they are for me to keep track of feelings, to print them and keep them in albums; most of these images never see the light and stay within the walls of my room.

Do they align themselves to the demands of a male audience? Some do, some don't. Most of the times, when I upload something is to conceal a secondary intention, whether it is a lack of authenticity (all my real-time post have actually been uploaded with a delay of 4 months) or as a strategy for attention diversion while I'm scheming something else.

KD: You often capitalise on established canons of beauty in your work as a shortcut to a narrative or merely in order to bring them to the surface. What or who has inspired your own personal idea of beauty? Intertwined with the narrative there is also always a 'mere image' to be consumed on the surface, are you conscious of your portrayal and perpetuation of body-image?

AU: This is difficult right now because I'm 26 years old; which fits with the kind of woman allowed to be portrayed in the media. My idea is to keep on photographing myself while pregnant, while ill, when I'm in my deathbed. To me, Hannah Wilke's early self portraits only achieve their true meaning when taking into consideration her Cancer series "Intra Venus".

I grew up looking at mainstream fashion magazines and hearing my mom quoting Kate Moss infamous “nothing tastes as good as skinny feels”. But one thing is what I know is considered beautiful for the mainstream or what I personally consider beautiful, which most generally falls out from the norm. Either way, I’m very conscious of the perpetuation of body-image stereotypes, and that’s why it is a work in progress: I haven’t finished yet.

KD: Earlier you mentioned the female muse. In Miltos’ portraits based on your selfies, you have a more active role in determining your representation as you have already produced (and sanctioned) the original image. How do you see your (Miltos’ and your) version of this classic ‘Male artist/female muse’ paradigm? How is authorship distributed in this system?

AU: If I’m honest, I’ve always felt uncomfortable with these paintings. Not because of authorship: once I release an image it can be used in advertising, it can be transformed into a pencil drawn fan art portrait, it could be put in a collage without my head in it, it could be printed to piss all over it. I’m all up for appropriation and replication but in this case, what I’m scared of, is that even when I’ve already considered these images as artworks myself, Miltos could become a legitimating actor. Which I don’t think should be necessary.

I’ve never been a muse and I very angrily refuse any attempt to be misread as one.

I don’t think selfies necessarily represent vulnerability, but then again, it depends on the photograph; as in every single portrait in

history, there are powerful, weak and even pathetic ones. In my case it depends on what I'm going through at the moment.

KD: I read vulnerability into the bathroom selfie or the bedroom selfie (of both male and female authors), because the subject is often alone and revealing intimacies not only of their body, but also of their surroundings, so I see selfie image as 'feminine' in this way. And then immediately after that moment of intimacy comes the action of the projection into the social network, arguably a classically masculine act of domination and assertion. So is the object of the selfie perhaps transgender?

AU: I think is misleading to do a parallel between vulnerability and femininity. And the act of sharing to masculinity and assertion. This could be turn upside down to other misleading stereotypes such as vanity is mostly a woman's trait.

KD: Of course, (forgive me for my gross application of stereotypes to make facile arguments :) but I don't mind raising the issue of culturally coded gender in the semiotics of the web.

AU: Well yes, it is very interesting how gender online becomes an algorithm and how the internet would determine your gender through your searches.

KD: Clearly this discourse relates back to the notion of the 'self'. It seems that your position (in feminist theory) is very close to Julia Kristeva's post-modern theory of the self as "questionable-subject-in-process", or rather, a multifaceted, non-fixed entity cognizant of the influence of semiotics on its construction and perception. (From *Tales of Love*, Kristeva, 1987) Also, Sayla

Benhabib has spoken of the autobiographical narrative as an essential element of identity construction, that notwithstanding the multiplicity of voices within (non-coherent) and the diverse perspectives of the same narrative from without (friends, associates who see the story differently), the narrative can still reinforce a notion of ‘core-self’. Do you agree?

AU: How can we understand gender in perspective to self-making?

I’m familiar with Kristeva’s writings but sadly, I haven’t read anything by Sayla Benhabib.

I’m currently very interested in the fabrication of autobiographical narratives or most plainly put, diaries. I’ve wrote a piece for the New York Times about diaries with the help of Emily Stokes... it ended up being about diaries and history, which will lead to a video essay I’m working at the moment with the working title “The Annals Of Private History”. I totally agree with the the idea of within and without narratives taking an essential part on the core-self, it is not so much about the things that actually happen to us, but what we think happened: this is why sometimes images become memories, the same with dreams.

I have very crisp memories of my childhood and then I realise that this is because these events were recorded in VHS.

It is not about finding oneself but creating it, and gender is part of this self-making, and this construction is fluid, built day by day; changed by experience.

KD: The young-girl framed as an engendered object of late capitalist society – an identity colonised by capital (Tiqqun)– as you have often stated, is constantly labouring to meet the requirements of the naturalisation of femininity. The selfie, in this ecosystem, can serve as both the evidence and reward for these labours, yet the illusion of effortlessness of the medium can be misinterpreted (as your own work has sometimes been underestimated...) Can you talk a little about this and how the notions of power, gender, feminism and vulnerability emerge (or are submersed) in your work?

AU: One of the main ideas behind the project was to point out the hidden labour in the fabrication of femininity, to throw light over the constructedness of things like #nofilter and “I woke up like this”.

The feedback of a selfie functions a sort of payment because we live, more and more, on an image based economic system. The problem is that exponentially, the tools that we have nowadays not only have provided with a shortcut for the production of 2d, but have also managed to erase any time for contemplation. The best example is w: the images live by themselves and the text is almost non existent. This is tricky because it is not true that an image is worth a thousand words, it is worth many different combination of thousands of words, the interpretations are endless.

And that makes things complicated if one’s trying to convey a message or a narrative through the visual only.

That's why in *Excellences & Perfection* I used the techniques of silent cinema, every gesture was very exaggerated so people could follow without the need of a verbalised script. So femininity was exaggerated to, as I said before, point out its constructedness.

This is why it was easier for women to understand the project, because they instantly got the whole roleplaying factor, because they themselves have been taught to behave in different ways and be comfortable with shapeshifting from an early age.

KD: When is a selfie not a selfie? What qualities intrinsic to a selfie are the most significant and distinguish it from other forms of photography? Are you conscious of the criteria you exercise in choosing your selfies for publication? 'Delete': does this eternally possible fate of the image affect your practice, and how? Can you share and explain a previously deleted image with me? Can you recall an image that you discarded merely because it didn't conform to the 'canons' of the selfie genre?

AU: I don't think I ever chose an image to fit into any criteria, specially not a selfie genre, I think that was mostly accidental. I've used self portraits before and this is what happened when I had an iPhone.

I chose photographs when they make sense, when they help construct a sort of narrative or convey a series of emotions in them. It is not about looking beautiful but about making sense. I've only deleted images that don't bring anything new to the table, that would just entail a narcissistic ego boost.

KD: ‘Like’. Can you talk about how you incorporate this feedback loop of social media into your practice? How (if at all) does it affect you personally?

AU: Likes have an intrinsic value to them, like money. In the case of the project it helped quantifying the followers validation and interest on the images. The more likes the better it was for the narrative because this meant it was working, it meant that the manipulation was turning out the way I wanted. In this case it didn’t affect me personally because I was sincerely detached from the images. In other cases, as I said before, likes are like money, and I got my “first salary” when I was a teenager and was hooked on the preliminaries of social media. After that first experience, I’m not really impressed by likes anymore, especially not as something emotional, I see it more as a number that a bot can produce with ease.

KD: #hashtag. Can you tell me about your use of the meta photographic elements such as the #tag as a narrative or contextualising device?

AU: The hashtag, in the case of instagram, is the footnote to a photograph. This is an anchor. Like every other footnote it guides but also limits the possible meaning of the image. But can be something playful too, like with words, you can combine them in a metaphoric or an ironic way.

In the case of E&P the hashtags were used to bring certain audiences in my field, so I’d emulate the hashtags the girl I was supposed to

be, would use. So in that case they were use for algorithmic search purposes, to target different audiences.

KD: “As early as the sixteenth century, writings on art warned that the portrayal of ordinary, unworthy people would simply degrade the idea of the portrait” (Gen Doy). Does the artist’s self-portrait still endure, or is its role diminished, negated, surrendered, in the face of the deluge of the mass-projection of self that we have seen in the last decade?

AU: The access to cameras doesn’t make everyone a photographer, the same way the common use of the pencil doesn’t make everyone an excellent drawer.

KD: Of course, and vernacular/domestic photography is testament to that (and luckily family albums of the 20th century were mostly relegated to the drawer :). But the ordinary person actually did not photograph themselves before the turn of the millenium.

AU: Maybe because it wasn’t mandatory socially speaking. Only artists were supposed to live off their image: actors, singers, celebrities. People from other professions and backgrounds weren’t expected to meet this requirements. Is only new capitalism the one exploiting this idea of the commercialised self. It is a must to “be oneself”, “be authentic”.

KD: Is there a contradiction or struggle in the selfie between its potential to fashion a constructed identity and its need to be authentic?

AU: I think there is, because of the requirements of social media, and this is what makes these images interesting.

KD: With one of the primary distinguishing characteristics of the selfie being its immediate distribution and networked-ness it has meant that a practice (photographic self-portraiture) previously privileged as domain and pursuit of the artist, has been commandeered by social networks in a relatively short time frame. The quantity of selfies taken in any given year vastly outnumbers the entire accumulation of portraiture or self-portraiture of humanity (preserved in museums, galleries, collections, archives) up until this point.

AU: But I think this is merely the natural progression taking into account the development of image economies.

As such, the cult of the photographic image started only in media during the turn of the century, (19th-20th). Up until then women hadn't been subjected to much comparison to what was supposed to be beautiful or not. It all began with the first advertisements. Then the cult of the self and self-representation got to its peak in the 60s and 70s where individualism was romanticized. Till then, yes there were cameras around, but people weren't really monetizing on their individuality.

So I think this slowly fell into place when the internet turned from being text based to image based and also a place for exacerbated individualism. As soon as people were forced to capitalize on their image (a profile picture is almost mandatory to participate in social media) a boom in self portraiture took place. Does this make sense?

KD: I remember when I used my first Brownie camera I certainly wasn't looking at hundreds or thousands of remarkably similar images all taken and shared at the same time, instead my behaviour was local and most certainly unremarkable, it was also less informed of stylised tropes than today's teenage selfies.

AU: I see this as a change in currency. The same as when Europe, for example, had to adopt the Euro and we all had to go through a transition from pesetas to the new european coins and notes, now there is an imposition on participating in image economy or being left behind.

Because this sort of representation is not only vanity based: getting a better job relies on the amount of followers one has, the likes a profile picture gets. The background of one's selfies become a commercial strategy as they turn out to be signifiers of class.

KD: To use Rob Horning's term again, perhaps the notion of "Perpetual Provisional Selves" has changed our temporal perspective of ourselves too? By this I mean that in previous eras, the self-images or self-portraits we surrounded ourselves with were more detached from us in time – taken last week, last month, last year, even earlier... – so we were looking at consolidated past versions of ourselves, whereas now the images we surround ourselves with we are more 'present-day' or 'now' selves. Do you see this as an elision of our history? How does this affect our imagining of ourselves? When effected on a mass scale can this alter our perception of human history?

Well, it is interesting that you mention this because, while I was doing the performance, my “real” interactions stopped but I kept on photographing things for research purposes, only they never saw the light, they just went to a folder. When I finished the project I had all these images archived and also my relationship with social media was more detached than ever. Then I had this idea to play with the time, a factor most intrinsic to social media. Then I would mock the idea of instantaneity by uploading and tagging myself in this images chronologically uploaded with 4 months of delay. I’d check in New York while being in London and so on, while keeping the cadence of social media: daily uploads and repetition.

And it is funny how “fake” these uploads seem, how fabricated they become just by changing that factor, the real-time factor. Even when these images are “candid” shots of my daily life I still feel like a massive manipulator and the detachment from these images is immense, compared to the attachment one has to them when uploading them right after capturing the images (which is the most common way of dealing with online uploads). It is interesting how, because of the general acceleration, 4 months seem like a long time ago, a different life. My “now” self is actually my “past” self.

But it is true that this culture of the update has made us value only the “latest” thing. The newest upload is what counts and what becomes the truth. New= truth.

III. Interview with Petra Cortright, conducted through email exchange, 2015.

KD: You have always leveraged the meta-data of the digital artefacts you produce, such as in the keywords for VVEBCAM and the #tags elsewhere. Can you talk about the use of this type of semantic language in your work for narrative, currency or rhetoric?

PC: The use of spamwords to title my works, or to elaborate on Youtube posts, or to even constitute works on their own is similar to the way I work with software, images, found icons, etc. I make the decisions to include or arrange things very quickly -- it's not meant to manipulate data or increase my visibility, really, it has more to do with creating a sense of spamminess around the work that displaces it from being a precious, non-internet object. A lot of the time I'm interested in the simple beauty or poetry in something like a spam list, more than the fact that it is "spammy" or violent or aggressive.

KD: Your work presents us with the performance of 'Petra Cortright,' how does this persona relate back to Petra the artist and then Petra the person? How do you distinguish the subjects and distribute the social media feedback, (if at all)?

PC: Everything I make is made by me—I don't see the video render of me as a separate entity or persona—just a fragment or a portrait of me, Petra, the artist, the person. Social media feedback to me is about the artwork when it's useful, is about a perception of me when it's not about the actual artwork or the feedback is lazy.

KD: Especially with your ‘girl-core’ youtube performances, you deftly negotiate authenticity within the language of projection of self. Do you follow any internal rationale or dogme in the production and release of these works?

PC: There is no dogma, and the internal rationale is very oriented toward attitude, instinct, and feeling. Especially when I was younger. Earlier in my twenties I used webcam videos to, in part, play with different aspects of my personality I was feeling out. The “girl-core” videos were about negotiating putting my likeness up on the internet to be viewed anonymously, but also about matching it with an attitude and perspective of awareness, coolness, some aloofness, playfulness, some toughness. Those are all values and attitudes I consider part of my “authentic” identity, but separating them out into chronicled video works was very situational back then. These days, when I do make a video, there’s still an element of that, but the motivation is less impulsive, more considered, and I do many takes before I settle on one that I like the most. There is no real score or script for these videos, so I’m always working with all of the imagery and contents as I go, much like how I paint.

KD: Does the artist’s self-portrait still endure, or is its role diminished, negated, surrendered, in the face of the deluge of the mass-projection of self that we have seen in the last decade?

PC: For anyone interested in portraiture, I think the self-portrait itself will always serve its very specific purpose of providing a sliver of insight into how the portrait-painter/taker/maker perceives either the whole of themselves or a facet of themselves. I don’t think the number of selfies that exist now can alter that function.

Of course, objectively, some are more interesting or provide more insight than others. Some are made really banal in their sheer number -- but then again, that's kind of indicative of the times.

KD: You adopt the “normal” as a core element of your work. What, then, is your relationship to authenticity in your work? Is this applicable to the selfie in general? or the photograph in general?

PC: I view my work as authentic in as much as I don't approach the selfie or the subject of portraiture with a set attitude or ironic perspective, nor do I perform a planned persona for those works. If a persona comes across, it is a “genuine” persona which arises from the moment in which I'm recording, or is drawn out through the other iconography or images which accompany mine in the video. However, any selfie or webcam video is always me, it's always me just showing up, making a video, doing this thing that thousands and thousands of people do every day now—sometimes with an element of performance and sometimes not. I think that is, in way, perhaps redefining what “normal” on the Internet means.

KD: This ‘normality’ can be seen not only in the subject/performer, but also in the use of common tools, or vernacular formats, does this become in itself an important element of your work?

PC: The webcam video is pretty commonplace at this point, though it wasn't when I started making them 8 years ago, only in the sense that computers and other devices didn't really come with them built in at that time. Cameras are much more readily available

now. Like I said before, the context and frame often dictates how weird or how normal something is being perceived when placed on the internet. I'm not sure this carries over with placing selfies/webcam selfies in the gallery, however -- that is a place that sort of automatically fetishizes an object, so "normalcy" is never really just that, it's always someone's wink at normalcy or their adoration of an aesthetic.

IV. Interview with LaTurbo Avedon, conducted through the chat windows of Second-life (virtual environment platform) and Google chat, 2015.

KD: For our appreciation of you and your work (you) 'creation' has a particular connotation, the 'you' you make for us is the only you we know, yet we also require a consistency, a time-related logical sequence, otherwise you risk slipping out of the identity we associate with you. Where we understand intrinsically that there is a potential for arbitrary visual association related to LaTurbo (ie. the skinning of your identity) we actually have a narrow spectrum of 'LaTurbo'-ness. How restricted (or otherwise) – pictorially speaking – do you see your self?

LA: I do agree that as I have created my own character I have pencilled myself into a specific frame of visual qualities that have come to represent 'me,' but I think that social media and my networked engagement has allowed that set to constantly be in motion. for example when I moved from second-life into external renderers, I removed many 'familiar' attributes as I rebuilt my new

format. but as I do this in a social network it has the same change as someone dying their hair from brown to blonde. at first it is jarring when you see them on the street, but with the timeline you see the post of this change, and in turn have a series of markers to understand the progression. tomorrow I might decide to only be a created character in Mass Effect, but as people see this new visual identity in my sequence, it will become natural as I continue to make my posts.

KD: So you see it as a progression like a timeline or do they remain as simultaneous fragments of your self?

LA: I don't think that one ever overwrites another, nor does one have a more significant quality than one before it

a person IRL essentially has one primary representation (physical body [for now]), and this creates all of the changes in their timeline. for many of my images however, they are pulling from various instances of character creation that have been made over the past several years. I may not log into my saved game in mass effect for a year, but I exist there exactly as I did of course. when I finally logged on to my SL after quite some time, I realised I was still the butch, waspy male that I had created years before :)

KD: You are a time-traveller.

LA: exactly, I think that many many more people are going to be able to have these sorts of digital revisitations in this next wave of tech geocities/aol sites were a fairly small batch of pages made, but I think a lot about how many people have built entire worlds in

things like minecraft, or spent hours killing and driving themselves to a current state in gta

strange legacies to have around on the hdd

i would love to see our future selves log into these same platforms again in 20+ years visiting 2015 minecraft places in 2050

KD: I am also interested in your work as curator, how do you see the self-portrait from this more abstracted perspective?

LA: abstracted in the ways we've talked about?

KD: how do you see IRL artists' self-portraits? as influenced by selfies, SL, instagram and so on..from a curator's perspective (looking at the emergence of a movement, as it were)

LA: I think that some of my favorite IRL self portraits are made plainly with the tools of their time, because all of that will change. the selfie now, taken with an iphone6 plus, will hold all of its temporal qualities in the way the image was made. i'd much rather see these unabashed images than ones that quietly call back to a time they don't belong in.

KD: does the artist's self-portrait still endure, or is its role diminished, negated, surrendered, in the face of the deluge of the mass-projection of self that we have seen in the last decade? and why does Google search only return the classic painted/drawn self-portrait for 'artist's self-portrait.' Where are all the selfies? Where is LaTurbo?

LA: i'll answer those in two parts, I think they are really important questions. I think that there will always be a placeholder for someone to create a "self-portrait", because genres are essentially becoming hashtags. over the next few decades I expect "art" to be an incredibly saturated topic to address, and I don't necessarily know how we will demarcate what "self-portraits" will stand out from the stack.

as for the second point about the search results, I think that our search ranking models reflect a moment of the internet that isnt really where we are now or where we will be again any time soon. search engines are slowly catching up to the 'personalization' of what they show us, and it only makes sense that as time goes on these will display a much more dynamic/current arrangement of their queries

KD: mathematically speaking you are right, but you cannot elide the human role, the 'computer' does not act autonomously

LA: the human role in returning results or in both responses?

KD: in the composition and prioritisation of the algorithm – ultimately it is limited by our prejudice and imagination²⁸¹

LA: you bring up a really major point, the bias that an algorithm may possess even if we didn't intend for it. It's sort of like how facebook made the "your year" recap thing that it gave to all users,

281 Regarding search engines, algorithms and semantics: a search for self-portrait (with or without the term artist) in 2015 shows no selfies, nor photographic self-portrait. Google, Yahoo, Bing, Duck Duck Go and other major search engines have self-created this role as universal truth, dictionary, encyclopedia, and yet the cultural bias is still very ingrained as it stems from human coding.

and didn't understand that many users had really bad years that were automatically filled into the template. I think that curators have a really important time right now to address the changes of 'new media' and a lot of these digital transitions.

KD: yes!. Not until art-historians have correctly dissected, contextualised and attributed contemporary art will it be then re-presented by the algorithms of Google

LA: I think with examples like these it makes clear that curators, or individuals that do make academic/strenuous efforts towards the study of art, are very vital players in the way that we display it on the internet. analytics are very poor at judging qualitative things.

V. Interview with Mariko Mori, conducted through email exchange, 2015.

KD: I have always thought of your work as a forerunner to or early experimentation of the 'post-human,' with your avatar performances such as *Birth of a Star* and *Play with Me* experimenting notions of virtual identities. In subsequent works such as in *Nirvana*, *Pure Land*, *Burning Desire* and *Esoteric Cosmos*, I felt these avatars were becoming more assertive through replication and projection into esoteric surroundings. This led me to read your works that included pods, capsules or other enclosures (*Link of the Moon*, *Enlightenment Capsule*) as a 'chrysalis' stage in which the self was preparing to emerge.

From this perspective, your latest body of work *Rebirth* may be read as posing future possibilities or stages of being human. I find it fascinating that you have made them without using a human likeness, the landscapes appear uninhabited, as if waiting for someone or something.

MM: *Enlightenment Capsule* (1998) was the first work where self-portraiture was not depicted and transitioned to a three dimensional work. *Dream Temple* (1997-1999) is an epitome of progression to a concentration on the deeper consciousness. The works no longer required an actual body; rather it shaped a way to engage the viewer on a deeper consciousness. It is unknown to me if self-portraiture will reappear in future work. Though, most likely, I will be continuing to give performances rather than returning to self-portraiture.

KD: I believe the rapid and mass proliferation of the selfie includes the idea that we are seeking a connectedness with the other, as we test alternate identities. And perhaps we can read your own spectacular exploration of possible selves (in your early performance and portraiture such as *Birth of a Star* and *Play with Me*, and even *Tea Ceremony*) as having allowed you to satisfy that self-centered impulse, testing out the various personae you could become?

MM: These portraitures are images produced to express social criticism. It is a self portrait but comments on social phenomenon in Japan such as Japanese women in the society. *Simulacre of Reality* was produced by computer games, artificial environment which portrayed in *Play with Me*, *Warrior*, and *Empty Dream*.

KD: Do you think that we are capable of moving beyond this process of increasing self-awareness – as we come to know ourselves through the networked mass-projection of self-image – and if so, where will it take us?

MM: When you remove yourself from self-centered mind, you are able to realize the connectedness of the whole world. For example, 99% of all the races' DNA matches the entire base; we all came from the same origin. A unicellular organism appeared on earth as the basic forms that evolved to all the living beings on earth. The earth is a part of the solar system that relies on the sun's energy and our solar system is a part of a galaxy and so on. We should realize the connection and embrace the concept of oneness that we are part of the whole. It helps us understand that there is no separation between one and another.

Appendix C: Artists' image permission statements

The following permission statements have been collected from the artist participants of the chapter “#Me: the Artist’s Self-Portrait in the Age of the Selfie.” I extend gratitude to the artists Amalia Ulman, Petra Cortright, Miltos Manetas and LaTurbo Avedon for the concession of reproduction rights for this thesis.

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The Human Use of the Human Face: The Photographic Self-Portrait in the Age of the Selfie

Name: Petra Cortright

Works: Various, selfie series

Date: 30 November, 2015

Signed: _____

A handwritten signature in black ink, consisting of a large, stylized 'P' followed by a series of loops and a long horizontal stroke extending to the right.

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Miltos_permission



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Photographic Self-Portrait in the Age of the Selfie*

Name: Miltos Manetas

Works: Selfie series

Date: 30 November, 2015

Signed: _____

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Name: LaTurbo Avedon

Works: Various, selfie series

Date: 30 November, 2015



Signed: _____
LaTurbo Avedon

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The Human Use of the Human Face: The Photographic Self-Portrait in the Age of the Selfie

Name: Amalia Ulman

Works: Various, Excellences & Perfections series, Instagram #selfies

Date: 30 November, 2015

A handwritten signature in dark ink, consisting of a sharp peak followed by a horizontal line that ends in a vertical drop.

Amalia Ulman

Signed: _____

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