



Issue No. 26 — Thinking in the Arts-Science Nexus

External and Internal Topographies: Art on the Uncanny Limits of Scan Technology

By Fiona Fell

Introduction

My training as an artist is firmly grounded in the traditional practice of figurative ceramic sculpture, with a track record of 20 years of solo and group projects and exhibitions. I have also reflected on my profession in residencies nationally as well as abroad, achieving funding to do research in art institutions across Australia, Asia, Europe and North-America. I have passed on my experience and professional concerns by teaching at the university level for two decades now. As a result of this interplay of practice, experiment, investigation and reflection, nowadays I break through the confining skin of ceramic sculpture in multiple, expansive ways. One increasingly important new stage in this process, which I will comment upon in this essay, is to explore the inner landscapes of my pieces by means of medical scan technology, so as to reveal their quasi-human interiors in a process of uncanny resonance with the apparent discreteness between artist and art work. These scan photographies and footage trace the creative tension between artwork and artist in ways that blur and question the self-evidence of their mutual embodiment and environment, the hospital environment constituting an adequate space of existential dis-ease in which such tensions can be revealed. I attempt to go beyond the mere surface of my body of work and my body as an artist to reveal new spaces which I see and experience as productive in their marginality and extraneousness to traditional art forms in clay. The first half of this paper gives a brief history of scanning technology and its postmodern, deconstructive uses in the arts precisely by its ability to see below and beyond the surface of tangible, material reality; the second half of this paper assesses my own location in the art-science dialogue.

Scan history and art

Scanning is the process of making a radiograph, the production of an image on a radiosensitive surface by radiation beyond visible light so as to penetrate hidden, deeper layers of a body, animate or inanimate. It is the application of a non-standard form of energy to reveal and capture a different, transparent aspect of what we normally perceive as stable, opaque matter in the real. From the discovery of X-rays in the 1890s, scanning has been primarily used as an analytical tool of diagnosis, both of animate and inanimate matter. What is lesser known is that the technique soon found its way into art conservation to reveal and identify the processes and materials by which a work has been made so as to establish its date and place of origin and enable its repair and conservation, two examples of which are shown in Figure 1. Scanning would also soon be employed in a productive-creative way rather than as an analytical tool in art, employing the technique to generate an ambiguous, multi-layered sense of reality and materiality. As Linda Dalrymple Henderson comments, "by pointing to the limited extent of the visible spectrum, x

rays established unquestionably the relativity of perception and turned the attention of artists away from the visual world towards an invisible, immaterial reality" (336).



Figure 1: Conservation X-rays at the Museu Nacional d'Art de Catalunya MNAC, Barcelona.
©Fiona Fell 2015

Artists of the first half of the 20th century eagerly latched on to the new techniques of visualisation and incorporated these into their art practice. The list includes László Moholy-Nagy, Pablo Picasso, Alexander Rodchenko and Man Ray, the latter famous for his "rayographs": contact printed photos that turned everyday objects into an uncanny "otherworld" of light-inverted shadows, as can be seen in Figure 2. [1]

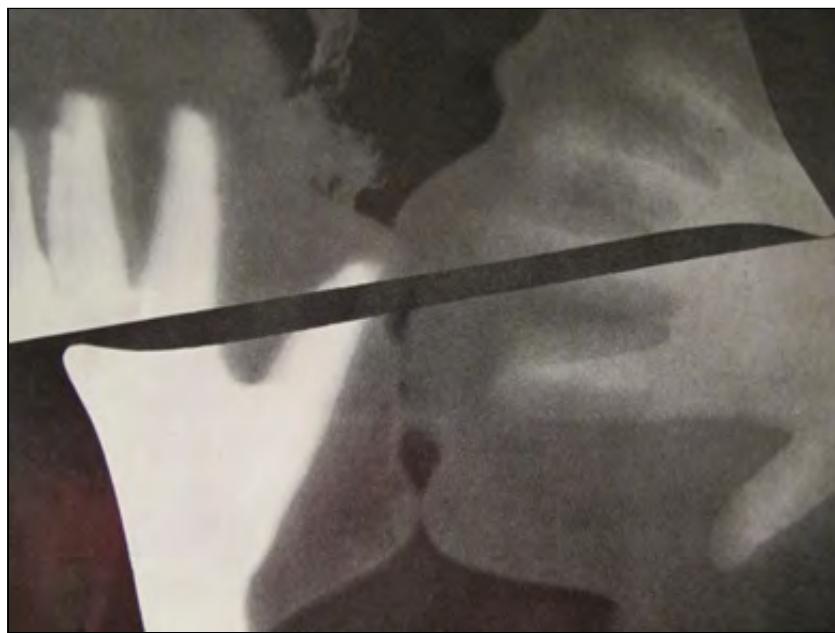


Figure 2: Man Ray, The Kiss 1922.
<<http://www.wikiart.org/en/man-ray/rayograph-the-kiss-1922>>

These artists' experimentation with the extra-ordinary, multi-layered shadow worlds created through scanning led the way to the breakthroughs of the post-war years, as in the work of Robert Rauschenberg (1925-2008), who created art out of his own "shadow" with *Booster* (1967), which featured a six-foot-high X-ray image of his body (Figure 3). It was the largest hand-pulled, single-

sheet print ever made at the time, and challenged painting's dominance as a medium. Born out of Pop-Art's penchant for the reproducibility of art, "Booster" remains one of the most significant prints of the twentieth century, a watershed that catapulted printmaking into a new era of experimentation," taking art's unique essence, its "aura" as Walter Benjamin conceived of it, into the realm of the shadow (Babington).

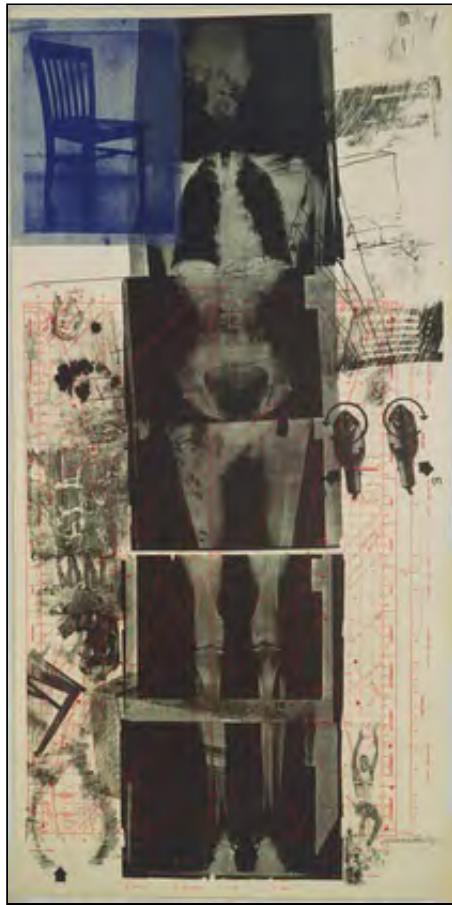


Figure 3: Robert Rauschenberg, Booster 1967.
[<http://www.moma.org/collection/object.php?object_id=78248>](http://www.moma.org/collection/object.php?object_id=78248)

In contemporary art, artists employ diagnostic scanning techniques to produce creative art work. They pick up on the boom in imaging technologies to open up inner spaces, be they animate or inanimate, often in conjunction with the real-time visualisation of movement within that space: ultrasound, computer tomography (CT), magnetic resonance imaging (MRI), functional magnetic resonance imaging (fMRI), endoscopy, positron emission tomography (PET), electron microscopy (EM) and angiography are at the sophisticated foreground of current diagnostic practice. The emergence of these new techniques of visualisation is of profound importance in terms of the conceptualisation of embodiment, which becomes process rather than state, and so moves into the performative (Laki 36). Artists have realised these visualizing techniques' creative potential and incorporated them into their artistic toolkit and vocabulary as part of an on-going investigation into the multi-layered nature of reality. Medical scan technology blurs the discrete boundary between the artist's body and the body of art, turning these bodies inside out and confusing their contents. In a critical discussion of contemporary art work employing medical imaging technologies, Renée van de Vall posits that:

In postmodern visual culture the body is no longer the obvious and natural boundary between the objective world outside and subjective inner experience. The body has become a fluid and hybrid zone in between inside and outside, just as changeable as other cultural artefacts, just as thoroughly determined by representational conventions, just as liable to manipulation. (van de Vall)

Many scan artists come from a photography background (e.g. Hugh Turvey, Nic Veasy, Mark Penhale, David Meisel and Marilene Oliver), a medium that shares obvious properties with scan technologies in its two-dimensionality, wave-length sensitivity and capture of “reality.” For these artists, scanning has been, therefore, a natural development in their careers. Most contemporary artists work with scan technology to probe deeper into the surface layers of everyday reality and replace these with a multi-layered continuum of meaning, in which the scanned image becomes the end product of the artistic process or constitutes itself as an element of a larger installation inquiring into the nature and identity of inanimate and animate bodies.

David Meisel’s museum scans, such as the *History’s Shadow* series (2011), blurs the inside and outside of the art object by transcribing both the inner and outer surfaces of these bodies simultaneously, as is evident in Figure 4. His shadowy, spectral images of indeterminate space, depth and scale sit as an aura in the grey in-between areas of the photographed layers, which in turn affects our perception of time and “penetrates the classical uncanny” (Domus).



Figure 4: David Maisel, History’s Shadow series 2011.
[<http://www.domusweb.it/en/art/2011/04/26/history-s-shadow.html>](http://www.domusweb.it/en/art/2011/04/26/history-s-shadow.html)

Yet, Marilene Oliver, originally a photographer and printmaker, works with medical imaging such as MRI and CT scans to create 3D forms. Away from the fragmentation and dislocation of the strictly post-human in the digital age, lately her work has evolved toward re-embodiment. It goes beyond the two-dimensionality of the digital image and aims for the productive merger of different techniques into 3D installations. Marilene Oliver’s installations, such as *Family Portrait* (2003, Figure 5) and *Fallen Durga* (2010, Figure 6), incorporate and subsume scan techniques in the dialogue between artist and artwork. My own work with scanning, based on the visualisation and recording of my sculptural pieces’ interiors and its interplay with my body in their making, relates to her project.



Figure 5. Family Portrait 2003



Figure 6. Fallen Durga 2010
[<http://marileneoliver.com/portfolio/byseries#familyportrait>](http://marileneoliver.com/portfolio/byseries#familyportrait)

It also connects with the oeuvre of the interdisciplinary Australian artist Justine Cooper, who employs medical and scientific scan technology to explore the body in novel ways and redefine identity and selfhood in all its social, cultural and scientific complexity. Her investigation is beyond the skin-deep and penetrates the superficial layers of representation that constitute our identities, such as hair-do and colour, skin colour, body shape and facial features, and employs digital imaging technologies to lay bare the cellular worlds contained in our interior biologies. This imagery beckons towards the uncanny in its appeal to the personal, individual and intimate while yet being so unknown and alien, setting off a process of defamiliarisation. The resulting art work, as in the sculptures *Trap* (1998) and *Reach* (2000) and the installation *RAPT II* (1998, Figure 7), unsettles the vision we habitually have of our body parts and ruptures our sense of self in its deconstruction through fragmentation and reconstruction through re-assembling.



Figure 7: RAPT II (1998), incorporates 76 slices/MRI scans to create Cooper's 10 metre long databody. The image is from the exhibition Probe: Explorations into Australian Computational Space, shown at the Australian Embassy, Beijing, China. <www.machinehunger.com.au/probe>

It is evident that the penetrating precision of scan technology in art questions and deconstructs reality as Modernity constructed it by laying bare a very different universe beyond the skin-deep. Nowadays, artists use X-ray technologies directly in the conception and making of their work, and as part of that art work, create shadow worlds that surprise the onlooker and solicit the steady appearance of reality: matter is no longer solid, permanent and opaque but becomes transparent, dissolves, multiplies and spectralises under the radiographic gaze. A shadow world of a ghostly appearance reaches out beyond the object's surface and person's skin and problematizes the discrete separation of inside and outside, Self and Other, the creative artist's body and the body of art created. What could be conceived of as the aura of the authentic, indivisible Self is haunted by an Other shadow that questions the Self's coherence and cohesion, and affects artist and art, subject and object, agent and patient, blurring their discreteness. Walter Benjamin saw the "aura" as that unique, singular quality of historical and temporal locatedness in its making that gives the work of art its authenticity, as opposed to the mechanised vilification of art in mass reproduction. Miriam Bratu Hansen summarises:

... the common understanding of Benjamin's aura [is] as a primarily aesthetic category – as shorthand for the particular qualities of traditional art that he observed waning in modernity, associated with the singular status of the artwork, its authority, authenticity, and unattainability, epitomized by the idea of *beautiful semblance*. On that understanding, aura is defined in antithetical relation to the productive forces that have been rendering it socially obsolete: technological reproducibility, epitomized by film, and the masses, the violently contested subject/object of political and military mobilization. (336, emphasis added)

What Hansen terms "beautiful semblance" is, at heart, the key to what is not art's essence but art's uncanny appearance: what parades as art's aura is, in reality, its ghostly shadow. In *Art and Its Shadow*, Mario Perniola moves out of Benjamin's materialist, dialectic conception of creation and argues for a veiled deconstructionist "shadow" rather than a dialectically envisaged "aura" as the quality that distinguishes art from the ordinary. On his view, the shadow is an elusive emotional repository of "the feelings of differences," a "remainder." In deconstructivist terms the remainder is "a supplement, a left-over, a super-addition of sense, but not an alternative, not an opposite, not the other side of a binary pair. A remainder is like a shadow, it follows around what it adds on to" (Silverman x-xi). The shadow, then, blurs the discrete distinctions between subject and object, mind and matter, the immaterial and the material: it both questions as well as pursues what it is associated to. Scan technology was first and foremost given a scientific purpose, as an instrument of precision to create light out of darkness, understanding out of indefiniteness, but one finds that in the arts scanning vaunts its deconstructive potential. In facilitating the multi-layered gaze, scan technology reveals art's diffuse, grey in-between area: the aura of art's uniqueness is no more and no less than the shadow of reality's multi-layered vagueness and ambiguity, the ultimate lack of essence and meaning.

Scanning in my artistic practice

Jonathan Lethem writes in relation to scan technology applied to art that "to see the insides and the outsides of things at once [is] to expose the falsehood of their division into a binary system" (2011), and it is easy to see that the process of looking beyond the skin frees us from the complacency of the exterior form and surface – it avoids what one might call "contemplacency," or the uncritical acceptance of outward appearances as the ultimate truth of being. Even before I started using scan technology, my artistic output, though constructivist in nature at that time, always expressed an emotional turmoil barely contained by its still clay skin, writing repressed areas of the Self back onto the sculptured surfaces, as Figure 8 may show.

Thus, Freud's investigation of the uncanny (German: *das Unheimliche*) as the unexpected expression of existential discomfort in familiar environments has been relevant to my own practice, as it has been to modern and postmodern art at large. The Freudian interpretation of the

uncanny flows from an analysis of Western art at the interface of psychology and aesthetics in the devastating, alienating context of the First World War. Freud defined the uncanny as a disturbing liminal space of experience where what is homely and known becomes unhomely and discomforting by the revelation of knowledge that was hidden and / or repressed (219-252). This sensation of alienation was precisely what was encapsulated in the art produced in the aftermath of the massive, mindless killing in the war trenches. The particular notion of fear and disturbance encapsulated in the uncanny is not the defamiliarising encounter with what has been repressed from an exterior reality but with what hides inside the Self. In other words, there is nothing new about the uncanny but alienation obtains when the repression of potentially disruptive, harmful knowledge fails. In Freud's analysis, the uncanny may feed back into either the maintenance or rupture of the status quo – it would be the psychiatrist's task to procure the former. Despite Freud's socio-historic and geographical locatedness, which writes into a white male middle-class paradigm (Cixous 525-48; Zizek 1-33), his analysis of the uncanny as a fringe concept where full meaning dissolves and blurs remains valid; the appearance of the uncanny is a relevant indicator of a disturbance or gap in the discursive definition of reality as we believe and perceive it; it marks shifts in perception, experience, power balances and discourse, and so signals the unsettlement of cultures and their traditions in multiple ways.

The trauma and psychological conflict uncovered in the uncanny has connections to my body of work and my embodiment as an artist. The clay matter of my sculptures, my "Little People," incorporates much in the vein of what Kenneth Gross describes as "[t]he madness of the puppet ... this creature that burrows out of shadows, into the light, a remnant of something" that lives in a strange world and yet seems to "know about our world" (1). As an inhuman double, the doll solicits our certainties from an uncanny vantage point. The particular site that I conceptualise and create sculpture projects in and from is postcolonial and postmodern: both Australian and feminine. Australia has prided itself on the class-levelling cults of mateship and the fair-go, but they obscure race and gender advantages for white middle-class males (Moreton-Robinson 66). What drives my artistic production nowadays is the postcolonial female gaze, as it dares to stare back and scrutinize, penetrates and unsettles the bare surface of reality, and chisels out female embodiment. By and by, scan technology has become instrumental in this deconstructionist process of contemplation.



Figure 8: Fiona Fell, Little People (2014). © Fiona Fell

My first, rather marginal exploration of imaging technology in relation to my sculpture was practice-led and took place in my collaborations with the academic, digital artist and painter Lyndall Adams. Lyndall Adams and I have worked together over five different creative outcomes, where each new show is an extension on the previous one as we continue to gain valuable insights into how we arrive at a work of art, how we manipulate unfamiliar materials

and tools and how we deliberately aim to intervene in the density and space that configure the materiality and non-materiality of our work. The conversation between Lyndall Adams and myself deals primarily with the translation of processes and materials. On the uncanny margins of differing disciplines we explore the potential for a rethinking of Self and Other. Collaboration between artists involves the interactions between bodies, performativity and emergence or becoming, and throughout three of the shared bodies of work – *Pause/Play*, *Save* and *Select and Reload* – notions of foreign bodies, of the stranger and possible estrangements have unwrapped debates on representation. Notions of embodiment as inter-corporeality were evident in the work with emphasis on reinterpreting the subject/object shadow in a conversation where the exterior and interior, Self and Other were free to speak (see Figure 9). In our projects, I did not yet employ an X-ray modality but a simple flat-top scanner. Flat-top scanning is only reproductive, surface-related and non-analytical, so entirely different from the revealing, penetrative, three-dimensional qualities of X-ray and CAT-scanning based on the use of non-visible radiation; yet, it became my springboard to the latter realm of technology applied onto/as art due to the three-dimensionality its imagery suggested. In the flat-top output, my scanned work kept a sense of volume as shadows were retained which reflected the curvature of the piece's coils.



Figure 9: Installation detail: One Night Stack 2008, a collaboration between Fiona Fell and Dr. Lyndall Adams ©Fiona Fell 2008

My curiosity into the realm of X-ray exploration was further enhanced by a literal instance of border-crossing and subsequent arrival, associated with the scrutiny of the male gaze: a security check at the airport when I travelled from one country to another, a limit space traditionally policed and militarized, an archetypal site of patrol and defence, an exclusive male terrain. In order to cross the frontier, my hand luggage was scanned and the on-screen image revealed, in challenging ways, the presence of the sculpture I was carrying in my bag. Fascinated by the novel sight of the same "old" object sitting as an unborn child in an externalised womb I decided that this inner vision deserved following-up. At geographical border-crossings the raced, male gaze penetrates the surface to reveal the hidden: people and objects are screened, turned inside out to release inner meaning, possible danger to porous borders is detected, secrets unveiled. The search for essence and truth runs up against the Freudian uncanny: what is repressed from ordinary, visible reality should come to light. In border-crossing situations we move from one into another symbolic order, while attempting to establish a discrete safe discourse of the Self against an alien Other. Yet, there is slippage in the transit of the liminal space that leads us from one order to another. I became aware that through the revelatory yet defamiliarising potential of the imagery generated by the new imaging technologies, old securities may dissipate, new ones put into place, both end up soliciting each other and establish fluid, ambiguous meaning. Rather than delivering an ultimate scientific truth or confirming an essentialist take on reality, scanning may dissolve the certainties that underpin our daily lives and help us find new meaning, self-expression and embodiment in art by the revelation of an uncanny shadow world that sets it apart from the ordinary, the mechanical, the reproducible. Thus engaged with the uncanny ambiguity of embodiment in cross-disciplinary practices and collaboration, I started developing my own research project involving scan modalities.

The material of clay has a similar density to bone so that, when X-rayed, an internal landscape is revealed and traces of fingerprints and imperfections exposed. These processes show a direct relationship between image and object, external and internal gestures, and it is this direct interplay that informs my current practice and research. I first employed radiographic scanning of my work as part of a project with a group of ceramic artists in Fu-Ping, China, for a proposed curated show called *Nothing to Declare but Good Company*, following up on a residency there in 2008.



Figure 10: Sculpture X-ray in preparation, digital image ©Fiona Fell 2012



Figure 11: Fiona Fell, Dual Densities, 2013.
Digital image from manipulated X-rayed ceramic work.
©Fiona Fell 2013

This exhibition never happened but paved my way into sophisticated forms of scanning. As an experiment I took one of my figurative works to be X-rayed in the radiography department of my local hospital, and this is how I started using a CAT (or CT) scanning machine to explore my work (Figures 10, 11, 12). The CAT/CT scanner is a so-called tomographic device which employs narrow beams of X-rays in two planes at various angles and thus enables us to produce computerized cross-sectional images of the body beyond the bone and cartilage, and so to include soft tissue. As this technology creates images that show slices of the work in 3D as a moving image, this – practice-led as my research is – would take me to video-recording exploits, producing some shorts with the Dutch-Australian filmmaker Raimond de Weerdt which explore the relationship between art, artist, embodiment and the shadow (*L' Interrupción* 2011; *La Obra Perfecta* 2013).

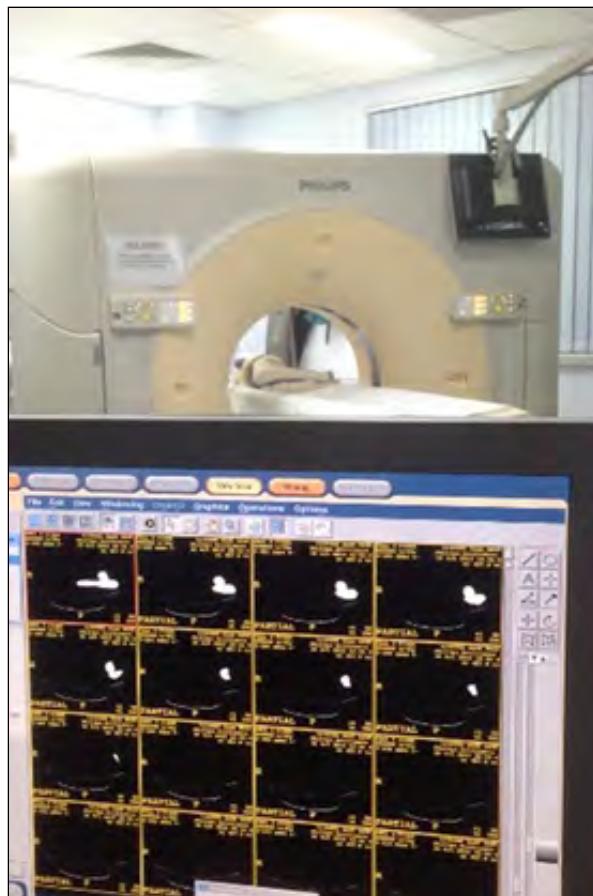


Figure 12: Sculpture CAT scan in process, digital image. ©Fiona Fell 2012

The data and image files created from the various scanning sessions act as a resource that are revisited and employed throughout many of my creative outputs. A significant outcome that draws on these scan data is a work made for a collaboration piece with sculptor-painter-designer André Martus and performance drawer Kellie O'Dempsey for the *Watershed* cultural studies congress exhibition at the University of Barcelona, January 2014. A digital design program was used to develop and replicate a CAT scanning machine fabricated out of recycled cardboard (Figure 13). This structural device housed video footage of a performance work in collaboration with O'Dempsey. Her practice of performative drawing amalgamates lyrical mark-making with digital technologies. In this instance the line drawn was projected onto my body while I was holding a sculpture; this revealed a form on a darkened background, merging the artist's body and the body of art she is carrying. On an adjacent screen an animated work of the sculpture being scanned through a CAT scanning machine uncovered the inside spaces of the sculpture as a fluid rhythmic gesture (Figure 14, left and centre). The apparatus also held three figurative sculptures: one partial figure (waist to toes sliced in two), a head, and a full figure taking on the emotional state of the lived experience of scanning. Adding to the archive of scanning data I used dental-scan images of my mouth, which holds in its bite a porcelain doll. The image was then digitally manipulated and rotated so the doll was standing upright and the teeth lost recognition through their vertical positioning, while the threat of a crushing presence was retained, which connects to the invasive penetration of radiation in the scanned body (Figure 14, right).

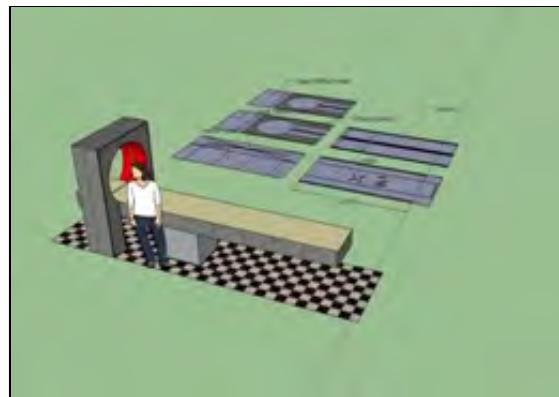


Figure 13: Fiona Fell and Andre Martus, Interior Insight (working design). Cardboard, ceramics and video installation, Watershed Sculpture Show, University of Barcelona, January 2014 ©Andre Martus & Fiona Fell

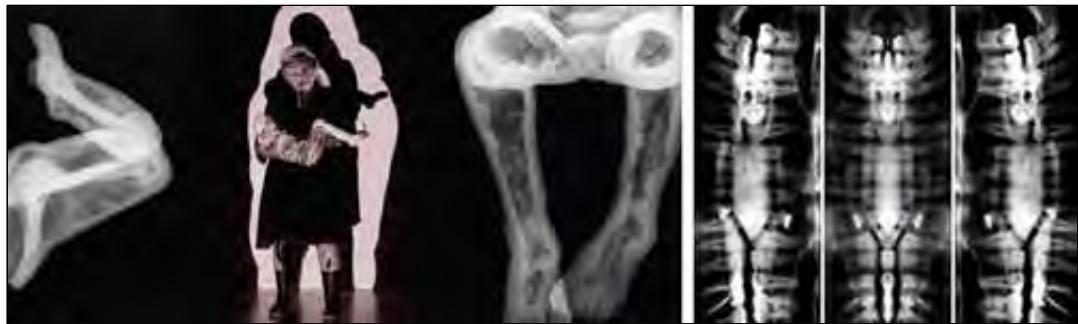


Figure 14. Fiona Fell, UB Watershed show catalogue, Barcelona, 13-17 January 2014 © Fiona Fell

A series of outcomes in progress involve sound and video recordings with new-media artist and academic Grayson Cooke, in which we draw on collaborative research archives and further

explore the sensorial field of clay; sound profiles accompany the moving image to reflect the interiority of the making processes and qualities of the material itself. The most recent project in collaboration with Cooke also involves the musician and academic Matt Hill, whose post production configures the soundscape in a quad configuration – a computer generated soundscape. So far it has resulted in a video short, recording a simulation of my figurative ceramic work and my body being scanned. As Figure 15 suggests, the frontiers between animate and inanimate matter are blurred as:

A laser mounted on a motion-control unit “scans” across the artist and her work; post-processing using a frame echo effect is then used to render this temporal scan into a kind of frozen virtual sculpture. The artist merges with her work as both bodies are rendered equally functional as reflective surfaces for the highly concentrated light of the laser. (Cooke, unpublished paper)



Figure 15: Lones Marrow 2015 © Fiona Fell & Grayson Cooke

Ultimately, the scan techniques involved in revealing the “bowels” of my figurative ceramic sculptures have fed back into and affected my sculptural conceptualisation, and so ultimately condition language use itself: they have led me to cross-examine some of the terminology from the field of radiography in relation to the familiar territory of material terms in working with clay. I find the language employed emotive and poetic where the meeting of the corporeal and the metaphysical suggest parallels between the material and the immaterial. By acknowledging the internal landscapes of the form beyond the aesthetic-artistic surface and the way these suggest independent, alternative realities, my pre-conception of language has been challenged and changed. During the process of searching through radiographic sites in an attempt to familiarize myself with the terms, I am tempted to employ this new vocabulary for titles of work and to investigate how these terms may inform the process of making. Thus, in my latest sculpture exhibition at Watters Gallery in Sydney I employed the following titles suggested by radiographic terms and descriptors: *Fissured Physique* (Figure 16); *Radical Reassembly* (Figure 17); *Virtual Density*; *Indefinite Distortion*.



Figure 16: Fissured Physique.**Figure 17:** Radical Reassembly. Watters Gallery exhibition, Sydney 2014.

© Raimond de Weerdt.

Conclusion

Scanning technologies are becoming integral to the articulation of my work. While scanning started out as a purely aesthetic exercise within my practice-led research, in hindsight it has exposed a hybrid myriad of connections and possibilities across to other media, such as video and sound recording. I am still working deeper into this project, aiming to make work that is more conducive to the scanning process, using body parts that slot into the ceramic figures (e.g. *Radical Reassembly*, Figure 17), turning the insides of my pieces out (e.g. *Lones Marrow*, Figure 15), testing clay at different stages of vitrification, identifying appropriate density settings, and reconfiguring the visual and non-visual language that surrounds and informs my creative practice. The deconstructionist as well as reconstructionist potential of scan technologies when applied to artistic expression is manifold, productive and creative. Rather than seeing the resulting artwork as the point of arrival of meaning, Júlia Laki:

view[s such] artworks as players in a larger circuit of generating understanding around the interior views of the body: as imaging technologies make previously unseen spaces accessible to the gaze, the vistas generated by them become slippery terrains The domain of contemporary conceptual art is one of the very few spaces in which medical/scientific practices can appear in their visual complexity, but dislodged from their normal referential terrain. (63-64)

This is to say that their application in the arts lifts these technologies out of a limiting discourse of analytical application and inserts them into a fuzzy terrain of interdisciplinarity in which new meaning and functions can be generated. Through scanning applied in the arts, borders and limits become uncanny, porous to interpretation and deconstructive critique, and the search for discrete essence and truth as encapsulated and separated by animate or inanimate surfaces is problematised. The scanned image is offered up as the flat representation of shadowy, deeper below-the-surface realities which belie the very two-dimensional discreteness of surface appearances. Otherwise invisible details, elements and structures are put into play and perspective, and they challenge the limitations of human perception, yet they also offer new, exciting ways of apprehending embodiment and the tangible world that surrounds us. Through scanning technologies, science and art speak to, even solicit each other and tread on each other's shadow: not too close for comfort seemingly, they may yet be closer than appears to the naked eye.

Fiona Fell has been a professional ceramics artist for over 25 years and an educator at tertiary institutions for 20 years. Fiona has received several international grants and exhibits nationally and internationally. She is represented by Watters Gallery in Sydney and is currently Head of Department in 3D studies, sculpture / ceramics at Southern Cross University, NSW, Australia.

Endnotes

1. "Man Ray had photographed everyday objects before, but these unique, visionary images immediately put the photographer on par with the avant-garde painters of the day. Hovering between the abstract and the representational, the rayographs revealed a new way of seeing that delighted the Dadaist poets who celebrated his work, and that pointed the way to the dreamlike visions of the Surrealist writers and painters who followed". "Rayograph. Man Ray (American, Philadelphia, Pennsylvania 1890–1976 Paris)." <<http://www.metmuseum.org/Collections/search-the-collections/265487>>

Works Cited

- Babington, Jaklyn. "Robert Rauschenberg 1967-1978." National Gallery of Australia. <nga.gov.au/Rauschenberg/>
- Benjamin, Walter. "The Work of Art in the Age of Mechanical Reproduction." *Illuminations*. Ed. Hannah Arendt, trans. Harry Zohn. London: Fontana, 1968. 214–218.
- Butler, Judith. *Gender Trouble: Feminism and the Subversion of Identity*. New York & London: Routledge 1990.
- Cixous, Hélène. "Fiction and its Phantoms: A Reading of Freud's Das Unheimliche (The 'uncanny')." *New Literary History* 7.3 (1976): 525-48.
- Dalrymple Henderson, Linda. "X Rays and the Quest for Invisible Reality in the Art of Kupka, Duchamp, and the Cubists." *Art Journal*, 47.4 (1988): 323-340.
- Domus. "History's Shadow." *Domus*. <www.domusweb.it/en/art/2011/04/26/history-s-shadow.html>
- Freud, Sigmund. "The Uncanny." *The Standard Edition of the Complete Psychological Works of Sigmund Freud*. Ed. & trans. James Strachey, vol. XVII. London: Hogarth, 1953. 219-252.
- Gross, Kenneth. *Puppet – An Essay on Uncanny Life*. Chicago: UCP, 2011.
- Hansen, Miriam Bratu. "Benjamin's Aura". *Critical Enquiry* 35 (Winter 2008): 336-375.
- Laki, Júlia. *Iconographies of Embodiment at the Intersection of Medicine and Art*. Master's Thesis, Central European University. Budapest, Hungary, 2012. <www.etd.ceu.hu/2012/laki_julia.pdf>
- Lethem, Jonathan & David Maisel. *History's Shadow*. Nazraeli Press, 2011. <davidmaisel.com/wp-content/uploads/2014/07/Lethem_-Jonathan-X_Curator_MAISEL.pdf>
- Moreton-Robinson, Aileen. "'I Still Call Australia Home': Place and Belonging in a White

Postcolonising Society". *Uprootings/Regroundings: Questions of Home and Migration*. Ed. Sara Ahmed et al. London: Berg, 2003. 23–40.

Perniola, Mario. *Art and its Shadow*. Trans. Massimo Verdicchio. New York/London: Continuum, 2004.

van de Vall, Renée. "Between Battlefield and Play: Art and Aesthetics in Visual Culture". *Contemporary Aesthetics* 1 (2003).

<www.contempaesthetics.org/newvolume/pages/article.php?articleID=215>

Zizek, Slavoj. "The Spectre of Ideology." *Mapping Ideology*. Ed. Slavoj Zizek. London/NY: Verso, 1994. 1-33.