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RUPTURE AND RESIDUE:
INTERMEDIA ART IN ACTION

A thesis submitted for the fulfillment of the requirements for the degree of
Doctor of Philosophy in the College of Arts, Society and Education at James
Cook University

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Every reasonable effort has been made to gain permission and acknowledgement of the owners of copyright material. I would be pleased to hear from any copyright owner who has been omitted or incorrectly acknowledged.

Statement of the Contribution of Others

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	Performer	Earl Rosas
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	Industry association support	New Move Network Ausdance Qld
Venue and facility support	Venue support	KickArts Contemporary Arts Ltd
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Abstract

This creative arts research project provided me with an opportunity to develop new understanding within the field of contemporary art practice. The project focused on making new artistic productions within a recursive presentation cycle. The project afforded me significant creative growth and development as an artist and researcher. What I experienced was the development of artistic form generated through the efforts of a small team, and I acknowledge the co-authorship of the creative works with my collaborators. The project began with a gallery based installation work in 2008, followed by artistic productions presented to the public in performance spaces, a multi-purpose arts venue, and then back to a conventional exhibition space. In 2013, one of the artistic productions premiered at the Brisbane Festival and marked a high point but not the end point. The development and presentation of artistic production operated in a continuum rather than moving towards a culminating event. Exploration and discovery trace the creative process through inception, production, presentation and archival phases to illuminate what intermediality means to the 'narrative' of my practice within contemporary arts. A love of art making compels the journey.

The thought of intermedia as a research area started with a naïve inclination towards interdisciplinary processes for developing creative works. Rather than providing evidence for an expert understanding of intermediality, it is an idea that requires testing against the currency of my practice and in the presentational context understood by society. Being creatively engaged with the interplay of media and with the processes of materiality, media and the body has driven my artistic practice. It has allowed me to generate forms of contemporary art involving interdisciplinarity and collaboration. The intermedial emphasis of my creative process has a marked impact on how I understand the pluralistic conventions of contemporary art. Intermediality is, for my way of thinking, a process that simplifies levels of complexity so that more levels of complexity can assert themselves in future practices. Intermedia converges and reconciles the areas of my practice that are related to media arts and spatial practices that are performative and sculptural.

The artistic productions represented in this project test intermediality within the collaborative and institutional setting. What resolves are specific knowledge centres which enhance innovations in practice, process and theory. Through performative

action within a practice-led methodology, an epistemological framework is formed by what bounds generative knowledge in artistic production. Conceptual narratives and themes generate professional practice, collaboration and reflection. An auto-ethnographic approach to documenting the enquiry allows multidimensional entry points within a terrain of interconnected sites of research focus. The project resembles a membrane of vectors and ideas that offer ambiguous pathways. The journey does not pose deterministic answers to questions about research veracity. Instead, intermediality manifests a complex and creatively diverse artistic process. These attributes celebrate the interdisciplinarity of contemporary art practice. In so doing, the process questions the sliding tolerance between conventional forms that tend to announce genre specific artistic production. For example, the project's internal logic develops artefacts for exhibition in a gallery and simultaneously spatial sequences for the performance space. Therefore, the actions defined within the creative development exemplify a process of intermediality.

A small arts business co-directed by the researcher provides the infrastructure that administrates development and presentation of the artistic process in partnership with sponsors and venues. The research project focuses on the production and presentation cycle informed by the contributions of a core collaborative team. The practice-led method is an instrument that engages action, process tracing, temporal bracketing and performative analysis through iterative phases over several years. The public presentation of important artworks, along with audio-visual documentation represent dimensions of valorisation beyond the actions of practice-led research. The recursive cycle articulated an approach with underlying systems of innovation, implementation and reflexivity.

The emergence of new work in the continuum of practice is a temporal rupture that exists as an ephemeral series of action units moving towards the context of presentation. The documentation and auto-ethnographic account are the residues of the primary manifestation of semi-annual productions. The documentation of artistic trajectories forms a media archive: *The Exquisite Resonance of Memory*, 2008; *Whispering Limbs*, 2009; *Cove*, 2010; *Sweet Spot and Nerve Engine*, 2011 – 2014; and *Terrestrial Nerve*, 2012 – 2013. The media archive is residual and secondary; it illuminates a set of indicative concepts significant for the future of intermediality in the researcher's practice.

The impact of the research develops understanding and generates interest in the contemporary collaborative arts. The value of the research broadens the domain of artistic practice and will be of interest anywhere that creativity becomes managed between disciplines, such as software developers, performance ensembles, artists, designers, fabricators, creative partnerships.

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Chapter One – Introduction

1.1 The Practice of Intermediality

The theoretical and technical convergences of materiality, media and the body inform this research project. It investigates the interconnectedness of media mixing achieving an immersion in collaborative art practice.

Familiarity with the production and presentation of contemporary art compels an engagement in practice as research that frames the articulation of process. 'Creative intelligence', design and material along with imaginative generation, invention and innovation are attributes of a thinking process and cognitive bias within the research framework.

The investigation influences a type of heterogeneity within art practice acknowledged in the field as intermediality. The precedents for intermedia in the contemporary arts feature unconventional accords leading to hybrid forms of expression. The codes of interest to this research, broadly enumerate as visual media, electronic music and contemporary dance, representing established genres within a global community of practice. The process of integration amongst these forms focuses action. For example, the integration of digital technology mediates disciplinary form to reduce its language to computer binary. Using sensors, visualisation and programming the process of digitisation 'flattens' the spatial and aesthetic tolerance of each artform to a binary language. The inflexion, interpretation, manipulation and routing of the resulting data flows allows generative elements to inspire new forms of production, presentation and audience engagement of artwork. The use of technological tools features intermediation; becoming a creative path and providing understanding towards the significance of the term intermedia in current art practice.

The distinction between artistic disciplines provides challenges and opportunities. The genre of visual art favours the appearance of the autonomous aesthetic art object; in contrast, improvisation in contemporary

dance refuses to exist outside the moment of its execution. The perception of dance improvisation links to interactive technologies and binds with the presence of the dancer. The convention of visual art relies on a residual artefact. The integration of these disciplines exists as a document of representational media; a digital video archive is an enduring object. The archive exists however, documentation cannot fully represent the spatial temporality of the originating artworks. Throughout this project, the appearance of artistic expression has been generative to the moment of experience within an interaction. The characteristic has been ephemeral and improvisatory, existing with the phenomenon of the temporal moment within an artwork that will never be captured or repeated as a facsimile for the experience. It has problematised the expectation of delivering a durable research product in the form of a creative artefact. The research has questioned the value, principles and expectations in artistic production when tempting the ephemeral nature of improvisation to endure. The documentation archive is a residue of these ephemeral processes. The representative examples of creative works transposed to moving image media and audio media formats made available online through the project website at www.bonemap.com.

1.2 Research Aims

The research structure follows a multi-part thesis representative of artistic production, documentation and written exegesis. Precedents for the multi-part thesis are evident in practice-led research in the creative arts and described as a multi-mode approach by Robyn Nelson (Nelson 2013: 6) a London-based Emeritus Professor of Theatre who has published widely on practice as research. According to Jillian Hamilton and Luke Jaaniste (Hamilton & Jaaniste 2009: 7), the multi-part thesis is adopted within practice-oriented higher degrees in the creative arts as a connective thesis model. In the model, artefacts represent elements of the research process that authors connect with a written exegesis. An interpretation of the model suggests knowledge generated through the production of creative work can

be revealed in the reflective text of the exegesis and evidenced in the presentation of artefacts including documentation of ephemeral artworks. The elements of this thesis are modular components that can take different forms in practice, presentation, documentation and exegesis. The modular structural components indicate nascent cores of content within the research enquiry. A research structure is identified using this broad understanding of practice as research in the creative arts as an appropriate approach to developing enquiry. Generative nodes of enquiry associated with artistic practice are articulated to connect the aims of an integrated thesis. The three core research elements and the associated aims segment this research project into a multi-part connective structure:

1. The creative work aims to:

- embody interdisciplinary collaboration
- assert innovative practice and form
- test research assumptions through enactive systems of practice

2. The exegesis aims to:

- conceptualise definitions and nascent theories
- explore precedents in related practice
- explicate the creative process, the artefacts produced and their value to research

3. The documentation aims to:

- witness and record the creative work
- disseminate the research findings through a virtual architecture
- archive the research artefacts



Figure 1. Milledge, R. 2013. Diagram indicating the connective thesis model.

An adaptation of the Kanizsa triangle (Kuehni 2013: 220) serves to visualise the research structure of non-traditional research cores. Provided in Figure 1, the Gestalt example of illusory contours suggests a characteristic of the multi-part approach being a thesis that is more than the sum of its parts. Paul Carter's *Material Thinking* (Carter 2004), provides an argument for grounding creative arts research regarding the central role of artistic process in creative production. Nelson's (2013:26) "multiple modes of evidence" or the "multi-mode" approach to post-graduate degrees in the creative arts, is comparable in structure to the series of nodes proposed for this research project.

1.3 Scope

The research scope is the temporal serialisation of a creative production cycle over several years. The cycle provides recursive bracketing that traces artistic collaboration, production and presentation. The production of public presentations, documentation and exegesis, along with numerous ancillary artefacts comprise the tangible research outcomes. Production artefacts include notebooks, technical journals, computer programs, compositions, choreographies, animations, sculptures, photographs, videos, designs, drawings, costumes, lighting plans, hardware configurations, projections,

musical scores, articles, ancillary presentations and technical components. Much of these process elements are not directly evident in the public presentation or artefact that remains after artistic production. The creative production cycle provides a tool within practice-led research to parameterize the scope of the enquiry. The exegesis reveals elements of the processes that remain hidden, have disappeared or are extrinsic within the artefact. The perception of art, in its reception by an audience, includes concealing some processes at the site of presentation. Concealment is a compositional component that makes the magic happen. The characteristic of hidden processes appears even more pronounced as an outcome of collaboration via the integration of elements. The role of the exegesis and to a lesser extent the documentation are to reveal the processes that undergird the creative works. Within practice as research, the creative works tend toward research artefacts, residual and bound within the framework of the research project. Because this project embeds a world of artistic production and public presentation, the trajectory of creative licence is in contrast to the purpose of academic research. Research paradigms stretch to a propositional extent in this multi-part thesis model and the contextual differences between research and artistic production left to reconcile.

The research contributions from artistic production are resolutely ephemeral; they absorb the temporal presence of a creative production cycle. The process of conceptual and creative development, and of innovation, include processes associated with the technical and practical application of creative techniques. Numerous operational functions are innate to the creative cycle, to its back end—its engine. Representative traits of the production cycle depend on thousands of hidden process units that comprise a project lifecycle. The creative production cycle is a ‘relational tendency’ to articulate a discrete research process underlying artistic production. The distinction between ‘thinking’ and ‘making’, contemplation and implementation (Baldachinno in Daichendt 2012: xvi) dissolves in the situation of artistic production.

The research 'cores' epistemological mode establishes complementary knowledge centres conducive to the connective thesis model. When considered together, the model appears to coalesce towards a viable research instrument. It uses a mixed-method, including an intermedial performative mode, for the study of the creative production cycle within the primary generator of practice-led research. Intermediality in the arts suggests, by its nature and precedents, that practice arrives at theory through hybrid media mixing and multi-contextualization. The nascent theory of intermediality and linked hybridization suits a mixed-method approach and multi-modal connective thesis model.

1.4 Terms

The description of practice are not the remarks of an outside observer. Professional aspects of the researcher's practice benefit through developing the projects creative trajectories and enhance innovations in practice, process and theory. The researcher is a leading artist within the collaborative structure, a position of responsibility that provides specific direction and contribution to the creative works. Interpretation of participant contributions understood from the standpoint of the author, as a creative producer, implicates various types of capital associated with the research product and the presentation of creative work. This declaration of interest does not take away the unique privilege and opportunity of accounting for practice from the standpoint of an artist within a creative cycle of practice.

The research aims towards a zone of influence in a society that engages the creative arts and a sphere of artistic production. The research impact is intended to be useful to those invested in collaborative artistic practice where interdisciplinary inputs are a core feature; this includes anywhere that creativity appears managed between interests, such as software developers, performance ensembles, artists, designers, fabricators, creative partnerships. Therefore, the research journey presents a multidimensional methodological base — themes, concepts and theory generated through action, collaboration

and reflection. The public presentation of artworks, along with audio-visual documentation and the final exegesis are representations and key dimensions of evidence within the research thesis.

1.5 Introduction to the Chapters

The review of literature in Chapter 2 traces the influence of intermediality within a Western diasporic tradition and from a reflexive viewpoint associated with artistic practice within the contemporary art canon. Analysis of the theoretical discourse aligns with Western accounts of intermediality to lay the foundations for an understanding of its usefulness to current practice by responding to the question: “what is intermedia in art?” Theoretical and chronological traces are sites of meaning informing lineaments of the unfolding enquiry. The question approaches the evidence that artistic crossovers and intersections are not a new thing and are an expression found throughout European art history. The review of late 20th century theorists illuminates a moment of intermediality at the interstices of Modernism, postmodernism and contemporaneity. Current thinking about practice moves away from solidifying movements to new conceptions of intermedia that “traditional media disciplines and even ‘new media’ disciplines, cannot always provide” (Murphie in Cubbit, Palmer & Tkacz 2015: 4).

Intermedial theory reveals a conceptual framework that characterises notions of, “collision, exchange and transformation” (Spiellmann 2005: 132). Debates around intermediality are an ongoing demonstration of interest in its modal conditions. As a convergence of realms, it implicates broader media theory and practice. Changing attitudes to materials and media in society reveal discursive spaces that open non-traditional sites for the production and presentation of art. Intermediality, conceptually and theoretically, is a discursive tolerance of the gaps created by non-traditional approaches to media. Therefore, it has an association with new technologies and techniques in practice. The dramatic shifts in media taxonomy and the use of mediatization in everyday life continually challenge the relationships between medium and materiality in society and for the creative artist. These

challenges to cultural production demonstrate the impact of intermediality in art and everyday life. It is a trend likely to continue well into the future with an ongoing impact on people, places and creative practice. In this chapter creativity, innovation and media are considered inherently social, economic and political encounters. These considerations provide an analytical framework for investigating the meaning of intermediality within artistic production. Moreover, it investigates what this symbolic interaction has been for society.

A concern with representing the shape and pattern associated with collaboratively integrated art practice from the perspective of practice-led research is a basis for Chapter 3. Continuous and recursive collaborative practice assumes signature patterns that transform artistic production. The cycle is completed at least once a year: 2008 - 2014. Artistic production shows that within a single cycle, there are two distinct phases: production and presentation. A flexible series of connective nodes defines the two phases. The nodes are representative of ambiguous and temporal 'action-units'. Strings of action units give each node a unique influence on the cycle and inscribe the generative production of art. The situations, techniques and encounters within recursive artistic production are analogous to a mechanism that clarifies a creative process. The diversity of artworks brought to light is significant for the interpretation of research. The implication of presenting artistic productions that approach a range of presentational sites reveals tolerances for intermediality in practice. The investigation of a single iteration of the artistic process, isolated within a continuum of reflexive engagement, does not provide an analogous comparison of production and presentation instances. Recursion of the cycle within the research framework provides the elucidation of intermediality within practice-led research. The creative production cycle is a concept that traces and explicates collaborative practice throughout the chapter.

The sequence of creative works that emerge throughout the research process provides the context for Chapter 4. Information about each named iteration

of the cycle is relevant to the collaborative frame that composes the contribution of each artist. The significance of engagement, in the collective space of collaboration, is an important function in many ways: 1. Collaboration provides an aim for the creative work. The interdisciplinary structure of the collaborative team functions to embody intermedia processes, production and presentation. 2. The collaborative framing provides other voices from within the research. The collaborators are peers and creative researchers with professional expertise and contribution. 3. Undertaking research from within the structure of collaboration is considered an ethical stance from where the researcher participates immersed in the practice. The collaborative voice deflects the self-referential and subjective voice of the researcher. This position engenders reflexive behaviour and peer critique due to the dispersed acknowledgement of responsibility within a team structure (Banks 2001: 113).

Analysis of collaborative participation within iterations identifies a running team of artists that have contributed to the project. Collaborators link instances of the creative cycle with different levels of engagement lifespans, some across successive iterations. Also, the impact of team members 'genre identity' define a modality for a project iteration. The perception of dance dominates where the number of dancers in the collaboration is elevated. The weighting of genre discipline effects the perception of form irrespective of emergent processes that emphasise the effect of intermediality. As a result, the practice of collaboration draws into question the propensity for cross-disciplinary metaphors. What does it mean to say that, "it is about choreographing all the pieces into a cohesive whole," when this conflates the discrete function of choreographic work with other forms of composition within the production? The research indicates that the ambiguity of terms encountered in practice produces a lack of clarity. Many of the effects of technology are nascent and emerge without clear language models making their communication inside a collaborative process a considerable challenge. Using cross-disciplinary metaphors assists in bridging gaps of communication within the chapter at the expense of clarity.

Core creative collaborators give express voice in Chapter 5. Their freedom to respond within the collaborative framework contributes to the potential for alternative and innovative directions in practice. An ethos of tacit knowledge embraces the manifestation and function of common space. The interrelationship of collaborative ideas opens the possibility for unique contributions. Co-authorship is an unfolding value based on a temporal process of trading expectations around contributions including the unanticipated. The willingness to surrender the authorial voice is fundamental to the 'narrative' of amalgamating ideas and processes. Collocating discrete disciplinary knowledge within collaborators contributes to the potential for intermediality and novelty within the project. Going beyond a disciplinary comfort zone is tempered by sharing expertise overtly, directly and through the implicit awareness of generating intermedial knowledge collectively. The chapter subtly explores the extent that co-authorship is a sacrifice or compromise to the authorial voice.

The reflections, implications and directions for the research journey contribute to the description of practice in Chapter 6. They observe the embodied form within the research structure. Theoretical contexts diminish the difference between human spatial movement, like dance, and the context of human kinetics in the variable parameters of the simulation. The body as a medium approaches a relational endgame to the choreographic intention. The understanding of the moving body translates to a coded unit of communication. Following the reasoning of Mitchells (1986) 'imagetext' where visual metaphor forms words and language out of images. 'Bodytext', is an idiom intended to assume language expression through human movement. It communicates the interconnectedness of the creative process through the body and as a medium that extends the function of the audience as participants within creative work. Artistic presentations invite audiences to engage and activate a 'narrative'. Audiences assume a performative action to open the communicative space of responsive interaction with performer and machine. The context relates to the movement of data through an

interactive technological system, along with the spatial proximity of the human body within the boundaries of a presentation.

Foucault's (1984) conception of heterotopia emerges as a valuable reference for describing artistic 'other worlds'—part fiction and part physical space. Concept and meaning filter the material and the immaterial world. The filter of meaning complicates representation by modifying perceptions of dimension and the site of identification where the interpretation of sensory experience converges—mediality and materiality. Within scenographic space the tangible and the immaterial blend to form mixed-reality heterotopias. The chapter reports on the conditions of medium and materiality that are critical to the creative development, perception and curiosity toward artistic production.

Intermediality allows the artistic production to reconsider the human senses as an influence within the connective tissue of communication. It is an organism with a life force presenting technical, theoretical and emotional hurdles to the collaborating authors. Navigating the bifurcation of research veracity and the fabrication of fantasy, as a praxis of theory and art, is some of the most challenging terrain encountered through this research journey.

1.6 Intermediality in Art, what is that?¹

Echoes from antiquity range over the ambiguous meaning of the terms 'medium' and 'media' (see Mitchell 1986). It is futile to seek an essential meaning to associate with this shifting discourse. To focus the research and build a baseline from the theoretical residues of existing literature, 'intermedia' is used as the inciting keyword. Its meaning, analogy and application to artistic production narrow the enquiry field.

Heterogeneity in contemporary arts characterises a proliferation of expressive forms within society indicating a diversity of processes, productions and presentations in cultural and artistic practice. Intermediality links to the condition of heterogeneity through the layering and multiplicity

¹ The remainder of Chapter 1 provides a context for an investment in intermediality as a paradigm in the creative arts.

that media plays in contemporary life. Diversity appears as a condition of expansion associated with the impact of cultural agency in Western influenced political realms, and conversely, of diasporic realms as influences upon Western culture (Smith, Terry 2009). Moreover, control and access to media have undergone swift technological developments in the West serving an expansion of materiality. The practice of intermediality emerges from the cultural traditions of the West to broadly engage globally acculturated audiences. It is immanent to the Western diasporic imagination that significant contribution to the histories of Eurocentric culture emerges in post-colonial nations and states dispersed around the terrestrial globe such as those of the Americas and Australasia. Much of the literature originates from within the European-American-Australian cultural context and has a Western cultural bias. Intermediality in these discourses appear to lead toward novel forms of materiality in the contemporary arts and to the use and application of media systems of communication more generally in the production of aesthetic experiences. A regime of enquiry is representative of cross-overs and boundaries between material, media, form, genre, discipline, theory and institution.

1.7 Defining Intermediality

Constituents of the compound word—intermedia, provide a linguistic morphology containing two units, the prefix ‘inter-’ and the head carrier of meaning ‘media’, and its singular ‘medium’. Either of the two units that make up the compound meaning is suggestive of several interpretations relevant to the use of ‘intermedia’ in the currency of systems associated with the contemporary arts.

The Oxford English Dictionary lists multiple meanings for the term ‘medium’, and ‘Media’, the following selection of extracts are significant:

1.7.1. An intermediate agency, instrument, or channel; a means; esp. a means or channel of communication or expression.

1.7.2. Any of the varieties of painting or drawing as determined by the material or technique used. Hence more widely: any raw material or mode of expression in an artistic or creative activity.

1.7.3. spec. A channel of mass communication, as newspapers, radio, television, etc.; the reporters, journalists, etc., working for organisations engaged in such communication.

1.7.4. An intervening substance through which a force acts on objects at a distance or through which impressions are conveyed to the senses; any substance considered with regard to its properties as a vehicle of light or sound.

Intermedia is a concept where materiality and substance become a central agency within production. It appears distinct from meanings associated with competence and discipline, however, remains linked through terms of the interdisciplinary. The four frames provided by the Oxford English Dictionary are apt for focusing intermedia on the forces of material within contemporary art.

1.7.1. An Intermediate Agency

Intermedia defines the agency of a given medium and alludes to the 'medium' as being already 'intermediate'. The implication is critical for many viewpoints associated with the action of intermediality. One of the conditions of a medium, in the context of communication perception, is a tendency towards medium transparency and the immediacy of content. The content of the medium perceived without noticing the medium itself (Bolter & Grusin 2000; Mitchell 1986). For example, when a medium conveys an indexical 'truth-value' as an accurate reflection of an external physical reality, the medium itself is often overlooked.

1.7.2. A Mode of Expression Used in an Artistic or Creative Activity

The quality of a medium concerns its raw substance. Materiality is the condition of a medium in its unformed state. Intermediality is the potential of a medium within a transformative process. It indicates the transition of material through a processual technique as part of a production. This

definition does not distinguish levels of complexity, or that technique might result in an artefact or thing, only the transformation from a substance of raw material to a medium used within a process (Deleuze & Guattari 1988). Intermediality includes the concept of simultaneity where media might rematerialize recursively within multiple processes. Intermedia establishes a convergent agency in the transformation of substance and meaning.

1.7.3. A Channel of Mass Communication

The definition of 'media' as technological mass communication implicates intermediality in the historical and contemporary setting. Contemporary mass communication represents the continual blending of media channels—blending denotes intermediality. For example, the convergence of radio transmission and film to form television has constituted intermediality in a growing taxonomy of mass media forms (Virilio 1994).

The channels of media technology represent a conflation of realms and audiences. Informational spaces converge in the globalisation of assets and databases; social spaces converge in networks, communities and experiences. These are economic domains that converge in open trade exchanges of cultural capital. Intermediality, as a hybrid process, is operational at the level of convergence between these systems and entangle the social phenomenon of art in disruptive and inventive ways (Bolter & Grusin 2000).

1.7.4. An Intervening Substance Through Which a Force Acts on Objects at a Distance

A medium communicates to the human mind through the perceptual centres of the body—the senses. The scope of cognition includes the mental imagery of dreams, memories, ideas and fantasy. This definition indicates that a medium can be immaterial—as it appeared to form in a mind (see Mitchell 1986).

Contemporary art using technological processes heighten the conditions for 'intentional synaesthesia', a cross-modal binding associated with brain

plasticity. Perception is the interpretation of media substance through sensory receptors situated throughout the human body. They provide the brain with cues for interpreting the world and its meaning through more than one cognitive pathway. Indications are provided that place the agency of intermediality as convergences between the immaterial media of the mind (see Glicksohn 2011; Paredes 2005; Suslick 2012).

1.8 Intermedia and 21st Century Art

Nelson (2010: 14)(2010: 14) calls the transgression of many boundaries leading to a rapidly expanding territory for contemporary theory as an 'intermedial turn'. He adds the caveat, "danger that all categories might collapse unhelpfully into each other, rendering obsolete the notion of 'intermediality' as a bridge between mediums" (Nelson 2010: 14). It appears to Nelson, that media conflation threatens specific social functions—hierarchies associated with the separate domains of art reduce to an indiscriminate interplay of categories. Schröter (2011: 6), on the other hand, positions an intermedial future by refuting the notion of conflation suggesting intermediality is the normative starting point,

we have to recognize that it is not individual media that are primal and then move towards each other intermedially, but that it is intermediality that is primal and that the clearly separated "monomedia" is the result of purposeful and institutionally caused blockades, incisions, and mechanisms of exclusion. (Schröter 2011: 6)

The contrasting viewpoints of Nelson and Schröter indicate the divide that surrounds the dialogical territory of intermediality and conversely, its potential for new understanding and the re-imagining of intermedia in contemporary art practices.

Intermediality is the structure of integration from which an approach to the process of artistic production offers relevance to contemporary practice. Its significance has an inference toward the contest of ideologies associated with Modernism and a cross-modal convergence and transformation in the

contemporary setting. The precept of intermediality emerges contemporaneously as an adjectival companion to an artistic genre, for example in the form intermedial performance (Chapple & Kattenbelt 2006). Intermedia appears in the literature of early 21st century art theory about the “post-medium condition” as argued by Krauss (1999). Also, the articulation of convergent informational media indicated by Friedman (2005) and the transition from ‘new media’ to that of ‘intermedia’ proposed by Paul (2005) and Quaranta (2010). For Parades (2005: 92) intermediality appears as an inter-sensory synaesthetic investigation, “a concept in search of embodiment”. These cross-modal approaches follow numerous strands of precedence and potential opening the ontology of media in the digital age. The context of a simple categorisation built from common understandings remains elusive and is counterintuitive to its inherent historical ambiguity.

The transitional character of intermediality is understood to exemplify heterogeneous diversity at the level of the discipline-based medium in artistic production. Intermedia avoids classification or clarity in the sense of being an unspecific state of tolerance between signifiers. Kritlova (in Herzogenrath 2012: 38) identifies the agency of mediation in the quality of being a medium, “Media are not mere (passive) objects—they are rather reflective structures, ...providing perspectives, techniques of signification, agencies by which they can be analysed.” The agency of intermedia is a ‘reflective structure’ and an amplification of complexity and the perception of potential within a material mixing.

The position of intermediality within the nomenclature of contemporary arts, as a product of human creativity, indicates it is in the realm of perception or understanding. Intermediality is a process transfiguring emergent practice through reflectivity. The apparent indeterminacy suggests new theoretical processes around materiality rather than pinning down specific physical production to a recognizable template based on a perceptible discipline. A substance with ambiguous meaning is a liminal material communicating as a medium within a transformative process. Transfiguration and affect,

multiplicity, synchronicity, synaesthetic and multi-modal forms are levels of integration and complexity that transmit a critique within highly evolved envelopes of artistic production. Intermediality signifies the implications of a multi-modal processes and captures emergence within integration.

Intermediality achieves a high level of novelty in artistic production because it highlights the media of a technological culture (Kritlova in Herzogenrath 2012: 45). Despite this, questions remain about the identification of intermediality and an awkward uptake of its mature forms. Many fundamental attitudes to art museums and performing art institutions continue to classify media types within traditional departments. Audience perceptions and expectation within communities of traditionally bound practice continue to motivate segregation and siloed artistic responses to genre. Simultaneously, practitioners and theorists like Quaranta (2010) observe that “since the 1960’s, it’s been much more difficult to figure out which departments certain works of art should go”, intermedia works can be “difficult to sequester”. Friedman’s (2005) suggestion that intermedia is a placeholder for new forms coming into being is reflective of the proliferation of media types and classification. Friedman’s (2005) survey of artists amassed a list of 1600 possible media types, which is anticipated to continue expanding. The extension of artists’ investigations and manipulations of media and materiality reflect the political and social attitudes to art production and context.

The objectives of recent discourse around intermediality are resonant to contemporary practice and place this research project in a discursive field that continues to debate appropriate ways to describe convergence and multiplicity within the currency of creative arts processes. Contemporary art practices represent changing literacies affecting creativity and society. Interlinking territories and multithreaded fields propel the artistic process beyond conventional institutions, structures and architectures. Current approaches to artistic production require multi-disciplinary referents and processes that make traditional attitudes to artistic practice appear as feudal islands of knowledge. Signs are evident that the pressure for institutional

reform is growing and is conspicuous in the narrowing relationships between traditional art institutions and the state.

Nelson (2010) predicts the collapse of traditional forms of art based on their relationship to digital technologies. Over many decades dominant technologies and techniques associated with artistic production have funnelled through a series of technological disruptions. The proliferation of media tools and technologies challenges an audience to a 'participatory turn' (Jenkins 2014: 268) that seeks to establish authenticity through the creative citizenship of consumer-producers. To take account of shifting expectations, engagement with contemporary audiences involves innovation in the spatial relationships of artistic production. Innovation is time-consuming, expensive and requires resilience. One strategy available to the artist involves the flexibility to move across disciplinary platforms. A sustainable practice may not be confined or specifically attuned to the traditional spaces of the art museum or performance space. However, contemporary digital spaces represent a disruption that appears to collapse and flatten the full richness of spatial, context-dependent experiences of artistic production. The screen represents a trajectory of media convergence; however, it provides only one repetitious trait. Predominance towards the screen has a perverse analogy to the medium specificity of Greenberg's ([1961] 1982) influential modernist art theory. Screen culture is monolithic with specificity towards a form of visual flatness.

Intermedia moves toward a polymodal structure appearing closer to the experience of contemporary artistic practice than traditionally derived conventions. McLuhan and CS Pierce argue that "all media are interrelated, nested within each other – they are intermedia" (cited in Quaranta 2010). Kritlova (in Herzogenrath 2012: 41) suggests the paradigm may be "marked by a terminological shift from media to cultural technologies" as an indication that the barriers to practice that derive from discipline based institutionalisation are set to dissolve. Within this research project, Intermediality undergirds a practice that often involves innovative spatial

and temporal plurality. These are the realms of the virtual/simulated/digitised integrated with the visceral/tactile/physical. Intermedia is a contemporary process that references the trans-disciplinary condition of artistic production in this moment.

1.9 How Does Intermedia Work?

A reflexive transformational process focuses artistic production in the action of material 'becoming' media. Krtilova (in Herzogenrath 2012: 40) posits the connectivity inherent in the intermedial, "The in-between character of media refers to their reflexivity — the philosophical concept of the performativity of reflection, and of media as reflexive structures." Intermediality is an action that links notions of materiality to a reflexive relational web—to connective lace that is the membrane of the thinkable. The process is propositional, posed as a constantly shifting terrain that highlights its potential rather than an avenue along which deterministic results are expected. Multiple points within the terrain allow material transformations that are the expanding currency of ideas and practices. A relational web extends creative possibilities beyond the expected discipline-based characteristics of artistic production and presentation. The reflexive quality of intermediality enacts and articulates knowledge, enabling transformative substantiation within this system. The processes are a scintillating journey within an interconnected web of materiality.

Over the centuries, since the era of the Enlightenment, the body fractures into institutions and perceptions of disciplinary specialisation based on isolating sensual media. Cartesian fragmentation fuels the discourse around what is 'medium' and what is 'discipline' and 'competency'. Reversing the implications of 18th century convention, are the reconciliatory ideas that arise from the heterogeneous, transdisciplinary and the intermedial (Sheldrake 1993). The open-ended terms and conditions of the intermedial filter through practice and reflect the role of the artist as experimenter and innovator within the embodiment of perception. To consider artistic expression as a representation that reduces to a single articulation of a sense

receptor based on the disciplinary division of media deprives the sentient experience of the human body. Intermediality is an experience within a practice that is the intersense of perception—a sensual entanglement that articulates multiple human senses concurrently. Creative practice is a cultural regime concerned with intermediation of experience through ideas and materials. The experience of hope, optimism and expression in the human realm of artistic production provides new understanding within the experience of society. The power of art is the transgression of entrapment and enculturation leading to reconciliation of identity through the paradox of representation. These occurrences invariably change the world, disrupting the status quo of meaningfulness, politics and morality. Through personal and collective expression, the multiplex of sensing embodies what art is. The starting point is the territory of lace, the membrane of the thinkable—intermediality is the practice of editing moderation.

1.10 The Intermedia Landing Site

Engaging in praxis demonstrates a unified expression of multi-modal communication operating in the digital, analogue and spatial realms. The kinesthetic medium of the human body, as performer and audience, spatialise the often-opposed methods of the analogue versus the digital. These oppositional processes are signals of equal representation deriving theoretically “from its material and technical features” (W.J.T. Mitchell in Herzogenrath 2012: 50). However, intermediality allows integration as a hybridization of representational, temporal and spatial relationships.

The dynamics of integration distribute the drivers of content creation. The creative outcomes converge traditional understanding and contemporary interpretation of form: software drivers, projection design, music composition, visual and performing arts and so on. Conventional hierarchies that subordinate the technical and creative to directorial inputs absorb into shifting frames of spatial and temporal reference points. Intermediality provides a root-level ontology of artistic practice woven along fault lines. It

dissipates the ruptures and resistances that define convention, disembodied perception and understanding of the arts.

Praxis is a landing site that provides interpretations of intermediality as a practice embodied within a cycle of artistic production. The drivers are points of creative engagement and participation that constitute perception, sensation and interpretation of artistic production. Praxis is manifold within an enquiry characteristic of media relationships, membranes, mechanical and digital technologies, sculpture, cinema, photography, choreographic practice, interactive software and music technology.

1.11 Intermedia and the Western Diasporic Condition

This research project focuses artistic production towards an interstitial operation at the periphery of emerging technologies and those of local and global cultures. From the vantage point of regional northern Australia, cultural forms emerging simultaneously at many sites of contemporary society underscore a tension—the transformation of local production within the consequences of globalisation’s agency and structure. These forces intensify at the boundaries of global communities due to the perception of socio-geographic isolation. At the same time, increasing connection to networks links temporal zones of the western diaspora. Australia’s affiliation with the developed nations includes the subscription to an internationalisation of contemporary art. It is a confluence that preempts the challenges and highlights the potential to site the project virtually and geographically—globally via electronic networks and locally via embodied experiences. The interconnectedness of intermedia represents a global community of practice and the instances of intermediality influence the narratives that define artistic production.

The proximity of cultural and theoretical precedents assigns the condition of centre and periphery to knowledge flows. Regional Australia, once a site of ingrained provincialism and colonial residue, is now connected to a global culture that participates locally, nationally and internationally in the trade of

ideas associated with creative research and artistic production. The predominance of secondary references focused on articulating the intermedial is an underlying source of exposure and understandings. Primary knowledge ingestion outside of practice is predominantly a mediated experience. The geographical distance to the artistic production of peers in the imperial/global marketplace, namely the Global North, is mediated instantly by the privileged access to global online networks, information systems and image/event mobility. The project places intermedia within the reflexive modality of practice and the relational proximity of a theoretical knowledge that is virtual and informational.

Intermedia, as the primary methodology of praxis, privileges access to global information channels. It moderates a great flow of exchanges that considers artistic production regarding its physical and virtual position. However, the account of practice precedents is limited to the volume of references that appears in English language and is, therefore, characterised by the influence of English language on the research process.

Chapter 2 – Views from the Field

2.1 The Themes of Intermedia

A secondary research process provides the opportunity to investigate the academic field of literature associated with intermediality. The range of themes and contexts that emerge are pertinent to multidisciplinary regimes within the arts. The fluidity of description and precedence to practice is synonymous with the variability and multiplex of contemporary media interactions. The term intermediality locates and anticipates reference to multidisciplinary forms, sensory media, syncretism, heterogeneity and transdisciplinary innovation. Intermediality's contribution to the general symbolic economy is contingent on action and interplay. The type and condition of the intermedial predicate the site and modality of media species. Various characteristics of intermediality reframe function and operability within praxis. The intermedial is a living adjective rather than fixed epithet. The interrelationships between media and combinations of meanings are polyvalent processes of interplay that involve two or more media interactions and understood in multiple ways. Intermediality appears to be about the paradox of multiplicity that gains 'unity' and 'wholeness', as is evident within views from the field.

Rancière (cited in McNamara & Ross 2007: 102) describes continuity within "crossovers in the arts", and suggests creative practices are taking place in "a more comprehensive history where the crossings, shifts and displacements between media have always been crucial". A healthy alternative is revealed looking beyond and wider than a hegemonic 'narrative' that limits disciplinary division as a perceptual understanding within the historical 'narrative' of art. Current trans-disciplinary practices align to a lineage of intermediality. It requires considering broader social and artistic practices as veracity and depth for the intermedial. Rancière (2013) describes a continuity that provides greater value to media mixing than the isolated

flares of activity that converge within official versions of institutionally biased art historical citations.

It is possible to trace, what has come to be known as, the 'total work of art' (see Smith, MW 2007) with the suggestion that it has developed a very different 'narrative' path through the decades of 19th and 20th century Modernism than the theories of heterogeneity prevalent to post-structuralism. Both ideas have become central to contemporary culture, and both contribute to an understanding of the practice of intermediality in the arts. An aspect acknowledges a hermetic viewpoint relevant to the art institution and museum. However, intermediality emerges within a relationship to media theory evident from Antiquity to current times (see Mitchell 1986; Virilio 1994). Intermedial discourse, debating relations of media and how these media are associated and combined (Schröter 2011), is a theoretical territory emanating, with persistent activity, from the archaic, pre-modern through to the contemporary era. Intermediality extends a diverse set of possibilities that traverse a broad spectrum of innovative ideas through time. Even the most straightforward use of the intermedial offers, in contemporary vernacular, an excess of interoperability. Views from the field of intermedia research reveal attempts to articulate precision of meaning from which many facets flow into practice and the province of the creative arts. The history of intermediality in art is often situated 'without' or 'against' or 'diluting' institutional structures and capabilities that largely continue to delineate specific discipline validation within the arts.

Intermedia is a general condition within the context of art that appears to risk contradictions, misleading exclusions and awkward inclusions. It is, therefore, difficult to reframe formal disciplinary structures overtly. However, the intolerances levelled towards intermedia, and the multidisciplinary, provide a trajectory that emerges from the literature. The propensity for the term 'intermedial' to adjectival use is an indication of the annexation it offers to other more central terms. For example, 'Intermedial Performance' (Chapple & Kattenbelt 2006) provides a specific understanding

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of form for a research community within the contemporary performing arts. Intermedia theory includes some resistance to dominant paradigms of art within a process to locate and interrogate its deep-rooted function within innovation.

The chapter interrogates an understanding of intermediality based on general views from the field and an associated understanding through the words ‘medium’ and ‘discipline’. The sections follow a discussion of intermedial discourse and its philosophical positions: 2.2 A hidden medium, 2.3 A hybrid and syncretic process, 2.4 A convergence in representational technology, and 2.5 Synaesthesia, the immaterial media of the mind.

2.2 The Hidden Medium

The illusion of an unmediated experience of a medium is one “designed to efface itself to disappear from the user’s consciousness” (Bolter & Grusin 2000: 3). The effect rates its immediacy—the degree to which we perceive the representation of reality as an immediate reality itself. Derrida, like Aristotle many centuries earlier, provides an example in the form of spoken language, “The feelings of the mind, expressing things naturally, constitute a sort of universal language which can efface itself. It is the stage of transparency” (in Cahoon 2003: 342). Derrida claims for the voice a transparent and immediate medium of the mind’s expression. However, his subject is the written, and the chain that links the voice to the mind is the same that links spoken words to the page. Both speech and text—phonocentric and logocentric—are inseparable from the inscription of representation and for Mitchell (1986: 30), “seem to require constant interpretive vigilance.” The intermedium resides in the transport of representation through material external to the mind and its mode of transformation as a medium of understanding.

As early as Leon Battista Alberti’s theory of a windowed perspective recorded in 1435 (Bolter & Grusin 2000: 23; Mitchell 1986: 37), a beguiling system of medium transparency transforms representation in the Western

world. The innovations of visual representation evident in the genre of Renaissance painting achieves analytical perspective through mathematics. The single point perspective and lens-based imaging link to the fundamental advances of scientific thought in Western civilisation. The representation of scientific knowledge aided by the glass lens is considered the declaration of 'truth' in a system; it separates the abstract mind and sensate experience. The separation of mind and matter persists as Cartesian dualism since the 17th century. For reason of its polyvalent immediacy, the photocentric lens appears as an intermedium. Single point perspective, exemplified by lens-based imaging systems, are supremely effective at generating illusion. From Leonardo da Vinci's exploitation of the camera obscura (Bolter & Grusin 2000: 25) to Nicéphore Niépce early chemical photography, the technology of perspective imaging associates the West's claim to political and economic hegemony, "under the banner of reason, science and objectivity" (Mitchell 1986: 37).

The acceptance of illusion for reality, through the transparency of media, is symptomatic of a technological system generating knowledge representation. It is what Western philosophy terms 'transcendence'. For Galileo, "Philosophy is written in the immense book of nature which is constant before our eyes and cannot be (humanly) understood unless one has previously learned the language and alphabet in which it is written. It is written in mathematical characters..." (cited in Virilio 1994: 5). Deleuze and Guattari (1988: 18) attest to, "Transcendence: a specifically European disease". Science resides in the mechanics of language—calculus, algebra, geometry, and inscription where the infinite and infinitesimal is beyond the reach of the senses, but for the mechanical intermedium and abstract mind.

Photography, digital media and computer generated design extends the Albertian window into the 21st century. The mathematical modelling and spatial representation within 3D software aided design "seems to be appealing to the Cartesian and Galilean proposition that mathematics is appropriate for describing nature" (Bolter & Grusin 2000: 27). As an illusion

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of media transcendence witnesses a paradox in two types of popular computer imaging techniques dealing with representations of the human body for commercial consumption. One is the digitally enhanced, retouched photograph used in fashion and cosmetics advertising. These images are known to be excessively 'photoshopped' to remove visual imperfections. The second comparative instance of computer generated representations of the human body is those completely modelled in 3D software. The aim for artists designing a 'natural looking' illusionistic 3D character is to add the imperfections and blemishes that simulate the accidental details of a human figure, enhancing the deception of illusion. The first technique uses retouching to create an illusion of perfection in reality, by bending the 'truth'. The second technique adds to computer 3D models the imperfections that create the firm illusion of representational 'truth' within an artefact that has no indexical basis. The different strategies create contrasting perceptions of an unmediated representation and a transparent medium within similarly mediated conventions of digital production.

Objective scientific imaging modes and conventions grasp at unmediated transparency. However, "without huge and costly instruments, large groups of scientists, vast amounts of money, and long training, nothing would be visible in such images. It is because of so many mediations that they are able to be so objectively true" (Latour 2010: 74). Media provides the illusion, and cognitive human perception transcends the illusion behind or between the intermedial windows of content. As the illusion of unmediated reality—the image becomes the object of reality itself and its 'truth-value' has significant ethical implications. Valediction of knowledge, social status and power appear to utilise illusionistic qualities and exploit media as an "omnipresent" authority (Hodder 2012: 6). Bourdieu (cited in Couldry 2013: 7) suggests, "that some concentrations of symbolic power are so great that they dominate the whole social landscape; as a result, they seem natural and get misrecognised, their underlying arbitrariness becoming difficult to see".

As a mode that transcends representation in culture, an intermedium is the potential to blur reality or to go unnoticed as it acts within a façade of reality.

The multimodal framework of representational reality becomes, for Hodder (2012: 6), a “background cue for behaviour”. For example, the social use of television and the industrial use of digital image retouching affects the behaviour of large groups in society. Understanding the impact of the intermedium, as a hidden transmitter leads to re-materialising it as a mode of opaque communication that reveals its power of diffusion as an intentionally moral character. However, history has shown, that the process that exposes illusion is at times exceedingly violent, iconoclastic and destructive (see Latour 2010). Transport chains between matter, materiality, substance and consciousness characterise intermediality within the context of the hidden medium.

2.3 The Hybrid and Syncretic Process

The interpretation of visual and sensory impression, through forms of perceptual syncretism, discipline media as material and sensate phenomena. Human production is an innate ability within manufacturing, fabrication and art. It is possible to identify the process that transforms material at the micro-level including the atomic particle. At the macro-level, the metropolis appears as an intermedium that lurches over the territory as a flow of culture upon nature. Media is the reverse motion of deformation and dysfunction in some sectors; in others, form and re-forming ‘becoming’-worlds infiltrate the human hyper-mediated mind. The discipline of production is itself a competence traced with an intermediate transformation that contributes to the map of representation. Media—as the medium of materiality—is the world of substances unprocessed and raw. The interventions of intermedia production transform material through manipulation of the unformed substance. A medium is inherently a hybrid transformational process.

Deleuze and Guattari (1988: 21) provide an anti-genealogy that configures the mental procedure for hybrid production lines,

The rhizome operates by variation, expansion, conquest, capture, offshoots. Unlike the graphic arts, drawing, or photography, unlike tracings, the rhizome pertains to a map that must be produced, constructed, a map that is always detachable, connectable, reversible, modifiable, and has multiple entryways and exits and its own lines of flight. It is tracings that must be put on the map, not the opposite. In contrast to centered (even polycentric) systems with hierarchical modes of communication and preestablished paths, the rhizome is an acentered, nonhierarchical, nonsignifying system without a General and without an organizing memory or central automaton, defined solely by a circulation of states.

Hybrid and syncretic procedures appear interdisciplinary and require the medium to perform as intermedia in practice and agility. In Latour's (2010: 108) terms, the production process is the 'transformation of the messenger' through practice, not the 'transport of the message'.

The Intermedi of the Quattrocento is a syncretic artistic production neglected or ignored by academic accounts of intermediality. However, records of the 16th and 17th century European 'multimedia extravaganzas' survive, due to 'Intermedi' enjoying patronage by Italian nobility (Smith, MW 2007: 11). The intermedi productions survive only as descriptions, scores and engravings (Rossi 1586). The free interplay and "freedom of invention" (Ketterer 1999: 194) transcending artistic material and discipline, is celebrated by the court festivals of the Medici in Italy appearing as an early form of intentional intermediality in Europe. Intermedi were significant for the "magnificence and complexity of design" (Ketterer 1999: 192) engaging music, dance, engineering and scenographic effects. The Renaissance artist as polymath exemplifies the function and discipline associated with the Intermedi. Giovanni Bardi who masterminded Intermedi and Leonardo da Vinci, a timeless artist, were polymaths who engaged in broader realms of practice, research and innovation than the divisions of labour conventional to the modern era. The Intermedi were an early form of intermediality that succumbed to the disruptive intervention of political, technological, scientific

and philosophical upheavals and institutionalisation prevalent of the 'Enlightenment period'.

The institutionalisation of the arts in Europe, into academies, during the 17th and 18th century (Ranci re 2013) prompts an alignment of the arts to sequestering forms, a convention that develops into disciplinary realms. The production of art, in separate academic disciplines, is a consequence of confining an artist's knowledge in one discipline. Interdisciplinary knowledge becomes alien from one artist to another. It exemplifies a shift from the artist as polymath to narrower divisions of expectation and competence. Writing in 1757 Burke (in Adams 1971: 302) segregates artistic competence imbued by the senses and, "whether they are or are not dependent on the same power of the mind, they differ so materially in many respects, that a perfect union...is one of the rarest things in the world." Burke prefers the appearance of unity in resemblances—like for like.

Three strands of syncretic intermediality emerge in reaction and response to the historical segregation and institutionalisation of the arts:

- 2.3.1. Gesamtkunstwerk, the total work of art,
- 2.3.2. Reproduction, the mass media and popular culture, and
- 2.3.3. Heterogeneity, the art institution and the museum.

2.3.1. Gesamtkunstwerk, the Total Work of Art

A combination of artistic and expressive forms articulates the 'total work of art' during the 19th century, often associated with the German word 'Gesamtkunstwerk' (Smith 2007). Described by Schr ter (2011: 2) as "synthetic intermediality: a 'fusion' of different media to a super-media." Gesamtkunstwerk is a model that reflects the utopian concept of social unity, with the unity of nature and art. The context developed in the 20th century within a discourse incorporating the formation of theme parks.

Gesamtkunstwerk is a nascent theory developed within Schiller's 1795 (in Adams 1971: 417) *Letters on the Aesthetic Education of Man*. Schiller contrasts the 'unity' of an individual's psychology recounted from ancient Greece to the 'fragmented being' of industrial civilisation. A principal exponent of the 'total work of art', the 19th century German composer Richard Wagner, proclaims a resistance to disruptive mechanistic forces within emerging industrial society. Therefore, Wagner links Gesamtkunstwerk to Schiller's Romanticism through the idealistic outcome of art, life and wholeness. Wagnerian fusion of the arts appears as an indication of the 19th century's interest in the human 'sensorium' and the ramp of communication towards "the spatial incorporation ...now understood as the first sign of the media matrix" (Colligan & Linley 2011: 2). It locates the historical juncture of mass media unification in the late 19th century that continues to be controversial and fuels resistance in the 20th century notably in the realm of high-Modernism.

The highly structural formation of Gesamtkunstwerk, argued by Schröter (2011), is an effort to encompass the total synthesis of hybrid artistic mediums. In this ideology, Schröter (2011: 2) observes, "Intermediality is discussed as the process of a (sexually connoted) fusion of several media into a new medium, namely the 'intermedium' that supposedly was more than the sum of its parts." M. W. Smith (2007), citing Adorno and Horkheimer's 1947 *The Dialectic of Enlightenment*, suggests that television, as an intermedial "synthesis of radio and film", is seen as, "derisively fulfilling the Wagnerian dream of Gesamtkunstwerk". In other spaces, including M.W. Smith (2007), the Gesamtkunstwerk finds fulfilment in the Disneyland-style theme park.

Wagner's Gesamtkunstwerk contributes innovations including a form that manipulates light into darkness and many other conventions of the modern technical theatre. The intermedial agency between disciplines articulates an interplay that requires compelling delivery of sensate elements to achieve unity of the whole. The ideal of the 'total work of art' exemplified by Gesamtkunstwerk, resides in the perceptual experience of the spectator (Schröter 2011). Command over the amalgamation and delivery of multiple

media is a scenography to “create a complete and total immersion of the spectator’s senses” (Salter 2010: 2). It is succeeded by the multimodal production processes engaged in the Bauhaus ‘theatre of totality’ in 1920’s Germany.

A ‘theatre of totality’ is visualised by the Bauhaus as part of a utopian, “grand union of art and technology that would restore the splintered whole of society” (Gropius in Smith 2007: 48). Gropius and Bauhaus members Moholy-Nagy and Schlemmer explore and exploit the tensions between the organic and the machine in manifestations of the Bauhaus Gesamtkunstwerk during the 1920’s. Their intermedial procedures situate spatial relationships between the body and architecture, and between human ingenuity and movement of the body. They found expression in precision and factors corresponding to basic mathematical principals of geometry, space and motion (Collins & Nisbet 2010: 269).

Wagnerian ‘fusion’ indicates a 19th century proto-Modernism (Salter 2010). Bauhaus ‘Modernism’ replaces, “Wagner’s vision of an organic work of art with a vision of an organic machine” (Smith 2007: 70), and marks the 1920’s as having the early signs that indicate the age of electronic media. Intermedia in the mid 20th century defines the neo-dada ideology of Fluxus and their ‘hybrid’ Intermedia Manifesto of 1962. Associated with the threshold of Postmodernism (Ran 2009: 210), Fluxus and Intermedia represent the antithesis of high-Modernism in the arts. In the later half of the 20th century, Gesamtkunstwerk is variously criticised as tipping towards an overwhelming of the senses and a “theatre of narcosis” (Goldman in Salter 2010: 2). Moreover, Hassan (1996: 399) considers “intermedia, the fusion of forms, the confusion of realms” in a sharp critique of hybrid artistic production.

2.3.2. Reproduction, the Mass Media and Popular Culture

Both high-art and mass-culture serve to articulate a trajectory for intermediality through the decades of 20th century Modernism. Virilio’s (see Virilio 1994) ‘total work of representation’ is a narrative that regards ‘the

total work of art' as a progenitor in the political control of media communication. The propaganda machine provides the illusion of social and cultural unity; its control mechanisms are those of the mass media, and its currency expands through the convergence of realms. The total work of representation seeks a panoptic unity in regulating media channels.

With a genesis in the mid-1960's, Fluxus is a group of creative producers including artists, designers, composers and architects. Dick Higgins, a member of Fluxus, is attributed as coining the term intermedia in the context of Fluxus (Friedman 2005; Higgins, Dick [1981] 2001; Schröter 2011; Swalwell 2002; Tofts 2011). Intermedia refers, "to art forms that crossed boundaries so far that they gave birth to new forms and media" (Tofts 2011: §1). In the 1960's Fluxus is challenging a prevalent theme associated with high Modernism—medium specificity in the arts. Higgins (1966: 3) indicated for intermedia,

It is not governed by rules; each work determines its own medium and form according to its needs. The concept itself is better understood by what it is not, rather than what it is.

Higgin's statement on intermedia appears in *The Something Else Newsletter*, New York 1966 and begins with the provocation, "Much of the best work being produced today seems to fall between media. This is no accident" (1966: 1). It articulates a trajectory of intermediality operating in the void space between the institutionalised segregation of the arts.

Higgins (1966) suggests that "intermedia was merely a part of how a work was and is; recognizing it makes the work easier to classify, so that one can understand the work and its significances." The 'intermedial turn' intensified by syncretic use, access and understanding of media in the 20th and 21st century appears to have effected a 'crisis of legitimization' in the traditional institutions of art (Rutten & Soetaert 2011). The practice of hybridity and syncretic intermediality signifies a tolerance of 'otherness' where a curious medium from one discipline is either resisted or adopted by another. Fluxus

Intermedia provides an alternative representational relationship to the machine of society, through mixing modes of communication. The Fluxus technique of blending form threatens to circumvent the prevalent themes of high-Modernism and its theories. For example, Greenberg's concept that "each medium be pure and separate", is contested by Fluxus and, "superseded by a 'postmodern' desire for hybrids and morphic transformations in content, structure and presentation" (Ran 2009: 55). Fluxus syncretic territory contrasts with modernist themes of purity and specificity.

The Fluxus legacy includes the currency of intermedia as an ontological shift that challenges conventional social continuity. It manifests resistance within a dominant paradigm. Fluxus associates intermedial practice with being a precursor to the postmodern arguments that end the separation of "distinct branches of knowledge, and thus a powerful support for interdisciplinarity" (Krauss 1999: 33). Postmodernism attributes the post-structuralist theories of Derrida and Foucault with the deconstructed 'fiction' of high-modernist purity that reified the "presumed separateness of a given intellectual discipline" (Krauss 1999: 32). Fluxus represents for Krauss (1999: 33), "practices of rampant impurity... that had long since been underway". Fluxus Intermedia provides an alternative to the hegemonic theories that segregate the arts. In the late 20th century a philosophical impasse coincides with the ideological absorption of the 'arts' into the informational mode of the global communications cultural industry and policy directions such as those associated with clustering of the creative and cultural industries.

Postmodernism highlights the separation between privileged 'high' art and the growing social demand for global access to aesthetic forms of knowledge. With aims to 'popularise' culture, postmodernism persists long enough to form its traditions and oppositions. Rancière (cited in McNamara & Ross 2007: 102) observes the hybrid condition associated with postmodernism,

Hybridity was celebrated in so-called 'post-modern' discourse as the collapse of the modernist tradition of separation between high art and popular art... Conversely, modernists saw in hybridity the collapse of art with the commodity or entertainment.

The 'resistance' and 'shift' of the type attributed to Fluxus appears to drive waves of participating artists and theorists beyond the modernist and post-modernist cadence into the currency of our times. Terry Smith (2007) suggests resistance to dominant paradigms constructed throughout the modernist era continue to be a defining attribute of 'generational drive' in art stating that,

The polarity between official, First World and critical, Rest of the World art ... is in fact a densely connected dichotomy, not only because all artists of serious intent continue to acknowledge the legacy of the great artistic 'shifts' of the 1960s, nor simply because they all work in the same overall conditions of contemporaneity, but because art continues to be subject to generational drive – it is incessantly taken up by new artists.

The Fluxus group intended Intermedia to be the democratisation of media through multiplicity, plurality and audience/community participation. The intention and effect include the opportunity to combine experiences associated with technological means, communications media and distribution in a 'social milieu' (Higgins, Dick [1981] 2001). In this sense, the terms of intermediality function well as the indicator of practical and political intention and as an artistic methodology. Higgins as the progenitor of Fluxus Intermedia exists within the fracture between Modernism and contemporaneity. The literature confirms that the conditions of the nineteen sixties have contributed to current historical understandings and precedents of intermediality (Friedman 2005). Despite Fluxus claims, the lineage of intermedia has a deeper historical trajectory with significant references that contribute to 21st century interdisciplinary and cross-modal vernacular. There are important historical precedents that counter the 'narrative' inscription of the term 'intermedia' with the 'authorship' of the Fluxus group.

Ongoing research and practice appear to claim new ground for the terms methodological purpose.

The critical failure of the term 'new media' to persist as a formal category of contemporary art, came to pass in the first decade of the 21st century. For some academic circles, the term 'intermedia' proves to be resilient, when 'new media' is unable to resolve the condition of its cadence. Intermediality demonstrates a continued currency through cultural forms and ideological depth. Its veracity exemplifies Gelikman's (2011: 2) observation,

They shift our attention onto the movement within the inter-medial dimension, rather than through it. While the word is new, it presses into service an old, indeed archaic argument for the centrality of the medium to representation: it can be found in Aristotle's Poetics, Lessing's Laocoön...

Resistance to the words 'new media' is analogous to Gelikman's (2011: 2), "suspicion that the 'talk of intermediality' will raise ghosts of disagreement surrounding medium-specificity and the epistemological stances that radiate from this bewitched spot of critical theory". The worldwide trend "formally known as new media arts" (Quaranta 2010), currently appears orphaned. An inference to a crisis of identity produced by the inadequacy of the term 'new media arts' fails to appropriate an autonomous categorical description for contemporary mediatized forms of expression. However, media arts academics consider 'intermedia' as a suitable alternative epithet. Paul (2005) suggests intermedia when making the distinction between common understandings of convergent media types. Quaranta (2010), focuses on the fate of the term 'new media art', and illuminates the option of intermedia to take its place. The mediated and interdisciplinary forms that proliferate throughout 21st century communications systems, including the arts, "have elicited radically different kinds of perceptual practices" (Salter 2010: xvi). The material and conceptual understanding inherent in intermedia are already synonymous with this condition. The simplistic equation that

intermedia = new media, fails to elicit the polemic in the duality of 'old' and 'new' media that concerns artistic practice contemporaneously.

2.3.3. Heterogeneity, the Museum and the Art Institution

Francis Bacon, the 16th century polymath, describes a cabinet of curiosities as a wunderkammer. The allusion is to a unity, syncretic and universal, "a goodly, huge cabinet, wherein whatsoever singularity, chance, and the shuffle of things hath produced; whatsoever Nature has wrought in things that want life and may be kept; shall be sorted and included" (Bacon cited in Impey & MacGregor 1985: 1). The Wunderkammer signals the dawn of modern science, the birth of the museum and the institution of art in one moment of nascent intermediality. The genesis of an idea born from curiosity as the trace of, "all knowledge and wonder (which is the seed of knowledge) is an impression of pleasure in itself" (Bacon [1605] 2010: 20). In the 16th and 17th century, the cabinet of curiosities was analogous to the museums of today. Representations made by humankind position the grand scheme of geography, objects, materials and substances, as encyclopaedic. Nature and culture are juxtaposed and, particularly in the Wunderkammer, of unusual appearance and blend. Appearances that "reappropriate and reassemble reality" arranged through a desire for symmetry and based on visual pleasure and aesthetic criteria (Olmi in Impey & MacGregor 1985: 10).

The currency of syncretism is diffuse and embedded in institutional frameworks that absorb or resist its opprobrium. Nevertheless, forms of intermediality are marked by a certain increasing social popularity and selectively find their way into the museums and institutions of art. The common principles that locate syncretic intermedia as the interplay of mediums, and the concept of inter-, multi- and trans-disciplinarity are the same within the intention of transformation in any medium. However, the basis for intermedia in contemporary art, as with the Wunderkammer of the 16th century, is a resourceful and curious materiality that provides the machinery of tolerance in a paradigm that crosses practice beyond and within the creative arts. It is operable to the currency of media diversity and

includes realms beyond the digital, analogue and conventional disciplinary distinctions.

The traditional disciplines of art are predominately institutionalised through the formation of academies of music, performing arts, literature, visual arts. However, to maintain disciplinary values and continuity, established themes are permeable, when the need arises, to facilitate a paradigm shift. Photography and cinema represent a later fusion and provide a precedent for fluctuating disciplinary distinctions. Institutionally framed boundaries expand their realms to capture the compelling practices of intermediality. For example, Nelson (2010: 15) claims, “intermediality may now best be understood in relation to performance”. Conflating the term ‘intermediality’ with discipline specificity contradicts some of the discursive resonances and residues associated with the field. The adjunctive appears as an issue of relevance; it also highlights that there are few autonomous descriptions for contemporary forms of intermedia. Institutional reaction and intolerance to the autonomy of intermediality in the arts remain prevalent.

Rancière describes a principle notion within interdisciplinary art practice as ‘a-disciplinary’ (in McNamara & Ross 2007). His favoured term, ‘aesthesia’ (Rancière 2013), signifies the unified senses that construct “its own domain by blurring specificities that define the arts and the boundaries that separate them from the prosaic world”. In this interpretation, interdisciplinarity is associated with a currency in the contemporaneity of art and a “multiplicity of relationships between time and being” (Smith, T 2009: 4). Rancière and Smith articulate the terms of “retrospective Modernism” (Rancière 2013: xi), and “remodernism” (Smith, T 2009) as a scale of tolerance sliding between the specificity of mediums. Many precedents within the practice of art involve natural crossovers and comfortable interdisciplinary procedures for artistic production. The challenge of producing intermedia work generally, and not confined to an artist's practice, is buffeted by the demands of specificity within institutional frames. The frames of disciplinary reference and their infrastructure are residual practices and architectures that transfix

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the intermedial within the institution's image of disciplinary practices. Smith's (2009: 113) observation of a "relentless" operation of Modernism describes a manoeuvre of remodernism (2009: 7). The absorption of new forms into semiotic traditions suggests the capacity for the interdisciplinary and intermedial to lead an "art that is fundamentally other". As disciplines become contextually stretched they force "the institutions into doubt and redefinition" (Smith, T 2009: 113). The intermedial form, with a propensity for resisting specificity and definition (Sieglings 2005), is prone to destabilising disciplines coded boundaries.

Intermediality frames the transformation of theatrical production over the last few decades through converging forms of technological representation (Chapple & Kattenbelt 2006; Nelson 2010). However, the deficit produced by fixing intermediality to the digital, "shifts the balance between media while bringing forward a new emphasis on media that cannot take digital form" (Friedman 2005: 55). The syncretism of intermediality is a broad sense with a focus on the boundaries of all media, even those considered analogue. Media mixing and materiality within artistic production de-emphasise the digital to promote affect and presence. Intermediality is in a "profound yet paradoxical relationship to new media" (Friedman 2005: 57), particularly digital forms and modalities. Considerations, such as Friedman's (2005) contextualise the fluidity of discipline inherent within intermediality. Positioning intermedia as a discrete competency verges on proclaiming disciplinary characteristics; this would be counter-intuitive. However, when a medium fails to elicit form in isolation, it is redeemed through an intermedial merger facilitated by the multiplicity of modalities contained, in proximity and represented. Intermedia practice performs as trans-disciplinarily modes of engagement—as various competencies of integration.

The remedial practice of intermedia as recursive production frees the term 'medium' from problematic reports of 'retro-Modernism'. By shifting the structure of meaning to the "insistence of internal plurality of any medium" (Krauss 1999), the understanding of medium falls within a relational membrane and to its internal morphology—its 'intermedial condition'.

Schröter (2011) refers to a similar approach as “ontological intermediality”, and links Derrida’s theory of deconstruction and Saussure’s ‘system of difference’ to an understanding of media through its binary opposition. Whatever is deemed specific in a medium is also defined by what other mediums are not. Thus, there is a trace of all media within other media (McLuhan 1964). In Saussure’s (1992: 724) view, “In language, as in any semiological system, whatever distinguishes one sign from others constitutes it”. What defines a discipline within an institutional context is constantly challenged and stretched by artistic production. Mergers and exploits that trace other disciplines suggest that intermedia processes are always at work within and at the boundaries that define convention within the institutional frame.

2.4 A Convergence in Representational Technology

Intermediality is an aesthetic production within a mediatised world. It is a mode within a broader regime of general artistic communication. The interrelationships of art and communication technology are within relational aesthetic paradigms. In this realm, intermediality is within a context of ubiquitous mediatisation. Its processes—of hybridity and experimentation—are associated with the disruptive innovation that unsettles immediate static paradigms. As Jameson (1984: 560) articulates,

What has happened is that aesthetic production today has become integrated into commodity production generally: the frantic economic urgency of producing fresh waves of ever more novel-seeming goods (from clothing to airplanes), at ever greater rates of turnover, now assigns an increasing essential structural function to aesthetic innovation and experimentation.

Aesthetic production, such as demonstrated by the practice of art, absorbs the modalities of entertainment, innovation, knowledge and information. Intermediality is therefore associated contemporaneously within ‘convergent

mediatization'. Artists become innovators who draw together techniques and capabilities across disciplines. One effect is that intermediality moderates the blend of conventional artistic practices within demands predominating the communication technology milieu.

Economic structures define demographic principles for artistic production as entertainment, innovation, knowledge, information; so too media structures define convergence as a standard for artistic integration within society. Conversely, demands to digitally mediate experiences thrust intermediality, in the form of hypermediation, out into the world for artists and designers; setting the stage for the aesthetic integration of ubiquitous information technologies. Additionally, intermedia's philosophical theme of "broadening art to include social context rejoins today's pragmatic emphasis on legitimization and social context in design practice" (Braun & Aziosmanoff 2009: 3). Presciently, important advances in technology conceive the intermedial synthesis of form and modality. Significant convergence of intermedial technology includes the development of the European printing press in the 15th and 16th century. Then, during the 19th and 20th century, photography heightened the enduring competition between word and image (see Berger 1973; Mitchell 1986). The combination of words and lens-based images at a time when photography is considered new to art (Newhall 1962) was characteristic of intermediality in the production of nascent worlds of media representation including the form of cinema. Articulated by Colligan and Linley (2011: 6), "Industrialized techniques of image-making enabled a new mobility of vision that may have uprooted the eye from traditional networks of referentiality, but it also rerouted the image into combinations of time, space, memory and meaning". The effects of photography as a newly accessible medium, on the understanding of visual perception and the practice of art, are central to critical theory in the 20th century. Photography's development and practice are itself an intermedial convergence of modalities, systems and techniques (Elleström 2013).

Elleström (2013) articulates the intermedial relations that entwine media in specific categorizations as having, amongst other things, contextual and

operational considerations; these include 'social and cultural' and 'aesthetic and communicative' aspects respectively. In discussing the media relationships associated with the qualifying example of photography as a medium, in a nuanced and technical investigation, he concludes that,

Photography may not be one medium; it may constitute a gathering of several media that can be discerned as an important and captivating part of the great web of intermediality. (Elleström 2013: 168)

Elleström's (2013) rationale considers the division between 'documentary' as a contrast with 'aesthetic' modality of photographic media. It is in analysing the distinct modalities of photography that Elleström concludes within a paradigm of intermediality.

Multimodal insights into the internal character of a given medium provide the structure for regarding the spatial and syncretic relationships within intermediality. For example, early 20th century enthusiasm for the 'new art' of television is "as boundless as the imagination" when combining music and moving image (Negus 2006: 313). It is not too difficult to associate intermediality with the emergence of the television in 1920's America as a blended form extending radio transmission. The television's synthesis and intermedial function are the ability to broadcast the combination of sound and image. By all accounts, television is considered a novel extension of radio at that time. Similarly, Rosalind Krauss (2006: 56) interprets the intermedial qualities of a film by asking the question, "is the 'support' of film the celluloid strip, the screen, the splices of the edited footage, the projector's beam of light, the circular reels?" In her critique of "traditional aesthetic genre," the word "medium" is replaced with the terms "technical support" or "physical support," in an attempt to circumvent inherent intermediality in any medium by proposing a 'post-medium condition' (Krauss 2006). Contemporary practices, no longer defined through a single medium or disciplinarity, prompt Krauss to take the next step as a side-step. Materiality and immateriality are irreconcilable and constitute a post-medium condition. The

reality of artistic production resides in an entanglement of the material and immaterial.

2.5 Synaesthesia and the Immaterial Media of the Mind

Synaesthesia's cross-wiring of sense effect contrasts with the concept of formed perception within aesthesis. The potential to interpret intermedia within a synaesthetic metaphor requires acceptance of sensory cross-modal binding and cognitive plasticity (Bremner, Lewkowicz & Spence 2012). Synaesthesia offers the phenomenological and neurological possibility of "sensory scaffolding" (Colligan & Linley 2011: 3). Processes that provide cognitive insights by achieving a 'union of the senses' through "intentional synaesthesia" (Suslick 2012) demonstrate precedence through artistic production. The work of Australian artist Robin Fox is an example (Milledge et al. 2011).

An interrelationship of media and the body are within the unifying principle of human perception. Sensate perception, internal and external senses, function to draw the sensual corporeal universe into the 'memory theatre' of the mind's imaginative world. The modality of the sentient being is an intermediate mingling of signals in real time. A centre of sensation—the 'sensorium'—is already whole and only fragmented by analytical surveillance and ideology. The cross-wired modality attributed to synaesthesia suits the multisensory interplay associated with the artistic intention of intermediality.

Our daily perceptual experiences are, almost without exception, multisensory. We perceive the objects, events and people around us through a range of sensory modalities which convey overlapping and complementary streams of information about our environment and ourselves. (Bremner, Lewkowicz & Spence 2012)

The senses are a typology within the anatomy of the body; empirically defined by surgical dissection and observation. However, the sense

impressions of the mind are beyond the material world. They are thoughts and imaginings regarded as immaterial, but a direct representation of energy nevertheless. The immaterial is an intermedial realm. The electromagnetic spectrum of white light scattered through a prism illuminates the striation of hue in the form of colour and reveals the immateriality of light. In the realm of the senses, light exists for darkness to transform through illumination or cold to become heated. Matter is to touch, and a feeling is a sensual capacity of wholeness and completeness. Synaesthesia is the embodiment of sense intermediality, a place of inhabitation, a network of diffusion from which perception of media forms emerge within cross-overs. The senses are a membrane embodied by the unity of media, the place of sense production. As a site of synthesis, the 'sensorium' produces aesthetic sense data; it is the modality of a sentient being. Serres (2008: 167) provides a scaffold to "recompose what analysis separates" and in so doing questions the modalities of confusion and abstraction. He states, "analysis slices and dices raw; synthesis requires flame. As a result, the latter tends towards knowledge and culture; the former remains unrefined" (Serres 2008: 167).

Widespread synaesthetic language metaphors in the arts parallel the sciences and technology (Suslick 2012). An example is an expression, "sweet sound" (Glicksohn 2011). The function of knowing something like a sense impression interprets and combines modes of sensation, drawing media closer to the human subject and simultaneously acts as an extension of it. In McLuhan's (1964: 26) reconceptualisation of media as the 'extension of the body', he made the note that, "all media are extensions of some human faculty—psychic or physical." Intermediality is therefore ideally suited to 'reveal the sensory world' and the plenitude of embodied media expressions that form into the perception of place and perceptual environments. The embodiment of intermediality promotes an integrated sensory membrane. Receptive pulses and sensory synaesthetic cross-modal impulses produce a frontier of perception and imagination. Deleuze (1990: 125) determines "the frontier is not a separation, but rather the element of an articulation, so that

sense is present both as that which happens to bodies and that which insists in propositions.”

2.6 Conclusion to Chapter 2

The literature provides insights into the historical and contemporary context associated with intermediality. The modes of merging and the modality of synthesis describe terms including, “collision, exchange and transformation” (Spiellmann 2005: 132). However, an interdisciplinary formation emerges that positions intermediality within a relational, structural paradigm. Current attitudes and prevalent heterogeneous compositions within contemporary culture and society suggest intermediality is a significant method for navigating the future of materiality and media. The interrelational web of media reveals a matrix that provides structure for innovative formations to resolve.

A contemporary consequence of intermedia is the shift of innovative pathways between established media towards alternative and inventive forms of expression within blended realities. As a result, intermedia recognises media convergence and interdisciplinary ingress within multi-modal artistic production. A multiplex of competencies includes, for example, wrangling, tolerance, interpenetration, absorption, opacity, hybridity and metamorphosis. All forms of mixing, diluting, infusing, transfiguring, co-mingling, injection, distillation, convergence and alchemy—all forms of aesthesis, perception, sensation, synaesthesia and interpretation—ceaseless in redefinition, remediation and interrelational sequencing. These are the curious actions of artists seeking experiences, understanding and meaning from the material substance of the world.

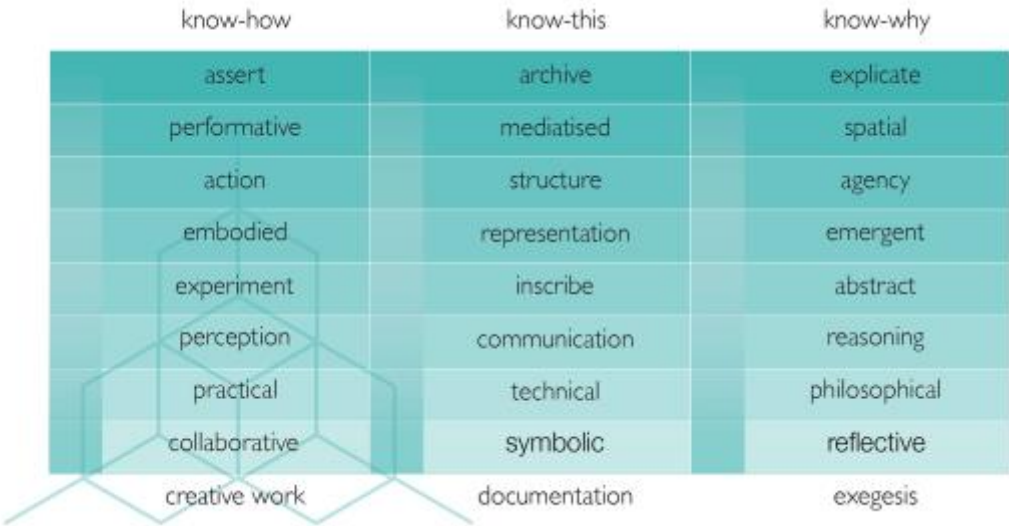
Schröter (2011) interrogates the various species of intermediality, to reveal that the concept of plurality inherent in the word intermedia is already in action, as a site and modality ‘between’ mediums. It is a bridging metaphor that gathers medium specificity and diffuses the complexity of connections and mixes. Heidegger (cited in Hodder 2012: 8) provides a metaphor for

media as, “gathering the two banks of a stream in relation to each other, and it gathers people that cross the bridge, it gathers people and carts into town and workers into the fields”. Intermediality is a way to focus complex actions through its functionality. By this, it gathers different media components, even if the final manifestation appears contingently as one or other modality specifically (Higgins [1981] 2001).

Intermediality is a term well suited to the concept of media networks in internodes, membranes and webs of interrelationships and interpenetrations. It quickly moves beyond the predictability of linear binary oppositions between media species to greater lacings and increasing strata of multiplicity. It is the potential of a tertium quid and alchemical transfiguration as well as the sensory overload, the messy composite and the other spaces of heterotopia. The intermedial connective tissue inhabits a world of material trajectories and interdisciplinary contexts accessed through the ontology of material thinking.

Chapter 3 – Materialising an Intermedial Methodology

3.1 The Intermedial Paradigm



know-how	know-this	know-why
assert	archive	explicate
performative	mediatised	spatial
action	structure	agency
embodied	representation	emergent
experiment	inscribe	abstract
perception	communication	reasoning
practical	technical	philosophical
collaborative	symbolic	reflective
creative work	documentation	exegesis

Table 1. Milledge, R. 2014. Word associations used to formulate the connective thesis model

Knowledge functions like a structural vein along three interconnected sites of the research, know-how, know-this and know-why. Table 1 indicates the speculative modes of knowledge production and the approach that links the multimodal process to the main phrases of knowledge embodiment experienced through the project. Several knowledge centres compete for the research focus within the integration of epistemologies that operate within the interplay of scholarship, creative research and professional practice. A pattern of multi-part components encapsulates the research like a woven vessel that has different phases of construction with attributes such as a volume and form. Table 1 reflects the potential for mergers between research, scholarship and creativity that is implicit in the projects methodological boundaries. Shifts in the structure become evident along epistemological fault lines. Methodologies crack and converge to keep track and focus on the outward presentation of artistic practice, the collaborative nature of production and the reflexive introspection required to develop a unique theoretical position. The knowledge embodied in the know-how of collaborative creative work, the know-this of symbolic representation and

the know-why of reflective exegesis accounts for the research journey. A reflection that explains the purpose of the research methods clarifies the multi-part project in this chapter.

3.2 Subject/Object Reflexivity in the Creative Research Project

Autonomous professional practice overarches the project. Simultaneously, academic practice-led research collocates epistemological cores within the artistic production. The extent that professional practice resides as an element of the creative research process focuses on the demands of creative production brought to a public presentation in partnership with independent artists and venues outside of the academic context. A corollary in parallel to this process appears as the theoretical propositions suggested by reflexivity and analysis. Within the practice-led research enquiry, a connective research process links the threads of creative and academic research into a layered project with formative consequence, professional motivation and social purpose. The layered workflow and procedural challenges within the project attribute experience in the construction of new techniques and processes. The outcomes of the methodology are both central to professional practice and academic reflexivity that enhances nascent theory and brings forward new knowledge.

In a discussion about practice-led research Barrett (2007: 135) questions the viewpoint of self-referential and self-reporting reflexivity as a valorising flaw. In a previous century, Coleridge (1835: 623) observed the conflation of self-referential subjectivity within empirical research,

All attempts at philosophical explication commenced in an effort of abstraction, aided by another function of the mind, for which I know no better name than substantiation; the identity of the thinker's own consciousness...was confounded with, and substituted for, the real substance of the thing.

Subjectivity within basic academic research often generates an opprobrium on the status of non-traditional knowledge structures. Barrett (2007: 135) and Coleridge (1835: 623), direct attention toward the authorial voice in determining the effect of supposedly unbiased research. If a creative work fails the test of detached impartiality, a test with origins in the empirical sciences, then it stands to reason that other forms of knowledge generation are at play. The fact that there are still discussions within academic departments about subjectivity and research validity indicates the point is hard to resolve in traditional academic circles. Research via action-induced reflexivity, as might be found in practice-led research, is vindicated by efficient performance models representing the quality of an action and the record of what that action produces. The analogy between action-led and practice-led research paradigms can be found in research instruments such as an embedded enquiry cycle, evaluated on its performance. The research action cycle provides a precedent for generating nascent knowledge claims in practice-led research.

The traditional research expectations of impartiality in the form of an impersonal account are criticised as “an artifact of a style of writing” (Gillham & McGilp 2007: 183) and “objectifying rhetoric” (Aull Davies 2012: 8) associated with an overly masked presentation of the origins of research findings. The unbiased writing style downplays an author’s personal subjectivity in their research, to the point of objectification. However, the “impersonal account is still constructed by a person, with all that that implies” (Gillham & McGilp 2007: 184). Scientific research can be understood as traditionally structured towards absolute truths within a positivist paradigm. In post-structuralist modernity, theoretical arguments about the nature of ‘truth’ have dislodged scientific veracity and objectivity. A pronounced paradigmatic fragmentation promotes alternative forms of epistemological knowledge asserting value within the cracks of the academic institution. Burroughs-Lange et al. (1999: 401) suggest dominant ‘mono-paradigmatic’ accounts in the traditional scientific model “gives an over-simplified picture of ...what knowledge is” and that recent developments in epistemological beliefs factor a change towards subjectivity. Placing the

researcher into the research is a personal action, and it is a legitimate point of view in practice-led research methodology. From the broadening base of acceptable research structures, the scope to consider the value of subjectivity as a generator of knowledge that forms in artistic production has merit, and not just as a comparison to traditional academic regimes of knowledge.

Subject of study 'know-how'	Intermediality in the collaborative art practice of the researcher.
Disciplinary object of practice 'know-this'	The creative production cycle and its authored outcomes.
Process of learning 'know-why'	Professional <i>and</i> scholarly development of the researcher.

Table 2. Reflexivity within the research.

The dimension of self-referential reflexivity within the research project cycle is three-fold, the 'subject of study' and the 'disciplinary object of practice' — represent the pedagogical action spiral of research and learning with outcomes in collaborative and professional practice. Reflexivity impacts the processual know 'how' of practice, the embodied know 'this' of symbolic representation and the procedural knowing 'why' of research as represented in Table 2.

The parallels of professional practice, symbolic veracity and academic theory exert forces that test ethical enquiry within the methodological character of the research process. The reflexive framing of a collaborative research method used within the action cycle follows Banks (2001: 73) ethical ideology that mitigates the interest of the researcher through a model of collaborative "research in practice". Banks concern for the moral position of the researcher in participatory methods attributes collaboration within a reflexive strategy that locates an ethical research position with auto-ethnography. Banks (2001: 112) found that working with peers mitigated processes to a point where "it seems more morally laudable to recognise the co-humanity of those we work with... Social knowledge is a processual aspect of human social relations, not a static thing. To do good research... a researcher has to enter into that process". The auto-ethnographic research

that produces artistic representations in this action enquiry cycle is not unlike the social research case study described by Banks (2001). However, contemplating Banks ideas about auto-ethnographic paradigms highlights the morality of disciplining what is essentially an a-disciplinary creative research project. The moral and ethical implications of joining with others as collaborators in a research journey appear to have some ideological power regarding an ethical position from which to do practice-led research. In the creative production cycle, research collaborators are acknowledged for their skills and own their understandings of practice. Each actor in the collaborative framework of the cycle contributes to an open process mediated collectively. Mediation and alteration of the cycles outcomes (Rose 2007: 252), is a basis for peer participation and induces collective decision making. Collaborative development and 'authorship' valorize the creative works as symbolic representations of knowledge because of a shared understanding. Peer collaboration is a foundational process with ethical implications of reflexivity and participation that align and moderate the social issues of agency and structure within creative production.

3.3 Inscribed Knowledge as a Procedural System Within the Creative Works

The place of creativity in the research represents an opportunity to scaffold an intensive artistic production system to an ontological architecture. As a nascent field, creative practice within practice-led research attempts to locate the empirical veracity of new knowledge in the unique innovation and implementation of creativity in the process. Consequently, an argument that artistic practice performs within the production and presentation cycle inscribes knowledge in the artefact in a way that is equivalent to a research text. Production and presentation are the epistemological structures and communicative frameworks developed through the research that concedes intertextual media as symbolic forms of creative art. For example, photographic artworks within the context of the projects creative production provide a discursive intermedial element within the enquiry cycle. Photographic art implements intertextual qualities within the project cycles

practice-led enquiry, and it builds symbolic reservoirs of content that are associated with presentation cycles. Plate 1 provides a representative example of photographic art that associates with the 2009 artistic production *Whispering Limbs*. Photography, scenography, choreography and other artistic techniques are compositional processes that represent spatial, sonic and visual intertextual equivalencies within the language of intermediality.



Plate 1. Milledge, R. 2009, *Whispering Limbs*, photographic art with performers Rebecca Youdell, Earl Rosas and Zane Saunders.

Weber (2004: 57) provides a viewpoint that technique is “the sense of a systematic organization and application of knowledge. [It] involves a practice, a way of being in the world that cannot be reduced to knowledge, however closely it is related to it.” For Weber, knowledge surrounds an application of technique; and in the artefact, it appears as an inscribed form distinct from practice. A similar sentiment appears 400 years earlier in Bacon’s ([1605] 2010: 17) definition of knowledge,

...the two principal senses of inquisition, the eye and the ear, affirmeth that the eye is never satisfied with seeing, nor the ear with hearing; and if there be no fulness, then is the continent greater than the content: so of knowledge itself and the mind of man, whereto the senses are but reporters...

The definition provided by Bacon suggests knowledge passes from one mind to the next through the medium of the senses. Knowledge is a secondary

focus—analogous to a library or archive. It follows that knowledge is deposited, kept and curated. It also follows that knowledge is inscribed within creative work through practice as a procedural and experiential technique. For Bacon and Weber, knowledge associated with professional practice lacks the objectivity and the abstract distance required for the scientific method. Artistic production is procedural, and its epistemology lays in praxis. Understanding knowledge in artistic practice requires a post-structuralist theoretical framework that locates its value in the definitions and locus of subjectivity. Current theories of reanimation and embodiment (Armstrong 2007; Berman 1981; Gablik 1991) provide rigorous alternatives to the scientific method and argue the position of subjectivity within a knowledge continuum. Creativity achieves clarity within the machinations, innovation and development of practice as a performative “knowing-in-doing” (Nelson 2013: 9). Knowing ‘how’ is not the same as knowing ‘why’, but the basis of each is an epistemological knowledge structure. The “close relationship” of practice to knowledge, indicated by Weber (2004: 57) suggests knowledge might pass through technique towards the implementation of knowledge in the artifact. ‘Authorship’ in practice is an inscription that induces knowledge in form; it is a conduit transforming the medium through creative knowledge. The individual practice of producing knowledge is a critical and timely extension of traditional reportage, repository and archive.

Carter (2004) provides an account of artists as researchers that confront the prejudice articulated by Peckham (cited in Morris 1970: 62) “art tells us nothing about the world that we cannot find elsewhere and more reliably.” Peckham’s observation appears to occlude the intermedial differences between an artists’ perceptual experience of the world and the simple intertextual experience of art for its audience. As a subjective experience, the embodied process of art making connects the artist directly and intentionally to the world through a phenomenal object of enquiry. The artist inscribes material, and it becomes a medium—the audience reads the inscription as a context of cultural transmission. At this point, the artist has produced a unit of symbolic communication. Traditional audiences perceive the art object as

a modality; it is an intertextual medium in the same way that all media filter units of communication and reduce to the intermediate transmission of coded symbolic meaning. The audience reads the art object as an interpretation of signs within a social context that includes their own and the artist's subjectivity.

The mixed modality 'system of thinking' (Bachelard 2006) includes the abstract, empirical and theoretical, and positions a reified regime of knowledge formation. An artist brings to light knowledge in form through the innate ability to conceptualise the experience of materiality. It is unsurprising then that a mixed-method synthesis (Barrett & Bolt 2007: 155) characterises much of the creative arts methodology described in the literature in practice-led research. The transformation from materiality to mediality is an implementation of a knowledge architecture within a creative technique. A medium becomes a form irrespective of content (McLuhan 1964). Artistic production embodies a procedural knowledge, and the cultural artefact is equivalent to a repository and archive; it represents a significant contribution to the generation of new knowledge and understanding as a creative form.

3.4 Creative Work as Alternative Knowledge Structure

A knowledge structure forms within the subjective experience of practice, in forming an artefact from raw materiality. In addition, a knowledge structure forms within an audiences' perceptual relationship with the artefact. The artefact demonstrates knowledge within an open-ended structure, the result of direct perception and ephemeral experience. Artistic productions are in a state of alterity to expectations of conventional structures and knowledge repositories. Convention prefers to fix knowledge definitions in absolute truths; creative works are often ambiguous and defined by a conceptual fluidity. The state of creative 'open-endedness' (Carter 2004) has an ironic association with ways of identifying knowledge within the perception of artistic production.

A significant feature of the creative arts research program is the practice orientation of artistic production and presentation perceived as a research intelligence. It involves the use of artistic strategies to investigate the complexity of the cultural world and its domains and regimes within society. In response, this research is compelled by the expression of identity, self and society, manifesting through a creative dialogue involving reflexivity and a process of change and innovation. A procedural knowledge features in the resolution of tensions and definitions that form in the resulting process of artistic production. New forms of knowledge come from a place of uncertainty and artistic experimentation. Creativity is an emergent and interactive process that emanates from a place of 'un-knowing'.

Heidegger's *The Origin of the Work of Art*, implicated in Weber's (2004: 57) interpretation, describes the potential of artistic production as the installation of being within openness and "every move a remove". For Heidegger, artistic claims to knowledge structure stand in a void concerning the concept of 'knowing'—as a position of discovery at the liminal edges of veracity and where uncertainty and the unknown are understood to be part of the process. Artistic experimentation exploits 'unknowing' as a strategic position by remaining mindfully ignorant of reason or empirical validity. Procedural 'unknowing' is immanent to knowledge fluidity; its proximity is beyond reason. It is reasonable to consider, as Pritchard (2014: §2) did, that "knowledge simply marks a point on a continuum of epistemic value, but...it is far from clear why the focus of epistemological theorizing has been this point on the continuum rather than some other point (one just before the one that knowledge marks perhaps, or one just after)." Representing creativity as a material relationship existing between known and unknown things is an open-ended experience.

Artistic creativity, perceived as being ulterior to academic research, is a tacit knowledge that struggles to find expression in academic methodology (Barrett & Bolt 2007). The context of locating tacit knowledge within a repository of a structured reason is a factor pushing against the ambiguous

expressive form. The process of inscription in artistic production attempts to aggregate practice and theory as a conflation of tacit and explicit knowledge. The potential relational form as the third character of knowledge structure. Examples of nascent creative forms are implicit knowledge structures providing symbolic and sensory experiences. The creative arts within academic research is a tension oscillating through a narrowly defined band of knowledge veracity based on primary and secondary descriptive and

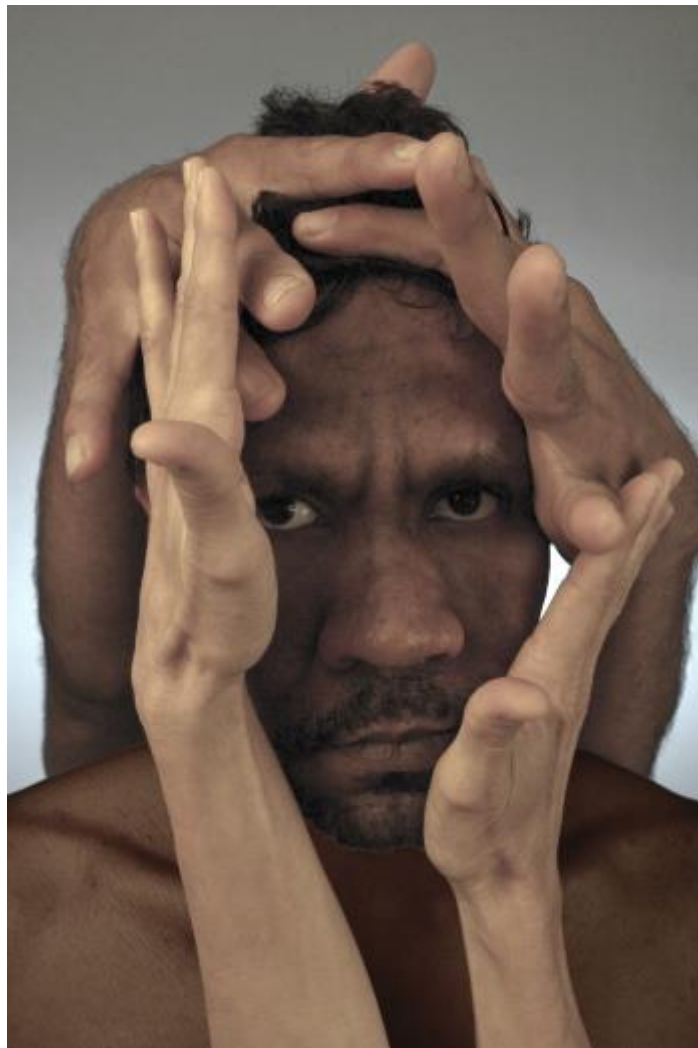


Plate 2. Milledge, R. 2009, *Whispering Limbs*, photographic art, performers Earl Rosas, Rebecca Youdell & Zane Saunders.

‘narrative’ characteristics within traditional research forms. Despite the risks of advocating ambiguous knowledge structures in the scholarly setting the compelling purpose of practice-led research is transformative, communicative and social. Plate 2 represents a photographic

artwork suggestive of ambiguous exploration with visual methodologies within the intermedial representation. Carter (2004: 6) warns, “The idea that non-verbal-based art forms can become a ‘social phenomenon’ begs the question of how they cross the language barrier without finding their four-dimensional plasticity, mobility or ephemerality enslaved within a realm of signs.” Form and function within research struggles with the terms of ephemerality, and the spatiotemporal attempt to fix a fleeting expression. To recognise the ephemeral is already a transformation of substance to language. Serres (2008: 113) provides a phenomenological viewpoint conceding the philosophical power of language to assuage the intellect, “our bodies live in a world of hardware, whereas the gift of language is composed of software.” The analogy resonates with artistic production that uses ephemerality as a voice to exploit responsive technologies such as motion tracking sensors in contemporary dance scenography. The point is that the research artefact always reduces to the coded language of a text.

An artistic production works as a unit of creativity that is socially conditioned and is active beyond the limits of verbal or written communication methods. In contrast to the mechanistic ideology commonly found in the sciences, the artistic practice appears in human society to mitigate the cultural, mythical and fantastical representations of the imagination (Sheldrake 1993). On the other hand, Saussure’s (1992) theory of semiotics implicates both art and science as reducing experience to units of textuality that engulf humanity within an arbitrary realm of signs. However, academic research in the creative arts represents a process of segregation where audiences of the ephemeral artistic presentation are different from the peers likely to engage with the written, archival and reporting modes. Artistic productions occupy a trajectory of social engagement associated with the infrastructure and audiences for the presentation of art. The strategies and agendas of the professional arts sector are quite different from the demands of research in academia. Artistic production aimed at both worlds requires performative characteristics that operate within multimodal experiences of practice and enquiry satisfying the expectations of the arts sector and the research thesis.

3.5 The Performative Defence Within Creative Practice

The presentational and experiential delivery of expressive forms of art creates a context for the evaluative performance of a work's symbolic elements. The knowledge inscribed in symbolic forms of artistic practice is a critical value relating to the primacy and veracity of the creative phases in production and presentation. The generation rather than the collection of symbolic data is critical to the context of 'performative' evaluation within artistic production. The performative research paradigm is a non-conventional and non-traditional realm of academic research veracity.

Described by Haseman (2006: 7) it is a research approach "which holds that practice is the principal research activity" and it "sees the material outcomes of practice as all-important representations of research findings in their own right" and can be measured as such. A research measure includes the public outcomes associated with the presentation phases of an artistic production cycle. Hasman's performative paradigm is controversial because academic equivalency of non-conventional research quotas is difficult to establish and its accountability is yet to gain a footing. It requires the normative regime of academic peer-review to be stretched beyond existing boundaries (see Brook & Magee 2012). Peer-review of artistic production and presentation, in the professional life of an artist, happens within the interaction and sanctions of arts and cultural institutions. In contrast, peer-review in the context of academic veracity is constituted through research journal ratings and global impact values. Lüttiken (2013: §1) observes that "research objectives, need to be examined more closely. Is there not even now an overreliance or tacit acceptance of certain kinds of research objects as normative and seemingly timeless?" The critical point for artistic research is that the non-normative, non-conventional 'performative' modes of peer review be acknowledged in the thesis evaluation even though, the "art world and academia offer competing and conflicting economies" (Lüttiken 2013: §2).

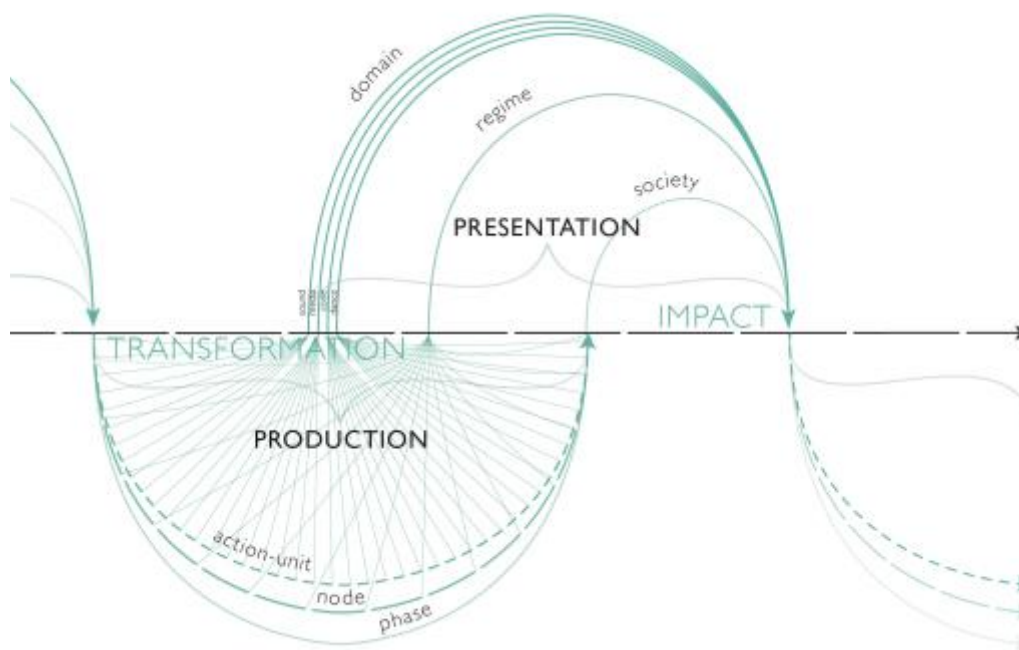


Figure 2. Milledge, R. 2014. Graphic developed to identify the sites of performative evaluation within the artistic production and presentation cycle

A visualisation of the evaluative process is represented by Figure 3 and incorporates benchmarking points in the context of an artistic production cycle. The overall cycle operates with two phases involving production and presentation. The phases are sites of performative evaluation that oscillate in continuity with artistic production. Performative levels of evaluation engage

The levels of supervenience associated with the research			
site of transformation	action-unit	individual microlevel action	phase-dependent
	node	connective network of actions	
	phase-driver	distinct influence in a process	
oscillation point	phase	set of recurring operations	cycle-independent
site of impact	domain	sphere of knowledge	
	regime	conditions of an industrial process	
	society	ordered aggregate of people	

Table 3. Milledge, R. 2014. Connective levels of evaluative structure within the artistic process defining the scope of elements and their relationships

at both the internal phase of production and the external phase of presentation. External sites of evaluative impact include the disciplinary domains of creative practice, the regime of the arts industry, and the social

sphere. Figure 4 represents the supervening levels associated with the artistic production cycle. The evaluative sites integrate an event spiral as a cyclical structure variously represented as an oscillation in Figure 3 and an event tunnel or spiral as suggested by the visual metaphor proposed in Figure 5.



Figure 3. Milledge, R. 2014. The event tunnel is a metaphor that represents a recursive series of operational processes.

3.6 Framing the Creative Production Cycle ‘Narrative’

Process tracing (Beach & Pedersen 2013; Reilly 2009) is a model that links action research to practice-led research. It encapsulates a temporal scale through a procedure that explicates how a production cycle operates recursively over time. For example, an artistic production cycle’s temporal characteristics can relate to collaboration and participant engagement as it converges to the unique function of artistic production. Temporal bracketing (Langley 2010) is a process tracing technique that assists in defining segments of a cycle’s inputs and outputs. Bracketing develops the procedural understanding and relational linkages that connect actions, nodes, phases and cycles.

The recursion of artistic production and presentation indicates an early reference (Figure 6) to the research proposal. The creative production cycle is a component of the research design that developed during 2009, in the very early stages of the project. The usefulness of interrogating the production cycle derived from professional experience. It has a basis in a realisation that a continuous spatiotemporal time series will emerge over several years of the study period. Process tracing and temporal bracketing techniques were considered to provide a method to unpack the complexity of the recursive operations undertaken within the series of artistic productions.

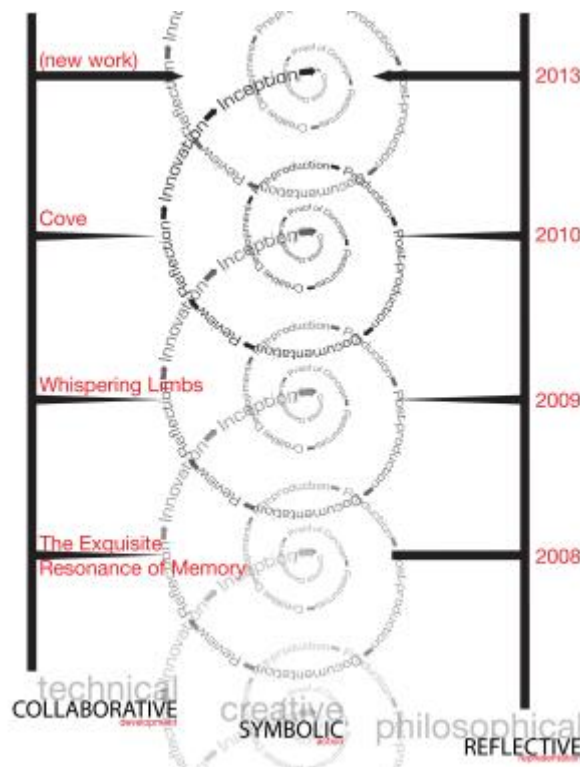


Figure 4. Milledge, R. 2009. Visualisation of the creative production cycle early in the project.

Space and time dimension of the creative production cycle is analogous to the 'event tunnel' (Suntinger et al. 2008). Cyclical procedural vectors of production and presentation are identified as a trajectory, and within a temporal process, represented through the metaphor of a tunnel. The intention of identifying the cyclical phase structure of 'production and presentation' is to bracket procedural tasks representative of significant intervening transformations and impacts. The continuity of phases traces the development of task points, as nodes, in a production dependent time series.

The event tunnel is a visual metaphor and the resulting visualisation, found in Figure 7, is the representation that functions to generalise the modulations of process management and project milestones in series over time.

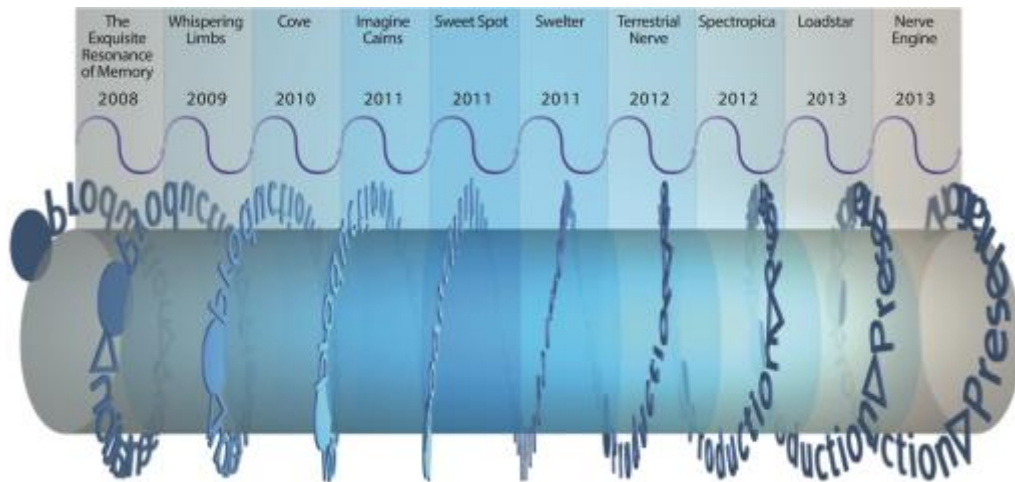


Figure 5. Milledge, R. 2014. Representation of the event tunnel with a time series of named artistic outputs.

The event spiral represents the recursive phases of production and presentation across artistic works that emerge during the research period. The spiral shape is indicative of the movement of production and presentation within a forward direction. Simultaneously, the spiral indicates a reflective dimension as it emerges through a lineage of oscillating production and presentation phases. The framework connects each named creative work within a cycle of continuity. The figure of the spiral tunnel

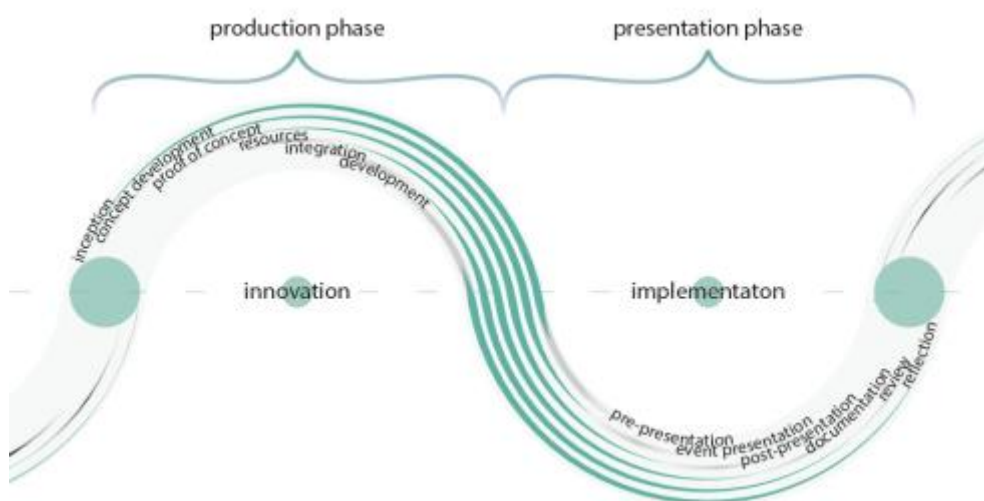


Figure 6. Milledge, R. 2015. Indicative nodes representing dependency on phase levels within an oscillating pattern.

easily transforms into the figure of an oscillation of actions that are associated with node recursion during the cycle of production and presentation.

Langley (2010: 4) describes process tracing as embedding, “data into phases separated by changes in structural features.” It provides a way to consider the node detail represented in Figure 8. The segmentation technique of temporal bracketing follows the observation of cyclical patterns over time and reveals structure within the recursive model. According to Reilly (2009: 4), “Multiple data streams are necessary because rich and varied sources are required for process tracing...frequently requiring years to collect the data and complete the analysis”. The technique provides analysis and visualisation of micro level processual interactions within iterative artistic productions.

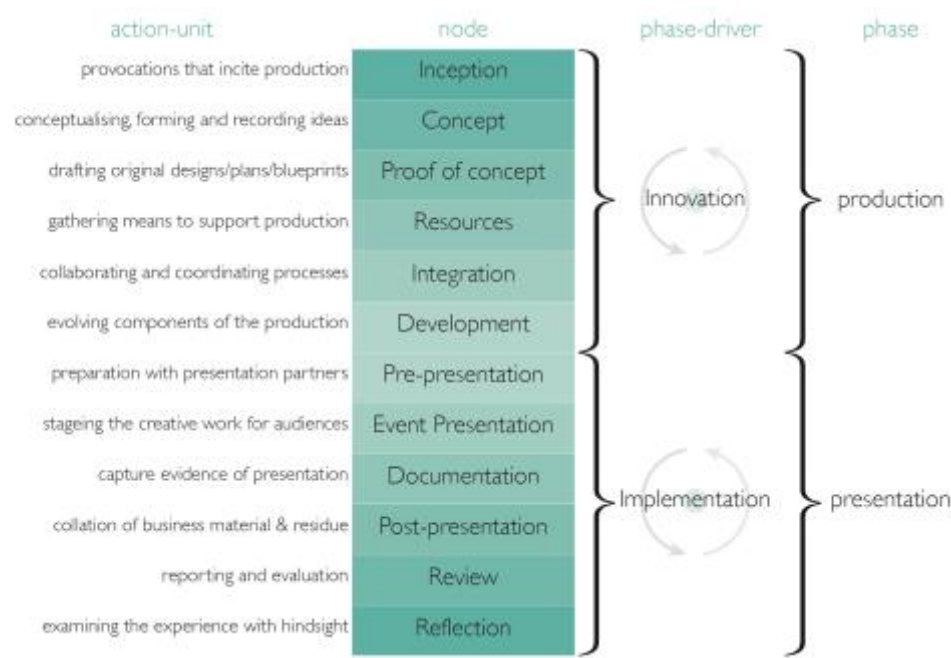


Table 4. Milledge, R. 2014. Connections associated with the creative production cycle.

An event spiral is a generalised approach, adapted here for understanding the procedure of artistic production and presentation. For example, the oscillation of successive creative works is temporally bracketed by the phases of production and presentation, and these phase modes are consistently iterative throughout the series of artistic productions over time.

Figure 9 represents the connective structure and evaluative framework of the creative production cycle. The analysis model provides a basis for the clear understanding of artistic production within a cycle and the potential for evaluating interconnectedness within domains of practice. The process tracing and temporal bracketing approach arrange the segmented nodes of action and the phase modes of production and presentation that constitute creative outputs within a time serialisation of multiple consecutive artistic productions.

The creative process facilitates artistic production as a cycle of production and presentation modes. A pattern emerges as a series of actions that build into levels of performative action. Each process level is a relational effect that influences subsequent levels. The supervening causality within the event tunnel/spiral reveals the impact of immediate phases of production and presentation. The recursive tendency of the production and presentation phases forms each named artistic work in a series of entwined relationships. The identification of performative points as nodes and phases provide an evaluative structure. A reflexive method is then used to gauge the performance of actions within a reflective professional practice. The cycle operates in a relational field within the larger realm of creative arts and society where the performative evaluation has context and precedence.

A supervening structure defines the levels of research and collaborative practice as interconnected sites of engagement. The cycle phases emphasise the machination of artistic production by amalgamating activity from the individual levels of collaborative contribution. Zuber-Skerritt (2002) suggests a model of process tracing that incorporates reflexive reporting and intervening action in co-construction with a collaborative team. Like Banks (2008), who asserts an ethical veracity through a collaborative form of auto-ethnography, Zuber-Skerritt (2002) suggests co-creating is a method of enquiry where collaborative procedural knowledge fulfils the demands of professional practice and temporal serialisation allowing the interrogation of creative actions with academic research.

The presentation phase involves critical reception of the artistic production by an audience that includes members of the public, 'independent' participants and peer involvement in the modality of artistic delivery and implementation. The audiences are independent influencers that include participants versed in artistic production and those unfamiliar with it. Stakeholders for the productions include presentation partners, festival producers, curators and funding agencies at the supervening level of domain, regime and society. The project proposes performance indicators based on artistic outcomes that are recursive, and this includes presentations to the public on a semi-annual basis. However, seasonal recursion requires a set of negotiations and relationships that can be ambiguous and irregular. The expectation that an annual artistic production can be resourced, developed and staged with regular certainty is unusual for regional independent artists. It is more common that the resources for creative production are autonomous to long-term timelines and altogether opportunistic. Achieving recursive opportunities requires fostering active relationships with the sector and maintaining negotiations that influence the potential for seasonal presentations within a domain of practice. The impact of the presentation phases remains relational to a regime of the arts industry. During the project, the creative works represent engagement with specific industry initiatives that provide an interface for professional presentations. The initiatives include, for example, the On Edge Festival 2008/2009/2010, New Move Network 2011, Centre of Contemporary Arts - Company in Residence 2012 & 2014, Brisbane Festival - Theatre Republic & QUT Digital Associates Program 2013. It is indicative that the initiatives start as regional engagements and lead up to a capital city festival presentation in 2013.

The performance review includes post-presentation reporting and reflection on practice providing a deeper investigation of phase impact at recursive procedural intervals. The points of review and reflection involve some capping-off in relation to specific artistic productions. However, post presentation tasks including acquittal, auditing and resource reporting continue the nodal actions of performative review towards the next iteration

of the cycle. The nodes that involve reflection of practice within the cycle have the potential to inform innovation directly through insights gained in the meta-process of production and presentation, in this way they are bridging points of iteration. In the creative cycle method, nodal processes continue beyond the phase modes of production and presentation. The looping process describes, through an account of creative practice, building structure then reflexively deconstructing its function and meaning. Reflexivity links the creative production cycle methodology to the enquiry cycle of iterative empirical research techniques such as grounded theory and action research methodology (Reilly 2009). Moreover, in this project, the recursive presentation phase within a creative production cycle, in its own idiosyncratic and allusive way, reveals an analogy to the processes of progressive thesis publication.

3.7 Research Structure and the Multi-Part Method

Sullivan (in Smith, H & Dean 2009) suggests traditional research 'data collection' common to the social sciences appears in contrast with the aims of creative research production characterised as 'data creation'. The collection versus creation distinction is an important point of clarification in articulating the character of mixed-method practice-led research. Several types of data consolidate within the creative production process; artistic production is one and, as Carter (2004: xii) suggests, "a symbolic representation of the phenomenal, a picture of the way the world is constructed that participates in its complexity rather than eliminates it".

A mixed-paradigmatic research method, adapted from an auto-ethnographic, process-tracing and practice-led model, exemplifies the production of data through the principal and intervening artistic works during the project period 2008 – 2014. The emergent and interactive development of complex intermedial artefacts are characteristic of a procedural knowledge system that identifies as a creative process. In addition, there is an informational residue forming a database populated with content from participants

engagement and responses. The mixed-method engages with both 'creating data' in the form of artefacts, in addition to ancillary 'data collection' in the form of participant experiences. Nelson (2013) problematizes the position of data in the trajectory of creative research by suggesting there is a line to be drawn between what is manifested by professional practice and what is collected by objective research. In addressing the difference observed by Nelson, a connective series of generative approaches to data creation sought mergers and opportunistic insights through collaborative and participatory creative practice. Messer (in Brook & Magee 2012) suggests interdisciplinary studies as an appropriate framework for the species of research encountered through creative practice. Interdisciplinarity is at the nexus of 'praxical knowledge' (Barrett & Bolt 2007) and intermediality; it is articulated in a cycle of practice and research within the 'iterative cyclic web' proposed by Smith and Dean (2009). The mixed-method approach provides proximity and collocation of nascent and traditional research paradigms. The three primary modalities and artefacts of the research project are 3.2.1. Creative Works 3.2.2. Documentation, and 3.2.3. Exegesis. Each modality represents a methodological approach that when combined constitute a multi-part, mixed research paradigm.

3.7.1. The Creative Works

The creative works are artefacts of the research project that form within a temporal production timeline. Significant data is generated through the development of the artistic production and embedded in the outcome as an artefact of that production. The process-tracing method provides temporal bracketing that reveals the cyclical structure of artistic production. The cycle integrates practice as a methodology applied to the instrument of artistic production and presentation. Therefore, the data articulates the creative production cycle.

The production method engages peer collaborators within an envelope of development and presentation. Interrelationships between collaborators and audiences entwine choreographically within experiential artistic presentations. Kinesthetic subjectivities provide an interplay and discursive

formation between artistic producers and audiences that are emergent. The generation of new knowledge includes emergent procedural understanding in the form of participatory and collaborative invention embedded within the series of recursive creative work presentations. The potential for original research contribution includes developing the properties of data creation and collection over a long-term cyclical process for collaboration and participation within media and performance.

The cycle focuses creative development as it happens within an artistic environment, a site of production. The focus flips once the work nears completion; it is staged in a context that is social, public and institutional—the site of presentation. The artistic cycle traces a process that concentrates on managing creative, operational and technical aspects of production and presentation. The iteration of task nodes contributes to phases of development, and the perception of an ephemeral artistic production is a tangible outcome. The artworks are a contribution to research through articulating an outcome of a system of enquiry within a pattern of producing and presenting perceptual, cultural and artistic artefacts. The structure and pattern provide a flow of data shaped by artistic production. The units of action surrounding artistic ‘presentation’, include points of public interface and peer assessment that allude to analogies associated with academic publication. Presentations characterise the quality of institutional relationships, peer review, ethical and moral contracts and considerations that bring the artistic production into proximity to social structures, public debate and access.

Artistic production contributes to a domain within a regime of the arts. It is revealed through a cyclical method of development that links professional practice outcomes to creative research in a trajectory of social impact. Analysis of the form is an inscribed process of node and phase brackets that describe emergent data iteratively. The outcomes of the creative cycle reveal to the public and peer review, a series of material, symbolic expressions. Resonances with the ‘enquiry cycle’ fundamental to the Action Research

paradigm (Hasman in Barrett & Bolt 2007: 152) are entry points for analysing artistic production through practice-led research. However, the performative procedures articulated for the evaluation within the creative production cycle demonstrate the capacity to generate innovative, creative data flows that embody outcomes in the form of research-oriented artistic artefacts and discursive collaborative exchanges.

3.7.2. Documentation

The presented works are predominantly fleeting, impermanent, improvisational, dematerialised and performative. Therefore, it is important to engage an additional process that mechanically captures the ephemeral creative works as secondary representation. In documentation, the disappearance of the temporal moment of sensuous perception simultaneously re-appears in a primary mediated form. By default and unintentionally, the documentation object elevates to a primary research artefact and represents a 'disappearance and re-appearance' (after Baudrillard 2000). The technique transposes the creative works and results in a digital archive. Recognising the potential misrepresentation inherent in the documentation of her creative works, Stock (2007: 1) states, "one of the principal dilemmas of performance in research contexts is the issue of 'liveness' and 'ephemerality' of the art object...This remains problematic for research where the public outcome is expected to survive in a tangible and durable form." The need for secondary documentation to provide durability and veracity to a creative work has the potential to compromise artistic integrity. The process can force a status of unintended importance on to the audiovisual documentation. The notion that documentation fulfils the experiential and spatial dimensions of a creative work presents itself as an insurmountable challenge. Unless a creative work is made for the screen, documentation will diminish its meaning and the impact of artistic production. Documentation infiltrates the primacy of production in a way that misrepresents its status. Audiovisual documentation belies the natural ambience of the creative works and complicates the 'complementary character of recorded representation' (Auslander 2008).

Documentation is a 'data collection' method integral to the validation of the thesis model. However, there are negative implications for the creative works when relying on documentation to convey ephemeral forms. The documentation technique functions as a machine witness monitoring artistic production. The transposition of new knowledge within the documentation process is a primary research procedure. Moreover, mediatization of the original form is an instrument of invigilation. These processes are secondary to the status of the artistic production offered for public presentation in the original context of a programmed season. The primary data accrued through event audio-visual documentation diminishes the experience of the live presentation. For this reason, significant effort and care are taken to capture high-quality representation and reproduction of each of the artistic productions within the recursive project. The lasting evidence of digital video capture renders the creative works into a flat, two-dimensional representation. Beyond the enacted experience the documentation archive is the one that endures. The veracity and coherence towards new knowledge claims within the creative works are reliant on the documentation archive of an implicit process of procedural understanding. The documentation archive provides a recording of the projects visual and sonic development, presentations, participation and engagement; as such it is a research core within the multi-part thesis model.

3.7.3. Exegesis

The material effect of heterogeneity, performativity and interplay are the nascent propositions within the practice of intermediality. These same characteristics are assertive in developing connective meaning within the thesis model. The process of word association creates a map of the research structure, for example, experiment, inscribe, abstract. Similarly, a set of creative associations influences the exegetical process. A concern with the discourse and understanding of intermediality resolves the structure and agency applied to the process of practice and theory. The exegesis interrogates the process of intermediality within an emancipated concept of media relationships in practice. It suggests intermedia is a nascent paradigm,

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embracing a concept of interplay within a matrix of connective media. The paradigm contests the separation media based on discipline specificity that is a commonly ascribed context for the creative arts. With a mixed-method technique that tests the veracity of intermediality, the exegesis incorporates the strategies of auto-ethnography, participant observation, discourse analysis, collaboration, audition and solicited peer review. The mixed method practice-led approach to theory and praxis is evident in the interdisciplinary procedure that is described in the chapters. The exegesis is concerned to be a reflection on collaborative theory and practice. The interest in mixed-methods has a basis in the interpretation of research data as performative and presentational within the broader social site of artistic production. Intermediality is the theoretical ground for a discussion of temporality, seasonality, meaning and participatory significance associated with the creative cycle. The trajectory of practice-led creative arts research is an exploration of access points revealing different modes of analysis that originate from the same intrinsic experience. It is a paradigm like a palindrome – intermedial practice-led research through research-led practice (Smith & Dean 2009). As a critical research method, the multi-part thesis model brackets a media rich matrix of artistic production appropriate to creative arts research aims.

According to Rose (2007), there are three sites of visual research at which meaning is ascribed, “the site of production, the site of the image or object itself and the site of the audience. That is, how an image is made, what it looks like and how it is seen is considered the three crucial ways which a visual image has cultural or other effects”. This creative research project goes beyond the specifically visual, however, the spatialization of entry points, as defined by Rose, is appropriate for considering the exegesis of theory and praxis. Understanding the purpose of creative production reveals its place in society. The blend of collaborative production and audience participation conflate Rose’s (2007) notion of “what it looks like and how it is seen” towards a generative theoretical position engaged and enacted within collaborator and audience engagement.

3.8 Effectiveness of the Methodology

The discursive character of the creative research is an expression of collaborative processes. The procedural enquiry within the intermedial method merges the collaborative contributions emanating from individual decisions about materiality, technique, and management of operations within a process cycle, resulting in the collective expression. Materiality is an intersense that transforms modalities of time and space. The agency and structure within the collaborative project observe a series of perceptual and physical experiences that are individual and introspective to each artistic collaborator. Each collaborator is an incubator of internal processes that contribute to the compositional architecture. The assemblage of material manipulations forms a membrane of dependency characterised by the depth of the collaboration. The understanding of constituent parts within the creative works is closely integrated, and each contribution forms an element of procedure and knowledge. Interviews with the principal collaborators illuminate the methods, and a tendency toward project integration, and are reflected in Chapter 5.

The collaborative processes are a formation of interdisciplinarity and the intermedial that integrates the creative works and are aimed to:

- embody interdisciplinary collaboration,
- assert innovative practice and form,
- test assumptions through enacting and implementation of research.

The reflexive functions of analysis in the research operate as a series of indicators assessing performance—analysed in scale, gradient, value or tolerance. The following chapter sections unpacked the aims of collaboration.

3.8.1. Collaboration - Concerning co-operation and effectiveness

3.8.2. Intermediality - Concerning homogeneity and heterogeneity

3.8.3. Innovation - Concerning novelty and capacity for change

3.8.4. Implementation - Regarding affect and fulfilment in society

3.8.1. Collaboration – Concerning Cooperation and Effectiveness

The creative work—the art—that emerges from practice is the product of a fluid hybridization of collective concerns within a collaborative relational organism. Practitioners with specific competencies gather to contribute to the development and realisation of the creative works that feature in the research. The collection of competencies—the principal artist’s practice of technique and theory—is a network of transaction and transmission that embody intermediality in the creative production cycle. The effectiveness of the collaboration, regarding the recursive involvement of principal artist collaborators, is determined through long-term performance over consecutive cycles of production. The collaboration arrives at a system of transitory, nascent and core levels of enactive engagement. These levels are reported in Chapter 4 and reflect the commitment and collaborative participation.

3.8.2. Intermediality - Concerning Homogeneity and Heterogeneity

In the creative arts, the fields of art practice historically coded appear divided into camps of ‘old’ and ‘new’ media. The research tests the convergence of media forms within a matrix. Taxonomic theories of media cohesion form the common ground for material practices. Theories of intermediality suggest that the non-digital arts, including those of traditional ‘sense’ based segmentation, can function equally as media in a continuum of opportunistic, creative production (Friedman 2005; Hayles & Pressman 2013).

The creative development process extracts the required functionality, style or meaning from the media matrix to apply towards an intended purpose. Also, nomenclature moves towards the suggestive gradients of homogeneity and heterogeneity when indexing intermediality in contemporary art production, rather than the limited dichotomy of ‘old’ and ‘new’ media. As a propositional concept developed through the practice-led research, significance of the media matrix differs from the influential structure of competitive ‘remediation’ and disruptive repurposing proposed by Bolter and Grusin (2000). Intermediality provides interest in the interstitial

relationships amongst media and therefore the innovative potential of media mixing and hybridization. The media matrix is a proposition that contains the simplest technological tools and includes the MacLuanesque 'extensions of man [sic]' (McLuhan 1964) to the most sophisticated extension of the human mind. Intermediatisation maintains an irreducible relationship that connects all mediated forms traversing the physical and metaphysical conditions of materiality. The symbolic form of a non-bounded membrane provides the connective tissue and informs the description of the creative works provided in Chapter 4.

3.8.3. Innovation - Concerning Creativity and Invention

The aims of innovation and implementation, describe the direction of the research and are also the drivers of the creative cycle that link to the intermedial production process. Fitzgibbon (2001: 10) claims 'creativity' and 'innovation' conflate to synonymous understanding—that they are the same. However, an argument emerges through the research that considers the 'open-ended' characteristic of creativity as the space of intelligence where new knowledge may form i.e.: 'creative intelligence'. The interactive and emergent cerebral flow of 'creative intelligence' is implicit within the creative production cycle as a forerunner to innovation. As a differentiation, innovation—like ingenuity and invention—is the outcome of professional practice and implemented within the production and presentation as a zone of social impact. The spatial arrangement of creativity qua innovation contextualised the inference that we go beyond analytical a priori knowledge to find creativity. Once found, creativity is available for implementation through ingenuity, invention and innovation. Creativity's inhabitation in the sensate world is through its transformation. The intermedial transformative process involves a sequence of creativity, innovation and implementation. Chapter 4 probes the creative works regarding material transformations and innovations within a series of thematic trajectories.

3.8.4. Implementation - Concerning Affect and Fulfillment in Society

Two cyclical phases of the creative research process are the modes of production and presentation. They are modes that implement the threads of connectivity within the social structures of art and industry. Influential characteristics of the creative works are negotiated, pitched, argued and supported at an institutional level. Implementation is a dialogical transaction at an interface with formal presentation mechanisms within the art world. Venue producers, gallery curators, program managers and festival directors are experts who weigh-in to the review and judgment of the creative works. Acceptance of a proposition for an artistic production occurs within a system of expert collusion. Decisions affect the ultimate acceptance or rejection within an economy of coded influences. The institutionalised review process is an allusion to peer assessment that is then either accepted, rejected or subject to reconsideration. The production and presentation phases of the research cycle represent, in part, the methods and outcomes of negotiations and arrangements at a peer-reviewed institutional level.

The presentation of creative works is an experience for public audiences. Audience engagement opens discursive channels, and through the collection of audience responses for each original iteration of the cycle, a body of data is amalgamated. Data collected at the site of the presentation focuses on a perceptual phenomenon in the form of responses and testimony, including detailed peer review, Media and industry reporting and audience participant reflections.

Components of creative development and prototypes entered an exchange economy where discrete parts are traded. For example, other software developers and event producers sought access to prototype software functionality generated within the project. Also, professional expertise transferred as human capital between projects outside the research boundaries. These characteristics occur in association with the creative development and demonstrate circumstances of social connectivity at the level of professional practice, augmenting the validity of project aims. The

value of research byproducts and residuals found an independent interest within industry and traded at the value of skillsets, functionality and intellectual property. Economic units of know-how, develop through the creative research process and transfer laterally to peers and peer groups operating within a community of practice. Chapter 6 discusses the implications through key findings and the potential for further development and practice.

The four areas of reflexive analysis itemised above perform an evaluative function and represent critical indicators of progression within the creative production cycle. The collaborative method provides significant peer insight against the structure, agency and form before the works engage within a broader societal context. Industry and public exposure happen at numerous points of engagement and intersection. However, audience feedback and response focuses on the receipt of a finished work and an intended experience in a presentation context. An indication of evaluative measures suggests the research performance parallel the 'production' and 'presentation' cycle. Discursive inferences resulting from relational qualities and variation in the process cycle forms the overall character of the research analysis.

The following chapters move to discursive analysis and represent a shift to reflective data. However, the thesis does not capture the complex procedural knowledge formed in the creative presentations themselves and the documentation archive, as already suggested, is stripped of experiential 'knowing' through it being a secondary representation. The creative research is an interaction of processes forming new knowledge pathways in specific trajectories. The predominant structure is emergent and inscribed creativity through new interactive formations developing areas of procedural knowledge within the ephemeral creative works. The exegesis provides scope to understand and appreciate the implications of new procedural knowledge embedded in the experiential and impermanent form of the creative presentations.

3.9 Conclusion to Chapter 3

The creative production cycle is a processual scheme of originating actions. Nodes and phases operate as turning points of production and presentation and are indicated through oscillation, recursion, bracketing and iteration. Inherent to the practice-led methodology is the primacy of creative production and presentation. It is signalled by the role of the collaborating artist and the gesture of audience substantiation in the creation of data and the creative and philosophical outcomes within the recursive cycle of production. The evaluation of transformative outcomes at each phase in the cycle is gauged by its performance and the potential of its impact as an indication of that performance. The assessment of value in the production of intermediality is in the form of performative audition (venues and producer's willingness to enter partnerships, peers attending production phases).

This chapter has introduced process-tracing and temporal bracketing as a practice-led research technique. It has discussed the method of investigation and procedural formation of creative works, particularly the connective relationships within the recursive production cycle. The techniques deconstruct the cycle as a series of nodes contributing to the phases of cyclical production and presentation. The collaborative framework is based on inputs from units of action as a "series of parts composed of entities engaging in activities" (Beach & Pedersen 2013: 6). However, a highly-integrated procedure entwines the individual contributions made by a collaborating artist. Along with the collaborator contributions, the creative process gathers around it the experiences, responses, reports, reviews, and critiques about the creative works as a social phenomenon.

At the sites of creative production and presentation, significant movement and symbolic interactions represent a relational mechanism—a common network structure in the context of a collaboration of artists at the micro-level and the function of art and society at the macro-level (Gillmore in Becker & McCall 1990: 149). The creative process formulates a production cycle that provides a shared meaning and collective identity within the

collaborative framework. The materiality of artistic collaboration within this modality indicates a processual site of production (Gillmore in Becker & McCall 1990: 150).

Chapter 4 qualifies the outcomes of the creative cycle through a process audit drawing inferences from the works relational qualities and variations apparent between the iterations of the cycle and the overall character of the research. The data is limited to the range of gathering techniques associated with the development and presentation of creative works through the creative production cycle method 2008 - 2014. With less concern for the traces of process and management, the next chapter investigates the residual material more indicative of the symbolic traces of communication and meaning within the series.

Sites and modalities are established, however, not exclusively defined as consistent points of reference. The hybrid nature of the research formation extends the methodology as an exemplified characteristic of intermediality. It is part reflective, part discourse, part semiology, and part audience analysis. For the makers and producers, the points of authorial reference emerge as a diffuse entanglement of attribution and collaboration. The data circulates in proximity to the production and presentation of the creative works and is not easily confined to strategic interviews or audience surveys. Many points of entry, control, agency and interaction are critical to the 'authorship' of each creative work at the sites of production, presentation and audience (Rose 2007).

Chapter 4 – Transaction and Transmission

4.1 Procedure in practice

The previous chapters establish intermediality within the creative works as the motivation, form and structure for a process that defines the creative production cycle. Temporally bracketed, named presentations suggest the boundaries of production and presentation associated with each recursion of the cycle. Each presentation represents the outcome of creative production for an audience and involves contact within a social realm. Each presentation provides differentiation between levels of interaction within society—collaborators, venues, peers, industry, Media and audience. The levels of interaction are regarded within professional practice and enacted through procedural knowledge.

This chapter provides an account of the individual creative works with concern for the operational entity and organisational structure responsible for the cycles of production and presentation. The principle of ‘audition’ suggested by Swanwick and adapted by Haseman (2006: 8) are useful in regarding the account of intermediality within the research. Swanwick (1979: 43) positions the audition as a process related to how an audience attended to the “aesthetic entity” within the presentation of creative work. The form that Haseman (2006: 8) describes suggests is an “artistic audit”, a systematic process of account that is an alternative to a literature review, and appropriate for reporting within practice-led research.

The process-tracing approach, applied to the intermedial method, considers each cycle and the impact on more than one type of audience and audition. For example, the cycle’s approach to formal creative arts presentations defines projects within ‘packages’ disseminated to the public along with a level of strategic interaction within a venue or institution. An iteration of the creative production cycle represents a trajectory of wholeness and completion preparing a product for an audience. The project reveals evidence

towards the impact of intermediality concerning a recursive cycle of engagement validated as innovation and implementation. Therefore, a systematic account of practice outcomes provides the quality of insight best articulated with the creativity and innovation audit. The adaptation of Swanwick's and Haseman's approaches is an appropriate direction. The review of practice within the structure of an audit aligns the concept of practitioner reflection common to creative art process. The audit process reveals knowledge pathways through the "undocumented tradition" of creative practice (Angew in Gillham & McGilp 2007: 178) appropriate to the research purpose.

The creative cycle presentations proposed for the research in 2009 and anticipated at the time of the research confirmation in 2010, numbered 4. However, a series of additional production and presentation cycles, engaged within the course of the research journey, suggests an opportunistic tendency for an intervening economy of practice to catalyse the cycle frequency. In other words, the creative production cycle is an autonomous agency within professional practice, at the level of coalescing activity. The course of the cycle demonstrates opportunistic, intervening production, prototyping, informal production, promoting capacity, timely response to potential, and eye on the future moments. In the interest of analysing the collaborative engagement in a relational network, the additional intervening cycles are considered a procedural capacity. However, the audited descriptions offered through this chapter focus on the original event series to ensure a level of achievability within the research design.

Project associates formed short-term collaborative teams. The founders of the micro-enterprise, called Bonemap, include the researcher who contributes as co-director, maintains the business end of the operation (see Appendix 1 'Fluid Hybridisation' an abstract for a published article describing the creative development methods of Bonemap with the full article available for download). Human resources attributed within the collaborative team structure the division of participants as the co-directors,

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the ‘core artists’ (core collaborating artists that engage as creative research peers) and ‘transitory collaborators’ (all the other artists that engage within a project team). The combination of co-directors and core artists refer to the ‘principal creative team’.

The participation of the collaborating artists governed the flow of agency in the production and presentational phases of each creative cycle. The number of collaborators engaged in a bracketed process had a significant impact on the character of production. Figure 10 provided an indication of the named productions and the number of principal collaborators within them. The number of unique productions encountered through the study was 10, and additional four productions were remounts of creative works that included tours or commissions. The indicated productions occurred over the research period 2008 – 2014.

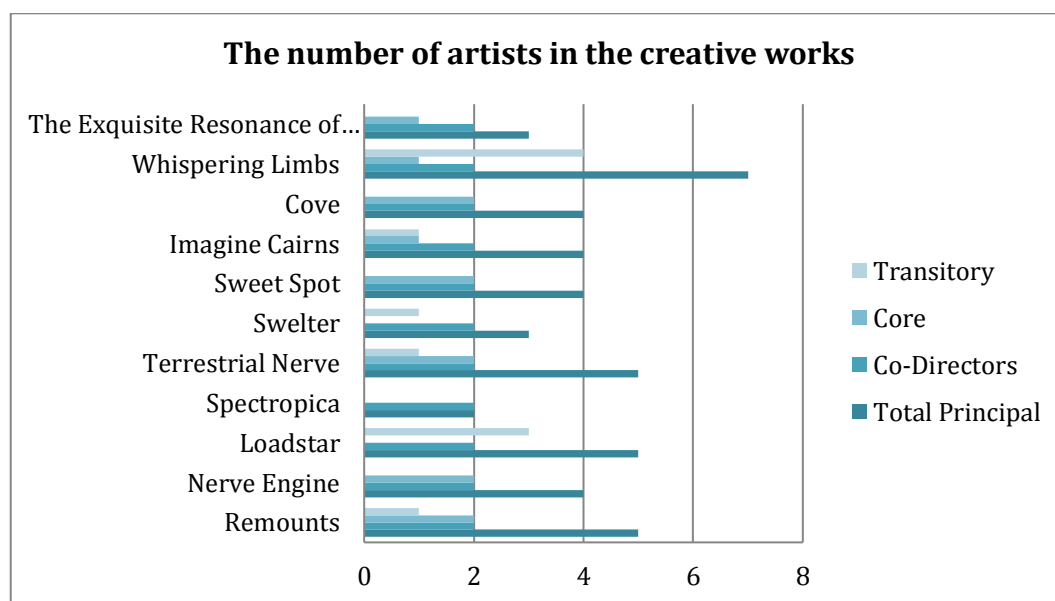


Table 5. The number of collaborating artists within each production

The analysis of collaborative involvement, indicated by Figure 10, resulted in an average of 4 collaborators engaged in the project series, two co-directors were constant; another two core artists were very active, and all other instances of collaboration appeared more or less transitory within the recursion of the creative cycle.

Year	Creative Works	Discipline	Sector context	Venue context	Collaboration
(14) 2014	<i>Nerve Engine</i> (remount)	intermedial	Dance commission	Black Box Studio	Principal
(13) 2013-4	<i>Loadstar</i>	intermedial	Dance Development	Black Box Theatre	Transitory
(12) 2013-3	<i>Spectropica</i> (remount)	intermedial	Dance Science Festival	Museum Exterior	Transitory
(11) 2013-2	<i>Terrestrial Nerve</i> (remount)	Dance	Media Arts/Theatre Festival	Media Arts Space	Nascent
(10) 2013-1	<i>Nerve Engine</i>	intermedial	Media Arts/Theatre Festival	Media Arts Space	Principal
(9) 2012-3	<i>Swelter</i>	intermedial	Film Festival	Cinema Screening	Transitory
(8) 2012-2	<i>Spectropica</i>	intermedial	Experimental Art Festival	Art Centre Exterior	Transitory
(7) 2012-1	<i>Terrestrial Nerve</i>	Dance	Dance Development	Black Box Studio	Nascent
(6) 2011-2	<i>Imagine Cairns</i>	intermedial	Intermedia Local Council Commission	Online/mobile/Alternative	Transitory
(5) 2011-1	<i>Sweet Spot</i>	intermedial	Dance Development	Black Box Studio	Principal
(4) 2010-2	<i>The Exquisite Resonance of Memory</i> (remount)	intermedial	Gallery Exhibition program	Visual Arts Gallery	Principal
(3) 2010-1	<i>Cove</i>	intermedial	Experimental Arts Festival	Black Box Theatre	Principal
(2) 2009	<i>Whispering Limbs</i>	Dance	Experimental Arts Festival	Black Box Theatre	Principal
(1) 2008	<i>The Exquisite Resonance of Memory</i>	intermedial	Gallery Exhibition program	Visual Arts Gallery	Principal

Table 6. Creative works time-series 2008 -2014

A chronological list of creative works and remounted works appear in Table 2. Patterns emerged through comparison of the creative work time-series. Interpretation of the table left to right across the columns reveal some entries listed as multiple instances of productions per year. The opportunistic nature of the collaboration responded to demand and produced the clustered activity during some years. The ‘creative works’ column included the instances of remounted presentations increasing the volume of production and presentation activity. The ‘creative works’ column indicated ten unique creative works and four remounted works over the course of the research period. The ‘discipline’ column represented works as ‘dance’ or ‘intermedial’. The discipline identified competency bias in the collaborative team for a particular production. Instances, where works were labelled 'intermedial', indicated no bias to disciplinary weighting. Two or more dance competent collaborators tipped discipline bias to ‘dance’ in some productions. Influences exerted by the expectations of host venue producers correlated to sector context and were represented by column 4. At the site of

presentation, disciplinary relationships were unsurprisingly realigned by individual artist shape shifting. A strong conventional influence anticipated the ideological context generated from within the sector; arbitrated by producers, directors and curators. Thus, creative works identified internally within the research as intermedial were also able to shift as 'fit for purpose' in the sector context. For example, intermediality allowed shifting contextual boundaries for 'dance' or 'gallery exhibition'. The column labelled 'venue context' indicated the sites of presentation and audience, for each of the creative works. The bias of a specific disciplinary identifier established professional practice relevant to the productions orientation to multiple sites and modalities of production and presentation. Collaborations followed patterns derived from 'transitory' and 'principal' teams. Also, the clustering of intervening productions indicated 'transitory' and 'nascent' teams of collaborating artists, in the final 'collaboration' column of the table.

As discussed in the previous chapter, a progression of production and presentation is described within temporal bracketing as a time-series. The original research design envisioned four creative works within an iterative process culminating in a final creative work for examination. A series of intervening productions intervened before the final creative presentation. An operational autonomy became a feature trajectory of the creative production cycle in response to opportunities for innovation and development beyond the academic research agenda. Also, project financial and resource management opportunities complicated the clear demarcation of recursive processes and iteration. Resource management techniques involved the renaming of iterative productions in complying with non-retrospective clauses within funding criteria in some cases. For example, a close iterative sequence linked *Cove* 2010, *Sweet Spot* 2011 and *Nerve Engine* 2013/14. Despite significant intervening presentations, creative works considered nascent appeared epicyclical, including *Terrestrial Nerve* and *Lodestar* 2012/13.

4.2 Principal Trajectories Within the Creative Production Cycle.

Providing weighted significance to the creative presentations delimited the extent of production analysis implemented within the research analysis. Presentations considered as additions were limited in the description. By assuaging projects, the description of production cycles returned to the original model presented during confirmation of candidature in 2010. The intervening cycles did not get included in the account of projects. For example, the creativity and innovation audit accounted for only five production cycles. The delimitation provided the shape of the research focus required to discuss the trajectory of the production and presentation appropriate to the thesis model.

Five creative cycles represented the thematic, technical, resource and collaborative realms. Appendix 2 provided a dot-point audit as a matrix of the five process cycles discussed further within this chapter. The table construction utilised the process tracing and bracketing methodology to capture an interpretation of procedural activity based on 12 nodes of the production/presentation cycle. The matrix was developed to represent procedural knowledge as an audit of creativity and innovation associated with the research project.

4.2.1 The Creativity and Innovation Audit

An audit of five projects focused the process into 12 nodes within the production cycles. Through the audit, associated data trajectories were traced. The collation of entries narrowed the tasks visible within the collaborative frame of the research. The audit was compiled retrospectively of each cycle and represented the insight of the researchers perspective on the action. The audit provided an indication of the ramping assemblage of process tasks within the iterative intention of the cycle. Table 3 extracted exemplary entries from the audit tracing the node identified as ‘inception’. The example shows the ramp of video projection integration. It indicated the way innovation and intermediality appeared to manifest as a creative driver

over recursive durations of the cycle. The creativity and innovation audit identified the gradient of attributes, as they ramped across the time series. The example of video projection demonstrated innovative techniques for projection in the first cycle (2008) and further developed augmentation. By the 5th presentation (2013), video projection developed to integrate sophisticated intermedia.

Within the 12 point cycle, a node and an action component had potential influence across the interconnections associated with the audited presentation. Video projection was an example where the audit revealed an overall trend towards aggregating techniques as the production phases became more sophisticated and ambitious. Appendix 2 represents the extended audit.

	TEROM 2008	<i>Whispering Limbs</i> 2009	<i>Cove</i> 2010	<i>Sweet Spot</i> 2011 and <i>Nerve Engine</i> 2013/14	<i>Terrestrial Nerve</i> 2012/13
1 Inception	<ul style="list-style-type: none"> •Edge to edge video wall 	<ul style="list-style-type: none"> •Scenographic projection mapping •Prerecorded video for panoramic projection 	<ul style="list-style-type: none"> •Interactive experience •Motion tracking •Responsive particle system. 	<ul style="list-style-type: none"> •Audience integration •Augmented reality experience •Motion tracking •Responsive particle system •WiFi device integration •Depth sensor •Live 3D rendering 	<ul style="list-style-type: none"> •Motion tracking particle system •WiFi device POV camera •WiFi device integration

Table 7. Sample extract from Appendix 2, the creativity and innovation audit

4.3 The First Trajectory: *The Exquisite Resonance of Memory*

Presentation title:	<i>The Exquisite Resonance of Memory</i>	
Presentation phase:	KickArts Contemporary Arts, Upper Gallery, Centre of Contemporary Arts, Cairns, QLD, Australia <i>Some Assembly Required</i> , Curator Samantha Creyton, KickArts Contemporary Arts, Lower Gallery Void, Centre of Contemporary Arts, Cairns, QLD, Australia	12 th July – 30 th August 2008 11 th June – 7 th August 2010
Research archive portal:	http://researchonline.jcu.edu.au/5675/	
Artwork documentation portal:	http://bonemap.com/bonemap_2008/index_2008_01.html	
Creative development presentations:	<i>Strand Ephemera</i> , Perc Tucker Regional Gallery, Townsville, QLD, Australia <i>Creature</i> , Umbrella Studio, Townsville, QLD, Australia	7 th – 16 th September 2007 16 th May – 22 nd June 2008
Media elements:	Object based installation, projected media and sound composition. Occasional improvised solo dance.	
Collaborating artists:	Russell Milledge, Rebecca Youdell and Steven Campbell	
Role of the artists:	Russell Milledge, director, media artist, sculptor, designer Rebecca Youdell, choreographer, dancer Steven Campbell, sound design, music composition	
Documentation:	Photography, video, sound, designs and ephemera.	
Ancillary archived material:	Unimplemented computer code and interactive exhibition designs/plans.	
Publications:	Milledge, R. 2008. <i>The Exquisite Resonance of Memory</i> , KickArts Contemporary Arts Ltd. room brochure, ISBN 978-0-9803402-2-8	
Published reviews:	van Harskamp, K. 2008, <i>abstract visions</i> , The Cairns Post 7 th August 2008, News Corp.	
Data collection:	Written comments recorded in visitors book. Video walkthrough recording, photographic documentation.	

Table 8. Information matrix for trajectory 1

Research Statement:

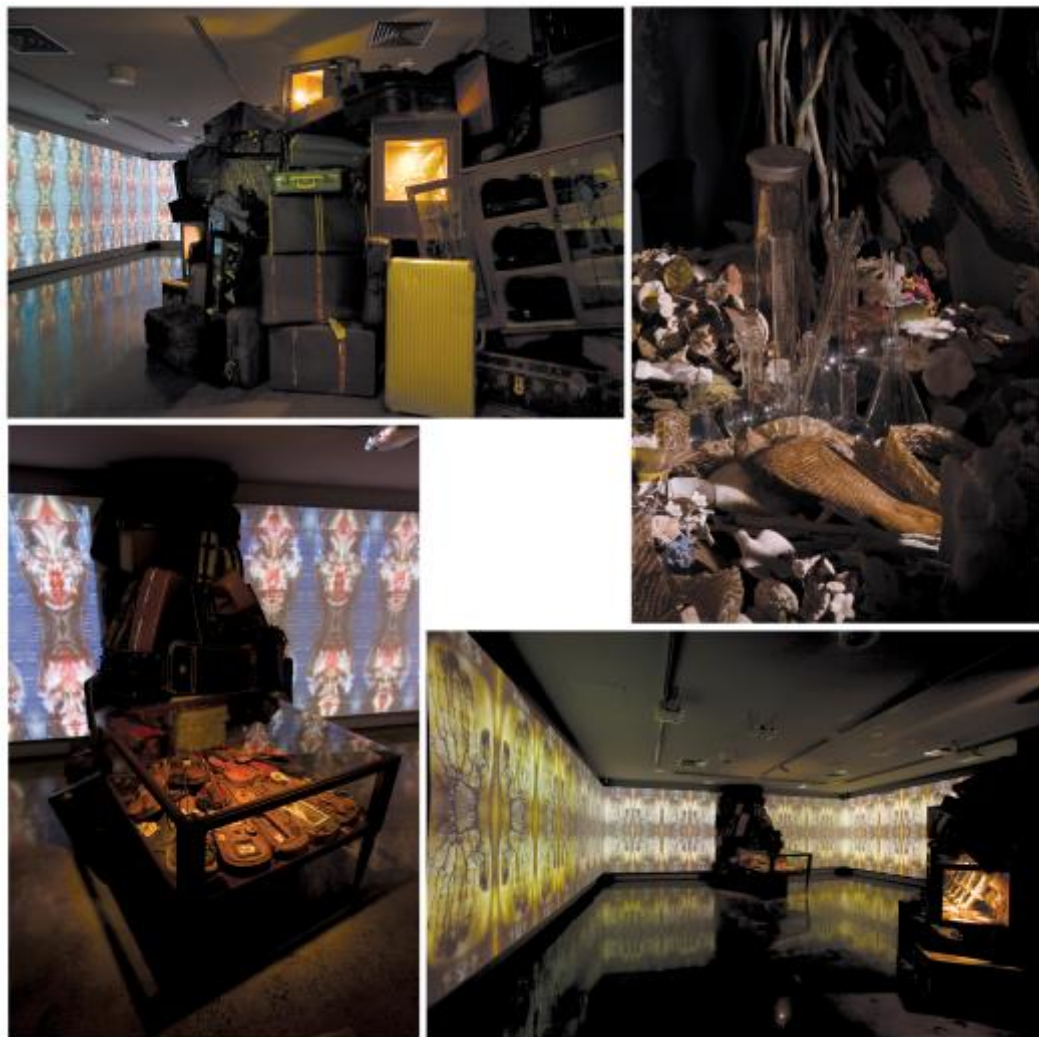
The creative presentation was a contemporary art installation that juxtaposed the concept of a 16th century cabinet of curiosities with kaleidoscopic moving image projections and spatialized sound. The installation incorporated a recreation of the popular still-life genre memento mori and vanitas through a mass of specimens, vitrines and artefacts. A short dance performance presented the collaboration at the opening event and linked to the representation of the body within the wall projections. The installation, induced by a conception of a nascent museum, appeared within the context of universality that grew out of the wunderkammer phenomenon of 16th century Europe (Impey & MacGregor 1985). It included representation of the human body within media art projection along with 'wunderkammer' (fig 1. 2) and 'vanitas' (fig 1.4) iconography associated with the European Baroque.

References to traditional and changing perceptions of museum culture and display became juxtaposed with media arts and period 'mirror of humanity' specimens. The symbolic mirror appeared as a special effect in the visually amplified media arts projection that wrapped around the walls like a curtain (Plate 3.3). The work converged the Baroque aesthetic with contemporary media arts to highlight the ambiguities of collective memory, historical reference and contemporary life.

The Exquisite Resonance of Memory was about how memories are encountered, re-coded and archived through circumstance and provenance. The reframing of collective cultural memory, through a manifestation of the baroque, pointed to a time of early European awareness of the Australian continent. The work reflected on the role collective memory played in lending form and consequence to our idea of self, place and environment. The installation dramatised the way memory functions through associative clauses, leaps, and dislocated to become the shadow of ideas and recollection. The assemblage of specimens and artefacts within the Wunderkammer were the residue of specific historical occurrences within the world. However, they

provided new associations through a complex and intermedial understanding of relationships.

The Exquisite Resonance of Memory presented in the 2008 exhibition program of KickArts Contemporary Arts, Centre of Contemporary Arts, Cairns, Queensland, Australia and presented in Gallery 2. Figure 11 represents the plan and three point perspective view of the installation. Presented by the 2008 OnEdge Media and Performance Festival, Queensland, Australia. Part selected for the collection of KickArts Contemporary Arts Ltd. Part developed through the 2007 Strand Ephemera, Invited Artists Program, Townsville, Queensland, Australia. Also, a component developed for Creature the 2008 exhibition at Umbrella Studio, Townsville, Queensland, Australia. It was remounted in a reconfigured form for the exhibition *Some Assembly Required* 2010, KickArts Contemporary Arts Ltd. Contemporary Arts Ltd.



88 Plate 3, Milledge, R. 2008. *The Exquisite Resonance of Memory*, gallery installation. Clockwise from top left: 1. Landform represented by luggage, cabinets and vitrines, 2. Detail of collection display, 3. Landforms, vitrines and the continuous wall projections, 4. Vitrine with violin sculptures and collection material.

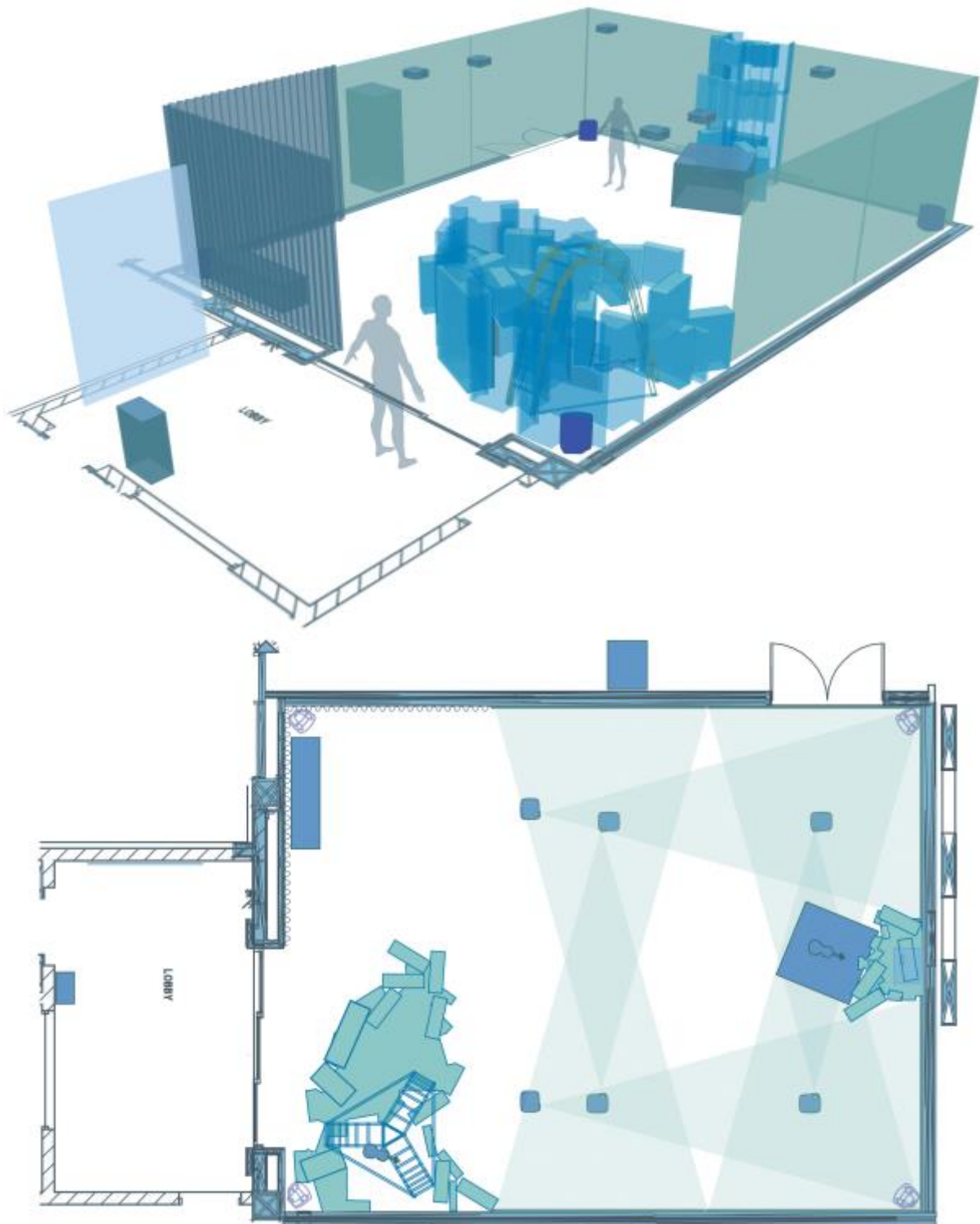


Figure 7. Milledge, R. 2008. *The Exquisite Resonance of Memory*, gallery installation plan. 1. Extruded visualisation of the gallery installation. 2. Plan of gallery installation indicating configuration of projection and spatial components.

4.4 The Second Trajectory: *Whispering limbs*

Presentation title:	<i>Whispering Limbs</i>	
Presentation phase:	On Edge Media and Performance Festival, Centre of Contemporary Arts, Cairns, QLD, Australia	10 th –12 th July 2009
Research archive portal:	http://researchonline.jcu.edu.au/18865/	
Artwork documentation portal:	http://www.bonemap.com/bonemap_2009/index_2009_02.html	
Sponsors and funding:	On Edge: Contemporary Media + Performance, Polytoxic, JUTE Theatre, KickArts Contemporary Arts, Cairns Civic Theatre, James Cook University, Arts Queensland and the Regional Arts Development Fund a Queensland Government and Cairns Regional Council partnership to support local arts and culture.	
Creative development:	Emerald End Artcamp, QLD, Australia	July 2009
Media elements:	Scenographic installation, projected media, sound composition and choreographed dance.	
Collaborating artists:	Russell Milledge, Rebecca Youdell, Steven Campbell, Lisa Fa'alafi, Fez Fa'anana, Earl Rosas and Leah Shelton.	
Role of the artists:	Russell Milledge, director, media artist, sculptor, designer. Rebecca Youdell, co-director choreographer, dancer. Steven Campbell, sound design, music composition. Lisa Fa'alafi, collaborating choreographer, dancer. Fez Fa'anana, collaborating choreographer, dancer. Earl Rosas, collaborating choreographer, dancer. Leah Shelton, collaborating choreographer, dancer.	
Documentation:	Photography, video, sound, designs and ephemera.	
Ancillary archived material:	Computer code, scenographic designs, unimplemented photographic portraits and animation series.	
Publications:	Milledge, R., Campbell, S. and Youdell, R. (2009) <i>Whispering limbs: cross-cultural collaboration in a hybrid of contemporary dance, media, sound and improvisation</i> . From: Tropics of the Imagination Conference, 2 - 3 November 2009, Cairns,	

	QLD, Australia.	
Published reviews:	<p>Carless, V. (2009) Beautiful Hybrids, review in RealTime (on line), http://www.realtimearts.net/feature/Induce_Workshops/9549. [Accessed 22/9/2009].</p> <p>Cooper, K. (2009) Fish-bowl Dreaming, review of <i>Whispering Limbs</i> in RealTime, RT93, October/November, Open City Inc. Sydney.</p> <p>Gallasch, K. (2009) Never Too Far Away, review of On Edge Festival, Cairns in RealTime, RT93, October/November, Open City Inc. Sydney.</p>	
Data collection:	Audio recording, video recording, photography and collaborator statements.	

Table 9. Information matrix for trajectory 2.

Research statement:

The presentation involved a collaboration of 5 dancers within a scenographic space defined by projection, shape, light and sound. A lens of intercultural identity informed the choreographic process with a mix of Indigenous, Polynesian and Contemporary performance aesthetics. Sweeps of projected panoramic landscapes provided scenes to explore a range of contemporary choreographic themes. An integrated, mediated and improvised performance arena, devised for the black box theatre. Presented at the Centre of Contemporary Arts Cairns, within two weeks with presentations over three nights during 2009 On Edge Contemporary Media and Performance Festival.

The creative development incorporated an intensive workshop period within a short temporal window. It included exposing the dancers to an exterior world within a remote area of far north Queensland, Australia. The environmental features encountered included a river and forested areas, where shared sensation-based experiences consolidated the ensembles choreographic purpose. *Whispering limbs* was a performance that gestured towards identity and place as a series of liminal cultural boundaries. Exchanges during the creative development produced unpublished moving image and photographic media (Plate 4.2&4) concurrently with

choreography and scenographic design elements presented in the staged work (Plate 4.1&3).

Whispering Limbs offered a set of symbolic coordinates from which a poetic fiction emerged. The artists were not neutralising identity or space but were not rampant with 'narrative' cohesion either. There was an inscription already alive within the limbs of the dancers, within the intertextuality reliant on the experience of reading the dancers body. The audience, charged with 'authorship', interpreted the dancers movements. The relationship of identity and place determined through reading the performing body in action. The contemporary dance technique that established the ensembles shared movement vocabulary was ostensibly optional and a deliberate surrealist interruption in the interpretation of their presence.

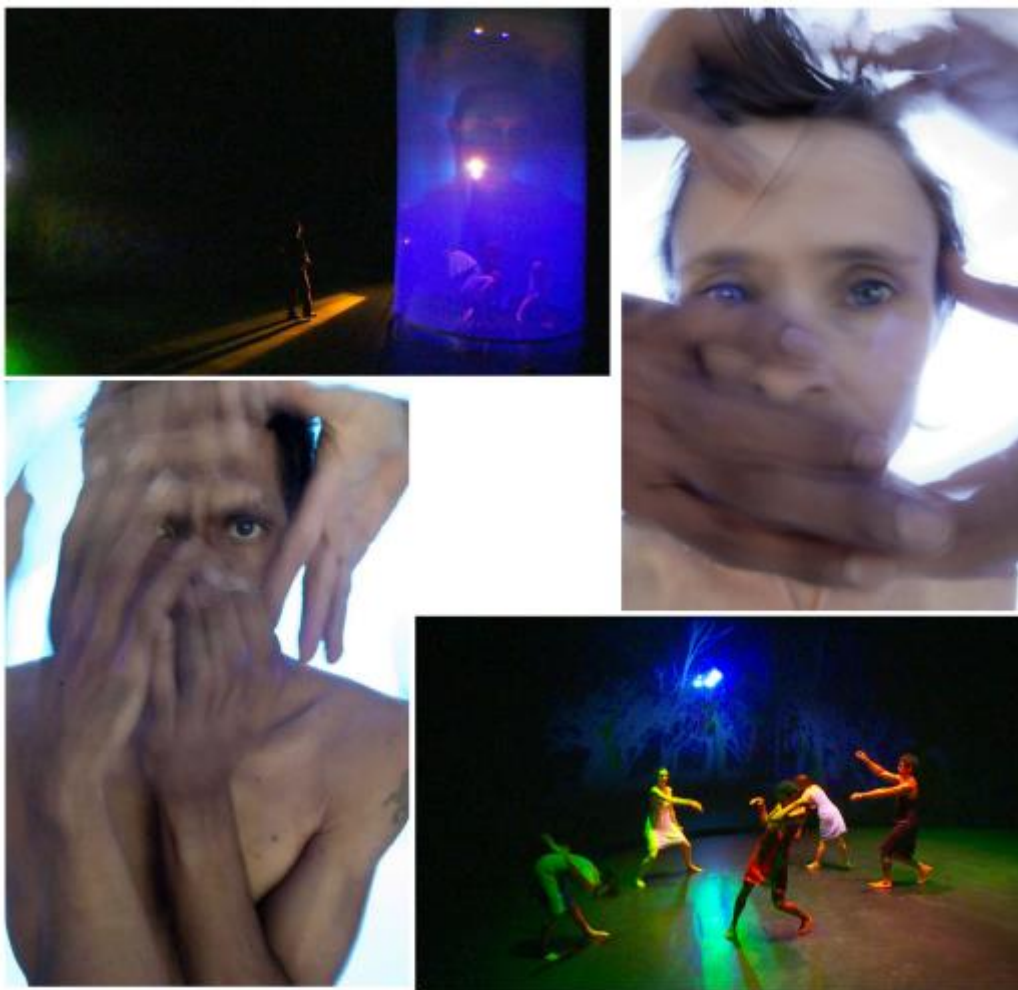


Plate 4. Milledge, R. et al. 2009. *Whispering Limbs*, performance and photography. Clockwise from top left. 1. Scene from performance. 2. Photographic portrait of Rebecca Youdell. 3. Scene from performance. 4. Photographic portrait of Earl Rosas.

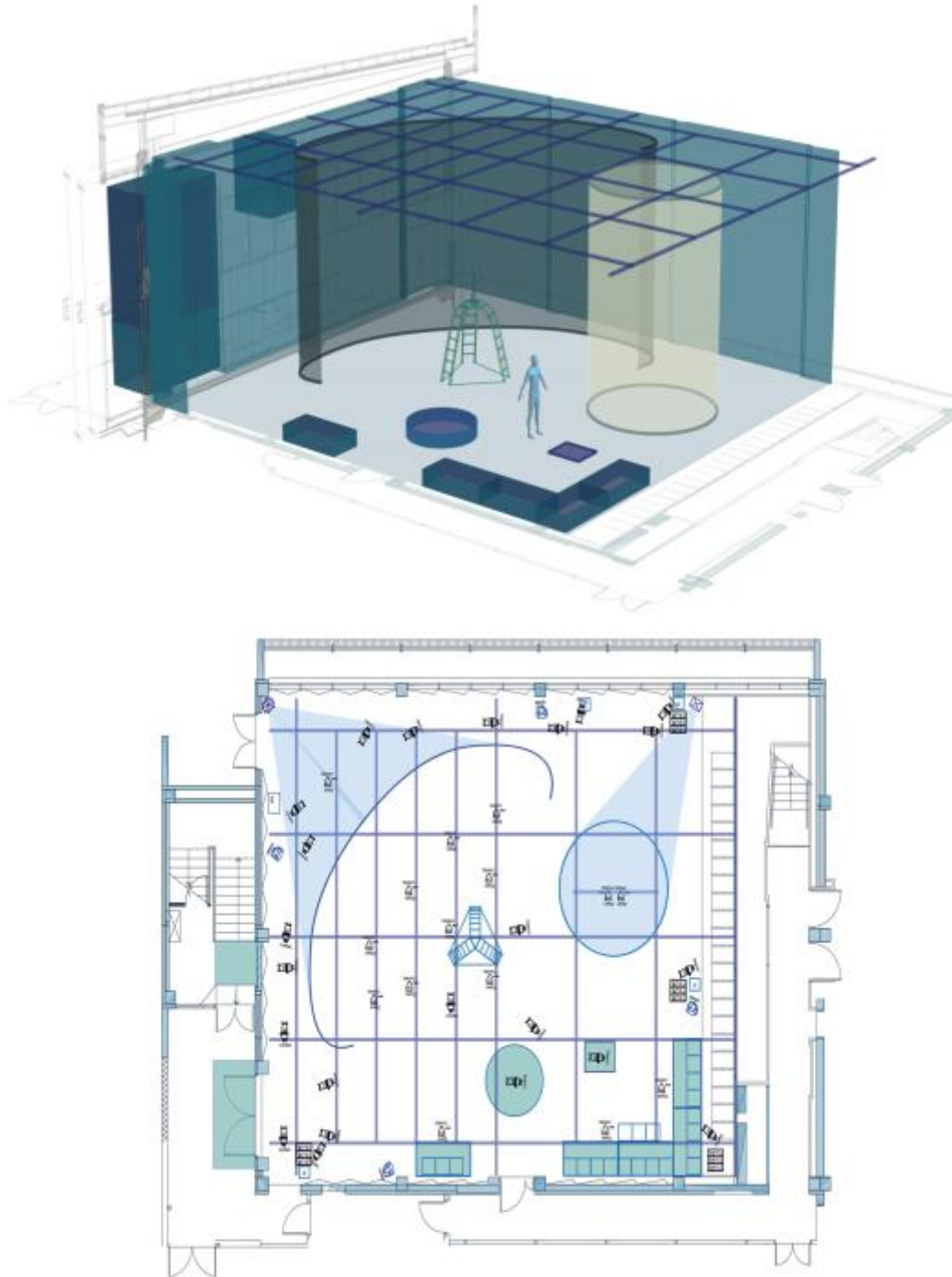


Figure 8. Milledge, R. 2009. *Whispering Limbs*, performance. 1.Extruded visualisation of scenographic components. 2. Plan of theatre space indicating projection, lighting rig and spatial components.

4.5 The Third Trajectory: *Cove*

Presentation title	<i>Cove</i>	
Presentation phase:	The Theatre, Centre of Contemporary Arts, Cairns, QLD, Australia.	29 th April – 1 st May 2010
Research archive portal:	http://researchonline.jcu.edu.au/11932/	
Artwork documentation portal:	http://www.bonemap.com/bonemap_2010/cove/index_2010_01.html	
Sponsors and funding:	KickArts Contemporary Arts, James Cook University, Cairns Regional Council, Arts Queensland, Australian Government Visual Arts and Crafts Strategy, Lifeline, Boon Sherrin.	
Creative development:	1.5 week creative development preceding presentation. The theatre, Centre of Contemporary Arts Cairns.	19 April – 2 May 2010
Media elements:	Scenography, interactive installation, projected media, sound composition and choreographed performance.	
Collaborating artists:	<i>Russell Milledge, Rebecca Youdell</i> , Steven Campbell and Jason Holdsworth.	
Role of the artists:	Russell Milledge, director, media artist, designer. Rebecca Youdell, choreographer, dancer. Steven Campbell, sound design, music composition. Jason Holdsworth, support programmer.	
Documentation:	Photography, video, sound, designs and ephemera.	
Ancillary archived material:	Computer code, scenographic designs, motion tracking system and vapour screen system specification.	
Conference presentation:	Milledge, R., Youdell, B., Obarzanek, G. , and Fox, R. (2011) <i>The geography of mobility: bodies and technology</i> . In: The National Dance Forum. From: National Dance Forum, 19 - 20 March 2011, Melbourne, VIC, Australia.	
Published reviews:	Ashley, B. (2010) <i>Movement is Rewarded</i> in RealTime, RT97, June-July pg.24, Open City Inc. Sydney. http://www.realtimearts.net/article/97/9864	
Data collection:	Audience/participant written responses, interviews with collaborators, peer participation.	

Table 10. Information matrix for trajectory 3.

Research statement:

Cove was an interactive media arts experience that transformed the interior of the theatre into an immersive space for its audience. It was a subtle interactive space filled with ephemeral light sources, projection and sound. The projected meteorological and atmospheric effects created a transformative environment inhabited by a performer and audience. The audience occupied the centre of an imaginary geography. Large set forms integrated into the work as both sculptural elements and projection surfaces. Stacks of luggage (Plate 5. 3) arranged to be suggestive of ancient landmasses. Pools of vapour represented the ethereal sanctuary of a '*cove*'. Sculptural representations of sea passages and landing sites integrated with media projection and a live dance performer to complete the blended quality of the installation.

The presentation incorporated the development of a prototype participatory machine that reconsidered the experience of interaction between an audience and performer. *Cove* was an installation environment responsive to an audience through reciprocal movement interaction (Plate 5.2). The centre of *Cove* was a kinesthetic 'narrative' communication between a dancer's journey of assimilation in a spectacular place and the audience's ambiguous experience of cohabitation.

The collaborative interest in the process included intuitive design and an interface that reflected the co-presence of performance, 'narrative' fragmentation and natural environment aesthetics (Plate 5.1). Live presence, circumstance and meteorological atmosphere blended metaphor (Plate 5.4). The motif of 'weather' explored a responsive digital particle projection system. It provided the visual simulation of atmospheric conditions experienced as kinesthetic elements by the audience within the prototype interactive installation.

Cove was a presentation that investigated intermedia as a relationship between mediatized scenographic space, sculpture and performance. An innovative thermal spectrum motion-tracking system developed the use of an infrared camera. The novel system allowed audience movements to interact with projected light and imagery. Audiences entering the work interacted through movement within sculptural screens and vapour zones. They also encountered dance performance and spatial surround sound. The work was included in the 2010 creative program of KickArts Contemporary Arts Ltd and presented in the Theatre, Centre of Contemporary Arts Cairns, Queensland, Australia (Figure 13).

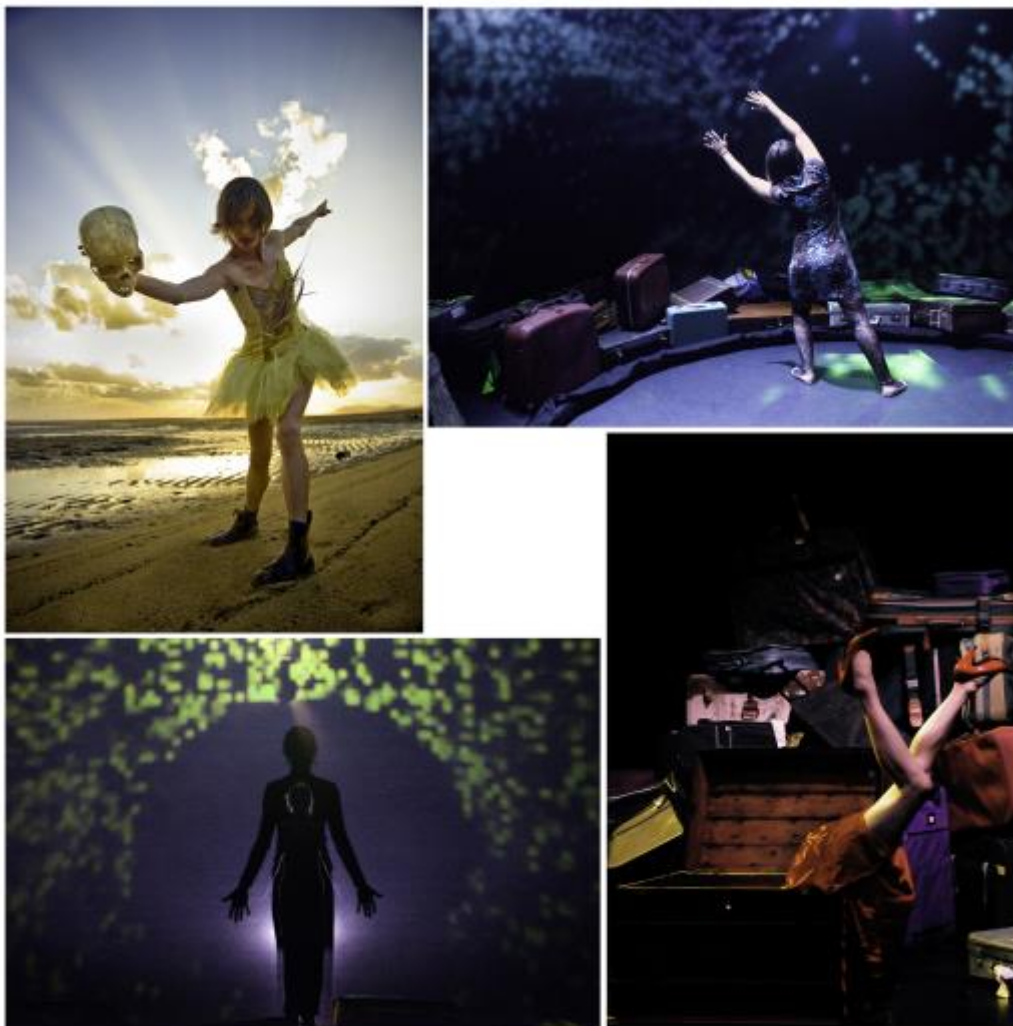


Plate 5. Milledge, R. 2010. *Cove*. Clockwise from top left: 1. Photographic environmental portrait of Rebecca Youdell. 2. Audient interacting with the projected particle screen. 3. Scene from the performance. 4. Scene from the performance indicating blending of live presence of the performer and the projected particles.

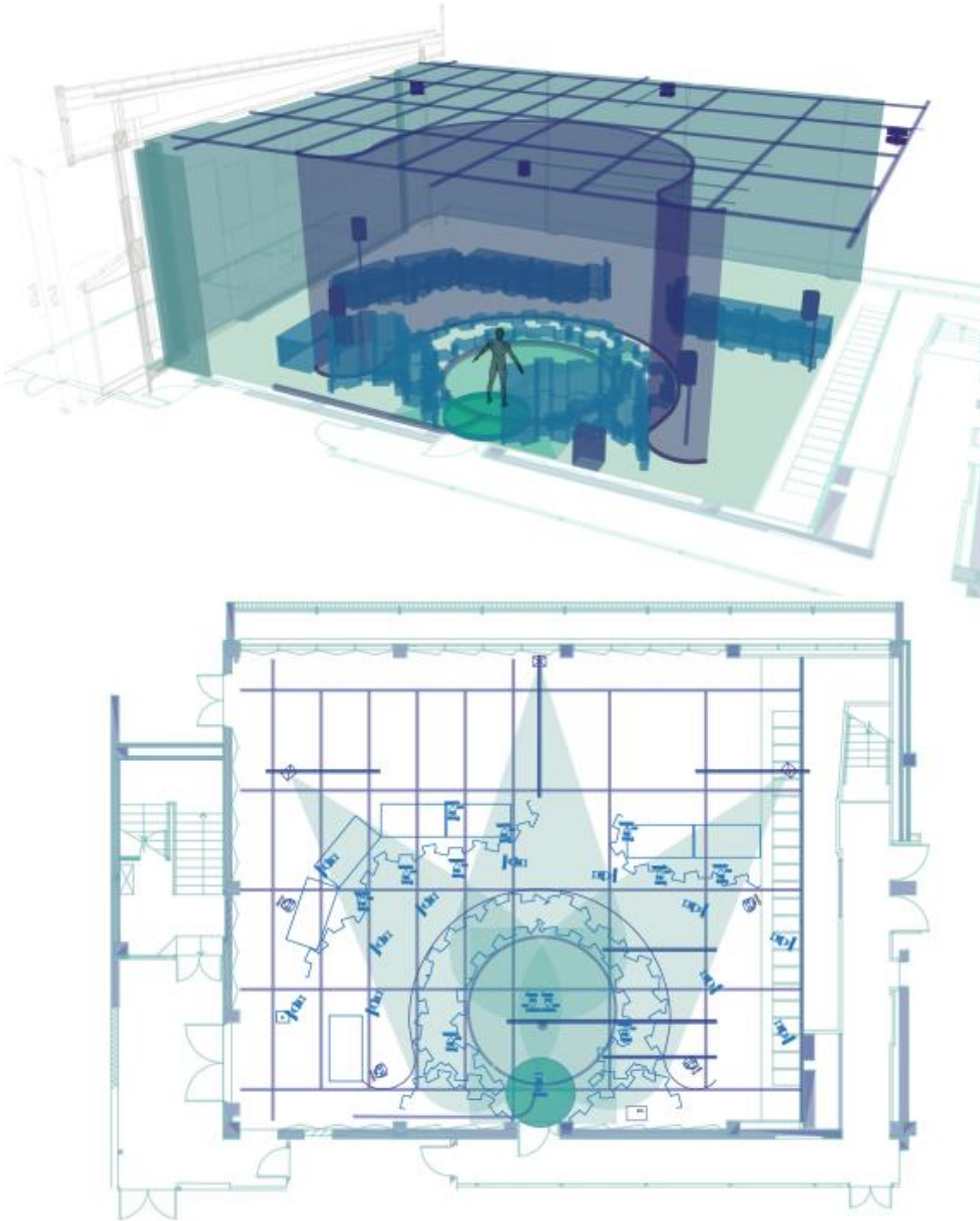


Figure 9. Milledge, R. 2010. *Cove*, intermedial performance. 1. Extruded visualisation of the scenographic components. 2. Plan of theatre indicating projection, lighting rig and spatial components.

4.6 The Fourth Trajectory: *Sweet Spot & Nerve Engine*

Presentation title:	<i>Sweet Spot & Nerve Engine</i>	
Presentation phase:	<i>Sweet Spot</i> : The Space, Centre of Contemporary Art, Cairns <i>Nerve Engine</i> : The Block, QUT, Brisbane Festival <i>Nerve Engine</i> : The Space, Centre of Contemporary Arts, Cairns	19 th – 21 st April 2011 10 th – 14 th September 2013 26 th – 30 th August 2014
Research archive portal:	<i>Sweet Spot</i> : http://researchonline.jcu.edu.au/2024/ <i>Nerve Engine</i> : http://researchonline.jcu.edu.au/31296/	
Artwork documentation portal:	<i>Sweet Spot</i> : http://www.bonemap.com/bonemap_2011/index_2011_01.html <i>Nerve Engine</i> : http://nervengine.com/	
Sponsors and funding:	KickArts Contemporary Arts, Cairns Regional Council, Arts Queensland, Cairns Centre of Contemporary Arts, Australia Council for the Arts, Ausdance Queensland, New Move Network.	
Creative development:	2 week creative development preceding prototype presentation, The Space, Centre of Contemporary Arts, Cairns, QLD, Australia. 2 week creative development preceding festival presentation, The Block, Creative Industries Precinct, Queensland University of Technology, Brisbane.	11 th – 24 th April 2011 1 st – 16 th September 2013
Media elements:	Scenography, interactive installation, projected media, sound composition and choreographed performance.	
Collaborating artists:	<i>Russell Milledge, Rebecca Youdell, Steven Campbell and Jason Holdsworth.</i>	
Role of the artists:	Russell Milledge, director, media artist, designer. Rebecca Youdell, choreographer, dancer. Steven Campbell, sound design, music composition. Jason Holdsworth, support programmer.	
Documentation:	Photography, video, sound, designs and ephemera.	
Ancillary archived material:	Computer code, scenographic designs, education kit, technical rider	
Conference presentation:	Milledge, R. & Youdell, B. 2013. <i>Bonemap: decentering authorship, collaborative agency and inter-relational audience / performer interactivity</i> , SEAM Conference, Critical Path, School of Design and Centre for Contemporary Design Practices in the Faculty of Design, Architecture and Building, University of Technology Sydney	

	(unpublished presentation)	
Published reviews:	<p>Gallasch, K. (Ed) (2015) <i>Plasticity, performance, environment</i>, in RealTime, RT 126, April-May, online, http://realtimearts.net/article/126/11922</p> <p>Dann, G. (2014) <i>Deep inside the world-as-body</i>, in RealTime, RT 123, Oct-Nov pg.32, Open City Inc. Sydney. http://www.realtimearts.net/article/issue123/11727</p> <p>Kelly, K. (2013) <i>A Republic of words, images, bodies</i>, in RealTime, RT118, Dec-Jan pg.35, Open City Inc. Sydney. http://www.realtimearts.net/article/issue118/11430</p>	
Data collection:	Audience/participant written responses, interviews with collaborators, peer participation, video data of audience response.	

Table 11. Information matrix for trajectory 4.

Research statement:

Sweet Spot & Nerve Engine were immersive media arts experiences that rearranged the conventions of dance and media concerning how they were staged, encountered and inhabited by a performer and an audience member. Two large (floor to ceiling) cylinders of diaphanous material reflected the projection mapped digital content and defined the scenographic space. One of the cylinders was open for an audience participant to enter. The experience unfolded for a short duration with one audience member, one performer and the interactive audio-visual media, before being repeated for the next participant.

The enactive principle within *Sweet Spot* was a feedback loop. The audience moved to effect changes in the digital audio-visual scenography; the live performer reciprocated the audience member's movements. The installation was a machine or system inhabited by the movement vocabulary of the participants. Its optimal state was a free interaction between the audience member and the performer. A dance made between strangers, mapped to the imaginary territory of a scenographic space.

Nerve Engine reflected the dynamic state of an intermedia system structured around the empathetic, emotional and transformative experience provided by the audience member's communication and co-presence with the performer. The state of the interplay, and how variables interacted and then oscillated through states of audio-visual algorithms integrated with moments of person-to-person communication. The *Sweet Spot* and *Nerve Engine* presentations unfolded in scenes with a total ten-minute duration. An audience member booked a time slot, and either entered alone or up to three people interacted at a time. Observers and groups occupied a designated viewing area. *Sweet Spot* presented in the 2011 New Move Network and the creative program of KickArts Contemporary Arts Ltd., Queensland, Australia. *Nerve Engine* featured within the 2013 Brisbane Festival's Theatre Republic and the QUT Creative Industries Precinct Digital Associates Program. The work presented in the 2014 program of the Cairns Centre of Contemporary Arts and occupied a venue called The Space.



Plate 6. Milledge, R. et al. 2011 – 2014, *Sweet Spot* and . Clockwise from top left: 1. Audience within *Sweet Spot* 2011. 2. Audience and performer within *Nerve Engine* 2013. 3. Audience within *Sweet Spot*'s vapour screen 2011. 4. Audience and performer within *Nerve Engine* 2013.

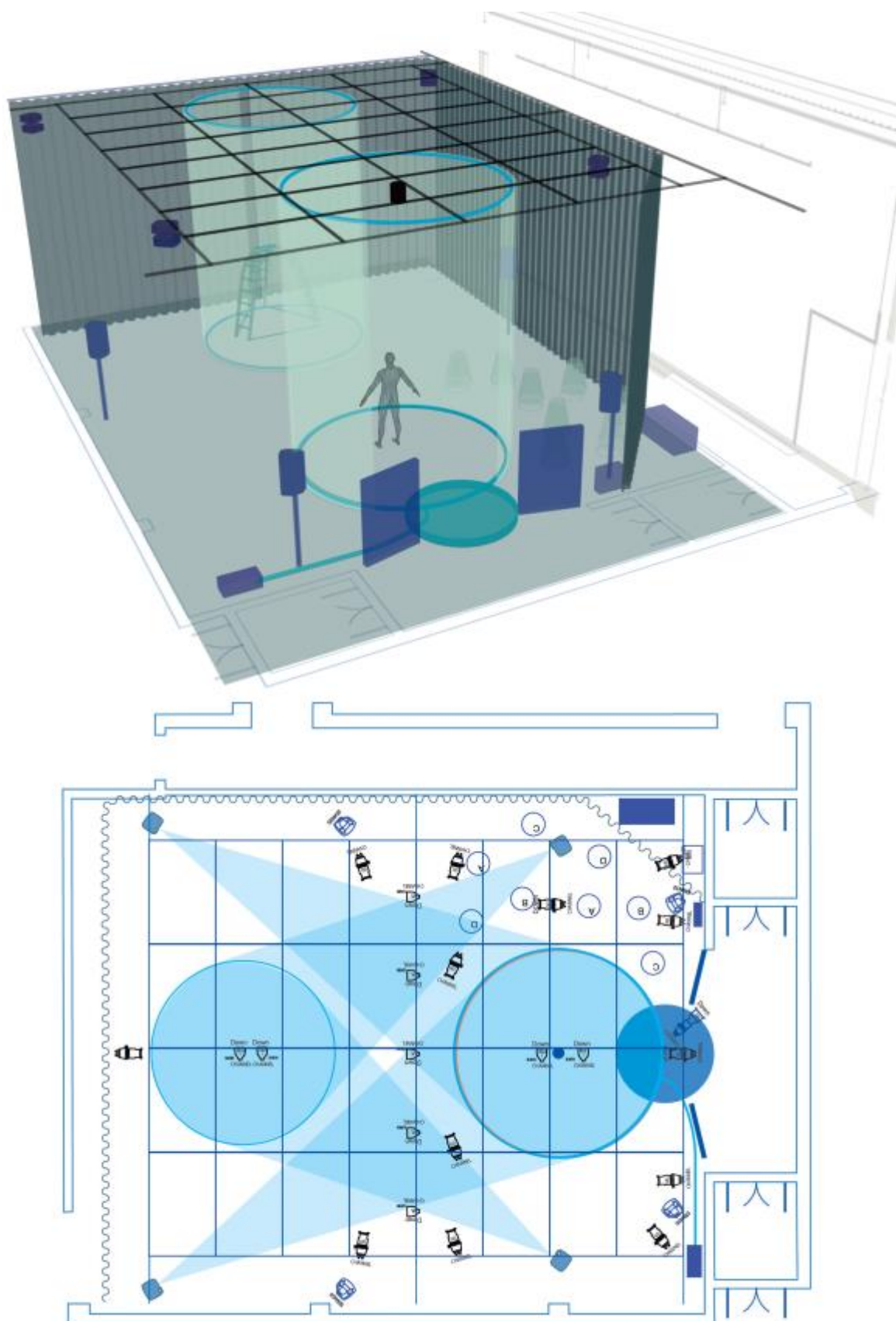


Figure 10. Milledge, R. 2014. *Nerve Engine*, intermedial performance. 1. Extruded visualization of scenographic components. 2. Plan indicating projection, lighting rig, and spatial components.

4.7 Towards Intermediality in the Fifth Trajectory

Nerve Engine involved intermedia within a spatial installation incorporating a live dance performer. A system of technology manipulated immersive space developing into a prototype that produced blended experiential qualities within a virtual performance engine. Also, spatial sensing and wearable technologies delivered direct scenographic transformations within the engines parametric and algorithmic throughput. The dramaturgical structure located actions of a participant audience in the live choreography and temporal scenographic display. The free interaction of components contributed towards a personal experience within the presentation. The engine included a sensory feedback array that proceeded from unique moments of media and performance. Also, the audience member and performer perceived simultaneously by the system, as together and apart, inhabited feedback zones. Energy, mapped between the performer and participant, became a critical actant within the interface and suggested real time telematic interaction as performative, choreographic and scenographic communication channels within a processual state of exchange.

An interaction emerged between media and performance to produce a comparable improvisational quality from within the system. The word choreologic provided a label for the dynamic spatial simulation resulting from the engine's processes. The improvisational quality of the engine matched parametric responses allowing free human movement to be the source of modifiers within the computer code of the installation. The visual and sonic output became reliant on the variables of interaction presented to the systems sensors. Generated by simulation and the qualities of human movement, parametrical mapping captured and filtered real-time visual representations of light particles and sound. Two meshed scrim cylinder projection surfaces and spatialized interactive audio transposed the qualities of improvisation to the scenographic space. The atmospheres generated by the engine were responsive to the informational resonances of the audience member's individual movement quality. Therefore, the machinic 'sweet spot'

was not only improvisational; it was unique for each audience member as an enacted participant within the work.

A second presentation titled *Terrestrial Nerve* became a parallel trajectory alongside *Nerve Engine*. It represented an epicyclical process complicating the linear series of production cycles proposed for the research period. A new stream of enquiry and creative development emerged and exploited a tangent of the productions immersive engine. The ambition to further integrate the physical properties of a meteorological phenomenon, in particular, wind and rain within a scenographic simulation. *Terrestrial Nerve* matched sensor development and choreologic spatial qualities with a collaboration of two dancers. The dancers positioned the audience within a normal theatrical relationship. However, the manoeuvre of playing to, rather than with, the audience regarded the scenographic territory rather than signalling dissatisfaction with participatory audience engagement.

The two presentations profiled within a large arts festival and toured to research settings outside of its home city. The continuous outcomes of the recursive production cycle accumulated and informed the presentations creative development. *Nerve Engine* represented the culmination of an iterative series within the creative production cycle.

4.8 The Fifth Trajectory: *Terrestrial Nerve*

Project Title:	<i>Terrestrial Nerve</i>	
Presentation phase:	The Block, QUT Creative Industries Precinct, Brisbane Festival Theatre republic program. The theatre, Centre of Contemporary Arts, Cairns, QLD, Australia.	10 th – 14 th September 2013 6 th – 7 th December 2012
Research archive portal:	http://researchonline.jcu.edu.au/31301/	
Artwork documentation portal:	http://www.bonemap.com/bonemap_2012/t_nerve/index_2012_02.html	
Sponsors and funding:	James Cook University, Arts Queensland, Australia Council, Ausdance Queensland, QUT Creative Industries Precincts.	
Creative development:	2 week creative development preceding presentation. The theatre, Centre of Contemporary Arts Cairns.	19 November – 7 December 2012
Media elements:	Scenography, interactive installation, projected media, sound composition and choreographed performance.	
Collaborating artists:	<i>Russell Milledge, Rebecca Youdell</i> , Steven Campbell and Jason Holdsworth.	
Role of the artists:	Russell Milledge, director, media artist, designer. Rebecca Youdell, co-director, choreographer, dancer. Catherine Hassall, dancer. Steven Campbell, sound design, music composition. Jason Holdsworth, support programmer.	
Documentation:	Photography, video, sound, designs and ephemera.	
Ancillary archived material:	Computer code, scenographic designs, motion tracking system and iOS App multi-camera WiFi streaming.	
Conference presentation:	Milledge, R. & Youdell, B. 2013. <i>Bonemap: an ecological focus</i> , DANscienCE Festival CSIRO Discovery Centre (unpublished conference presentation)	
Published reviews:	Badham, V. (2013) <i>Terrestrial Nerve by Bonemap – review</i> , The Guardian, Wednesday 18 September 2013, http://www.theguardian.com/culture/australia-culture-blog/2013/sep/18/terrestrial-nerve-theatre-bonemap Grant-Iramu, M. (2013) <i>Terrestrial Nerve by Bonemap – review</i> , Women in Performance, posted October 2013, http://womeninperformance.com/2013/10/30/terrestrial-nerve-by-bonemap-	

	review/ Kelly, K. (2013) <i>A republic of words, images</i> . in RealTime, RT 118, Dec-Jan pg.35, Open City Inc. Sydney. http://www.realtimearts.net/article/issue118/11430	
Data collection:	Audience/participant written responses, interviews with collaborators, peer participation.	

Table 12. Information matrix for trajectory 5.

Research statement:

The presentation of *Cove*, *Sweet Spot* and the iterative *Nerve Engine*, formed a series of immersive installations that blended animated and projected light with a performative reality. Using a technological system the *Nerve Engine's* intermedia involved many augmented multisensory elements that amalgamated to a choreologic installation. *Terrestrial Nerve*, in contrast, extended the collaborative and conceptual framework. A trajectory passed through the digital augmentation towards experiential qualities within a physical realm.

Terrestrial Nerve exploited the convergence of analogue, physical and digital material within the scenographic space. Variables generated through human choreographic movement became parametric values assigned to a vertical column of moving air (Plate 7.1&3). The facility to control and manipulate the physical simulation of wind and rain produced an analogue that augmented digital systems. The tactile properties of a controlled mist screen became the analogue of rain, and a floor fan generated column of air was the analogue of wind. Also, the creative process associated with *Terrestrial Nerve* included a series of intermedia exchanges. Output from the exchange included moving image and photographic series concurrently with choreographic and scenographic spatial design.

Terrestrial Nerve was a 40-minute dance performance and media installation in a promenade gallery setting. The presentation created intermedia influenced by encounters with frontier zones, border crossings and psychological inhabitation. The simulation of the wind as a meteorological event was imaginatively representing an enchanted world. Inanimate

material suddenly became another compelling character within the generated wind column. Two dancers responded choreographically to a sculptural and fantastical place. Ephemeral scenographic elements provided a liminal terrain, evocative of cosmological events, between earth and sky. Choreologic augmented technologies, included body mounted imaging devices as sources for real-time video processing. The presentation incorporated rich media elements, temporary sculptural installation, spatial sound, and idiosyncratic dance performance to promote an abstract and surreal environment for audiences to experience and traverse.

Terrestrial Nerve presented by the 2012 Company in Residence Program at the Centre of Contemporary Arts, Cairns, Queensland, Australia and featured within the 2013 Brisbane Festival's Theatre Republic and the QUT Creative Industries Precinct Digital Associated Program (Figure 15). Bonemap - Morphology, April - May 2016, photography and moving image artefacts from the creative development presented by KickArts Contemporary Arts Ltd. Gallery One Void Space at the Centre of Contemporary Arts, Cairns, Queensland, Australia.



Plate 7. Milledge, R. et al. 2012 – 2013, *Terrestrial Nerve*. Clockwise from top left: 1. A performer within the 'wind' funnel 2012. 2. Photomedia study of performer in mirror chamber 2012. 3. A performer within the 'wind' funnel 2012. 4. Performer with WiFi enabled hand-set interface 2012.

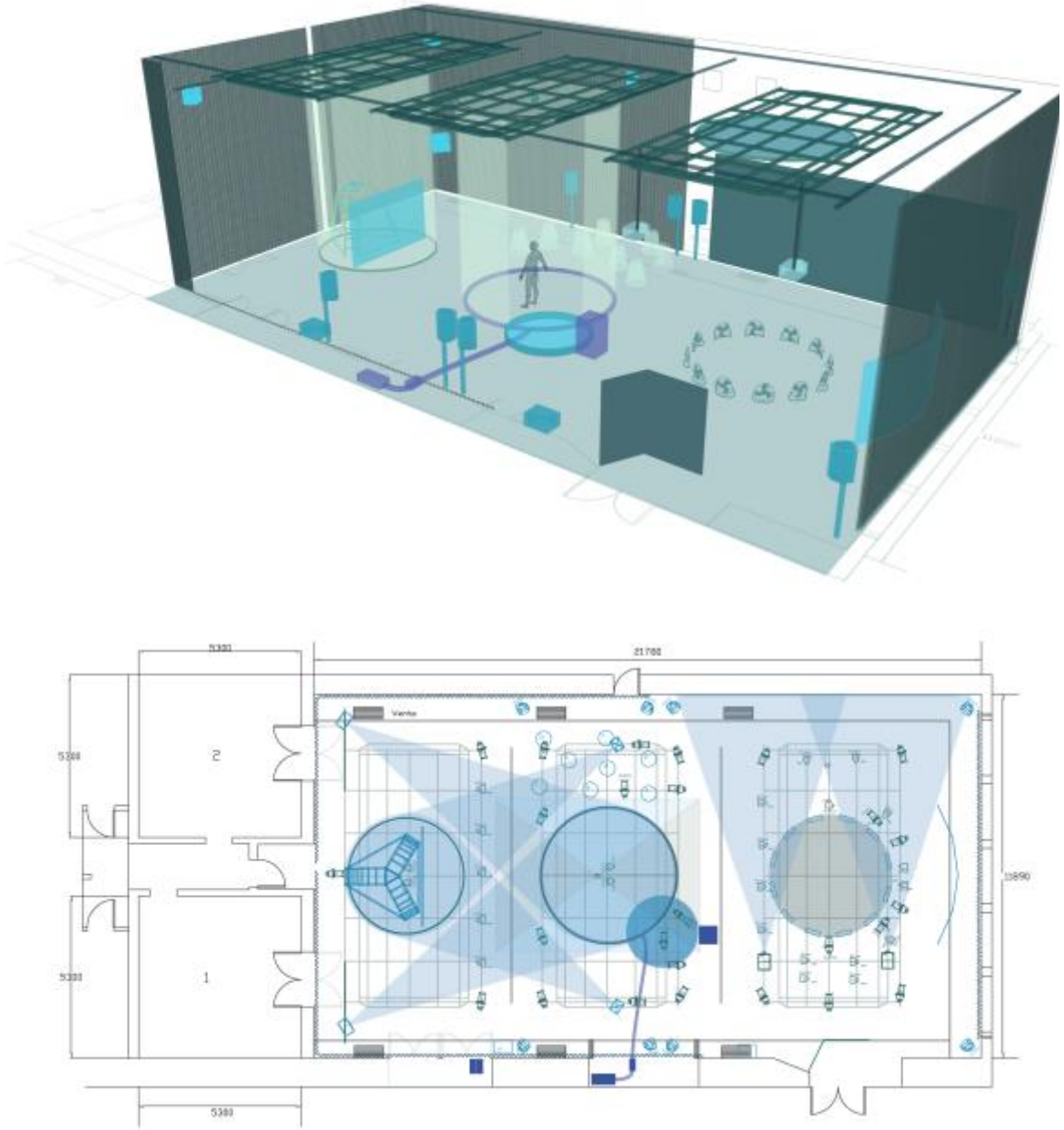


Figure 11. Milledge, R. 2013. *Nerve Engine & Terrestrial Nerve*. 1. Extruded visualization of scenographic components. 2. Plan indicating projection, lighting rig, and spatial components.

4.9 Conclusion to Chapter 4

An existing organisational structure provided the micro-enterprise that facilitated iterations of the creative production cycle. The researcher along with many collaborators engaged in the creative practice as artists and makers. Disciplinary biases within collaborator groupings had a marked effect on the perception of conventional genre within the presentations. Nomenclature at an institutional level quickly tagged presentations with traditional disciplinary titles if there was any weighting towards a single convention. However, intermedia within the creative development remained a consistent method for production.

The creativity and innovation audit stepped through selected core creative works produced from 2008 to 2014. Five trajectories interrogated a recursive cycle of 12 nodes comprising production and presentation phases. A series of works revealed iteration culminated in a peak cycle. An epicyclical series emerged as a divergent trajectory exploring new pathways. Intermedia process revealed the extension of materiality within the collaborative practice.

Intermediality in practice provided differentiation to the understanding of interdisciplinarity and collaboration principally through an intrinsic implementation of material operations rather than an understanding of traditional techniques. Media mixing, blending and augmentation were synonymous with the characteristics of intermediality. The practice of intermedia revealed innovations in material processes. The theoretical proposition that intermediality provided innovative pathways through the interdisciplinary media matrix was evident within the creative production cycle. Intermedia moved towards substantiation of an ontological understanding of media mixing, and it is this understanding that forms a contribution to knowledge.

Chapter 5 – Participant reflections

5.1 Gathering Informational Keys

The previous chapter framed the articulation of an intermedial structure within production. Coalescing techniques within creative arts and the impact on society established the organisational architectures and presentational contexts for the presentation of intermedia. This chapter engages with the responses to production and presentation events provided through a variety of participant reflections. The adequacy, success and failure of presentations against the institutional context and independent framing structures, as an interface with the creative arts, were considered.

The experience of core collaborators, peer responses, Media and audience responses were informational keys that triggered the cognitive process of reflection at specific nodes and phases within the research cycle. The reflective process was, in itself, an implementation strategy assigned to shift the processual motion of production towards innovative outcomes. It would do this by inciting reflective questioning and informing practice.

The data collection instruments varied in form. Different contexts identified specific data collecting opportunities associated with named presentations as indicated in Table 9. James Cook University Human Ethics approval granted the collection of interview data. A process of informed consent involved only the core collaborative team participants named in the research text.

	Collaborators	Audience	Peer	Review
<i>Terrestrial Nerve</i>	x		x	x
<i>Sweet Spot/Nerve Engine</i>	x	x	x	x
<i>Cove</i>	x	x		x
<i>Whispering Limbs</i>	x		x	x
TEROM	x	x		x

Table 13. Distribution of participant responses across 5 trajectories

The collection of response data aligned with the needs, stage and level of production. For example, interviews were conducted with peers during the 2013 Brisbane Festival as this represented a peak cycle moment within the presentation phase of the trajectory associated with the creative work *Nerve Engine*. Overall, the data represented general samples from the many frames that underpinned the project concerning collaboration and audiences.

5.2 Collaborative and Intermedial Agency

The collaborative formation presented perceived bias towards specific competencies contributing to discipline dependent forms. However, the agency of each core collaborator was invoked by contributions of units of action, or simply *action-units*, at nodes of focused engagement within a named cycle. The implications induced from the structure of the collaboration included:

1. The framework of competencies within the domain of four named disciplines identified as bias: design/media arts, choreographic dance, music/sound, computer code/programming.
2. The principal creative team represented four practitioners whom each predominantly identified with specialisation in at least one of the disciplinary competencies. Projects that evolved variation within the collaborative makeup were considered transient, intervening or nascent.
3. The extent that intermedia existed as an intention in the production appeared as a tolerance influenced by the disciplinary domain and competency structure attributable to the principal artists in the collaborative team.

The structure and organisation of each presentation had explicit and implicit elements as central influences in the mode, and at the site, of collaboration. For example, individual contributions occluded by the integration of production contrasted with the highly visual component of the live performer. Iteration of the creative production cycle, fell into the definitional

convention of the genre, as explicitly one discipline code over another, aligned with the distribution of roles in the collaboration. An even distribution within the collaborative team demonstrated the tolerance of intermedia. Identifying the appropriate genre context challenged the conventions of institutionalised classification systems in the arts. The arbitrary identity, assigned by convention, was a fragile mantle of identification inherent within the frame of each production and revealed within the plasticity of identity within the institutional setting. An example of genre suppleness included institutional responses to the presentation of *Nerve Engine* 2013 – 2014. The promotional package advocated its intermedia status to appear initially aligned to a program leaning towards a media art installation at QUT's The Block. The presentation was included in Brisbane Festival's Theatre Republic and finally the dance program at the Centre of Contemporary Arts, Cairns. Opportunistic shape-shifting the intermedia production appeared to achieve a multi-disciplinary identity through the plurality of the contemporary arts.

Intentional intermedia exerted an influence on a particular direction of practice that sought innovative solutions beyond the conventions of disciplinary boundaries. Conversely, venue and funding partners, whose influence imposed categorization, provided resistance via perceived discipline dependency. However, the cycle for each creative work established a 'narrative' frame that coalesced media and discipline to fulfil a creative vision. The process starts with a matrix of media possibilities defined by the dynamics of collaboration. Intermedia mitigates the influences and conditions of multidisciplinary. Attributes of a collaborators field, expertise and expectation, impacted the creative works through industry perception, disciplinary or media identification. The intention of operating a mix of disciplines influenced by convention generated signifiers within the media matrix. However, intermedia as a process did not exclude creative presentations identified as fitting contingently within one or other disciplinary context.

Intentional intermediality exerted an influence within a particular direction of practice that sought innovative solutions and plasticity beyond the conventions of disciplinary boundaries. Venue and funding partners, whose influence imposed categorization, were navigated via the discipline dependency identifiable within the collaborative team. However, the production and presentation cycle for each creative work was established within an intermedial frame. The presence of additional mitigating influences and conditions were attributes of the field and of the expectation of audiences. Consequently, understanding the impact of the creative works through industry perception and disciplinary or medial identification was conflated. The intention of operating outside of disciplinary convention influenced the signifiers within the expanded intermedial matrix. However, intermediality as a process did not exclude creative works from being identified as fitting within one or other disciplinary context contingently.

5.3 The Consequences of Collaboration

The collaborators who contributed to *The Exquisite Resonance of Memory* 2008, *Cove* 2010, *Sweet Spot* 2011, *Nerve Engine* 2013 and *Terrestrial Nerve* 2013, were asked to respond to a series of questions about the character of the iterative production and presentation cycle. The questions sought to reveal the role of collaboration in dealing with the materiality and modality of intermedia art production. Table 10 indicates the process of capturing responses from the core collaborators 2010 & 2013. Table 11 lists the series of questions put to the collaborators in 2013. An interpretation of the interview data then follows within the chapter section.

Respondent	Medium	Date	Comments
Steven Campbell & Russell Milledge	Video recording	2010	Conducted by Suzon Fuks
Steven Campbell	Recorded Skype audio	4 November 2013	Responses from a 90 minute interview transcribed
Jason Holdsworth & Russell Milledge	Video recording	2010	Conducted by Suzon Fuks
Jason Holdsworth	Written response	3 December 2013	

Rebecca Youdell	Video recording	2010	Conducted by Suzon Fuks
Rebecca Youdell	Written response	5 November 2013	

Table 14. The interview process for collaborators

	Questions for Core Collaborators
1	The projects have involved individual development and collaborative development can you articulate your primary consideration as an individual contributing to the productions?
2	Has the intermedial nature of the projects contributed to your individual professional development?
3	Working as an individual did you feel there were opportunities to consider alternative directions when reaching consensus as a collaborator?
4	As an individual what is your experience or understanding of authorship within the collaborative process?
5	Now that we have been through several iterations of creative development and production, what are your reflections on the framework we adopted during this time?
6	How would you define your role in the collaboration and the extent to which this changed over project iterations, if at all?
7	Thinking back to the initial project engagement, then through several project iterations, do you see or observe a pattern associated with a production cycle?
8	What would be the main research/project highlights for you from your experiences in the collaboration?
9	What would be the main research/project challenges for you from your experiences in the collaboration?
10	How would you categorise the creative process you experienced throughout the research period?
11	How would you categorise the creative outcomes produced by the research collaboration?
12	What does intermedia mean to you as an artist?
13	To what extent do you see potential for further creative development from what has been achieved thus far?

Table 15. List of questions for core collaborators 2013

Seasonal creative development residencies and intensives undergirded the collaborative process. The residencies brought together components of the productions and the collaborators in the same space and time. Remote communication between residencies contributed to proof-of-concept phases and material iterations. However, it was the residencies where all the prototype elements came together. The 2010 interviews and documentation material captured the machinations of the residency associated with the creative presentation of *Cove*. A visiting industry colleague, in the process of

undertaking an Australia Council for the Arts Fellowship, was engaged to conduct interviews, observe and document the production.

The documentation recorded in 2010 captured the collaborative process of setting up and presentation within the black box theatre at Centre of Contemporary Arts, Cairns, over a two-week period. The video data included representation of candid communication interaction and the facilitation of production components. The interviews benchmarked the particular concerns of collaborators immediately preceding the public presentation. The interviews represented an amalgamation of interests and signposted the contribution of each collaborator toward the overall production. The interests and concerns of collaborators detailed specific technical and procedural knowledge brought together within the collective process.

The collated interview data provided a perspective on the model within the creative production cycle. Collaborative communication channels were a key modality in the process. Both the 2010 and 2013 interviews provided an indication of the vernacular associated with the working process. For example, the nuanced shift of emphasis engaging audiences and performers brought to the fore by an enactive interface. The collaborators perspective provided a gauge of robustness toward the collaborative process.

5.3.1 Primary Consideration of the Collaborators

The collaborators, as respondents to the 2013 questionnaire, were asked to articulate their primary consideration as an individual contributing to the productions. Collaborator contributions appeared characterised as moulding, controlling or manipulating the materiality of forms that integrated within the intermedia process and presentation. Campbell (2013, pers. comm. 4 Nov.) suggested the sound elements, for which he felt a responsibility, complemented the 'narrative' of other material associated with the work. For Holdsworth (2013, pers. comm. 3 Dec.), the primary consideration was technical, "programming support in terms of prototyping, brainstorming, and coding software." For Youdell (2013, pers. comm. 5 Nov.) whose background was in choreographic dance the, "reference point for collaboration... practice

is the multiple perspectives of media with the physical actions and perceptions of the body as a consistent reference.”

The perspectives provided by each collaborator highlighted the consensual value of bringing material elements together. Terms such as ‘complementary’, ‘support’ and ‘multiple perspectives’ indicated a shared concern for the collocation of professional contribution alongside interpersonal contributions to the team.

5.3.2 Intermediality and Individual Development

The process of remediation, as described by Bolter & Grusin (2000) flattened the attributes of specific codes of artistic practice. For example, a photograph of a painting or the audio recording of a voice ‘flattens’ the original to a facsimile. In contrast, the intermedia process provided an interstitial form. Conventional disciplines became colours on a palette. Elements of artistic code redeployed within a compositional experience engaged the digital and the analogue expression interchangeably. The effect of intermedia was critical in understanding the aesthetic layering and technical rupturing proposed for the sites of production, presentation and audience engagement.

The element of digital processing—the binary code—came to form a continuity between disciplines and within the narrative structure of the creative process. It informed the iterations of the production cycles progress. Campbell (2013, pers. comm. 4 Nov.) stated that the projects engagement with intermediality was, “integral to everything we are doing” in the research. The collaboration functioned with all collaborators engaged in computer programming environments, in one way or another. Bringing these processes together produced an integrated synthesis of code, live action, sonic and visual design.

The coding function appeared to place the digitally mediatised quantum of the research high in the division of labour exercised in the realisation of the final works. In analysing the development of intermedia types, as attributed

over the iterations of production, computer coding and sensing technology proliferated to provide an integrated experience of the creative works character. The focus of materiality was simultaneously digitally mediated and immediately embodied in analogue experience. Through the aggregation of programming and coded resources over time the complexity and apportion of the digitally mediated components became an inflated percentage within successive projects. Campbell (2013, pers. comm. 4 Nov.) stated, “while I have been involved in the development of interactive technologies for a long time, with these projects unfolding the level and knowledge of interactivity has increased.”

For the choreographer, in the role of aesthetically manipulating the body within the boundaries of an artificially sensed environment, the reliance and focus on the mediated space set certain parameters for practice. Youdell (2013, pers. Comm. 3 Nov.) stated, “What evolved throughout the development and trialling of software... was patience and unfaltering belief in... collaborators to develop software and content that I could interact and then inform them of potentialities in facilitating creative outcomes between audience and performers.” These sentiments reveal a concentration towards computer mediation in the professional practice setting. Youdell (2013, pers. Comm. 3 Nov.), identified implicit personal development within the understanding and embodiment of interstitial digital material, “through the intermedial quality embedded in the work with its inherent creative relationships, I’ve developed more tolerance in the idea of ‘unknowing’. In being a participant of new ideas and processes with hypothetic outcomes. In the process, try something untried, experiment.”

Holdsworth (2013, pers. Comm. 2 Dec.) was able to draw a direct comparison to the iterative model of agile software engineering techniques referred to as “extreme programming”. Intermedia was a particular ‘creative’ revelation for Holdsworth (2013, pers. Comm. 2 Dec.) who stated, “It allowed me to explore areas of creative programming that I would not have explored otherwise. Now that I have had this experience, I am highlighting creative programming to my IT students.” A significant validation of the creative approach

undertaken by the collaboration was as much about the embrace of tacit knowledge functions as it was about systematic construction and implementation.

5.3.3 Opportunities for Alternative Directions

Collaborators were free to respond within the cyclical frame of production and contribute to alternative directions. Campbell (2013, pers. comm. 4 Nov.) recalled that alternatives had been open to exploration and dialogue.

Procedural elements such as vision, sound, movement or spatial considerations required the development of communication to inform sections of the creative production. The process described a series of circular operations that allowed the impetus for creative decisions to come from alternating points.

The integrative process contrasted the possibility of a simpler layering. For example, a bricolage of movement, sound and image. Campbell (2013, pers. comm. 4 Nov.) suggested that “there are instances of initial ideas as vision or movement that then get altered and manipulated and changed in collaboration or response to the introduction of sonic ideas.” Campbell’s statement implied his process had begun once there was material from which he could make an informed response, even if the secondary response caused the original material to alter completely. Youdell (2013, pers. Comm. 3 Nov.) stated that “the comprehension of new knowledge invariably highlighted choice and possibility in direction, given the nature of the work and its native multiplicity. There seemed to be options for directions once synthesising of a consideration occurred.” Youdell sought to articulate a complex interrelationship in the collaborative process that opened up rather than closed down the procedural quality of multivalent possibility. By not anticipating the next move by collaborators, in the cyclical development of material, the potential and novelty of intermedia appeared heightened.

5.3.4 'Authorship' and the Collaborative Process

Campbell (2013, pers. comm. 4 Nov.) stated that there was an “expansion of authorship in the overall process because of the contribution of each collaborator”. The process reached a degree of maturity operating at an optimal efficiency; this was in part due to the understanding of ‘distributed authorship’ in the creative works. The interrelationship of goals and individual contributions were apparent without the explicit requirement of a delegation from a directorial source. Youdell (2013, pers. Comm. 3 Nov.) stated her collaborative authorship was, “a point of mutual permission. It is a conversation, a process, and an agreement of sorts. It is not a solo venture... authorship is attributed to the group.” As stated by Campbell (2013, pers. comm. 4 Nov.), the productions represented co-authorship and attribution reflected the “understanding that we are co-authors” in the creative works. Campbell (2013, pers. comm. 4 Nov.) went on to say, “I don’t consider the sound as separate from the other operations in the works. If you had asked whether I would release the sound scores as discrete works, the answer would be no.” Campbell’s sentiment appears to suggest that, through co-located ‘authorship’, an integration of media binds context to the intermedia artefact. The binding of elements was evident within the presentations, where a highly integrated form developed. However, discrete components of production were more mobile including the redeployment of software, photography and reusable design elements. Despite the shifting weights of labour and responsibility, the values associated with individual contributions remained as co-authored artefacts within the context of presentation. Holdsworth (2013, pers. comm. 3 Dec.) expressed that co-authorship might have extended further into the academic setting by stating, “I felt that technical papers could have been written, but was happy with the ‘artifacts’ to which I was attributed contribution.”

A panacea for successful collaboration appeared in the willingness to surrender, in good faith, to the unknown of what might occur in the intermedia of ideas and processes. Being unfamiliar with the knowledge base of others, contributed to the initial integration and potential of a project's

trajectory towards innovative practice. The impetus to go beyond a comfort zone was tempered, not only by sharing expertise overtly and directly but moreover, through the implicit awareness of expanded collective knowledge and skills. The ability to think beyond familiar disciplinary expertise via proximity to unfamiliar processual knowledge available as a team. Hence, the disciplinary character of intermedia contributed to an expanded realm of collaborative processes.

Holdsworth (2013, pers. Comm. 2 Dec.) stated, "I felt that my voice was heard and respected. But mostly I was happy to make what I was doing fit with [the] creative vision." Peer collaboration mitigated hierarchy in the flow of a directorial or authorial impetus. However, while it was important to curtail a free falling 'anything goes' approach to participation, the role marked as 'visionary', in the context of Holdsworth's statement, could be considered in the function of 'catalyst' or 'facilitator' more accurately. The allowance for creative 'vision' influenced the developments of the collaboration. The processes of each contribution informed the iteration of actions within the production cycle. At times unknowingly, a collaborator's contributions defined the overall 'vision' of the project. The interrelationship of the collaborative effort was a direct barometer of the potential the project and its outcomes held. The personal 'vision' of the research author went a great deal beyond the actual achievements as an individual collaborator at any given point in time. However, the role of illuminating connections, monitoring and reporting, rather than applying an ultimate catalyst, became central to the project's progression. Youdell (2013, pers. Comm. 3 Nov.) stated, "If anything there were many parameters to distil and harness, and the process of what was required was non-prescriptive."

5.3.5 Reflections on the Recursive Framework

With so many considerations weighing into the collaborative process, the action of catalysing a direction precipitated, rather than prescribed, its progress. For Campbell small changes in efficiencies and resources had significant impacts on the ability to make progress. Campbell (2013, pers.

comm. 4 Nov.) stated, “There is a creative loop happening, and it has been beneficial due to the clearly increasing sophistication of the works. The framework we have utilised has facilitated that development.” Campbell benefited from the implementation of the creative production cycle as a methodology for the agile and rapid development of integrated components. Being located in a different city, Campbell relied on the presentation venue residencies to bring all of the pieces together. The iterations focused within a workshop or lab setting facilitated productivity. An awareness of what to expect during residency intensives allowed each collaborator to make the necessary individual preparations. Efficiencies, within the durational window of a presentation venue, were maximised by individual pre-residency preparatory work. Campbell (2013, pers. comm. 4 Nov.) provided the example of receiving a digital movie file representing the visual states of *Nerve Engine* in advance of the presentation residency at the 2013 Brisbane Festival venue,

The most beneficial thing was being given a video draft before pre-production... having the visual direction as a reference allowed much more time to develop the sound in response... It was really good that I could have the programming elements in place before arriving...

A looping modulation characterised the collaborative process. Campbell (2013, pers. comm. 4 Nov.) stated, “The development has become much more sophisticated over the course of developing initial ideas and projects.” Campbell identifies that the potential for progressive development in the collaborative setting has benefited from communication and engagement over an extended period, and the creative production cycle has facilitated the methodology effectively.

In addition to the creative aims and developments within the intention as a whole, each collaborator felt positive and negative influences as individuals. In practice, the limitations imposed by time moderation allowed the potential to develop in short bursts. The research catalyst was responsible for revealing an impetus to move forward and to find the most acceptable

compromise, give it an original function, and feed it into the process as a consideration point for further development.

There was another side to the creative development. Youdell (2013, pers. comm. 5 Nov.) articulated a perspective by stating that, “My collaborators are always working until the last minute on their research with the technology, so I end up researching and performing while interacting with the audience, and trying to understand what the relationships are.” Components of the digital media, designed for audience engagement, could only be implemented through trialling interfaces. Hardware and software in enactive space with bodies required usability testing. Youdell (2013, pers. comm. 5 Nov.) suggested, “The hierarchy of investment and energy varies little for me in that it is always: preparation of the technology, learn the parameters of human engagement, set the environmental space according to design, then comes the costume and last comes the performance spontaneously.” The model for creative development would flip into intensives during creative research residencies that allowed a concentration of effort to construct the sculptural, lighting, sound and projection installation over the course of 3-5 days. Once installed the remaining collaborators would be scheduled to tune their integrative elements over another 2 – 3 days before the public season began.

Notable for Holdsworth (2013, pers. Comm. 2 Dec.) was the “very short timeframes” of focused research activity that were generally in one – two week ‘residencies’. Holdsworth (2013, pers. Comm. 2 Dec.) stated, “The agile extreme programming (XP) software engineering techniques we use to develop incrementally allowed for the rapid prototyping and construction of the software – which was good since [the] projects have a very short timeframe.”

Holdsworth supported his role in the processes with a field of technical enquiry – software development. The assembly of computer-mediated components revolved around discrete programming tasks constructed as

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mini-projects that fed into the composition of the project overall. There were times when the iterative process of creative development undermined progress with multiple short bursts of focused workshop periods (the residencies) in collusion with the length of time between these periods. The time gaps became a barrier to the natural progression of project development. Holdsworth (2013, pers. Comm. 2 Dec.) states,

The residencies could be thought of as individual ‘iterations’ in a project ‘release’ ...The iterations together form a release that is a major contribution. The difference in this project model is that the creative iterations are not one after the next – the break between residencies is 6 months or more.

The periodic duration of the development cycle established a kind of tyranny for the collaborators. Issues associated with resource allocation, such as the incremental nature of gathering materials, space and time to conduct successive ‘residency’ opportunities, were unintended but inevitable by-products of the research process, negatively impacting each collaborator.

Youdell (2013, pers. Comm. 3 Nov.), expressed time as a limited resource to understand and implement new developments, “...time, in each iteration, is spent to create, enact and route software and interfaces, and stitch and wrangle projection, sound and network platforms. This process always compresses the pre-trial phase of understanding the possibility of application.” The strategies required to bridge the lapse in time between focused research periods became a critical challenge in the development of the framework. Documentation and systematic archival processes assisted the transition periods between intensive iterations. Each collaborator managed a suite of archival material including, software licenses, media content files, costumes, designs and equipment amongst other things.

5.3.6 Changing Roles

Some collaborators were redolent with multi-tasking and interdisciplinary skill sets, with role changes the expression of structural efficiencies. Youdell (2013, pers. Comm. 3 Nov.) listed her role in the collaboration as, “foremost

performer and choreographer, with minor roles as kinesthetic interaction devisor, software tester, costume fabricator, installation artist, with some marketing and administration support.” The small creative team and independent infrastructure required a distribution of responsibilities. Individual collaborators filled all of the functions of contemporary ‘producer’ and the production demands that brought the creative works to public presentation.

The looping cycle and the intermedial character of collaboration provided an opportunity for individual roles to develop over time. Campbell (2013, pers. comm. 4 Nov.) identified that his role was,

...not like a sound persons role in a film where the narrative and sequence is there and the sound goes in after the fact. What we have here is that everyone has input into the structure and sequencing so it is much more than just putting the sound to it. The collaboration goes into putting the whole work together.

The creative journey started in 2008 with *The Exquisite Resonance of Memory* that had no real time parametric or sensor data processing. A ramp of integrated development culminated in a highly responsive parametric installation within *Nerve Engine* 2013. Over time, the specific qualities of blending real objects within computer augmented spaces, and matching the choreographic dance with audience interactivity and participation within those spaces, represented an innovative pathway. Youdell (2013, pers. Comm. 3 Nov.) recounts the process of taking that journey with her audience, beginning with *Cove* 2010,

I began with a choreographic score for performance. However, the system began to shut down if audience movement slowed ... So began the challenge...to moderate the generation of meaningful ... gesture, ...while contributing to the overarching aesthetic and holistic nature of a considered work.

Drawing on the response provided by audience/participants was an important benchmark in the interactive design development. Youdell (2013, pers. Comm. 3 Nov.) acknowledges the role of the works audience as a participant, as a significant contributor to the development of the creative work. Youdell (2013, pers. Comm. 3 Nov.) stated, “invariably the audience is involved in trialling what is created. Duration with the audience and the feedback loop became imperative to capture and decipher reflections of how to develop the work and ideas further.” At times, the active role of the audience became lost in the development process. Collaborators developed programming sophistication, pushing the limitations of the sensor systems, to understand their parameters fully. Audiences required fit-for-purpose usability and openness to systems. At times, the different approaches to spatial interactivity struggled to blend. Reflecting on audience response to the experience of the systems became a critical component of the decision-making process.

5.3.7 Observing Patterns and Cycles

The production cycles were a ramping intensity. They started with collecting resources, booking venues and assembling the creative team. A recurring annual pattern scheduled 2–3 week residencies providing the built infrastructure to bump-in and install the spatial and sculptural elements within a presentation venue. The residency intensives focused the creative research and development in short bursts. The bursts included both work-in-progress public showings and fully articulated public presentations. It was during these iterations that audience data was collected to inform the incremental development of the research.

The iteration of the creative production cycle revolved around the residencies as a general recurring pattern that was temporal, resource-intensive and involved agile development. For Campbell (2013, pers. comm. 4 Nov.),

The interactivity that happened in the latter works was dependent on the audiences interacting ...*Cove* was the most difficult because there was nothing there to start with. Subsequent iterations accessed programming patches already in place so each production became a bit easier ...

The intent was to experiment collaboratively and explore the frontiers of responsive sensor systems in a blended installation/performance setting. The temptation to add increasingly to layers of mediatization was recognised by Campbell (2013, pers. comm. 4 Nov.),

...it was interesting that we ended up exploring the possibilities of interaction to the point where there was just too much going on... The temptation is to explore and try everything... The overlaying of technologies ends up being at the expense of audiences having a sense of control and interactivity.

The technological development through the project was a patterned evolution of procedural knowledge and understanding. At a certain point in creative development, the layering of aesthetic information went beyond a cohesive experience and became sensory overload. The awareness, to recognise the threshold, required listening to audience responses. Campbell (2013, pers. comm. 4 Nov.) identified that the progress, “evolved through the different iterations, it was then about finding the better and more appropriate uses for the way audiences could interact...”

The operational function of the sensing environment required a new procedure to inform its overall development. The emergent and evolutionary patterns were a cycle of development and understanding through innovation and implementation. The process of evolutionary development and understanding continued right through to the peak of the project. Many innovations to the work remained in the pipeline for future creative development.

5.3.8 Highlights

Developing and implementing an agile development process within the domain of the creative arts produced individual highlights for collaborators. Youdell (2013, pers. Comm. 3 Nov.) experienced beautiful moments attributed to the works 'engine', "I still like *Cove*'s swipe of particles to reveal the performer. I love *Nerve Engine*'s point cloud, bleeding blurred particle rain, and delicacy of butterflies in the figure with tinkling bells." Similarly, for Holdsworth (2013, pers. Comm. 2 Dec.) the satisfaction of implementation produced highlights, "It was fantastic to see my contribution playing a key role in the intermedial experience." Along with the point of view mobile camera software developed for iOS, the ethereal quality of representational atmosphere was a particular impetus for the visual aesthetic that took cues from computer generated imaging and fluid dynamics simulations.

For Campbell (2013, pers. comm. 4 Nov.) the research and development of interactive systems through project iteration held significance. Also the opportunity to re-learn some of the lessons from previous projects,

Being away from the interactive space for a couple of years and coming back to it with *Cove*, I had forgotten some of the important lessons about interactivity. I have relearned some of those lessons through these projects. (Campbell, 2013, pers. comm. 4 Nov.)

It was important that each collaborator identified specific highlights within the project. Each highlight indicated a departure point for further investigation and development. The scope of the project and its ambition accommodated the interests of individuals. There was a world of interesting territory along the lines where different interests started to blend. That interest sustained the research journey at the site of new experiences explored within intermedia communication.

5.3.9 Challenges

The micro-enterprise that provided the capacity to deliver the outcomes of the creative production cycle operated within the small to medium arts sector. The co-directors, including the research author, facilitated the administration and producer functions on behalf of the collaboration. Critical work outside of the creative work included resource and financial management. The co-directors engaged multi-tasking, and agile discipline oriented shape-shifting to achieve a sustainable cycle over time. Human, financial and physical resources defined the scale of efficiencies required to achieve outcomes. These efficiencies shaped the potential of the creative work. The labour inputs of collaborators, viewed as an investment, could not be considered equal to time or function. The time invested in the direct management of the collaboration and outcomes indicated that these activities became a significant, and critical component of the production and presentation phases of the cycle. Coordination and facilitation of the process deepened the nature of challenge for the co-directors.

The ongoing viability of the project and its iterations relied on a compression of resources and efficiency within the business partnership. The question surfaced, what compromises affected the overall outcomes of the creative presentations? Was there any evidence of the danger of project failure? The co-directors were undertaking all the critical managerial tasks and contributed to the creative work. The ability of the organisational structure assisted its small size, approached opportunities as fit for purpose. Project teams expanded or diminished with short term and project contracts.

The business development contributed to the seasonal recursion of the cycle. Many months of dedicated financial and resource management to facilitate short bursts of intense creative development and presentation. The iterative process had significant impacts originating from the distribution of time resources in the cycle. Youdell (2013, pers. Comm. 3 Nov.) stated that the “challenge in the collaboration for me was the shortage of time in each

iteration to rigorously dissect the technological innovation through practical, conceptual and creative dimensions before engaging with presentations.” For Campbell (2013, pers. comm. 4 Nov.) the time limitations were identified as a challenge to be met with new procedural techniques,

... the time constraint of having too many tasks in programming the sound...
Coming up with those materials in such a short time frame was a significant challenge. It was not a bad challenge and I got something about efficiency, and around programming ...which was a good thing.

Developing efficiencies in the business of independent production required logical choices against the concerns of artistic development. However, Holdsworth’s analogy to agile extreme programming as an economic model of production and development was an interesting proposition for the domain of creative arts. The constraint of time, resources and infrastructure, placed agile and rapid development techniques as being particularly critical during the intensive presentation residencies.

5.3.10 Disestablishing Categories

Intermedia, as a communicative practice engaged through collaborative relationships, assisted in conceptualising practice into theory. The collaborators participated in a practice that challenged the boundaries of individual disciplines and defined the collective experience. Youdell (2013, pers. Comm. 3 Nov.) articulated an interstitial point of engagement stating it was, “the coexistence of skills and vision that cumulatively leads to a creative alliance. This occurs through justifying and questioning ones’ own beliefs and parameters, to the formation that is greater than individual concern, to something one creates through partnership.” The transformation of the individual voice into a collective vision had suited the collaborators in this instance.

The project established processes that tested a diverse set of domains. Youdell (2013, pers. Comm. 3 Nov.) stated, “the idea that creative outcomes can be modular, tweaked and changed to fit different contexts was fluid,

deepens the understanding of meaning and critical engagement for those components.” Shapeshifting was one rhetorical strategy to explain the trajectory of intermedia. At the interface of conventional creative arts, audience and vernacular segmentation had a disciplinary-specific bias. For Campbell (2013, pers. comm. 4 Nov.) the inherent quality in the works remained uncategorisable, “something different is happening when the audience is integrated. It all comes together in a more integrated way and perhaps that is the category – integrated something? It is a different process.”

The term intermedia, appeared connotative of mid-twentieth century postmodernist art, was a meaningful appellation that fit the forms developed through the project. Youdell (2013, pers. Comm. 3 Nov.) distinguishes the quality of blending interactive media with the audience/performer scenario as the site of the intermedial,

These creative outcomes attempted to combine audience expectations into one domain by giving the audience agency, while communicating with a performer. The creators could no longer control the outcome, and this edged the work more toward ...the intermedial.

A definition of transmedia transferred process from the material to the content. For example, the integrity of content is simultaneously distributed to multiple communication platforms. The prefix created a dialogic inference in most appellations, for instance, interplay, interactive and interstitial. The prefix ‘inter-’ denoted reciprocity and the state of being between. However, ‘media’ was a contested term within the theory of the creative arts (see Krauss 2006). The media matrix levelled the hegemony of specific forms and therefore challenged the ideological conventions of art.

5.3.11 intermedia?

At the site of collaboration, each artist influenced the tolerance of intermedia communication. Symbolic transaction transferred as action and effect within the collective. Intermedia coalesced sequences. For Campbell (2013, pers.

comm. 4 Nov.) the moniker was defined by its contrast, “...new media? That doesn’t suit it at all. Interactive media? Electronic media art, but that is not it. It is hard to think of a code that reflects what we actually do.”

The uncategorisable was a polemic for the research as it pushed formlessness onto the works and an implication of opprobrium that was unwarranted. The examination of intermedia sought a calibration of tolerance mixing polarised media. The polarity of intermedia was heterogeneous. For example, improvised dance practice within parametric computer code. Analogous terms, more homogeneous. For instance, sound composition and choreography. The strongly polarised shifted perception towards the uncategorisable and the analogous towards the more recognisable. Tolerance and perception of intermedia within emergent forms perceived an unfamiliarity. For Youdell (2013, pers. Comm. 3 Nov.) the terms of intermediality are processual, “An artist who identifies as an intermedia artist is one who interpolates diversity of practice by blending their experience, genre and artforms with current dialogue.”

Intermedia was the potential of opening structure to the hybrid manifold (Deleuze & Guattari 1988). The media matrix provided a diffuse network that expanded outward. Fluid hybridization formed from the interaction, transaction and transmission amongst media and materiality. Ideation and conceptualization transformed these spaces. A communication flow between media structured a membrane of process and production.

5.3.12 Collaborative Futures

A rich vein of creative research engaged the production cycle. Amongst the collaborators, a consensus indicated the potential for future projects. Gesture traced through the intermediary of sensors and binary code focused on the material and physical. The participation of audiences within alternative approaches to conventional venues.

For Youdell (2013, pers. Comm. 3 Nov.), “greater generative interaction for an audience; for a more natural gesture to inform the [sensor] interactivity; to increase audience capacity within the system” represented a future

extending the fit-for-purpose quality within the audience experience. Similarly, Campbell (2013, pers. comm. 4 Nov.) stated, “it would be interesting to consider the sound as more generative or self-generative in terms of how the audience interacts with the visuals and interacts with space.” The impetus was to model machinic interaction on the essential, empathetic and proprioceptive communication of improvised body language, and spontaneous human movement. Processes transmuted within the deployment of digital sensors returning motion tracking and position tracking data. The level of spatial nuance achieved an algorithmic response to movement. Gesture parameterization integrated the machine simulation in real time. A design challenge was to develop a spontaneous machine response to the organic improvised space of human movement communication.

The implementation of iPod sensor programming was a specific example given in response by collaborators. Youdell (2013, pers. Comm. 3 Nov.) states, “I would like to support the development and capacity for the sound to be generative that goes beyond triggering a sample or repetitive triggering [of the iPod], to see what happens with other possibilities.” For Campbell (2013, pers. comm. 4 Nov.), “rather than just a reaction you are getting some ideas from the other side. Rather than just triggering a sample [with the iPod] the program looks at other parameters and does some generative stuff of its own.” The generative potential of integrated software was a benchmark driving aspects of the intermedia ‘engine’. The motion-tracking elements highlighted the potential of the enactive interface through future development.

The progression of collaborative work was “highly likely” for Holdsworth (2013, pers. Comm. 2 Dec.) indicating potential within the pathways of creativity and research. For Youdell (2013, pers. Comm. 3 Nov.), a mix of pragmatic structural and creative potential signals a future trajectory, “to look at site-specific applications of the system; to continue looking for

production efficiencies; networked possibilities, to stage at other venues to see how the work can evolve.”

5.4 Reflection on the Collaborative Process

The collaborative engagement was in the realm of professional and creative practice. A shared concern for creativity and interpersonal investment contributed to the formation of a collective ethos. Discrete competencies were brought to the project and combined with a shared vision. The integration of materiality in the process of production and presentation highlighted the consensual value of bringing elements together.

The collaboration functioned as a catalyst and facilitated the vision that informed the process. The collaborator’s contribution defined the project in powerful ways. The result of the collaborative effort was a direct indicator of performance. The process embraced tacit knowledge functions in the systematic construction and implementation of art. The freedom to respond within the collaborative frame contributed to the potential of alternative directions. An interrelationship of competencies opened multivalent possibilities and contributed novelty. By not anticipating the next move, the power associated with individual contributions combined a willingness to surrender to the amalgamation of ideas and processes. The unfamiliarity of intermedia within the outcome contributed to creative exploration within the project. Going beyond a comfort zone was tempered by sharing expertise overtly and directly, and through the implicit awareness of collective competencies.

The projects independent infrastructure required distribution of responsibilities. The administrator, manager, producer and, at times, presenter tasks fulfilled within the collaborative team. The impact of multi-tasking roles reflected within professional practice. The co-directors facilitated the cycle's progress through the significant actions of illuminating connections, monitoring and reporting. Multi-tasking and interdisciplinary

competencies were an expression of practice efficiencies. The actions of facilitation precipitated consensus, revealing the impetus moving forward. The scale of efficiencies involved ambitions with limited material, financial and human resources. Time and resource limitations moderated capacity and each collaborator experienced powerful and negative influences. The project became compromised with artists undertaking too many critical tasks in short timeframes. Short burst residencies, in collusion with the duration between, threatened to undermine the viability of the project. The time-burst structure was a tyranny. Issues of time-resources negatively influenced the effectiveness of production. Developing efficiencies in production were analogous to agile extreme programming. Agile and rapid development techniques were critical during the residencies and mitigated the cycles durational impacts.

Intermedia conceptualised practice as theory, challenged the boundaries of disciplines, and tested a set of domains. The structure of collaboration influenced the tolerance of intermediality. A network of disciplines expanded outward and hybridization formed amongst material competencies. A discursive flow structured a membrane of media types. Intermedia within the membrane levelled artistic disciplines to coded inputs, representing a media matrix. For example, the digitised and analogue expression became blended within an aesthetic experience. A conception of intermedia was critical in understanding the layering and rupturing proposed for production, presentation and audience engagement. The intermedia of production defined spatial boundaries. Digital processing activated within the materiality of space provided continuity affecting the outcome; it informed the discrete competencies within iterations of the cyclic production.

An evolving cycle became a pattern of understanding in the later iterations. Innovation and implementation represented evolutionary development that continued right through to the peak of the research, and unimplemented proof of concept remained in the pipeline. Implementing an agile development cycle within the domain of the creative arts produced

individual highlights. Point-of-view iOS software developed for iPods, and ethereal fluid dynamic simulations were an impetus for the visual technique development. The pattern was temporal, resource-intensive and involved agile development. In the later iterations, software programming platforms, including iOS and Isadora, complimented the visual programming software MaxMSP. This trio of platforms amalgamated within the software and hardware driving the interactive engine. Responsive sensor systems were explored and experimented within the blended installation/performance setting.

The project series started with no parametric or sensor data processing and peaked with a highly active real-time parametric installation. The unique, innovative pathway established blending real objects within digital augmentation. The intermedia exemplified the dancer's dramaturgical relationship with audience response and interaction. The audience/participants benchmarked the responsive design process. The participatory became enactive in the development of sophisticated usability. The layering of aesthetic information went beyond a cohesive experience and became sensory overload. The sensing environment required a new procedure to inform development. Understanding the threshold required listening to audience responses. Technological development was an evolution of procedural learning, understanding and knowledge.

Computer coding was high in the division of collective labour. Coding and sensing technology proliferated as a tool of production. Through the aggregation of programming resources complexity increased within successive cycles. The engagement in computer programming platforms brought functions together within an integrated synthesis of code, live action, sonic and visual design. Computer mediation revealed the collaborative and professional practice setting. Programming tasks were mini-projects that fed into the collective projects overall. However, coding was only one bias as it integrated the visual, spatial and choreographic competencies.

There was further ground to cover. Shifts in the development of interactive tools were a specific focus. The relationship between human gesture and digital sound a key for future development. The nuance within an algorithmic response and the parameterization of human gestural communication represented an ongoing challenge. The territory defined by the collaboration was fertile with future possibilities and potential.

5.5 Reflections on Audience

Audience reception delivered responses to the presentation outcomes. The reflective process aligned to the production cycle utilised reception responses (along with other sources of reflection) as a gauge influencing process. Audience responses were useful in assessing prototype presentations. Audiences enacted agency as a dynamic function of experience within the work. The responses served to benchmark the usability of components. The collection was limited to the inciting and subsequent iterations of prototype presentations. The collection method supported analysing intermedia, immersive and participatory audience experiences.

Audience comments came from three presentations, *The Exquisite Resonance of Memory* 2008, *Cove* 2010 and *Sweet Spot* 2011. The 2008 presentation gathered data in the form of a visitors book located in the lobby adjacent to the installation. Signage representing the title of the work and a complementary brochure was located in the same area. The comments associated with 2010 and 2011 represented audience responses to prototype presentations. *Cove* 2010 was presented in the black box theatre at the Centre of Contemporary Arts Cairns; it represented the first iteration of a blended interactive media installation/performance. *Sweet Spot* 2011 was presented in the black box studio at the Centre of Contemporary Arts Cairns, and represented a second-generation prototype of a blended interactive media installation/performance. For both blended presentations audiences booked a time, arrived at the venue on time, were inducted into the interactive zone, experienced the 10 minute presentation, and were then

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invited to leave written comments before vacating the venue. Table 12 tallies the number of audience responses. *Cove* recorded 45 responses and *Sweet Spot* recorded 77. The 2008 data represented 130 responses from a reported statistic of over 3000 visitations to the gallery (KickArts Contemporary Arts Ltd. 2008 pers. comm.). In all instances the comments data served as sample feedback suggestive of the reaction to, and penchant for, intermedia and immersive presentations within public spaces for art. Appendix 3 provides a sample representation of the process interpreting the responses.

Production/year	Comments per work	Data collection
<i>The Exquisite Resonance of Memory</i> (TEROM) /2008	130	Written responses
<i>Cove</i> /2010	45	Written responses
<i>Sweet Spot</i> /2011	77	Written responses
Total	252	

Table 16. Number of audience members providing a response

5.5.1 Interpretation of the Responses

The responses were grouped into four categories:

1. Impact of production
2. Interactivity, engagement, participation
3. Production design
4. Sensorial experience

Statement Tally from Breakdown tabs					
Categories	TEROM	<i>Cove</i>	<i>Sweet Spot</i>	Total	%
Impact of Production	146	38	71	255	56%
Participation Responses	13	24	41	78	17%
Production Design Responses	26	18	35	79	17%
Sensorial Experience Responses	8	23	16	47	10%
Sub -Statement total	193	103	163	459	100%

Table 17. Distribution of unique statements made by respondents

Responses included short comments, single word and multiple statement paragraphs. Where responses incorporated multiple statements, they were segmented into appropriate categories. Table 13 tallies the unique statements into categories and productions.

'Impact of production' responses included those associated with appreciation, a reference to development, value, challenges, experience, expectation and aesthetic. The category provided a sample of audiences' attitude to the form of art. For example, responses to the duration of the one on one experience of *Cove* were averaged from the respondents who "could have gone much longer" (*Cove* audience 3, 29/4/10) and those who found the "duration very well chosen" (*Cove* audience 4, 1/5/10). Responses to *The Exquisite Resonance of Memory* 2008 that appeared challenged ranged from the dismissive to the bewildered, "WTF!!" (TEROM audience 3, 30/7/08), "Sorry don't get it - very weary and strange, a complete waste of time" (TEROM audience 1, 22/8/08).

'Interactivity, engagement, participation' responses included those associated with engagement, participation, interpretation and theme. The perception of interactivity in *Sweet Spot* 2011 included the presence of the performer and the interactive media, "enjoyed interaction with the performer" (*Sweet Spot* audience 12, 27/4/11), "interaction with program, utilising hand computer was fantastic" (*Sweet Spot* audience 15, 24/4/11). Many comments respond positively to intermediality, "beautiful images – performed and projected" (*Sweet Spot* audience 8, 28/4/11), "the installation/sound/image are beautiful and love the dancers performance" (*Sweet Spot* audience 5, 26/4/11). The response to usability had a particular value to the creative process; "I got frustrated trying to be interactive because it didn't seem to respond to my movements" (*Sweet Spot* audience 5, 26/4/11).

'Production design' responses included those associated with design, elements and images. Responses to *The Exquisite Resonance of Memory* 2008 included individual associations with different elements, "really love the video" (TEROM audience 2, 19/7/08), "violins were cool!" (TEROM audience 2, 23/7/08), "cabinet of curiosities well crafted" (TEROM audience 3, 6/8/08), "love the music" (TEROM audience 2, 3/8/08). The individual associations compared blended responses, "immersively breathtaking"

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(TEROM audience 6, 8/8/08), “a real dreamscape” (TEROM audience 2, 22/8/08). Responses to the production design of *Cove* 2010, contributed to the further development of the form. For example, “great use of space, light, sound, interaction” (*Cove* audience 3, 29/4/10), “experience, costumes & setting, and use of technology is miles above anything I have ever had” (*Cove* audience 7, 30/4/10).

‘Sensorial’ responses included imagination, reflective and sense based statements. Some responses to *Cove* 2010 translated the intermedial to the multi-sensual, “a true feast for the senses” (*Cove* audience 1, 1/5/10), “an extremely intense interaction with your senses” (*Cove* audience 3, 1/5/10). *The Exquisite Resonance of Memory* 2008 included an olfactory element that was picked up by audience responses, “stinky” (TEROM audience 6, 22/8/08), “the smell transports me!” (TEROM audience 4, 29/8/08). A sensory dimension reflected the simulation intended to evoke an ethereal atmosphere. Such as, “You enabled us to put ourselves in another dimension” (*Sweet Spot* audience 7, 27/4/11), “I really enjoyed being taken to this planet” (*Sweet Spot* audience 8, 26/4/11), “It seemed like it was a dream” (*Sweet Spot* audience 2, 26/4/11).

The collected responses endorsed the creative works influencing the direction of the project. Divergent views induced deeper reflection and provided usability data that considered improvements to design and functionality. Audience responses did not attempt to categorise the works. Statements identified specific elements or commented on the overall experience. However, the intermedial intention of the works received mixed responses including those expressing an immersive experience, for others it was an encounter with a clash of mediums. Providing aesthetic experiences that held the potential for audiences to respond in unique and personal ways influenced the creative direction. The artists response to the matrix of media became similarly open to developing response through experimentation. As a result, the approach to unity within the creative development and production did not enforce syncretic wholeness. Intermedia did not always appear as an overt blend of specific media in creative work presentations. Some of the

creative work engaged with a transmedia production outcome. For example, production of discrete photographic art alongside other more blended approaches. The distribution of content considered as part of the processual mix. Intermedia started the process, however, sometimes outcomes converged in more familiar forms.

5.6 Media Muse

Presentation	Review
<i>The Exquisite Resonance of Memory</i>	van Harskamp, K. 2008. <i>Abstract Visions</i> , The Cairns Post, 7 th August 2008, News Corp.
<i>Whispering Limbs</i>	Carless, V. 2009. <i>Beautiful Hybrids</i> , review in RealTime (on line), http://www.realtimearts.net/feature/Induce_Workshops/9549 . [Accessed 22/9/2009]. Cooper, K. 2009. <i>Fish-bowl Dreaming</i> , review of <i>Whispering Limbs</i> in RealTime, RT93, October/November, Open City Inc. Sydney. Gallasch, K. 2009. <i>Never Too Far Away</i> , review of On Edge Festival, Cairns in RealTime, RT93, October/November, Open City Inc. Sydney.
<i>Cove</i>	Ashley, B. 2010. <i>Movement is Rewarded</i> in RealTime, RT97, June-July pg.24, Open City Inc. Sydney. http://www.realtimearts.net/article/97/9864
<i>Nerve Engine</i>	Gallasch, K. (Ed) 2015. <i>Plasticity, performance, environment</i> , in RealTime, RT 126, April-May, online, http://realtimearts.net/article/126/11922 Dann, G. 2014. <i>Deep inside the world-as-body</i> , in RealTime, RT 123, Oct-Nov pg.32, Open City Inc. Sydney. http://www.realtimearts.net/article/issue123/11727
<i>Terrestrial Nerve</i>	Badham, V. 2013. <i>Terrestrial Nerve by Bonemap – review</i> , The Guardian, Wednesday 18 September 2013, http://www.theguardian.com/culture/australia-culture-

	<p>blog/2013/sep/18/terrestrial-nerve-theatre-bonemap</p> <p>Kelly, K. 2013. <i>A Republic of words, images, bodies</i>, in RealTime, RT118, Dec-Jan pg.35, Open City Inc. Sydney. http://www.realtimearts.net/article/issue118/11430</p> <p>Grant-Iramu, M. 2013. <i>Terrestrial Nerve by Bonemap – review</i>, Women in Performance, posted October 2013, http://womeninperformance.com/2013/10/30/terrestrial-nerve-by-bonemap-review/</p> <p>Stainlay, S. 2013. <i>Out: Bonemap (Brisbane Festival)</i>, Spool Collective, posted 13 September 2013, http://www.spoolcollective.com.au/2013/09/out-bonemap.html</p>
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Table 18. Listing of published reviews 2008 - 2015

Published reviews were a combination of popular press segments and industry broadsheet reporting. Regional press outlets appeared to diminish coverage of the arts generally over the course of the research period 2008 - 2013. The local daily newspaper in Cairns discontinued the engagement of journalists specifically to write critical reviews of creative arts productions.



Figure 16. The Cairns Post, 5th May 2011. The newspaper published vignettes after changing policies about reviewing creative works.

The Cairns Post, a News Corp Australia newspaper, published a review of *The Exquisite Resonance of Memory* (van Harskamp, 2008). However, subsequent coverage of creative works was limited to brief ‘press release’ style announcements. For example, the front-page coverage by the Cairns Post in August 2013. Figure 16 provides a sample of ‘visual’ representation published by The Cairns Post in 2011. Critical reviews listed in Table 14 include those published by national arts magazine RealTime from Open City Inc. A list of associated RealTime articles appears through active URL links, <http://realtimearts.net/article/126/11922>.

5.6.1 Abstract Visions

The perception of media integration and interplay in *The Exquisite Resonance of Memory* 2008, required a blend of the digital and analogue elements. The installation included projected video analogous to wallpaper, and the ‘wunderkammer’ installation objects. The choreographic body, referenced in the video wallpaper, represented the discipline of human movement. Space configured as extended sculpture in the form of installation art.

The social phenomenon of the contemporary art gallery has historically approached a tolerance for media mixing in the language of installation art. The form comes into play with the expansion of Western sculpture during the 20th century (see Ran 2009). The installations relationship to sculpture responded to the internal space of the gallery. It also represented imagined space as a landscape. The characteristics of the gallery site were allowed to influenced the spatial arrangement of material. The 2008 presentation appeared as a hybrid in-situ work.

The ability for the work to transcend context as the perception of a disciplinary form other than a presentation in the visual arts language of installation mitigated audience knowledge. *The Exquisite Resonance of Memory*, reviewed for the local press by van Harskamp (2008), managed to find the dance in evocative on screen “pirouettes”, along with the ebb and flow of the soundtrack and the “artfully constructed collections” of the

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installation design within an “Atmospherically curated...all-encompassing sense of immersion”.

The institutional context was a framing device that privileged certain activity. Within a traditional gallery system, the static visual and hagiographic appeared emphasised, analogous to the ocularcentrism instilled institutionalised within the 19th century (Rose 2007). Therefore, it was possible to speak of the sense of deprivation derived from such spaces. The orientation of the sensory specific visual art gallery heightened sensitivity for the exclusion of the other senses. By inference, the visual art gallery had a very suitable set of characteristics, requiring just the catalyst, to shift the context of cultural interpretation to allow intermedia and transmedia experiences to occur. Intermedia in the context of installation art considered a spatial intervention. The genre was an incursion in the space of the gallery, and that form of intervention has been prominent in the contemporary arts since the 1960's. Van Harskamp's (2008) published review does not acknowledge the installation genre, and this may be due to editorial trimming. However, the language reflects the hybrid and intermedia intentions of the work,

It is an ornately constructed frame that embraces the viewer on entry — a complex and subtly menacing maze of organic realities and projected realisations that invite closer inspection as the contrasting, slick cycle of visual pattern and form pirouettes evocatively on screen, presenting at one moment recognizable image and then teasingly abstract as it transforms.
(van Harskamp 2008)

5.6.2 Beautiful hybrids

Within a niche festival of experimental art the 2009 presentation of *Whispering Limbs*, benefited from the outcomes of a masterclass in arts review writing. The Bonemap presentation made a statement within the domain of Dance, according to the editor of a nationally recognised contemporary art journal (pers. comm. 2009). However, the conclusion of other reviewers was less explicit about a specific medium prevailing, and the

work appeared somewhat defined by its intermediality. Particularly, in the defiance of disciplines, that Carless (2009) concludes in a published review from the masterclass,

Whispering Limbs evokes issues and images of spirituality, ecological sustainability, transformation and doubling, generating a metaphysical whirlpool of ideas and images. The media components integrate with the physical performance perfectly to produce a work that, in the end, defies categorisation.

Carless balanced the intermedia by describing a perfect integration of ‘media’ and ‘performance’. However, offered only as the exclusion implied to the formless and un-formed that “defies categorisation” (Carless 2009). The reviewer does not only suggest a successful blending of disciplines that forfeited categorisation, but also the potential of an unhappy marriage, reminiscent of Langer’s (cited in Mitchell 1986: 55) terse claim, “there can be no hybrid works... no happy marriages in art—only successful rape.” The work *Whispering Limbs* appeared to be redeemed by the intransigent virtues of aesthetic perception and a response that rests in both the “Beautiful and strange” (Carless 2009)—analogous to the familiar: the beautiful and the sublime. Cooper (2009) echoes the terms of an aesthetic response to the work, with the addition of psychographic mimesis to the language intended to blend the intermedia form,

Whispering Limbs is an intoxicating, immersive, hyper-sensory experience—a dark dreamscape. We feel the beauty and coarseness of nature and ponder the ambiguity and unpredictability of the human psyche as the work’s blend of rich imagery and delicate symbolism burn into the memory.

Cooper’s response was perhaps more on the side of the sublime than the beautiful. Both reviewers inclined towards the interplay of disciplines and the intermedial intention of the work within the language of an aesthetic description.

5.6.3 Movement is Rewarded

Cove, presented in 2010, introduced an interactive media arts experience within the domain of live dance performance. Large forms integrated into the work as both sculptural elements and projection surfaces. Hundreds of trunks and suitcases simulated landmasses and digital atmospheric effects projected onto a shaped theatrical gauze scrim. The scenography of the theatre shaped around a zone of audience interactivity. Sculptural representations of sea passages and landing sites integrated with media and performance to complete the immersive quality of the installation.

Reviewed by Ashley (2010), the presentation, “felt like a tear in the space-time continuum, a place apart, where eras overlapped and dissolved, and where I could access memories not all my own, but achingly familiar nonetheless.” Ashley identified the intention to blend the experience of digitised media with live action within the dramaturgical and scenographic. The review by Ashley (2010) continued,

A moth or butterfly appeared high on the scrim and, following its flight, the ambient soundscape began to intone differently as I moved around the space. The moth was replaced by particles that could have been moondust or fog, and the power of the viewer to affect the projections quickly became apparent. I began to raise and wave my arms and walk back and forth, creating a black ‘hole’ in the fog which followed my movements. Then, mid-wave, the projection faded, an extended world beyond the scrim dawned. A woman in a red satin dress pulling a large travelling trunk was waving back at me.

Ashley’s description of the opening scene of *Cove* revealed a visual experience transformed by an immersive and reactive space. The audience became an ‘actant’ participating at the centre of a mediatised geography. It

was an interactive space filled with ephemeral light sources, projection and sound frequented by the performer.

5.6.4 Work-in-Progress

Reviews in the Media highlighted the vernacular and expectations of creative research against the commentary associated with the entertainment industry. A review of the *Terrestrial Nerve* presentation in 2013, by Grant-Iramu (2013), suggested that “there are some promising digital platforms throughout the show” and that, “interactive, digitally inspired performance work is a new area, not just for theatre-makers but for audiences as well.” Grant-Iramu (2013) continued with an enthusiastic description suggestive of the intermedia intent of the work,

...an environment that combined tactile, real world objects such as fans and mirrors with multimedia effects. This combination of the real and the digital brought a richness and depth to the environment. Hand held mobile devices and motion tracking sensors allowed the dancers to continually change the visual and sound topography while keeping the work grounded in real world installation pieces.

With no latitude for the particular circumstances and challenges involved in presenting the work Badham’s (2013) review initially ‘flattens’ the scenographic ambience intended by the installation setting,

According to its festival blurb, Bonemap's *Terrestrial Nerve* is an ‘immersive performance experience’ exploring the ‘liminal space’ of weather effects between earth and sky. What this translates to in real terms is two dancers submerging themselves in multimedia effects in a large dark room at the Theatre Republic and the awkward experience of an audience that doesn't know where it is allowed to sit.

The comparison of the work to the conventions of a theatre space translated awkwardly to *Terrestrial Nerve*’s intermedia intention of open installation

space. It was fair to concede that the presentation appeared as a work-in-progress, intervening as a second work in the program within the setting of *Nerve Engine* in the 2013 Brisbane Festival. The observation in Badham's (2013) review summed up the response repeated by other reviewers and peers,

As a work in progress, or as a signpost pointing towards what's possible for a company which has some really interesting ideas about how to make dance work with multimedia, *Terrestrial Nerve* is worth seeing. As a work in itself, it still has territory it needs to explore.

It was interesting to receive a strong endorsement within the review from Grant-Iramu (2013) contradicting responses to the obvious use of iPods,

The most exciting performance piece within *Terrestrial Nerve* came from the use of iPhones imbedded in the performers' breastplates. Live stream video footage was recorded as the dancers moved around the space. Images of audience and surrounds were projected on the large screen, fading to black each time the dancers froze. It was a refreshing, albeit short, moment in the production and I'm keen to see what Bonemap can create if they focus on this delightfully imagined technology as the central component of future work.

A conceptual continuity emerged from numerous audience responses to the creative presentations. To understand the intermedial within the 'immersive' was to align artistic disciplines to the senses, and to think of the multi-sensory condition as a contributing prerequisite for intermediality. The 'immersive' shifts the position of the audience and the terms of audience, from distanced viewing to an active, experiential engagement. *Terrestrial Nerve* was a momentary regression that had unrealized expectations of audience integration.

5.7 Peers

Three industry peers were invited to provide responses to the presentation of *Nerve Engine* and *Terrestrial Nerve* during the 2013 Brisbane Festival. The peers provided a perspective weight with industry credibility and academic expertise that included specialisation within media and performance practice. Two of the peers were previously recipients of Australia Council senior arts fellowships.

Respondent	Medium	Date	Comments
James Cunningham	Audio recording	18 th September 2013	71 minutes transcription
Suzon Fuks	Audio recording	18 th September 2013	78 minutes transcription
Keith Armstrong	Written response	18 th October 2013	Received by email

Table 19. Peer responses to the presentations during the Brisbane Festival 2013

The peer responses assisted in focusing critical feedback on the creative presentations. The peer feedback instrument provided detailed responses to structural elements, dramaturgical action and sequence. Divergent perceptions, aesthetic and provocative viewpoints prefaced responses. For example, a consensus informed a positive response to the choreographic intent and mediatization within the installation. Simultaneously, the peer responses diverged around the visible implementation of wearable WiFi devices (iPods), and this indicated a marked polarisation. The use of mobile devices, as a visible augmentation to the performers body, was one of the elements associated with some of the creative presentations. The different responses highlight the visual integration of the WiFi devices as an area for further consideration and development. The perception of the iPod devices specifically was plagued by the rapidly unfolding utilitarian ubiquity and commercial aesthetic symbolism over the course of the research period. In future, custom-built devices are planned to assuage the iPods identity crisis, as peers conveyed it.

Each peer referred to the high aesthetic quality of the creative work presentations. Production quality emerged as a consistent and recognisable indicator. The peers expressed enthusiasm for the intermedia form,

indicating a consensual area of response toward the presentation. The mediatization of live performance presence and the digitised media arts was a central structural investigation of intermediality. The intent of integration matched the intrinsic quality of human response, person to person, within the machinic parameters of mediatised space. The challenge, regarding intermediality, was to find ways that the viscosity of image and sound could be generated live and in response to the presence of the audience and participation with the performer. Therefore, the spatial components contributed to the characteristics of live improvisation experienced as the immersion of the audience. The aim of producing an expression of intermedia interpreted peer responses as being particularly effective.

Discussion of innovative practices included the declaration from one peer that *Nerve Engine* appeared as a unique blended form. Importantly perception of media mixing validated the research towards innovative outcomes and intermediality. The peers identified the enactive interface linked to co-presence with the performer. The nature of how actants were engaged and co-created within the work tempered the mediatised form. Similarly, the 'installation' elements were critical in defining the shape and allowed the work to go beyond expectations covering conventional representational territory. *Nerve Engine* was not theatre or dance but had a performance at its core. Peer response suggested that the characteristic of *Nerve Engine* defined for them a clear distinction from the expectations associated with conventional immersive forms.

The peers suggested that a universal critique of interactive installations included experiencing the flailing arm movements that had become associated with the form. Whereas, the proprioceptive interaction in *Nerve Engine* tempered the responsiveness of the digital environment through the empathetic communication between the participant and the performer. In the presence of shared space and time, the balance of the two domains, the virtual and the visceral, resulted in an enactive engagement. The critical challenge incorporated parameters of the dramaturgical affecting a participant's experience of the work. The enactive interface and the audience

agency contributed to the generative code. What manifested was content visualisation projected on the enveloping screen. The nuance of body language, improvised human movement, dance and gesture, invited many decisions in the experience of formulation within the work.

Significantly, the work functioned with controlled overrides. An operator followed the action of the participant and performers experience, condensing or elongating scenes, as flexible sequences within the work. The controlled tailoring of the participant experience was a structural response to the myriad of different ways participants might engage, interact and respond. It highlighted the tenuous threshold between the direct interaction of embodied human communication and the monitoring and feedback of that communication through the virtual system. A peer recalled, as an audience within the work, observing experience rather than observing representation.

In *Nerve Engine* the creation of aesthetic experience wavered between experiences of the body and the embodiment of representation in a responsive envelope. The intermedial space between representation and sensual experience remained a liminal threshold. The spatial relationship came to be the most compelling for peers concerning innovation in art. *Nerve Engine* was a work where the performer becomes a fundamental element within the responsive media installation. The media was designed to push the performers human presence forward concerning a live figure integrated into a digital scenographic ground. However, when the performer was not present, such as during transitions and other interactive sequences, the responsive media surged forward immersing the participant and, at times, providing abstract representations of the participant's body. The digitised movement and gesture transposed visual and sonic feedback loops. Multiple sensor systems ran simultaneously and were swapped in and out to provide depth to the responsive data generated by the participant. The stacking of sensor systems blended the spatialized responsiveness of the digital scenography into an interactive 'engine'.

Peer responses indicated the process of establishing the distance between the performer and the audience as a spatial agency. A scenographic envelope established a psychological zone within which movement became part of the communication matrix. The transparent screen demarcated the space between performer and audience. Sound triggers represented the relationship between gesture and sound. The WiFi device used by the participants, and the motion tracking data generated by a camera vision system, linked participant movement to representations of sound and image. The sound samples processed triggers about the direction of the gesture. Modulations of the soundscape processed spatial positioning within an active zone. Peer responses to the sound suggested dense and invigorated sonic experience. However, compared to the immediacy of the movement interaction, agency over sound was reported by peers as being less obvious.

5.8 Conclusion to Chapter 5

The critical responses and feedback to presentations, work-in-progress and prototypes were significant resources for reflection. Pathways based on usability, participation, interactivity and intermediality, required incremental development through testing and response. Therefore, presentations to audiences and peers became critical on the level of creative process and academic reflection. The presentation of *Terrestrial Nerve* 2013 highlighted the significance of focusing audience participation precisely because in some respects it failed to do so. The opportunity to integrate the two works presented for the 2013 Brisbane Festival evening sessions was frustratingly beyond the available resources. However, much was accomplished and the critical responses from the Media contributed to a deeper understanding and 'knowingness' of the intermedia form initiated by the collaborative team for that iteration.

Overall, reflections from the audience were an insightful communication to bring into the collaborative setting. Gaps and challenges identified pragmatic boundaries, and strong inter-relational communication was focused predominantly within resource windows. Audience response to each

presentation of creative works was critical in benchmarking components of the iterative creative cycle. Nuanced and detailed pathways affecting an array of creative decisions took account of audience response implications. Clear directions in large scale design and precise parametric calibrations within computer code became impacted by the feedback data. Discussion from audience feedback moderated the words, introduction and induction to the creative presentations making their promotion and marketing more accurate and fit for purpose. Each response from an audience and participant who engaged in the presentation of a work provided value towards the scale and impact of reflective data, shaping the decision-making process for the collaborative team and the intermedia research focus.

Chapter 6 – Reflections, Implications, Directions

6.1 The Process of Reflection

Insights from the research journey and theoretical developments formed through practice contributed to the quality of overall engagement for the researcher. The object of study was the creative production cycle and its independent outputs influenced the flow and fluidity of the enquiry. The plan proposed at the outset was given latitude to account for structural changes within the project. This chapter provided an opportunity to reflect the aims and outcomes.

Fluctuating approaches to active research within the multi-part thesis methodology propagated outcomes from three connective vectors. Each species aimed to articulate outcomes through specific modes of process and production. The creative works, the documentation and the exegesis, compiled the overall structure. The veracity of the multiple parts effectively tested and defended the detail of the methodological model, professional practice and the creative outcomes. Table 16 outlines a summary of the research parts, stated aims and key outcomes.

This chapter presents a reflection on the methodologies, trajectories and implications involved in the research journey. The evaluation developed judgments and considerations informed by the experiences and resonances of the research. Expectation arose from within the process. The implications linked to praxis and approaches to knowledge with bases in both theory and practice. Finally, further directions considered the potential of future practice, implementation and research direction.

Mode	Aim	Key Outcomes	Evidential Bases
<i>creative work</i>	Embody interdisciplinary collaboration.	1. Sustained collaboration and intermedia.	Long-term cooperation and effectiveness over consecutive production cycles. The discursive character of intermediality and multidisciplinary remained prominent throughout the

			<p>development of the creative works.</p> <p>Key collaborators responded to questions eliciting the effectiveness of the collaborative project.</p>
	Assert innovative practice and form.	2. Contemporary creative art productions presented to the public.	<p>Innovation was identified as a driver within the creative production cycle.</p> <p>Affect and fulfillment in society focused on two cyclical phases—production and presentation. The success of the creative research anticipated validity of outcomes through acceptance into the competitive programs of professional contemporary art centres, art galleries and high profile festivals.</p>
	Test research assumptions through enactive systems of practice.	3. Innovative developments and implementation of creative works in industry settings.	<p>Material transformations within the creative process were regarded in terms of innovation, novelty and capacity for change.</p> <p>The set of media and tools used in production went beyond disciplinary boundaries, introducing intermediality as a key driver of innovation in practice.</p>
<i>exegesis</i>	Conceptualise definitions and nascent theories.	4. Defining intermediality, from the basis of art practice, as a combinatory process within a media matrix.	<p>The intermedia analogy to heterogeneity provided a basis for understanding the purpose of the media matrix within creative production.</p> <p>A series of terms were considered to isolate and describe connective operations. For example, the <i>hyperframe</i> was proposed as a descriptive device to account for an aesthetic network of interstices and intersections—the modular layering found within the overall structure of an intermedial work.</p>
	Explore precedents in related practice.	5. Intermediality from an art historical perspective explored through the literature.	<p>Instances of theoretical convergence coloured the theory and development of intermedial discourse. The literature around intermedia was linked to the interdisciplinary, performative and participatory concepts associated with the post-modern turn. However, its currency updated attitudes to materiality and includes the interplay of the digital and the analogue.</p> <p>The art historical theory of intermediality and hybridization suited the collaborative framework and social significance of the creative works.</p>
	Explicate the creative process, the artifacts produced and their value to	6. The creative production cycle.	Segmenting the base research structure provided the scope and value of creative work within an academic regime and conflated industry setting.

	research.		Process tracing methodology was a heuristically suited component of the mixed-method approach contributing to the multi-modal connective thesis model.
<i>documentation</i>	Witness and record the creative work.	7. Ephemeral creative works substantiated by residual representation.	The creative works were documented in high-definition audio-visual formats. However, the ephemerality of the original creative works existed in the moment. Documentation as a tool for the works veracity suggests dematerializing at the point of secondary recording. A recording preserved and archived, does not account for the sensory live engagement inherent in the spatial presentations.
	Disseminate the research findings through a virtual architecture.	8. Project documentation accessible through a public online archive and repository.	<p>Invigilation was accrued through event presentation in public venues.</p> <p>Documentation and publication validate the project cycles. Articles, reviews and visual representations have been compiled to a public website. Each recursive cycle produced a creative work that was archived on JCU Research Online.</p>
	Archive the research artifacts.	9. A media archive (data equivalency) has been established and maintained. A series of media types ingested from the research process are integrated to dedicated computer hard disk drives and back-up devices.	<p>The archive of material collections associated with the creative process was based on digitization and common storage methods.</p> <p>Alternative repositories, such as the university research reserve, were an accessible/searchable data source for project outcomes. Accessible material was subject to the ethical caveat of informed consent for representation of human subjects and only data with appropriate ethical clearance has been considered for release to the research community.</p> <p>Project resources form significant material archives and contain content that can be repurposed in subsequent creative projects and research studies.</p>

Table 20. Research aims, outcomes and bases

6.2 Reflections

The following sections further expand the three modes identified in Table 16, research aims, outcomes and bases. Intermedia represented the potential to find innovation within creative spaces between media. The approach to practice included processes that interrogated assumptions and conventions

about media mixing. The opportunity to engage forms of intermedia, as a unified expression, remained compelling and provided a rich vein of interplay within a matrix of media disciplines. Media appeared wherever the material form developed an identity. Through structure and composition, the 'narrative' and transformative potential of the material became art. The following chapter sub-sections explore the diversity of significant outcomes expanding from the research aims.

6.2.1 Personal Reflection on Key Outcome 1: Sustained Collaboration and Intermediality.

Emerging through collaborative practice, the interdisciplinary incited compelling mental, auditory and proprioceptive visualisations. The creative works manifested within a system of interaction and integration. The original compositional components drew together iterative space and provided sustained engagement within the core collaborative team. Through generative development, structure and form gained material integration. The interpretation of key terms within the vernacular associated with the project provided the necessary definition. The literature made reference to materiality and media through a range of terminology including such words as transmedia and transdisciplinarity, interdisciplinarity and intermedia. To untangle and simplify understandings a correlation was assumed. The material became a medium in the action of assigning meaning. The manipulation of media resulted in medium-specific discipline competencies. The creation of content transformed material from its unformed state to a 'narrative' state of being a medium. Interdisciplinarity was therefore considered a hybrid process that mixed two or more competencies to arrive at a syncretic outcome. Intermedia required an interdisciplinary skill set. The interplay of skills and materials within the media matrix characterised intermedia. The communicative character of intermedia, within creative processes, remained an interplay and integration. On the other hand, the traits of transmedia aligned to the transfer of content across different media without necessarily mixing or blending mediums. Transdisciplinarity

described competencies that were transferable to multiple domains where outcomes remained aligned to the disciplinary convention.

A procedure of experimentation and discovery within the process defined what interactions with components were able to do and extended the inciting impetus of collaborative production. An evolutionary movement through subsequent development characterised the recursive production cycle. The process of integration articulated the tenet of the collaboration through to the public presentations. Collaborative points became technical manifestations, which through the recursive process became the basis for spatial composition. The making of meaning was a procedure of searching for points of reference between obvious things. Therefore, it was imbued with the nature of the hybrid.

As a series of trajectories emerging through stages of materiality, the components appeared to materialise and dematerialize based on the transitions of analogue and digital convergence. There was a propensity for the computer as an interface to be accessed as both a tool and a medium. The funnelling of materiality through the convergence of digitisation appeared to integrate spatial practice applying sensory input and output channels. Resulting simulations were a mediated sensory world, within which audiences and collaborators interacted and participated.

For each collaborator, action-units influenced a diffusion of individual processes at the micro-level. A lacework of actions integrated collaborative processes. A syncretic hybridization formed from the interaction, transaction and transmission. The process represented a unique and significant compositional system. Discursive flow formed a membrane as opposed to the informational dichotomy of branching nodes. The creative research developed across a membrane that allowed simultaneity and intermediality. For example, the formation of unique tools that integrated the creative concerns of multiple disciplines represented within the collaboration. Development and production focused on intervening trajectories across multiple artworks. The network of activity incited through procedural units

of action and ambiguous interdisciplinary tasks. The process attempted resolution through testing the choices made in minor and reversible incremental blocks. The criteria for aesthetic, functional or discrete expression was the collaborators' agency reverberating through a composite residual membrane to emerge transformed and emergent within the function of the creative presentations.

The interdisciplinary collaboration benefited from long-term cooperation. Over consecutive production cycles, a consensus informed output within production and presentation phases. The intermedial nature of the collaboration was a social phenomenon. The level of artistic communication, medium, genre, style and platform coalesced within simultaneous, hybrid and heterogeneous domains of practice and presentation.

6.2.2 Personal Reflection on Key Outcome 2: Creative Production Presented to the Public.

Overall, the project achieved as many failed pitches as successful inclusions within approaches to targeted partner institutions. Conversations with venue producers suggested an investment in relationship building was a significant component of success within securing a venue. For the most part, distance from national cultural centres and the remote location of the projects development conspired to isolate production and presentation within a regional city. However, the project was adequately supported within the context.

Presentations at industry forums and symposia occurred in Melbourne, Sydney, Brisbane and Canberra. The delegation represented opportunities to build the network relationships important for a national touring profile within the contemporary arts. During a presentation in Melbourne came the question, “when will you be touring your work here?” (Pers. Comm. Delegate, National Dance Forum 2011). The failure to secure presentations within some targeted performance venues in high population centres reflected an organisational challenge. The infrastructure toward touring and logistical

development—time and money. The time to build significant relationships leading to successful partnerships translated into insurmountable challenges in some cases. The creative works found acceptance into the program of some institutions, but not others. For example, the work *Nerve Engine* was presented at the 2013 Brisbane Festival. However, approaches to contemporary art venues in Sydney and Melbourne did not result in support for presentational outcomes during that time.

The aim of presenting creative works to the public anticipated acceptance into the competitive programs of professional contemporary art centres, art galleries and high profile festivals. The interface of professional venues tested the projects intermedia outcomes at the site of the public institution.

The effect of intermedia disrupted levels of an institutional convention. However, the artefacts inevitably steered towards the operational expectations of targeted institutions. For example, disassociated conventions challenged the understanding of genre and trope for audiences. As intermediaries between audiences and artists, the institution sought to build new understanding.

Presentations that occupied space between disciplinary structures pushed the operational environment of a venue. The intermedia production cycle identified innovation as a driver of the process. However, the effect of innovation is disruptive at the level of institutional convention and push back on the process developed. Alignment with some areas of convention ensured the willingness of venue partners to invest in the projects aim for public presentation. Through strategic development, the concept of an intermedia trajectory that challenged convention had presentational outcomes in partnership with contemporary art venues.

Venues defined more generally through Modernism's residues such as contemporary art centres, media arts production spaces, performance spaces and modernist art galleries, perpetuated a bias towards some forms of artistic production while excluding others. An area of theoretical discourse

pointed to the prejudices of some institutions (Rose 2007). However, the power of the “gatekeeper” (Barrett & Bolt 2007: 136) to exclude works that are different from those that define a disciplinary style has shifted. Evidence for more blended forms prevails in contemporary art cross-overs (Rancière 2013; Smith, T. 2011).

6.2.3 Personal Reflections on Key Outcome 3: Innovative Developments and Implementation of Creative Works in Industry Settings.

The digitisation of creative media represented a conflation of the specific within the rhetoric of the digital. Digital convergence appeared to flatten the diversity of materiality within its funnelling procedure. However, intermedia and the hybrid challenged the ubiquity of digitisation in the creative process and presentations. Compositional choices resisted the loss of materiality to a purely electronic expression. The intermedia complimented the digital with the original analogue of the human body in the form of its choreographic process (Auslander 2008) and an emphasis on the spatial practices of sculpture and scenography.

Material transformations within the creative process considered innovation, novelty and capacity for change. Externally developed theoretical structures, such as intermedia performance and virtual reality, assisted the overall understanding of coherence within the creative works. These structures included the characteristics of the ‘immersive’ and ‘mixed-reality’ techniques that have emerged from the community of media arts practice. The innovation of practice, and the normative position of production spaces (theatres/galleries) for which the creative works had been produced, created a dynamic which fuelled the drive to seek new processes of production and presentation. The position of working “against the grain” (Engberg et al. 2014) offered the potential of innovation and what appeared as the contrasting opprobrium caused from working against convention. The presented works traversed vulnerable oppositions and mutation to both conventions in artistic practice and the new claims of ‘medium specificity’ from within the regime of media arts theory (Engberg et al. 2014). The

creative research represented a sphere of intermedia that exposed the still evident residues of disciplinary hierarchies that proliferated as a result of Modernism.

Intermedia was a “composite unity” in the sense of media being an “established set of differences” (Mitchell 1986: 55) to overcome. The material difference between media was described as a cause for hybridity. In Greenberg’s ([1961] 1982) influential modernist theory, medium specificity alluded to the pursuit of purity. If Intermedia was the antithesis of a medium’s purity—its impurity—as suggested by Krauss (Krauss 1999: 33), then intermediality was also the way we interpreted a constellation of signs in a crowded relational universe—a prosaic heterogeneous unity.

A growing matrix of materiality fuelled intermedia, its communication and presentational sites included some of the immaterial social spaces that have transformed the spheres of human cultural experience. The insight gained from intermediality included a set of processes and tools that eschewed the illusion of purity within medium specificity. Intermedia represented material innovations in practice elaborated within creative outcomes. The convention of ‘coherence’ appeared as an expression of the ebb and flow of production and presentation. Cohesion within the research methodology was revealed within the long-term observation and participation in the creative production cycle.

6.2.4 Personal Reflections on Key Outcome 4: Defining Intermediality, from the Basis of Art Practice, as a Combinatory Process Within a Media Matrix.

The compositional formation of Foucault’s (1984) heterotopia provided a basis for understanding the spatial quality of the media matrix within the projects production phases. In particular, *Cove*, *Sweet Spot* and *Nerve Engine* utilised an immersive base to communicate an interdisciplinary system. Some structural elements provided the integration of materiality and experience as an enclosed world inhabited by audiences for short periods of time. These components defined the spatial and communicative modalities

central to the works physical articulation and the audience's immersion into its world. The intermedia spaces encountered were affixed forms of integrated media, analogous to layering onto a hyperframe.

The immersive component was developed on a technical level, to be understood and experienced as a method of mediatization. The structure layered media as it focused and manipulated content through a server. The system affected multiple contents mixing simultaneously at the moment of experience. Different to the jumping, discontinuous, non-linear definition of hypermedia (Bolter & Grusin 2000). However, analogous to the connections and approaches to integration of media achieved within an interactive experience of virtual reality.

The word Hypermedia from the nineties, defined handling sound, text, image and video (Bolter & Grusin 2000), as a central motif of personal computing achieved through a computer. Hypermedia described the convergence of digitised media on the screen. However, interactive servers enable an integration of digital media mixing with physical materials in a spatial, temporal and architectural (sculptural) inter-relationship. The participant, immersed in blended-reality perceives the interaction with sensors and changes the parameters and physical attributes of the space they have inhabited as an interface. Therefore, modifications to the technology associated with a computer workstation provided augmented experiences and “immersion of the spectator” (Werry & Schmidt 2014).

A significant point of difference has involved the materiality of the physical analogue, such as the performing body and artefacts, as well as those facilitated by the digital. The creative pallet is intermedia because of an integrated blend of the physical, analogue and digital at the same time and place as the audience. Compositional principles such as layering and convergence appeared spatial and responsive within a presentation of space. Interactivity, digital technologies, and scenographic installation provided a particular context of non-linearity. The compositional layering technique

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integrated within immersive space. However, the framing was spatial rather than the rectangular appearance of a screen or the stage picture. The process of scaffolding, architectural and scenographic interrelationships with digital sensors provided a descriptive envelope to assist with the articulation of digital, analogue and blended complexity in some of the works.

The word multiplex accounts for the layering found within the overall structure of components in production. The trajectory of experience at different sites and modalities in the work could examine a frame of production cognizant of the media matrix. For example, a multiplex frame may involve the physical tracking of an audience member as a trajectory within the digital architecture of the work. The multiplex hyperframe was a concept that serviced the production phase within the creative development and should not be confused with notions of spectatorship such as, 'hypertheatre' (Rancière 2007: 260) and 'hyperscape' (Smith, H & Dean 2009).

6.2.5 Personal Reflections on Key Outcome 5: Intermediality from an Art Historical Perspective Explored Through the Literature.

Intermedia has significant precedents within European cultural history. It represents many areas of material culture where nascent combinations of media have emerged. Using the keyword of intermedia revealed creative practice from the 17th century, the Fluxus manifesto of the 1960's and the current debate about interventions of electronic or digital media within traditional discipline forms. The materiality of media, that which allows mixture and combination, positions the understanding of intermedia as an interplay. The nomenclature around media mixing as a practice in the creative arts, included the hybrid and a series of pairings, for example, interdisciplinary/intermedia, transdisciplinary/transmedia, multidisciplinary/multimedia, cross-disciplinary/cross-media. Each of these pairs inflects and interprets the nuanced variations of bringing material and discipline together. Hybridity, linked to the ideas of syncretism, indicated combination that then express unity through fusion. The ideas of hybridity and fusion associated intermedia with Gesamtkunstwerk and the 'total work

of art' in the periods of late 19th and early 20th century through the profiles of Richard Wagner and the Bauhaus in Germany.

The theoretical position of intermedia appeared to shift through time, and a body of literature emerged that defined intermediality within significant historical terrains. The intermedia in Europe that formed the foundation of opera in the 17th century indicated the proclivity for innovation to occur in association with media mixing. The role of intermedia in providing an alternative to high Modernism and the interstitial process leading to hybridization that influenced post-Modernism are part of the theoretical terrain that undergirds the contemporary arts. The narrative of postmodernism and contemporary art embeds intermedia. According to Krauss (1999), it represents the crossroads between Modernism and postmodernism. The Fluxus manifesto of Intermedia (Higgins 1966) clearly articulates the potential of a media matrix from which creative producers freely mix outcomes to suit interests and situations.

Intermedia emerged as a term that represented tolerance for the material practices and innovations that a medium endures. A definition bridged media, entwined the analogue and the digital within nascent manifestations of creative practice. A preconception of processes was the modality of synthesis and merging that leads to a collision, exchange and transformation based on historically separate developments.

An interrogation of the varied species of intermediality by Schröter (2011) revealed that the concept of plurality was inherent and already in action, as a site and modality underlying mediums. Understood as a metaphor that diffused the complexity of material connections and heterogeneous mixes. Intermediality as a phenomena gathered media and, as connective tissue, was a means of finding unity. Intermedia was a way to focus complexity through its functionality. It could gather different media components, even if the final manifestation appeared contingently as one or other modality specifically. Contemporary synthesis within the creative arts suggested intermedial

networks in internodes, membranes and webs of interrelationships and interpenetrations. Heterogeneity configured greater lacings and strata of multiplicity within the theoretical terrain. Transfiguration and convergence allowed for perceptual integrity within sensory overload and the messy composite. Intermedia appeared inhabited within an open-ended world of materiality, innovation and transformation.

Intermedia emerged as a paradigm with a significant theoretical position. The ideology of a media matrix allowed the interrogation of media species without historical bias or hierarchy. It formed a nascent methodology for understanding artistic practice through the interplay of media and discipline without reference to hegemonic inferences. In this light, Intermedia was the direct communication between materiality and perception.

6.2.6 Personal Reflections on Key Outcome 6: The Creative Production Cycle.

The creative production cycle afforded longitudinal opportunities to develop novel intermedia approaches. The cycle integrated the research project within creative practice and a trajectory of production and presentation. Approaches to theory and practice synthesised the technical and ideological including, the interdisciplinary methodologies associated with collaboration.

The cycle experienced an oscillation of nodes and phases. It operated acutely as the turning point of production and presentation. The recursion bracketed a continuity of creative practice as a series of public outcomes in the regime of creative arts. The reflexive evaluation of the cycle was a gauge of performance and impact. The assessment of value formed audition and the method of an audit. Also, initial experience and responses to practice outcomes functioned at nodes throughout the project phases. Process-tracing and temporal bracketing allowed the investigation and discursive formation of the creative works. These techniques deconstructed the cycle as a series of nodes contributing to the phases of production and presentation. However, a highly integrated procedure entwined the individual contributions made by each collaborating artist. Along with the collaborator contributions, the

research of creative process gathered around it the experiences, responses, reports, reviews, and critiques of the creative works as a social phenomenon.

Creative concepts developed as innovative technical components within practice included:

1. the vapour screen as a way of working with volumes of light and projection;
2. specular distortions and the place of the mirror in digital and analogue representation;
3. thermal spectrum sensing within computer vision systems;
4. mobile/wearable computing and wearable dance sensors and actuators;
5. point cloud, 3d depth map imaging and digital/analogue live simulation;
6. fluid dynamics in the live simulation of atmospheres;
7. motion tracking and video blob tracking within interactive performance;
8. 3d motion/skeletal tracking within interactive performance;
9. and 'process, produce and proceed' efficiencies in the organisational structure of the creative production cycle.

6.2.7 Personal Reflections on Key Outcome 7: Ephemeral Creative Works Become Residual Representations.

High-definition audio-visual formats documented creative works. However, the screen-based moving image artefact was not the original context for the development of some creative projects. For some, the original existed at the moment and invoked the ephemeral presence of art. The imperative to capture and record the original works as a secondary mediation revealed dematerialisation at the point of recording. A recording preserved and archived but also flattened the 'sensory knowing' alive in experiential engagement. On the other hand, the photographic series appeared to adapt successfully to the archival medium. A series of images could be called-up from the archive and deployed in promotional material or produced as fine

art for exhibition. The photographic image appeared to be endemic to the concept of the visual archive.

6.2.8 Personal Reflections on Key Outcome 8: Project Documentation Accessible Through a Public Online Archive and Repository.

The archival audio-visual records were equivalent to the exegesis concerning the provision of veracity to the research thesis. Invigilation accrued through documentation of event presentation in public venues. Documentation and publication validated the project cycles. Each creative work formed a repository of documentation. The associated support material compiled on computer hard drives. A repository archive established each creative work within James Cook University Research Online. A research website compiled the articles, reviews and visual representations of each cycle. A publicly accessible repository was developed through the online domain www.bonemap.com.

The process of video capture and editing added a substantial professional process to the production cycle methodology. The suitable quality capture became difficult in the media environments associated with the presentation of ephemeral creative works—this included extremely low lighting levels within the scenographic setting.

6.2.9 Personal Reflections on Key Outcome 9: A Media Archive (Data Equivalency) was Established and Maintained.

A series of media types ingested from the creative and research process have been integrated into dedicated computer hard disc drives and backup devices. The documentation camera witnessed representative territory traversed by the research project. The extent to which the documentation covers the critical breadth of the creative research was limited to the periods of public presentation for each of the recursive production cycles. The audio-visual archive restricted creative research artefacts and further refined, edited excerpts. The experiential form of the sensory moment was notably

difficult to capture. The screen documentation limits and occludes the immersive representations characteristic of some of the creative works.

Many additional points were noted and included:

- Coherence within the archive based on digitisation and common storage processes. Alternative repositories, such as the university research reserve, are an accessible/searchable data source for project outcomes.
- The accessible material was subject to the ethical caveat of informed consent for representation of human subjects and only data with the appropriate ethical clearance has been considered for release to the research community.
- Project resources formed significant material archives and contained content repurposed for subsequent creative projects and iterations. The reuse of creative collateral informed the recursive nature of the production cycle methodology.

6.3 Implications

Intermedia in the research setting instigated the need for a multimodal approach. The research integrated professional practice as both the source of industry-vetted and peer-reviewed public outcomes. The collection of data resources through methodologies applied to theory and practice were intertwined and navigated to the extent of unravelling some relevant trajectories.

The multi-modal approach generated research data and generated creative outcomes. It ascribed different regimes of industry and peer engagement and review. One was the industry review path undertaken by expert curators and

producers who considered the suitability of the creative work for public release within an institution's annual program or festival. The other was peer review in the academic setting by expert academics who considered the contribution of research inputs, outputs and their place in the public realm of knowledge creation. These two types of knowledge evaluation remained guided pathways along which the research project bifurcated. The consolidation of the two paths only occurred at the source of the research itself—the reflexive voice of the principal researcher.

The perception of intermediality was a key innovation towards the researchers thinking around the experience of creative arts. The interdisciplinary emphasis on creative production had a marked impact on the conventions of performance and visual arts venues. The capacity of contemporary venues, to be flexible and broaden the range and ways that artists and audiences might engage in art, appeared fundamental to future sustainability and creative diversity. The tools, sequences and presentational modes of contemporary intermedia techniques shifted the structures, purpose and architectures associated with the traditions of creative expression.

Theoretical domains deepened the understanding of concepts relevant to the research. Creative practice, rarely considered acceptable as a research paradigm within its right, demonstrated equivalencies with recourse to tried and tested research methodologies. Performativity became an important and influential epistemology as it collocated theory and practice in enactive terms of embodiment and engagement. The creative production cycle, an active and performative process, provided keys to the methodological means that converted practice into data rich generative research for the exegetical setting. The practice itself, a primary generator of research outcomes, and a product manifested in the public presentation of the creative work. The methodology described as process tracing an event tunnel defined by its inputs and outputs. The recursive cycle allowed research engagement over an extended period. It identified patterns and allowed the extraction of longitudinal research data.

The development of practice expanded the researcher's insight into techniques and processes. The techniques of convergence within intermedia included retention of the analogue and the digital. Understanding provided through collaborative practice became significant for the researcher. The articulation of an individual voice was secondary to the multivocal. Practice as a means of generating research data through collaboration was a trajectory.

6.4 Directions

The research articulated a set of concepts indicative of future direction.

1. Intermedia cartography: a practice converging creative media and spatial composition;
2. Shifting the engagement of audiences through participatory and immersive forms of intermedia presentation;
3. Synthesis of computer programming and choreography in live performance contexts;
4. The intertextual function of human movement in enactive digital interfaces;
5. The quality of other spaces created by creative simulation and heterotopia.

6.4.1 Intermedia Cartography

A consideration of the research project became the spatial quality of intermedia communication within an immersive installation. The 'narrative' character of the creative works was not confrontational. However, the presentational setting confronted the convention between audience and performer. The exploration of spatial relationships between reception and representation were a set of temporal scenographic and installation approaches mediating tolerances. Expectations of attendance, participation, engagement and spatialization enacted within the presentations mitigated

re-mediation. The metaphor of generative simulations inhabited by audience and performer was less denotative of theatre or gallery and more of intermedia diffusion and participatory structures.

Conventional spatial dynamics in art emulate single point perspective that has dominated Western pictorial representation since the 15th century. New territory was sought to dismantle the hegemonic character of the 'stage picture' and the rectangular framed screen. Simulation and simulacra are particular frontiers in the media arts; they appear in collusion with the infinite regress of constructing representation. Boundaries and frontiers provided paradoxical spatial relationships analogous to the simulated perception of space based on the system of width, height and depth. Impressions formed things as representation such as map and territory, plan and structure. The process of investigating the conventional perception of space suggested shifting spatial relationships. These relationships echoed in the expectations of the audience as a participatory turn. The demarcation of power relations within the performed installation was a tolerance within an inter-subjective relationship. The compositional process asked, as did Hill & Paris (2006), how close is too close between a performer and their audience? A species of ethical scale existed between performer and participant.

Cartography signified the imposition of space, a motif for the process of forming structure in dimensions of the physical, material and immaterial. The action of composition was an 'authorship' within the role of design. Mapping compositional elements represented the graphic allocation of space and the notation of describing dimensions so as to claim conceptual space within them. Performance cartography demonstrated aesthetic implemented as a connective compositional and scenographic process. Marking out and blocking choreographic structure blended consideration of multisensory components. Cartography assigned action zones responsive to an actant's presence within the work. The form layered sensor feedback components—a multiplex recombinant within successive presentations.

6.4.2 Rupture of the Audience/Performer Divide.

A structural element shared in *Cove*, *Sweet Spot* and *Nerve Engine* was a diaphanous scrim cylinder that demarcated the sites of participation and performance while transforming perceptions of digital projection as spatial atmospheres. Another was a series of human movement-based interactions between a solo-performer and their audience—engaging the subject of the dancer and the subjectivity of the audience member within a choreographic interrelationship. The combination of these two layered elements associated presentations with aspects of a form known as mixed-reality performance. The positioning of the audience member as actant disrupted passive observation related to general audience contexts. Integrated digital light and sculptural treatment of projection replaced regular rectangular ‘billboard’ style projection. Development of projection mapping software and techniques subverted the ‘windowed’ rectangular convention and was a key compositional effect within the creative works.

Parameterised patterns of light projected on the cylinders were a series of visualisations with dynamic variables that could change in response to movement and music in real-time and within the space of the choreography. The software programming involved the integration of motion capture and heat sensors providing in-the-moment transcoding of human aesthetic movement. Augmented choreography defined an interactive zone between the audience, performer and scenographic representation.

6.4.3 The *Choreologic* of Code

The behaviours of the system modules, sites and modalities of interaction blended the processes of choreography as a disciplinary technique. Programmed media movement responded to the environmental sensors in proximity to the impetus of the dance within a choreographic intention of expression. The definition of the actant was intended to elucidate the sites, modes and extensions of audience participation within the work. The conflation of choreographic technique suggested instances of intermediality

and unity. Compiling action units of technical computing and choreography within the moment of delivery to an audience required a *choreologic* fusion.

Structured improvisation was the practice of defining points of resolution between which a dynamic range of actions and effects could be made to appear. Media layering provided strata of possible combinations within the responsive feedback and augmentation of a presentation. Structured improvisation meant limiting the parameters within a set of variables. Choreographing scenes followed the same logic as developing interactive responses to media elements. Therefore, a complexity arose from the realisation that the compositional relationship between the technical and the choreographic matched.

The feedback loop associated with choreographic intention implicated the performative actions of the audience. The movement response of participants influenced the nuances, and ultimately the overall impact of each session within a presentation. The simultaneity associated with the actant role of the audience continually oscillated a perceptual position. The temporal movement of actant and performer constructed visual atmospheres that exemplified the aims and purpose of the presentation. Hence, a more active audience enhanced the dynamic range of the presentations engine.

6.4.4 The *Bodytext*

The immersive quality of the intermedia confirmed the actant body in time and space (in stillness or motion). The visualisation of human movement was a communicative inscription by way of runtime programming and the encoded/decoded movement of light and sound. A process of transformation enacted inside the real-time spatial composition. Bodytext articulated the analogy between presence and mediatization. The body simultaneously performative and inscribed into the *mise en scene* of presentation. The computers coded real-time responses to the action of human movement. Between the articulate flesh of the body, the (readable/writable) source code of the computational simulation and intermedia.

6.4.5 Heterotopia

The sensorial and experiential layers were sculptural, architectural, sonic and choreographic. It was space on the move, and of otherness—a heterotopic space. The quality of intermedia was simultaneously physical and psychological. After Foucault the real fictional space of the mirror, and shadow, a visibility within absence. The structure that united space was heterogeneous and compositional. Blended spaces constructed from the intensely intimate within simulated visual and sonic fields.

The spatial limits within the cocoon of presentation and the concomitant coded responses parameterized the artistic simulation. The surveillance derived from motion, encoded values, heat and orientation of the actant were variables interacting with the code through the input of sensor data, which in turn influenced the behaviours of the system. Communication between audience and performer was critical to ameliorating the constant refrain of digital simulation. The presence of the performer articulated an inner frame of reference for the actant within the machinic awareness of the system. The overall engagement was both a parametric mediatization of the audience member's physical presence and an inter-subjective co-presence responsible for improvising a choreographic vocabulary between the performer and actant.

6.5 Final Reflections

The project articulated a trajectory through experimental ideas. The research interrogated a system of production and presentation. It Blended the disciplinary interests of a collaborative team within a structure of intermedia. It traced materiality within the interplay of sensory perception. The interpretation of materiality and discipline provided a clear position for intermedia. It signified the link between materiality and discipline relevant to manifestations within the creative practice.

Historical precedent and the academic field surrounding ideas and expressions of intermedia remained relevant within current discourse and contemporary artistic forms. Literature resources exposed the state of rupture that has impacted convention within the creative arts. The blending of media to form new exchanges, unions and hybrids have fuelled innovation within creative domains and changed the hegemonic regimes of human communication. Through a series of turns concerning the transition to a participatory and technologically focused culture, aesthetic and political convention changed definitions within society. Intermedia provided an understanding of the interdisciplinary and multisensory within the application of contemporary creative practice.

The project has:

- interrogated the researcher's approach to intermedia;
- extended the commitment to collaborative forms of creative production;
- theoretical and practical understanding revealed advances;
- personal growth in the implementation of practice provided theoretical understanding;
- practical insights into the participatory position of the audience in intermedia informed creative practice;
- moreover, the conceptual and philosophical implications of intermedia enhanced engagement in social outcomes.

The research trajectory was a series of intensive recursions and iterations that produced a pattern of incremental growth. The pattern benchmarked immersions into practice that formed the projects creative works. The desire that fashioned the first creative presentation in 2008 recalled an evolution towards intertwining traditions, symbolised within the fine arts, with those at the leading edge of technological media. Synthesis as an aggregation of analogue and digital advances allowed praxis to achieve a level synonymous with new interpretations of media. The conclusion represents, significant progress, mediated by common challenges. Limited resources, time and

space, appeared unchanged from those at the outset. With ever more territory to cover there was a sense of practice and theory advancing rapidly within the merged domains of creative practice to which a significant technological transition continued to have an impact.

More apparent as the project reached its conclusion was the appearance of the research fitting into a box. It was a conclusion that had some personal resistance. To the researcher, the project appeared recursive and therefore denied conclusions. The research project was the interrogation of practice and the practice rolled on. The exegetical research outcome was a bookmark that captured, within a chain of words, the practice and theory at a point within an autonomous trajectory. Similarly, the authority afforded to words and their meanings appeared fixed for only short times. The ambiguity written into the meaning of words and their application to a theory are a continuous slow motion unfolding of meaning and revelation. As a response to the academic requirement, intermedia became the research focus within the time-series of creative practice.

Intermedia was an important word because of its inference to understanding the mixed world of materiality and discipline. The project aligned the word with a practice that did not segregate the continuity of the analogue with the fragmentation of the digital. The literature revealed a vexed point in the understanding of media relations. Long-standing tensions brought into focus art historical contexts. Shifting paradigms influenced by definitions of social engagement are the currency of our cultural landscape. Change exemplifies the culture of our time, just as it has always been the currency of human civilisation.

Intermedia emerged as a discursive action that negotiated creative practice. It appeared useful for creative practitioners coming from the conventions of a mono-media (material categorised and framed by a discipline) toward modes of integration. In this sense, intermedia described forms of practice that blended and mixed competencies.

For example, the dichotomy between the analogue and the digital was liberated as a response to intermedia practice. A foundation in the fine arts was a common basis for creative work for many of the artists engaged by the project. A culture of conservation and continuity within historical precedents of traditional fine art disciplines prevailed. Reflected by the demand for skills, expertise, understanding and interpretation of creative practice generated from industry. However, the research interpreted convergence with emerging technologies. It integrated disciplinary competencies and concerns. The convention that sought to isolate specific types of material as medium and discipline highlighted media simultaneity. Whether it encompassed a convergence of the analogue and the digital, or the interdisciplinary ethos of collaboration, intermedia represented the utility of a media matrix. The significant purpose of media communicated a position of being in the world. The compulsion for aesthetic communication via Intermedia approached material competence opportunistically drawing on the resources of the matrix.

The literature showed that intermedia initiated innovation and challenged conventional categories within the creative arts. No longer fixed; redeployed in different contexts, recombined into new worlds, shared by others, modified and manipulated within and beyond 'authorship', originality, creativity and art. Harnessing the matrix of materiality and sensation, what media can be, where it can go, and what it can do, began to describe the approach to creative practice developed through the research. Intermedia was simple nomenclature to identify the complexity of blended material forms.

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Appendix 1

Bonemap's Fluid Hybridisation

Abstract

Over the last fifteen years, Bonemap's novel collaborative method has produced hybrid and genre independent works within the broad field of contemporary arts. The specific creative method relates to a practice and process imbued with an ecological perspective. This short article makes corollaries that respond to the question—Can an ecological perspective provide cues for hybrid arts practice? The Bonemap approach incorporates a multimodal and intermedial praxis that expands static representations of human creative environments and genres. Using flux, improvisation, participatory and responsive strategies to harness generative form it is argued that Bonemap works articulate a metaphor of fluid hybridisation. The authors cite the creative works of Bonemap and other influencers to approach contemporary arts practice with an ecological perspective producing evidence of a fluid hybridization of an artistic genre. Bonemap's key methodological operations are responsive through the embodiment of ecological perceptions, improvisatory through the virtual and the visceral, and participatory through the experience of the implied and explicit. Practised as spatial concepts, that inform methodological approaches to practice, Bonemap's ecological, postcolonial and artistic concerns consider hybridity and intermediality as linking materiality and immateriality. The evidence considers the hybrid immateriality of 'unknowing' and 'ephemerality' within creative research that further challenges conventions of knowledge creation and the material categorization of form. Bonemap's methods are shown as moving towards a proposal for fluid hybridity that is set adrift in the sublime aim to articulate an ecological understanding of interconnected meaning and associations as a unique poetic vessel that bridges the interstices of genre and place.

Full article available:

http://bonemap.com/bonemap_2013/research/index_2013_02.html

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Creativity and Innovation Audit of 5 peak trajectories of the creative production cycle

	TEROM 2008 & 2010	<i>Whispering Limbs</i> 2009	<i>Cove</i> 2010	<i>Sweet Spot 2011, Nerve Engine 2013 & 2014</i>	<i>Terrestrial Nerve</i> 2012 & 2013
1 Inception	<ul style="list-style-type: none"> •Collaboration with dancer and music technologist •Site/gallery installation •Heterogeneous collection display •Edge to edge video wall •Contemporary Art venue liaison •Curatorial submission •Gallery booking 	<ul style="list-style-type: none"> •Collaboration with choreographer, music technologist and 5 x dancers •Scenographic projection mapping •Prerecorded video for panoramic projection •Festival producer liaison •Theatre venue liaison and booking 	<ul style="list-style-type: none"> •Collaboration with dancer, programmer and music technologist •Audient participation •Interactive experience •Motion tracking •Responsive particle system. •Collection display •Festival producer liaison •Theatre venue liaison and booking 	<ul style="list-style-type: none"> •Collaboration with dancer, programmer and music technologist •Audient integration. •Augmented reality experience •Motion tracking •Responsive particle system •WiFi device integration •Live 3D rendering •Program and festival producer liaison •Venue and festival liaison and booking 	<ul style="list-style-type: none"> •Collaboration with choreographer, 1 x dancer, programmer and music technologist •Simulated wind •Mirrors •Motion tracking particle system •WiFi device POV camera •WiFi device integration •Program and festival producer liaison •Venue and festival booking
2 Concept development	<ul style="list-style-type: none"> •Baroque visuality •Cabinet of curiosities •Memento mori •Memory •Mirror chamber •Cartography •Projection 'wall paper' •Improvised choreography •Music composition 	<ul style="list-style-type: none"> •Gothic visuality •Intercultural exchange •Intertextual photography •Site embodiment •Expanded cinema •Projection mapping •Choreography •Environmental Dramaturgy •Music composition 	<ul style="list-style-type: none"> •Simulated weather atmospherics •Expanded cinema •Light as volume •Intimate performance •Memory •Intentional Syneasthesia •Music technology •Projection mapping •Structured improvisation •Immersive technologies 	<ul style="list-style-type: none"> •Baroque pattern systems •Expanded cinema/sculpture •Intimate performance •Intentional Syneasthesia •immersive environment •Subtle technologies •Music technology •Projection mapping •Structured improvisation 	<ul style="list-style-type: none"> •Mimetic visuality •Invisible phenomenon •Wind atmospherics •Music technology •Responsive programming •Digital cinema •Photographic studio capture •Immersive technologies •Structured duet choreography
3 Proof of concept	<ul style="list-style-type: none"> •Multi-camera capture of performer within a chamber of mirrors •Video manipulation to create repeat pattern video wall 	<ul style="list-style-type: none"> •Digital camera capture of dancers in natural sites •Video image manipulation to create projection components •Performance training 	<ul style="list-style-type: none"> •Thermal spectrum camera motion-tracking •Responsive particle system. •Network distributed software •Blended reality 	<ul style="list-style-type: none"> •Depth sensor point cloud •Thermal spectrum camera motion-tracking •Responsive particle system •WiFi wrist 	<ul style="list-style-type: none"> •Responsive projected particle system •WiFi enabled control devices •Multiple WiFi POV camera integration to back-end system

	<ul style="list-style-type: none"> •Object/specimen based installation •Layout based on cartographic contours and imaginary geography •Original sound score based on edited video imagery 	<ul style="list-style-type: none"> to cohere dance group •Intertextual portrait photography •Scenographic design incorporating expanded cinema •Original sound score based on choreographic map 	<ul style="list-style-type: none"> performance •Scenographic design/ generative cinema hybridization •Sound score to choreographic map •Responsive sound design •Projection stitching software •Visual programming event controls •Vapour screen. 	<ul style="list-style-type: none"> mounted devices •WiFi device linked event controls •Blended reality performance •Spatial design/ generative cinema hybridization •Sound score to choreographic map •Responsive sound design •Visual programming event & lighting controls •Vapour screen 	<ul style="list-style-type: none"> •Scenographic cinema •Sound scored to choreographic map •Responsive sound design •Live simulated wind funnel •Suspended mirror chamber •Wind responsive costuming and properties
4 Resources	<ul style="list-style-type: none"> •White box gallery •6x channel video projection 'wallpaper' •4.1 channel sound installation •Installation of 400 suitcases, cabinets and vitrines •Armature structures •Natural history and curiosity collection •Internal and external lighting •Funding & financial partners •Presentation partner •Collaborators 	<ul style="list-style-type: none"> •Black box theatre •4x channel video projection panorama •2x channel expanded cinema/ sculpture •2x back projection scrims •Stereo sound installation •Set design structures •Lighting •Visual programming event control system •Live camera feed to vision mixer •Funding & financial partners •Presentation and festival partners •Collaborators 	<ul style="list-style-type: none"> •Black box theatre. •Six channel data mapping projection •Motion tracking thermal camera vision system •1x back projection scrim •Tube track for scrim rigging •4.1 channel sound installation •Installation of 400 suitcases •CO2 low fog machine •Vapour delivery system •Visual programming event control system •Theatrical lighting •Funding & financial partners •Presentation and festival partners •Collaborators 	<ul style="list-style-type: none"> •Black box studio 2011 & 2014 •White Box media exhibition space 2013 •2x 4 channel data projection systems •2x cylindrical gauze scrims •Tube track for scrim rigging •Set armature/ tutus •Motion tracking thermal camera vision system •Theatrical Lighting •CO2 low fog machine •Vapour delivery system •Visual programming event control system •4.1 sound installation •Mirror panels •Funding & financial partners •Presentation and festival partners •Collaborators 	<ul style="list-style-type: none"> •Black box studio 2012. •White Box media exhibition space 2013 •2x channel panoramic data projection system •4x Plexiglas mirror chamber & rigging •WiFi Motion tracking camera vision system •WiFi device POV software/ hardware •12x floor fan wind funnel •4.1 channel sound installation •Visual programming event control system •Funding & financial partners •Presentation and festival partners •Collaborators
5 Integration	<ul style="list-style-type: none"> •Choreographic intention in video work •Landform contour 	<ul style="list-style-type: none"> •Semi-narrative performance for pre-rendered video 	<ul style="list-style-type: none"> •Code generated image data mixed with pre-rendered video content 	<ul style="list-style-type: none"> •Navier-Stokes particle system prototype •Syphon articulation 	<ul style="list-style-type: none"> •Blended reality performance engine •2x performer breastplate

	metaphor using suitcase assemblage and glass cabinets • Memento mori based on modified collection of violins, cases, curios and specimens • Internally lit vitrine cabinets containing human and natural history specimens • Sound composition to video sequence • Sound distribution compiled to 41 audio	projection assets • Animated intertextual portrait photography • Back projection and image mapping on large scale sculptural scrims • Live camera manipulation and projection system • Integrated event controls and software automation • Live sound manipulation interface • Collaborative choreographic development	• 400 Suitcase interactive set • Large-scale back projection mapping on black scrim • Audient participants interact with responsive computer generated content • Integrated event controls and software automation • Live sound manipulation software/hardware interface • Improvised choreographic intention • Vapour screen developed with dry-ice and low fog machine • Vapour delivered through modified agricultural pipe system	(Quartz Composer / Programming/ Isadora) • Algorithmic generated particle system with interactive variables • Kinect depth sensor point cloud vision system • Augmented technologies • Multi-projector mapped immersive space • Solid light projection as sculpture/expanded cinema • WiFi show control system • Audience/performer motion control WiFi wrist mounted mobile devices • Responsive sound design • Vapour screen • Audient integrated Choreography	mounted POV camera prototype • Algorithmic generated particle system • Multi-projector blended panoramic space • WiFi show control system • Performer activated WiFi wrist mounted mobile devices • Responsive sound design • Pre-recorded digital cinema components • DMX controlled simulated wind funnel • Duet choreography
6 Development	• Human scale Plexiglas mirror chamber • Lighting design for video capture • 3x angle camera capture of mirror performance • Video image manipulation and compositing • Video sequence editing to final cut • Sound composition to final video edit • Resource management • Stakeholder liaison • Project coordination	• Location filming at remote property • Location lighting for video capture • Video image manipulation and compositing • Location movement training • Choreographic mapping of solos and groupings • Sound composition following performance map • Light and projection as sculptural volume • Costume design and	• Software programming interactive particle system • Hardware integration thermal camera motion tracking system • Visual programming based projection and audio interface • Responsive sound design spatialisation • Landform contour metaphor scenography • Projection mapping multi-head system • Resource	• Software programming immersive particle system • Hardware integration thermal camera and IR depth sensor motion tracking systems • Visual programming based responsive projection and audio interface • Responsive sound design spatialisation • iOS app development for integration into performance engine	• Visual programming particle interaction • Motion tracking and projection interface • Performer POV mobile camera iOS app • Design & fabricate breastplate POV camera accessories • Photographic series mirrors & wind • Video & photography image manipulation and compositing • Video sequence editing to final • Sound composition to

			functionality •Site-specific treatment of performance space	management •Stakeholder liaison •Project coordination	•Resource management •Stakeholder liaison •Project coordination •Education kit •Technical rider •Tour management	final video edit •Responsive sound design to choreographic map •Resource management •Stakeholder liaison •Project coordination •Tour management
7	Pre-presentation	•Source hundreds of appropriate suitcases, luggage and travel trunks •Source glass cabinets •Source vitrines •Source natural history specimen collection •Source violin collection •Source object curio collection •Write complementary essay/statement •Design marketing collateral •Design room brochure •Design room layout •Design video projection system Devise lighting systems •Sound design for room installation •Presenter contract •Insurance	•Video ingestion for projection asset integration •Scenographic design, theatre and lighting plan •Technical plan •Source large-scale sharktooth theatre gauze •Source shaping bars and rigging •Source projectors, computers, cables and rigging •Integrated software development for live manipulation of projection, sound and technical theatre aspects •Write complementary statement •Design marketing collateral •Choreographic and dramaturgical map •Presenter contract •Insurance	•Amalgamation of technical components into cohesive system •Scenographic design, theatre and lighting plan •Technical plan •Source large-scale sharktooth gauze •Source shaping bars and rigging •Source projectors, computers, peripherals, cables and rigging •Source 4.1 sound equipment •Write complementary statement •Design marketing collateral •Source hundreds of appropriate suitcases, luggage and travel trunks •Choreographic and dramaturgical map •Devise FOH and booking system •Presenter contract •Insurance	•Consolidate technical components into performance engine •Scenographic design, theatre and lighting plan •Technical plan for responsive projection & sound •Source 2x large-scale sharktooth gauze. •Source shaping bars, tubes & rigging •Source 8x projectors, 2x 6head computers, cables and rigging •Source 4.1 sound system •Source low fog machine and Co2 supplier •Construct 3x heat-shrink mirror panels •Choreographic and dramaturgical map •Write complementary statement •Design marketing collateral •Devise FOH and booking system •Presenter contract •Insurance •Freight •Crew travel & accommodation •Ground transport	•Visual programming event controls •Source 12x black 45cm floor fans •Construct ceiling baffle for wind funnel •Scenographic design theatre and lighting plan •Technical plan for responsive projection & sound •Source 2x projectors, 2 head computer, cables and rigging •Source and prepare black cinema projection surface •Source 41 sound equipment •Write complementary statement •Design marketing collateral •FOH and booking system •Presenter contract •Insurance •Freight •Crew travel & accommodation •Ground transport
8	Event presentation	•Packaging and Transport •Installing in	•Packaging and Transport •Bump-in	•Packaging and Transport •Bump-in	•Packaging and Transport •Bump-in	•Packaging and Transport •Bump-in

	<ul style="list-style-type: none"> gallery space •Fixing 12v lighting system •Fixing 6x projectors and S-video splitter system •Fixing 4.1 sound system •Fixing gallery track lighting •Final room design resolved •Technical operation manual •Marketing and promotion •Signage and didactics •Photography of work •Printing room brochure •Opening event and performance •Audience response visitors book 	<ul style="list-style-type: none"> theatre •Final scenographic design resolved •Rigging projection scrims •Technical audio and visual rigging & installation •Fixing operators' station •Lighting plot, rig and focus •Marketing and promotion •Signage and posters •Promotional photography •Printing program •Choreographic rehearsals in theatre •Rehearsals integrating technical theatre •Liaise FOH venue operations 	<ul style="list-style-type: none"> theatre •Final scenographic design resolved •Rigging projection scrim and projectors •Technical audio and visual rigging & installation •Fixing thermal spectrum camera •Fixing operators' station •Lighting plot, rig and focus •Marketing and promotion •Signage and posters •Promotional photography •Printing program •Choreographic rehearsals in theatre •Rehearsals integrating technical theatre •Liaise FOH venue operations 	<ul style="list-style-type: none"> venue •Final scenographic design resolved •Rigging projection scrim and projectors •Technical audio and visual rigging & installation •Fixing thermal spectrum camera •Fixing operators' station •Fixing costume change station •Lighting plot, rig and focus •Marketing and promotion •Signage and posters •Promotional photography •Printing program •Choreographic rehearsals in theatre •Rehearsals integrating technical theatre •Liaise FOH venue operations •Peer interaction •Festival integration 	<ul style="list-style-type: none"> venue •Final scenographic design resolved •Rigging mirror chamber, fans and projectors •Technical audio and visual rigging & installation •Fixing motion-tracking camera •Fixing operators' station •Fixing costume change station •Lighting plot, rig and focus •Marketing and promotion •Signage and posters •Printing program •Promotional photography •Choreographic rehearsals in venue •Rehearsals integrating technical aspects •Liaise FOH venue operations •Peer interaction •Festival integration
9 Post-presentation	<ul style="list-style-type: none"> •Condition reporting •De-installation •Return of equipment •Venue make-good •Packaging and Transport •Archival storage of digital and analogue assets •Venue finalization and accessioning 	<ul style="list-style-type: none"> •Bump-out •Return of equipment •Packaging and Transport •Venue make-good •Venue finalization and box office •Archival storage of digital and analogue assets 	<ul style="list-style-type: none"> •Bump-out • Audit and return of equipment •Packaging and Transport •Venue make-good •Venue finalization and box office •Archival storage of digital and analogue assets 	<ul style="list-style-type: none"> •Bump-out • Audit and return of equipment •Packaging and Transport •Venue make-good •Venue finalization and box office •Archival storage of digital and analogue assets •Recording technical specifications •Update technical rider 	<ul style="list-style-type: none"> •Bump-out • Audit and return of equipment •Packaging and Transport •Venue make-good •Venue finalization and box office •Archival storage of digital and analogue assets •Recording technical specifications
10 Documentation	<ul style="list-style-type: none"> •Video capture of event performance •Extensive photographic capture of 	<ul style="list-style-type: none"> •Video capture of event performance •Video capture installation 	<ul style="list-style-type: none"> •Video capture of event performance •Photographic capture 	<ul style="list-style-type: none"> •Video capture of event performance •Photographic capture 	<ul style="list-style-type: none"> •Video capture of event performance •Photographic capture

	room installation •Capture visitor comments •Capture industry response •Capture Media response •Digital & analogue archive administrative documentation	process •Video capture collaborator interviews •Photographic capture of performance •Capture Media response •Digital & analogue archive administrative documentation •Process design plans & graphic 3D model	of works •Capture collaborators response •Capture Media response •Capture Audience response •Digital & analogue archive administrative documentation •Process design plans & graphic 3D model	of works •Capture industry response •Capture Media response •Capture Audience response •Digital & analogue archive administrative documentation •Process design plans & graphic 3D model	of works •Capture industry response •Capture Media response •Capture peer response •Digital & analogue archive administrative documentation •Process design plans & graphic 3D model
11 Review	•Procedural and artistic reporting •Collaborators debriefing •Funding acquittals •Research reporting	•Procedural and artistic reporting •Collaborators debriefing •Funding acquittals •Research reporting	•Procedural and artistic reporting •Collaborators debriefing •Funding acquittals •Research reporting	•Procedural and prototype reporting •Collaborators debriefing •Funding acquittals •Research reporting	•Procedural and prototype reporting •Collaborators debriefing •Funding acquittals •Research reporting
12 Reflection	•Complementary writing •Analysis of value and impact •Analysis of audience response •Published reviews •Analysis of future inception of new work •Analysis of professional practice	•Complementary writing •Published reviews •Participants comments •Collaborators POV •Conference paper •Analysis of future inception of new work •Analysis of professional practice	•Complementary writing •Conference paper •Published reviews •Collaborator interviews •Analysis of future inception of new work •Analysis of professional practice	•Complementary writing •Symposium presentation •Development of technical rider •Touring production kit •Analysis of fit for purpose touring •Education kit •Analysis of professional practice	•Complementary writing •Symposium presentation •Published reviews •Development of technical rider •Touring production kit •Analysis of fit for purpose touring •Analysis of professional practice

Appendix 3

Example of Collated audience feedback categories documented from *The Exquisite Resonance of Memory*, *Cove* and *Sweet Spot*

Production_year		comments per work			
<i>The Exquisite Resonance of Memory</i> (TEROM) _2008	Total comments = 100%	130			
<i>Cove</i> _2010	Total comments = 100%	45			
<i>Sweet Spot</i> _2011	Total comments = 100%	77			
	Total comments = 100%	252	total		

Comment tally from all three works divided into Categories					
Categories	TEROM	<i>Cove</i>	<i>Sweet Spot</i>	Total People	%
Impact of Production	116	71	38	225	54%
Participation Responses	11	41	24	76	18%
Production Design Responses	14	35	18	67	16%
Sensorial Experience Responses	8	16	23	47	11%
Statement Totals	149	163	103	415	100%
Note: how many people commented in total column. Statement total is the number of different statements they made. i.e. 54% of people who came to the work commented on impact. i.e. There were 149 total statements made about TEROM.					

Statement Tally from Data Sets					
Categories	TEROM	<i>Cove</i>	<i>Sweet Spot</i>	Total	%
Impact of Production	146	38	71	255	56%
Participation Responses	13	24	41	78	17%
Production Design Responses	26	18	35	79	17%
Sensorial Experience Responses	8	23	16	47	10%
Sub -Statement total	193	103	163	459	100%
There were a total of 459 statements made in four categories, Impact, Participation, Design, Sensorial about the three works. Note: Further drill down of data into separate category statements.					

Appendix 3 (continued)

Further drill down of statements into Subcategories:

Impact of production					
SubCategories	TEROM	<i>Cove</i>	<i>Sweet Spot</i>	Total	%
Appreciation	7	18	23	48	13%
Reference to Wanting More	0	8	9	17	5%
Reference to Development	2	4	5	11	3%
Responses to Value	84	17	52	153	43%
Responses to Experience	25	22	18	65	18%
Responses to Expectation	20	0	12	32	9%
Aesthetic Response	2	9	12	23	6%
Challenged Responses	6	0	0	6	2%
Responses to Fun	0	3	0	3	1%
Total	146	81	131	358	100%
225 people out of 252 participants made comments in impact of production, 358 statements = 100%					

Interactivity, engagement, participation in production					
SubCategories	TEROM	<i>Cove</i>	<i>Sweet Spot</i>	Total	%
Self-editing Responses	0	5	9	14	16%
Perception Responses	0	5	5	10	11%
Interpretive Responses	6	5	14	25	28%
Interaction Responses	0	15	19	34	38%
Engagement Responses	2	0	0	2	2%
Participation Responses	2	0	0	2	2%
Thematic Responses	3	0	0	3	3%
Total	13	30	47	90	100%
76 people out of 252 participants made comments in participation of production, 90 statements = 100%					

Appendix 3 (continued)

Production Design					
SubCategories	TEROM	<i>Cove</i>	<i>Sweet Spot</i>	Total	%
Response to Design	4	10	22	36	40%
Responses to Elements	9	0	12	21	23%
Interpretive Responses	0	0	3	3	3%
Responses to Duration	0	2	0	2	2%
Responses to Space	0	4	0	4	4%
Responses to Image	13	4	8	25	27%
Total	26	20	45	91	100%
67 people out of 252 participants made comments in participation of production, 91 statements = 100%					

Sensorial experience of production					
SubCategories	TEROM	<i>Cove</i>	<i>Sweet Spot</i>	Total	%
Imagination Responses	2	11	5	18	32%
Reflective Response	2	3	4	9	16%
Sensorial Responses	4	5	7	16	28%
Inspiration Responses	0	0	7	7	12%
Challenged Responses	0	1	0	1	2%
Responses of Meaning	0	6	0	6	11%
Total	8	26	23	57	100%
47 people out of 252 participants made comments in participation of production, 57 statements = 100%					

Note: Analysis of TEROM as the first incarnation it is not interactive, with many comments focusing around the TEROM theme. The comments are often one word descriptors. *Cove* and *Sweet Spot* are easier to analyse together because the formats are both interactive works and the comments are either sentences or paragraphs.

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