

The Office of Experiments:
Experimental Research in the
Expanded Field of Contemporary Art.

Volume 1 of 2

Volume 1 – Thesis Document
Volume 2 – Digital Archive

by

Neal White

Submitted in partial fulfilment of
PhD by Publication,
and its requirements.

Bournemouth University

January 2014

Copyright

This copy of the thesis has been supplied on condition that anyone who consults it is understood to recognise that its copyright rests with its author and due acknowledgement must always be made of the use of any material contained in, or derived from, this thesis.

Abstract

'Artistic things' are epistemic things par excellence;
they create room for that which is un-thought.

Henk Borgdorff (2012, p.121)

Challenging established academic and techno-scientific enclosures of interdisciplinary or boundary research between art and other disciplines, the thesis provides an analysis of a series of critical research projects undertaken since 2004. The author argues that through critical forms of artistic research, new forms of knowledge production are possible that operate beyond current enclosures. Using Office of Experiments' (est. 2004) publicly exhibited works, research databases and publications, a body of evidence is described that represents a sustained contribution to artistic and academic discourse through collaborative and collective practice. This research and the formation of The Office of Experiments by White, provides the basis for the argument that artists are becoming engaged in 'institutent' forms of practice (Raunig) that are indirectly beginning to challenge the monopoly of established and hegemonic institutional spaces; the Museum and the University, gallery and the archive.

In the context of interdisciplinary research, the concept of boundary objects (Gieryn and Borgdorff), an expanded field of art (Krauss), are discussed in relation to the author's concerns with critical and social practices. Using examples such as Artist Placement Group and The Center for Land Use Interpretation, it is argued that there needs to be a greater consideration and concern afforded to knowledge production developed in rigorous forms beyond the academic realm in order to fully interrogate emerging contexts of technology and science, new moral and ethical dimensions, new politics and antagonisms. It is argued that in essence, stemming from a frustration with limiting processes in academia, the published research of The Office of Experiments led by White provides examples of critical knowledge as developed by a new form of parallel institution. It is argued that such practices, when critically engaged with existing institutions of knowledge and culture, create new antagonistic spaces in which productive epistemic encounters can take place.

In addition to the written thesis, the published research is presented through a browser to allow the reader to navigate documentation and traces of exhibitions, digital archives and artist publications, along with the full text of referenced citations of these works from major catalogues and published articles and journals. The database itself reflects a key dimension in the critical research practice that has attempted to present knowledge within an open model for dissemination purposes.

Acknowledgments

The research which this thesis and body of work reflects upon was undertaken over a number of years, and as a result there are many to whom I owe a great deal, not least those who stayed with me through the adversities, trials and challenges of exhibiting and developing work in high pressure environments. My closest companion on this journey was my wife, the artist Tina O'Connell and my son, Cassius, to whom I would like to express my deepest thanks and unending gratitude for the many long hours given over to the pursuit of art and knowledge. In addition, I would like to thank my academic mentor Dr. Stephen Bell who offered guidance across a territory where the challenges are not always apparent; he has become a friend and a close ally in the pursuit of practice and research.

This research journey would have not been possible without the Institutions, Funders and Arts Organisations, many of which are named within the Thesis itself. However, it is the close relationships with individuals inside organisations such as The Arts Catalyst, in particular Rob La Frenais and Nicola Triscott, to whom I owe much. Others, many who I also now call friends include; Simon Gould, Professor Gail Davis, Barbara Steveni, Dr. Antony Hudek, Matt Coolidge, Steve Rowell & Lisa Haskel.

Pursuing academic research is tough, pursuing a vision which encompasses the pursuit of art and knowledge in the face of adversity and refusal requires dedication, vision and an extraordinary quality to which I can only strive. In the end this thesis is dedicated to two people who I worked with and who lost their lives whilst I was on this journey. They demonstrated qualities that encompassed life in its totality, who were an inspiration and whose ideas and vision lie deep beneath this work; artist and friend Ingvil Aårbakke of N55 (1970-2005) and the late British conceptual artist and friend, John Latham (1922-2006).

Table of Contents	5
1. Prologue	6
1.1 Volume 2: The Digital Volume	6
1.2 Referencing Structure	6
2. Introduction	8
2.1 Research Methods	14
2.1.1 Critical Research Practices: Methods and Dissemination.	14
2.1.2 Research and the Institution	18
2.2 The Decentred Fields of Art	20
2.2.1 The Expanded Field	20
2.2.2 Nondisciplinary Research; Beyond the Boundary.	23
3. Research Outputs	
3.1 Background to Published Research	27
3.1.1 Two Case Studies	28
3.2 The Experimental Subject	
3.2.1 Published Research Output 1: Let's Experiment with Ourselves	32
3.2.2 Published Research Output 2: Truth Serum	38
3.2.3 Reflecting on interdisciplinary modes of knowledge production	41
3.3 The Experimental Field	46
3.3.1 Space on Earth Station	49
3.3.2 Establishing The Office of Experiments	51
3.4 The Overt Research Project	
3.4.1 The Overt Research Project	59
3.4.2 The Autonomous Research Collection	62
3.4.3 Exploring the Social Imaginary	65
4. Conclusion	
4.1 Experimental Systems and Epistemic Things	68
4.1.1 The Epistemic Impulse	71
4.1.2 The Future of a troubled genealogy	75
5. References	80
5.1 Provenance and Authorship of Published Works	93
5.2 Interconnections of published practice-led research	94
5.3 List of Published Research in Digital Volume	95
6. Appendix	
6.1 Contribution to submitted research outputs by Neal White	97
6.2 List of the Submitted Published Research	98
6.3 List of Printed Materials	103
6.4 Background: Soda – 1997-2002	105
6.5 An Inexhaustive Glossary of Parallel Institutions	107

Digital Volume V2 – See DVD rear cover

1. Prologue

1.1 Volume 2: The Digital Volume

The Digital Volume has been developed as a flexible, online CMS system; a drupal database for the description, methodological and documentary presentation of primary research materials; the published research projects. In this sense, this Digital Volume constitutes in form as well as content, a form in which the local, institutional, technical and methodological settings of an experimental system can be articulated (Rheinberger, 1997). The thesis reflects on many of the ‘epistemic things’ embodied in the Digital Volume, as well as the logic of its relationship to the written work. However, these two descriptions are not necessarily fully compatible, nor exhaustive, as the aim initially was to create an experimental structure for the research carried out by The Office of Experiments, in which both physical and virtual materials are published. As the thesis moved forward, concessions and compromises were made in terms of the legibility and order of the research, whilst still trying to establish and retain a sense of the archival nature of some of this research. In some cases the published research outputs, such as the 'Dark Places' database, or the documentation of the self-experimentation performances in ‘Truth Serum’, allow for subjective interpretation by the reader or viewer without further interpretation by the author.

1.2 Referencing Structure

There are links to each of the published research outputs highlighted in the Thesis Document. Where the suffix V2 is shown in the reference following a publication, this directs the reader to the Digital Volume. Each of the Sections in the Digital Volume is numbered and so can be accessed by browsing to the section referred. For example, reference to The Experimental Subject will be referred to as (V2.1). A figure listed as research material in that section will be referred to as (V2.1.4 Figure 3) and so forth. The thesis will be digitised and published online at some point where these will also act as hyperlinks.

With each of the individual published research outputs in the Digital Volume, there is also a list of what are considered secondary or ‘external outputs’. These external outputs consist of documents made either by collaborators or citations of new

knowledge concerning the research outputs, evidence of contribution to knowledge. As these are considered to be largely second order publications, references to these are not made in the thesis to the same extent that an author who would primarily publish papers or articles. A small number of artefacts have been included and are listed in the Appendix of Volume 1 under Printed Materials (6.3).

2. Introduction

This thesis comprises of evidence and documentation of the production of significant new knowledge, performed and realised in the context of art and the enclosures, boundaries and disciplinary requirements of research. Despite or because of the antagonisms and implications that this critical research practice entails, particularly in relation to the digital traces or documentation available in the Digital Volume of what were frequently event-based phenomena, the written component of the thesis explores dimensions of the development of this work, its theoretical and critical frameworks, as well as a chronological reference to influential work and ideas of artists, the challenges of interdisciplinary practices and the recent emergence of parallel institutions.

In order to explore the published research, it is first necessary to position the research methods by outlining the author's position in relation to Critical Research Practices – Methods and Dissemination (2.1.1) and then, Research and the Institution (2.1.2). In this comparing of the reflective writing entailed within an exegesis to other approaches, the argument is made for an exposition of research practice, a doubling that is implied within the Digital Volume. As such, critical research methods that are derived from the antagonistic / interdisciplinary spaces of critical practices here help to underline the concept of what constitutes the object or subject study, critical to the research through events and as artworks. As the published research frequently consists of mobile, temporary events, a position is introduced in which the research can be seen as an ‘experimental system’, through which ‘epistemic things’ are derived. These two ideas draw on the work of the historian of science, Hans Jorg Rheinberger, who has studied and published on the history of science and the shape of contemporary experiments (1997).

The aim of the opening section is therefore to provide a contextual review, or map of what is a fluid topology for this research, an interdisciplinary terrain with folds and inherent logical and intuitive paradoxes that challenges the reliance on text alone. Further, the critical approach to the term ‘discipline’ as the custodian or field of knowledge inside the academy as examined by the artist (Steyerl 2012), can be seen in relation to concepts examined by critics, from the four waves of Institutional

critique (Lind 2005) to Gerald Raunig's concept of 'instituent practices' (Raunig 2005).

Extending the relationship between artists and critics, in the Decentred Fields of Art (2.2), the creation of partitions; historic, conceptual, disciplinary, using Rosalind Krauss's ideas of the shift implied within 1970's Land Art (Krauss 1972) introduces the idea of art having an expanded field, a point that when considered alongside what Lucy Lippard has also described as the dematerialised object in art (Lippard 1966), moves us beyond a line of discussion of arts concern with its own objecthood or materiality. These arguments clearly draw on the work of conceptual artists, from Robert Smithson to John Latham, that also plague the certainty of contemporary arts objects. The expanded field and the dematerialised object provide a framework for understanding the production of art after the object or painting, and further reinforce the idea of an exposition in relation to art and practice-based research as a form of knowledge production. Here however, questions concern the outputs of contemporary critical research practices and the nature of the art they produce; is the Digital Volume not an art object?

Extending the argument for an exposition of practice, exemplified in the Digital Volume and the network it relies upon, these ideas are further explored through Nondisciplinary Research; Beyond the Boundary (2.2.2), in which Gieryn's concept of a 'boundary object', in relation to interdisciplinary practices in art and science as a way of understanding the problematic or antagonistic issues at play, is further examined. Here, the nature and process of research in relation to interdisciplinary critical practice are expanded beyond the academy using Henk Borgdorff's on-going and recent work (2010, 2012) that observes forms of artistic research as crossing not only disciplines defined in academia, but the life domains that lay beyond its enclosures. Finally, introducing the Center for Land Use Interpretation's own projects, Borgdorff's analysis supports the first concrete example of what the author later argues are 'parallel institutions', emerging in relation to an enthusiasm for knowledge beyond disciplines, producing not objects as artworks, but of art as knowledge itself.

This introduction to research methods therefore aims to position the research within and outside of the academy, and the differences between the knowledge produced in this context in relation to arts formal processes, and the emergence of the author's

critical research practice that emerges through access to scientific spaces, explored in the section Background to Published Research (3.1). Here the two case studies of research conducted, as the artist became acquainted not only with the parameters of the academy but the enclosures and ethics of scientific rigour, are introduced. The emergence of these research-led practices lays the ground for the influential techno-collective group Critical Art Ensemble, whose own actions use ‘contestation’ within research, in turn shaping the emerging critical field in art and technology based practice.

Reflections on the context of these methods are intended to contrast with the background to the cases studies in which earlier artist-informed inquiry shapes the work. The intention is to provide a sense of the subtle differences that exist between the artist researching and artistic research, to indicate what lies beneath and within the following three sections that are an asynchronous account of the submitted research. Through these sections, it is argued that far from perceiving the interdisciplinary spaces of art as positively constructed platforms for communicating science's own ideas or agenda, as explored through Gieryn (ibid.), the potential of the antagonistic spaces of art leads to potential transformations of the apparatus of research.

The Experimental Subject (3.2) opens this discussion with key questions relating to science's objective position to knowledge in the examination of ‘self-experimentation’, both from the perspectives of art and of science. Expanded in the work ‘The Void’ and later the project ‘Truth Serum’, the author's engagement with critical discussions concerning knowledge of the subject of research, and the development of the scientific spaces in which this work is developed, extends from the singular to the networked. The related critical research questions ask; can the body can act as the site of art? Can knowledge be objective? How do we experience knowledge? What are the ethical limits of art and of science? In doing so, reflections concerning the performance of experimental artworks as research outside or beyond enclosures, boundaries and disciplines, or the ethic limits of knowledge production inside cultural and scientific institutions, are reached.

Exploring the implications of this research, the section Reflecting on interdisciplinary modes of knowledge production (3.2.3), the discussion of the published research by third parties is further analysed. The vehicle for this is a paper entitled ‘Logics of

interdisciplinarity', written by Barry, Born and Weszkalnys (2008). Here ideas developed in the field of science and innovation which examine how and where knowledge is produced (Nowtony et al 2001), are examined across disciplines, institutions and fields of research, a model or mode of interrogation that is now being adopted within artistic research discourse itself. Here, the paper identifies the author's contribution to knowledge in early pre-research, as materials from the case study also forms part of the evidence for Barry et al's analysis, and here points to evidence of the agonistic relationship between the critical research outputs presented and the emerging description of a field of 'art and science'.

Extending this discussion in *The Experimental Field* (3.3), the experimental platform 'Space on Earth Station' is explored through the intuitive role of artist and architect as social practitioners, focussed on developing spaces where new knowledge can be developed and critically evaluated, not in abstract representation, or as mediated experiences, but as a lived reality. Far from the enclosure of the scientific or technological laboratory space of the industrial complex, which serves capital and a knowledge economy, testing theorems etc., here we see how the research aims to develop an experimental platform or apparatus that will in turn lead to a range of questions concerning the role of knowledge production as it might operate beyond art's own cultural enclosures, within a social context. Driven by the idea of the shape of an experiment, the research is carried out in its postmodern form, not testing a single idea, hypothesis or question even, but developing 'epistemic things' in relation to art as a networked technical apparatus.

This experimental approach is situated within both the critical and practical legacy of leading figures such as Stewart Brand, Buckminster Fuller and Peter Pearce from the US, whose early utopian visions shaped the contemporary critical technological landscape, as well as the critical cyber criticisms of a legacy of a 'Californian Ideology' (Barbrook and Cameron 1995). Drawing on this legacy, in part to consider art's relationship to technology, the collective practice and collaboration with N55 and the author's further engagement in art as a social practice, the work of the Artist Placement Group (1966-89), is used to underline the shift towards the author's development of a networked and collaborative research practice, *The Office of Experiments*. Forming what is described by Raunig (2005) as an 'instituent practice' the context of this development is explored in relation to groups, such as Copenhagen

Free University, Public Works, Platform and Freee. ‘Space on Earth Station’ therefore not only marks a shift towards the framing of the concept of experimentation, as a potential social and critical network, but also as a concrete reality that provides a platform and a temporary space from which to look into who holds responsibility for the production of knowledge and how this is sustained. As such it anticipates the emergence of collectives in the UK, Europe and the US, whose pedagogic aims are described in the final section.

Exploring in depth the actual research projects of The Office of Experiments, this final section focuses on spaces of ‘experimentation’ as a subject and the systems and methods used to document them. Here, we see how the mutability of the ‘epistemic thing’ produced in art when enthusiasms for knowledge are aggregated, begins to emerge.

Details of the ‘Overt Research Project’ (3.4) articulate beyond a meta-description, key methods employed in the pursuit of the aims of The Office of Experiments, and articulate how these practices draw on critical field-research methods, undertaken beyond the gallery or studio, but in relation to enclosures of the techno-scientific and military industrial complex. Here, it is possible to see how work developed by the author with The Office of Experiments at the Center for Land Use Interpretation (CLUI) and in the consequential work of the Overt Research Project undertaken with Steve Rowell (a former project manager at CLUI), have been influential to the thesis. In particular, relationships between spatio-temporal axis for knowledge, that is the sites of the techno-scientific and military industrial complex, are explored in terms of the Overt Research Project methods, which seek to mirror these ‘experimental systems’, highlighting and documenting their physical spaces, their communications, and their logics of transparency and concealment. In this respect, specific questions regarding the critical position of independent researchers and activists are highlighted in an account of the Autonomous Research Collection, and the work of the independent researcher Mike Kenner. The nature of his own research is explored as it yields further paradoxes around the ethics of critical research practices and the key issues at stake when undertaking research into sites of exception, and the limitations of existing ethical boundaries in these quasi-scientific and military spaces. In the analysis of such infrastructures and institutions lies the potential for the counter, marginal or ‘parallel’ institutions.

As such, it becomes clear, through the exposition of this research, that the establishment of The Office of Experiments can be contextualised as an instituent practice shaped in the context of the emergence of collective forms of epistemic practice across Europe and the US, grounded in critical practice, but not defined by it. Many of these organisations, which are part of The Office of Experiments' broader network, including the Center for Land Use Interpretation and the groups which emerged in the early 2000's in the USA, have resonance with the experimental and epistemic ambitions of The Office of Experiments. Here, the author's relationships with Rich Pell of The Center for Post Natural History and formerly, The Institute for Applied Autonomy (USA), the late Beatriz da Costa of The Museum of Accompaniment Animals (USA), Margaret Wertheim of The Institute for Figuring (USA), to name but a few (See Appendix – 6.5) are critical.

As the aims of the thesis fold and unfold through these sections, the objectives emerge in detail. Firstly in exploring the role by which the artist is able to transgress and help others explore boundaries and regulated spaces in their traversal across not smooth, but topologically speaking, dynamic spaces of research, the critical research practice tries to operate beyond the enclosures and boundary checks of knowledge institutions; administrative spaces of control, that serve to preserve power or discipline the researcher (Steyerl 2012). Secondly, in establishing the autonomy and critical position of the artistic researcher, working collectively against what is an increasingly invested and instrumental sector; UK Higher Education, a critical position and transformative function are aligned. In this sense, these dual objectives are reflected upon in the conclusion, in which 'epistemic things' are described in terms of establishing the role of the contemporary artist as a researcher in the expanded field (Krauss) with a different view of what disciplines mean, whilst remaining attentive to the dangers of a loss of power in working beyond the very disciplinary boundaries that help create a subjective account of the expanding fields of contemporary art.

2.1 Research Methods

2.1.1 Critical Research Practices: Methods and Dissemination.

Acknowledging the diversity of *practice-led* or *practice-based* research methods used to develop knowledge and then disseminate it, this published research will be first addressed 1) through a clarification of the role of ‘exposition’ as a method of online presentation and, 2) in identifying how artistic research as a dimension of critical practice has emerged through the development of the research, the emergence of new parallel institutions, as well as in relation to academic arguments that have emerged in parallel.

The term ‘exposition’ refers to the online publishing model favoured in the International *Journal for Artistic Research* [JAR]¹. *Exposition* is concerned with blending both research and disciplinary practice with self-reflective approaches to the dissemination of artistic research in relation to a field. Unlike an *exegesis*, it does not solely rely on the verbal idiom, or academic papers, but an inscription into form or events that are recognisable as research. It is therefore intended that the Digital Volume of published research presented here reflect JAR’s online approach and echoes this argument; that the practice-based research be disseminated whilst performing a ‘doubling’. The Digital Volume itself is therefore a method of organising knowledge and interrogating a subject preferred by The Office of Experiments as it allows the interrogation of knowledge, from classification to presentation, whilst giving the room for interpretation of the findings for others.

The development of the The Office of Experiments (See 0) has been derived from experimental methods developed since 2004-5, and have also included a range of framing devices that enable recognition of artistic research or of ‘*epistemic things*’ (this term is described in more detail later) by an audience. For example the Overt Research Project (V2.3) database presented within the installation of 'Dark Places' (Haskel et al. 2009) (V2.3.2), performs a doubling by integrating the dissemination of

¹ 'JAR editorial states that: ‘what is commonly known elsewhere as a "journal article" is here referred to as an "exposition". ... Depending on your field, "exposition" might not always be a suitable word. For this reason, we encourage you to believe that instead of exposing practice as research, you could also stage, perform, curate, translate, unfold or reflect practice as research. Your chosen descriptor here is less important than the doubling it entails, which creates distance within practice through which understanding can operate.’

research not as a separate, secondary or concealed experience, as an exegesis or reflective document (usually for the benefit of closed academic debates), but as a primary intention of the research itself. This research process leads to a blurring of the boundary between forms and authorship in knowledge production. However, the collaborative *creative artefact* is developed rigorously; through experimental modes of iteration and reflection, assimilation, and synthesis working with theoretical reflections, as described in many studies of practice-based research (Scrivener 2000, Biggs 2004). Unlike standard forms of academic publishing however, the process sits along a boundary between the epistemic and the political, the polemical and the empirical – it is a critical form of research practice. As such, like other forms of critical practice, from social engagement to software art, the production of cultural artefacts is contextualised in relation to work that follows through arguments made by Bordieu in terms of cultural production and Theodor Adorno as interpreted in relation to large scale digital media such as described in *Economising culture: on “the (digital) culture industry,”* (Cox et al 2004), which have informed my own process based enquiries. The aim in summary is to not to create artworks that have value through either real or symbolic capital, but that ‘reveal the inherent contradictions’ in art and research and critically underline Cox view to explore ‘the ways in which the apparatus itself is subject to "functional transformation"' (Cox, p.145).

‘Exposition’ is therefore a strategy for disseminating research that is derived from within the academy, but subject to significant methodological changes; either from critical excursions (White 2010-12)(V2.3.6) or database development (Haskel et al 2010)(V2.3.3). The research gives affordance to transformations not only in terms of the production of new knowledge but in the *experience* of the production of new knowledge. Applied to the spaces in which knowledge is produced here, along the deep fissures, blurred edges and the voids that define academic disciplines, the published research can also be seen as contradicting and challenging the academic arguments surrounding descriptions of boundary work and interdisciplinary research, and in doing so further seeks to embody a functional transformation at a number of levels; institutional, methodological etc.

Having outlined the published research in relation to exposition, it is also critical to mention that as a thesis, the approach draws upon established forms of practice-based and practice-led research, the discourse from within the academy as substantiated

through a large body of literature that underlines creative research practices². For example, early arguments made about creative research, such as *into*, *through* and *for*³ (Frayling 1993, Zieslinski 2012) the creative discipline of interest to the practitioner – conceptual and political art, experimental geography etc. were considered as they lead to new knowledge as well as new practices in their disciplines.

In the academic context *Audio Visual* research, a term developed by Robin Nelson for the AHRC AVPhD or *Visual Research* methods of Gillian Rose (Rose 2001), or in the research methods developed in relation to interactive digital media, such as explored by Ernest Edmond and Linda Candy in *Interacting* (Edmonds and Candy 2011), different methods relate to the researcher as an author inflected by their subject, with many methods mitigating against distortions created by the subject – such as to be found in auto-ethnographic methods. It is therefore worth making explicit that in critical research practice, as in critical theory, the enquiry is conceived in terms of the reading of the context in which research is presented to the subject, as well as the context in which it is made from the subject. Extending the ideas developed by Max Horkheimer (1982), of critical theory as a social form that extends from simply understanding towards critiquing in that context, research methods look towards a crisis of representation, or even presentation. In this configuration, the process developed by The Office of Experiments also constantly seeks to find a position for the research that acknowledges its relations to domination or dependence in its representation through the presentation of material in site.

In the context of the published research in which early non-academic work in this area was exhibited with groups such as Critical Art Ensemble in 2002-3, key issues in relation to critical practices emerge. Grant Kester in 'Conversation Pieces' (Kester 2004), takes Miwok Kwon to task on her descriptions of Critical Art Ensemble in 'One Place After Another, The (Un) Sitings of Community' (Kwon 2004). *'The cultivation of a critical consciousness is seen as an end in itself, and the artists involved in this project may find it difficult to reconcile this self-criticality with coherency and agency described as necessary to engage in collective forms of*

² I was involved in writing up the Codes of Practice for PhD for Practice-led Research at Bournemouth University which embodies many of these methodologies as valid approaches to research in the creative fields.

³ Widely cited and influential in the development of AHRC and other funding Council's research strategies was this early report into the area by Frayling, C. (1993), 'Research in Art and Design', Royal College of Art Research Papers [1]. London: Royal College of Art.

political resistance.’ (ibid., p.175). The critical art or research practitioner for Kester, such as Stephen Willets, Art of Change, or here perhaps the Artist Placement Group, allow for what Kester describes as ‘an extended process of collaborative exchange’, rather than say the spectacle of an artwork, what Jacques Rancière might describe as ‘the aesthetics of politics’ (Rancière 2011). Critical research practices appear to move the argument of where self-reflective operations take place, that is towards the audience or recovery of knowledge, a process in which rigorous academic concern is given to the context of the subject, the tacit knowledge of the reflective practitioner (Schön 1990), as well as the context of the methods through which the research might be imparted.

In this context, critical theory applies to the term *artistic research* as it questions both *practice* and *research*, in terms of examining how both make claims to knowledge. In and outside the academic institution, this critical form of research practice can be also argued for as different dimensions of the same endeavour. In the recently published ‘Intellectual Birdhouse: Artistic Practice as Research’, the editors Uta Meta-Bauer et al., state; *‘We believe that artistic research should not be seen as a discipline or topic, nor is it really a method. For us, it is an attitude, a perspective, a manner’* (Bauer et al, p.11). In this respect, Henk Borgdorff’s (2010) description of artistic research as ‘boundary work’ operating on the life domain of art as well as within the research domain of the academy prescribes essentially the same value systems for both the verification and validity of the practice of artistic research. This definition entangles what happens inside and outside of academia, entangling practice as research in both areas.

As referred to in the opening of the PhD itself, the relation between an artist and epistemic thing are critical, as Borgdorff recently argues,

– the fact that what is at stake can only partially be captured ‘discursively’ – it evades any definitive epistemological ‘grip’ while at the same time opening up a perspective on what we do not yet know. ‘Artistic things’ are epistemic things par excellence; they create room for that which is un-thought.
(Borgdorff in Bauer et al, p.121)

In this respect, my own critical research practice coincides with Borgdorff's analysis. Borgdorff plays on Hans Jorg Rheinberger's analysis of epistemic things, reflecting the research practice's own frames of reference since 2004-5.

In "*Synthesising Proteins in the Test Tube; Towards a History of Epistemic Things*" (1997), Rheinberger described how experimental systems produce knowledge through actions, social and institutional contexts, that lead in many cases to inherent tools or a process of critical evaluation being shared. However, as opposed to the theorem being tested in the laboratory, or the artefact being the focus of the research itself, the experiments presented here lead away from the epistemological 'artefact', to instead challenge the enclosures or boundaries of knowledge – the gallery and the archive, and the Academic Institution, the Scientific Society, the Museum. In critical research practices, it can therefore be argued that knowledge leaves these enclosures quickly to become part of the work of the artist or creative practitioner in another domain, a form of research that embraces what Maria Lind has described as the fourth wave of institutional critique – the development of pseudo institutions (Lind 2007, p.18).

2.1.2 Research and the Institution

The University is an institution, the government is an institution, the medical establishment is an institution, and each of these institutions we all need, depend on using, and are victims of, in many ways, deserve an internal critique by their participants, not as the latest thing on the art market or the medical establishment, but ongoing. I would go so far as to say... If you are interested in a democracy that deserves the name, this is what you need.

Hans Haacke (2007)⁴.

The positioning of The Office of Experiments (OOE) engages but is not defined by forms of institutional critique, although it does reflect some of the definitions made by Maria Lind of a recent analysis of 'Pseudo Institutions' in which the aim is to; *'To question more comprehensive phenomena, such as economic structure of art, it's working conditions and the demand for the spectacular.'* (Lind 2007, p.18). If anything, Lind's analysis of the critical practices of artists such as Michael Asher and Hans Haacke (first wave), Fred Wilson and Andrea Fraser (second wave), if not with Rikrit Tirivaniya (third wave) and the associated experiments inside institutions defined by relational aesthetics (Bishop, Bourriard), afford possibilities when

⁴ Quote taken from Talking Art with Patricia Bickers, Tate Modern, 23rd June 2007

considering the fourth wave. Here, Lind identifies the Copenhagen Free University and Maria Olsen's politically charged work as forms of institutional critique embodied in forms, which can be described as 'pseudo institutions'. The Office of Experiments is however more closely aligned to institutional practice, but takes the project further, as a parallel or instituent practice, rather than a pseudo institution.

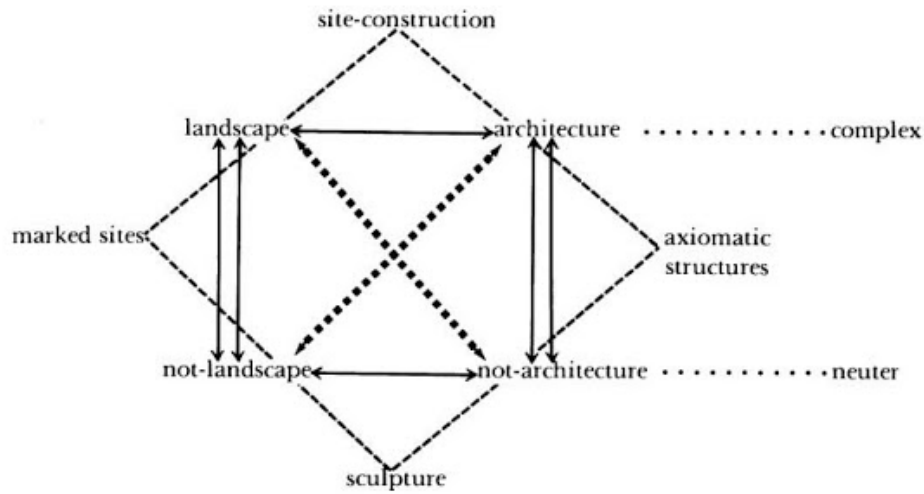
Hito Steyerl, a filmmaker and artistic researcher in the field of essayist documentary video, has eloquently described how the search reflex of the artist in the academy is also emerging from a frustration with the disciplinary nature of higher education and academic structures. In her chapter 'Aesthetic of Resistance?' in *Intellectual Birdhouse* (Steyerl 2012), she describes how the University / Academia, and its approach to incorporating artistic research, is playing a dangerous game with art in what has been seen by critical practitioners as a form beyond any 'epistemological grip',

A discipline may seem oppressive, but this is also precisely its purpose: to keep something under control. It circumscribes a suppressed, avoided, or potential conflict. It is a practice that channels and exploits that conflict's energies, and incorporates them into the 'powers that be'. Why would one need 'a discipline' if it wasn't to discipline somebody or something? Any discipline can thus also be seen as a response to conflict. (ibid., p. 55)

Whilst attempting to work from both within and outside of the institutional framework, as implied by Hans Haacke, quoted at the start of this section, the critical research practitioner has now to look at the disciplining effect described by Steyerl. The practice of institutions described in this research indicates that in many cases, such practices are unable to deal effectively with new knowledge production. Bound into the territorial defence of knowledge silos as disciplines, each operates distinct ecologies, economies and rationales (Becher 2001). The challenges that this brings in an 'anti-disciplinary' context of research is of critical concern. To this end, Steyerl, Lind, and finally Gerald Raunig's description of 'instituent' practices (2005) helps define the research of critical practice as a problematic space in which art is subject to different disciplinary frameworks and institutional needs, an expanded field in which conflicts occur as borders and enclosures merge, transform, translate and envelope each other.

2.2 The Decentred Fields of Art

2.2.1 The Expanded Field



A quaternary form was used for the Diagram used by Krauss to describe Sculpture in the Expanded Field⁵ showing the axiomatic structure and binaries that could be expanded within the analysis.

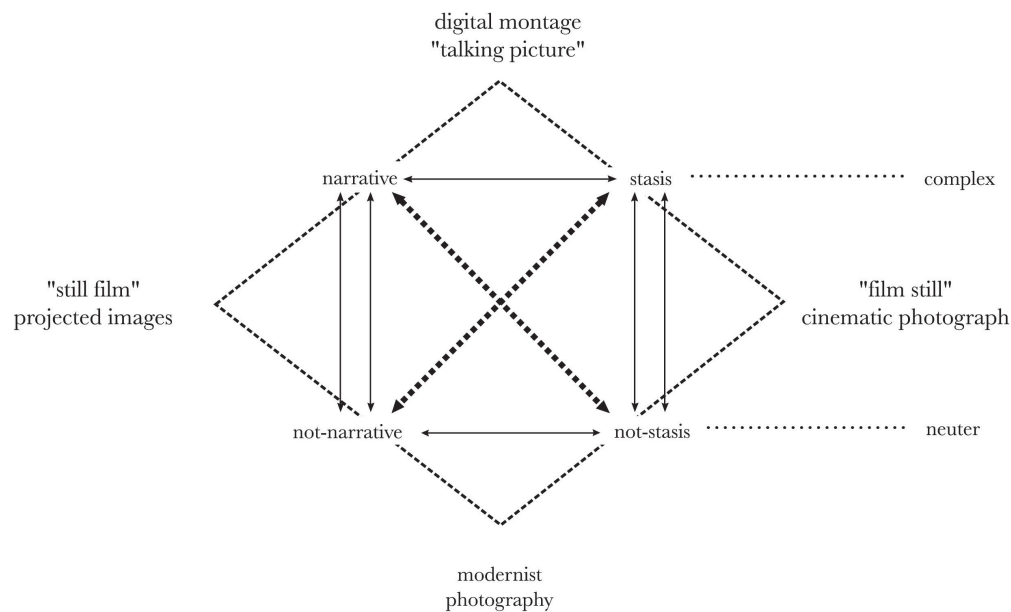
Described first by Rosalind Krauss in her paper 'Sculpture in the Expanded Field' (Krauss 1979), the concept of an expanded field identified how the works of 'Land Art' being made by artists such as Michael Heizer (Double Negative, 1969), Robert Smithson (Spiral Jetty, 1970) and Mary Miss ('Perimeter/Pavilion/Decoys', 1978) broke down the ground of the sculptural object. Sculpture, it was argued, no longer operated as a statue-like form set against the ground or within the context of architecture or landscape, it became a part of architecture and landscape itself. (Krauss's analysis as a structural diagram positioned sculpture within an axiom of *not sculpture, not architecture, not landscape* - see Fig Inset). For her contemporaries, in particular Hal Foster (1998), this observation of the rise of postmodernism through the conceptual notion of an 'expanded field' for sculpture and then art more widely, is seen as a defining paradigmatic move in the analysis of form beyond sculpture itself.

For, within the situation of postmodernism, practice is not defined in relation to a given medium — sculpture — but rather in relation to the logical operations on a set of cultural terms, for which any medium — photography, books, lines on walls, mirrors, or sculpture itself — might be used.

⁵ Acquired from <http://sculpture307.blogspot.co.uk/2012/07/rosalind-krauss-sculpture-in-expanded.html>

(ibid., p 41).

Krauss's integration of binaries within a coherent model therefore points to a reconsideration of where the edges of an appropriate disciplinary space lie in the production of art.



Banks diagram of photography in the expanded field utilises a similar form but argues for a broader mapping. Photography in the Expanded Field. October Journal (2005).

Krauss's concept of the 'expanded field' in contemporary art has more recently been reviewed through the lens of a number of disciplines within art, such as photography and new media, but also as a means to better understand contemporary art's remit beyond descriptions of *practices* or discipline per se (Roberts 2011, Hawkins 2013). So, whilst in contemporary artistic practice a number of schema based on that of Krauss could be reproduced here in relation to different fields; Leerberg on Design (Leerberg 2009) or Davis on Social Media Art⁶ (Davis 2009), or Baker on photography (Baker 2005), it is worth detailing how the readings of Krauss help define work now being developed in an expanded or a decentred field.

⁶ Davis's argument is less cogent than Banks's in terms of contemporary art as described by Arns and Qaranta, as it relies instead on the ground of social media. See; Ben Davis on social media art - artnet Magazine. Available from: <http://www.artnet.com/magazineus/reviews/davis/art-and-social-media8-4-10.asp> [Accessed April 19, 2013].

For Baker the expanded field implies that in relation to the photographic still and increased use of video, we see the emergence of narrative against stasis; *'the [not-narrative] is, according to the logic of a certain kind of expansion, just another way of expressing the term [stasis], and the [not-stasis] is, simply, [narrative].'* In other words, thinking through the expansion of what constitutes form in an expanded field, or does not constitute a discipline or field such as photography, sculpture or social media art for that matter, new kinds of schema must be considered in which new topologies can then be considered.

As Fredric Jameson suggested at an earlier fork in the development of postmodernity, what we need in the contemporary moment are maps: we should not retreat from the expanded field of contemporary photographic practice, rather we should map its possibilities, but also deconstruct its potential closure and further open its multiple logics.

(ibid., p.18)

Here Banks notes the problem of a postmodern topology in which a field might be extended, drawing out logics, expanding possibilities against its origin or source field. Banks therefore cites Foster (ibid.) who critiques Krauss attempt to move from the specificity of a field of practice,

Though no longer defined in one code, practice remains within a field. Decentered, it is recentered: the field is (precisely) 'expanded' rather than 'deconstructed.' The model for this field is a structuralist one, as is the activity of the Krauss essay. . . . 'The Expanded Field' thus posits a logic of cultural oppositions questioned by poststructuralism—and also, it would seem, by postmodernism.

(ibid., p.19)

This argument then provides a theoretical starting point for observing in art the topological shift through which the field of art has since expanded, and specifically the critical aspects of critical research practices as discussed. No longer simply postmodern however, the 'deconstructed' centre that defines art contemporary condition from its own objecthood can also be traced to the art objects de-materialisation during this period, as Lucy Lippard referred to it in her book *Six years: the dematerialization of the art object from 1966 to 1972*, (Lippard 1996). It allows for the distribution of an 'artistic thing' (Borgdorff 2012) which is critical, nondisciplinary, instituent, social and experimental. This in some sense means that the disciplines and fields to which the research refers are de-constructed, but also

decentered, distributed and expanded. This does not always negate the dialectic of cultural oppositions, but does present a topological problem, or folding around the idea of the field or centre of a discipline. For those not familiar with the artists associated with this conceptual geneology, it also presents some issues that concern ideas fundamentally associated with art, such as economic and financial value.

In the lecture ‘Art After the Expanded Field of Art’, Professor John Roberts (2011) points to the addition of new forms of social praxis outside of the gallery system within what he terms a ‘secondary art economy’ (ibid.) that selects to work in an autonomous field. His position argues that evidence of practices such as Critical Art Ensemble, Temporary Services (See Appendix 0 etc.), have pushed new forms of artistic production beyond Krauss's definition of the expanded field as an activity of the modernist avant-garde towards art that is ‘temporal, discursive and non-object centred’. Roberts has therefore extended Krauss's definition beyond what he refers to as its ‘quasi-constructivist’ framing of the artist, to one in which it is possible to see the ‘artist as technician’, one increasingly identified explicitly with non-artistic skills and activities, such as the ‘scientist, ethnographer, anthropologist, teacher, engineer, NGO activist.’ Robert’s definition resonates with some observations of artistic research within the definitions of art operating in an expanded field, but omits the intuitive logic in the drive of the artist. Further to this, in the parallel or nondisciplinary space of a parallel institution, the shift away from the singular practice of the artist means this technical activity allows the artist to engage directly with the work of two groups of non-artistic practitioners, such as ‘scientists’ and ‘geographers’⁷.

2.2.2 Nondisciplinary Research: Beyond the Boundary.

The establishment of interdisciplinarity in art and other academic fields has not unsurprisingly been concerned with ideas such as ‘boundary objects’, first proposed by Thomas F. Gieryn (1983), that specifically assert a demarcation between scientific and non-scientific knowledge and activity. Explored recently in ‘Across the great

⁷ As Hawkins relates in her recent paper (2011), ‘Geography and art. An expanding field: Site, the body and practice’, Krauss's work can also be used in terms of a threefold analysis of the artist's increasing shifts through the definitions and interpretations of “site”, “a phenomenological critique of the body” and “new practices of making” that correspond with Roberts' observations and my own practice – changing relationships between theory and practice – even beyond its own disciplinary borders. These themes emerge here in a body of work that starts with a critical engagement with science (The Experimental Subject) and ends with a collaborative relationship to practice of Geography itself (Overt Research Project).

divide: Boundaries and boundary objects in art and science', Megan K. Halpern (2012) draws out the continuing role of Gieryn's definition of boundary work in relation to contemporary practices in art and science; '*These different kinds of demarcation serve to expand authority into new domains, to monopolize authority, and finally, to protect autonomy*' (1983, cited by Halpern, p.921). This concept of the boundary is frequently discussed in the area of 'art and science' throughout the period of this research by leading figures such as Stephen Wilson in *Information Arts* (2002) in which the author's own early work with genetics is featured, as well as in *Journal's* such as *Leonardo*.

Critical to the argument for the development of the concept of boundary objects in a field described as 'art and science' (artefacts, technical objects, drawings, computing etc.) is the struggle to define the space in which research is undertaken, the research network, '*The boundaries of these worlds are constructed within these networks, and they are constantly changing. Often in the arts, boundary work protects autonomy and helps different art worlds expand into new territories.*' (Halpern 2012, p. 924). From this position, which aligns to Banks's conception of form in an expanded field, Halpern argues that the boundary object favours a reading of this space as a network that differs from Latour, Callon, and Law's (Callon 1999, Fujimura 1992, Latour, 1988, Latour, Sheridan and Law, 1988 cited by Halpern, p.924) development of Actor Network Theory (ANT)⁸, a critical concept that has been used by academics and in the research presented to consider the social dimensions of a network. In this respect, Halpern argues through Fujimura that ANT,

considers the ways in which scientists recruit allies and establish facts, while boundary objects do not serve to align different factions around a 'fact' as it is created, but rather, allow collaboration across diverse social worlds
(ibid., p.925).

In the published research, knowledge is frequently derived from more than the two key fields; that of academic disciplines (art, science) but also of other less defined 'life domains'. In the early work being presented that concerns self-experimentation,

⁸ Halpern references (Callon, 1999; Fujimura, 1992; Latour, 1988; Latour, Sheridan and Law, 1988)..

for example (White 2004) (V2.1.1-2), we see how the epistemic dimensions of works are also a part of a directly lived experience, of performance without knowledge of method. The process of research then transforms the subject. Whilst often seen as a positivist model, the research published demonstrates how ‘experimentation’ is arguably emerging as a critical shaping context, one that crosses the boundaries between the life domains of art and disciplines defined as such inside the academy.

In this respect the concept and idea of a boundary and the expansion of the fields of art is being developed by Henk Borgdorff in papers such as ‘Artistic Research as Boundary Work’ (Borgdorff 2010), that suggest the position of the artistic researcher is agonistic/antagonistic (Barry et al. 2009, Mouffe 2007) to other fields or disciplines. In this published research, this position is concurred, moving from the moral field of human genetics and its concomitant laboratory life, towards critical issues of democratic life, examples such as the 'Dark Places' database (V2.3.2), developed through large-scale spatial analysis of laboratories, institutions and their networks, all of which perform an exposition for critical affect. Used by and developed with collaborators from across different fields, the research process is clearly shaped by what can be termed ‘nondisciplinary’ inputs.

The published research here in this respect is heavily informed by the Center for Land Use Interpretation (Center for Land Use Interpretation), who describe themselves as a *‘research and education organization interested in understanding the nature and extent of human interaction with the earth’s surface, and in finding new meanings in the intentional and incidental forms that we individually and collectively create’*.⁹ Ralph Rugoff in his introduction to the edited anthology ‘Overlook’, identifies this approach thus,

In contrast to our culture of experts – the pundits, academics, and government analysts who regularly appear in the media to tell us what to think – the Center is a haven of amateur agnostics. Its members are specialists who specialize in non-specialization. Their approach is not so much multidisciplinary as **nondisciplinary**: it traces out an underlying logic that connects disparate fields and perspectives linking them to the common ground of land use and its interpretation.

Rugoff (2006, p.39).

⁹ Research undertaken with support from Henry More Foundation and Bournemouth University allowed me to return three times, to undertake work, but also to observe and understand more deeply how the group is configured.

In this respect, Center for Land Use Interpretation represents a centre for many disciplines, but none through their centres. In relation to the aesthetic concerns of the organisation, which supports artists whilst also making displays of its subjects¹⁰, we see in this disciplinary and aesthetic collapse a shift towards the digital as a platform for the distribution of knowledge and conceptually towards the social as another form of engagement with the artwork. Operating beyond the market system for art, the aim is to mediate the processes of art beyond the production of a commodified object, or a simple mass spectacle as a post-situational strategy, instead positioning cultural production within distinct communities who are able to recognise and be involved with the artistic research as a live and not remote experience.

In this respect, the Center for Land Use Interpretation may represent what we might consider the most relevant model of a new knowledge or parallel institution that influenced the direction of The Office of Experiments during research from 2007. Along with others, such as Spurse, The Center for Post Natural History, Futurefarmers (0), as well as multiple social practitioners, a concern for research became the critical tool through which issues such as sustainability become critical criteria. Against this my own research practice with The Office of Experiments is charted.

¹⁰ For more information, see: The Center for Land Use Interpretation. Available from: <http://www.Center for Land Use Interpretation.org/newsletter/archive> [Accessed July 3, 2013].

3. Research Outputs

3.1 Background to Published Research

In 1997, following an MA in Digital Art at Middlesex University, the author co-founded Soda, which among other things developed creative java based projects for commercial media clients such as BBC and Channel 4 (see 6.4). Soda also had an Internationally successful digital practice in the art-world.¹¹ The establishment of Soda was possible through learning to programme in C on the MA, a skill that provided an unexpected bridge and a ‘technical’ language, as outlined by Storr, with scientists who worked in large and to this point, inaccessible research departments.

In 1999, access to such a research department was given and supported by the Gulbenkian Foundation and Wysing Arts Centre in Cambridgeshire, through an Artist in Residence scheme at the Medical Research Council Sanger Institute, part of the Human Genome Mapping Project. Working for six months on a series of projects, access was given to the scientists, their labs and their work. As a result, two installations; ‘Inheritance Hotel’ (White 1999) (V2.4.1) and ‘I Need to Know’ (White 2001) (V2.4.2) were developed. These artworks examined the idea of identity, themes which had emerged whilst working at Soda (6.4). Here however the work explored identity within the social framework of science and specifically a genetic science laboratory¹². In this section, the enclosures of knowledge within scientific institutions are explored in order to examine the specifics of the context against which later interdisciplinary discourse emerged.

¹¹ Through collective works like Memo at Cubitt Street, London (Soda, 1997), sketches of code at City Racing, London (Soda 1997), and full scale individual digital art installations such as C20th Screen, Chorus and Corrupted Nature at Lux Gallery, London (White, Kimbell, Saunderson and Warman, 1998) as well as group projects like 2347, for Avatar at the Moderna Museet, Stockholm (Soda, 1998).

¹² A residency outlined in detail in the book on art and science, *Strange and Charmed* (Ede, 1999).

3.1.1. Two Case Studies

HGMP Residency

The first case study is from a series of projects undertaken at the Sanger Institute. The first of these projects, in which the artist was revealed to the wider institution through the administrative pigeonholes of staff, was in the form of a letter that asked for participation in a project to manipulate anonymous historical photographs of the staff (V2.4.1 Figure 1). This intervention, led to 90 submitted images being made available from staff. Unsatisfied with the purely visual/symbolic results of this initial project however (V2.4.1 Figure 2), a more direct intervention with data being used by genetic researchers was developed. This latter project led to an engagement with the Ethics Department of Addenbrooks Hospital, who worked closely with the Institute. Using genetic markers from the author's blood – a data set was used to seed a computer programme that drove the illumination sequence of a self-portrait.

The case study is relevant as the project entailed ‘informal practitioner research’, mainly into psychological models used by clinical consultants at Sanger, as well as research into the psychology of inherited diseases in books recommended by councillors, such as *The Troubled Helix: Social and Psychological Implications of the New Human Genetics* (Marteau and Richards 1999). In turn this research led to the collaboration with the author Lawrence Norfolk¹³, and with clinician psychologists from Addenbrooks based at Sanger. The result was an audio piece and installation that consisted of cycling, and used a never-ending script that described a conversation between a patient who wanted to discover their likelihood of having inherited Huntington’s Disease and their consultants’ attempts to control the ethical space of this dialogue. Performed by two actors, two conceptual models were used, one in which the patient seeks what they do not know (a fictional work) and the other a series of rebuttals by the consultant to avoid misleading the patient in a clinically unacceptable manner (based on clinical guidance)¹⁴. The work shown at Wysing Arts Centre, was later displayed in an installation at Imperial College, London in 2001 (V2.4.1 Figure A3).

¹³ Lawrence Norfolk is the author of four historical novels which have been translated into twenty-four languages. He is the winner of the Somerset Maugham Award and the Budapest Festival Prize for Literature and his work has been short-listed for the Impac Prize, the James Tait Black Memorial Award and the Wingate/Jewish Quarterly Prize for Literature..

¹⁴ The latter project was restaged in a new exhibition for Artlab at Imperial College, London called ‘I Need to Know’ (V2.4.1 Figure 3) that led to a further work with Norfolk ‘Ott’s Sneeze’ (Norfolk and White 2002).

Cleanrooms

The second case study is of an installation, developed again through an artist-led inquiry, funded by the Gulbenkian Foundation, into cleanroom laboratory spaces at sites in the UK and in Laboratoire d'Astrophysique hosted by Roger Malina¹⁵ in Marseilles in 2002-03. From this research inquiry, the installation “Uncontrolled Hermetic” was later developed and became part of the exhibition ‘Cleanrooms’ (Oldham Gallery 2002 and Natural History Museum 2003) in a group exhibition with peers Gina Czarnecki (UK) and Brandon Ballongee (USA) and leading figures in the field of critical art and science, Critical Art Ensemble (USA) (See V2.4.2 Figures 1-9).

In concurrent versions of ‘Uncontrolled Hermetic’ the installation comprised a range of components, sculptures, drawings etc. the traces of a fictional laboratory that examined the topological dilemma of the cleanrooms in which ‘super clean’ objects are manufactured or constructed, such as microchips, drugs and space satellites. The installation at the Natural History Museum included an entire level 200 cleanroom inside the exhibition space (V2.4.2 Figures 4-9), as well as a series of isolation cells and sculptures drawn from the concept of ‘Klein’ bottles or mobius strips, forms where the problem of interior and exterior surfaces are compounded along different planes and surfaces – topologically speaking.

¹⁵ Roger Malina was working at this time as Executive Editor of *Leonardo Publications* at M.I.T Press and Distinguished Professor of Arts and Technology, and Professor of Physics at the University of Texas at Dallas. He was also a Directeur de Recherche of the C.N.R.S. at the Laboratoire d'Astrophysique de Marseille.

Interdisciplinary Art?

The relevance of these two case studies is their role in laying the ground for emerging critical frameworks coming at odds with the overtly positivist position being provided for interdisciplinary art and science projects at this time by its funders. Specifically, Inheritance Hotel, undertaken at HGMP was cited in Stephen Wilson's publication 'Information Arts'¹⁶ (2001, p.133), in a discourse that presents new cultural practices and artistic approaches as bridges between 'art and science' – mainly in terms of the public engagement model discussed by Halpern (ibid.). This model for interdisciplinary activity (if not research) in labs was receiving enthusiastic support from figures inside institutions (Wellcome Trust, Science Museum); the techno-scientific complex and corporates (Pfizer) and higher education (AHRB / Arts Council England fund – THES, 2011).

To some extent, there was a logical path for including artists with a grasp of technology, the 'artist technician', within science; a logic grounded in the invested interests of both parties¹⁷. Whilst Wilson expands the area and possibilities for interdisciplinary practices in great detail in his book, the tone of the collaboration was largely based within a model of innovation, developed and identified in silicon-valley by figures such as Stewart Brand associated with the Whole Earth Catalogue, The WELL, and Wired. Whilst Fred Turner's celebration of Brand's position in *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (Turner 2006) supports innovation as a branch of media arts, or the products of a digital culture, critical voices, often from within a Marxist position were beginning to emerge at this time. The ideology of capital realised through cyberspace was critiqued by Richard Barbrook and Andy Cameron whose

¹⁶ Wilson credits Neil White [sic] with Soda Group. Although I was a member of Soda at this time, and its Creative Director, our model enabled us to pursue both group and individual projects, of which this project was a personal project and residency.

¹⁷ Research undertaken by Michael Naimark on the future of the media lab supported by Leonardo and other academic journals, pointed to this potential model for such a development, fuelling speculation of an overlap with media art and innovation in the interdisciplinary lab space. From Mapping Interdisciplinarity. Report of the survey element of the project 'Interdisciplinarity and Society: A Critical Comparative Study' (ESRC Science in Society, 2004-06). 'Michael Naimark proposes six reasons why artists' inclusion in research labs may be valuable to science. Art projects may stimulate and provoke, and thus enrich scientific research; they may assemble an unconventional mix of disciplinary skills and talents; they can offer the content required for the testing of tools (and vice versa); they may allow scientists to observe human behaviour (the artist as user); they may trigger innovation and new paths for research; and, finally, the artistic exhibition or show of the outcomes of the research may be a test for their launch in the real world.'

essay 'Californian Ideology'¹⁸ had been taken up by the widely available journal on art and politics for digital times, *Mute*¹⁹.

This critical context for practice that operated first arose between art and technology and led to encounters with members of Critical Art Ensemble whose 'contestational' approach to working in what was then referred to as cyberspace,²⁰ was adapted as many artists began to take on the role of the 'artist technician'. Rather than servicing science, the artist had developed a critical engagement in a space between critical art practice and the broad enclosures of science itself. In this respect, 'contestational biology', a critical research method developed by Steve Kurtz and others in 'The Molecular Invasion' (2002, p.123) provides a context for this approach,

The location for the agents of bioresistance is in the in-between. To some extent, institutional capital has to be appropriated on the levels of both knowledge, material and human capital. This is a parasitic enterprise due to the lack of public support systems.

In this respect, Critical Art Ensemble not only map out their own trajectory, but a conceptual space in-between knowledge, a space into which many other levers are soon wedged. Research as an artist undertaken within the institutional enclosures of science at Sanger Centre and for the Cleanrooms project, and the rather symbolic and removed spectacle in the installation 'Uncontrolled Hermetic' in 2004-5, can be seen as steps towards a critical research practice, a positioning of a practice as an 'in-between' space that becomes the ground through which sustainable and critical research practices draw upon and develop knowledge of the subject in order to create 'functional transformations'.

18 'But there is no reason that online forums could not also serve as sites at which to bring together representatives of multiple communities and develop ideological resources that could in turn be exported to the public at large. On the contrary, there is already substantial evidence that emerging online collaborative forums ranging from virtual communities to massive, multi-player online games have been doing this work for some time' (*Turner, F. 1999*)

19 Barbrook and Cameron ran the Hypermedia MA at Westminster University. The author taught here in an unrelated unit between 2002-3.

3.2 The Experimental Subject (V2. The Experimental Subject)

Miwon Kwon states in her book on the situated and site specific roles of art, *‘One Place After Another, The (Un) Sitings of Community’* (2004), that Critical Art Ensemble allow no qualifications when looking at relationships within institutional models of practice in cultural or political terms. She argues that Critical Art Ensemble is, *‘too well managed to have any contestational power. In the end they are acts of compliance that only reaffirm hierarchy and the rational order’*²¹ (ibid. p.152).

In this next section, the critical research practice is explored in the context of such criticism, whilst working within institutional residency as an artist. In particular, an account of Science Technology Studies marks a shift in the relationship of researcher to their subject. Operating within the context of the enclosures of both science and the operational logic of a temporal or event based artwork, the work proceeds through an interrogation of what is meant by being experimental, as it moves away from modernist definitions and then shapes the conditions, process and dissemination of contemporary art as an entangled term from within the research process.

²¹ See p 207, footnote47: CAE Electronic Civil Disobedience and other Unpopular Ideas. Brooklyn N.Y. Autonomedia, 1996 p 43-44.

3.2.1. Published Research Output 1:

Let's Experiment with Ourselves

In his book *Who Goes First? The Story of Self-experimentation in Medicine*, Lawrence K Altman (1997) considers the altruistic drive of scientists engaged in forms of self-experimentation against the institutional support they received. Highlighting Forssman's research, for which he received the 1956 Nobel Prize in Physiology or Medicine with Courrnand and Richard, he noted the Nobel committee comments,

Forsmann was not given support, he was on the contrary, subject to criticism of such exaggerated severity that it robbed him of any inclination to continue. This criticism was thus affording proof that – even in our enlightened times – a valuable suggestion may remain unexploited on the grounds of a preconceived opinion.

(ibid., p.51)

In addition to this limiting view of a highly acclaimed scientist, Altman also noted how self-experimentation had proved highly problematic for journal publications and institutions as it requires making anonymous the author of the self-experimentation. Accreditation of research is therefore impossible, and therefore the method was overruled as largely unworkable, in an academic context at least. However, there were work rounds and despite the very problematic nature and the status of self-experimentation, it still continues to be used as a research method²², specifically where no patients or subjects can be found, or where subjecting them to speculation, would prove unethical.

With an interest in this area developed from the project cited in the case study at Sanger and having secured a new residency working with Simon Gould, curator at the National Institute for Medical Research, in 2004 a research proposal called 'Lets Experiment with Ourselves' (White 2004) (V2.1.1) was submitted to the Wellcome

²² The Nobel Prize in Physiology or Medicine 2005 was awarded jointly to Barry J. Marshall, who conducted self-experimentation, and J. Robin Warren "for their discovery of the bacterium *Helicobacter pylori* and its role in gastritis and peptic ulcer disease" The Nobel Prize in Physiology or Medicine 2005. Available from: http://www.nobelprize.org/nobel_prizes/medicine/laureates/2005/ [Accessed July 3, 2012].

Trust peer review panel under the 'Experimental' Initiative. Having been turned down for the funding of a previous work; 'I Need to Know' (White 2002), the aim of this research was to explore the 'contestational' potential inside the enclosures of science. As a dimension of the critique of Critical Art Ensemble implied, a space in-between describes how self-experimentation could be used to form a productive link between decentred practices of art and science. The research question was framed thus,

What are the moral and ethical issues if the site for the intervention of art was intentionally developed both inside and outside of the human body? This is something White has referred to as the 'invasive aesthetic', a form that is both visible (as artefact) and invisible (as effect) on the body of the artist or scientist or viewer.

Application to the Wellcome Trust. Simon Gould and Neal White, 2004.

Configured as a correlative study of works of self-experimentation initially, the context and canon in which the 'art experiment' had been associated with groups such as Fluxus, would also be subjected to scrutiny in light of a more participatory interaction with the viewer²³. To frame this research as 'self-experimentation', early examples of event-driven forms were cited and researched, from inter-media or 'happenings' eschewed by 'fluxus' and proto-fluxus events (Filliou, Friedman, Kaprow, Maciunas, Ono²⁴) alongside work such as Vito Acconci 'Seed Bed'²⁵ (Sonnabend Gallery, New York 1972) and Marina Abramovic's 'Rest Energy'²⁶

²³ As cited by Craig Saper (Saper, 1998 p.138) whose interest in fluxus stems from his interest in the 'references to the pedagogical and experimental imperatives central to much Fluxus work., we see the role of experimentation within a laboratory context; *'The Fluxus laboratory is impossible to trace to a single origin. The group previously known as Fluxus can now function as a generalised systems theory that experiments with the structure of influence and socio-poetic links.'* (p.140). However, the laboratory is not necessarily singular or cut off from facts and values, but a social dimension was undoubtedly at play; *'The social project of the Fluxus laboratory involves disseminating knowledge. This is the social situation of learning. ... Fluxus work has no intrinsic value. The value of the work resides in the ideas it implies to the reader, the spectator and to other participants'*. Later drawing on Goffmans analysis of Happenings, Saper reads into a wide range of experimental practices and media, from fluxus film to the fluxus event, the epistemic value intrinsic to all the works; *'Reading interaction in terms of how these events (dis)organise and disseminate knowledge can help explain precisely the effects produced by the Fluxus laboratory.'*

²⁴ *'Ono sat on the stage and invited the audience to come up and cut away her clothing, covering her breasts with her hands as her garments fell away. Deconstructing the supposedly neutral subject/ object relationship between the viewer and the art object, Ono presented a situation in which the viewer implicated themselves in the potentially aggressive act of unveiling the passive body.'* Warr, T. The Artist's Body. Phaidon Press.

²⁵ *'In an otherwise empty gallery a ramp was constructed over the floor extending from the centre of the gallery to the back wall. During the times the work was activated, on Wednesdays and Saturdays during the exhibition, Acconci positioned himself in the confined space under the ramp and repeatedly masturbated, using the sound of visitors walking above him to fuel his sexual fantasies.'* (<http://www.tate.org.uk/art/artworks/acconci-seedbed-t13176/text-summary> - [Accessed August 9, 2012].

²⁶ *'Standing across from one another in slated position. Looking each other in the eye. I hold a bow and Ulay holds the string with the arrow pointing directly to my heart. Microphones attached to both hearts recording the increasing number of heartbeats.'* Abramovic (<http://www.medienkunstnetz.de/works/rest-energy/> [Accessed August 9, 2012]

(1960). In order to think through spatial practices and the laboratory space, the experiment as a performance spectacle, the legacy of media spectacle highlighted in Guy Debord's (1993) work with the Situationiste Internationale was used,

The spectacle obliterates the boundaries between self and the world by crushing the self-besieged by the presence-absence of the world. It also obliterates the boundaries between true and false by repressing all directly lived truth beneath the real presence of the falsehood maintained by the organisation of appearances.

(ibid. p.219).

The falsehood of an organisation of appearances resonated, and in considering how SI and others used a spatial resistance to the reification of abstract concepts of capital in psychogeography methods such as *détournement*²⁷, the research adopted a similar approach, to subvert the spectacle of performance in self-experimentation through embodiment of the experiment itself.

Whilst Yves Klein's work would undoubtedly fall neatly into Debord's definition of bourgeois spectacle, specifically his notorious performances using his trademark Yves Klein Blue paint (IKB) on live (*female*) subjects²⁸, in one aspect of a work entitled 'Le Vide' – (The Void: 1958) an unexplored dimension of self-experimentation presented itself. In a white room a seemingly empty space at Iris Clert Gallery in Paris (V2.1.1 Figure 1-3), Klein gave visitors to the Private View or '*vernissage*' a cocktail, prepared with the help of a scientist and the famous Parisian bar, La Coupole. Unbeknownst to the audience however, this cocktail had a remarkable affect; turning their urine blue. How long the urine remained blue was unknown, but in research of this event, a consequence of imagining the human body as a site for invisible spectacle developed during research at NIMR, considerations of whether it would be possible to remake such a project again and to test the results, were revisited.

The research led to the design of a live experiment with visitors able to take cocktails so that it might be possible to scientifically measure the effect of the cocktail.

²⁷ '*Détournement, the reuse of pre-existing artistic elements in a new ensemble, has been a constantly present tendency of the contemporary avant-garde, both before and since the formation of the SI. The two fundamental laws of détournement are the loss of importance of each detoured autonomous element — which may go so far as to completely lose its original sense — and at the same time the organization of another meaningful ensemble that confers on each element its new scope and effect.*' *Détournement as Negation and Prelude*. Situationiste Internationale 1959. (<http://library.nothingness.org/articles/SI/en/display/315> - [Accessed August 10, 2012]

²⁸ For example; *Anthropométrie de l'Époque bleue* (1960),

Performing the experiment on human subjects of course required a clinical trial. Working with Gould on finding a clinical pharmacologist to meticulously write up a clinical trial (See V2.1.1 D1), the experiment was proposed to the Ethics committee, but refused (See V2.1.1 D1). The grounds given by the committee led to an informal meeting with two anonymous members of this committee. Notwithstanding a looming review of the NIMR funding (the detrimental impact of such artistic activity on their aims as a pure research establishment), it emerged that there were no real clinical issues with the trial itself. It was suggested the project might work in an art gallery, where the members of the ethics committee considered the ethical or health and safety considerations as quite different.

Acceptance that the work was unlikely to have been nor should have been explored in the science laboratory (White 2006) (V2.1.1 D4), the opportunity to take the work into a gallery space allowed an exploration of the conditions of the spaces now designated for artist experimentation. In what followed, the link between the subject and the site provided the materials for an experiment in which a critical iterative research process was developed in each new installation/iteration. This was fuelled by an emerging set of questions that supplemented the original proposed question. Would it be possible to:

- 1) Conduct consensual self-experimentation in a gallery – with or without controls?
- 2) Ask an audience to consider self-experimentation in the light of rights and risks associated with the experiment?
- 3) To break the equivalent to what Brecht might consider as the four wall of the theatre, to shift the audience from spectator to that of a voluntary site of technological manipulation?

As an observer, captured within the performance (See V2.1.1 1-5 Various Figures), but removed from its participants, it was clear that the relationship of spectacle to performance and action was varied. In observations, it was noted on each occasion that the collective response to the control of space and how applied ethics were applied, could affect reception of the ethic limits. In the second iteration of the work at Barbican Gallery, London for ‘Colour After Klein’, a live guide/clinician and a specifically made publication ‘The Self Experimenter’ were made available to the

audience. The publication helped the audience to partake in the work and to provide information about the process. It informed the audience, whilst also providing useful ethical safety information. Other artists work, such as an interview on the colour of the void conducted with the British artist John Latham, or commissioned writing from Beagles and Ramsay and Kathrin Soldhju, provided further academic reflections on the work and limitations of self-experimentation (See V2.1.1 D2).

Positioning the body as an experimental site in this research project was to some extent successful, as it developed an enquiry that utilised some of Critical Art Ensemble's 'contestational' tactics. However, whilst the concern of Critical Art Ensemble focuses on the political domains of applied biotechnology, including genetic modification, the interest in 'invasive aesthetics' had by the third performance given way to matters beyond raising 'self-consciousness'. Concerns with a sense of folding the subject back into the performance and ethical space of the work led to questions of whether a process of self-transformation moved the discussion beyond achieving 'consciousness' about biotechnology and ethic limits, to a form of direct action, if on the self.

In a keynote, given at a workshop at the Max Planck Institute in Berlin, '*Introspective Self-Rapports. Shaping Ethical and Aesthetic Concepts, 1850–2006*' (White, 2005) (V2.1.1 D3), the appropriateness of techniques, and the dogmas and processes of scientific space and its regulation on 'the self' were explored. In this research and the artworks it produced as outputs, the consideration of how science operates at a range of scales, from the molecular to the institutional, is bound within questions of ethical performance that confounds the expectation of behaviours. In both the gallery context and within the regulated ethics of control in the laboratory, the research creates a new antagonistic space that challenges how and where we experience art, as well as the ethics associated with personal choice. These issues were picked up widely, later becoming part of a discussion by Critical Art Ensemble collaborator Beatriz Da Costa in 'Tactical Biotechnology' (Da Costa, B. & Philip, K., 2010 p.44),

Neal White, in his concept of invasive aesthetics, proposes to make the substance-absorbing body of the beholder into a site for art and asks: "Is it possible to create an object that has an immediate pathological/neurological/physical basis of impact for the viewer?"

3.2.2 Published Research Output 2:

Truth Serum

Before producing effects in the material realm (tools and objects), before producing itself by drawing nourishment from that realm, and before reproducing itself by generating other bodies, each living body is space and has its space; it produces itself in space and it also produces that space. This is a truly remarkable relationship: the body with the energies at its disposal, creates or produces its own space, conversely, the laws of space, which is to say the laws of discrimination in space, also govern the living body and the deployment of its energies.

Henri Lefebvre (1991 p.170-171)

Following a visit to NIMR by curator Jens Hauser and presentation of the work 'The Void' in Manchester (V2.1.1.1), further research was commissioned for a 2006-7 exhibition at FACT, Liverpool, that addressed some of the issues that surrounded the idea of 'invasive aesthetics'. Critical Art Ensemble's on-going interest in the currency of 'contestational' approaches had however by this time yielded unexpected and shocking results. In 2004, one year after we exhibited work together at the Natural History Museum in Cleanrooms, Steve Kurtz of Critical Art Ensemble was arrested and charged with bio-terrorism, a case that lasted for over four years.²⁹

Research for 'Sk-interfaces: exploding borders: creating membranes in art, technology and society,' (Hauser & FACT, 2008-9) led to two major installations, a paper by collaborator Nicolas Langlitz, and a lecture presented with Langlitz at FACT, as part of the Human Futures Conference (Langlitz and White, 2008). The research undertaken by Langlitz in 'The Psychopharmacology of Truthfulness' (V2.2. D1) links the concept of 'truth serums' with a history of use by the FBI and CIA and discusses this history in relation to the development of the installation in relation to the work of The Office of Experiments (V2.1.2).

The installation elements of this research were based around two major art experiments, distributed across institutions. As a longitudinal dissemination strategy in which the research method and output are conceived of as a multi-stage

²⁹ *Research is Not Terrorism*: Steve Kurtz 2005. The Arts Catalyst. Available from: http://www.artscatalyst.org/experiencelearning/detail/research_is_not_terrorism_steve_kurtz/ [Accessed April 18, 2013].

experiment,

On 29 March 2008, volunteers will be able to participate in the performative part of the Truth Serum installation in support of freedom from artistic censorship. In a central (and still secret) Liverpool location, participants will willingly submit themselves to a short psychological experiment based on substantiating Truth lasting around 10 minutes.

FACT announcement, 2008.

In order to introduce non-invasive psychological techniques that could help with the experimental elements of this research, an alter ego and cipher for The Office of Experiments was created, aka Randy (V2.1.2 Figure 3) Randy was a figure who, for the experiment, was played by many individuals, all adopting a single identity, anonymising the research facilitators. Therefore, throughout the work and the piece itself, Randy acted as a sign or symbol of fear and irrationality for the audience. Present in both the installation at FACT, Randy was based on illusionist and well-known skeptic, James Randi; 'James Randi has an international reputation as a magician and escape artist, but today he is best known as the world's most tireless investigator and demystifier of paranormal and pseudoscientific claims.'³⁰ His presence seemed resonant in respect of the truths about truth serums, and his presence was powerful in unnerving our participants.

The offsite experiment led volunteers through a series of interconnecting spaces, where they were held and informed of the process in a series of stages (V2.2.1.2.3 Figures 1- 4) that introduced them to key aspects of the experiment. They were informed that we were trialling Truth Serums, and that they would be able to join one of two groups; 1) Vino Vertias, 2) Placebo. The first required them to drink vodka shots, the second, to wear a plaster. A third group, they were informed, would be tested using a truth serum, Scopolamine. Used by the FBI and CIA, it would be administered through the skin on a patch behind the ear. Selected candidates known already to The Office of Experiments, including two curators, Simon Gould and Jens Hauser were included in this group.

Following further processing in front of some brainwashing videos performed by Randy, volunteers finally got to take part in the experience of a 'stroop test',

³⁰ Randy was created as a cipher for The Office of Experiments as the nemesis to James Randi, a former clown and magician famously used by Nature magazine to debunk the work of the scientist Jacques Benveniste.

performed by means of an automatic script projected onto a wall in an interrogation room (V2.2.1.2.5.5.2 Figures 1-10). Interviewees were told they only had the ability to respond TRUE or FALSE, and that questions would be timed in order to assess levels of truth – another untruth. The psychological model of a ‘stroop’ test is used to produce both relief and laughter in the participant. Videoed from behind, each response could be measured using visual symbols that appeared after the subject responded to pressing one of the two buttons (V2.2.1.2.5.5.1 Figures 1-6). Answers were compiled together in an edit of the research material that was presented as footage at the installation of Truth Serum at Casino in Luxembourg. With a guide to decoding the research for the audience, the research becomes an experiment in which this new audience draws on their own conclusions, should they choose. Utilising again a further space for watching those watching the experiment, The Office of Experiments (Langlitz and White) set up the experimental conditions as a space in which to give the audience the ability to evaluate the experiment as an ethical form themselves.

3.2.3 Reflecting on interdisciplinary modes of knowledge production

If we refer back to Kester's reference to Kwon's analysis of Critical Art Ensemble's objective to achieve 'critical consciousness', we might also use Critical Art Ensemble's approach to 'contestational' approaches to test the epistemic nature of artists' ideas. In particular, the research creates a link between how artists utilise and exchange ideas in terms of the knowledge they produce, particularly when it is perceived that there might be a role for this knowledge more widely in society, and the postmodern concept of experiments in the production of epistemic things.

The argument circuitously deals with the exploration of research spaces altogether, and how the need to deal with complex issues of moral space and knowledge enclosures might lead to what Giorgio Agamben (2005) has referred to as 'states of exception' being required. That is physical space or jurisdictions where normal legal human rights and ethical behaviour are suspended without consent of the subject. However, in the first instance, the published research operated against both two key contexts, that of 'art and science' and that of 'interdisciplinarity', as framed by institutional power. In this respect, a substantial shift occurred which indicates a relationship between knowledge and critical practice required to develop further antagonistic space. The evidence of this research effect and its contribution to knowledge is explored in a related paper in 2008, '*Logics of interdisciplinarity*'.

The authors of this paper, Barry, Born and Wesszkalnys, reported on an eighteen-month empirical study of initiatives into funding interdisciplinary research in the UK and internationally, a considerable part that includes an analysis of art and science initiatives³¹ including the work undertaken by the author at the Sanger Institute (2008). Drawing together a range of different interdisciplinary projects, including art and science projects, Barry, Born and Wesszkalnys's paper and analysis is useful in particular for its discussion of modes of knowledge production, drawn from Helga Nowotny, Peter Scott and Michael Gibbons' 'Re-Thinking Science' 2001. This model of Mode 1 and Mode 2 forms of knowledge production is also now being proposed as

³¹ The selected case studies included both university based centres (ACE, UC Irvine) and, for the UK, funding programmes (AHRC, Arts Council Research Fellowships and Wellcome Trust Sciart programme, of which 'Let's Experiment with Ourselves' was part). A further short case study was conducted at SymbioticA, a science-art lab at the University of Western Australia.

a method for designing artistic research too. The table below produced by Halina Dunin-Woyseth in ‘Some Notes on Mode 1 and Mode 2: adversaries or dialogue partners?’ is a comparison between Mode 1 and Mode 2 forms of knowledge production as useful in the design of future artistic research (2012, p.79).

Mode 1	Mode 2
a) Free Search for Knowledge	a) Politically defined research objectives, ecological considerations, holistic approach, economy, etc.
b) Search for basic causal relationship	b) Interest in methods in order to develop complex systems or processes
c) Ideas, methods, values and norms	c) Knowledge production carried out in the context of application and decided upon by academic community marked by its transience. Social accountability regarding what is considered sound research practice.
d) Emphasis on individual creativity	d) Emphasis on team-work, co-ordination
e) Continuous process	e) Time-limited projects
f) Quality control through internal criteria	f) Quality control with emphasis on context and user dependence of academic community ('peer review')
g) Hierarchical organisation forms and decision-making systems directed top-down	g) Network operating through information and communication technology in heterarchical relationships
h) Distribution of knowledge through the media: books, academic papers, journals, conferences, etc	h) Social distribution of knowledge: the diffusion of knowledge production and different contexts of application or use over a wide range of potential sites

In this configuration, we can see how differences are substantiated between causality and complexity; between ideas, methods and socially accepted norms of practice; between individuals and groups; through quality controls within local and institutional settings; between hierarchies and networks, through standard and non-standard modes of distribution. These modes are intended to provide a blueprint for research within the institutional context of the artistic researcher, implying in turn the need for interdisciplinary research.

Looking at the logic of ‘interdisciplinarity’ more deeply, Barry, Born and Weszkalnys also quite accurately pick up on a potential critical difference in approach as they

perceive it, one that coincides with the views of Hito Steyerl,

Two inflections of the discourse on interdisciplinarity are particularly apparent in these analyses and policy documents. The first portrays interdisciplinarity as offering new techniques for accountability or even as itself an index of accountability (Strathern, 2004). The second lays emphasis on the capacity of interdisciplinarity to assist in forging closer relations between scientific research and the business of innovation (Nowotny, 2005). In this way it is envisaged that science will be further integrated into the knowledge economy (Lowe & Phillipson, 2006; Strathern, 2006). In contrast, disciplinarity is associated with a defence of academic autonomy.

Barry, Born and Weszkalnys move on to characterise relations between research disciplines by providing accounts of the three logics; accountability, innovation and ontology. Further to these three logics, the argument moves to three logical modes that extend beyond the simple difference between disciplinary and interdisciplinary modes to enable what they describe as ‘sustained epistemic change’ (1994, Fuller cited in Barry et al., p. 1, 4).

The first of these logical modes is *integrative-synthesis* that largely depends on distinct disciplines - Mode 1 in the table above, adding to a final output that might lead to new questions that could not have been answered separately – as in Mode 2³². Barry et al claim that whilst the “*integrative mode can augur epistemic change, then, it does not guarantee it*”. The potential of working this way is explored in depth in the work of artists engaging with border objects, as described by Halpern and Wilson. As we have seen however, when a discipline is required to perform its act in a separate ethical or moral space, the level of uncertainty or engagement with risk that attracts many artists cannot work in the Mode 2 proposals. We must create new spaces.

In the second mode; *subordination-service*, what Foucault (1982) might describe as a ‘subject power’ relationship is established from within the institution, and the result is that one discipline is used in the service of the other, usually to fill in where there is a deficiency in that discipline. For many scientific institutions, who seem themselves as serviced clients, I argue they see artists as offering such a service, a creative and sometime prestigious means of communication. In terms of science engagement, the

³² An example of this would be the early work of Soda and the application ‘Sodaplay’ for which Soda received funding from the ESRC to work with Queen Mary University, applying research through neural networks (the author was involved in the early draft of this research, but not research itself).

term public engagement has increasingly been used to describe this kind of work. However, despite the findings presented here, it is debatable how far the commissioners of The Void, the Wellcome Trust, and also many Universities using public engagement models to disseminate scientific knowledge have moved beyond this – why would they? In many cases, any shift towards any further ontological inquiry is incredibly problematic to a scientifically self-defined culture.³³

In the last mode of interdisciplinarity, agonistic-antagonistic, the research already presented is most clearly defined. Here, Barry, Born and Wieszkalnys acknowledge that a boundary space cannot work because in this mode research *'springs from a self-conscious dialogue with, criticism of or opposition to the intellectual, ethical or political limits of established disciplines or the status of academic research in general, a transposition on the plane of the politics of knowledge of Mouffe's (2005) stress on antagonism as "constitutive of the political".'* (ibid., p.13). Further to this, the requirement for certainties, established within the thrust of the paper around areas of accountability and innovation are further problematized within interdisciplinarity, *'...instead, the field is contaminated by a series of troubling genealogies, notably certain conceptual art and art and technology movements, which proffer practices and objects that are incommensurable with disciplinary art or science.'*

In their final analysis, Barry, Born and Wieszkalnys identify interdisciplinary work as a mode of accountability and in some cases innovation, largely developed from the position of large funding bodies, foundations or research councils. However, they also recognise disciplinary forms of art and science are troubled by new genealogies. It is in this context of the shift between critical research undertaken in 'The Void' and that of 'Truth Serum' that we can understand that neither the 'experimental subject' nor the process of 'experimentation' as an approach has necessarily changed, the networked and social context of that experiment and that experimental subject as a figure in the research process has altered. In this respect, the critical reflections on this research mirror the 'troubled genealogy' description as the published research challenges not only the disciplinary development of knowledge, but describes the development of a new critical form of knowledge production. As Barry, Born and Wieszkalnys, citing Wilson, declare,

³³ See 'Pigs Wings project' in 'from *Mapping Interdisciplinarity*. Report of the survey element of the project 'Interdisciplinarity and Society: A Critical Comparative Study'.

There is a ferment of activity but as yet little codification; practice runs ahead of theory.

3.3 The Experimental Field: (V2. The Experimental Field)

The international debate on the relevance and valorization of academic research, the advent of transdisciplinary research programs, and the recognition of non-traditional forms of knowledge production (such as Mode 2) have all shown that the context of justification of academic research lies in both academia and society.

Borgdorff (2010, p.2)

In this further analysis of modes of knowledge production, the outside and the inside of the institution was challenged in relation to Mode 2 types of knowledge production through the published work 'Space on Earth Station'. Whilst it is marked in the previous section by the realisation that 'The Void' and 'Truth Serum' transgress the normative limits of institutional space, in having to be made outside of the enclosure of a research space, these become examples of work that also challenge or exceeded the limits of the academic and institutional sites, challenging the controls set up within the laboratory which protect the audience from risk associated with moral and ethical framework of institution, and instead establish a state of exception, a false suspension that runs counter to the experience of life. The criticism follows the argument extended by Critical Art Ensemble, but shifts from 'contestation' to agonistic/antagonistic as part of the troubled genealogy, relating to arts conceptual legacy, as described by Barry, Born and Wieszkalnys.

In the previous published research on the 'Experimental Subject', it has been established that the experimental site (laboratory) and the experimental subject (body as laboratory) could be transgressed as a space of production in art. As a model in which the experimental site (laboratory/body) can be considered as part of a localised research network (an experimental system / social setting), further implications were then developed towards the concept of the experimental in this critical research practice. Moving away from the body specifically, the research begins to consider how transgressions of the limits of established knowledge enclosures, their controls and spatial analogies might work at a number of different levels, from ethical procedures, to risk assessment and regulatory frameworks.

Using the conference introduction to the ‘The Shape of Experiment’ organised by Hans Jorg Rheinberger, Schmidgen and Kursell (2006) set the context of a new postmodern form of ‘experiment’, in which the social, technical, instrumental and institutional settings become significant,:

... the 'modern' kind of experimentation has been contrasted with "postmodern" forms of experiment. The former, it is argued, relied on clear-cut separations between laboratory and society, facts and values, nature and culture. In contrast, the latter manifests itself as a "socio-technological experiment" (Latour) with no boundaries, "carried out in real time and in the scale of 1:1," thus retrospectively changing our perspective on the seemingly modern form of experiment.³⁴

Schmidgen and Kursell (2006, p.4).

As it was published in 2006 on our website, this quote from the conference became the framing device for the development of social or networked forms of experiments, events and interventions that started to speak to the structural needs of art within the context of its own technologically and conceptually troubled genealogy. A critical research practice emerged that negates the idea of the individual as a creative genius, towards collective forms of artistic agency in research. The shift, it can be argued, pushes beyond what constitutes two types of knowledge, towards Borgdorff's recent analysis (2012) in which artistic research allows dialogical, conceptual and social experiments to take place, but from beyond the boundary of institutions and their enlightenment disciplines.

The critical period in which this thinking develops is explored in the published work, ‘Space on Earth Station’ (N55 and White, 2006) (V2.2.1). Here we see how to move the experiments of artistic research and its terms of reference in the ‘laboratory’ to one in which media arts interventions within science ‘heterotopic’ spaces are more generally critiqued. The development of such a research *structure*, which starts chronologically between ‘The Void’ and ‘Truth Serum’ (see Diagram in 0), explores the role of a more distributed model of intelligence in which the requirement for a socio-political context is utilised. Operating from the definition of a postmodern

³⁴ This paragraph was used to articulate The Office of Experiments approach to structural experiments on its website in 2006.

experiment, a networked socio-technical space producing knowledge on the scale of 1:1, the research aims to develop an open model of knowledge production, an experimental field which uses the model of a scientific enclosure, but reproduces it as an open, networked, accessible and participatory platform.

3.3.1 Space on Earth Station

In 2005, work started with the Danish architects' collective N55 on creating a semi-autonomous 'off-grid' research station, an experimental platform for an urban context. N55 had at this time established themselves as social architects, and were based in Copenhagen. Founded by artist, intellectual and social thinker, Ingvil Aårbakke (1970-2005) and architect and artist Ion Sørvin, N55 had quickly gained an international reputation for developing 'open' IP projects such as LAND, N55 ROCKET SYSTEM and N55 SPACEFRAME³⁵. These projects allow both themselves and others to build, create and live within new structures, micro-systems and micro-economical conditions in order to minimise impact on resources and maximise collective living.

Following a research visit to Copenhagen in 2005, the work of Peter Pearce 'Min a Max System', (Pearce, 1980) was identified by N55 as offering the most feasible modular approach to constructing the physical platform for Space on Earth Station (V2.2.1.1). Construction and development of research, including the establishment of The Office of Experiments, took place over an extended period of 18 months, and finally led to SOES being live for a number of weeks in late August–September 2006 (V2.2.1.2). This platform became a hybrid research environment; an experimental system that operated on a social scale, as a digital space (online platform) and in which physical projects and outputs within the social context of the venue, Camden Roundhouse and Kentish Town in London, were documented, communicated and announced (V2.2.1.3).

Unlike the hyper-controlled environment of the laboratory however, the artistic research process that was developed in working with N55 was an open processing model of artistic research experimentation, a social networked studio. Together, the authors were able to create not only an architectural space constructed in two countries (V2.2.1.3), but individual artists were commissioned as part of the research to develop experiments to test on this platform. These experiments (V2.2.1.2 Figures 1- 14) included solar ovens and DIY solar energy units (Marcus Ahlers), a digital hive network (Alexei Blinov), bird and bee habitats (White), vegetable growing and

³⁵ <http://www.n55.dk/MANUALS/Manuals.html>

guerrilla allotments (Alex Lockett), a nomadic research habitat (Kayle Brandon) as well as vehicular experiments, showers, washing and other domestic experimental facilities (N55). One unit of the SOES became a laboratory or workspace, other units for socialising, sleeping or cooking and preparing food (V2.2.1.3 Figures 11-13). These experiments fall in line with a vision that was in development by Ingvil Aårbakke in the text 'Space and Time'³⁶ prepared for 'The Self-Experimenter', a publication that appeared with 'The Void' at the Barbican Gallery in 2005 (V1.PM1 and V2.2.1.D1).

³⁶ SOES was a project that Ingvil did not see due to her death in 2005. See: Lock, C, Obituary: Ingvil Aarbakke | From the Guardian | The Guardian. Available from: <http://www.guardian.co.uk/news/2005/dec/02/guardianobituaries.artsobituaries> [April 4, 2013].

3.3.2 Establishing The Office of Experiments

Together with N55, the shift that was made between the space of the laboratory and that of the Space on Earth Station was a shared vision³⁷. Both critical of, and drawing from, scientific experimentation, Space on Earth Station was a project that had aimed to provide further critique of the historical legacy of Stewart Brand³⁸ whose involvement in Whole Earth Catalogue (1968-72) has been cited as one dimension of what later became termed the ‘Californian ideology’ by cyber theorists Barbrook and Cameron (1997). It was an inherent and implicit critical stance on the technophiles outlined in this critique, and a celebration of the origins of this movement.

The Whole Earth Catalogue was intended as an open publishing platform to support the ‘hippy’ communities focussed in and around the West Coast of California. It sold items such as seeds and agricultural tools, information on books about Buckminster Fuller and manuals on building homes, domes and dwellings for these communities. The general aim of the Space on Earth Station project was also to provide and publish a blue print for an experimental platform, to provide accessible physical and material space through which such utopian visions could be shared, and critically examined.

The Whole Earth Catalogue, which had developed into the WELL – the first online chat room [The Whole Earth Electronic Lexicon], and then Wired Magazine became, through Barbrook and Cameron’s reading of a ‘Californian Ideology’, a useful case study for reflections on the development of technologically determined knowledge exchange in alternative forms of research. Examining the earth-grounded vision of Buckminster Fuller (earth as a ‘mother-ship’), and the potential critical position in light of plans by NASA under President Bush to explore Mars, the shared approach of Office of Experiments and N55 own research instead questioned how, in cultural terms, society could justify expenditure for the ‘inter-planetary’ scientific research

³⁷ Ingvil Aarbakke, whose vision and energy helped us to put together the vision for this project, died in 2005: *“Prior to her death, Ingvil had already contributed to N55’s participation in the Space Soon project, in collaboration with Arts Catalyst, which is scheduled for the Camden Roundhouse next September. Based on the Micro Dwelling, it is called Space on Earth Station - a title that embodied much of Ingvil’s vision: the fascination with space, with the dynamics of the mobile and the static, and, above all, her sense that there may be very little that is “natural” about the way we live on this planet.”* Lock, C, Obituary: Ingvil Aarbakke. From the Guardian, [Accessed Dec 02, 2005].

³⁸ Turner provides an interesting commentary on the relationship between an early counter-cultural movement and the development of the California technology base in; Turner, F., 2006. From counterculture to cyberculture Stewart Brand, the Whole Earth Network, and the rise of digital utopianism, Chicago, Ill.; London: University of Chicago Press.

being proposed by the then US President Bush, when it needed to seriously examine sites of habitation due to immanent environmental degradation on our own planet. Our view was agonistic, and our collaboration integrated into a synthesis of aims.

The development of The Office of Experiments, which was founded during this period of research, also coincided with the author's growing interest in social forms of experimentation. This was brought to a head through the personal relationship with the British conceptual artist John Latham, who had a profound impact on conceptual art and process sculpture in the 1960s (Walker 1995). In a productive intellectual engagement until Latham's death in 2006, the ramifications of the artist's theoretical concerns with time as well as space were discussed through meetings and discussion, exploring the incidental role of the artist in society. This relationship, which led to the author's appointment as Director of O+I, the organisation founded by John Latham and Barbara Steveni after the collapse of the Artist Placement Group³⁹, was also critical in shaping The Office of Experiments, its ambitions and its practices. In particular, through research into Artist Placement Group, undertaken with Critical Practice at Chelsea, the author bridged a gap between N55 and the placement activity of artists associated with this group.

Claire Bishop has recently succinctly summarised Artist Placement Group legacy,

In sum, what needs to be appreciated today is APG's determination to provide a new post-studio framework for artistic production, to create opportunities for long-term, in-depth interdisciplinary research, to rethink the function of the exhibition, and to create an evaluative framework for both art and research that displaces any bureaucratic focus on immediate and tangible outcomes. Although these achievements are more discursive than affective—it's unlikely that they will ever prompt lay pulses to race—they are conceptual steps that anticipate broader changes in art and the economy since APG's peak of activity in the 1970s.

(2012, p.176)

Whilst Artist Placement Group are identified as one of the earliest artist groups engaging in social practices, by Kester (2004), Stimson and Sholette (2007) and Bishop (2012), it is nonetheless their ground-breaking series of placements in the UK inside national and private industries, government departments engaged with

³⁹ I have explored the relationship between time and social practice in the forthcoming chapter 'Epistemic Events' that will be published after the PhD is submitted (White 2013).

discursive / dialogical forms of exhibition that still causes artists to consider their own roles, and power in relation to other fields. The placements, developed among an international network with artists such as Joseph Beuys in Germany, have however also been cited by Bishop and others as leading toward the political state adoption, particularly by New Labour in the UK (1997-2010) of a creative rhetoric of social and public good (recently explored in a retrospective: *Artist and the Individual*, Raven Row, London⁴⁰). As explored by Andy Hewitt, a member of Freee in ‘Art and counter-publics in Third Way cultural policy’ (Hewitt 2012), this approach was a result of what Hewitt describes as Habermas's concerns with the ‘*debased*’ *public sphere*’ that ‘*characterizes what he [Habermas] sees as the process of the professionalization of politics and the commercialization of the press and with it the loss of spaces for critical public deliberation.*’

(ibid., p.17).

Working alongside O+I, led by Barbara Steveni, who had built up a considerable network of politically active supporters, the author was introduced to a number of different collective practices, including Platform and Public Works. Amongst the international artist-led organisations and groups keen to align themselves with O+I was Jakob Jakobsen of Copenhagen Free University⁴¹ (Copenhagen Free University: 2001-2007). Copenhagen Free University was cited as an example of a ‘pseudo-institution’ by Maria Lind of (Lind 2007) as part of her description of new waves of ‘institutional critique’. Although it can be argued that Copenhagen Free University was actually more a marginal organisation that drew upon the re-emergence of the ‘free university’ movement, directly challenging the concept of the artist role in the emergent ‘knowledge economy’, as outlined by Cox et al., rather than operating as academics, Copenhagen Free University had conceived of itself as having a semi-institutional form, with multiple functions which included meetings, publications and a TV station – TV-TV. In a 2011 statement defending the writ by the Danish Ministry of Science, Technology and Development to stop self-organising groups use of the name ‘University’, Copenhagen Free University put out a public statement declaring itself as, ‘*an attempt to reinvigorate the emancipatory aspect of research and*

⁴⁰ *The Individual and the Organisation: Artist Placement Group 1966–79*, Raven Row, London. 27 September to 16 December 2012

⁴¹ Jakob Jakbsen worked with Henrietta Hiesse on CFU, with ‘students’ including Howard Slater, Anthony Davies and Emma Hedditch.

learning, in the midst of an ongoing economisation of all knowledge production in society' (2011). Along with figures such as Saul Albert, who was involved with the online project, The University of Openness⁴², it was clear that the platforms and outputs of such pedagogic experiments meant that the role of the artist and their engagement with networked technologies seemed to be playing an import role in a renegotiation between the pedagogic role of the institution in the new knowledge economy, and the need or desire to establish autonomy in any potential new institutions.

Through an informal study of the positioning of groups such as N55, Artist Placement Group, O+I and the Copenhagen Free University, The Office of Experiments was established as a collective or collaborative institution whose aim would be to engage in reflective dialogue with critical and social engagements in cultural production. In this respect, it was useful to consider what Gerald Raunig describes as 'an instituent' approach,

What is needed, therefore, are practices that conduct radical social criticism, yet which do not fancy themselves in an imagined distance to institutions; at the same time, practices that are self-critical and yet do not cling to their own involvement, their complicity, their imprisoned existence in the art field, their fixation on institutions and the institution, their own being-institution. Instituent practices that conjoin the advantages of both 'generations' of institutional critique, thus exercising both forms of parrhesia, will impel a linking of social criticism, institutional critique and self-criticism.

Raunig (2005).

Whilst Kester and Bishop both examine the legacy Artist Placement Group⁴³ in terms of its methodological co-option into what Hewitt describes as the 'Third Way' – that is institutional practices, within regular meetings of O+I, the board reflected deeply on the practicalities of this legacy and what the future of Artist Placement Group and O+I might deliver in terms of values for future generations. As discussed in relation to the criticisms from artistic positions in relation to capital and its related institutions, outlined by figures such as Gustav Metzger and Stuart Brisley, and addressing the need to recognise both legacy issues and to pull in and interrogate key party political

⁴² The University of Openness is a self-institution for independent research, collaboration and learning. Available from: http://p2pfoundation.net/University_of_Openness [Accessed June 1, 2012].

⁴³ This experience is at odds with Grant Kester's (2010) and Claire Bishops' (2012) analysis of their practice that places them in the context of the community art of which they are so critical.

positions (particularly through Barbara Steveni's close relationship with Labour politician Tony Benn), it was felt that there was a need to highlight the impact of Artist Placement Group and O+I in relation to the artistic/negotiation role in the 'placement strategy'⁴⁴, as well as the underlying role of Latham and his conceptual work on time. Beyond the UK national organisations such as Platform and Public Works, other International groups all approached the board of O+I to state their shared legacy, and so it was clear for the need to clarify the broader position maintained by Artist Placement Group around their 'values'.

⁴⁴ One of the three modes of APGs operations (social engagement, artist placement, theoretical development) as described by Peter Eeley in 'Context is Half the Work' (Eeley, 2007). As outlined in my own talk, 'Archives and Events' given at Tate Britain in 2007.

3.4 The Overt Research Project (V2. Office of Experiments)

In this section, an account is given of research in which the lessons drawn from groups such as the Artist Placement Group, Critical Art Ensemble and then the Center for Land Use Interpretation, are further developed in respect of the on-going and developing research methodologies of The Office of Experiments. In particular, this development marks a shift of operational methods of the artistic research practice, the subject of study and its outputs, a shift defined by the work undertaken alongside in particular, geographers, researchers, activists and artists, whose critical concerns have shaped the spatio-temporal dimensions of the emerging critical practice.

Between 2003-7, working as an artist and teaching ‘Interactive Media; theory and practice’ on an MA at Ravensbourne College of Art and Design, it was evident that many artists were trying to relate to the emerging scale of the network through new technologies that directly operated as a product of new Geo Information Services - GIS based systems, being made available through everyday technologies – particularly mobile phones. In this emerging area, and using De Certeau’s (2011) reflections on the practices of everyday life (or the subversions of everyday technology to examine the subversion of everyday things), the ideas open for discussion included the affordances that spatial dimensions that these technologies and their reliant technological network gave artists.

Drew Hemment in his paper ‘Locative Arts’ for Leonardo (2004) extends through Deleuze and Guatarri’s concept of the rhizomatic network, an analysis of digitally mediated art works. In spatial terms, mainly through mobile technologies, Hemment proposes categories for media works that include; 1) Graffiti, Narrative, Gaming, 2) Ambulant, 3) Interpretive, Explanatory. 4) Expressive, Generative and 5) Social, Relational (2004, p 349). Yet while Hemment recognises that *‘Locative art’s focus on networking, authoring and accessing creative content within the environment offers the chance to take art out of the galleries and off the Screen’* (p.351) along with other art agencies keen to latch onto a new technology (e.g. Blast Theory), their technophilia meant they were blinded as critical practitioners. As Brian Holmes frames it in *Drifting Through the Grid: Psychogeography and Imperial Infrastructure*,

All too often in contemporary society, aesthetics is politics as décor . . . the aesthetic form of the *dérive* is everywhere. But so is the hyper-rationalist grid of Imperial infrastructure. And the questions of social subversion and psychic deconditioning are wide open, unanswered, seemingly lost to our minds, in an era when civil society has been integrated to the military architecture of digital media.

(2010)

Between 2008-12, The Office of Experiments engaged in research adopting methods used to visualise, map and intervene within the networks and complex environments of research spaces in the UK as they are connected to, or were linked to global knowledge systems, or as Brian Homes would put it, as ‘has been integrated to the military architecture of digital media’. In particular, the Overt Research Project was developed as a meta-research project, incorporating a novel research method that in turn led to a large number of outputs conducted over an extended period. For example, in ‘A Field User's Guide to 'Dark Places' - South Edition’ (White et al 2008)(v2.3.3) the critical research practice begins to identify spaces and locations which then formed the central resource for an exhibition 'Dark Places' (Foster et al 2009) (v2.3.4). The exhibition included commissions for a number of selected artists, including former Critical Art Ensemble collaborator Beatriz da Costa (v2.3.4 Figures 4-7), the artist Victoria Halford and writer Steve Beard (v2.3.4 Figures 3-4), and Steve Rowell (v2.3.4 Figures 9-11), a programme manager for the Center for Land Use Interpretation. In addition, a standalone archive - Tales from the ARC. Extracts from the Mike Kenner Archive (v2.3.4 Figure 8 and (v2.3.5) was developed under The Office of Experiments' name by the author. A number of field-based outputs, or spatio-temporal tours as Center For Land Use Interpretation would put it, have since taken place using the term ‘*Critical Excursion*’ (v2.3.6.1-3). Otherwise known as bus tours, they include; ‘The Cold War Legacy in the South - Secrecy and Technology bus tour’ (Rowell and White 2010), 'A One Day Field Guide to The Secrets of Portland' (White 2011), and 'Experimental Ruins' (White 2012) (v2.3.6). In an approach that brings the public in to contact with geographical sites of interest through bus tours, as well as connecting them with experimental field research methods and embedding media as spatially and event-driven content – this approach has been arguably widely discussed and reviewed (v2.3.6). This is one of a number of concrete examples of ‘epistemic things’ or research processes adapted from

experimental systems developed by other emergent institutions, in this case the Center for Land Use Interpretation.

The Center for Land Use Interpretation, a post-institutional and ‘nondisciplinary’ knowledge institution (concerning no academic discipline), unlike Critical Art Ensemble, has never positioned itself in relation to the political or critical spaces of knowledge production but instead, has always developed and disseminated research that provides a neutral interpretive presentation of displays in and around the US. As Ralph Rugoff states in his essay ‘Circling the Center’ (2006), in their use of language, presentation modes and displays, Center for Land Use Interpretation has always seemed to remain apolitical or un-critical in their interpretive positions,

... its programs – as far as I can discern – reveal no overt or even implicit political or social agendas. Indeed, whether documenting nuclear proving grounds or the architecture of show caves (subterranean caves that have been decorated and turned into tourist attractions), its exhibitions and publications are always disarmingly – at times, almost unnervingly – free of any editorial viewpoint. (ibid., p.37)

Within the politically charged rhetoric of the psychogeography techniques developed by the Situationiste Internationale in the 1960’s or the placement of artists within institutions such as Artist Placement Group through to 1989, the Center for Land Use Interpretation’s own rhetorical position has been to appear to remain independent and neutral of political positioning. Instead, the mode of their declared ‘nondisciplinary’ research was the extrapolation of a concept developed from cybernetic theory, by the artist Robert Smithson. The idea of ‘entropy’ was key to this work, the same Land Art that in fact Rosalind Krauss used pivotally in her essay on ‘Sculpture in the Expanded Field’ (Krauss 1972). Acknowledging this idea, the Center for Land Use Interpretation points to their own temporal and geomorphological dimensions and their research subject, that of ‘Land Use in all its forms and practices in the USA’ as a legacy of these interests. In fact, the logical development of Krauss argument, is that the Center for Land Use Interpretation, through the application of visual and documentary methods to architecture and landscape through photography and geography, have also created art across an expanded field of disciplines as well as landscapes. The question of their neutrality is also open to its own interpretation, as in presenting the work as facts, we can see how the ‘Oil Fields of Texas’ as a display draws on two sides of an argument, but is in fact undeniable in its scale or presence.

3.4.1 The Overt Research Project

Much work in Geography and STS⁴⁵ is premised on methods that follow actors into the spaces of knowledge production. This seminar explores the limits to these models of openness, through charting the complex performance of transparency and secrecy in different commercial, military and state contexts, considering the difference such spatialities make to the practices of science.

Anon. Locating Technoscience: Spaces of Secrecy and Transparency

University of Sussex (29th March 2007).

Lying at the heart of this Introduction to ESRC event, Locating Technoscience: Spaces of Secrecy and Transparency is the problem of gaining access to knowledge space. In the first pass of listing and researching likely sites of knowledge spaces for the Overt Research Project, it was clear the degree to which the knowledge economy, beyond clinical research, was grounded in relationships between the techno-scientific and military industrial complexes, mixed along with elements of the HE sector. Fiercely guarding not only their intellectual property, but the nature of the research ethics that governed some of their sites, many of the subjects or sites of interest were shrouded by a secretive impulse to conceal the operation, logistical and infrastructural activity. This led the Principal and Co-Investigator, White and Rowell, to borrow from the ordering principle of a logical military architecture of digital media, to create a turn through the research in which a specific taxonomy for classifying such spaces, at varying levels of transparency, with different kinds of permissions and rights required, could be applied.

In building a resource, an online drupal database, certain relationship between the physical and digital operations, such as the importance of the layers of permissions, became more than a metaphor of the technologies of the network. In this respect the database would link with not only 'official information' given out by the sites in which we had interest, but could also generate alternative and non-factual views, of the kind found in conspiracy sites. Our strategy for critical engagement was therefore to develop a number of key lines of inquiry; firstly to identify and document as far as possible in person, the factual, logistical and geophysical nature of sites, but secondly,

⁴⁵ Science and Technology Studies

to research and disseminate the social imaginary of what these places represent, and in this respect, the secretive nature of some of their activities,

Secrecy,..., is wildly productive; it creates not only hierarchies of power and repression, but also unpredictable social effects, including new kinds of desire, fantasy, paranoia and - above all - gossip.

Balmer, citing Masco (2007).

The Overt Research Project was at the heart of curating methodology for the exhibition 'Dark Places' a method that drew upon the Center For Land Use Interpretation's methodology of documenting and interpreting sites of interest. Whilst the natural environment of the US landscape had certainly shaped their own work, the scale and dimensions of space in what is huge continental landmass, and the quality of light and quantity of resources for use in its displays and presentations, in the UK, the density of the country, relevant sites and relationship between public and the landscape were culturally and physically poles apart.

Without scale to play with, how did the UK approach putting a test site or military facility beyond reach or range of the public? It would certainly need to be completely different from sites such as Dugway Proving Ground⁴⁶ in Utah, where Office of Experiments had compiled reports (White 2009)⁴⁷. What our research uncovered were the covert methods to conceal in plain sight, to create geomorphological barriers (man-made), to regulate zones, signage, roadways or simply to enforce the Official Secrets Act or related byelaws around sites. To document and explore this phenomena, an experimental set of research methods were needed that would respond to a very different context in the UK landscape.

Having spelled out its general aims, the initial phase of the Overt Research Project was articulated:

⁴⁶ The author had developed an experimental research on the fringe of Dugway Proving Ground . A report for Office of Experiments based on Smithson's writing 'Minus Twelve' was featured in Catalogue of: "VOIDS: A Retrospective". Feb 2009; The Pompidou Centre, Kunsthalle, Bern, 2009. See Voids: A Retrospective: Centre Pompidou, Kunsthalle Bern, Centre Pompidou-Metz., Zurich; Geneva; Paris; New York: JRP/Ringier; in collaboration with Ecart; in co-edition with Éditions du Centre Pompidou and Centre Pompidou-Metz; D.A.P. [distributor].

1. To produce a geo-mapped UK collection of exceptional ongoing experimental research, environments, spaces and facilities linked to interpretive materials (physical and digital media, found and collected artefacts, retrieved experiences and recollections, rumour and conspiracy).
2. To undertake ‘overt’ research, as an open method which will include visual and audio collection, non-standard approaches to field research, oral history gathering and co-operation with social and networked groups ranging from artists to enthusiasts (amateur groups).
3. To create an ‘open’ depository for other ‘overt’ research in the form of intelligence or interpretive material from future or existing artistic and alternative research material and projects that already fall in line with the aims of the research project (all information on works to be made available through Creative Commons licenses).
4. To develop a dynamic and flexible system for categorisation of materials and facilities.

The logic of the research method was tested and developed in the field and involved months of desk-based research and work studying existing amateur independent and official sources of information. Careful reflection of the approach was undertaken as documentation was made and the technical build of our drupal website was developed by our new technical administrator, Lisa Haskell (V2.3.3 Figures 1-9). Working closely with Steve Rowell, adapted methods for approaching a range of sites were honed, pointing to the subversive logic of an Overt Research Method in which high visibility shirts and nametags were clearly displayed as we approached (V2.3.3 Figure 10). Always careful to adhere to the law, and in order to guide future participants, the research did not aim to uncover or make visible classified information or secrets, but was aimed to develop experimental encounters with a landscape apparent, but unknown, to the public.

3.4.2 The Autonomous Research Collection

Initial research for the Overt Research Project included the site of Porton Down, or DSTL Porton Down as it is now known (Defence Science and Technology Laboratory - an agency of the Ministry of Defence and formerly part of Defence Evaluation and Research Agency [DERA]). Despite being over 7000 acres, and operating in plain sight near to Salisbury, it was clear that it had also become a remote site, removed from view by the manipulation of its own sight lines. With its scientific reputation for research of Biochemical warfare, a long historic record dating from World War 2, this site lives large in the public imagination and is often described in terms of its secretive work. Undertaking research around Porton Down was therefore sensitive, and in thinking how to best approach the site on the ground, SSdesk research was made at the MOD website, which contains limited information, but features enterprise initiatives such as Ploughshare Innovations, a private company occupying the site.

After following a string of emails and posts purporting to reveal the truth behind Porton Down, the trail eventually led to a figure called Mike Kenner. Mike Kenner's online identity had been appearing on sites and searches, and some of the material he was making available was clearly well sourced and significant. In order to explore what Kenner knew, he was approached for an informal interview. At first hesitant to meet, Kenner later spoke at length of the significant amount of attention being paid to him by Special Branch. His reticence, it seems, was well founded.

The documented encounter with Mike Kenner has been pivotal to Office of Experiments work, and in many discussions since, helped in thinking through new experimental research methods and resources since it gives forethought to what is at stake in gaining access to knowledge from within established institutions in the UK (V2.3.5). This is attributable to Kenner. In the first meeting, Kenner revealed that for over thirty years, he had campaigned vigorously with requests sent to Porton Down about their work using early and later versions of the FOI Act (Freedom of Information). During this period, Kenner amassed highly detailed documentation of many research experiments at Porton Down, as well as documentation of other sensitive research establishments. This documentation collated by Kenner contained

photographs, de-classified, and former restricted, secret and top-secret documents, Cabinet Office and official correspondence, experimental data, images, diagrams, analysis, video, photographs and newspaper cuttings etc. (See V2.3.5).

Many of the highlighted experiments that took place at Porton Down had a significant impact in the region of Weymouth in the UK, and indicated that experiments were being conducted on the public using live pathogens, largely around Lyme Bay, near Portland in Dorset. Far from being historic research alone, Kenner was keen to point to the fact that some of these experiments could well be on-going scientific trials, continuing to this day. Kenner claimed the authorities refused to deny this is the case, to this day, a view supported by reports in The Guardian Newspaper (Barnett 2002, Evans 2006).

What was fascinating about this work is that having shone a light into what we referred to as a 'dark place' for the exhibition, it was also clear a long shadow had been cast back upon Mike Kenner. Kenner unwittingly and without agreement, found himself an official historian of the unofficial story of Porton Down's activities. This meant, that if an awkward enquiry was made of Porton Down, such as to ask questions around these experiments, particularly those that Kenner has unearthed or that have been publicised in the media, Porton Down staff will now forward enquirers to Mike Kenner, without his prior consent.

Mike Kenner is a conscientious and diligent researcher, and this could be recognition of this work, based on facts and not conspiracy as he has stated on many occasions. It is credit to his work that he has always been careful to follow the letter of the law. However, it is in this sense that Mike Kenner feels uncomfortable about how his work has been drawn into the machine he resists, how he has become part of the system that he has sought to uncover. The critical question for the researcher has shifted- does this legitimisation of his work in terms of the institution of Porton Down make it appear more authoritative and therefore less critical?

In considering Kenner's archive, and how it might relate to the site for the exhibition, it was clear that the differences between the closed and open, overt and covert modes of operation were essential. In terms of the research, there was only one logical thing to do, to make as much of Kenner's archive available to the public as possible, for

further public scrutiny, to open this information in order to allow direct and unfettered access. In the months following the initial meeting, Office of Experiments employed Ross Robertson, an intern at the Arts Catalyst, to catalogue the thousands and thousands of documents that Kenner had digitised. Having identified key materials, these were duplicated, printed out and appropriate permissions sorted. (V2.3.5.2). In addition to its inclusion in the exhibition 'Dark Places' some of the material from the Mike Kenner Archive was shown at UCL (V2.3.5.1), at Lancaster University (V2.3.5.3), and in The Redactor, printed and published for Apexart in New York (White 2010)(V1.PM2 and V2.3.5.4).

The documents that have been displayed in some cases highlight specific experiments that were conducted at Porton Down on military personnel, as well as important pathogen experiments in and around Lyme Bay, Weymouth. Maps indicating the spread and distribution of spray experiments can also be accessed alongside documents evaluating risks to public safety of these experiments. Formerly classified documents, alongside news and media stories, are testament to the interpretation within the materials themselves. Several films and declassified Crown documents are in the collection.

Having acquired the Mike Kenner archive in its digitised form and having spoken about it many times, it has become clear the role that independent and autonomous researchers, activists and lone campaigners can play in shaping culture and society. In recognition of the omission of this material from any major archives, or major or established institutions, The Office of Experiments has decided to establish its own institutional resource – the Autonomous Researcher Collection. Whilst it still only contains one substantial archive, The Office of Experiments aim has been to join with others in creating a resource for the preservation of such material that it considers an essential part of our cultural, political and social history. In this way, the involvement of artists within critical research practices not only become agonistic to institutions, but also can become engaged in the establishment of new formats and distribution platforms, operating programmes and projects that lead to critical insights and the development of new knowledge both within and external to the University.

3.4.3 Exploring the Social Imaginary

Looking for the edges of the experimental in her Editorial for *Geoforum* entitled 'Where do Experiments End' (Davis 2010), Dr Gail Davis interrogates not only the legacy of Peter Galison's 'When do Experiments End' but her personal participation in 'The Cold War Legacy in the South - Secrecy and Technology' bus tour, one of The Office of Experiments 'Critical Excursions' (spatio-temporal mediated bus-tours) (V2.3.6.1). In this format, the participant in the tour is given a brief outline of the day before being taken to a range of sites and spaces to which they would not normally have access. Throughout the period of a tour (which can last up to 8 hours), the participant is referred to as an *experimenter*; as both subjects and observers of the experiment. The 'experimenter' does more than experience the landscape as it blurs past their window⁴⁸, but instead encounters a continual flow of information, from films and audio, to interpretive narrative concerning both the specifics of the sites they have seen and the interpretive material that it gives rise. As Davies ends her editorial,

The stage is set. The 'Overt Research Project' encourages us to put our sites, our experiences, our enthusiasms and our collectivities on-line and on the line. Perhaps we are all multi-sited ethnographers now (Marcus, 1995). In science, social science, art and politics, the boundaries between methodologies of inquiry blur, there is no easy endpoint, rather a continuing process of reactive, iterative and generative experimentation (Thrift, 2008). The question remains open. Where does the experiment end? (ibid., p.670)

Using Brian Balmers observation on the productivity of secrecy as a cue for what information to relinquish, the experimenters are given access to archival footage, declassified films, conspiracy theories and information films. They enter down abandoned nuclear bunkers (ROC observation points – Boscombe Down) (V2.3.6.1 Figures 4-6), take lunch at the Department of Homeland Security (International School of Explosives Education) (V2.3.6.1 Figure 7) or are waived through armed guards to explore military museums (Signals Museum, Blandford Camp) (V2.3.6.1 Figures 4-6). Experimenters are given out information and guidance on photographing

⁴⁸ The thinking that led to the development of this format also derives from my MA Dissertation in Digital Arts in 1997. The thesis explores space using Marc Augé's work on 'Non-Places' (1995), Sherry Turkle's 'Life on the Screen' (1997), and Virillio's analysis of speed and information, linked together through to the historical work that Schivelbusch (1986) undertook into railways and the collapse of space. Views from the window of the computer screen were argued as similar to the way in which space was initially perceived through a railway carriage window, collapsing space between points as well as confusing our sense of near and far with proximity to the window being a blur, and only the horizon remaining in focus. (1986).

these sites, the laws and bye-laws which surround them, the points of clarification needed if they are stopped. Once they have taken part in one of Office of Experiments' tours, they too have passed through a permissions process and are now able to upload data or submit materials for the publications or database. Office of Experiments has since conducted two further critical excursions, 'One Day Field Guide to The Secrets of Portland' 14th May 2011 and 'Experimental Ruins', September 2012, both of which are documented in V2. The Office of Experiments / ORP / Critical Excursions. Each of these tours is undertaken following months of research, both at sites in the field, utilising independent archives, in correspondence with others, including interviews with experts and enthusiasts.

Working together with Rowell, the bus tour was adapted from Center for Land Use Interpretation's own versions of such spatio-temporal events, such as 'Flight Patterns: Picturing the Pacific Rim' (2001)⁴⁹ and initially devised as part of the educational activity for 'Dark Places'. However, in numerous versions since, integrated with the Overt Research Project, the format became a key experimental research method allowing for engagements with real and symbolic space in an 'experimental encounter' (Davies 2010) which attempts to bridge our experiences of space between these two points. Art here is clearly operating in the expanded field of many disciplines, not least research. However, unlike the neutral voice in which Rogoff has typified the work of Center for Land Use Interpretation, the work of Office of Experiments is positioned in relation to critical research practices, forms of social engagement developed through the participatory and experimental nature of its tours. The approach of Office of Experiments brings together both *epistemic things* and *artistic things* within networked experimental systems in which the exchange of information is critical, not only to academic communities, but to the epistemic impulses of its audiences.

⁴⁹ The Office of Experiments worked with Steve Rowell on the development of the bus tours. These were based on versions such as Flight Patterns: Picturing the Pacific Rim exhibit at the Museum of Contemporary Art in Los Angeles in 2001. 'The tours, performed in January and February, 2001, were the usual all-day tours, with a full video complement, local briefers, and occasional stops. The buses left from the museum's Geffen Contemporary building near Downtown Los Angeles, where a CLUI Mobile Exhibit Unit, featuring an exhibit about the desert and the CLUI's new Desert Research Station, could be viewed before boarding the bus. Handouts were given to each of the tourists on board (both tours sold-out, so we had full buses each time), which contained information about the region we'd be travelling through and some of the sites we'd be looking at. Once en route, the interpretive spiel began, with CLUI tour coordinator Matthew Coolidge'. The Center for Land Use Interpretation. Available from: <http://www.clui.org/newsletter/spring-summer-2001/more-clui-bus-tours-desert> [Accessed July 3, 2013].

4 Conclusion

4.1 Experimental Systems and Epistemic Things

... it is the hallmark of productive experimental systems that their differential reproduction leads to events that may induce major shifts in perspective within or even beyond their confines. In a way, they proceed by continually deconstructing their own perspective. Experimental systems in fact, do not and cannot tell their story in advance.

Hans Jorg Rheinber. *Epistemic Things: Synthesizing Proteins in the Test Tube* (1997, p36).

Soda achieved its most exciting and interesting projects through close collaboration between its members and with external partners, including other artists, scientists and technologists. After leaving Soda in 2002, it became clear from the author's personal and singular attempts to work as an artist within the enclosures of other disciplines (0), that only through working in collaborative or collective practices was a more even playing field possible. In establishing The Office of Experiments, an umbrella group or network of collaborators that would recognise all of its members within its projects, this distribution of power towards a more socially constructed or open approach to research and co-production might have critical potential. Collective research from individual academics, autonomous archivists, artistic research practitioners etc. requires these actors in the network to recognise the social nature of such an endeavour. As Rheinberger states, 'by transforming the psychological space of discovery into a space of experimental manipulation we also transcend the ideal of a creative genius, of a free play of individual mental faculties, bent and domesticated only by the stringency of their own performance.' (p. 47)

Introducing individuals into The Office of Experiments practice meant relying heavily on Rheinberger's reading of the postmodern experiment, as is drawn from his work on *experimental systems* as described in 'Epistemic Things' (ibid). Rheinberger analysis of 'experimental systems' that includes identifying the 'local, technical, instrumental, institutional, social and epistemic aspects' (p38) helped to describe the rationale for the development of research structures and the related use and production of 'epistemic things'. In this respect 'epistemic things' are not simply the technical apparatus or the ideas being tested in an experimental system, but sometimes confusingly, are potentially either or both, depending on where they lie in

the network. As Rheinberger argues, experimental systems give rise to new knowledge within the context of the social dimensions of an experiment – and here social is akin to the description of a material – like ‘woolly’ is to wool (Latour). Whilst utilising the metaphor familiar to artists working with technology, that of nodes and networks, here too The Office of Experiments has had to pay close attention to the ‘actor’ in the research network, an actor being someone or something that comprises of both human and technological objects (in this respect actor refers not to human actors alone, but also the material objects, machines, graphs, reports, funding etc., they relate to).

In relation to projects described in section one ‘The Experimental Subject’ (0), the projects discussed in ‘The Void / Let's Experiment with Ourselves’, we can see how this approach developed in the research as the subject becomes what Rheinberger describes as the ‘technical apparatus’ of the experiment; a site for the observation of change. In this sense the apparatus is embodied. Self-transformation is visible only to the self-experimenter who takes part in the research – and they are the only witness to the research data - the blue ‘pee’. In this case, the boundaries of the experimental environment as the physical site of a *research structure or output* challenge the progression of the experiments in their ethical settings. However, this singular, embodied experiment needed further reflection to develop a form of experiment that had a more social or societal context – an experimental system.

Rheinberger's observations of experimental system includes an analysis of the ‘*local, technical, instrumental, institutional, social and epistemic aspects*’ (p38), operational dimensions of the research that became increasingly present in the subject of the research itself. With the development of Space on Earth Station, it is in fact the very social dimensions of the platform as a collaborative and social experiment that become both the ‘technical apparatus’ and the ‘epistemic thing’ of interest. This is research conducted in a specific time-frame, which included living on the SOES itself, whilst installed at Camden Roundhouse, enabling different models for research and development to be tested. Space on Earth Station (0) was an open model for research development.

In this respect, the apprehension of knowledge described in the experimental system and Stephen Scriveners definitions of ‘novel intuition’, described in terms of artists

utilising their intuitive or tacit knowledge to apprehend the direction for the search for knowledge can be compared. Here, the research questions, which in turn help the researcher to organise and develop practice-based approaches (Scrivener 2011) that draw parallels between the role of the scientist who tinkers with experimental systems in science, and the artist who coordinates and develops collective experimental systems. As such, we see how Space on Earth Station is more of a system than an experimental platform, and how through an informed *sense of attentiveness* to our research materials, in this case the actors which are both human and technical, we can also apply this knowledge across space and the epistemic context of ‘unpredicted’ events – whether in the studio or the field.

4.1.1 The Epistemic Impulse

To whom then is this research addressed? This critical question frames a range of academic discussion concerning the appropriateness of artistic research methods from the subjective nature of knowledge, to differences between explicit and tacit knowledge (Biggs 2005), the role of creative and problem solving research (Scrivener 2005), as well as the validation of research defined in experimental practices. In this respect the question defines the academic description of the research user as one normally inside the academic area. i.e. present as peers, at conferences, as other artistic researchers, or as academics etc. However, in relation to the marginal, counter or parallel institutions of interest here, and the knowledge being produced, this audience is defined along different lines.

In the on-going concern for the role of the audience engaging in the art as research, specifically the published outputs which are presented, the audience relationship to the art itself is framed in various guises; as a 'passive' participant (consensually passive) to one who was also spectator or witness, often to their own involvement, to a more complex understanding of this user as the site of experimentation. Further to this, in consideration of *lay members* of the public who come to see, participate or experience research presented as art, it can also be argued that they are no longer ignorant of arts 'aesthetic regimes'⁵⁰ (Rancière 2004), or unaware of arts appearance as a technologically mediated experience⁵¹.

In his short reader *Education for Socially Engaged Practices: A Materials and Techniques Handbook*, Pablo Helguera (2012, p14) notes four different kinds of participation in multi-layered structures; 1) Nominal Participation, 2) Directed Participation, 3) Creative Participation, 4) Collaborative Participation. As notes for would-be makers of social practice in the USA, such approaches seem to institutionalise and aestheticise such practices to an extent that makes them

⁵⁰ 'In the aesthetic regime, artistic phenomena are identified by their adherence to the sensible, which is extricated from its ordinary connections and is inhabited by a heterogeneous power, the power of a form of thought that has become foreign to itself; a product identical with something not produced, knowledge transformed into non-knowledge.' (Rancière, 2004 p.22-23).

⁵¹ Dr. Stephen Bell has pointed out (Bell, 1991), that whilst the participants within interactive art had to learn much about engaging with new technologies, to become, 'skilful enough to perform the interactive tasks necessary to participate in the works' today, technology and the layers of understanding produced are more than a matter of mastering an interface. As the technology becomes ubiquitous, the emancipated spectator requires deeper levels of engagement enabled by and questioning technology and its impact beyond the surface.

instrumental. They also seems to stray a long way in terms of participation within the completing of the knowledge that is or is not the work itself. In this respect ‘expert users’ already possess and share enthusiasms⁵². A community shares these enthusiasms. These communities include academics working outside of academic structures or disciplines, to the motivated or even obsessed amateurs whose passion for a subject are shared within *amateur* societies. They are also *independent non-academic researchers* from artists, film fans to science ‘buffs’.

In understanding the ‘social’ material of its research, The Office of Experiments has an intimate bond, even if temporarily, with participants who are also our material sources. However, The Office of Experiments not only uses sources for information, but it publishes and interviews these participants in the works and outputs themselves. Further to this, the research of others is sometimes simply presented in full. The Office of Experiments hereby acknowledges and celebrates the ideas of those whose resources are drawn upon. For example, Mike Kenner, whose archive of research of Porton Down was published and displayed in 'Dark Places' (V2.3.4), was also the subject and focus of the work ‘A One Day Field Guide to the Secrets of Portland’ (White, 2011) (V2.3.6.2) and featured as the key voice in a special one-off publication at Apexart called *The Redactor* (White, 2010) (V1.PM2 and V2.3.5.4). A distribution of the sensible takes place.

Part of The Office of Experiments' research agenda has been to deliberately create networks with amateur research groups, such as Subterranea Britannica (Subbrit), who not only supply key information, but have hosted parts of our most recent Critical Excursion – Experimental Ruins⁵³. In this example, The Office of Experiments also included amateur footage and a guided physical tour of Peace

⁵² In the analysis of ‘enthusiasm’ itself, I refer to the term as encapsulated by Cummings & Lewandowska in their presentation of Polish Film Clubs under Socialism (Enthusiasm; Cummings & Lewandowska, 2005) in which they present works in the gallery under the titles of ‘Love’, ‘Labour’ and ‘Loss’. Here we see how amateur interest in a visual method of communication, or subject i.e. film, can be co-ordinated and communicated by enthusiasts working under the strictest of regimes (Polish Socialist State), as an opportunity to express thoughts and feelings. Within its contemporary presentations inside period interiors based on some of the film clubs themselves, as well as a publicly accessible database, the relationships between the enthusiasts is bound together by their subject, their circumstances and the liberating power of the medium of film.

⁵³ Subterranea Britannica helpful guides worked on the recent tour of Paddock, a subterranean abandoned Cabinet War room in Dollis Hill for the Experimental Ruins Critical Excursion in 2012 (v2.3.6.3). See also Field Guide, Experimental Ruins, WEST EDITION. See attached Printed Material (V1.PM3)

protest camps by an anonymous member of the Aldemaston Women's Group and the contemporary pressure group Nukewatch. Those participating as witnesses to such tours soon find they are entangled and enmeshed into subjectivities of knowledge, entwined within networks whose shared spaces tie together remote constituents as they share their enthusiasms,

The experiment is collective, but also necessarily open to contestation. Just as there is 'a suspicion of science as usual', there is also a necessary suspicion of 'activism, art and theory' as usual.

Gail Davies on The Office of Experiments in 'Where do Experiments End?' (Davies 2010)

However, the enthusiasm of others is an area in which we must take care. Exploiting the hard work of others is one of the essential criticisms of open source culture, and of established institutions, with increasing use of this approach to help mine data and exploit labour. In this respect, The Office of Experiments works attentively to ensure the viability and ethically sound position in respect to the work of those we engage with⁵⁴. This approach has offered the possibility of participating in the development of the research materials for the Overt Research Project to our audiences, visitors and user, and the participation on our Critical Excursions is key to this as this involvement is not unqualified; users must attend events *before* they can submit data – in this way a link is always maintained between the digital and the physical spaces of research and the reception of knowledge about these places. The results prove our assertion that the digital divide rests between the legible and illegible spaces of research and that which is concealed in terms of digital information. In this most recent tour, Experimental Ruins, a map was co-authored with all participants after a training day. Published with Luce Choules, a mapmaker and new associate of The Office of Experiments, the publication utilises images and experimental fieldwork undertaken by our participants through the day (V2.3.6.2). In this sense, the knowledge is produced and disseminated not as an instrument of communication, but of collective memory and experience – it contains little cognitive information to read, but speaks of personal experience, subjectivities and interpretations.

⁵⁴ Lisa Haskell has been a major influence in the discussion of ethics in all our projects. As Office of Experiments Technical Director, she has many years experience in working with socially-grounded projects, as well as significant history of working in digital arts for the Arts Council. Lisa developed the Drupal database for the Overt Research Project and was advisor on the technical development of the Digital Volume of this PhD.

The Office of Experiments research has drawn on the material qualities and the social field of a postmodern experiment, elaborated through a reading of Rheinberger. It has considered the critical positioning and antagonistic relations possible through interdisciplinary research, and the potential issues of Mode 1 and Mode 2 forms of knowledge production in instituent practices. In doing so, and regarding the dynamic mapping of space and ground in a digital age, it has developed as a collective critical practice in order to ask what, where and how we navigate through new knowledge and how to remain critical of this approach.

As participants or co-producers acting in the network of knowledge production, it is one of the author's on-going concerns that institutions such as The Office of Experiments stay as fluid as their subject, moving their experimental systems constantly, shifting their orientations, reconfiguring the fields of reception and displacing and interrupting the fields of engagement.

4.1.2 The Future of a troubled genealogy

The Office of Experiments is both an instituent practice and an experimental system which gives rise to both artistic and epistemic things. As an acting umbrella for extra-institutional knowledge development, it has been combined from many components as a collective form constituted in the cultural or creative sector. In terms of thinking through then what might constitute a new knowledge institution, a parallel space for cultural production beyond enclosures, a space that is accessible, open to co-production of knowledge, transformative, operating beyond disciplines, the ‘instituent’ practice described by Raunig is not opposed to but works in parallel or even co-operation with existing institutions. In ‘Artistic Research as Boundary Work’ Henk Borgdorff has begun to chart the development of artistic research in academia.

...the advent of transdisciplinary research programs, and the recognition of non-traditional forms of knowledge production (such as Mode 2) have all shown that the context of justification of academic research lies in both academia and society. The quality of the research is determined by an extended peer group in which stakeholders from the context of application also have a voice.

Borgdorff (2009, p.2)

However, further to this, it can be argued that some of the new knowledge institutions, i.e. those that identify themselves through a research agenda, are actually more than just networks of enthusiasts, activists, academics etc, but are now influencing the space in which this work can be peer reviewed. Such structures not only complement the academic disciplines, but in helping to scrutinise and share epistemic things of value, lead to the development of parallel resources for knowledge; digital archives, new taxonomies, new approaches to documentation, hacking of objects and spaces, presentations, display strategies, publications and events.

In this context, the work being done by The Office of Experiments is not unique, and arguably it could be stated we are just one of many ‘marginal’ or ‘parallel’ institutions as mentioned in the introduction. Alongside groups such as The Center for Post Natural History, The Institute for Figuring as well as the Center for Land Use Interpretation, all are driven creative intellectuals, artists and academics who have grasped the epistemological dimension of collaborative research practices through

their familiarity with digital technologies, open source software, free publishing models, knowledge sharing and epistemic enthusiasms. These practices are in fact based on a series of developments, many of which stem from both the former avant-garde of conceptual and socially engaged groups, but also the endeavours and misdemeanours of media arts collectives, or what Cox and Krycia (2004) describe as ‘technolcollectives.’

While questioning the corporate bureaucratic structures and working with governments, universities, research labs and educational institutions, technocollectives such as the Bureau of Inverse Technology (B.I.T), Central Bureau for Technological Culture (C.U.K.T), Etoy, ®TMMark, Redundant Technology Initiative (RTI), Mongrel, or The Institute of Applied Autonomy (IAA), to name only a few, aim to provide 'services', facilitate 'processes' and supply 'knowledge' instead of producing traditionally recognised art objects appropriate to wider culture and immaterial production. (ibid)

However, unlike the critically and politically framed techno-collectives, it could be argued that a new ‘Mode 3’ form of knowledge production is emerging. This mode is not geared toward simple innovation or accountability, but directly aimed at critical transformations, clear functional transformations, in terms of methods and approaches to knowledge production and cultural forms now and in the future.

In this sense, the organisations referred to as parallel institutions do not overtly present explicit critical or political positions argued with technologically mediated art, as in their predecessors which might also include the technocollectives Etoy, ®TMMark or Irrational. Instead they share the same epistemic drive, drawn from what has been learned within emerging networked practices, but yet consider themselves as institutions structurally conceived to offer new platforms for engagement within areas of knowledge that institutional disciplines are unable to deal with; a newly mediated space in which ethics, morals and capital can be interrogated. As Cox and Krycia point out, ‘the generation of change does not simply result from a mere resistance to existing set of conditions but from adapting and transforming the apparatus.’ (ibid., citing Walter Benjamin, p 19). The apparatus is therefore arguably being transformed into one grounded by knowledge that ranges from mathematics (Institute for Figuring) and environmental science (Museum of Accompaniment Animals) to biotechnology (The Center for Post Natural History) and geomorphology (Center for Land Use Interpretation). In each of these, the critical aspect of their activity and their outputs is

an exposition of their subjects, in which the institution, social or cultural ground becomes a field against which the art is an 'epistemic thing' or 'epistemic event'.

In some respects, operating at the margins of institutional funding - in the USA where the not-for-profit has allowed significant investment in organisations such as Center for Land Use Interpretation, or in the UK where organisation such as Arts Council England, Gulbenkian and Wellcome have played a role, it could be argued that this is simply a version of what in the UK has been referred to as 'community arts' or 'educational outreach' – organisationally and institutionally managed, to paraphrase Kester. However, unlike Claire Bishop's reading of a passive legacy of socially engaged practices, as she describes Artist Placement Group (APG) and community arts (Bishop 2012), this is simply to play down the significance of the impact of such practices; much more is at stake. Learning from our forebears, which includes groups such as Artist Placement Group and Situationiste Internationale, as well as individual artists such as Stephen Willets and Gustav Metzger, a critical engagement has emerged that is less easy to reproduce inside the institutions of power which are themselves partly critiqued. In this sense, community art and educational outreach are reclaimed and pushed beyond their instrumental functions. In this respect, the raising of 'critical awareness' as described by Critical Art Ensemble, allows for more than a critical comfort to be drawn from neo-liberalist interchanges of knowledge between closed elites.

In joining together amateurs, experts and academics these new knowledge institutions also represents the needs of all independent thinkers to reclaim some of the processes, spaces and places in which they are now workers, to create as Rancière would claim, 'a distribution of the sensible'. Just as the Land Art dissolved ground of sculpture (Krauss), Situationiste Internationale challenged media spectacle or the Artist Placement Group remoulded art and its social engagements, the project at hand is to create a nondisciplinary space for knowledge. This is an instinctive epistemic impulse, born from the emancipatory potential and belief in a parallel culture in which artists and enthusiast alike are not instrumental to corporate interests, to state educational programmes, empty community rhetoric or the hierarchical dogma of curatorial power. Their aim is to share knowledge, to map power and to organise and realise cultural forms outside of controlled spaces, to be experimental in the expanded field of contemporary art.

If we examine the institutions that operate beyond their institutional form, not as ‘pseudo institutions’, but as ‘instituent practices’, we might think again about how the ‘parallel institutions’ as first described by Hannah Arendt might be used to describe such new manifestations of the political. Whilst Hannah Arendt’s analysis of the development of alternative institutions by the far right (1951), led to her coining the term *parallel institution* ⁵⁵ here it could be applied where failing institutions need to be replaced. Whilst Arendt’s reading is of parallel institutions as being part of a pre-totalitarian state i.e., the Grand Council, Federal and Militia in Nationalist Socialist state of Germany in 1925 (p.65), these impulses are not the preserve of pre-totalitarianism. In the transformational activity of a parallel institution, new forms, expanded archives, experimental fieldwork etc., can be developed. This it can be argued is borne from the artist instinct to develop or establish and extend new institutions based within our desires for the autonomy of knowledge, a manifestation of our dissatisfaction with existing institutions, established discourse of art and social history.

Office of Experiment's Overt Research Project maps onto where institutions of power operate, their relationships and practices, not least the socio-political structures that give rise to knowledge, and in reflecting upon these, we witness how we might learn where and how new ‘epistemic things’ come into being and how to use these amongst a new nondisciplinary set of parallel institutions. Having learned from Steve Kurtz and the Critical Art Ensemble, and later, members of the Center for Land Use Interpretation, it is possible to read a parallel future that crosses into existing institutional space. As we have begun to come to terms with our troubled genealogies, the potential of experimental systems, art's role as an epistemic thing within the expanded field of contemporary art becomes possible. As Professor Gail Davies notes of her own experience of an Office of Experiments' Critical Excursion, this points to the expanded field in which there are no centres for any disciplines,

⁵⁵ Dr. Angela Last has implied this reading can be made from both recent right-wing movements the BNP and Golden Dawn, as well as Occupy organised community aid in Haiti and urban farming initiatives in Detroit .Angela Last kindly allowed me to take this term parallel institution from a new unpublished paper; ‘From Overactive Citizenship to Parallel institutions?’

In science, social science, art and politics, the boundaries between methodologies of inquiry blur, there is no easy endpoint, rather a continuing process of reactive, iterative and generative experimentation (Thrift 2008). The question remains open. Where does the experiment end?

Davies, G. 'Where do experiments end?'
Editorial prepared for *Geoforum*, May 2010.

5 References

AHRB/ACE Arts and Science Research Fellowships | General | Times Higher Education. Available from: <http://www.timeshighereducation.co.uk/179476.article> [Accessed June 6, 2013].

Agamben, G., 2005. *State of Exception*. Chicago: University of Chicago Press.

Albert, S., The University of Openness. Available from: http://p2pfoundation.net/University_of_Openness [Accessed June 1, 2012].

Albert, S., 2004, University of Openness. Available from: <http://www.crumbweb.org/dbimaginary/getBioDes.php?id=2&t=&fc=2> [Accessed August 5, 2013].

Altman, L.K. ,1998. *Who Goes First?: the Story of Self-Experimentation in Medicine*. Berkeley: University of California Press.

Anon, Media Art Net | Abramovic, Marina; Ulay: Rest Energy. Available from: <http://www.medienkunstnetz.de/works/rest-energy/> [Accessed July 9, 2013].

Anon, “SEEDBED”, Vito Acconci | Tate. Available from: <http://www.tate.org.uk/art/artworks/acconci-seedbed-t13176/text-summary> [Accessed January 9, 2013].

APG: Artist Placement Group - Chronology | Tate. Available from: <http://www2.tate.org.uk/artistplacementgroup/overview.htm> [Accessed January 9, 2013].

Arendt, H. , 2009. *The Origins of Totalitarianism*. [S.I.]: Benediction Books.

Augé, M., 1995. *Non-Places: Introduction to an Anthropology of Supermodernity*. London & New York: Verso.

Baker, G., 2005. 'Photography's Expanded Field'. *October* 114, pp.120–40

Balmer, B. , 2007. 'How Does Secrecy Work? Keeping and Disclosing Secrets in the History of the UK Biological Warfare Programme' . *Rappert, B and McLeish, C, (eds.) A Web of Prevention: Biological Weapons, Life Sciences and the Governance of Research*. London: Earthscan, pp.:173 - 188.

Barbrook, R and Cameron, A., 1995. 'The Californian Ideology'. *Mute*, Issue N° 3, Autumn.

Barnett, A. Millions were in germ war tests | Politics | The Observer. Available from: <http://www.guardian.co.uk/politics/2002/apr/21/uk.medicalscience> [Accessed June 7, 2013].

Barry, A., Born G. and Weszkalnys G. ,2008. 'Logics of interdisciplinarity'. *Economy and Society*, Volume 37 Number 1, pp. 20-49.

Barry, A., Born G. and Weszkalnys G., 2008 'Interdisciplinarity and Society: A critical comparative study - Research Themes and Projects - Technological Natures: Materialities, Mobilities, Politics - Research'. School of Geography and the Environment, University of Oxford. Available from: <http://www.geog.ox.ac.uk/research/technologies/projects/interdisciplinarity.html> [Accessed June 6, 2013].

Bauer, U.M., Dombois, F., Maries, C., Schwab, M. (eds), 2012. *Intellectual Birdhouse: Artistic Practice as Research*. London: Koenig Books.

Becher, T., 2001. *Academic Tribes and Territories: Intellectual Enquiry and the Culture of Disciplines* 2nd ed. Philadelphia, PA: Open University Press.

Beech, D., Hewitt, A., Jordan, M. Available from: <http://freee.org.uk/about/> [Accessed August 6, 2013].

Bickers, P. 2007. *Hans Haacke: Talking Art* | Tate. Available from: <http://www.tate.org.uk/context-comment/video/hans-haacke-talking-art> [Accessed June 5, 2013].

Biggs, M. & Karlsson, H., 2012. *The Routledge Companion to Research in the Arts*. London: Routledge.

Biggs, M., 2004. 'Learning from Experience: Approaches to the Experimental Component of Practice-based Research', *Forsknig, Reflektion, Utveckling*, Stockholm: Vetenskapsradet , 6-2.

Bishop, C., 2006. 'The Social Turn: Collaboration and Its Discontents'. *Artforum*, February.

Bishop, C., 2012. 'Incidental People: APG and Community Arts' . *Artificial Hells: Participatory Art and the Politics of Spectatorship*. London & New York: Verso Books.

Borgdorff, H., 2009. 'Artistic Research as Boundary Work' . Caduff C, Siegenthaler F, Wälchi T. (eds.) *Art and Artistic Research*. Zurich Yearbook of the Arts, Vol 6. 2009.

Borgdorff, H., 2010. 'Artistic Research as Boundary Work', Caduff, C., Siedenthaler F. , and Wachtli T. (eds) *Art and Artistic Research*. Zurich Yearbook of the Arts., Zurich: Scheidegger & Spiess, pp.72-79.

Borgdorff, H., 2012. 'Boundary Work - An Interview with Michael Schwab' . Bauer, U.M. et al., 2012, *Intellectual Birdhouse: Artistic Practice as Research*. London [u.a.]: Koenig Books.

Candy, L. & Edmonds, E.A. 2011. *Interacting: Art, Research and the Creative Practitioner*. Faringdon, Oxfordshire: Libri Pub.

Center for Urban Pedagogy. Available from: <http://welcometocup.org/About> [Accessed August 6, 2013].

Coverley, M., 2010. *Psychogeography*. Harpenden: Pocket Essentials.

Cox, G., Krysa, J. & Lewin, A., 2004. *Economising Culture: on 'the (digital) culture industry'*. New York: Autonomedia.

Cox, G and Kryssia J., 2004. *Art as Engineering: Techno-Art Collectives and Social Change*. Available from: <http://www.anti-thesis.net/projects/texts/engineering.pdf> [Accessed August 5, 2013].

Cox, G. 2010., *Antithesis: the Dialectics of Software Art*. Denmark: Digital Aesthetics Research Center, Aarhus University, DK. First written in 2006, Doctoral thesis, University of Plymouth, UK.

Critical Art Ensemble, 1994. *Crash: Nostalgia for the absence of cyberspace*,. Exhibition Catalogue. New York: Thread Waxing Gallery.

Critical Art Ensemble, 2002. *The Molecular Invasion*. Brooklyn, New York: Autonomedia.

Cummings, N., and Lewandowska, M., 2005. *Enthusiasm*. Vol 2. London: Whitechapel Gallery. <http://www.neilcummings.com/content/enthusiasm> [Accessed November 16, 2012].

Cummings, N, Francis, M-A and White, N. Critical Practice Chelsea - Wiki - APG open archive. Available from: <http://www.criticalpracticechelsea.org/modules/wiwimod/index.php?page=APG+open+archive> [Accessed August 6, 2013].

Davies, G.F., 2010. 'Where do experiments end?', *Geoforum* 41(5), pp. 667-670.

Davis, B., 'Social Media Art'. *The Expanded Field*. Artnet. Available from:
<http://www.artnet.com/magazineus/reviews/davis/art-and-social-media8-4-10.asp>
[Accessed June 5, 2013].

Dunin-Woyseth, H., 2012. 'Some Notes on Mode 1 and Mode 2: adversaries or dialogue partners?' M. Biggs, & H. Karlsson, (eds), *The Routledge Companion to Research in the Arts*. London: Routledge.

Debord, G., 1983. *Society of the Spectacle*. Detroit: Black & Red.

Debord, G., 1959. 'Détournement as Negation and Prelude'. *Situationiste Internationale*. Nothingness.Org. Available from:
<http://library.nothingness.org/articles/SI/en/display/315> - [Accessed 10/8/2012].

De Certeau, M., 2011. *The Practice of Everyday Life*. Berkeley, Calif.: Univ of California Press.

Ede, S., 2000. *Strange and Charmed: Science and the Contemporary Visual Arts*. London: Calouste Gulbenkian Foundation.

Eeley, P., 2007. 'Context is Half the Work'. *Frieze*, Issue 111 November-December.

Evans, R. Porton Down chemical weapons tests unethical, says report | Politics | The Guardian. Available from:
<http://www.guardian.co.uk/politics/2006/jul/15/uk.greenpolitics>
[Accessed June 7, 2013].

Foster, H., 1988, 2002. *The Anti-Aesthetic: Essays on Postmodern Culture*. New York: New Press.

Ford, S., 2005. *The Situationist International: A User's Guide*. London: Black Dog.

- Foucault, M., 1982. 'The Subject and Power'. *Critical Inquiry*, Vol. 8, No. 4 (Summer, 1982), pp. 777-795.
- Frayling, C., 1993/4. 'Research Papers, Research in Art and Design'. Royal College of Art, Vol. 1 no. 1, pp. 1-5.
- Futurefarmers. Available from: <http://futurefarmers.com/about/> [Accessed August 5, 2013].
- Galison, P., 1987. *How Experiments End*, Chicago: University of Chicago Press.
- Garcia, M, Lovink, G. 1997. *The ABC of Tactical Media*. Nettime.Org. Available from: <http://www.nettime.org/Lists-Archives/nettime-l-9705/msg00096.html> [Accessed Feb 5, 2013].
- Gere, C., 2008. *Digital culture*, London: Reaktion Books.
- Gieryn, Thomas F., 1983, 'Boundary-work and the demarcation of science from non-science: strains and interests in professional ideologies of scientists'. *American Sociological Review* 48 (6), pp.781–795.
- Halpern, M.K., 2012, 'Across the great divide: boundaries and boundary objects in art and science, in *Public Understanding of Science*, November, Vol. 21 (8), pp. 22-937.
- Hawkins, H., 2012, 'Geography and Art. An expanding field: Site, the body and practice' . *Progress in Human Geography*. Vol. 37(1), pp.52–71.
- Hauser, J. & FACT (Great Britain), 2008. *Sk-interfaces: Exploding Borders: Creating Membranes in Art, Technology and Society*. Liverpool: Liverpool University Press.
- Henrietta Heise and Jakob Jakobsen. Copenhagen Free University. Available from: <http://copenhagenfreeuniversity.dk/infouk.html> [Accessed August 4th, 2013].

- Hemment, D., 2006. 'Locative Arts'. *Leonardo*. Vol. 39, No. 4, pp. 348–355.
- Holmes, B., Drifting Through the Grid: | Brian Holmes - springerin 3/04: World Provinces. Available from: http://www.springerin.at/dyn/heft_text.php?textid=1523&lang=en [Accessed June 7, 2013].
- Horkheimer, M., 1982. *Critical Theory: Selected Essays*. New York: Continuum Pub. Corp.
- Jackson, S., (2011). *Social Works: Performing Art, Supporting Publics*. New York: Routledge.
- James Randi Educational Foundation. Available from: <http://www.randi.org/site/> [Accessed June 6, 2013].
- Kester, G.H., 2004. *Conversation Pieces: Community and Communication in Modern Art*. Berkeley: University of California Press.
- Krauss, R., 1979. 'Sculpture in the Expanded Field'. *October*, Vol. 8. (Spring), 30-44.
- Kwon, M., 2002. *One Place After Another: Site-Specific Art and Locational Identity*. Cambridge, Mass.: MIT Press.
- Kurtz, S., 2005. 'Research is Not Terrorism'. *The Arts Catalyst*. Available from: http://www.artscatalyst.org/experiencelearning/detail/research_is_not_terrorism_steve_kurtz/ [Accessed April 18, 2013].
- Leerburg, M., 2009. *Design In The Expanded Field: Rethinking Contemporary Design*. Nordic Design Research. Denmark: Kolding School of Design. Available from: <http://www.nordes.org/opj/index.php/n13/article/view/52/43> [Accessed June 12, 2012].

- Lefebvre, H., 1991. *The Production of Space*. Malden, Mass: Blackwell.
- Lind, M., 2007. *When Water is Gushing In*. Dublin: *Printed Project* [06:15 February], p.21.
- Lindlof, T.R. & Taylor, B.C., 2011. *Qualitative Communication Research Methods*. Thousand Oaks, Calif.: SAGE. 341
- Lippard, L.R., 1997. *Six Years: the Dematerialization of the Art Object from 1966 to 1972*, University of California Press, Berkeley.
- Lock, C, Obituary: Ingvil Aarbakke | from The Guardian . Available from: <http://www.guardian.co.uk/news/2005/dec/02/guardianobituaries.artsobituaries> [Accessed April 4, 2013].
- Marteau, T. & Richards, M., (1999). *The Troubled Helix: Social and Psychological Implications of the New Human Genetics*. Cambridge, UK: Cambridge University Press.
- Mika E., 2009. 'Passages of Articulation: Art and Research Touching'. Nimkulrat, N., O'Riley, T. & University of Art and Design Helsinki. *Reflections and Connections: On the relationship between Creative Production and Academic Research*. Helsinki: University of Art and Design.
- Mouffe, C., 2007. 'Artistic Activism and Agonistic Spaces'. *Journal of Art and Research*. Volume 1, No.2. Available from: <http://www.artandresearch.org.uk/v1n2/mouffe.html> [Accessed Jan 5, 2013].
- N55 [DK]. Available from: <http://www.n55.dk/MANUALS/Manuals.html> [Accessed June 6, 2013].
- Norfolk, L. and White, N., 2002. *Ott's Sneeze*. London: Book Works.
- Nowotny, H., Scott, P. & Gibbons, M., 2001. *Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty*. Cambridge, UK: Polity.

Pearce, P., 1980. *Structure in Nature is a Strategy for Design*. Cambridge, USA: MIT Press.

Plant, S., 1992. *The Most Radical Gesture: the Situationist International in a Postmodern Age*. London, New York: Routledge.

Randi, J., James Randi Educational Foundation. Available from: <http://www.randi.org/site/> [Accessed June 6, 2013].

Rancière, J., 2009. *The Emancipated Spectator*, London: Verso.

Raunig, G., 2005. *Instituent Practices. Fleeing, Instituting, Transforming*. eipcp European institute for progressive cultural policies. Available from: <http://eipcp.net/transversal/0106/raunig/en> [Accessed December 2, 2012].

Ray, G., Sholette, G., 2008. 'Whither Tactical Media: Critical Perspectives on Contemporary Art and Culture. *Third Text*, Volume 22, Issue 5, September.

Kurz, S., 2005. *Research is Not Terrorism*, The Arts Catalyst. Available from: http://www.artscatalyst.org/experiencelearning/detail/research_is_not_terrorism_steve_kurtz/ [Accessed April 18, 2013].

Reynolds, R. & Zummer, T., 1994. *Crash: Nostalgia for the Absence of Cyberspace*. New York: Thread Waxing Space.

Rheinberger, H.-J., 1997. *Toward a History of Epistemic Things: Synthesizing Proteins in the Test Tube*. Stanford, Calif.: Stanford University Press.

Roberts, J., 2011. 'Art after Art in the expanded Field'. Lecture at Central St. Martins. Available from: <http://www.youtube.com/watch?v=hHZHIiu76J4> [Accessed June 25, 2012].

Rose, G., 2012. *Visual Methodologies: an Introduction to Researching with Visual Materials*. London: SAGE.

Rowell S and White, N., 2011. 'O is for Overt Research', in Evans, D (ed). *Critical Dictionary*. London: Black Dog Publishing Ltd.

Rugoff, R., 2006. Coolidge, M., Simmons, S. (eds) . *Exploring the Internal Fringes of America with the Center for Land Use Interpretation*. New York: Metropolis Books.

Saper, C., 1998. 'Fluxus as Laboratory'. Friedman, K (ed.), *The Fluxus Reader*. Chichester, West Sussex: Academy Editions.

Schivelbusch, W., 1986. *The Railway Journey: the Industrialization of Time and Space in the 19th century*. Berkeley, Calif: University of California Press.

Schmidgen, H., Kursell, J. (eds.), 2006. *The Shape of Experiment*. Berlin: Max-Planck-Institut für Wissenschaftsgeschichte. Available from: <http://www.mpiwg-berlin.mpg.de/Preprints/p318.pdf> [Accessed 22 January 2012.]

Schön, D.A., 1990. *Educating the reflective practitioner*. San Francisco: Jossey-Bass.,

Scrivener, S., 2000. 'Reflection in and on action and practice in creative-production doctoral projects in art and design'. *Working Papers in Art and Design*. Available from: <http://www.herts.ac.uk/artdes/research/papers/wpades/vol1/scrivener2.html> (Retrieved 17 April 2007)

Sholette, G and Timson, B., 2007. *Collectivism After Modernism: the Art of Social Imagination after 1945*. Minneapolis: University of Minnesota Press.

Smith, D. CHELSEA space: #33 Neal White: *Fieldworks from the Museum of the Void*. Available from: <http://www.chelseaspace.org/archive/white-pr.html> [Accessed August 6, 2013]

Smith, D., 2010. *Neal White: Fieldworks from the Museum of the Void: Experiments in the Event of an Archive*. London: CHELSEA space.

Spurse. Available from: <http://www.spurse.org/> [Accessed August 5, 2013].

Steyerl, H., 2012. 'Aesthetic of Resistance?'. Bauer, U.M. Dombois, F., Maries, C., Schwab, M. (eds.) *Intellectual Birdhouse: Artistic Practice as Research*. London: Koenig Books.

Taleb, N., 2008. *The Black Swan: the Impact of the Highly Improbable*. London: Penguin.

TEMPORARY SERVICES - CONTACT. Available from: <http://www.temporaryservices.org/contact.html>

The Center for Land Use Interpretation. Available from: <http://CenterforLandUseInterpretation.org/node/827> [Accessed August 6, 2013].

Thomson, N., 2012. *Living as Form: Socially Engaged Art from 1991-2011*, New York: Creative Time Books.

Turkle, S., 1997. *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster.

Turner, F., 2006. *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*. Chicago: University of Chicago Press.

Turner, F., 1999. How Digital Technology Found Utopian Ideology: Lessons From the First Hackers' Conference, in *Critical Cyberculture Studies: Current Terrains, Future Directions*, New York University Press.

Virilio, P., 1994. *The Vision Machine*. Bloomington: Indiana University Press.

Walker, J.A., 1995. *John Latham: the Incidental Person - his Art and Ideas*. London: Middlesex University Press.

- Wark, M., 2011. *The Beach Beneath the Street: the Everyday Life and Glorious Times of the Situationist International*. London:Verso.
- Wark, M. 2013. *The Spectacle of Disintegration*, first edition, Brooklyn, New York: Verso Books.
- Warr, T. (ed.) & Jones, A. 2012. London: Phaidon.
- White, N. 2005. 'Let's Experiment with Ourselves: Key Relations – Art, Power, Trust, Viewer, Participant'. PREPRINT 322 Katrin Solhdju (ed.) *Introspective Self-Rapports. Shaping Ethical and Aesthetic Concepts 1850–2006*. Berlin; The Max Planck Institute for the History of Science.
- White, N., 2006. 'The Ethics of The Void'. *Contemporary Magazine*, Issue No. 81 pp. 74-75.
- White, N., 2013. 'Epistemic Events'. Schwab,M., *Knowledge Futures*, Belgium: Orpheus Institute.
- White, N., 2009. 'A Report from the Museum of the Void' . Copeland, M., *Voids: a Retrospective: Centre Pompidou, Kunsthalle Bern, Centre Pompidou-Metz.*, Zurich; Geneva; Paris; New York: JRP/Ringier, in collaboration with Ecart in co-edition with Éditions du Centre Pompidou and Centre Pompidou-Metz, D.A.P. [distributor].
- White, N. , 2011. 'Exploring "Dark Places"' . *Covert Cultures: Art and the Secret State, 1911-1989*. Crassh. Available from: <http://www.crassh.cam.ac.uk/events/1330/programme/> [Accessed June 7, 2013].
- White, N., 2013. 'Experiments in the Expanded Field of the Archive'. Vaknin, J., Stuckey, K., *All This Stuff: Archiving the Artist*. ARLIS/UK & Ireland.
- Wilson, S., 2002. *Information Arts: Intersections of Art, Science, and Technology*, Cambridge, Mass.: MIT Press.

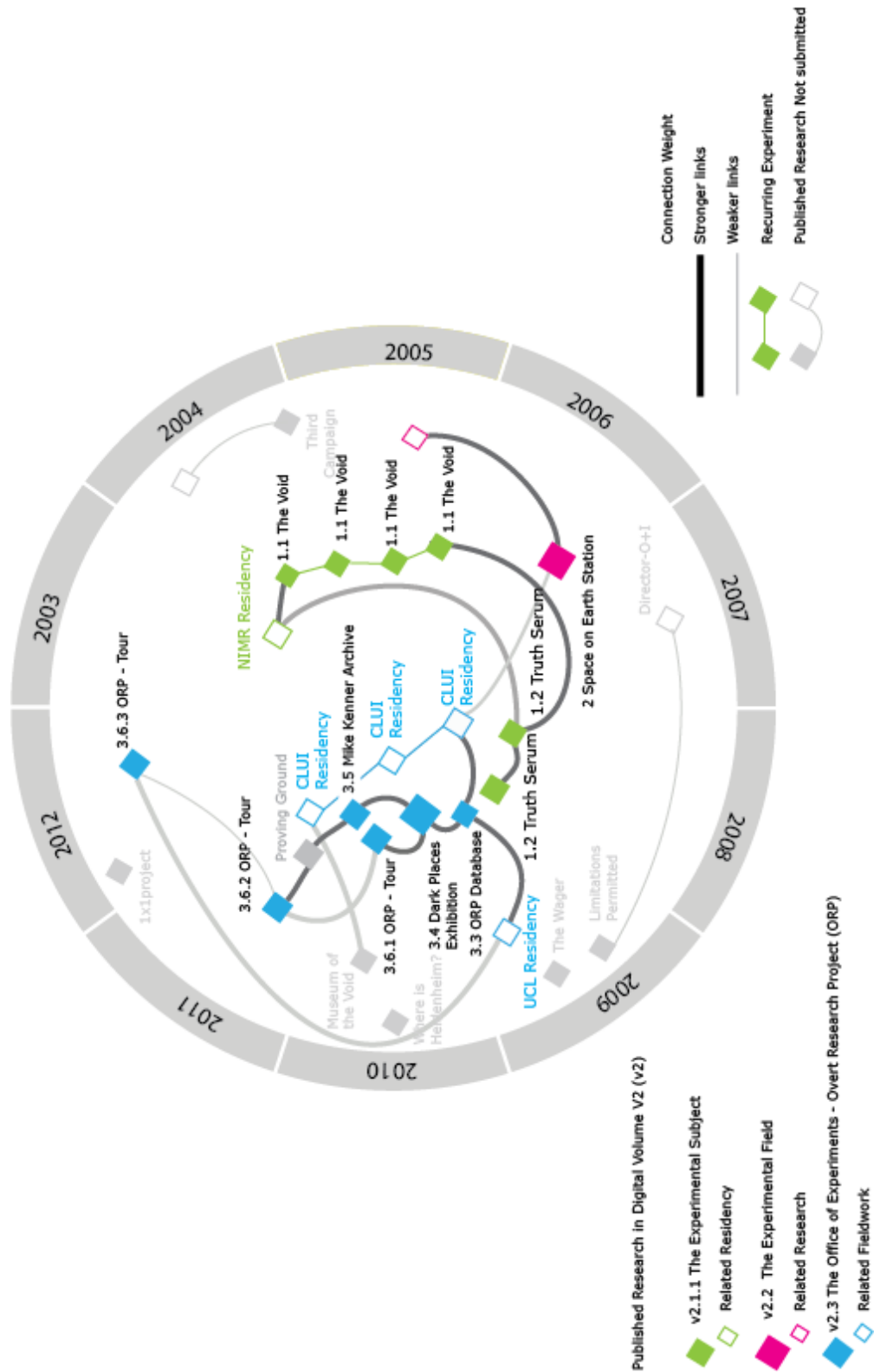
Zielinski, S., 2012.' Thinking About Art after the Media: Research as Practised Culture of Experiment.. Biggs,M., & Karlsson,H., *The Routledge Companion to Research in the Arts*. London: Routledge.

5.1 Provenance and Authorship of Published Works

Within this thesis, the outputs being highlighted in the Digital Volume (v2) are, unless indicated, ‘publicly funded / peer reviewed’ research projects led by the author, since 2004-5 (For details and further information on the Digital Volume see: 0). The outputs range from curatorial work; 'Dark Places' (Foster et al, 2010), to experimental installation work in commissioned projects, such as 'Truth Serum', FACT Liverpool and Casino Foundation for Contemporary Art, Luxembourg (White, 2008-9), and includes artist publications *The Redactor*, Apexart, New York (White, 2010) and standard book chapters 'Experiments in the Expanded Field of the Archive' (White, 2013).

Many of these outputs have been authored under the name of The Office of Experiments. Established by the author in 2004-5 during research of 'Space on Earth Station' (N55 and White, 2006), the name refers to what is a non-legal umbrella and conceptual framing device in which multiple researchers can collaborate. The Office of Experiments has operated across multiple boundaries of practice, academic disciplines and research methods. As the founding Director of The Office of Experiments and for the benefits of the format of the thesis, Neal White has led all such projects with collaborators as a form of Principle Investigator. (For percentage contribution of collaborating individuals for each project see, Appendix 0).

5.2 Interconnections of published practice-led research



5.3 List of Published Research in Digital Volume

V2.1 The Experimental Subject

White, N. (The Office of Experiments), 2009a. 'Truth Serum'. Luxembourg: Casino Foundation for Contemporary Art.

White, N., (The Office of Experiments), 2008. 'Truth Serum'. Liverpool: FACT.

White, N., (The Office of Experiments), 'The Void', 20.5 -18.6.06d. Artists and Alchemists , Sherborne House, Dorset.

White, N., (The Office of Experiments), 'The Void', 5.5.2006c. Berlin: Max-Planck Institute.

White, N., (The Office of Experiments) 'The Void', 1.7.05b. 'Colour After Klein' exhibition. London: Barbican Gallery.

White, N., (The Office of Experiments) 'The Void', 9-24.5.05a. 'Sensory Clinic' (group exhibition) .Manchester: International3.

v2.2 The Experimental Field

Aarbakke, I., Sorvin, I., (N55 - DK) White, N., (The Office of Experiments) 2006. 'Space On Earth Station'. *Space Soon*, London: The Arts Catalyst, Camden Roundhouse.

White, N., 2013. 'Experiments in the Expanded Field of the Archive', i Vaknin, J. Stuckey, K., *All This Stuff: Archiving the Artist*, ARLIS/UK & Ireland.

v2.3 The Office of Experiments

White, N., (The Office of Experiments), 2009b. *Extract from The Mike Kenner Archive - Corsham Computer Centre*. London: UCL – Cloisters.

Haskell L., Rowell S, White N (The Office of Experiments), 2009c. www.dark-places.org.uk. Southampton: John Hansard Gallery.

Foster, S., La Frenais, R., Sloan, H., White, N. (Curators), 2009d, 'Dark Places', Southampton: John Hansard Gallery.

White, N. (The Office of Experiments), 2009e. *Tales from the ARC, The Mike Kenner Archie*, 'Dark Places'. Southampton: John Hansard Gallery.

White, N. (The Office of Experiments), 2010a. *The Redactor. The Incidental Person*. New York: Apex Art.

Rowell, S., White, N. (The Office of Experiments), 2010b. 'Cold War - Technology and Secrecy Bus Tour'. Southampton: John Hansard Gallery, The Office of Experiments, The Arts Catalyst, SCAN.

White, N., (The Office of Experiments), 2010c. *Tales from the ARC. Extracts from Mike Kenner Archive*. Lancaster, University of Lancaster: Peter Stott Gallery

White, N., (The Office of Experiments) 2011. 'The Secrets of Portland, Portland - Critical Excursion' with The Office of Experiments'. Dorset: ExLab.

White, N. (The Office of Experiments), 2012. 'Experimental Ruins', workshop and bus tour. London: Heritage Lottery Fund.

6 Appendix

6.1 Contribution to submitted research outputs by Neal White

Reference	Authors	Published Type	N White Contribution	Funding / Commissioning Body
3. The Experimental Subject				
White (2012)*	1	Critical Excursion	100%	Heritage Lottery Fund, ESRC, AC
White (2011)*	1	Critical Excursion	100%	Big Picture
White (2010c)*	1	Archive Display	100%	Lancaster University
Rowell, White (2010b)*	2	Critical Excursion	60%	ACE, AC
White (2010a)*	1	Artist Publication	100%	Apexart, NY (US)
White (2009e)*	1	Installation	100%	AC, Southampton University
Foster et al (2009d)*	4	Curated Exhibition	40%	AC, Southampton University
Haskell et al (2009c)*	3	Database	40%	AC, Southampton University
White (2009b)*	1	Archive Display	100%	UCL, London
2. The Experimental Field				
N55, White (2006)*	2	Installation - Events	50%	ACE, AC
1. The Experimental Subject				
White (2009a)*	1	Installation	100%	FACT, AC
White (2008)*	2	Installation - Event	90%	Casino Luxembourg, FACT, AC
White (2004-5a-d)	1	Experimental Event	100%	The Wellcome Trust
Total		13 Outputs		
Total Contribution			84%	

- **Denotes The Office of Experiments publicly authored research**
- **ACE – The Arts Council of England**
- **AC – The Arts Catalyst**

Neal White has led all the above collaborations. Within The Office of Experiments there are also frequently no other named authors. The lead role has been presented as an equivalent to Principle Investigator. Other names present are listed as equivalent to Co-Investigators.

Additional credits might include work undertaken by a commissioning or funding organisation, such as The Arts Catalyst, or academic acting as hosts, including Dr. Gail Davies at UCL Department of Geography. These individuals and agencies support our research and production teams as well as administrative capability but are not named as authors.

6.2 List of the Submitted Published Research

The Office of Experiments

Rowell, S., White N. (The Office of Experiments), 2012.' "O" is for Overt Research', in Evans, D. (ed.) *Critical Dictionary*. London: Black Dog Publishing.

O'Connell, T., White N. (The Office of Experiments), 2012. 'the1x1project.com', *Suspension of Disbelie*. Washington DC, USA: Washington DC Arts and Humanities Commission.

O'Connell, T., White, N., 2012. *Where is Heidenheim?*Heidenheim, Germany: Bildhauser Sculpture Biennale.

White, N. (The Office of Experiments), 2012. 'Experimental Ruins', workshop and bus tour. London: Heritage Lottery Fund.

White, N. (The Office of Experiments), 2011.' The Secrets of Portland'. Portland - critical excursion' with The Office of Experiments'. Dorset: ExLab.

White, N., 2011. 'Exploring "Dark Places" (Exhibiting Ideology)'. Selected Paper, Art and Covert Culture Conference. Cambridge University; CRASSH.

White, N. (The Office of Experiments), 2011. 'Proving Grounds of Coast and Sea'. ExLab, Bridport Arts Centre, Bridport.

Rowell, S. and White, N., 2010, 'Experimental Ruins'. ESRC funded workshop run in conjunction with Dr Gail Davis. London: UCL

O'Connell, T., White, N., 2010. *Werk*. Germany: Bildhauser Sculpture Symposium.

White, N. (The Office of Experiments) (2010c). 'Tales from the ARC', extracts from Mike Kenner Archive. Lancaster, University of Lancaster: Peter Stott Gallery.

White, N., 2010. 'Experimental Spaces'. Artist talk. *On Not Knowing*, Conference. Cambridge University: Kettles Yard.

White, N., 2010. *Fieldworks from the Museum of the Void - Experiments in the Event of an Archive*. London: Chelsea Space, University of the Arts.

Jeong, D., Smith, D., (eds.) and White, N., 2010. *Fieldworks from the Museum of the Void - Experiments in the Event of an Archive*. London: Chelsea Space, University of the Arts.

Andrews, S., O'Connell, T., White N. (The Office of Experiments), 2009. *The Wager, Physics and Economics of Sculpture* (with O'Connell) and *Even the Odds*, London: Flat Time House.

White N., 2010. 'Experimentality - Experimental Sites'. 'Experimentality' workshop. Lancs, UK: Lancaster University, Institute for Advanced Studies.

Lauksch, M., & White, N., 2009. *Limitations Permitted*. London: Peckham Space, University of the Arts London.

Bradfield, M., White, N. (The Office of Experiments), 2009. *Limitations Permitted – A Field Guide to Un-permitted Events (Artist Publication)*. London: Peckham Space.

Rowell, S., White, N. (The Office of Experiments), 2010b. *Cold War - Technology and Secrecy Bus Tour*. Southampton: John Hansard Gallery, Office of Experiments, The Arts Catalyst, SCAN.

White, N. (The Office of Experiments), 2010a. *The Redactor. The Incidental Person*. New York: Apex Art.

White, N. (The Office of Experiments), 2009e. *Tales from the ARC*, The Mike Kenner Archive, 'Dark Places'. Southampton: John Hansard Gallery.

Foster, S., La Frenais R., Sloan, H., White, N. (curators), 2009d. 'Dark Places'. Southampton: John Hansard Gallery

Haskell L., Rowell S, White N (The Office of Experiments), 2009c. www.dark-places.org.uk. Southampton: John Hansard Gallery

White, N. (The Office of Experiments), 2009b. *Extract from The Mike Kenner Archive - Corsham Computer Centre*. London: UCL - Cloisters

White N. (The Office of Experiments), 2009-10. 'Experimental Proving Grounds of Coast and Sea'. ExLab, Dorset: Bridport Arts Centre

The Experimental Field

Aarbakke, I., Sorvin, I., (N55) White, N. (The Office of Experiments), 2006. 'Space On Earth Station'. *Space Soon*, London: The Arts Catalyst, Camden Roundhouse.

The Experimental Subject

White N. (The Office of Experiments), 2009a. 'Truth Serum'. Luxembourg: Casino Foundation for Contemporary Art

White N. (The Office of Experiments), 2008. 'Truth Serum', Liverpool: FACT.

Langlitz, D., 2008. 'A History of the Psychopharmacology of Truthfulness, in Hauser, J. *Sk-interfaces: Exploding Borders - Creating Membranes in Art, Technology and Society*. Chicago and Liverpool: University of Chicago and John Moores University.

White, N. (The Office of Experiments). 9-24.5.05a., 'The Void'. Sensory Clinic, group exhibition. Manchester: International3.

White, N. (The Office of Experiments). 1.7.05b, 'The Void'. Colour After Klein, exhibition. London: Barbican Gallery.

White, N. (The Office of Experiments). 5.5.2006c, 'The Void'. Berlin: Max-Planck Institute.

White, N. (The Office of Experiments). 5.5.2006. Introspective Self-Rapports. Shaping Ethical and Aesthetic Concepts 1850 -2006. Keynote for workshop. Berlin: Max-Planck Institute.

White, N. (The Office of Experiments). 'The Void', 20.5 -18.6.06d. Artists and Alchemists , Sherborne House, Dorset.

White N., Dec 2004-Jan 2005. *The Third Campaign*, The Henry Moore Institute.

Norfolk, L. and White, N., 2003. *Ott's Sneeze*, New Writing Series London: Bookworks.

Publications that feature published works.

Da Costa, B., and Philip, K., 2008. *Tactical Biopolitics*. Cambridge, Mass: MIT Press.

Davies, G., 'Where do Experiments End?' Editorial, *Geoforum Journal*, Vol. 41 Issue 5. September

Flintham, F., 2012. 'The Military-Pastoral Complex: Contemporary Representations of Militarism in the Landscape': London: Tate Papers, Issue 17 Art & Environment.

Hauser, J. , 2010. *Sk-interfaces: exploding borders: creating membranes in art, technology and society*. Luxembourg: Casino- Forum d'art contemporain.

O'Reilly, S. (ed), 2009. *The Body in Contemporary Art - World of Art Series*. London: Thames and Hudson, p. 200.

Roberts P., Review of 'Dark Places', *Afterimage. The Journal of Media Arts and Cultural Criticism*, Vol. 37 No. 5 Illuminating Landscapes, 'Dark Places', John Hansard Gallery | University of Southampton, England November 24, 2009– January 23, 2010.

Scott, P., 2010. The Office of Experiments. BLUEPRINT magazine (March): pp. 54-60

Wiltshire, M., 2013. 'Letter from the M4. A report on Experimental Ruins'. London: Art Monthly, March.

6.3 List of Printed Materials

There are a small number of printed artefacts attached as an appendix to Volume 1. These are what might be considered as ‘Artist Publications’, and due to their form, limited edition, no ISBN etc. are enclosed in their original form. Where they are referred to in the text, a reference will include the structure e.g. V1.PM.1 p12.

PM1: The Self-Experimenter

A2 Folded Sheet Newspaper in Full Colour. Limited Edition: 1000.

Produced by Neal White with Simon Gould (Curator) for the Barbican Gallery version of 'The Void' (2005), this limited edition paper was funded through the NIMR / Wellcome Trust residency and was a critical component of the performance. Containing commentary and clinical information, participants experiencing the work were able to use the form within the publication to exchange with the author for a limited edition artwork.

PM2: The Redactor

A4 /A3 Folded Sheet Paper on Recycled Paper with Recycled Ink. Limited Edition: 500.

This paper was developed and printed as the author's contribution to the Artist Placement Group exhibition 'The Incidental Person' at Apexart in New York (2010). Developed with Antony Hudek and Sara de Bondt, of Occasional Papers, as with other publications, the work was published under The Office of Experiments. A major interview with Mike Kenner highlights the work undertaken in the Overt Research Project and the Mike Kenner Archive. The Editorial introduces key concepts and attempts to build a link between APG concept of the ‘Incidental Person’ and the performance of redaction. Key contributors include other artists who have developed or are involved in their own Parallel Institutions, including Steve Rowell and Rich Pell.

PM3: Field Guide, Experimental Ruins, West Edition.

Unique Sized Folded Map. Full Colour on Map paper. Limited Edition: 1000

Developed in conjunction with the Arts Catalyst, commissioned by the Heritage Lottery Fund and designed with Luce Choules by Neal White, this map outlines one of The Office of Experiments' 'Critical Excursions', Experimental Ruins (Oct 2012). With the content for this version largely developed by participants in the workshop activity, and then a month later on the actual bus tour, it was developed in the month following the project as individuals uploaded material to an online repository. The publication and map was configured and designed to explain how the 'overt research' methodology had been disseminated to others, and to gives those that did not take part an impression of the day. It also provides a tangible form for those that took part in the events. An online version is also available as a pdf, but is best seen in its original paper form.

6.4 Background: Soda – 1997-2002

Having co-founded the art and technology collective ‘Soda’ in 1997, with fellow MA students from Middlesex University’s John Lansdowne Centre for Electronic Arts, Fiddian Warman and Lucy Kimbell, Soda had significant success as an art collective, based on collective and mutual interests.

The on-going discussions that Soda allowed, led to Soda’s collective approach to making of artworks in terms of *making physical the virtual*, in which we wished to explore the relation of emerging digital technologies to the social, affective and topological impact of technology on society and culture. Acting as a collective, these ideas were extended from both very early group projects ('Memo', Cubitt Gallery 1997, 'Gasworks' 1997) to individual projects such as 'Twentieth Century Screen' (White: 1998), 'Corrupted Nature' (Saunderson and Warman: 1998) and 'Chorus' (Kimbell:1998) being shown at the LEA Gallery in Hoxton (1998) to collective works such as '2347' for Avatar⁵⁶ at Moderna Museet, Sweden 1998.

However, whilst initially, Soda's work was being discussed and critically evaluated in terms of art and technology (*Frieze Review* Soda, LEA Gallery, 1998), the substance of our practice in digital media meant Soda were enmeshed within commercial endeavours for financial support. The comparisons to other creative agencies that were apparent at this time, ranging from Noho Digital to Less Rain, meant that Soda unwittingly occupied multiple cultural and creative spaces simultaneously and was identified as part of the ‘New Media’ sector emerging around Shoreditch. In 2001, in a reorganisation of collective communication, and to prevent becoming a simple commercial design agency, Soda distinguished its activity into the areas of play, learning and art. In redesigning the website, we promoted ‘Sodaplay’, a simple java based game developed by Ed Burton to our front pages. Sodaconstructor (the application) was highly interactive, and was very quickly featured on a series of design sites. Due to its very small file size (on release, a 7k download) and addictive playability, it soon gained millions of hits per month, building up over the next eighteen months to an integrated community and vast powerbase of users. Numerous

⁵⁶ (With Åsa Andersson, Peter Hagdahl, Carl Michael von Hausswolff and Cecilia Parsberg, Mariko Mori). For more see: <http://www.modernamuseet.se/en/Stockholm/Exhibitions/1998/Avatar1/> [Accessed August 1, 2012]

International awards including a BAFTA in Interactive Arts 2001 evidence this success⁵⁷.

Sodaplay was exhibited as an artwork in a range of international museums, and acquired for important collections (Austin Museum of Digital Art, Texas, USA⁵⁸, Australian Center for the Moving Image, Melbourne⁵⁹). However, I felt Soda's remaining directors (Kimbell left in 1999), we were increasingly unable to create a critical distance between architectural commissions for clients, blue chip commercial projects and the autonomy of individual and group arts practice engaging with emerging critical discourse. The rapid visibility of a creative industry as described by Lord Puttnam at this time, further increased my own reservations around the role of the artist as worker in an expanding 'knowledge economy'.

Soda's focus on Sodaplay alone, a massive success that generated much marketing and profile, was not generating revenue (partly due to the lack of our business acumen). In 2001, despite the recognition of Soda's ability as a developer of custom java applications, the economic background of a speculative financial collapse that was the .com crash of 2001, we found we were no longer able to operate commercially either, and we wound up Soda Creative Technologies Ltd. Despite its reforming as Soda Creative Ltd in 2002, I had issues with the direction that others wanted to take the group, as well as my own new interests, as laid out in this thesis. I left in October 2002 and moved onto new projects and a job in academia teaching Critical Practice at Ravensbourne College of Design and Communication.

⁵⁷ Available from: <http://www.bafta.org/awards-database.html?award=false&category=Interactive&pageNo=2&year=2001> [Accessed May 11, 2012]

⁵⁸ Available from: <http://old.amoda.org/artists/artist.php?ArtistID=104> [Accessed May 11, 2012]

⁵⁹ Available from: <http://www.acmi.net.au/soda.htm> [Accessed May 11, 2012]

6.5 An Inexhaustive Glossary of Parallel Institutions

Artist Placement Group – APG (1966-89) UK / International

The Artist Placement Group (APG) emerged in London in the 1960s. The organisation actively sought to reposition the role of the artist within a wider social context, including government and commerce, while at the same time playing an important part in the history of conceptual art during the 1960s and 1970s.

The idea of Artist Placement stemmed from a group of UK artists, and was guided by John Latham and initiated by Barbara Steveni, who were experimenting with radical new forms of art. Directed by Steveni, the APG pioneered the concept of art in the social context. From the outset their notion of ‘placement’ acknowledged the marginalised position of the artist and sought to improve the situation. By enabling artists to engage actively in non-art environments, the APG shifted the function of art towards ‘decision-making’.

Acting outside the conventional art gallery system, the APG attempted, through negotiation and agreement, to place artists within industry and government departments. The artist would become involved in the day-to-day work of the organisation and be paid a salary equal to that of other employees by the host organization, while being given the new role of maintaining sufficient autonomy to act on an open brief. These placements resulted in a variety of artists’ reports, films, photographs, interviews, poetry and art installations. Artists of international repute, such as Keith Arnatt, Ian Breakwell, Stuart Brisley, George Levantis and David Hall, had important placements or early associations with the APG.

APG: Artist Placement Group. Tate Britain.

APG continued to practice until 1989, when their name was changed to O+I (see O+I). I was introduced to the group and their history through Latham and Steveni in 2004-5, later becoming aware of the multiple subjective readings of APG practice, a point of contention between some of the artists who had a role in it.

Since this time, and my own involvement in key events such as ‘Art and Social Intervention: The Incidental Person.’ (Tate 23rd March 2005) or as Director of O+I (2007-9), I have seen increasing interest in the historic legacy of the group. This is in part due to APG influence in Germany, where it held major events with the government and dialogue with leading figures such as Joseph Beuys.

In 2008, I submitted a bid to the AHRC with Chelsea College of Art and Design and Tate to make accessible the APG Archives held at the Tate, available online.

Although this was unsuccessful key aspects of this research were used in the exhibition “The Individual and the Organisation: Artist Placement Group 1966-79’ at Raven Row in London (27 September to 16 December 2012).

Center for Land Use Interpretation – CLUI (1994-) USA

The perception of a place is affected by each of the mediating agents it passes through, from the inert material of the ground to the final frame of the beholder.

Notes from Center for Land Use Interpretation Intro to TX Oil.

A presentation by Steve Rowell (2008) given to the author.

Founded in 1994, the Center is headquartered in Los Angeles with regional offices and exhibition spaces in Wendover, UT; Troy, NY; Houston, TX, and Hinkley, CA - a largely abandoned town in the Mojave desert. The group undertakes a range of projects, but key are the American Land Museum, ludb – Land Use Database and its Residency Program. Funded through charitable US foundations and acting as a non-profit, Center for Land Use Interpretation’s work has been featured in both contemporary gallery and museum space across the world, as well as in local and regional museums. The focus is on curating and interpreting views of the geomorphological landscape as shaped by humans in the USA. Shared and documented through the exhibitions and displays, the group is made of volunteers and expert researchers, academics and artists.

In 2007, Center for Land Use Interpretation accepted a proposal I made on behalf of The Office of Experiments to undertake a residency in Wendover, Utah. Supported by the Henry Moore Foundation, I travelled to and fro between 2008-10, producing a number of outputs including the project 'Fieldworks from the Museum of the Void'. 'Experiments in the Event of an Archive' (Chelsea Space 2010), which examined the legacy of Latham’s work on event structures and Smithson’s approach to entropy through the canonical Land Art work ‘Spiral Jetty’. Additionally, The Wendover Times was used in a piece of publicly mediated sculpture 'Where is Heidenheim', with Irish artist Tina O’Connell (2010-12). The chapter 'Experiments and Archives in the Expanded Field' draws heavily on this experience.

The Center for Land Use Interpretation. Available from: [http://Center for Land Use Interpretation.org/node/827](http://CenterforLandUseInterpretation.org/node/827) [Accessed August 6, 2013].

Smith, D. CHELSEA space: #33 *Neal White: Fieldworks from the Museum of the Void*. Available from: <http://www.chelseaspace.org/archive/white-pr.html> [Accessed August 6, 2013]

Smith, D., 2010. *Neal White: Fieldworks from the Museum of the Void: Experiments in the Event of an Archive*, London: CHELSEA space.

Copenhagen Free University (2001 – 2007)

The Copenhagen Free University opened in May 2001 in our flat. The Free University is an artist-run institution dedicated to the production of critical consciousness and poetic language. We do not accept the so-called new knowledge economy as the framing understanding of knowledge. We work with forms of knowledge that are fleeting, fluid, schizophrenic, uncompromising, subjective, uneconomic, acapitalist, produced in the kitchen, produced when asleep or arisen on a social excursion - collectively.

With the Copenhagen Free University we have opened a discussion about who and what define knowledge today and the relationship between knowledge and life. Our work is based on the understanding, that knowledge is social and that all forms of human activity carries a level of knowledge. As Antonio Gramsci wrote in his prison diaries from 1932: 'All are intellectuals [...] but not all have the function of the intellectual in society'.

Henrietta Heise and Jakob Jakobsen, its founders.
Available from: <http://copenhagenfreeuniversity.dk/infouk.html>

The CFU was a key player in terms of what Maria Lind 2006 referred to as the fourth wave of Institutional Critique. The organisation developed a guide called 'The ABZ of the Copenhagen Free University', with entries ranging from 'self-institution' through 'uneconomical behaviour' to 'mass intellectuality'. In a research paper called 'The Rise and Fall of the Situationists', documenting the influence of the Situationist International in Denmark, CFU mark out their relationship to this key historic group, and to the political positioning of their criticism. I first encountered CFU through John Latham, as Jakob Jakobsen had interviewed him on his relationship to the AntiUniversity movement of the 1970's. I further encountered Jakobsen when he came to meet Steveni following an APG meeting in 2007. In 2010, Jakobsen received

a formal letter from the Danish Ministry of Science, Technology and Innovation telling CFU that *'a new law had passed in the parliament that outlawed the existence of the Copenhagen Free University together with all other self-organised and free universitie's*. The letter stated that they were fully aware of the fact that we do not exist any more, but just to make sure they wished to notify us that *'in case the Copenhagen Free University should resume its educational activities it would be included under the prohibition in the university law §33'*,

Critical Art Ensemble – CAE (1987 -) USA

Critical Art Ensemble (CAE), founded in 1987, is a collective of five tactical media artists of various specialization including wetware, computer graphics and web art, film/video, photography, text art, book art, and performance. CAE's focus has been on the exploration of the relations and intersections between art, critical theory, technology, and political activism. Their influential 1994 book, *The Electronic Disturbance*, along with their other books and cultural actions, has made the collective synonymous with the term 'Tactical Media.' The collective continues to write and produce projects, and over the past eight years has focused on the social and political implications of biotechnology. Since the summer of 2000, CAE collaborates with artist/researcher Beatriz da Costa. De Costa is a Machine Artist and Tactical Media Practitioner who is currently Assistant Professor of Studio Art, Electrical Engineering and Computer Science at U.C. Irvine.

The Interventionists (2004, p.84)

Massachusetts Museum of Contemporary Art, 2004. The interventionists: users' manual for the creative disruption of everyday life, North Adams, Mass.: Cambridge, Mass: MASS MoCA, distributed by the MIT Press.

I first became aware of CAE after reading 'Electronic Civil Disobedience', in *Crash: Nostalgia for the Absence of Cyberspace* (Reynolds, R. & Zummer, T, 1994), a catalogue from Thread Waxing Gallery in NewYork, in around 1995. After completing my MA in Digital Arts and having left Soda, in 2003 I visited CAE's performance 'Genterra' in Seattle and was then fortunate enough to exhibit work with CAE in Cleanrooms at Gallery Oldham and Natural History Museum (2002-3). Spending time with Kurtz and other key members, I became more closely acquainted with their critical approaches, and was able to understand better how they operated together drawing on post-Marxist philosophy.

In May 2004, Kurtz called 911 to report the death of his wife, Hope Kurtz, by congenital heart failure. In order to create their art installations the Kurtzes sometimes worked with biological equipment and had a small home lab and petri dishes containing biological specimens. At the time of Hope Kurtz's death they were working on an exhibit about genetically modified agriculture for the Massachusetts Museum of Contemporary Art. Buffalo police deemed these materials suspicious and notified the FBI, who detained Kurtz for 22 hours without charge on suspicion of 'bioterrorism.' ...

In July 2004 a grand jury refused to bring any 'bioterrorism' charges, but did indict Kurtz on federal criminal mail fraud and wire fraud charges. Also indicted was Dr. Robert Ferrell, Professor of Genetics at the University of Pittsburgh Graduate School of Public Health, who served as a scientific consultant on Critical Art Ensemble's projects. The charges concern the way Kurtz and Ferrell allegedly ordered and mailed the non-pathogenic bacteria used in several museum installations. Under the USA PATRIOT Act the maximum possible sentence for these charges has increased from five to twenty years in prison.[10] The charges related to how Ferrell allegedly helped Kurtz obtain \$256 worth of harmless bacteria. 'This is the first time in the history of the federal courts that the U.S. Department of Justice is intervening in the alleged breach of a Material Transfer Agreement (MTA) of nonhazardous materials in order to redefine it as a criminal offense[.]' reads a FAQ for a Kurtz defense fund website.

On April 21, 2008, the indictment for mail and wire fraud was ruled 'insufficient on its face' by the presiding Judge Richard Arcara. This means that even if the actions alleged in the indictment (which the judge must accept as 'fact') were true, they would not constitute a crime. The US Department of Justice (DoJ) had thirty days from the date of the ruling to appeal. No action was taken in this time period, thus stopping any appeal of the dismissal. The only option left for the DoJ would be to re-indict Kurtz.

Anon, Steve Kurtz - Wikipedia, the free encyclopedia.

Available from: http://en.wikipedia.org/wiki/Steve_Kurtz

[Accessed December 12, 2012].

To mark Kurtz's outrageous arrest I devised the work 'Truth Serum' in 2008 in order to underline the creep of the security complex into the nervous system of society. The work was shown alongside CAE project 'Immolation' in FACT, Liverpool 2008. In 2009, along with The Arts Catalyst that commissioned Cleanrooms, I co-curated CAE collaborator, Beatriz de Costa's work in 'Memorial to the Still Living', in 'Dark Places'.

Center for Post Natural History (2008 -) USA

The Center for PostNatural History is dedicated to the advancement of knowledge relating to the complex interplay between culture, nature and biotechnology. The PostNatural refers to living organisms that have been altered through processes such as selective breeding or genetic engineering. The mission of the Center for PostNatural History is to acquire, interpret and provide access to a collection of living, preserved and documented organisms of postnatural origin.

The Center for PostNatural History addresses this goal through three primary initiatives:

- The maintenance of a unique catalog of living, preserved and documented specimens of postnatural origin.
- The production of traveling exhibitions that address the PostNatural through thematic and regional perspectives.
- The establishment of a permanent exhibition and research facility for PostNatural studies.

Established by Rich Pell in 2009, the aim of this organisation is to research, study, display and disseminate knowledge around human economics, human enquiry and human knowledge as it has been embodied within human manipulated organisms and natural living things. Pell's approach, similar to that of Center for Land Use Interpretation, or Institute for Figuring creates a museo-logical space. In Pittsburgh, he has opened a future Natural History Museum exemplified by unusual displays, archives, taxonomy and other display approaches that refer to the public and historic spatial approaches adopted by established Institutions of Science etc. Pell acted as the 'nature correspondent' for the Apexart edition of *The Redactor*, published by The Office of Experiments in 2010.

Centre for Urban Pedagogy (1997 -) USA

The Center for Urban Pedagogy (CUP) is a nonprofit organization that uses design and art to improve civic engagement. CUP projects demystify the urban policy and planning issues that impact our communities, so that more individuals can better participate in shaping them.

We believe that increasing understanding of how these systems work is the first step to better and more diverse community participation.

CUP projects are collaborations of art and design professionals, community-based advocates and policymakers, and our staff. Together we take on complex issues—from the juvenile justice system to zoning law to food access—and break them down into simple, accessible, visual explanations.

The tools we create are used by organizers and educators all over New York City and beyond to help their constituents better advocate for their own community needs.

CUP: About. Available from: <http://welcometocup.org/About> CUP:

Whilst I have included the organisation CUP in this list, in my discussions of what might constitute a parallel institution, some of my collaborators in The Office of Experiments consider CUP's status within the design sector make it illegible. However, I think it is an interesting example of how design organisations might be more easily integrated within the establishment than those in the arts, whilst still able to maintain some critical distance as it starts to service the third sector. However, as a consequence, it can be argued that its success amongst what we might refer to as the creative industries renders it non-critical, an organisation that is not parallel, but that seeks to be absorbed within the establishment.

CUP was founded in 1997 by artist and architect Damon Rich with co-founders Oscar Tuazon (artist), Stella Bugbee (graphic designer), Josh Breitbart (media activist), Jason Anderson (architect), AJ Blandford (contractor), Sarah Dadush (attorney), Althea Wasow (filmmaker), and Rosten Woo (policy analyst).

Freee (2006 -)

Dave Beech, is a writer and lecturer at Chelsea College of Art. He is a regular contributor to *Art Monthly* as well as periodicals such as *Untitled*, *Mute* and *The First Condition*. Andy Hewitt, recently completed his PhD at Chelsea College of Art. Hewitt teaches Fine Art at University of Wolverhampton. He co-authored the book *Futurology*, New Art Gallery Walsall (2009) with Mel Jordan. Mel Jordan teaches at Loughborough University. She co-edited the book *Art and Theory after Socialism*, Intellect (2009) with Malcolm Miles and she has co-authored the book *Futurology*, New Art Gallery Walsall (2009) with Andy Hewitt.

Freee is an artist collective rather than aiming to operate as any form of institution. Based in the UK, it is made up of three artists, Dave Beech, Andy Hewitt and Mel Jordan. Together they create slogans, billboards and publications that challenge the commercial and bureaucratic colonization of the public sphere of opinion formation. Freee claims to '*occupy the public sphere with works that take sides, speak their mind and divide opinion.*'

Beech, D., Hewitt, A., Jordan, M. Bio at Freee.

Available from: <http://freee.org.uk/about/>

Futurefarmers (1995 -)

Futurefarmers is a group of artists and designers working together since 1995. We are artists, researchers, designers, farmers, scientists, engineers, illustrators, people who know how to sew, cooks and bus drivers with a common interest in creating work that challenges current social, political and economic systems. Our design studio serves as a platform to support art projects, an artist in residency program and our research interests.

Futurefarmers. Available from: <http://futurefarmers.com/about/>

More closely aligned with the designers Center for Urban Pedagogy and non-institutionalised collectives such as Freee and Temporary Services, Futurefarmers emerged around the same time as Soda in the US (See Appendix 1). Concerned with both online and media design, as well as social and political projects, they have been noted for their projects which include “theyrule.net” with Josh On (Whitney Biennale 2004) and other commissioned socially engaged projects in the USA and Europe. Amy Franceschini, who is also an Assistant Professor at Stanford, is one of the leading figures in the group, and is an example of a figure who, like many of those considered as artistic researchers, has conducted research outside the academic context whilst undertaking teaching and developing rigorous but autonomous research practice.

Institute for Applied Autonomy (1998) USA

Institute for Applied Autonomy (IAA) was founded in 1998 as a technological research and development organization concerned with individual and collective self-determination. Their mission is to study the forces and structures which effect self determination; to create cultural artifacts which address these forces; and to develop technologies which serve social and human needs. The Institute for Applied Autonomy (IAA) is an anonymous collective of critically-engaged artists, engineers, and researchers. The IAA has exhibited and lectured widely since its founding in 1998 at such diverse venues as the Zentrum fur Kunst und Medientechnologie (ZKM), Hackers on Planet Earth (HOPE), and the IEEE International Conference of Robotics and Automation.

Thompson N The Interventionists P52

Established in 1998, the group, which includes the founder of Center for PostNatural History Rich Pell, considered themselves to be researchers, activists and artists, an informal research collective initially centered on contestational robotics. Notable projects included Graffiti writer, which won the Prix Ars Electronica in 2000, iSee (2004), developed with Steve Rowell, and TXTMob (2004), a registration system for cell phones to allow protest groups rapid, anonymous communication. 'Terminal Air' realised with Trevor Paglen in 2007, is described here by Rhizome:

Terminal Air is an installation that examines the mechanics of extraordinary rendition, a current practice of the United States Central Intelligence Agency (CIA) in which suspected terrorists detained in Western countries are transported to so-called 'black sites' for interrogation and torture. Based on extensive research, the installation imagines the CIA office through which the program is administered as a sort of travel agency coordinating complex networks of private contractors, leased equipment, and shell companies. Wall-mounted displays track the movements of aircraft involved in extraordinary rendition, while promotional posters identify the private contractors that supply equipment and personnel. Booking agents' desks feature computers offering interactive animations that enable visitors to monitor air traffic and airport data from around the world, while office telephones provide real-time updates as new flight plans are registered with international aviation authorities. Seemingly-discarded receipts, notes attached to computer monitors, and other ephemera provide additional detail including names of detainees and suspected CIA agents, dates of known renditions, and images of rendition aircraft. Terminal Air was inspired through conversations with researcher and author Trevor Paglen (*Torture Taxi: On the Trail of the CIA's Rendition Flights* - Melville House Publishing).

Institute for Figuring (2003 -) USA

Originally based within the same offices as Center for Land Use Interpretation, and incidentally 'The Museum of Jurassic Technology', the IFF has been undertaking a range of projects, combining artistic and academic research. Now widely recognised for their project 'Coral Reef', and for the writing of Wertheim in *Cabinet* magazine, the IFF has recently set up its own physical space in Los Angeles. I met with Wertheim during a trip to Center for Land Use Interpretation in 2009, and we discussed her interview of Ed Burton for *Cabinet* (Issue 19, Spring 2005). Available from: <http://www.theiff.org/publications/cab19-sodaplay.html>). Burton, whose work on Sodaplay had been recognised globally in 2001, had, she commented, partly inspired her interest in complex generative forms in aesthetics.

Museum of Accompaniment Animals - NA

The aims of Beatriz da Costa's project shifted following her work on the 'Memorial for the Still Living' as part of 'Dark Places' (2009). As she continued to battle with the return of her childhood cancer, and following her Creative Capital award, she turned the project into another, "The Cost of Life";

...a series of projects addressing the emotional, political and economic costs involved in sustaining life. The first, Dying for the Other, is a video triptych juxtaposing the lives of breast cancer research mice and a human suffering from the same disease. Footage was taken over the course of three months in 2011, shortly following da Costa's brain surgery. The second, The Life Garden, is a medicinal anti-cancer demonstration garden consisting of plants, herbs and mushrooms with known anti-cancer properties; it includes a website providing in-depth references regarding the active ingredients of each plant, as well as growing instructions. The third, an installation and cooking workshop entitled The Delicious Apothecary (currently in production) is a direct outgrowth of The Life Garden. The fourth and final project, The Anti-Cancer Survival Kit, consists of several parts, and is being designed for recently diagnosed patients and their loved ones.

In 2011, she received a Rhizome award to work with Rich Pell and Jamie Schulte on a GMO Finder. Beatriz Da Costa lost her fight with cancer and passed away in 2012.

Museum of Ordure (2001 -)

Founded in 2001, the Museum of Ordure is a proposition that focuses upon the institutional mode of collecting and displaying materials that are "Unwanted, discarded debris induces choking urbanisations, smearing land and urban scapes alike.'

'The Museum of Ordure explores the cultural value of ordure through its projects and ongoing public collections'

The act of collection and dissemination of materials through the website and internet deals specifically with ideas of the real politique, manifested through reference to collections of materials and discarded information from this source. Ordure, shit and waste are evoked as having potential value in the mission statements.

Referring in turn to these materials, the policy of preservation (2004) states that *“Eventually (and in accordance with the fallibility of memory) artifacts are institutionally, progressively, determinedly and inadvertently altered by acts of conservation (sometimes unintentional acts of institutional vandalism) until they cease to be recognisable as the objects first acquired.”* This definition is one that corresponds to the paper 'Experiments in the Expanded Field of the Archive' (White 2012) which in turn examines how the archive is shifting through the rapid proliferation of digital technology, and the entropic nature of all materials, even those that have previously only been seen beyond the institutional frame. The Museum of Ordure works in this space with critical wit and a dry sense of humour.

The Office of Experiments – OOE. (2004-) UK / International

I founded The Office of Experiments in 2004-5, during the collaborative project with N55, Space on Earth Station. The Office of Experiments is a non-legal institution that collaborates with different artists, academics and scientists, and has some key members; namely Neal White (Director of Experiments), Lisa Haskell (Director) and Steve Rowell (Director). Rowell is a former programme manager at Center for Land Use Interpretation and is largely based in the US. Haskell worked with many other media arts organisations and activists, such as Irrational and Graham Harwood. Together we develop research projects and collaborate with both academics (UCL, University of Chicago etc) and other artists, non-specialist researchers, enthusiasts, activists and parallel institutions.

Organisation and Imagination - O+I (1989-2009)

Until 2009, the organisation APG lived on through Organisation and Imagination (O + I).

The name APG was changed in 1989 in order to distinguish it from the art administration's placement schemes, set up closely along the lines of the APG's legacy, to the group, highly problematic. O + I describes itself as 'an independent, international artist initiative, a network consultancy and research organisation'. Its board of directors, members and specialist advisors include leading artists, civil servants, politicians, scientists, and academics from various disciplines.

I started to attend the boards of O+I at the behest of Latham and then Steveni in 2004-5. Latham retired from the board, although was present at one or two. I was officially made a Director in 2007. Minutes kept by O+I record key moments such as John Latham's passing and the death of Ian Breakwell. Both these elements and the control of rights of APG Archive by O+I at The Tate, spurred us to make public or accessible these documents. I gave lectures on APG and O+I in Art Schools, and at events such as 'The Archival Impulse' (ARLIS / Tate Britain, Conference 2007) and Art and Value (South London Gallery, April, 2007). After repeated failures to obtain funding from AHRC and Arts Council of England for APG Archival projects, we decided to back Barbara Steveni's own initiative, 'I am an Archive' in which she recorded and recalled key events through walks and digressions. In 2009, O+I was reluctantly closed by a vote of the board and for which I voted against.

Platform (1983-) UK

Platform is different. We combine art, activism, education and research in one organisation. This approach enables us to create unique projects driven by the need for social and ecological justice.

<http://platformlondon.org/about-us/>

Platform was formed in 1983 as a place for artists and activists to act together on social and environmental issues. While the group has evolved we continue to hold to our original purpose. We have experimented with new methods and tactics and engaged in artistic and political movements over the many years, to deepen the expression of our core values.

<http://platformlondon.org/about-us/history/#sthash.L8Qv6hHI.dpuf>

Platform is included here as they were one of a number of groups and individuals that were supporting O+I between 2005-9. The author met in particular with Sarah Trowell, one of Platform's key members during this period. Here they describe their own history and influences;

Early on, the group used street theatre, music and agitprop, coupling imagination to political action, and injecting activism into the arts. In the 1980s, as Thatcherism was in full flood, Platform supported striking hospital cleaners and their trade union in 'Addenbrookes Blues', and resisted the privatisation of a much-loved public venue in 'Corny Exchanges'. Platform was also involved in anti-nuclear protest, and opposing cuts to student grants. In the late 1980s, Platform immersed itself in environmental politics and travelled to Germany to learn from the growing Green and Direct Democracy movements. We were particularly influenced by artist Joseph Beuys' 'Social Sculpture', Green activist Petra Kelly, and writer/dissident Rudolf Bahro.

Their influence can be seen in projects during the early 1990s such as 'Still Waters' which proposed the digging up of London's buried rivers and the re-establishment of valley communities, and 'Delta' which generated hydro-power from the River Wandle to light a nearby school. In 1993, 'Homeland' tackled issues of resource justice and transnational trade. We introduced the public to the relatively new concept of the ecological footprint through a participatory project looking at how all the elements of a single light bulb come to London. Then in 1995, the writer and activist Ken Saro-Wiwa was executed by the Nigerian government and a battle raged over the disposal of Brent Spar, Shell's North Sea oil storage rig. Those seismic events turned Platform's focus onto the human rights and environmental impacts of oil companies, in particular BP and Shell. Today we continue to maintain this focus. Since 1983, we have created over 30 projects and developed many more through collaborations.

See more at:

<http://platformlondon.org/aboutus/history/#sthash.L8Qv6hHI.dpuf>

Public Works (1999-) UK

All public works projects address the question of how the public realm is shaped by its various users and how existing dynamics can inform further proposals. Our focus is the production and extension of a particular public space through participation and collaborations. Projects span across different scales and address the relation between the informal and formal aspects of a site.

Our work produces social, architectural and discursive spaces.

Outputs include socio-spatial and physical structures, public events and publications.

The practice has been growing organically since 1999, with its initial founding members Kathrin Böhm, Sandra Denicke-Polcher, Torange Khonsari, Andreas Lang and Stefan Saffer working in different constellations until 2006 before formally coming together as public works.

<http://www.publicworksgroup.net/about/>

Public Works are also included here as they were one of a number of groups and individuals that were supporting O+I between 2005-9. Public Works provided a temporary office space for O+I and the author met in particular with *Kathrin Böhm*, one of the founding members during this period.

Situationiste Internationale (1957-72*) France and International

Artist practices and anti-capitalist activist strategists owe much to the work of Guy Debord and other leading members of the Situationiste Internationale. Whilst the development and history of the group has been incredibly influential, with many key publications, they are listed here as pivotal to the idea of what substantiates and represents the established institution, and the strategies by which reification of concepts developed through a politics of capital within institutions can be resisted external to this. This includes and spans key periods in which APG were working largely in the UK. However SI, unlike many of the parallel institutions mentioned, sought to break down and critique all established institutions in relation to capital rather than establish new structures. It could be argued that the turbulent internal history of the group owes much to the search for appropriate and autonomous structures that do not substantially support existing institutions, yet are recognised in terms of what Bordieu describes as creative capital . This turbulent history, which is a key narrative of sociocultural and historical readings, has also been a rich source for artists, and now artistic researchers, as it gives foundation and depth to key debates which emerge around the issues of the autonomous field of artistic practice.

For more on these issues, see 'The Society of Spectacle' by Debord (1983), or Sadie Plant (1992) on the reading of *The Situationist International in a Postmodern Age*, a practical users' guide for artist from Simon Ford (2005), or as a pocket guide to spatial tactics in Coverley's *Psychogeography* ' (2010). Additional in depth analysis of the continued relevance of the movement is available from McKenzie Wark (2011,13). An account of the relation between SI and other more recent networked media collectives is covered in Geoff Cox and Jaosia Krysa's work, specifically, 'Art as Engineering: Techno-Art Collectives and Social Change' (2004).

Spurse (2002-) USA

Spurse is a research and design collaborative that catalyzes critical issues into collective action. Through a playful transformation of conceptual and material systems, we develop problems worth having and worlds worth making, engaging across scales and complexities of all things human and nonhuman, organic and non-organic. We begin every endeavor by locating ourselves of the world, not merely in the world.

We are a consultation service who builds tools to engage questions, practices and material systems. As a consultation service we specialize in assisting people (and other critters) developing new modes of being-of-the-world. This

might sound like a technical mouthful, but many of our most pressing concerns today involve complex destructive systems which we find ourselves so entangled that there is no way out and that are now fully self-perpetuating. To begin to come to terms with such realities we need to image that we could collectively compose new ecosystems of everyday life. We work with individuals, groups, institutions, and other critters and systems to facilitate these new possibilities.

Spurse. Available from: <http://www.spurse.org/>

The collective is dedicated to deliberately avoiding hierarchies and thus their research moves fluidly between categories and materials.

The Interventionists. (P.86)

Spurse's work has been researched worldwide but is largely exhibited in US institutions. Notably, Nato Thompson, currently Director of Creative Time, has included their work in various exhibitions including 'The Interventionists' (Mass MOCA, 2004) and 'Experimental Geography' (ICC, Touring USA 2008-9).

Temporary Services (1998-) USA / Denmark

Not unlike Freee, Temporary Services are more collective than institution, yet have also embraced and negotiated with the idea and structures that might help to define parallel institutions; *'We produce exhibitions, events, projects, and publications. The distinction between art practice and other creative human endeavors is irrelevant to us.'*

Founded by Brett Bloom, Salem Collo-Julin and Marc Fischer, they are based in Chicago, Copenhagen, and Philadelphia and have existed, with several changes in membership and structure, since 1998. In this respect they are also experimental in nature. *'Temporary Services started as an experimental exhibition space in a working class neighborhood of Chicago. Our name directly reflects the desire to provide art as a service to others. It is a way for us to pay attention to the social context in which art is produced and received.'*

This combination of social context therefore has a relationship with other parallel institutions, but is less grounded in European critical philosophy, drawing instead on the Labor movements in the USA.

University of Openness (2004 -)

The University of Openness (Uo) is a framework in which individuals and organisations can pursue their shared interest in emerging forms of cultural production and critical reflection such as Unix, cartography, taxonomy, physical and collaborative research. Any member may start a faculty to socialise their research with the Uo.

The Uo

- * is a user led facility of learning and research with many temporary physical campuses, and one less temporary one at Limehouse Town Hall, London, and many online presences.

- * runs a core curriculum and regular classes, and at present has several faculties listed and linked to from one of it's wikis at <http://uo.twentiethcentury.com>.

- * is administered by an orgiastic board with a floating Chairperson, Secretary, Treasurer and self-elected members of various denominations.

- * is open to solicitation for prospective classes, faculties, symposia and more than you can possibly imagine.

Uo facilities include a media-lab, map room, library, wikis, a wireless industrial unit, and other distributed campus services. Research at the Uo can be any activity, the Uo is a mechanism for valorizing and building on or breaking down that activity. Although individual operations are useful for some purposes, the Uo provides an opportunity for socializing research activity - sharing results and engaging with others in the assessment and representation of research.

Albert, S, (2004). University of Openness
Available from: <http://www.crumbweb.org/dbimaginary/getBioDes.php?id=2&t=&fc=2>

Saul Albert founded the University Of Openness, the hacker event Dorkbot London, and The People Speak: a project based around game shows and other participatory media forms. Interested in the practical challenges faced in applying open source ideas to art, Saul Albert has played a significant role in the UK and International media arts scene, particularly in relation to the idea of 'open source' as a force for shaping cultural forms. He is currently undertaking a PhD in the Cognitive Science group at Queen Mary's department of Computer Science and Electrical Engineering.

The Office of Experiments:
Experimental Research in the
Expanded Field of Contemporary Art.

Volume 2 of 2

Volume 2 – Digital Archive