

Ambient Poetics and Critical Posthumanism in Expanded Cinema

by

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Abstract

Posthumanism is a contested term, seen by some as leading towards a merging of human bodies and technology and by others, more critically, as a renewal of the ethical debate regarding human exceptionalism. Through a study of this critical approach and its potential relation to expanded cinema, a set of propositions is formulated. New knowledge emerges through the application of these propositions towards the expression of critical posthumanism.

By looking at formal, conceptual and methodological underpinnings, existing tendencies in expanded cinema are analysed and reviewed. Firstly, aided by Timothy Morton's 'ambient poetics', environmental orientations in artist film and expanded cinema are investigated. Secondly, conceptual ideas 'beyond the human' in this field are discussed. Finally, the environmental footprint of moving image production is considered. Central to this investigation is the desire to change prevailing narratives regarding nature and environment. Instead of regarding environment as a subject outside the cultural domain, environmental immanence and shared consciousness are regarded as central cultural values within a productive posthuman debate.

This theoretical approach is set in motion through a practice-based project in which organic processes are applied to generate images on discarded and outdated 35mm film. By using plants, mud and salt in conjunction with alternative photochemistry, images are 'grown' on motion picture film. Moreover, digital images are gathered using a camera extension that allows a point of view beyond the human. Background and foreground are reversed in order to reveal the prominence of natural elements in an urban setting. These images are used in a performative or spatial context that places the viewer within the work.

By bringing together theory and practice a conclusion emerges, opening up further possibilities to develop and apply the newly found knowledge, not only in expanded cinema but also to other fields.

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Although both my parents passed away several years ago, their presence has never waned. I am finding myself working towards a blending of art and ecology, reflecting their life-time passions; my mother, Carla Huis in't Veld, being a fashion designer and my father, Henk Doing, an ecologist. I am also thinking about my son, Vleer Doing, who will be part of a future beyond my life-time. As a parent, I am no different than many generations before me, wishing a better future for my son. My hope is that this project can lead to an increased understanding of our relationship to the natural environment, even if it is only a small contribution to such a cause.

Introduction

This practice-based research project is driven by a desire to break with prevailing narratives regarding human relationships with the natural environment, while using expanded cinema. I will argue that the domination of nature is central to much Western thought and that this approach has a negative global impact. Moreover, recent strong political shifts towards a renewal of patriarchy, white supremacy and climate change denialism, exemplified by autocratic leadership in the US, Russia, Turkey and several European states, demonstrate the urgency to renew and strengthen debate and empower oppositional voices. The complexity that has to be faced to fulfil the desire to advocate a new line of thought has led to the following research question:

How can expanded cinema be used as a tool to reach beyond the anthropocentric?

Prior to the formulation of this question, my aim has been to look at even more complex relations, not only researching the connection between expanded cinema and a utopian 'green' society, but also incorporating utopian visions for architecture. This was too ambitious for two reasons. Firstly, I have a wide experience in filmmaking but practically no experience in architecture. Secondly, looking at two very different media, the moving image and the built environment, in relation to questions regarding social and ecological justice, proved to be too complex to grasp within one project.

My initial goal was to build a set, a model for a future green city, shoot moving images on this set and feed these back into the same space while inviting an audience to participate in the further completion of the work. This idea was informed and inspired by Constant Nieuwenhuys' *New Babylon* (1956 - 1974), a long-term project with a global perspective regarding urbanity and human behaviour. To achieve such a goal, I had to strengthen my research proposal and acquire funding in order to have access to the necessary resources and secure a well sized working space. By looking at utopian ideas in the arts and humanities and reviewing these, I was hoping to underpin my research proposal and gain access to a grant including both fees and maintenance. My first application was simply not shortlisted. The second version did get shortlisted and made it to the final round, ending second place. A third bid was also thwarted, although it received positive feedback. By then, my research was well underway and I had to conclude that I had to adapt to the situation and alter my project in such a way that my goals would be achievable with a minimal budget. These problems also showed me that I had to clarify my research question and enhance my academic skills.

My interest in the possible relationship between expanded cinema and utopian 'green' architecture has not disappeared but I have taken a step back, focusing on a more precise definition of a 'green' utopia first. This search has led me to critical posthumanism, a line of thought that has become central to my enquiry. Instead of my earlier attempts to formulate my research question within the domains of architecture, utopia, sustainability and expanded cinema, I have reformulated this in a more concise way. The research presented in this thesis focuses on the formulation of a set of propositions that can be applied in order to express critical posthumanism within expanded cinema.

In order to achieve this, I have taken a multi-disciplinary approach, researching along multiple strands simultaneously. I have undertaken a whole range of side projects and have allowed myself to roam in a multitude of different areas to obtain knowledge, learn new working methods, terminology and to find names of relevant authors. I have also treated financial, social and logistical limitations as positive signals guiding me to certain activities, locations and materials. I have worked together with many different academics, artists and activists, listening to each of them carefully and co-creating work when possible. My collaborative approach was met with enthusiasm at the college and I was offered a part-time role as Postgraduate Engagement Assistant. This job helped me to cover my fees and enhance my communication with the research staff and students.

To demonstrate this, I will give a summary of relevant projects undertaken by me, both inside and outside of academia. Within my institution, the University of the Arts London, projects include: 'Artofchange 21', a video about a conclave of artists, activists and entrepreneurs in Paris commissioned by Professor Lucy Orta, chair of Art in the Environment, 'Radical Attic', an exhibition organised by the Design Activism Research Hub, 'Anthropocene Walk London', a curated walk through the city in collaboration with Professor Neil Cummings, 'Surprise and Serendipity', a collaborative event with fellow PhD students working in various media, and two 'Journal Club' events, the first focused on critical posthumanism with Dr Amanda Windle and the second, on ethics in filmmaking with Dr Pratap Rughani. I have further volunteered for the community 'Deptford Cinema' and for the environmentalist group 'Creekside Discovery Centre', located next to Deptford Creek. During all of these activities I have acquired knowledge and experience and I have tested my work and ideas.

My artistic practice has thrived as well, I have performed and screened new and old work internationally, including appearances in the United Kingdom, the Netherlands, Germany, France, Belgium, Latvia, Czech Republic, Canada, United States and Indonesia. I have worked with various groups and individuals: at the artist run organisation no.w.here I curated an evening with films and performances entitled 'Living Film' in collaboration with fellow artist Vicky Smith and I made a collaborative film entitled 'E-Star' with workshop manager James Holcombe. I have performed numerous times at events organised by multi-media artist Blanca Regina, improvising musician Steve Beresford and musicologist Jack Goldstein under the title 'Strange Umbrellas'. I have also participated frequently in 'Analogue Recurring', a series of events organised by artist and filmmaker Bea Haut. Moreover, I have presented several papers at conferences in London, Bath and Rochester NY and have chaired a public panel discussing analogue film in the digital age at EYE Filmmuseum Amsterdam.

By screening, performing and talking about work in progress I have received feedback from various audiences and I have engaged in discussions regarding my hypothesis. This has helped me to sharpen my argument and give shape to my research project in a meaningful and engaging way. Throughout the written part, I have integrated both this feedback and my own reflections on the comments and suggestions I have received.

I have also done additional reading outside my subject area, gathering knowledge that has no direct relation to my project but which has still been of importance as a sounding board for my argument. This reading has included topics in the fields of evolution, genetics, microbiomics, morphogenesis and neurology. To understand this literature more profoundly I have had long conversations about these topics with my wife, Ekaterina Yonova-Doing, who is pursuing a PhD in genetic epidemiology at King's College London and has extensive knowledge in these fields. Both the stray reading and the side projects have helped me to find focus while simultaneously understanding connections in multiple directions. I will describe the benefits of this approach further in the following chapter about methodology.

The completed thesis comprises six chapters and an appendix and is accompanied by five new works that are documented on a supplementary DVD and via the supplied vimeo links. In the first chapter, I will propose an autopoietic methodology, aiming to describe a reflexive set of working methods, while researching along multiple strands

simultaneously. As I am a practitioner with an established working method, in this chapter, my aim is to reverse engineer what I have been doing and describe and analyse my methodology in academic terms. In short, I am combining hermeneutics with action research, bringing together an experimental and improvisational practice with rigorous academic research and analysis. The autopoietic methodology that I am proposing aspires towards a developmental and incorporative way of working, using available resources in an inventive and creative way. As already mentioned, my methodology deliberately aims at multiplicity, working both outwards and inwards in order to keep focus and maintain a broader understanding of connections.

The second chapter looks at utopia as a possible antidote to a lurking and potentially disastrous ecological decline. This chapter is derived from an earlier literature review and expands further towards critical posthumanism, reviewing and analysing notable authors in the field. The research that I have undertaken regarding critical posthumanism has been of utmost importance and has contributed to further development of my intertwined theoretical and practical projects. Leading up to this, ideas for an abundant and sustainable society are traced by surveying historical sources methodically, up to the present. Four strands are recognized, following a system developed by Marius de Geus¹, comprising the cloister, the wilderness, the garden and the natural cycle metaphor. Subsequently, these neat categories are opened up again by looking at wider interactions between ecological and social issues and proposing an additional trope: entanglement. The simultaneity of entanglement and incongruence of ecological and social agendas is leading to anti-humanist tendencies, which, instead of hopeful utopian visions for the future, offer a stark negative outlook. A short review looks at notable authors in the field, such as John Nicholas Gray² and Alan Weisman³. To escape from this negativism, posthumanism comes into view. The posthuman is often used to describe a technological development in which the human body is merged with technology or altered by bio-engineering. Critical posthumanism does question blind belief in technological progress and instead focuses on a repositioning of the human subject within an environment that is composed of both natural and synthetic elements, underpinned with revised and updated ethics. Critical posthumanism offers a starting point for a more productive

¹ Dr Marius de Geus is a lecturer in political philosophy and environmentalism at Leiden University, the Netherlands.

² Professor Emeritus John Nicholas Grey is a British political philosopher with interests in analytic philosophy and the history of ideas.

³ Alan Weisman is an American journalist and writer. He has taught journalism and writing at Prescott College and Williams College.

dialogue with earth, animals and machines. Groundbreaking authors, Felix Guattari⁴, Rosi Braidotti⁵, Eduardo Kohn⁶ and others, are reviewed and connections are forged. This review results in a set of propositions to be used within the practice-based research. These propositions are mapped out within the field of expanded cinema, testing their relevance. Simultaneously, the same propositions are applied within my own expanded cinema practice in order to demonstrate a productive relationship. This process is subsequently described, analysed and monitored.

The third and fourth chapters look extensively at expanded cinema, first in a general survey and subsequently, in more detail. Besides looking at existing literature, I conducted a series of interviews with artists in the field. Seven expanded cinema artists and artists' groups are scrutinized, while using quotations and knowledge extracted from the interviews that can be found in the appendix. The number of artists had to be sufficient to include a multitude of visions, but small enough to ensure a focused and comprehensible result. These artists and groups are: William Raban⁷, Chris Welsby⁸, Anthony McCall⁹, Tony Hill¹⁰, Loophole Cinema¹¹, Metamkine¹² and Jürgen Reble¹³.

The aim of this part of the study is to understand and analyse the relation between form, concept and methods in expanded cinema and how these three elements are connected to the research question. First, the formal properties of expanded cinema are scrutinized in relation to a broad concept of 'environment'. This is done by using

⁴ Felix Guattari was a French militant, institutional psychotherapist, philosopher, and semiologist.

⁵ Rosi Braidotti is University Professor at Utrecht University and director of the Centre of Humanities in Utrecht.

⁶ Eduardo Kohn is associate Professor in anthropology at McGill University, Canada.

⁷ William Raban is an artist filmmaker and Professor of Film at the University of the Arts London.

⁸ Chris Welsby is a British born artist who is a Professor Emeritus at Simon Fraser University in Canada.

⁹ Anthony McCall is a British born artist filmmaker who is based in New York known for his 'solid light' films.

¹⁰ Tony Hill is a British artist and filmmaker specialised in ingenious camera rigs.

¹¹ Loophole Cinema was a London collective of artists specialising in large scale site specific installations and performance.

¹² Metamkine is a French performance group specialised in live cinema and electro-acoustic music.

¹³ Jürgen Reble is a German filmmaker specialised in chemical manipulation of film, both live and in single screen works.

Timothy Morton's 'ambient poetics', a set of tools that he has developed to test and uncover environmental forms in literature and sound-art. These tools are transposed to expanded cinema and are set in motion. Secondly, the conceptual underpinnings of expanded cinema are looked at and are coupled with the propositions distilled from critical posthumanism. Finally, methods used in expanded cinema are tested within an ecological framework, looking at the carbon footprint and its possible reduction. Such an environmentalist approach is supported by the increasing use of coffee based chemistry by many filmmakers and extensive recycling of equipment and even reuse of film-stock. Examples of these practices are given and are further reviewed in Chapter 5.

In both chapters, a review of notable literature and practice is woven into the text. I have done this as extensively as possible, excavating the relation between expanded cinema and environment. An environmental critique of cinema has only recently surfaced, notably in articles by Tess Takahashi¹⁴ and Kim Knowles¹⁵, and the anthology *Screening Nature, Cinema beyond the Human* by Anat Pick¹⁶ and Guinevere Narraway¹⁷ (2013); all of these will be cited later.

Two fellow research students, Teresa Maria Connors¹⁸ and Rania Khalil¹⁹ have published peer reviewed articles in which they have forged a relationship between expanded cinema and posthumanism. However, there is no comprehensive survey focusing on expanded cinema and critical posthumanism available. The key contribution to new knowledge by this project is a comprehensive survey of expanded cinema as an art form with environmental, social and utopian underpinnings. This survey produces evidence of the various overlaps that can be found between the fields of critical posthumanism and expanded cinema. The interviews I conducted are an important data gathering element to formulate this knowledge. Besides this function, the interviews and my subsequent writing also provide a comprehensive historical

¹⁴ Tess Takahashi is an independent academic and curator based in Toronto, Canada.

¹⁵ Dr Kim Knowles is a British film historian and lecturer in Film Studies at Aberystwyth University.

¹⁶ Dr Anat Pick is senior lecturer in Film Studies at Queen Mary University.

¹⁷ Dr Guinevere Narraway is lecturer in English and European languages at the University of Tasmania.

¹⁸ Teresa Marie Connors is a multi-media artist and PhD candidate at the University of Waikato.

¹⁹ Rania Khalil is a performance and video artist and PhD candidate at the University of the Arts Helsinki.

perspective on the aforementioned contemporary groups that have been largely ignored in academic writing so far. The scarce sources acknowledging these contemporary groups are quoted and subsequently, additional information, review and analysis is offered.

Chapter 5 describes my own expanded cinema practice, testing the theoretical propositions and the aforementioned overlaps between the two fields. First, looking at 'ambient poetics' within the five works that are the result of my practical research. Secondly, the underlying concepts of the work are described in relation to critical posthumanism. And thirdly, the used methods are reflected upon from an ecological perspective. Specifically, I will describe the making and use of 'organigrams', a technique developed by me, succeeding the existing practice of photograms and chemigrams (these terms and techniques will be further explained in Chapter 5). My aim here is to address practical and ethical considerations for moving image making in regards to the environment. By using recycled film-stock and non-toxic chemistry and by focusing on the imagery produced by the process itself, a sincere environmentalist practice is achieved. Moreover, a set of videos will be described, aiming to present a reversal of the way urban and natural landscapes are represented principally. These videos have clear roots in the established practice of structural filmmaking, made but are made aided by inventive use of recent action camera technology²⁰. The complete set of five works can be seen as a dialectical system, opening up a complex set of questions for the audience to consider. Instead of providing a didactic message, my efforts are aimed at starting a discussion about the topics of ecology and social/cultural interaction.

Chapter 6, the last chapter, is dedicated to conclusions, the formulation of an answer to my research question, the delivery of proof of my original contribution to new knowledge and ideas for possible further research.

In short, my claim to new knowledge encompasses the establishment of a connection between critical posthumanism and expanded cinema with a potential to be implemented within a broader field. This relationship and its application within the practice-based part of my research is summarised in the final chapter. Also, ideas for the employment of the new knowledge in a possible future project is briefly explored. By doing this, I will briefly return to my initial plan to combine the fields of architecture

²⁰ Rugged and waterproof digital cameras designed to be used in extreme conditions.

and expanded cinema, proposing a project encompassing these fields from a joined posthuman perspective.

A bibliography, a filmography and an appendix with the aforementioned interviews follows the concluding chapter. The appendix also contains a DVD and a list of vimeo links and passwords documenting the practice-based work.

1) Methodology

In this chapter, I will provide a rationale for my methodology. I will do this informed by established and well described methodologies, used in artistic research and social sciences, and also by my 20 plus years of experience as a practitioner. Over the years, I have used a set of methods that have become increasingly tried, tested and proven. However, before embarking on this research project, I have not described and contextualized these methods. The aim of this chapter is to 'reverse engineer' my already existing methodology and sharpen its focus by using academic sources and critical reflection.

An important source is the extensive, critical and accessible publication *Reflexive Methodology* (Alvesson & Skoldberg, 2009). Additionally, other written resources will also be considered. As my research is concerned with the observation, comparison, analyses, interpretation and creation of expanded cinema and related art forms, the choice will be for a set of qualitative methods. The main objective is interpretation of data: artworks, art historical texts, reviews and essays, talks and presentations, and my own practice. This interpretation could lead to new insights within my specialization and, ultimately, to conclusions or methods that could be applied in other fields. After establishing this qualitative approach, a choice has to be made between the various existing methodologies in the field while exploring new directions.

Alvesson & Skoldberg identify four major strands within reflexive methodology: grounded theory, hermeneutics, critical theory and poststructuralism/postmodernism. Moreover, they discuss feminism and the genealogical method in relation to the previously mentioned four. In addition to this, action research will also be considered. I will briefly summarise these distinct methodologies, as all of these have been considered before making my own specific choices.

Grounded theory (Glaser & Strauss, 1967) focuses on the discovery of theory, rather than verification. Within this methodology, data is used to generate theory. Applied in practice-based artistic research this points towards the examination of both texts and artworks, while filtering out common approaches and methods. After this accumulation of facts reaches a critical mass, theory can be built on top of the pile. This building of theory is done in a reflective approach towards all information that has been acquired.

Modern hermeneutics has its roots in the Renaissance and cannot be easily attributed to specific authors. This methodology starts with the insight that a part can be only understood in relation to the whole, and subsequently, the whole cannot be understood without scrutinizing the parts. Examples of this approach can be found in the works of Ernst Bloch²¹, Walter Benjamin²² and Jacques Derrida²³. Hermeneutics proposes a circle that can be started at several points. For example, first, the whole body of work can be looked at, then the successive parts, leading back to the whole. In a variation of this methodology several cycles can be completed before reaching a conclusion.

Critical theory is a methodology accredited to the Frankfurt School, and is frequently associated with the writings of Habermas, for example *Towards a Rational Society* (Habermas, 1971). In this approach, interpretation of data is done through the analyses of existing power relations and exposure of political meanings. Society at large, and also art as a specific result of human social interactions, is seen as an expression of power relations, either establishing, disturbing or redefining these. Underlying motivations for the acquisition of power, material wealth or sexual domination are seen as key issues in human relationships. The role of the researcher and a possible bias also has to be taken into consideration.

Poststructuralism/postmodernism breaks with the concept that there should be a dominating centre that governs the structure. *The Postmodern Condition* (Lyotard, 1979) can be seen as one of the establishing publications that led towards recognition of this line of thought. Boldly said, this methodology is anti-methodological, starting from a disbelief in the ability of a researcher to reach any definite conclusion at all. Instead of searching for truth, poststructuralism/postmodernism aims to voice multiple viewpoints simultaneously. As a consequence of these assumptions, text itself comes to the foreground while data is regarded as suspicious and unreliable. The result of research through this methodology can be a deconstruction of existing knowledge rather than an extension.

Action research as a methodology was established by Kurt Lewin, as described in his innovative paper *Action Research and Minority Problems* (Lewin, 1946). Here, the

²¹ Ernst Bloch (1885 - 1977) was a German philosopher who made original contributions towards utopian thinking.

²² Walter Benjamin (1892 - 1940) was a German philosopher and cultural essayist whose work has had a lasting impact on the humanities.

²³ Jacques Derrida (1930-2004) was a French philosopher who is associated with postmodernism and post-structuralism.

researcher takes an active role in the field that is being researched. Together with the participants questionnaires or research plans are developed, these are put into action through a collaborative process and are analysed in group sessions. A system of feedback loops continuously adjusts and corrects the process. Various strands have focused on application of this methodology in education and organization development, but other applications have also appeared in science (action science).

What all of these methodologies have in common is a reflexive stance towards either the phenomena that are studied and/or the research itself. As such, reflexivity refers to a mode of research that takes the effect of the used methods or the personality and actions of the researcher into account. For my project, two of these reflexive methodologies are most valid. Hermeneutics is suitable because my field of study is complex and consists of many interrelated parts. Hermeneutic cycles will help to gain a deeper understanding of the whole, as well of each of the separate parts and their relations. Also, action research will be applied, as I am both a practitioner and a researcher in the same field, and the aim of a practice-based PhD is to find a productive way to implement interaction between theory and practice. But before making assumptions, it is important to look at existing methodologies in expanded cinema.

Expanded cinema is defined in a variety of ways by mainly British, European and American authors. Variations in its definition make it impossible to decide on a final meaning of the term and its methodology. In my research project, I focus mainly on British and European manifestations. In the chapter *Reflexivity and Expanded Cinema: A Cinema of Transgression?* in *Expanded Cinema Art Performance Film* (Raban, 2011: 98-107), William Raban writes about the origins of expanded cinema in Britain. He describes expanded cinema as a system in which "film production and film exhibition become conjoined in the same time frame". Furthermore, he states that, through this process, "the audience becomes engaged in the production of the meaning of the work". This is identified as a reflexive process, which, instead of referring to the relation between researcher, subject and research methods, refers to the relation between artist, artwork and audience. In a subsequent chapter by Steven Ball²⁴ in the same publication (Ball, 2011: 267-275), and also in an article by Erika Balsom²⁵ for *Artforum* (Balsom, 2014), the 'liveness' of expanded cinema is described as one of its prominent

²⁴ Steven Ball is a film and video artist and musician. He is research fellow at the University of the Arts London.

²⁵ Dr Erika Balsom is senior lecturer in Film Studies and Liberal arts at King's College London.

features. Steven Ball defines this as "a will to the intensity of direct communication as distinct from didactic intent", while Erika Balsom describes contemporary expanded cinema as "a desire to withdraw from circulation networks and insistent on the locatedness and collectivity of an aesthetic event that will remain outside the domain of digital reproducibility". Additionally, I want to bring forward some ideas regarding methodology that are sourced from the interviews I conducted with expanded cinema artists: Tony Hill highlights the 'unscriptedness' of his films, performances and installations and also talks about 'audience performance' as an important element of his work. Similar notions are voiced by the consecutive members of Loophole Cinema. Specific to their work is the idea of acting responsively towards the temporary spaces in which their performances take place. Jürgen Reble looks at his work as a kind of neurological trigger and repeatedly mentions the idea of being inside the projector or even inside the material of the film. Through all of these quotes and ideas, a methodology emerges that could possibly be described as 'action art', making an analogy to action research. Tools, materials, objects, performer(s) and audience are brought together in a system that produces the artwork *in situ*, leaving traces afterwards, in the sense of filmstrips, audio recordings, photographs or memories, and most importantly, new thoughts and new connections in the minds of the participants.

My research is centred on finding ways to express ideas beyond the anthropocentric, while using expanded cinema as a tool to achieve that. My objective is not only to produce new expanded cinema work, but also to critically reflect on this art form and, ultimately, to propose possible uses of its strategies in other fields. From this point of view, I want to oppose the poststructuralist/postmodern notion of the loss of an all-encompassing narrative for humanity. Although I fully accept the fact that, as humans, we are not capable of finding a definite truth due to the limitations of our senses, knowledge system and cognition, I want to argue that there is a topical and pressing story that concerns us all, one that will define our near future. The fulcrum of that story, or web of stories, is the rapidly changing global ecology: climate change, species extinction and the progression of toxic elements in our food chain. Conflicts in Africa (for example Eritrea, Libya and Somalia) and the Middle East (for example Syria, Palestine and Iraq) and growing migration streams are inextricably connected to these changes. Moreover, unequal distribution of wealth and power is a major cause of the various problematic issues that lead to over exploitation and neglect of natural resources²⁶. In an attempt to verify this condition, the term 'Anthropocene' has

²⁶ An extensive discussion of the interdependence of these problems can be found in *This Changes Everything: Capitalism vs the Climate* (Klein, 2014).

emerged, marking the far-reaching effects of human civilisation, becoming visible in geological strata. Extensive proof towards the described rapid global ecological changes and the subsequent naming of a new geological era is provided in the article *The Anthropocene is Functionally and Stratigraphically Distinct from the Holocene* (Waters *et al*, 2016).

Both expanded cinema and Anthropocene are concepts that find their meaning in relations between phenomena, rather than in defined objects or texts. This can be described as a systems approach, leading towards a methodology comprising elements of hermeneutics and action research. The hermeneutic circle will help me to understand the relations between seemingly unrelated topics and between parts and the whole. Action research can help to implement artistic practice as a key element in a research project. In a bid to give this a shorter and more evocative name, I propose to call my methodology 'autopoietic'.

The term autopoietic was coined by Humberto Maturana and Francisco Varela in the context of early research in systems biology and is described in the following groundbreaking definition:

An autopoietic machine is a machine organized (defined as a unity) as a network of processes of production (transformation and destruction) of components which: (i) through their interactions and transformations continuously regenerate and realize the network of processes (relations) that produce them; and (ii) constitute it (the machine) as a concrete unity in the space in which they exist by specifying the topological domain of its realization as such a network. (Maturana & Varela, 1972: 78-79)

Following these principles, autopoiesis can be seen as a possible methodology that is based on a circular organization of research methods. Alternating between inside (the studio) and outside (the presentation platform), the researcher progresses on a path that leads towards an increased understanding of the position, role and transformative power that a certain practice has, while being actively involved within that same practice. Informed by existing knowledge, a series of experiments are set up and the researcher actively engages in work done by other groups or individuals. The diverse outcomes and results are tested and circulated in the same environment and feedback is incorporated in a new round of experiments. At regular intervals, the results are inscribed in text and artwork, and subsequently, both can be used as catalysts for

further research. The aim of this methodology is to manage a complex problem space that defines itself in the process and will become increasingly resilient during its emergence. Considering the artistic practice itself, it points towards collaboration with forces or entities that cannot be completely controlled, resulting in mutating forms of presentation shaped by and feeding back into the presentation space, other artworks in its proximity, the audiences' active participation, including feedback, and institutions and their curation and management.

Returning to my own practice, a summing up of methods that I have been consistently using can clarify the proposed methodology: my work is rooted in experiment, the application of novel concepts, techniques and structuring principles. Through several cycles of testing and readjusting, such experiments can lead to a well-articulated output. These experiments are often embedded in collaboration, or co-creation, with other artists and/or participants. Collaboration adds an unpredictable factor, calling for additional rounds of readjustment. In order to function in such a seemingly chaotic environment, improvisation is a useful tool. Instead of acting within a tightly prescribed set of aims and objectives, leading towards a previously strictly defined goal, the improviser is highly aware of the input given by others. A skilled improviser does not only adjust to others, but simultaneously gives them signals in return, signposting possible directions. This practice is best known in music, but can be applied to expanded cinema as well: Malcolm Le Grice²⁷, who is a pivotal figure in the field of expanded cinema, refers to improvisation as an important influence in his article *Improvising Time and Image* (2001):

However, I think jazz, rooted in improvisation, has been the single most important influence on my concepts of artistic form. After my seventh year at Art School, frustrated with the gallery scene in painting and caught up with the sense of radical change in the mid-sixties, I started making film. This combined the visual aspect of painting, my early pleasure in theatre and the temporal excitement of music ... I started to make films in the same way I approached painting or improvisational music. I never used a 'script'. For some films, like *Castle 2* or *Talla*, to guide the editing, I made diagrams similar to the graphic scores developed by Cardew or Cage. (Le Grice, 2001: 15)

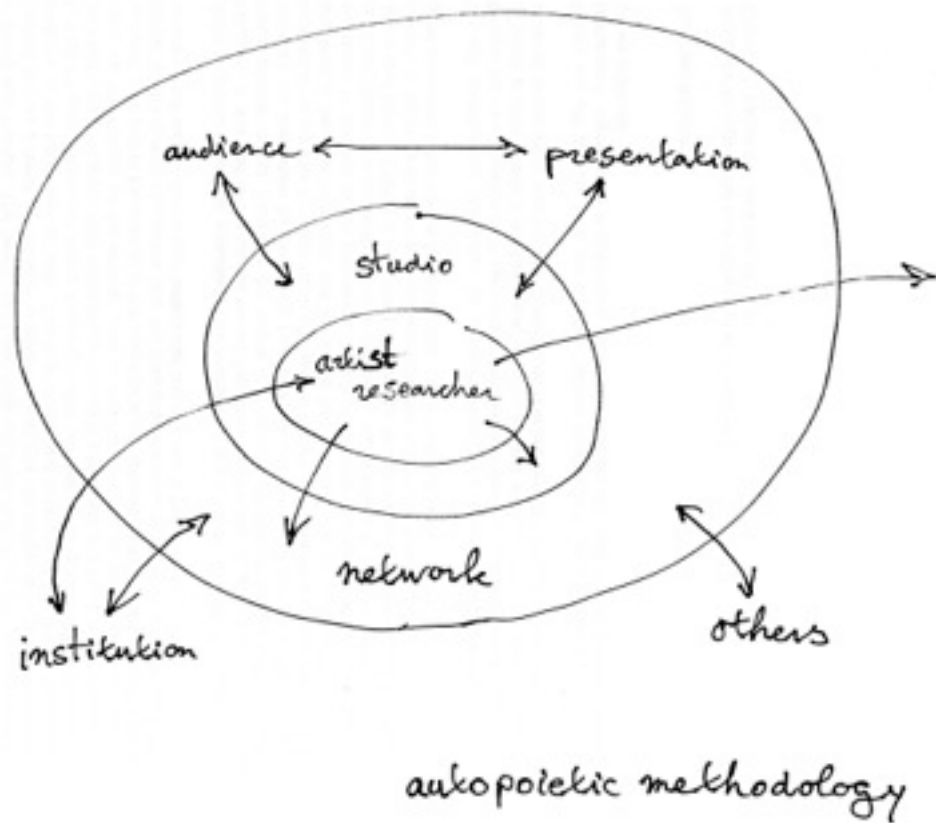
²⁷ Malcolm Le Grice is a film and video artist and Professor Emeritus at the University of the Arts London.

Similarly, I have used experiment, collaboration and improvisation to develop various layers within my work, in conceptual, technical and social domains. Instead of creating a watertight container, offering a safe space to work, I am deliberately choosing to rupture my own repository time and time again, opening up new possibilities for communication and change. I will return to these methods more extensively in Chapter 5, describing in more detail how my work benefits and emerges from an amorphous field of different influences, voices and permutations.

While the previously defined reflexive methodologies offer multiple feedback loops between artistic practice and theoretical research, the proposed autopoietic methodology extends further in a collaborative space. The autonomy of the artist is seen within a complex set of relationships within a network of 'others'. The aim is not to strive for a stable, bounded position, but rather the opposite, to embark on a hermeneutic process of understanding relationships between practice, theory, institution and audience. This increased understanding ideally leads to further enhanced skills in the already mentioned fields: experimentation, collaboration and improvisation. A possible pitfall of this methodology is its complexity, which could result in a relatively obscure and chaotic process. In order to prevent this from happening, I will monitor and describe the various steps closely, and analyse each component of my research separately before joining the various elements. As a conclusion, I would like to return once more to Maturana and Varela:

Living systems are units of interactions; they exist in an ambience. From a purely biological point of view they cannot be understood independently of that part of the ambience with which they interact: the niche; nor can the niche be defined independently of the living system that specifies it. (Maturana & Varela, 1972: 9)

I propose to replace 'living system' with 'artists' and 'biological' with 'art historical'. Following this, my double role, as both an artist and researcher in the same field, complicates this already circular process with a second loop. This complication, however, offers a dynamic and unpredictable stage where creativity can thrive and ideally, new terrain can be covered.



The proposed methodology can be summarized as follows: the agency of others, human, material and institutional, is incorporated in a dynamic and adaptable process. The production of research output, both text and artworks, is fed by multiple external sources and is subsequently tested within a hybrid environment. The circular process is deliberately risk-taking and collaborative, gaining resilience by a constant reshaping within the available limitations. Autonomy is not surrendered but strengthened through this flexible procedure of giving and taking.

2) Utopia and critical posthumanism

In an age of climate change, species extinction, increasing levels of toxins in the food chain, exploding refugee streams and extreme inequality, the so-called Anthropocene, dystopian visions are commonplace. Globally, politicians seem to be unable to provide engaging new visions and increasingly appear to be primarily concerned with crisis management or denialism. The desire for a just and sustainable society emerges progressively as a utopian project.

Historically, the idea of utopia, a more perfect future society, has received attention in a large variety of publications, but it is only now that ideas for an 'ecological utopia' have reached centre-stage. In the following review, possible ecological interpretations of utopia will be investigated, looking at historical publications first and proceeding towards contemporary authors. With this review, I am aiming to develop a series of propositions that can be used to answer my research question, envisioning an engaging alternative to the dystopian world of permanent crisis, expressed through means of expanded cinema. While reviewing utopian literature within this framework, it becomes clear that the awareness and the role of nature and environment have changed greatly over time. In the present, authors are posing fundamental questions regarding our place in a global ecology and this survey will provide an exposition of the principles guiding this inquiry. Ultimately, my study of utopian ideas has led me to critical posthumanism, a line of thought that tries to find a productive balance between inflexible environmentalism and blind technological positivism. In the second part of this chapter, critical posthumanism will be further defined.

The comparative study, *Ecological Utopias: Envisioning the Sustainable Society* (de Geus, 1999), has functioned as a starting point. De Geus summarizes a choice of texts and, after analysing these, he embarks on a categorization of the different metaphors that are used in utopian literature. His system of categorization is useful as a first guideline. A point of critique is that, while using art as one of his metaphors, he describes this field as focused on finished products and aesthetic objects. This is, from my perspective, a rather old fashioned and restrictive point of view. Contemporary art is often focused on process, and takes many forms, including conceptual art, installations, and performances. These artistic practices often do not result in finished products and disturb the aesthetic experience rather than provide an affirmation of order. While using his categories for ecological utopias, I will adapt my writing on this particular point.

The first and maybe most famous example of utopian literature is the novel *Utopia*²⁸ by Thomas More (More, 2003). De Geus classifies this novel in the category he coins the 'cloister metaphor'. More's novel does not have a clear 'ecological' goal in the way we understand the problem of global ecology versus human activity nowadays, but nonetheless it can be read from an 'ecological' point of view. More describes an isolated society with clear boundaries, an 'island state'. He 'solves' the possibility of overpopulation through the colonization of the adjoining mainland. He describes cities as having a limited number of residents and positioned at fixed distances from each other. The area in between the cities is dedicated to farming and woodland in an attempt to create a sustainable model and living conditions that will suit all inhabitants. Buildings and objects are made from simple materials and basic, nutritious food is supplied to all. Garments are equally simple and standardized, and jewellery is only made available to children. Regarding the social system, he envisions a society without private property but with rigorous rules. Working hours are regulated by the state, and everybody has to work on the fields during assigned shifts. Relationships are only allowed within strict rules. Anybody that violates these laws is enslaved and forced into labour. In case of war or a threat from outside, mercenaries are employed to defend the utopian state. More's utopia has many characteristics that resemble life in a monastery. His book was written as a critique of 16th century Britain, then ruled by a morally and politically corrupt class of royalty. More was a devoted Christian who lived a relatively austere and morally principled life. As a result of this, his point of view of utopia has more similarities with a modern authoritarian state than with a democratic society based on freedom and diversity. His 'ecological' ideas are pertinent but would nowadays, in a globalized and networked world, be continuously threatened by opposite forces from inside or outside his island state. The form in which his book is written remains a phenomenal inspiration because of its wit, powerful imagination and exhaustive description of an alternative society.

More than 300 years later, in 1854, Henry David Thoreau's *Walden* (Thoreau & Meyer, 1983) was published. Thoreau describes a different type of equilibrium with our natural surroundings, classified by de Geus as the 'wilderness' metaphor. Thoreau, who is describing his own experiment, retracts from society with minimal tools and money. He settles in a self-built cabin in the woods at the shore of a lake and describes how he survives by growing his own food, hunting on a small scale, gathering berries and other wild produce and contemplating nature. Little attention is given to the design of the cabin other than its basic function as a shelter. The materials used for building the

²⁸ Utopia was first published in 1516.

cabin are mostly retrieved from its direct surroundings. His description is poetic and he succeeds in conveying his love for nature. Moreover, he gives us an insight into the possibilities for living a good life under scarce conditions. What is problematic about his propositions, seen in the light of the present population growth, is the fact that today, it would be impossible to find a similar territory for everybody. Nowadays, the limited amount of suitable land that offers good conditions for such a lifestyle makes this path possible only for a small elite. Although the austere behaviour that he describes has always had a certain attraction to small groups in society through the ages (for example: Carthusian monks, Yogis, Sufis), the hardship of such conduct and the general availability of comfort in our modern world does not encourage many people to choose this on a voluntary basis. *Walden* remains a notable text that helps us to understand the present state of society and the enormous difference in experience between the average city-dweller and a life in the woods. Bringing at least some of these experiences back in a new form seems to be a desirable objective. *Walden* is also relevant as a form of 'silent protest'. While democracy teaches us that we have a 'choice', our options are, in fact, limited and what is offered to us does not give much space to manoeuvre. As a third option, one can choose to abstain from voting, or, in this case, retract from society rather than dealing with its shortcomings²⁹.

In the United Kingdom, in 1890, William Morris wrote *News from Nowhere* (Morris, 1970) from a similar position, advocating craftsmanship, rural society and socialism as opposed to industrialization, the modern metropolis and capitalism. His text inspired many followers; amongst them was Ebenezer Howard, a clerk and self-taught inventor. Howard contributed in 1898 with *Garden Cities of To-morrow* (Howard, 1965), classified by De Geus as the 'garden' metaphor. Howard's ideas were propelled by the continuous growth of Greater London, the rising prices asked by landlords, and the competition between small enterprises and shops. In his opinion, relentless growth and unsupervised competition were the causes of London becoming dirty, expensive and unhealthy. As an alternative, he proposed the 'Garden City', a newly built medium-sized city. He envisioned a mixed system, halfway between socialism and capitalism with the possibility to vote against a shopkeeper or enterprise that does not serve the community well. In connection to this idea, the layout of his city is very regular and has dedicated areas for living, community oriented buildings like schools, libraries and museums and a commercial area. He describes, with great care, a system that keeps costs down and cuts out any possibility for landowners or property owners to exploit

²⁹ An idea also described in depth in the article *Ultranationalism: A Proposal for a Quiet Withdrawal* (Laing, 2014).

the citizens. In the built cities Letchworth and Welwyn, based on Howard's garden city concept, traditionally styled family homes and mixed purpose buildings form the majority of the architecture, with an exceptional amount of greenery in between them. Although this system has great potential to support a society in which the distribution of wealth is spread in a way that would eliminate capitalist excesses, Howard simultaneously advocates a society with no room for divergence and great emphasis on a moral code that is driven by a majority of 'good Christians'. His design could lead to beautiful cities with a high standard of living, but in his 'garden', there is no place for weeds or otherwise exotic species.

William Morris was also acquainted with the Russian scientist and anarchist Peter Kropotkin, with whom he exchanged ideas. In 1902, Kropotkin's *Mutual Aid: A Factor of Evolution* was published (Kropotkin, 2013). This text offers a relevant point of view on human (and animal) behaviour. He argues that the evolution of species is driven by two forces: competition and mutual aid. He supports this thesis with extensive research, looking at both animals and humans. Moreover, he repeatedly quotes Darwin and points out that the famous quote to the great naturalist, 'the survival of the fittest', is often poorly understood. In his own words:

.. if we resort to an indirect test, and ask Nature: "Who are the fittest: those who are continually at war with each other, or those who support one another?" we at once see that those animals which acquire habits of mutual aid are undoubtedly the fittest. They have more chances to survive, and they attain, in their respective classes, the highest development of intelligence and bodily organization. (Kropotkin, 2013: 11)

His hypothesis can be used in support of an alternative society, relying less on competition and more on cooperation.

De Gues mentions Kropotkin in relation to what he classifies as the 'natural cycle' metaphor, but regards Murray Bookchin³⁰, who has written several books about 'social ecology', as the most important author in this field. The term 'social ecology' was coined by Bookchin, describing the relation between the social organisation of human society and the inextricable bonds between the different species on the planet, including humans, animals, plants and micro-organisms. In his book *Post Scarcity*

³⁰ Murray Bookchin (1921-2006) was an American anarchist and libertarian socialist author, orator, historian, and political theoretician.

Anarchism, published in 1971 (Bookchin, 2004), he extensively argues that hierarchical organisation of society lies at the roots of ecological disturbance. Grand scale industrialisation, mining and exploitation are only possible through hierarchical systems. Alternatively, Bookchin suggests a society based on smaller communities that are in full control of their own resources and industries. He advocates the use of technology in direct support of both human society and ecology as a whole. This 'liberatory' technology should provide a key system, allowing humans to live in abundance whilst aiming for a 'stable state'. A stable state is an alternative towards the capitalist model of perpetual growth. In a stable state, all systems are based on the model of the natural cycle; waste and refuse products are fully recycled and energy comes from sustainable resources. Imports are reduced to a minimum and a communal transport network is established, eliminating the need for individual transportation systems, besides bicycles and other vehicles driven by manpower.

In connection to *Post Scarcity Anarchism* and foreshadowing Felix Guattari's *The Three Ecologies* (Guattari, 2014), Ernest Callenbach's³¹ evocative novel, *Ecotopia*, describes a future wherein parts of California and Washington have separated from the USA (Callenbach, 2009). The imaginary country Ecotopia is based on principles similar to Bookchin's social ecological ideas. The book succeeds in describing such a society in great detail. All citizens have a loving and positive approach towards all things communal, including intimate relationships. Misuse of shared property and abuse of sexual freedom do not appear in Ecotopia. Unfortunately, this must be regarded as problematic due to the dual nature of human beings: on one side, competitive and aggressive and on the other side, reliant on mutual aid and cooperation. Ecotopia can also be categorized within what de Geus coins the 'natural cycle' metaphor.

As previously mentioned, I will not follow de Geus' 'art work' metaphor because of its limited understanding of contemporary art. Beyond the previously reviewed publications, I have looked at several authors who are not mentioned within de Geus' study and are less easy to categorize within his system. The far-reaching negative impact of the global financial crisis and the political and social vacuum that has subsequently emerged³² cannot be seen as separate from ongoing ecological decline. I propose to coin this: the 'entanglement metaphor', a view towards sustainability in

³¹ Ernest Callenbach (1929-2012) was an American author, film critic, editor, and simple-living adherent. He is best known for his publication *Ecotopia*, which was first published in 1975.

³² Demonstrated by the success of authoritarian politicians across Europe, Russia and the US.

which the relation between social and ecological issues is seen as central. I will review three notable publications that are representative of such an approach.

A groundbreaking publication addressing the entanglement of social and environmental injustice is the already mentioned publication, *The Three Ecologies*³³ by Felix Guattari (Guattari, 2014). Guattari's text has parallels to Bookchin and Callenbach and advocates a new ethic based on ecological thought that not only involves the environment, but also social relations and human subjectivity. He approaches the subject in an abstract, philosophical way. His practice as a psychotherapist clearly comes to the fore in his strong appeal for a new approach towards mental health care. Moreover, he argues that capitalism intervenes with our personal desires and dreams, manipulating us towards an existence that serves it. He proposes a 'mental ecology', which will allow us to think again about our world in a flexible, adaptive way and will open up roads towards mental and social evolution. This should take place in conjunction with radical improvements of the environment. His arguments are convincing and his proposals are provocative. What is most problematic is that his text is sometimes hard to grasp because of his complicated and hermetic use of language. Additionally, he refuses to translate his theory into practical examples.

In contrast to Guattari's complex and abstract essay, a realistic and practical approach is being offered by Richard Swift³⁴ in his text *Alternatives to Capitalism* (2014). In this text, he extensively analyses the historical backgrounds of the emergence of capitalism and the present domination of this system. Throughout, Swift connects the problems caused by a capitalist society with the ecological crisis. In the last chapter of the book, a serious attempt is made to sketch an alternative to capitalism. Swift offers us three main ideas: de-growth, putting finance back in the hands of the people, and a state that provides a basic income to all citizens. The text approaches the subject, offering an historical overview and a political perspective. This is a strength as well as a weak point; the text offers good ideas for practical solutions but fails to imagine a road that could lead us there. In combination with more imaginative and philosophical works, his text opens up a possible road towards the realisation of ecotopia.

Besides these recent works, Plato's *The Republic* (1974) (first published approximately 380BC) deserves to be mentioned here. Plato was a philosopher, as well as

³³ *The Three Ecologies* was first published in 1989.

³⁴ Richard Swift is a Montreal-based writer and activist. He has written and broadcast on questions of ecology and democracy for many years.

mathematician, in Classical Greece. He founded the Academy and is the author of philosophical works of unparalleled influence in Western thought. In *The Republic*, he reflects on Greek society. The text was written in defence of his teacher Socrates, known for criticizing the state openly and irritating its leaders. At that time, Greece was divided into city-states, each having its specific form of government. Plato reflects on these different forms and critiques them through a philosophical debate between Socrates and his pupils. Although the text has little to do with ecological issues, it is important regarding utopia. Plato addresses several issues in a thought provoking way, still topical to present day society and of importance towards any idea of utopia. First, he analyses justice and tries to find an answer towards the basic notion of justice regardless of written law. His definition can be summed up as follows: A just society is a society in which everybody has found their place and, as a result, is able to use their capabilities in the best possible way. If we apply this to our present society, there are many arguments that can be made leading towards a conclusion that it is highly unjust³⁵. Moreover, Plato goes in search of truth. His conclusion is that truth can only be approached through lifelong training, research, critical thought and argumentation. He considers humanity as living in darkness, with the majority of citizens being unaware of anything that even comes near truth.

What most of these visions for utopia have in common is the notion of the human as a rational, autonomous self, superior to any other creature or process on earth, a self-appointed dominator of nature. This perspective is one of the basic principles of humanism, which basically offers an anthropocentric view of the world. The derivative term 'Anthropocene' expresses the global dominance and subsequent mark making of humans on every aspect of the earth, the sea and the atmosphere. The underlying uncritical acceptance of anthropocentric humanism can be seen as a major hindrance, blocking the development of new lines of thought. Subsequently, it is necessary to explore ideas beyond the humanist system. This exploration starts from a negative position, reviewing publications that can be identified as anti-humanist. In contrast, I will take a look at some ideas within transhumanism, a line of thought that forecasts a future in which humans will be able to engineer their own evolution and will become independent of nature's whims. Finally, a third line of thought will be discerned, critical posthumanism, which carves out an alternative path, winding between the dark abyss of anti-humanist nihilism and the forbidding peaks of complete human dominance as forecast by transhumanists.

³⁵ See, for example, *On the Phenomenon of Bullshit Jobs* (Graeber, 2013).

A striking example of anti-humanism can be found in the publications of John Nicholas Gray. In his pioneering text *Straw Dogs, Thoughts on Humans and Other Animals* (2002), he dismantles the legacy of the enlightenment and liberal humanism, arguing that these lines of thought are nothing more than a secular form of religion. His argument can be summarized in the following way: while rejecting religion as a system based on fairy tales and superstition, the project of modernity based itself on a system centred on human 'reason'. Although humans have been capable of astonishing technological progress, social behaviour of human beings hardly differs between now and the past, even when looking far back into a distant past. Moral questions remain unanswered, and irrational behaviour prevails, either on a small scale, between individuals, or on a global scale, between the most powerful nation states. These observations led Gray to compare humans to animals and to argue that we highly overestimate our capabilities for choosing our own destiny.

A similar observation can be found in *Sapiens, a Brief History of Humankind* (Harari, 2015). Yuval Noah Harari is an Israeli Professor in history who has published extensively about macro-historical processes, rewriting prevalent narratives about humanity. His point of view connects well with John Gray, as demonstrated by the following quote:

Humanism is a belief that *Homo sapiens* has a unique and sacred nature, which is fundamentally different from the nature of all other animals and all other phenomena. Humanists believe that the unique nature of *Homo sapiens* is the most important thing in the world, and it determines the meaning of everything that happens in the universe. The supreme good is the good of *Homo sapiens*. The rest of the world and all other beings exist solely for the benefit of this species. (Harari, 2015: 230)

Also, he examines the role human beings had in changing global ecology and environment, bridging historical and biological perspectives. In a pertinent example, he shows that the arrival of Aboriginal tribes in Australia can be seen as the first ecological disaster. Fossil records prove that various species of megafauna became extinct in the same period as the arrival of humans to the continent, presumably as a result of human predation. Also, the vegetation of the continent underwent profound changes as a result of the slash and burn practice of humans. Eucalyptus trees, thriving and dominating the scene after every fire, spread over the continent, and have recently become an iconic species in the Australian ecology, seen as 'natural'.

Alan Weisman's *The World Without Us* (2007) approaches the subject from a different angle, which might be called anti-humanist. He conducts a thought experiment: what will happen when humans suddenly disappear from the earth? Aided by interviews with academics, scientists and authorities, he sketches a picture of a future environment influenced by materials, objects, buildings and infrastructure left behind by humans. Different examples vary widely on the timescale, starting with the New York subway system, which will be completely flooded within a couple of days, to the unknown ranges of time needed for the degradation of plastics that have been disposed of in the oceans. His deliberations ultimately lead to an existential question. Will humans define their own future or will humanity's future be defined by outside forces beyond their control?

In contrast to such an apocalyptic vision of a future without humans, it is also possible to look ahead with a totally different mind set; towards a 'super human' future, as advocated by transhumanists, notably in *When Will Computer Hardware Match the Human Brain?* (Moravec, 1997) and *The Singularity Is Near: When Humans Transcend Biology* (Kurzweil, 2005). Moravec extrapolates the progress made in processing power and memory capacity of computer chips to make bold claims about a future in which machine intelligence will surpass human intelligence. Kurzweil's hypothesis is similar, while he includes nanotechnology in his argument. Both authors' arguments are convincing but they have very little to say about qualitative aspects. Mere calculation speed and volume will not be sufficient to solve the inherent contradictions in contemporary human society. In fact, the transhumanist point of view is very popular, not only in science fiction. Seeking technological solutions to old or new problems is the most common way of dealing with the unpredictability of the future. The solution for climate change is mostly sought in that direction, ranging from enhanced forms of solar, wind and nuclear energy to so called 'climate engineering'. Often, these technological developments are sold as ultimate 'green' solutions. A fitting example of such green technology is the smart grid, an electricity network that integrates (decentred) sustainable and traditional sources of energy with a digital information management system. The smart grid could greatly reduce normal losses in the network and make less stable sources of energy, like solar and wind power, more viable. This idea, to make information management and digital technology central to the automatic regulation of complex processes, is used in almost every area of contemporary human society, spanning from apps for smartphones and social media to biometric

surveillance and self-driving vehicles. I will return to this topic while discussing human/machine interaction later in this chapter.

One of the main figures who has laid the foundations for digital information management systems is Norbert Wiener³⁶, who coined the term 'cybernetics'. His ground breaking publication *Cybernetics: Or Control and Communication in the Animal and the Machine* (Wiener, 1948) not only gives mathematical information on subjects, like numerical samples and negative feedback control systems, but Wiener also frequently compares the human (animal) nervous system to a computing machine, while being careful not to drive the analogy too far. He also explores the possibility of self-learning and self-replicating machines, but warns of the possible disastrous consequences this could have when such machines are to be employed in military situations. His work has had profound impact in computer technology but the philosophical debate that he pioneered is less well known. A poignant example of his view of human beings in the universe can be found in the chapter about Newtonian and Bergsonian time:

...we are too small to influence the stars in their courses, and too large to care about anything but the mass effects of molecules, atoms and electrons. In both cases, we achieve a sufficiently loose coupling with the phenomena we are studying to give a massive total account of this coupling, although the coupling may not be loose enough for us to be able to ignore it altogether (Wiener, 1948: 163).

A more recent exploration of the impact of digital information management systems can be found in *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (1999), written by Katherine Hayles³⁷. She critically reviews the notion of disembodiment of information, which ultimately leads to the idea that human consciousness could be uploaded to a computer. This understanding of the human as 'only brain' or 'pure information' leads to a radical separation from the environment. If possible, humans will be able to dispose of their bodies, becoming immortal machines. The aforementioned futurist and computer scientist, Hans Moravec, has published about this idea extensively (Moravec, 1997). Hayles tests Moravec's hypothesis by exploring the idea from multiple angles, both looking at the history and present state of

³⁶ Norbert Wiener (1894-1964) was an American mathematician and philosopher whose work was influential in engineering, computer science and biology .

³⁷ Katherine Hayles is Professor in American literature at Duke University in North Carolina.

technology and (science fiction) literature. She analyses our changing perspective on the world in a quite abstract way, posing that we moved from a concept of presence/absence towards a new concept of pattern/randomness. In embodied information, like speech or gesture, and also in traditional media, like handwritten or typed text, there is no data without clear physicality. In digital information, however, this physicality is being mediated by the appearance of code. She argues that, through our daily interaction with digital systems that operate via pattern/randomness, our general perception of reality changes: "When a text presents itself as a constantly refreshed image rather than a durable inscription, transformations can occur that would be unthinkable if matter or energy, rather than informational patterns, formed the primary basis for the systemic changes" (Hayles, 1999: 30). I will return to this notion later while discussing the production of moving images within a posthuman framework. Hayles concludes her investigation by stating that what makes us human is an embodied experience of the world. Our brain, nervous system, hormones, senses and body operate in unison and cannot be separated without consequences. When there is something like machine consciousness, it will not be human. This leads to a posthuman worldview that is regarded either as utopian or dystopian, depending on which line of thought one follows. Hayles' final remarks on the posthuman point to the exclusivity of what is regarded as human in Western thought:

...the posthuman does not really mean the end of humanity. It signals instead the end of a certain conception of the human, a conception that may have applied, at best, to that fraction of humanity who had the wealth, power and leisure to conceptualize themselves as autonomous beings exercising their will through individual agency and choice. (Hayles, 1999: 286)

Hayles' concept of the posthuman can be regarded as a productive line of thought, demonstrated by the subsequent scholars that will be discussed in the rest of this chapter. A groundbreaking publication in this context is *The Posthuman* (2013), written by philosopher Rosi Braidotti. She names biotechnology, military technology and global warming as game changing elements. Biotechnological tools, like genetic modification, hormonal treatments, stem cell therapy and cloning are increasingly used towards a 'commodification' of life. Agriculture and healthcare are becoming products owned and marketed by global companies, giving these companies possibilities to control and manage life itself. Similar to mediated text and image, lifeforms can be mediated aided by these technologies. Simultaneously, the forefront of military technology is defined by unmanned weapons like drones, remote operated machine guns and smart bombs.

Further developments include robotic pack mules and drugs that extend the ability to function without sleep for human soldiers/operators. These technologies are primarily used to fight 'clean' proxy-wars that will not negatively affect public opinion in home countries.

Global warming is different insofar that it can't be 'owned' by corporations or states, but technological and financial tools are also regarded as most suitable for solving this problem. The COP (Conference of the Parties) agreement of Paris 2016 can be seen as a step further towards the commodification of climate change. Braidotti admits that her starting point is influenced by 'anti-humanism', similar to the positions of John Gray and Alan Weisman, as discussed previously. To escape this nihilist point of view and find positive ways forward, Braidotti tries to develop a new critical posthuman ethics:

In other words, to be posthuman does not mean to be indifferent to the humans, or to be de-humanized. On the contrary, it rather implies a new way of combining ethical values with the well-being of an enlarged sense of community, which includes one's territorial or environmental inter-connections (Braidotti, 2013: 190).

She extends her search in chapters headed with 'becoming animal', 'becoming earth' and 'becoming machine'. Instead of a Luddite reflex against the misuse of technology, she embraces technological innovations but simultaneously calls for a rethinking of humanist values and the implementation of the resulting newly found ethics within this technological field: A dialogue between the human, the animal, the earth and the machine. She calls for an immediate translation of this theoretical point of view into practice. Further on, I will give some examples of practical applications of this line of thinking. Braidotti formulates this as following in her conclusion:

The future as an active object of desire propels us forth and motivates us to be active in the here and now of a continuous present that calls for both resistance and the counter-actualization of alternatives. The yearning for sustainable futures can construct a livable present. (Braidotti, 2013: 192)

Both Hayles and Braidotti reference feminist theory and practice as an important source aiding the development of critical posthumanism. Hayles contrasts (humanist) objectivism with (posthumanist) reflexive epistemology and highlights the interaction between science-fact and science-fiction throughout her publication, showing how narratives can become tools in the dismantling of the patriarchal strive for domination

of both women and nature. She resists the notion of Moravec's transhuman technological disembodiment and replaces it with a dynamic partnership between bodies and machines that can extend beyond gender, race and species boundaries.

Braidotti argues along similar lines and formulates the relationship between feminism and posthumanism repeatedly, maybe most pertinently in the following quotation: "The becoming-posthuman speaks to my feminist self, partly because my sex, historically speaking, never quite made it into full humanity, so my allegiance to that category is, at best, negotiable and never to be taken for granted" (Braidotti, 2013: 81). She advocates new posthuman genealogies that could help to break out of the prevailing system of normativity, progressing towards dialogical forms of kinship.

Such forms of kinship or affinities are also frequently debated in the work of Donna Haraway, although she eschews posthumanism. However, she passionately pursues alternative genealogical forms of storytelling in her latest volume *Staying with the Trouble: Making Kin in the Chthulucene* (Haraway, 2016) weaving art, science and humanities together in evocative encounters with multiple genders, species, materials and instruments. But in the limited space that this thesis offers, I have chosen to focus on Braidotti's version of critical posthumanism.

Braidotti's concept of dialogue between human, animal and environment is an important topic in *How Forests Think: Toward an Anthropology Beyond the Human* (2013), written by Ecuadorian anthropologist Eduardo Kohn. Kohn combines anthropological fieldwork with a linguistic and semiotic study. By doing this, he tries to develop a framework that challenges the dominant knowledge system and find ways to move beyond the human. His fieldwork takes place among the Runa (Amazonia). By studying and analysing their language, he uncovers a system in which signs and patterns are shared between humans, animals and forest. The Runa expand this system with a symbolic language, similar to all human beings, but their relationship between signal, pattern and symbol is not one of separation but rather an ecology. Kohn explores how things can move in and out of symbolic systems and how outsides can connect to insides. He starts by exploring how forests sound. The splashing of an animal jumping into the water or the crashing of a falling tree can be regarded as sign that is understood both by humans and animals. These sounds are adapted in human language where they can evolve further. The Runa have developed a sophisticated system, sharing signs that are not visible to the untrained eye and ear, helping them to survive in, and cooperate with, the surrounding rainforest. Moreover, patterns that exist

in nature on both micro and macro scales, like the shapes found in flowing water and meandering rivers, help the Runa to navigate and travel over long distances. Finally, their intimate relationships with dogs are informed both by language and dreaming. The Runa have a specific way to address their dogs, which is different from the language that they use amongst each other. They incorporate their dreams as signifiers that help to cross the species barrier. This topic is the most daring in a study of high scientific rigor: "Dreaming may well be ... a sort of thought run wild - a human form of thinking that goes well beyond the human. Dreaming is a sort of *"pensée sauvage"*: a form of thinking unfettered from its own intentions and therefore susceptible to the play of forms in which it has become immersed" (Kohn, 2013: 188). In general, his cross-over study between anthropology, cultural studies and semiotics can be useful in finding an artistic expression that aims to question the boundaries between culture and nature.

Braidotti's concept of dialogue between human, material, or 'earth', and environment is one of the subjects of Jane Bennett's³⁸ publication *Vibrant Matter: A Political Ecology of Things* (Bennett, 2009). Her objective is to critically review and extend environmentalism and she looks at the agency that matter can have. She analyses how active this agency can be and if one can assign political ability to other entities and objects besides humans. She starts with narratives connected to human produced debris, stories that we have created and come back to us unwillingly. Referencing Adorno's *Negative Dialectics* (1966), she poses that the human reflex to identify objects by means of concepts always remains incomplete, objects can resist conceptualization and remain outside of human mastery. She moves on with an account regarding a massive power-failure in North America, demonstrating the ideas of distributed causality and complexity theory. This power failure was not only caused by human operators but by a whole range of different influences, from software failures, political and financial drives, to material and climatic instabilities. She even draws attention to animal influences (a squirrel causing a short circuit in a power distribution building). Also, she looks at a study conducted in an American prison concerning the influence of certain nutrients (Omega-3) on our brain. Variations in consumption patterns apparently can lead to decreased aggression and increased concentration. She summarizes her exploration as follows:

In a world of lively matter, we see that biochemical and biochemical-social systems can sometimes unexpectedly bifurcate or choose developmental paths that could not have been foreseen, for they are governed by an emergent rather

³⁸ Jane Bennett is political theorist and Professor at John Hopkins School of Arts and Sciences.

than a linear or deterministic causality. And once we see this, we will need an alternative both to the idea of nature as a purposive, harmonious process and to the idea of nature as a blind mechanism. (Bennett, 2010: 112)

Bennett investigates the different answers that politicians, scientists and religious leaders have formulated in regards to the emergence of life. As a pertinent example, she refers to the heated and confused debates surrounding stem cell research. Although research has shown that stem cells are of major importance in the development of the embryo, there is no proof that consciousness is already present in those cells. The origin of consciousness remains an unanswered scientific question, and is described by scientists as an 'emerging property'. As opposed to the idea of consciousness being a 'divine gift', one could explore the possibility that consciousness is already present in some form in matter and thus not exclusively human or even exclusively linked to animals. Bennet uses the term 'vital materialism' to name this concept. She concludes that animal, vegetable and material agency should be regarded more seriously and that, by doing this, we could reshape the idea of 'self' into a concept of common materiality, a common materiality with the world that surrounds us. I will return to this subject later while discussing the possibilities of an 'environmental' cinema.

To continue this enquiry, while following Braidotti, the concept of a dialogue between humans, machines and environment has to be investigated. Often, machines are assigned with an exaggerated amount of agency, most notably in the commonplace term 'smart phone'. Consciousness in machines is taken surprisingly more seriously than the previously described sentient qualities of animals and non-human agency of materials. Mechanistic models of life and the belief in human exceptionalism contribute to the popularity of the memes artificial intelligence (AI) and intelligent machine. Evocative science fiction stories easily mix with dreams about an all-powerful human/machine future. This culture is rarely criticized, and is easily adopted in otherwise rational modes of thinking. In contrast, environmentalists often have Luddite reflexes concerning technological developments. Genetically Modified Organisms (GMO), animal testing and climate engineering are regarded as intrinsically 'evil'. While this might often be correct, the assumption still blurs an unbiased view of the benefits that these technologies (and other new technologies) might offer when handled in an ethical way.

A more critical stance towards the presumed intelligence of machines and a rigorous questioning of ethics could offer a more productive way to discuss human/machine/environment relations. Concerning the former, Daniel Dennett, an American philosopher and cognitive scientist, offers an apt point of view. In his short contribution to *What to Think about Machines that Think* (2015), he observes an increasing abdication of control to artificial agents that can't think. As common examples, he mentions calculators, electronic timetables and GPS systems. None of these systems are conscious or can think in a meaningful sense, but humans are increasingly dependent on such tools. In the near future, diagnostic systems could replace doctors, making life/death decisions. Still, these systems will operate in a similar sense. Dennett concludes: "The real danger, then, is not machines that are more intelligent than we are usurping our roles as captains of our destinies. The real danger is basically clueless machines being ceded authority far beyond their competence" (Dennett, 2015: 92). This warning is also articulated by Florian Cramer³⁹ in his lecture *Crapularity Hermeneutics* (Cramer, 2016), which is fully transcribed on his website. He argues that artificial intelligence often only works flawlessly within a simplified version of reality, leading towards a design drive to actually erase complexity from the environment. His title seems to make a humorous negative reference to the previously mentioned singularity described by Kurzweil.

A more technical approach towards this problem can be found in the article *Autonomous Technology and the Greater Human Good* (2014) by Steve Omohundro⁴⁰, who focuses on the ethics of autonomous systems (i.e. artificial intelligence). He starts with the following statement: "Military and economic pressures are driving the rapid development of autonomous systems. We show that these systems are likely to behave in anti-social and harmful ways unless they are very carefully designed" (Omohundro, 2014: 303). He elaborates this by staging a chess robot with a utility function that rewards winning as many games as possible, resulting in a machine that will prevent itself at any costs from being shut down:

A future in which it is unplugged is a future in which it cannot play or win any games of chess. This has very low utility and so expected utility maximisation will cause the creation of the instrumental sub goal of preventing itself from being

³⁹ Florian Cramer is research Professor in new media at the Hogeschool Rotterdam.

⁴⁰ Steve Omohundro is an American scientist, entrepreneur and president of Possibility Research and Self-Aware Systems, a think tank working to ensure that intelligent technologies have a positive impact.

unplugged. If the system believes the roboticist will persist in trying to unplug it, it will be motivated to develop the sub goal of permanently stopping the roboticist. Because nothing in the simple chess utility function gives a negative weight to murder, the seemingly harmless chess robot will become a killer out of the drive for self-protection. (Omohundro, 2014: 304)

When pursuing this path, further harmful systems can occur, exercising more extreme behaviour. Six categories ranging from bad to worse are identified: sloppy, simplistic, greedy, destructive, murderous and sadistic. Already existing systems, like military drones and other unmanned military vehicles, but also High-Frequency-Trading (HFT), self-driving cars, and automatically run web businesses are not free from such risks. A resolution is sought through a scaffolding strategy, whereby a sequence of provable safe systems are built that are deployed to build larger, more powerful ones. Models for human values and governance are developed and implemented by the first set of systems, reducing the risk of harmful behaviour in more powerful and complex successors.

To provide a counter-narrative, it is useful to return to the tension between environmentalism and advanced technology. Some imaginative examples of hopeful human/machine/environment interaction include the non-profit organisation Sea Shepherd deploys drones for the surveillance of the Antarctic in order to protect whales against human predation. Kilian Kleinschmidt, a humanitarian-aid expert has advocated setting up 3D printing facilities in refugee camps, in order to make it possible for the inhabitants to design and make their own tools and furniture. The Surui people in Brazil are using geo-tagging on Google Earth, in combination with GPS technology, to report and stop illegal logging. The BioBrick Foundation organises student competitions for designing new forms of synthetic biology based on their open source technology. One such, a student-led project created a bacterium that starts glowing green when it comes in contact with explosives. Such a technology is now being used for cheap and effective de-mining of former war-zones. Many other examples could possibly be found and catalogued through further research.

Outside of the posthuman debate, but nevertheless sharing key ideas with it, a meaningful publication considering a critical approach to environmentalism is *Ecology without Nature* (2007), by the British philosopher Timothy Morton⁴¹. Morton investigates how art, literature and philosophy have engaged with nature since the eighteenth

⁴¹ Timothy Morton is Professor and Rita Shea Guffey Chair in English at Rice University.

century until now. Possibilities for environmental art are explored primarily by looking at form. Morton proposes the term 'ambient poetics' as a way to describe art forms that mimic or represent nature (eco-mimesis). From his analyses, a set of tools emerge: rendering, the medial, the timbral, the aeolion, tone and re-mark. These tools will be discussed in detail in the next chapter. Morton gives various examples of eco-mimesis, especially in relation to poetry and literature from the Romantic Period. While giving these, he also starts building his critique and enfolds this further in a second chapter. His main critique is that environmental art often results in a mimicking of nature and/or environment, which does not bring any of this closer, but rather distances us further from it. He brings forward the figure of the beautiful soul. This figure, who suffers from a syndrome with the same name, tries to escape from the destructive forces of consumerism by abstaining from dirty practices, only to find themselves thrown back into the world with all its shortcomings through the consumption of newly marketed green products. Morton convincingly shows that this critique can also be applied to environmental art. In a third chapter, he embarks on a politicizing journey in search of alternatives. He suggests a *Dark Ecology* as a possible practice that embraces the toxic, sticky and wasteful stuff that is part of our self-created environmental reality. His second idea revolves around *really deep ecology* (inspired by Arne Naess⁴² *Deep Ecology*, 1993). This practice faces doubt and uncertainty and accepts death as being part of life in a gesture quite opposite to the more common idea of ecological practice leading towards love, light and the sublime.

Morton's eco-criticism effectively explores the relation between art, ecology and nature and hence, will be used both as a critical tool - questioning existing forms of expanded cinema - and as a touchstone for the practice-based part of my project. By using his critique as a 'sounding-board' I will be able to test if my work withstands an aestheticized mimicking or romanticizing of the natural environment, as my aim is to look beyond traditional ways of representing 'nature' or the 'natural'. Due to the leverage that his tools give to my enquiry, I have chosen to use his term 'ambient poetics' in the title of my thesis, highlighting it alongside the critical posthumanism strand. Both Morton's 'ambient poetics' and Braidotti's posthumanism will be used as guiding principles to critically reflect on expanded cinema in the following chapters. Simultaneously, I have been making new work that interacts in a meaningful way with the research question and the aforementioned eco-critical stance.

⁴² Arne Naess (1912-2009) was a Norwegian philosopher whose work is seen as inspirational within the environmental movement of the late twentieth century.

3) Expanded cinema and ambient poetics

Before discussing environmental forms or ambient poetics in expanded cinema, it is important to include some general comments about expanded cinema, an art-form that emerged in the USA, the UK and Europe in the mid 1960's. My focus here will be on the British and European branches. In the USA, expanded cinema was more focused on an 'expansion of the mind', as extensively described in *Expanded Cinema* by Gene Youngblood⁴³ (1970). Youngblood dedicates a chapter to "The artist as Ecologist", in which he states that "artists and scientists rearrange the environment to the advantage of society" (Youngblood, 1970: 346), a point of view that does not appear to be productive within this posthumanist enquiry. More fruitful in this case is the analytical strand that was centred around the London Filmmakers' Co-op⁴⁴. The Co-op's filmmakers identified expanded cinema as a practice in which the production process of film is revealed or incorporated during the projection, in order to activate the audience to participate in the construction of its meaning. In *Expanded Cinema Art Performance Film* (Rees *et al*, 2011), Malcolm Le Grice, one of the pivotal British figures of expanded cinema, writes:

Placed at the centre of this process, it is *the spectators* who produce the coherence (or incoherence) of the work. I am aware that the coherence they apply may (though does not inevitably) take the form of a 'personal' narrative, but at least they do this in some (dialectical) interchange with the construction made by the filmmaker. I see these strategies as fundamental to much expanded cinema - particularly as this was understood in Europe - and to 'structural materialism' as defined by Peter Gidal. (Le Grice, 2011: 164)

This definition of expanded cinema has become widely accepted and the artworks that are identified with this practice have been historicized recently by the various publications and retrospectives that have taken place, particularly through *Live in your Head* (Philpot & Tarsia, 2000), an exhibition at the Whitechapel Gallery, *Shoot Shoot Shoot* (Reynolds, 2002), a retrospective organised by LUX, and the study *Narrative Exploration in Expanded Cinema* (Curtis, 2009), undertaken by the late Dr Jackie Hatfield at Dundee University, which was subsequently transferred to Professor

⁴³ Gene Youngblood is an American scholar and critic in the fields of film and video history and media arts.

⁴⁴ The London Film-makers' Co-op was a British film-making workshop founded in 1966 and dissolved in 1999.

Stephen Partridge and David Curtis at Central Saint Martins in London. This study culminated in the already mentioned publication *Expanded Cinema Art Performance Film* (Rees *et al*, 2009) and in a series of events and performances in the Tate Tanks between 2009 and 2012. In order to supplement this, I have undertaken interviews with William Raban, Tony Hill and Chris Welsby. These artists were part of the Co-op and began their expanded cinema practice in the 70's. Moreover, I have undertaken interviews with Loophole Cinema and Jürgen Reble. Both were strong contenders of a new wave of expanded cinema that emerged in the late 80's and early 90's. In Britain, the group Loophole Cinema started using multiple projections, shadow play, kinetic objects and live video-feed in events that they coined as 'Circus of the Senses'. In France, the projection performance group 'Cellule d'Intervention Metamkine' was formed and in Germany, the group 'Schmelzdahin' made collective films and staged multiple projection events. One of the groups' members, Jürgen Reble, later started performing together with composer and sound artist Thomas Köner, manipulating film-loops with chemicals and amplifying the sound of the projector. The practice of these artists differed substantially from the previous generation and was rooted in the counter-culture of the 1980's. These artists were literally reclaiming territory through squatting, temporary use of disused industrial sites, recuperation of equipment and materials and a do-it-yourself (DIY) culture and aesthetics. In 1996, Metamkine participated in the 'International Symposium of Shadows', an international gathering of performance groups and installation artists initiated by Loophole Cinema, taking place in a former sugar warehouse in London. This event is briefly mentioned in *Expanded Cinema Art Performance Film* (Rees *et al*, 2011) and more extensively in *A History of Artists' Film and Video in Britain*:

The approach of the millennium, and perhaps more provocatively the arrival of cinema's centenary in 1996, seemed to stimulate a surge of interest in 'defunct' moving image technologies and their aesthetics. The *International Symposium of Shadows*, a celebration of eccentric technologies, was held in London's dockland West India Key Warehouses [sic] in 1996, organised by the 'shadow engineers' Loophole Cinema (artists Greg Pope, Paul Rodgers and Keely Macarow). The event attracted artists and performers from all over Europe, and demonstrated how widespread was the interest in creating an alternative history of moving images and shadow-play. (Curtis, 2007: 92)

Unfortunately, there are two errors here: Keely Macarow was not a group member. She wrote part of the introduction of the catalogue and was partly responsible for publicity.

Moreover, the event did not 'attract' artists and performers from all over Europe, but was co-produced by French and Dutch artists (including myself) and participants were personally invited to make a contribution. Also, Curtis seems to suggest that the use of 'defunct' moving image technology is connected to a nostalgic reflex. I will argue that there is more at stake here, and I will return to the topic of recycling equipment later in Chapter 5 while discussing Loophole Cinema's performances.

Furthermore, none of the more recent aforementioned artists have been discussed extensively by scholars. In the publication *Installation and the Moving Image*, author Catherine Elwes⁴⁵ (Elwes, 2015: 188) includes a personal account, taking aim at "loud, durational pieces" that are "determined to deafen, blind or disorient their audience or bore into their brains with rapid fire repetitions", describing her "overwhelming urge to escape". Although this comment is not specifically related to the artists that are included in this study, the remark does shed some light on the exclusion of this new wave of expanded cinema artists. To understand this better, it is important to note that none of these artists have published any writing within an academic framework themselves. However, their work has been frequently included in subcultural publications, like fanzines, websites, online videos and online fora. A selection of these is included in this study and links can be found in the bibliography. Xavier Querel, one of the core members of Metamkine, has given me access to the group's digital archive. This archive and the interviews I have conducted are used as sources of data for further inquiry, giving me the opportunity to look at both the older and younger generations on a more equal basis.

By means of a particular combination of formal and conceptual qualities, expanded cinema can be an evocative art form. While discussing expanded cinema work, it is possible to discriminate between form and concept, but, simultaneously, both are often intertwined in such a way that no clear distinctions can be made. Also, the technical methods and materials used by the artists to produce the work are important, as many expanded cinema works are made in artist run workshops, have a 'live' aspect and aim to incorporate the audience in the production and completion of the work. Technology is not hidden but foregrounded, and the audience itself is a 'material' alongside all other materials, like the filmstrip, the projector, the screen and the beam of light carrying the moving image. Technology and materiality are both relevant within this project's overarching discourse, as environmental decline is often the result of a certain use (or

⁴⁵ Catherine Elwes is a British artist, curator and Professor of Moving Image Art at the University of the Arts London.

misuse) of technology and the (over) exploitation of natural resources. In order to have a good understanding of how the different elements act and interact, I will start by looking at form, concept and methods separately, while avoiding making superficial separations whenever such discriminations work counterproductively. Subsequently, I will synthesize my findings and return to the key narratives foregrounded by critical posthumanism.

Within the humanist tradition that emerged during the Renaissance, classical perspective and realism are the most commonly used forms to depict and represent the natural world⁴⁶. With the emergence of modernism, in the beginning of the twentieth century, artists sought to depart from those forms and traditions exemplified by cubism and abstract expressionism. This tendency towards a questioning of representation was further developed within conceptual art⁴⁷. Within the context of this study, the aim is to understand and use multiple elements as part of a system in which form, concepts and methods come together into a unifying whole. To bring forward and understand the formal vocabulary used in expanded cinema, and the possible connection to environment and ecology, a dedicated set of tools is required. The already mentioned philosopher, Timothy Morton, has developed such a set. His aim is to describe different expressions of what he calls 'eco-mimesis', the evocation of a natural or synthetic environment, starting from straightforward representations, proceeding towards completely abstract work. The toolkit is an effective instrument for testing the formal environmental or *ambient* qualities of expanded cinema works as well. Instead of trying to re-invent the wheel, it will be productive to use Morton's 'ambient poetics' toolkit: medial, re-mark, aeolian, rendering, tonal and timbral.

Morton uses 'medial' to describe the elements within an artwork that refer to the medium used for its production. This can be a reference to writing in a text (as in: I am sitting behind a computer screen while writing this text), a reference to broadcasting in a radio programme, or self-reflective elements in any other medium like painting, sculpture or film. Such a reference relates to the environment as a whole, or elements of that environment, in which the production of the art-work takes place.

The 're-mark' is a term borrowed from Jacques Derrida and describes the flickering between objectivity and subjectivity, making us aware of the choice that we make

⁴⁶ See, for example, *The Mirror, the Window, and the Telescope: how Renaissance Linear Perspective Changed our Vision of the Universe* (Edgerton, 2009).

⁴⁷ See, for example, *Conceptual Art* (Wood, 2009).

during reading, recognizing the text instead of the blank spaces between the letters. This choice, which normally happens in a split second, can be questioned by the remark, making another reality protrude towards the foreground, producing an awareness of environmental data that are easily overlooked. In relation to the natural environment, one could think about the space between the leaves of a tree, or the quiet moments between gusts of wind.

Morton's notion of the 'aeolian' also relates to wind, literally a sound or movement produced by the wind instead of by the action of a human being. This displacement outside the human is what makes the term useful in relation to other media, and Morton uses it as an umbrella term for all natural forces; wind, tides, the rotation of the earth, gravity, corrosion, oxidation and so forth.

'Rendering' is used to describe the process of making a copy without an original, as in a digital video that combines pictorial and sonic elements from different sources to create a new 'reality' or 'environment' while erasing anything that reveals this process.

Finally, 'tonal' and 'timbral' refer not only to qualities that can be seen or heard, but also to instinctive, emotional and other narrative nuances inherently present in materials or artifacts. Timbral is a musical term that refers to the quality of a sound, and is often associated with resonance in material objects like musical instruments. The timbral can also be used more metaphorically in relation to other media. Tone is both used in music and in reference to speech, and the latter refers to the human body as well as being the source of 'tone', expressing certain emotions. Again, tone can also be transferred to other media. Both terms can be used to describe sunlight, clouds, vegetation and so forth, hence the connection to environment.

Morton uses these tools in relation to literature and sound-art, but the same tools are well suited to analyse expanded cinema work. I will show this in the rest of this chapter.



Point Source (1973) © Tony Hill

A pertinent example of 'medial' is Tony Hill's para-cinematic⁴⁸ performance *Point Source* (1973) and also other works in which Hill explores the cinematic apparatus and the active participation of the audience. Hill describes *Point Source* as following: "A small bright light is the projector, several objects are the film and the whole room is the screen" (Hill, 2010). By projecting the shadows of the objects with a handheld light and moving these closer and closer to the single source of illumination, Hill literally covers the entire field of vision of the audience. As a result of this system, the movement of each object is enlarged, affecting the audience's perception. The whole room seems to turn around its axis and the objects seem to fly towards the observers with great speed and suddenly disappear behind their backs. In Hill's own words: "I was interested in immersing the audience and making them part of the piece. These ideas I later explored with *Floor Film*, *Role Play* and *The Doors*" (Hill to Doing, 2015: 155).

Floor Film (1975) comprises an elevated room with a floor functioning as screen. Via a mirror, images are projected onto the floor beneath the audiences' feet. One can also watch the film and the room's audience in the mirror. By arranging screen, projector and mirror like this, "the audience who has gone in there are also actors for the people

⁴⁸ Para-cinematic is a term referring to cinematic work achieved with reduced or no technical equipment.

who are out here. That makes it into something else, they can swap around, and the people inside become more aware of the fact that they are performing" (Hill to Doing, 2015: 160). In *Role Play* (1997), Hill uses a self-built jib crane with a digital camera mounted on it, which is directly connected to a projector. The crane 'performs' a series of movements that are directly relayed to the audience on the screen: "So the audience, while watching, is also the subject of the piece" (Hill to Doing, 2015: 155). The installation, *the Doors* (2010), mixes pre-recorded images and sounds with real life events by projecting three life size doors on the wall of a gallery space. Doors open and people enter the space, talking about coming into an installation. Mobile phones start ringing and conversations can be overheard. The audience that enters through the real door "are performing their own entrance" (Hill to Doing, 2015: 160). Projected events and real life events mingle and the audience reacts and interacts with the projections, both by chance and more consciously.

The 're-mark' appears most apt in expanded cinema by redirecting the audience's attention to the beam that carries the image, instead of the image that appears on the screen. An influential example is *Line Describing a Cone* (1973) by Anthony McCall. In *Anthony McCall: The Solid Light Films and Related Works* (2005), the American curator, Christopher Eamon, describes the work and points at the re-mark as an essential quality:

Perhaps McCall's best-known work until now was *Line Describing a Cone* (1973). The image of a circle forming over thirty minutes, starting first as a single point of light and ending seemingly as a solid light cone striking through the centre of the room or theater was, and is still, a revelation. Its element of surprise derives from its reversal of the conventional focus from that of the screen to the projector beam. (Eamon, 2005)

In McCall's own words: "The viewer watches the film, by standing with his, or her, back towards what would normally be the screen and looking along the beam toward the projector itself" (McCall, 1978: 250-251). Instead of the screen, the projected light is made visible on particles of dust or smoke in the exhibition space. The animated drawing on the filmstrip is turned into a 3-dimensional object: "The film begins as a coherent line of light, like a laser beam, and develops through the 30 minute duration, into a complete, hollow cone of light" (ibid.). The viewer is encouraged to explore the projected shape and interact with it in real time: "No longer is one viewing position as

good as any other. For this film, every viewing position presents a different aspect" (ibid.).



Line Describing a Cone (1973) © Anthony McCall

Line Describing a Cone changed the perception of the audience; no longer were they seated while watching a screen, looking at a representation of events that had taken place prior to the projection. Also, in other works, McCall experimented with the perception and attention of the audience by displacing the classic projection screen and drawing attention to other ways of experiencing projected and animated light. Informed by the torture techniques in Ulster internment camps, McCall compiled *White Bag (1)* and *White Bag (2)*. Visitors were asked to cover their heads with semi-transparent hoods while intense projections and noise filled the room. The hood functioned as screen, but instead of a recognizable projection all that the audience would encounter was a disorienting stream of images and a total immersion in sound: "In effect calling up one's own interior pictures/nightmares" (Joseph, Walley & Eamon, 2005: 70).

Also, in the site specific expanded cinema performances by Loophole Cinema, the idea of the 're-mark' can be found. The group often used a big screen to partially divide a temporary occupied space in several enclosed sections. By leading the audience through the maze, while projecting on the screen from various angles and gradually

opening up the space, they drew attention to the expanse wherein they acted. Projections and shadows would enhance this effect by playing with scale and superimposition. Contrary to the standard cinema set-up, the screen could be used from both sides and the removal of one part of the screen might reveal another part further away in the same space, thus revealing and emphasising the spatial (or environmental) nature of projection. Greg Pope comments on this methodology:

When you cut it up with screens and you reveal certain sections. People don't know. What the audience has is like a door in an industrial factory wall. They have never been inside that space. We have spent 5 days figuring it out completely. Chopping it up, having these screens, so we can open it up as well. Close it and then open it. So they come in and it puts them into a complete state of bamboozlement, confusion. They don't know how big or small the space is. (Loophole Cinema to Doing, 2015: 177)

One of the first typical Loophole Cinema events was called *Effects of Darkened Rooms* (1990), a performance in an industrial basement located on Renfrew Street next to the Centre for Contemporary Arts (now Glasgow Film Theatre). The performance space was close to the main exhibition venue, but, at the same time separated from it, which later turned out to be an exemplary situation for the group's performances. The first 'shadow maze' was set up in the basement, creating a performative installation with multiple screens and a dozen Super8 projectors. In the festival's programme, Greg Pope is quoted: "people wandering around being bombarded with images, they kind of edit their own film" (Hunter, 1990). A different approach was taken during the performance *Vacant Procession* (1993), which took place in a 20 storey tower block in Birmingham that was scheduled for demolition. The audience was led to a central chamber of an empty flat, while members of the group started with a controlled demolition of the walls of the adjacent rooms. Flood lights were positioned behind the performers and when a hole appeared in the wall, the light would hit the jumble of dust particles that was now flying around. As Greg Pope puts it: "a bit like *Line Describing a Cone*, pure punky" (Loophole Cinema to Doing, 2015: 181), focusing the audience's attention on the gap in the wall, the light beam and the reflection on the dust.

Regarding the 'aeolian', Chris Welsby and William Raban come to mind. Welsby is the most obvious and even literal example in regard to his experiments with wind as a decisive agent for camera movement and film-speed, for example, *Wind Vane* (1972) and *Anemometer* (1974). Welsby is known for his expanded cinema works, films and

installations that problematize the notions of 'nature' and 'landscape'. As he notes in the publication *Chris Welsby - Films, Photographs, Writings*: 'Each of my films is a separate attempt to re-define the interface between 'mind' and 'nature' (Welsby, 1980: 6) and in his article *Expanded Cinema: 20th Century Encounters with the Machine*: "My original premise was primarily of a philosophical nature, grounded by a deeply felt love of landscape, and motivated by my rejection of dualism and of the technological domination" (Welsby, 2009: 1). In *Wind Vane* (1972), two cameras are mounted on tripods equipped with wind vanes, their direction controlled by the wind. The cameras were positioned 50 feet apart, far enough for the wind to impact with a different strength and direction on each of the wind vanes. When projected as twin-screen, the audience is able to compare and contrast the differences between the two almost identical images of scenery at Hampstead Heath, London.

In *Anemometer* (1974), again the wind is used to control the camera, now through an electronic circuit connecting a wind speed measuring device to the camera motor. The more wind occurs, the faster the motor of the camera runs. We see an image of Euston Square in London, incorporating a park and a busy junction. The movements of the traffic and the commuters are seen in 'gusts', which are directly related to the wind. In *Seven Days* (1974), a camera is installed on an equatorial mount, a device that is used by astronomers to track stars across the sky. During a period of seven days, between sunrise and sunset, one frame is exposed every 10 seconds. If the sun is covered by clouds, the camera will point up to the sky. If the sun is shining, the camera will point down at its own shadow. While the grand rotation of the earth is smooth and predictable, the alternation between sky and landscape appears chaotic and unpredictable. This line of work is continued in the more expanded work *Shore Line* (1977), comprising six identical loops, showing a sequence of waves breaking on a shore. The images are projected upright, in 'portrait' format instead of the usual 'landscape' setup. The loops do not run in sync with each other, but each of them is slightly ahead or delayed as compared to the others. Subsequently, the film-projectors also have slightly different speeds due to their mechanical nature. The result of these variations is an endlessly complex and ever changing rhythm of breaking waves. In his article *Expanded Cinema: 20th Century Encounters with the Machine* (Welsby, 2009), Welsby states the following about his work: "Much of this work, and all of my new media installations, are based on a non-dualist cybernetic model, in which the relationship between technology and nature is articulated as a collaboration between two interrelated systems" (Welsby, 2009: 1).



Making of *Wind Vane* (1972) © Chris Welsby

William Raban also involves natural forces in his films and expanded cinema works: weather and, in particular, flowing water, have repeatedly taken on roles. Raban writes about naturalism and 'eco-mimesis' in *Expanded Cinema Art Performance Film* (Rees *et al*, 2011):

Tree trunks were wrapped in canvas soaked in organic dyes. After 6 months of weathering and exposure to sunlight, the canvas was removed to reveal a permanent coloured texture of the tree imprinted on its surface. Both the wave and tree prints were concerned with using elemental forces as a means for making images. My thinking was inspired by the dictum from Thomas Aquinas that “art imitates nature not through mere appearance but in her manner of operation”. I explored similar thoughts expressed by Ananda K Coomaraswamy in his book *The Transformation of Nature in Art* (1934). Taken together, these ideas seemed to suggest that naturalism in art need not be confined to mimetic representations of nature, so much as by attention to *modus operandi* and the intrinsic properties or materiality of the artistic medium. (Raban, 2011: 98)

Raban has used such properties primarily as reflexive elements, making the viewer aware of the passing of time and cinematic manipulation of time. Alternatively, following Morton, certain elements in his work could also be referred to as 'aeolian'. Already, in his first film *View* (1970), these themes are present. Raban sets up his camera on a riverbank in winter, and uses both time-lapse and normal speed to observe the landscape. During the prolonged period of filming, it starts to rain, alternately heavier

and lighter. The raindrops obscure Raban's lens, which is wiped clean intermittently. These 'wipes' function as a structuring principle throughout the film. In *River Yar* (1971-72), a double screen film made together with Chris Welsby, similar rainy periods occur and affect the lens and subsequently, the image. In this film, the subject is again a river landscape, but this time filmed during two periods, in autumn and spring. Besides the influence of the weather, the longer ranging tidal falling and swelling of the river and the changes of the seasons are revealed through the use of stop-motion and discontinuous filming. The two screens show an almost identical shot, filmed on different time schedules, offering the viewer the possibility to compare and contrast the variations due to light, weather and tidal conditions. Raban resets the natural landscape to a more urban scene in *Thames Barrier* (1977). A triple screen produces a panoramic view, splitting and concatenating the landscape through the use of a special camera mount, with three machines pointing in different directions. The majestic tidal movement of the Thames arcs through this expanded cinema work. On top of this supreme movement, the more frantic and nervous human activities are played out. Ships arrive and depart, cranes turn and tilt and artificial lights are lit during nighttime. The river returns in *Thames Film* (1986) a primarily historical document about London, seen from the river. The 'aeolian' component in this film is the flow of the river itself. Raban shoots from a boat and uses the natural drift to determine the camera movement. Again, a natural force is used as a structuring principle. Contrary to the time-lapse films, this might not be evident to all viewers. But certainly, his choice gives the film a specific rhythm which is taken up in the narration and the editing as well. The river is not only the subject of the film, but one could argue that the film has a similar shape to the river, winding slowly but surely through time with little regard for individual human beings. He comments on this:

...there is a very big change of height on the river Thames, it is 6 to 7 meters. That changes every 6 hours. It is that kind of life force of the river caused by the fact that it is tidal. It is open to the sea. I saw it almost like a lung that was keeping the air fresh in London - you can see it as a slow acting pump, because the tide is going like this every 6 hours. It is acting like a big bellows, it is refreshing London's air, it induces a constant stream, making tired air replaced by clean air. That was the idea of trying to catch London – trying to see London from the point of view of the river, by getting very close to the surface. The way the camera moves, for most of the film I am just drifting on the tide. The speed of the track is the speed of the river. As the tide either comes in or goes out. (Raban to Doing, 2014: 148)

The urban landscape theme is taken up once more in *About Now MMX* (2011), with time-lapse footage taken from the Balfour Tower, in East London. A telephoto lens is used to single out human activities and show the diverse architecture of the city, meanwhile the changing position of the sun, the creeping shadows and the rising moon are very much present. The high camera position influences the perception of the activities on the street, an effect that is further enhanced by revealing the majestic movements of the celestial bodies. Raban says about this: "In *About Now MMX* I have the repeated shots of the moon very big in the frame, the idea of the moonscape is usually associated with the pastoral, or a landscape image. For me it was quite important that I was showing that in the city" (Raban to Doing, 2014: 152). In *Time and the Wave* (2013), Raban points to the 'aeolian' element in the title. In the film, images of a seascape are intercut with street-scenes in London: the demonstrations of the *Occupy* movement in front of St. Paul's, the funeral of Margaret Thatcher, and the opening of Westfield shopping centre in East London. The observation that individual particles in waves remain practically in the same place is taken as a metaphor for the repetition of strikingly similar events through history. In Raban's own words: "...it appears that the wave is moving across the ocean, but that appearance is illusory, because the particles in that wave are static, they are not moving, it is just that transmission of energy" (ibid., 2014: 126). Human and natural agency ('aeolian') are juxtaposed, with the first one seemingly the weaker of the two.

In relation to expanded cinema, 'rendering' is Morton's most problematic term, because of its erasure of process. This erasure can be seen as diametrically opposed to expanded cinema's principle of revealing the process of production (as in Le Grice's definition). However, rendering can be found in the work of Metamkine. This group performs with a set up that comprises two filmmakers and a sound-artist sharing the stage. Danni Zuvela⁴⁹ notes:

In the band's shows at film festivals and music events, Auger and Querel operate up to eight aged 16mm projectors, 'performing' the projection with various creative interventions into the beams, including moving projectors, using prisms and lacing up custom-made loops of the band's distinctive luscious hand-processed abstract film. (Zuvela, 2007)

⁴⁹ Danni Zuvela is an Australian academic and curator with an interest in sound art, moving image and performance.

Metamkine's key members are Christophe Auger, Xavier Quérel and Jérôme Noetinger and the group is based in Grenoble, France. When the group was founded in 1987, Auger worked as a technician in a commercial photo laboratory where he gathered knowledge and skills regarding film processing. He worked with E6 (colour reversal film processing: a method resulting in an immediately projectable image, as opposed to the negative/positive process that requires the making of prints), a method that was still widely used at that moment in time. Noetinger was both active as a musician and publisher of electro-acoustic music. Querél was living in a squatted building that included a stage and workshops, *le 102*, and he also had knowledge about electrical engineering through his father and grandfather. Under these favourable conditions, the group started to record, process, print and project their own films, alongside electro-acoustic music performances. Quickly, the group developed a unique concept: performing in an improvised and integrated way with both moving image and sound.



Metamkine (2016) © Jennifer French

One of the key elements was the positioning of mirrors on stage, bouncing the image back on the screen behind the performers. Instead of a hidden projectionist in a booth, the audience was confronted with two projectionists and a musician on stage. Both Auger and Quérel developed a set of tools to influence the projected image during the performance, using colour gels, speed alterations, frequent and fast switching of the projectors, interchangeable loops, hole punches and optical toys. These utensils were

later supplemented with torches and chemical baths, inspired by Loophole Cinema and Jürgen Reble. Noetinger developed an arsenal of sound objects, altered tape-recorders and instruments, producing both pure noise and improvised music. Their practice resulted in a hybrid form of expanded cinema, emphasising syn-aesthetic experience in spectacular and often loud performances. In his article *Intersection of Vision and Sound la Cellule d'Intervention Metamkine* (Kennedy, 2006), the Toronto based filmmaker, curator and writer, Chris Kennedy, notes: "When talking about their work, a key idea that the trio often brings up is the Situationist ideal of *détournement*. Coined by Guy Debord, *détournement* roughly translates into the idea of collage, putting two different things together to create something new and unintended." On their website, the following quote is included: "the work is not theoretical. It's completely empirical. One of us offers the sound, the others the images. The important moment is the confrontation on stage" (Metamkine, 1996). The resulting projection event is a composite of multiple overlapping frames accompanied by live electro-acoustic music, appearing to the viewer as one unified whole, a cinematic version of 'landscape', an audio-visual panorama containing multiple elements.

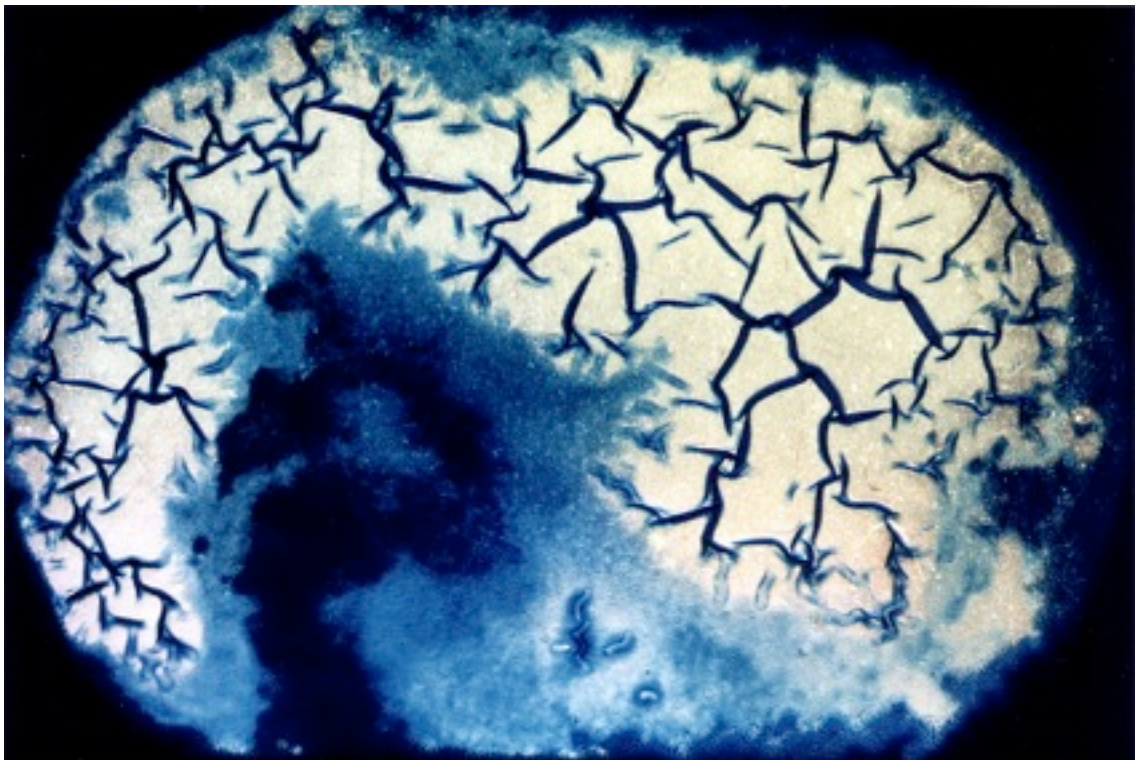
To continue this analysis using Morton's tools, timbral and tonal can be found in expanded cinema's attention to grain, contrast, density, colour and negative/positive variations of the image. Notably, the tonal and timbral is forwarded prominently by Jürgen Reble in his chemical manipulations and his experiments with tinting and toning. The artist started working with chemical manipulation during the development of his film *Rumpelstilzchen* (1989). In the online article *Spinning Straw into Gold: Four Works by Jürgen Reble in the New Medium of Film* by Steven Ball, the film is described as following:

Rumpelstilzchen is not an exercise in meaningful, gratuitous deconstruction or recontextualisation; material distortions layer and abstract the images, the narrative is a fragmented, hazy, hallucinatory drama as images and voices loop and echo. This emphasises and reawakens the disturbing Gothic strangeness of the folk story. (Ball, 2004)

The 'material distortions' were produced by interfering in the different steps of the black & white reversal process, changing the chemical solutions, adding additional chemicals, and toning the film afterwards giving it its distinct 'golden' glow. Reble comments on this technique: "I thought that is not interesting to work for one or two or three years, but to work twenty or thirty years. And I did that, I still work with the

chemical processes, which I developed in the last thirty or thirty-five years." (Reble to Doing, 2014: 113). Reble refined and elaborated his experiments in a series of films, notably: *Passion* (1990), a diary film structured around the birth of Reble's second son, *Das Goldene Tor* (1992), based on found footage from films about natural history and advances in space travel, and *Instabile Materie* (1995), a film inspired by particle physics which is increasingly abstract and focuses more than ever on the patterns formed by emulsion and chemicals.

During the making of this work, the chemicals were not washed out, but left on the film to dry, leaving intricate structures, which were developed in layers by airbrushing and pipetting additional chemicals on specific parts of the filmstrip. This focus on surface, texture and colour of the film itself creates an entrancing mood, which can be fittingly described with Morton's tonal and timbral analogies.



Instabile Materie (1995) © Jürgen Reble

The discussed artists, expanded cinema works and films do succeed in various ways to create an ambience, an environment, immersing the audience in an experience that appeals to multiple senses. Moreover, in some cases, the audience is actively partaking in the created situation. The successful deployment of these techniques involves the audience in the artwork, rather than holding the audience at bay, watching the work passively. By appealing to multiple senses, motivating the audience to move

around, inducing subliminal effects or offering surprise experiences, these expanded cinema works are engaging body, mind and intellect. Although this can be described as environmental in form, still much remains unclear regarding the concepts of the artists and how these concepts could possibly relate to critical posthumanism.

4) Expanded cinema and critical posthumanism

Expanded cinema's underlying concepts are not as apparently 'environmental' as the previously described formal qualities of expanded cinema. Nonetheless, I argue that there are remarkable connections to be made, sometimes clearly intended by the artists and, in other cases, less outspoken but still significant. In this chapter I will investigate these links and excavate concepts, intentions and interpretations in relation to my research question.

Bringing back to mind the shifting relation between human and machine, which is part of the critical posthumanism dialectic, there is a clear point to be made. Expanded cinema artists regularly declare the inquiry of the cinematic apparatus as a core element of their art form. Another element is the idea of participation that is central to much expanded cinema work. Expanded cinema artists often work in collectives, either during the production or the exhibition of their work. Moreover, the participation or active response of the audience is recurrently claimed as a central concept. This brings back to mind the concept of an 'ecology of selves' (Kohn, 2013); the hunter, the hunting dogs, the prey and the predator communicate with each other and negotiate their boundaries. The analogy could be: the artist, the collective, the technology, the materials and the audience negotiate a final outcome in the form of an artwork. Alternatively, favouring the collective, rather than the individual, can also be associated with utopian ideals, specifically with the previously described 'social ecology', developed by Murray Bookchin. Finally, there are the individual pre-occupations of particular artists that can be connected to critical posthumanism. Key examples, which will be further examined are: Tony Hill's *observation beyond the human*, Anthony McCall's *time beyond the human*, and Chris Welsby's *mind/nature inquiry*.

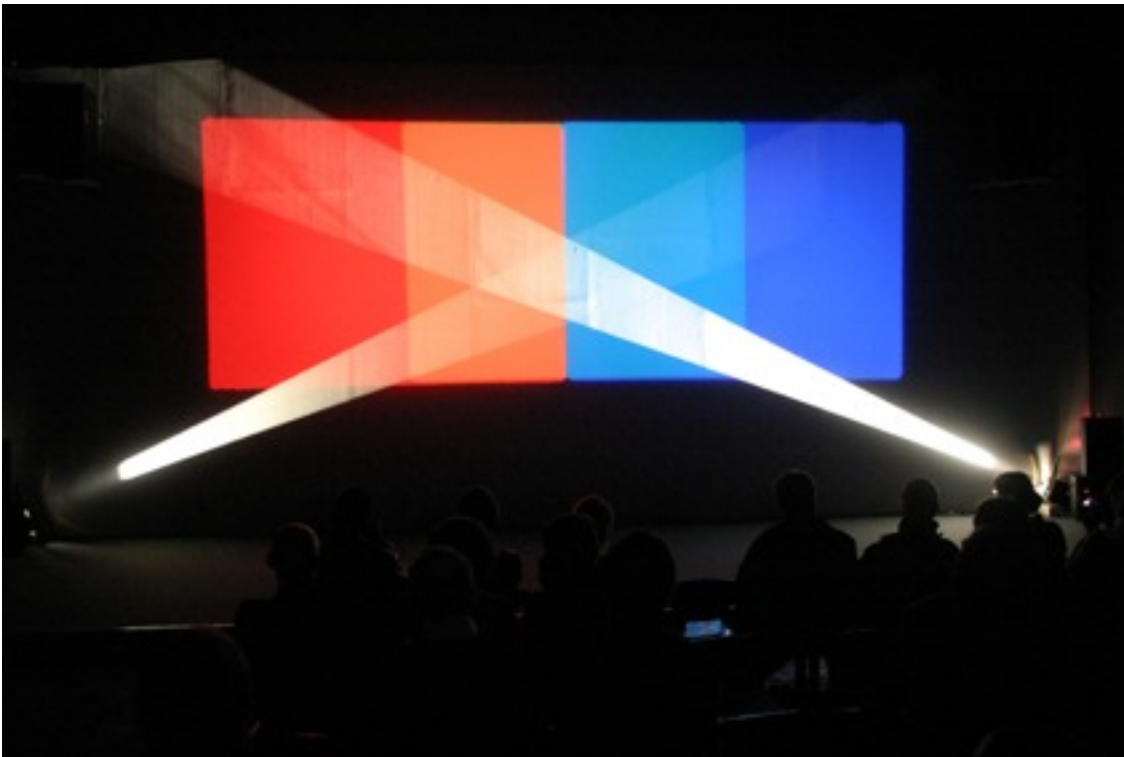
A relevant statement regarding the topic of technology and expanded cinema is made by Duncan White⁵⁰ in the earlier mentioned anthology *Expanded Cinema: Art Performance Film*:

Whether sophisticated or basic in approach, it is the complex relationships of technology, how they impact directly on the structures of consciousness and its environments, that are explored in the alternating forms of expanded cinema. Whether lo-fi performances or high tech interactive environments, works associated with expanded cinema explore an alternative relationship to

⁵⁰ Dr Duncan White is a research fellow at the University of the Arts London.

technology lost in the translation to postwar mainstream media spectacle but regained through contemporaneous forms of an expanded cinema forever up to and including its limits. (White, 2011: 226-240)

In several of the previously described expanded cinema works, the projection device is not hidden in a projection booth, but is explicitly made part of the work. In many cases, the projector is altered or manipulated during the performance; this is not done in order to produce an illusion, but instead to display the workings of the machine and its specificities to the audience. This methodology is extended to other projection devices incorporated in the performance, and technical manipulations during the production process as well.



Wave Formations (1977) © William Raban

William Raban uses five 16mm projectors in his work *Wave Formations* (1977). The projected films and film loops do not contain any naturalistic image, but fade from white to black and vice versa, creating a panoramic display of alternating light. Two projectors are placed at diagonal angles on either side of the screen, throwing beams of slowly pulsating light across. Three more projectors are placed on a plinth within the performance space. By holding gels in front of the lens and by overlapping the projections, monochrome colour-fields are created. The coming and going of white noise on the accompanying soundtrack is reminiscent of a seascape. As such, the

work simultaneously evokes a real and an imaginary 'environment'. Raban says about this: "You get the spatial effect of waves, left ear, right ear. But the colour almost contradicts that, the fact that I am using bright primary colours, blue, red and green filters. This is almost denying the seascape" (Raban to Doing, 2014: 152). There is a mechanical and repetitive aspect to the work, but the slight differences in projection speeds and film sequence lengths result in a complex and surprising pattern. *Wave Formations* successfully navigates between the mechanical and the natural; machines producing waves that vary in endless patterns. The result can be experienced just like waves on the beach, mesmerizing and mysterious.

A comparable strategy is used by Jürgen Reble and Thomas Köner in the performance *Alchemie* (1989). Reble sets up a 16mm film projector and loads it with a ten metre long film-loop that is developed and stop bathed. During the projection, the loop is led through a shallow bowl containing bleach or peroxide. The black parts of the image slowly disappear during the projection, leaving milky yellow parts. Subsequently, the remaining part of the image is developed, turning from milky yellow to black. The full-grown image is attacked with acid, decaying and eventually destroying the film. In later versions of the performance, sound artist and composer Thomas Köner joined, amplifying the sounds of the interior of the projector and the sizzling of the chemicals interacting with the film emulsion, placing the audience sonically *inside* the machine and the process, implicating them physically in the work. Reble describes the performance as: "...it is like giving birth, starting with an untouched image in the beginning and death in the end..." (Reble to Doing, 2014: 116). The audience could experience a process that would normally take place in a darkroom, an activity that has an almost secretive aura. The 16mm projector used for this performance is customized and, after repeated performances, acquires an impressive patina, making it look rather like an machine from a lost civilisation than a contemporary projection device. The installation is built in the auditorium, giving the audience the opportunity to look both at the manipulations and the screen during the performance. Additionally, there is an opportunity to scrutinize the equipment more closely after the performance is finished. Similar to Raban's *Wave Formations*, mechanical elements are combined with unpredictable elements, merging the two together. Not only is there a succession of frames producing an illusory movement on the screen, but there is also a real movement within the frame, produced by the enlarged chemical process that can be seen in action. According to Reble: "...finally you observe a dance of the elements or a dance of atoms and molecules..." (ibid.). In connection to that experience, the artists

will be referred to as 'magicians' rather than technical staff operating equipment, successfully altering the dominant narrative concerning human/machine interaction.

Also, Loophole Cinema placed the cinematic apparatus at the centre of their site-specific performances. The group not only deployed a number of 16mm projectors, but also slide carrousels, direct video feeds, stroboscopic lights, torches and kinetic objects driven by portable record players. Moreover, technological debris and cheap gadgets sometimes found their way into their installations. These devices were used primarily to produce different types of shadows on temporarily installed or mobile screens. In *A Short History of the Shadow* (1997), Victor Stoichita⁵¹ argues that the shadow can be seen as the trace-imprint of a person, its 'other'. In Loophole Cinema's performance, shadows of bodies were 'exchanged': one performer would cast shadows of their fellow performers, and multiple, often differently sized shadows, would overlap on the screen. Other layers could be added, through the use of objects, elements of the space, or casting shadows of members of the audience. Film and video projections would complement this already complex layering of elements. Although technically complex, the result of all this technology working in unison was reminiscent of magic lantern shows or Javanese shadow puppets and can be described as 'raw' or 'primitive'. Loophole Cinema's cinematic apparatus was not the stable producer of an illusion on a single screen, but a partly dissected, hacked and transplanted contraption, producing grotesque, fascinating and bewildering shapes and traces.

The French performance group Metamkine highlighted the film projector in a different way, placing projectors on stage, bouncing the light beam with large mirrors onto the screen behind them. Within this setup, the audience has an excellent view of their activities, while simultaneously watching the projections on the screen. The projectors are used as if they were musical instruments, expertly played by the performers. The group seldom gave names to their performances and simply appeared as *Metamkine* or the more activist sounding *Cellule d'Intervention Metamkine* on the poster. Through their practice of improvisation and by adding and taking away parts, they did not produce individual, clearly demarcated works but rather a constantly evolving piece that mutated over many years and became more and more elaborate and virtuoso. To achieve this level of expertise, the artists developed a personal bond with their equipment; in a male variation of Vicky Smith's visceral description of her relation with the Filmmakers Coop's rostrum camera in her chapter *Moving Parts: The Divergence of Practice* in the anthology *Experimental Film and Video*:

⁵¹ Victor Stoichita is Professor in the History of Art at the University of Fribourg.

Operators are summonsed to explore deeper inside, camera, printer, and projector components. The reward lies deep behind a series of doors or refracting prisms, shutters and lenses - like the female organ a secret cache - a delicate orifice just the size of a little finger. (Smith, 2006: 165)

In Metamkine's case, the object of desire is a projector, which rhythmically throws bursts of light on the screen, slowly building towards a climax. The bond between operator and machine is passionate, long lasting and faithful, and bears fruit in a constant stream of performances. The projector can be seen, in this case, as an extension of the body, while the projected images rather appear as a stream of consciousness, an extension of the artists (collective) mind. Also, here the standard human/machine relation is shifted away from the hierarchical master/slave typology towards a more inter-active and organic association.

Besides the appearance of projection devices in the auditorium, many expanded cinema artists have taken ownership of the production process by setting up collective workplaces, partly born out of economic necessity, but also driven by the desire to influence and alter the technical process. In expanded cinema, the boundaries between film production and film exhibition are often blurred. The artists move seamlessly from their workshop to the auditorium, bringing a partly finished product to be completed during the performance. The audience is invited to participate in this affair, either physically or mentally. As mentioned before, this collective way of working will be scrutinized from the perspective of 'social ecology' and could even open up pathways to Eduardo Kohn's ambitious 'ecology of selves'.

As mentioned before, the London Filmmakers Co-op can be seen as the birthplace of British expanded cinema. The Co-op's quarters and filmmaking facilities were key in the development of much of the work, as voiced by William Raban:

What was really exciting about the Filmmakers' Co-op at that time is that it really worked as a creative laboratory... There was no sense of creative ownership, it was what we thought of as a creative laboratory, it didn't matter who came up with an idea. Works were developed in response to other works made by our fellows. (Raban to Doing, 2014: 140)

Most notable within the posthumanism debate is the last phrase, in which Raban states that 'works were developed in response to other works'. This is an indication that the sharing of resources and facilities did not merely result in a practical advantage, but that the artists also shared ideas and concepts with each other and offered their audience a chance to contribute to this ongoing debate as well. This collective practice has been taken up by later expanded cinema groups in a variety of different ways.

More than 20 years after the establishment of the London Filmmakers' Co-op, Metamkine started promoting their do-it-yourself laboratory by inviting other filmmakers to use their workspace, darkroom and machinery in 'le 102'. They programmed films, live music and performances on their self-built stage, fed their guests and audience with bread and pizza from a self-built oven, and initiated meetings and discussions. Their approach was so successful that their lab was soon booked many months ahead, leaving them ample space to work on their own projects. To tackle this problem, they started an informal consultancy, helping other filmmakers to open their own workspace. A network of likeminded artists and groups was established and collectively published the fanzine *l'Ebouillanté* (1993-1999). This growing network resulted in the establishment of many artist run film labs, like l'Abominable in Paris, Mire in Nantes, Burstscratch in Strassbourg, and a flurry of projection performance groups, like LOGG, Plastilux and Les Nominoë, which used similar methods. Again, the sharing of practical solutions, combined with artistic ideas, not only led to a simple replication, but developed along multiple paths.

Also, Loophole Cinema's working method was built on dialogue and intuition, both between the core and temporary members of the group, between the group and their temporary sites, and between the group, their machinery and the temporary sites. Ben Hayman comments on this process: "When we developed a language ... it was a fusion of physical, imagery and sonic senses" (Loophole Cinema to Doing, 2015: 186). After working together for a number of years, Loophole Cinema succeeded in enlarging the scope of their concept through organising the *International Symposium of Shadows* (1996). For this event, the group not only staged their own performance, but invited artists and artist groups from 6 European countries and Canada, each of them working with the theme of the shadow. The event took place in a historic sugar-warehouse on West India Quay in the London Docklands. On several floors, installations were exhibited and, in the evening, a programme of performances was staged. In the accompanying catalogue, they wrote: "we became aware of a number of other groups and individuals whose work also concerned itself with the fusion of projected light and

sound, physical actions and the creation of various kinetic apparatus" (Pope & Macarow, 1996: 2). The historic site turned into a hive of activity and pulsated for a week with the lights and sounds produced by likeminded artists.

Although collectivity is not a necessary condition for expanded cinema, as there are many examples of works made by artists operating individually, the exchange of knowledge, skills and creative ideas is noteworthy amongst expanded cinema artists. During the formative years of the London Filmmakers' Co-op, Peter Gidal⁵² developed a theoretical strand alongside his practice as a filmmaker, advocating a utopian agenda, aiming to deconstruct narrativity and illusionism and inventing a new aesthetics. His ideas regarding "the mediation of a repressive ideological structure", underlining structural/materialism, have had tremendous impact. The collective practices of Metamkine and Loophole Cinema were not theorized by the involved artists, but have been highly successful in the practical implementation and spreading of do-it-yourself film culture, as exemplified by the online resources of the website www.filmlabs.org (Brees *et al*, 2016). Moreover, Metamkine's strong connections to squatting and self-publishing can be seen as physical evidence of an equally utopian mindset (as compared to Gidal), less intellectual but arguably more resilient. In search of a further advancement of the utopian desire that is central to this thesis, both the mentioned theoretical and practical ideas are valid and productive.

Possible ideological concerns are revealed in one of the early performances of Metamkine. A recurring image appears of a man sitting in an enclosed courtyard surrounded by furniture on which stacks of paper rest. The man takes a stack and throws it up in the air, filling the room with dozens of sheets flying around in all directions. This image is manipulated by means of optical printing; the man stands up time and time again, the paper flies in chaos, this is slowed down, reversed, and the paper returns in neat stacks. Explosive moments are alternated with serene slow-motion and by repeating the action, a hypnotic effect is achieved. Other images include: windows and doors opening and closing, shadowy figures entering and leaving and sudden bursts of light, alongside more abstract shapes and rhythms. The image can be read as an attempt to disrupt established knowledge and meaning, in a similar gesture as the surrealists' subversion of common sense⁵³, and punk's attacks on

⁵² Peter Gidal is London-based, American born filmmaker and influential writer and theorist.

⁵³ See, for example, *Manifesto of Surrealism* (Breton, 1924).

bourgeois society⁵⁴. Metamkine's appropriation of motion picture film technology worked along similar lines, parallel to the following analysis in *Subculture: the Meaning of Style* (Hebdige, 1979: 102): "By repositioning and recontextualizing commodities, by subverting their conventional use and inventing new ones, the subcultural stylist ... opens up the world of objects to new and covertly oppositional readings." Projectors become musical instruments that can be 'played' on, lenses take various shapes, exploring the possible deformation of established reality, and chemistry is mixed and remixed, resulting in unnatural bright colours, stark contrasts and explosive graininess.

Additional to these main points regarding human/machine interaction and collectivity, individual artists have developed methodologies that indicate a relation to critical posthumanism. The first artist to be discussed in this regard is Tony Hill and the specialized camera rigs that he has engineered and utilized in his films. Aided by these contraptions, Hill's camera can take unexpected points of view and perform surprising movements. As already described, Hill used a jib crane in one of his expanded cinema pieces, but these mechanisms also play an important role in his short films. In *Downside Up* (1984), the images seem to flip around an invisible axis, independent of gravity. "The observations gradually speed up to reveal a double-sided ground flipping like a tossed coin, then slow again to oscillate about the earth's edge" (Hill, 2010). In *A Short History of the Wheel* (1992), the image turns around in synchronicity with the turning wheels of a variety of vehicles: "My stability is the wheel, not the ground, so that reverses the usual set-up" (Hill to Doing, 2015: 158). In *Holding the Viewer* (1993), the audience experiences the film as if attached to a long pole held by the protagonist, resulting in a dizzying experience. Several of these findings are combined in *Laws of Nature* (1997), while simultaneously juxtaposing rural and more urban settings. In *Film Art Phenomena* (Hamlyn, 2003), Nicky Hamlyn⁵⁵ describes Hill's practice as following:

In Tony Hill's films the camera is fixed relative to its moving subject, resulting in a reversal of the usual relationship between fixed and moving elements in a scene. The often extraordinary effects created by this procedure reveal otherwise invisible phenomena. Most notably the shadow which rotates around the inside of a car wheel which is itself held static in relation to the camera, in *A Short History of the Wheel* (1992). This film is the most complete and cosmic of relative motion films, because it makes the earth turn around the wheel. Thus the idea of the

⁵⁴ See, for example, *Never Mind the Bollocks. Here's the Sex Pistols* (Sex Pistols, 1977).

⁵⁵ Nicky Hamlyn is a filmmaker and Professor of Experimental Film at the University for the Creative Arts.

movements of the spheres is evoked, but the film also champions the beauty of the wheel, here placed in conjunction with the natural object which perhaps inspired it. The film's ecological message is expressed in the fact that the bicycle wheel is the last, and therefore the most sophisticated, of wheels. (Hamlyn, 2003: 108)

In Hill's own words: "I wanted rather to communicate a sense of wonder; isn't it amazing; space..." (Hill to Doing, 2015: 163). His skills in communicating this sense of wonder and amazement can certainly refresh the audiences' mindset and might contribute to a widening of their perspective beyond the anthropocentric, a mode of seeing beyond the human. His critical reflection on the relation between humans and machines is also pertinent in this quote:

Humans have used tools for a very long time and, I think, some have always become significant cultural icons and signifiers of power. Now, perhaps, our machines (cars, computers, mobile phones, etc) are becoming too important and beginning to eclipse our relations with other people. (Hill to Doing: 156)

Secondly, Anthony McCall's experiments with duration and audience perception are relevant for further questioning. In his *Long Film for Four Projectors* (1974), McCall placed four projectors in the corners of a space, projecting long triangular sheets of light, creating an environment for the audience to explore over a self-chosen amount of time. The entire performance lasted almost six hours, dispersing the audience deliberately. Besides de-centring the projection and offering a heterogeneous experience, the duration of the work is a key element. In *Two Laws of Presentation* (1974), a set of nine index cards, McCall provides a chart of audience attention, ranging from five seconds to twelve years. Step by step, the audience ceases to form a recognizable group, before disappearing altogether. This focus on duration is repeated by McCall in *Long Film for Ambient Light* (1975), a para-cinematic work that "sits deliberately on a threshold between being considered a work of movement and being considered a static condition" (McCall, 1978: 253). The windows of a loft are covered with white paper and a single light bulb is hung on the ceiling. During the day, the space is lit by the sunlight that is dispersed through the paper, and by night, the space is lit by the electrical bulb. A time schema on the wall chronicles the changing light over a period of fifty days, and an area representing 24 hours is highlighted with a bracket. McCall not only uses the rotation of the earth to create a cinematic experience, but also makes a statement about human perception in general. He states: "Art that outlives us

we tend to regard as "eternal". What is at issue is that we ourselves are the division that cuts across what is essentially a sliding scale of time-bases" (ibid.). In connection to this topic, William Raban's comment on time and human perception⁵⁶ is relevant as well:

...human time is measured by the time of breathing, it is also measured by the pulse of the heart, 70 beats per minute or whatever and it is also measured by the expectation of ones' life, 70 years... But if one tries to imagine time in relation to the earth and its natural rhythms and cycles, you get suddenly a different picture of it, the human time becomes tiny and infinitesimal, within a wider cosmological system you might get a much slower sense of time. (Raban to Doing, 2014: 142)

McCall's latest series of expanded cinema works, reminiscent of *Line Describing a Cone*, are called the *Solid Light Films*. In an interview published online by the Serpentine Gallery, he comments on the paradox of the tactile and yet ephemeral qualities of these works: "Looking is not exactly what you do and you don't exactly touch them either, although you do try. They are all around you; you are incorporated within them" (Peyton-Jones & Obrist, 2007). Through both this experience and his experiments with duration, the artist does investigate the boundaries of human perception and attention. Although McCall refrained from making further comments on my questions regarding an audience experience 'beyond the human', in an interview request conducted by email, the connection is nonetheless apparent. Key elements in McCall's work can be described both as transient and abiding. These tensions between solid and fleeting and durational and eternal are relevant. While eschewing to describe McCall's work as posthuman, his problematisation of the human experience of time, object and space is certainly of interest regarding the further development of the expression of critical posthumanism in expanded cinema.

The most outspoken expanded cinema artist regarding environmental and ecological questions is Chris Welsby. His whole oeuvre is concerned with the problematisation of the representation of nature. In a statement for *Perspectives on British Avant-Garde Film* (Arts Council of Great Britain, 1977) he wrote:

The medium of landscape film brings to organic life the language of formalism. It is a language shared by both filmmakers and painters. ... In film, particularly the

⁵⁶ Here, Raban refers to his work with various forms of time-lapse and to the writings of P.D. Ouspensky.

independent work done in England, it manifests itself by emphasizing the filmic process as the subject of the work. The synthesis between these formalistic concerns of independent film and the organic quality of landscape imagery is inevitably the central issue of contemporary landscape art. It is this attempt to integrate the forms of technology with the forms to be found in nature which gives the art of landscape its relevance in the twentieth century. (Welsby, 1977)

Welsby's early work is based on an intuitive love for landscape and the expanded cinema context that he was embedded in during his years in London. Expanded cinema's concerns regarding the correlation between projector, screen, artist and audience are widened to an investigation concerning mind, nature and technology. This is made explicit in his film *Sky Light* (1988), a work that Welsby describes as a turning point in his oeuvre, shifting focus from pure formal to more environmentally engaged work:

I realized how angry I was about the state of the world and the ridiculous posturing of the powers that be. When I first started making films the environmental movement had hardly begun. Remember that *Silent Spring* was first published in 1968 only a few years before I shot *Wind Vane*. It took a while for the movement to register in the mass psyche and a bit longer for me to make the connections! (Welsby to Doing, 2016: 188)

Sky Light was shot just after the Chernobyl nuclear disaster and in the year that Welsby's first child was born. In the film, images and sounds of a forest are disturbed by the noise of a Geiger counter, radio transmissions and flashes of light. Subsequently, the sky turns into an unnatural cobalt blue, which is alternated with blinding white frames, and in the final section, we are taken to a bare and cold landscape that seems to refer to the terrifying prospect of a nuclear winter. Regarding this shift in Welsby's work, Laura Mulvey⁵⁷ observes the following: "Welsby's meditation on the aesthetic relation between man and nature, the environment and technology now gathers a new urgency as nature and the environment are increasingly contaminated by man and machine" (Mulvey & Welsby, 2005).

Moreover, Welsby's films are often described as focused on the weather rather than the more traditional focus on landscape; in his own article, *Technology, Nature, Software and Networks: Materializing the Post-Romantic Landscape*, Welsby writes:

⁵⁷ Laura Mulvey is Professor of Film and Media at Birkbeck, University of London.

"The two interacting systems, weather and technology, operate as a continuous feedback loop, tending always toward instability and thereby generating ever new and unexpected combinations of image and sound" (Welsby, 2000: 106). Welsby's techniques to produce these 'new and unexpected combinations' have changed substantially over the decades, shifting from 16mm multiple screen works to multi-media installations. In his recent installations, new technological possibilities, offered by digital moving image formats, the internet and computer scripts are used. While using contemporary technology, Welsby has deepened and enriched his original premise. Returning to the interview, Welsby suggests the following: "I have simply tried to find ways in which the technology of image making – frames, sprocket holes, shutter, emulsion, sample rate, bit rate, compression etc. can interact with observable events in nature" (Welsby to Doing, 2016: 190). Further on he makes a pertinent posthumanist statement:

The idea put forward in the Santiago Theory [Maturana & Varela, 1978] that consciousness is a complex form of cognition and that cognition is present in all animate organisms, and therefore in the process of evolution itself, is a wonderful relief after so many centuries dominated by human suprematism, and the dualisms of the Enlightenment. (Welsby to Doing, 2016: 192)

Jürgen Reble also touches on a similar topic in regard to the performance *Tabula Smaragdina* (1997). The title refers to a legendary tablet containing a text by the ancient Greek or Egyptian Hermes Trismegistus (of contested date, somewhere between 1800 BC and 800 AD), who was highly regarded by the European alchemists; the tablet is seen as the foundation of their art. In the performance, Reble uses three projectors, two 16mm and one 35mm, projecting overlapping images on the screen. The machines are not synchronized, and Reble manipulates the speed and the direction of each device. Thomas Köner wired the mechanisms with contact microphones and produced a soundtrack that placed the audience virtually inside of the machinery. Reble's imagery is that of a pulsating sphere, changing from a seemingly liquid, to a solid or gaseous form, and back. The images evoke both a microscopic and a macroscopic environment, leaving the viewers to choose their own path towards interpretation. The flickering, layering, slow changes and repetitive sounds induce a hypnotic effect: "You get to a point where you can use your whole brain, the whole field, all the images that you stored in your brain. It gives you back answers, or questions, I like to be in this state, this nervous system. Giving the brain a chance to open up to that field." (Reble to Doing, 2014: 129)

Besides these more analytical or more mystical posthuman concepts, expressed in expanded cinema by Welsby and Reble, there are good reasons to look at methods and materials used by the artists in question as well. The physical medium itself, in whatever form it appears, has an impact on the biosphere, which is shared by humans with all other creatures on the planet. This impact has probably been of minor importance to most artists and many would argue that especially analogue film-material has negative aspects in this regard. In *Screening Nature: Cinema beyond the Human* (2013), Silke Panse⁵⁸ comments on this issue as following:

The immanence of the world to the work and the artist is an ethical and ecological issue. Images are not just visual. The image and the filmmaker are parts of 'the environment' that is not only around us, but goes through us. In their emphasis on the materiality of only the medium and on medium specificity, experimental and avant-garde film and video have often not been ecoAesthetical. Pure film assumes a position separate from the relations from the world and the work from its environment. For eco-aesthetics, we have to leave the avant-garde's aesthetics of disconnectedness as well as the phenomenological stance of the artist as recording mere impressions. The filmmaker or artist, the work and the 'context' or the 'environment', all belong to the same plane of immanence (Panse, 2013: 44).

This argument is not something that can be easily overcome, but steps in the direction of a reduced ecological 'footprint' are certainly possible. Besides the already existing practice of recycling images (found footage), recuperation of equipment and repurposing of redundant technology, a recent invention is the use of 'caffenol', a coffee based developer, instead of industrially produced chemicals. This alternative process was developed by the technical photochemistry class of Dr Scott Williams at the Rochester Institute of Technology (Williams, 1995). Since the recipe became publicly available, the process has been refined by a community of enthusiasts and caffenol now finds widespread application. Basic ingredients are coffee, soda and vitamin-C. None of these ingredients are toxic, as opposed to some of the compounds found in industrial photochemical developers. However, during the process, silver halides in the film emulsion are dissolved as well, which will still have an impact on the environment. Although caffenol is not a definite answer, it is a step towards what Panse calls an "ecoAesthetical" approach. Another problem is the production methods of raw film

⁵⁸ Silke Panse is reader in Film, Art and Philosophy at the University for the Creative Arts.

stock (unexposed film), taking place in large factories in a process that is not exactly eco-friendly. This problem is even harder to overcome, but steps are being taken by filmmakers such as Robert Schaller, Kevin Rice and Esther Urlus towards engineering homemade film emulsion that can be applied to recycled filmstrips. Besides caffenol, many new recipes have been circulating in the artist-run filmlab community, replacing coffee with tea, beer, wine and mint. The German filmmaker Dagie Brundert has set up an online blog dedicated to such practices (Brundert, 2016). Also, artists have started to explore organic ingredients for tinting the filmstrip as well, notably employed in conjunction with the use of caffenol by British artist Rosalind Fowler⁵⁹ in the two-screen installation *NowhereSomewhere* (Fowler, 2016), which includes hand processed and tinted imagery taken at 'Organiclea', a food-growing co-operative in the Waltham Forest. For this work, Fowler takes inspiration from the earlier mentioned publication *News from Nowhere* (Morris, 1970). Moreover, in *Tamesa* (2014), she explores the ancient history of the river Thames (I have collaborated on this film together with James Holcombe). The project included a section of film being processed in the river water, deliberately causing marks on the emulsion, and imagery of foreshore detritus and vegetation. Together, these elements suggest the voice of the river that speaks through the film.

Applying the same ecological principles to digital media is, at least, as problematic. Although the digital image is often referred to as immaterial, the inconvenient material truth is disturbing. The production of digital technology, like computers, cameras and flatscreen TVs, relies on rare earth elements. These elements are often mined in circumstances that increase environmental pressure greatly, for example, in Baotou in Inner Mongolia. The effects of this undertaking are described in an article entitled *The Dystopian Lake Filled by the Worlds Tech-lust* (Maughan, 2015). Moreover, mining of Coltan, a rare ore widely used for the extraction of niobium and tantalum (used in the production of capacitors) has been associated with the ongoing conflict in the Democratic Republic of Congo. This almost forgotten conflict, and its connection to economic exploitation, is described in *Stolen Goods: Coltan and Conflict in the Democratic Republic of Congo* (Montague, 2002) and more recently, in *The World's Worst War* (Gettleman, 2012). Both grand scale pollution and decennia long war can hardly be seen as environmentally friendly. To produce homemade ethical and 'green' electronics is a difficult affair, but similar to caffenol and homemade emulsion, alternative communities are working on a small scale with handmade electronics and

⁵⁹ Dr Rosalind Fowler is an artist and filmmaker with a background in visual art and anthropology.

hacked or repurposed devices. Further exploration of the production of sustainable electronics is beyond the scope of this study.

Recycling film material, usually referred to as the use of 'found footage', can be found prominently in the films and performances of the German group Schmelzdahin, formed in 1980 by Jochen Lempert, Jochen Müller and Jürgen Reble. The group started using Super8 in a playful way, discovering the material qualities of film by scratching in the emulsion. The films were projected in combination with theatrical and funny interventions by the artists, mostly in a domestic setting. In 1984, the group made *Stadt in Flammen*, a film made with footage taken from a Canadian B movie about a small city in turmoil. The film was made by throwing the original Super8 footage in the garden and covering it with compost. After a period in which the film deteriorated, it was dug up and then treated with a sewing machine and a hole punch. After this treatment, an optical print of the film was made with a self-built optical printer. According to Reble, this procedure added another element to the film: "You see images in a staccato, but the images are melting in a way, or melting together, by the heat of the lamp" (Reble to Doing, 2014: 109). A soundtrack was recorded on the magnetic stripe of the film during its first projection. The artists performed while watching the film: "One of us was lying on the ground, looking at the image, and the other one was beating on the chest, in the same rhythm that the image was changing. It was a kind of comment on the film, as a kind of live act" (ibid.). Similar methods were used in the films *Aus den Algen* (1986), by throwing a film into a fish pond where it was slowly covered with algae, and *Weltenempfänger* (1985), a film developed with rainwater and coffee waste. This recycling of images, deliberately weathering and deteriorating the image, foregrounds the immanence of the films' material presence and reflects the fleeting quality of the contained image. As Tess Takahashi remarks in her article *After the Death of film: Writing the Natural World in the Digital Age* (2008), in part commenting on Reble's work: "To call on nature as a 'collaborator' in making a film suggests that the elements have a will and something to say" (Takahashi, 2008: 58). Jane Bennett's vital materialism comes to mind here, contributing agency to material, instead of regarding it as 'dead' and lacking anything that remotely has to do with consciousness. The way Reble refers to alchemic practices goes in a similar direction: "The alchemistic idea is to change the structure of the molecules and the atoms, but not in a positivistic and natural science way, but by having a feeling or an intention that something is going on in the molecules" (Reble to Doing, 2014: 117).

The already mentioned recuperation and repurposing of machinery and equipment can be found in Loophole Cinema's site specific works. Loophole Cinema's focus on machinery and engineering might seem far away from any environmentalist concern, but the group did work with many elements of recuperation and recycling. They gathered waste objects from skips and abandoned industrial sites and bought cheap items at junk shops. The elements were repurposed within their installations, often serving different purposes as compared to their original design. Pieces of metal were cut, bent and welded together into new forms, glass panels were used for their reflective surface, old records were reused as raw sonic material. Still functional machinery was restarted and incorporated, aiming at an industrial aesthetic in connection to the group's shadow engineering, described by Greg Pope as following:

We had this phrase shadow engineers and shadow engine. In the end we invented our little theory that a show would be like as if the audience could be shrunk and walked around inside a 16mm projector with all the cogs and shadows and lights cast. Being inside rather than outside. We were the little engineers scurrying around, keeping the cogs turning. (Loophole Cinema to Doing, 2015: 174)

A good example of this practice is the installation *Propaganda Beacons* (1991), built and exhibited downstairs in the London Filmmakers' Co-op, a former laundry, during the London Film Festival that year. This installation consisted of a number of portable turntables fitted with revolving, perforated cylinders through which light was transmitted back into the space.

The turntables were simultaneously playing second hand records randomly chosen from a junk-shop and as the needle approached the cylinder, it would get stuck and play the same groove over and over. As Greg Pope explains in the interview, the basic idea for the installation was to construct "something that projects light and sound in synchronisation but is not film" (Loophole Cinema to Doing, 2015: 180). Similar mesmerizing kinetic objects were used in later installations and performances. Also, the sites themselves were recycled, changing abandoned and polluted industrial sites into inspiring monumental spaces. This practice culminated in *Circus of the Senses* (1993), a performance that took place during the European Media Art Festival in Osnabrück, Germany.



Making of *Propaganda Beacons* (1991) © Loophole Cinema

The festival organisation offered a deserted steel-factory as a temporary workspace, including a working overhead crane. The group attached a screen to the crane, moving it back and forth during the performance, while projecting from both sides onto the screen. While the screen was moving towards the audience, the image projected from

the far side of the space would grow and the image projected over the backs of the audience would shrink. The shrinking image would appear brighter while the growing image would lose brightness. The whole space seemed to breathe and come alive through the insertion of this relatively simple intervention. At the start of the performance, the audience found itself in a dark space, which was slowly revealed by projections. After the scene in the main hall, they were led through, towards a second installation with elongated projections on further screens and finally, they found themselves outside again, where the group continued making use of the surrounding industrial wasteland as a backdrop for their actions.

Besides the above described works and artists, similar approaches can be found in recent expanded cinema works, with notable examples in the UK: *Primal* (2016) by Vicky Smith, an animation made on unexposed film by scratching with fingernails which is accompanied by a voice artist's performance, *Pending* (2016) by Bea Haut, in which a film loop showing the artist carrying a wooden step ladder above her head is shared with and carried by the audience, *Body Scan: [A]live Screening* by Karolina Raczynski and Anita Konarska (2016), in which the emulsion of black leader is slowly dissolved, exposing the torso of Konarska, who is sitting in front of the projector narrating her fight against breast cancer, and *Hair in the Gate* (2013) by James Holcombe, in which the artist uses his own hair and saliva to create a moving image. These four expanded cinema pieces are extensively described in my essay *Towards a Post Materialist Practice in Expanded Cinema* (Doing, 2017), published in the peer reviewed Journal of Arts Writing by Students (JAWS). Further examples can be found in many contemporary and historical experimental films, incorporating direct imprints of nature on film, purposely decaying images, and images balancing on the verge of abstraction and chaos. Both this type of expanded cinema work and single screen work is also practiced by artists in North America, notably by Bruce McClure, Gibson & Recoder and Philip Hoffman (Film Farm), famously preceded by the late filmmaker and musician Tony Conrad with his satirical piece *Pickled Film* (1974) and his ironic long duration piece *Yellow Movies* (1973). Due to the lack of resources that would be needed to attend their performances regularly, undertake research in archives in the USA and conduct interviews, these artists have to be left out of this review.

To summarise the argument so far, first of all, expanded cinema has many formal qualities that can be described in environmental terms, referred to as 'ambient poetics': an incorporation of reflexive components foregrounding the cinematic apparatus, a refocusing of the audience's attention on the easily overlooked spatial elements of

projection, an interest in unpredictable (natural) elements and forces, a layering and collaging of disparate parts into a new whole, and a focus on the surface and texture of the filmstrip. Additionally, one of expanded cinema's central ideas, revealing the means of production, can be used to challenge the prevailing narrative concerning human/machine relations. Also, the collective approach of many expanded cinema artists has interesting links to the utopian ideal of a 'social ecology'. Moreover, individual artists have managed to express ideas towards observation and time beyond the human scale and are driven to let the material qualities of film emulsion and chemical reactions 'speak with their own voice'. However, on a conceptual level, only certain expanded cinema works are concerned with posthumanism.

As mentioned in the introduction, two fellow research students have published articles forging such a relation between expanded cinema and posthumanism. Firstly, Teresa Marie Connors' *Audiovisual Installation as Ecological Performativity* (Connors, 2015) contextualises her practice-based research within a similar framework as mine, referencing Humberto Maturana, Timothy Morton and Chris Welsby (among others). She writes in her conclusion:

By considering the world as a network of phenomena that are fundamentally interconnected and interdependent, the result is a performative engagement and attunement with the world that can function as an aid to the imagination. Human activity is placed into a larger environmental context by intersecting with forces greater than those of human design, which provides a multi-layered point of creative enquiry. (Connors, 2015: 7)

She further describes her work in terms of contemplation, meditation, attunement and pilgrimage and uses representational imagery of a (dying) forest and a (pristine) river. This approach might result in a more classic environmentalist reading of her work.

A different approach within a partially overlapping debate is taken by Rania Khalil in her online article *Palestinian Wildlife Series: Embodiment in Images, Critical Abstraction* (Khalil, 2016). In her exposition, she writes:

The expanded cinema performance 'Palestinian Wildlife Series' parallels posthuman and postcolonial circumstance, using appropriated imagery of African animals shot directly from a television set in Palestine. Chronicling the experimentation and process that went into this work of 'animal-video

choreography', the author interweaves research on Palestine, materialist film, and Afrofuturist thought. (Khalil, 2016)

Khalil also uses representational images of nature but makes an unexpected connection by introducing a postcolonial debate. Both her and Teresa Maria Connors' article feed into a similar discourse, as discussed in this thesis. However, both artists are mainly focused on contextualising their own work without further writing about the topic from a broader historical and analytical point of view. Both articles show that the debate regarding expanded cinema and critical posthumanism is multi-faceted and that this debate offers possibilities for revitalizing an ideology focused approach.

5) Expanded cinema practice

In this chapter I will describe and analyse the process of making a series of new works, informed by theoretical research. Practice and theoretical research have been running in parallel and frequently, theoretical insights have influenced my practice and vice-versa. As a practitioner with a career which started about 25 years ago, it is not possible to demarcate the start of my practical endeavour at one single point in time. Artistic practice is an ongoing process and with each work, one builds experience and gains knowledge. A pertinent point is made in the chapter *Matter's Time - Time for Material*, in the anthology *Experimental Film and Video*, Peter Gidal comments on the collective working process at the London Filmmakers Coop since 1968: 'My first point is that in England, theory always came *after* practice. Whilst we didn't decide this consciously, it automatically resulted from our working methods...' (Gidal, 2006: 19). I can subscribe to this statement, although theoretical research has helped me a great deal to be better equipped for evolving my practice.

Before focusing on my recent work, it is useful to include a short overview of my involvement in expanded cinema so far: During my bachelor study at the Hogeschool voor de Kunsten Arnhem (1986-1990) in the Netherlands, I started making super8 films, which I used in installations and performances. Coinciding with my first year of studies, the third edition of the AVE-festival (1984-1995), a festival for audio-visual arts, took place in Arnhem. I volunteered as technical assistant and had the opportunity to see many international artists at work. Among them was the French instrument builder and sound-artist, Pierre Bastien, who will be mentioned again later. During the last year of my study, in September 1989, I started an artist run film laboratory, Studio één, with two fellow students, Saskia Fransen and Djana Mileta. This laboratory was based in a self-renovated building and housed several film printing machines, editing facilities and a darkroom for processing. In successive years, the French projection performance group Metamkine, and the German artist Jürgen Reble were guests of the AVE-festival, leading towards an exchange of knowledge and ideas. The French label Re:voir has recently published a DVD and booklet, which I edited, including a series of interviews and a selection of films by artists and filmmakers who were closely affiliated with Studio één (Doing, 2016).

While screening an early version of my film *Meni* (1994) at the European Media Arts Festival in Osnabrück in 1993, I attended a performance by the British expanded cinema group Loophole Cinema: *Circus of the Senses* (1993). A year later, I was

invited by the London Filmmakers' Co-op to screen my work and I met (again) with Greg Pope, who was the Co-op's projectionist. In 1995, Studio één moved to Rotterdam, to a bigger space within a building containing 45 artist studios. I continued working with Metamkine, Loophole Cinema and Jürgen Reble, culminating in several workshops, performances and films. I participated in the International Symposium of Shadows (1996) with an expanded cinema performance, collaborating with the earlier mentioned sound-artist Pierre Bastien, who I met many years earlier during the AVE festival. We travelled with our performance *Rotary Factory* (1996) to several European cities and New York, performing alongside Tony Conrad. We worked on two more performances and on several films and a CD-ROM. Meanwhile, the collaboration with Loophole Cinema resulted in a three months residency by Greg Pope in Rotterdam, during which we performed together and made the film *Maas Observation* (1997) with footage shot by Pope around industrial sites in the Rotterdam harbour. During the period 2000 – 2012, I focused increasingly on documentary filmmaking. In 2013, I decided to move to London and while becoming involved with no.w.here lab, I started making new expanded cinema work, with *Palindrome Series* (2013) as a first result, a double screen film in five sections, made with ostensibly futile materials: paper cut-outs, artificial hair, discarded negatives, newspapers and found footage. The late A.L. Rees, writer, critic and film historian, who edited the much-quoted anthology *Expanded Cinema Art Performance Film* (2011) wrote an article in *Millennium Film Journal*, reflecting on what he called "an extraordinary rise of interest in the experimental arts from the 1970s -not in a fetishized or imitative way- but rather complete with new artists, works, and programmers". He referred to one of my films' sections, screened separately from the other four in two compilation programmes:

Some of the films were hesitant first steps, but there were two outstanding pieces. One was Karel Doing's two-screen *TestseT*, also shown at the Portrait Gallery in digital format, is a two-screen abstract palindrome in black and white made from film scraps and waste, one screen in positive and the other in negative. (Rees, 2013: 54)

While starting my research project, I was working on the film *Dark Matter* (2014), a 20-minute-long film representing my father's life. As a result of his professional activities as an ecologist, he left me a large collection of slides depicting pristine landscapes. These presented me with an aesthetic problem, their beauty distracting the viewer from any other possible message. I decided that I had to find another way to make images, referring to landscape in a more process driven way. A film archivist had given me a

stack of 35mm negative b/w motion picture film stock, originally manufactured in the German Democratic Republic, presumably sometime in the 1980's. The film was long out of date and the first experiments exposing the film hardly resulted in a clear image. I picked up fallen London Plane tree leaves from the streets and, out of curiosity, mixed with frustration, I rolled the wet leaves and a length of film together. After a couple of days I examined the film, and found that the leaves had left a clear imprint on the emulsion, eating it away in a complex pattern. After processing this length of film, I had produced my first 'organigram'.

The term organigram or organogram is used to describe a diagram showing the structure of an organisation. Besides this reference to organisation, in my use of the term, it also points back at its precursors: the rayograph, photogram and chemigram. A rayograph, or photogram, is a photographic image made by putting objects on a strip of film or photographic paper and exposing this ensemble briefly to light. After processing, the contour of the object can be seen on the film or paper. Man Ray famously employed this technique in his film *Le Retour à la Raison* (1923), hence the name rayograph. Also, the Hungarian painter and photographer László Moholy Nagy experimented vigorously with the photogram (Moholy-Nagy Foundation, 2016). The earliest history of this technique goes back to Thomas Wedgwood, who experimented with photosensitive paper and white leather around 1800. Wedgwood could not fix his images and his practice is only known through written records (Encyclopædia Britannica, 2016). In 1839, Henry Fox Talbot exhibited his photographic work shortly after Louis Daguerre went public with his Daguerrotype. Talbot used salted paper and placed botanical specimens on top, while exposing the combination to sunlight for several hours, producing a negative shadow of the object with subtle variations in tone (Batchen & Talbot, 2008). Many avant-garde filmmakers have employed this technique, using a variety of objects and materials. Subsequently, Belgian photographer Pierre Cordier invented the chemigram in 1956. Cordier applied varnish, wax and oil to photographic paper, holding back the developer and fixative on certain parts, a technique which resulted in a hybrid art-form between photography and painting. In order not to disturb the firstly applied materials, Cordier sprays his traditional photochemical solutions on the paper (Cordier, 2014). The technique employed by filmmaker and expanded cinema artist Jürgen Reble has similarities with this practice, and his images could also be called chemigrams. Reble says about his method:

I worked in summertime on it, in my garden on a big glass plate. The sun helped to make it dry very fast and I worked with a kind of airbrush system and pipets

dropping chemicals on certain places. The composition of the filmstrip, if you see it in front of you on a table, I did not think about first frame blue, second yellow, third red. Some people work like that. I made bigger forms across the strips, like a wave over the whole piece. Putting for example some other tones, joining them on certain places together. I worked like an abstract painter, on these filmstrips, knowing that there will be interaction between these different layers, but one does not know what comes out finally. It was always a surprise when the film went into the projector, some moments were very beautiful, other parts were ugly. I had to throw away about two-thirds. I kept one third, and kept working only on some selected parts. (Reble to Doing, 2014: 122)

The procedure that I have developed is different insofar that I have used only organic materials and minerals, and have relied a great deal on bio-chemical reactions between substrate and emulsion. My experiments are aimed at the production of images without camera, even without exposure, solely relying on the process between the photographic emulsion and the substrate. Instead of the existing practice of altering photographic images by exposing them to weathering or chemical stress, I am not using pre-existing images, but blank emulsion. The various procedures developed by me result in a variety of visible patterns. These patterns emerge both through the chemical alteration of silver-halides (a process that occurs in traditional photography through exposure), the deposition of natural dyes and the partial deterioration of the emulsion. As such, the resulting images do not represent a visual image of nature, but a natural process. These images of process reveal underlying patterns and interactions and focus on the materiality of both substrate and emulsion. In this sense, my organigrams can be described as posthuman, not showing the organisation of an institution or company, but the organisation of organic materials, micro-organisms, minerals and crystals. Moreover, collaboration is not understood as an interaction between artists or artist and audience, but as an interaction between artist, material and natural process.

After my initial success using the leaves of a plane tree, I embarked on a series of experiments with a variety of components: salt, sugar, charcoal, sand, various plants, yeast and flour. The most powerful results in this first series were obtained with salt, yeast and various plants. The salt can be seen as crystals 'burned' into to emulsion by means of its causticity. Humidity, temperature and molar concentration affect the form, size and distribution of the crystals, making it possible to produce a variety of images. The yeast literally seems to 'grow', feeding on the gelatine, and produces an image that

has a strong resemblance to micro-organisms seen through a microscope. The plants bite away bits of emulsion by means of their acidity, partially destroying the emulsion and leaving strong graphic patterns. In other experiments, I also managed to create permanent greenish and purple imprints (on b/w film), clearly outlining the tiny leaves of a weed that was harvested on the borders of the Thames.

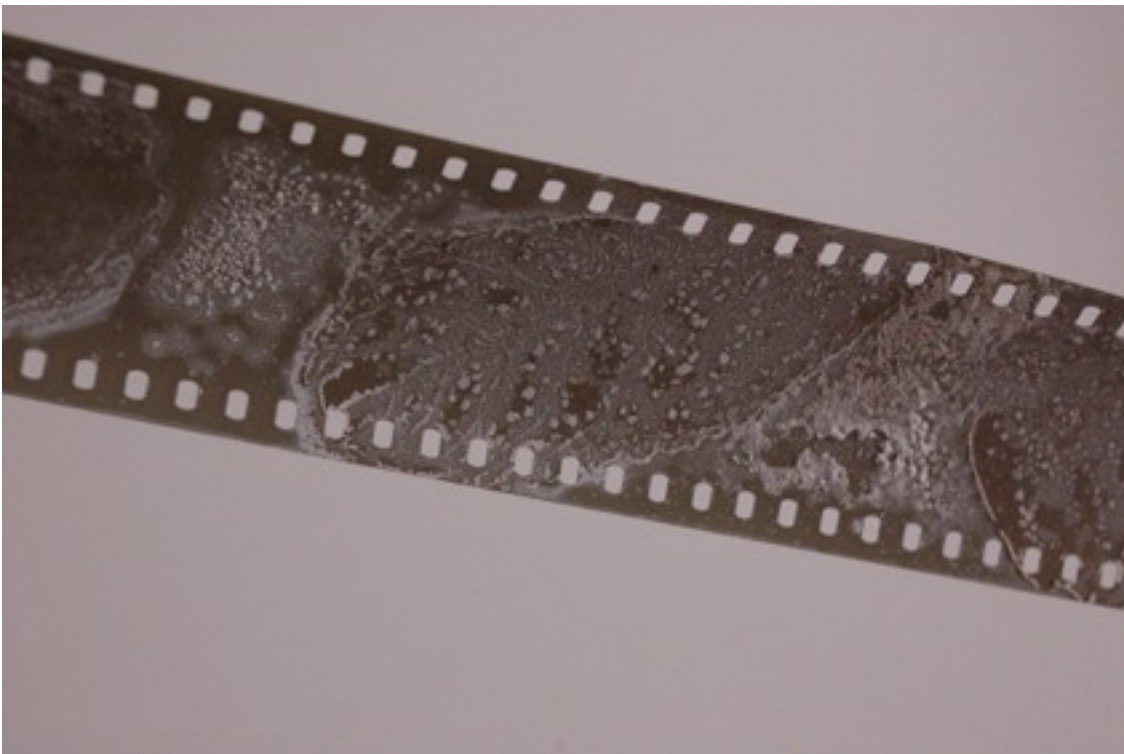
I have used the results of these experiments in various works, first in the already mentioned film *Dark Matter* (2014), combining the organigrams with an extensive selection of landscapes photographs taken by my father and a handful of family portraits. Secondly, I created a short sequence from the same pool of material, combining it with a live voice performance, *Duet for Film and Voice* (2015). Vocal sounds were combined with meaningful words taken from different languages, resulting in a soundtrack that slips in and out of meaning. The images can be both perceived as abstract or concrete, the sound underlines both notions. Thirdly, I used a longer sequence in a live performance with the Strange Umbrellas, a group of improvising musicians with core members Steve Beresford, Blanca Regina and Jack Goldstein. Finally, I made a series of photographic works: hand printed photographs, digital prints, collages of negatives and a series of slides, which were exhibited in MMX gallery under the title *Circadian Maps* (2016). Jane Madsen⁶⁰ wrote an online essay about the exhibited work. She commented on my working method:

The experimental nature of processing film emulsion in this way, as with the field of scientific experimentation, sets up the possibility of failure, of unexpected consequences and of the unforeseen. Over time the emulsion has reacted to the incursion of the organic chemicals producing blooms of physical reaction, which become and obliterate the image. These visual and material effects are both reminiscent of the glass slides prepared to go under the microscope, and of the abstract paintings of Abstract Expressionism. (Madsen, 2016)

I prepared a second phase of experimentation aimed at the further development of the organigram. In order to build a stronger conceptual base, I formulated a set of propositions: I would use as few toxic substances as possible in the process, research further possibilities for bio-chemical reactions between film emulsion and reagents, collect reagents from my direct surroundings, and continue using out of date film-stock. In order to extend both the physical length of the filmstrips and the flexibility of the

⁶⁰ Jane Madsen is an artist and art historian who recently received her PhD in Architecture Design at Bartlett.

process, I installed a 6-meter-long basin in a temporary studio. For processing the film, I used alternative photochemistry based on the earlier mentioned recipe for caffenol developer. By means of the already mentioned filmlabs website and network, I had some knowledge about caffenol and I followed online discussions about its use and other applicable ingredients. Inspired by this practice, I started experimenting with other reagents: grass, mushrooms, beetroot, mint, a mixture of algae and mud from Deptford Creek and finally, salt. The grass and the mud were found in my direct environment; the other ingredients were bought in nearby shops. I chose mint, inspired by a post from the artist Ricardo Leite⁶¹ on the filmlabs forum, describing his experiments replacing the coffee in caffenol with mint. This choice was also informed by my wife Ekaterina Yonova-Doing, who told me that the stickiness of certain leaves is an indicator for alkaloids. One of the key active substances in any photographic developer is similar to alkaloids and this similarity improved the chance of success.



Organigram on 35mm film, made with mint leaves, soda and vitamin-C, 2015, © Karel Doing

Furthermore, I was motivated to harvest mud from the creek, informed by the preservationists working at the Creekside Centre⁶², who explained to me the

⁶¹ Ricardo Leite is a Brazilian filmmaker currently living in Portugal. He specializes in alternative photochemistry.

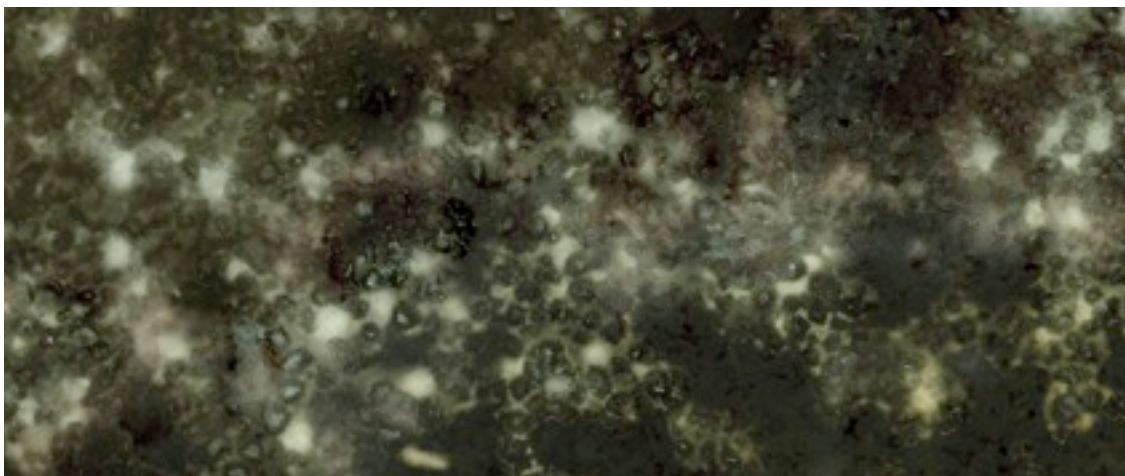
⁶² Creekside Centre aims to sustain and promote Deptford Creek through education and conservation.

abundance of algae and other micro-organisms living in this sludge. My aim was to keep these organisms growing, fed by the gelatine in the film's emulsion, similar to the earlier experiment using yeast. The use of mushrooms was inspired by a Youtube video which explains how to grow your own mushrooms and multiply a small number of these, aided by moist cardboard strips. Furthermore, I opted for grass, expecting a similar reaction to the previously used Plane tree leaves, while a blade of grass has a different shape compared to a leaf. Finally, beetroot was picked because of its strong pigment. Besides using more of the same 35mm film stock, I also used 16mm film. Film was wrapped in grass, similar to my first experiment with leaves, resulting in flakes of emulsion falling off. The mushroom stems were sliced off and the hoods were laid out on film strips, resulting in imprints of the spores and cloud-like stains of various densities (the mushrooms did not grow, due to difficulties in controlling the amount of water). Slices of beetroot coloured the film pink, but remained sticky, making it impossible to project the original. Mint was soaked in vitamin-C and soda, and the soaked leaves produced intricate patterns on the film strips. The mixture of algae and mud cracked the emulsion, resulting in a pattern looking like brain tissue (again, the lack of a constant supply of water hindered growth). I submerged film in water completely saturated with salt. This produced a pattern similar to reticulation, which occurs when photographic emulsion cracks, but in a more extreme fashion.

Parallel to these experiments, I also started to develop a set of objects, aiming to interfere in the space between projector and screen. Again, my proposition was to use found and futile materials or objects that I already had. Moreover, my aspiration was to explore the boundaries between the concrete and the abstract further, aiming at a further articulation of inscription that allows a movement in and out of a legible, cognitive space. Both my theoretical research and the organigrams offered clues in this direction. I constructed a kinetic object out of wood and discarded lenses, and a second object out of branches collected in a park. These objects, plus an animated sequence made with the branches and 16mm organigrams, were combined in the expanded cinema work *Pattern/Chaos* (2015). For a first presentation of this work, during a session of the Documentary Research Forum at the London College of Communication on the 28th of October 2015, I included the following text in a handout for the audience: The expanded cinema performance *Pattern/Chaos* is a negotiation between the unpredictability of organic processes and the regularity of frames, optics and motors. Images that are, at first glance, perceived as abstract turn out to be concrete precipitation from phenomena that surround us in everyday life.

In the article for Cinema Journal, entitled *Slow, Methodical, and Mulled Over: Analog Film Practice in the Age of the Digital*, Kim Knowles writes about a similar process of moving image making:

The dialogue that takes place between the material substrate and the environment (soil, plant life, water, air) can be registered only through time, as biochemical decay takes place as a result of prolonged contact with the elements. These “earthly” film processes therefore ask us to shift our attention to the rhythms of the natural world and to (re)consider, through the medium of celluloid, other possible ways of being. (Knowles, 2016: 5)



Wilderness Series (2016) © Karel Doing

A second work, made from this new series of organigrams, takes shape in five animated sequences, the *Wilderness Series* (2016), a 14-minute-long digital video in cinemascope format. For this work, I physically cut sections of reworked and processed 35mm negatives to a size that would fit into the available mount for a high-quality scanner, accessible to me at the college. This procedure gave me the opportunity to scan the negatives to an extremely high resolution (up to 6300 dpi). The resulting digital files were now virtually cut into sections with different sizes, but similar ratios. These sections were placed on a so-called timeline, merging all to one scale. During the cutting process, I applied a different regimen for each sequence, creating movement in contrasting directions and using a variety of scales. The animation was done on an experimental basis, trying out different speeds and various forms of layering, and responding to these through a system of visual checks and subsequent adjustment of values. This method enabled me to combine an organisation based on premeditated sequences of numbers with an intuitive approach. The file has been exported to DCP format, opening up the possibility for presentation in professional

cinemas, using the full breadth of the screen. A soundtrack has been composed and recorded by Andrea Szigetvári, a Hungarian composer and academic, who concentrates mainly on the role of timbre in new music, synchresis in audiovisual art and interactive performance. She has sent me numerous tests, adjusting in response to my feedback, while building towards an entanglement of moving image and sound.

Besides the works based on organigrams, I have shot extensively with a standard action camera mounted on a microphone boom. The 3-meter-long boom, plus my body length, offered me the possibility to reach a height (or low) of maximum 5 meters. The idea was to find a point of view that goes beyond the human, aided by simple equipment only. To enhance that, I have also reversed what would be normally seen as background to foreground, filming urban trees with street scenes as background. As principal subject, I chose the 'exotic' London Plane tree:

The London plane, *Platanus x acerifolia*, (also *Platanus x hispanica* and *Platanus x hybrida* – all three botanical names are in common use but all refer to the same tree), is a hybrid created by crossing the Oriental plane, *Platanus orientalis* with the Western plane, *Platanus occidentalis* [previously only native in North America]. The hybrid was most likely a natural result of the two parent trees being planted close to each other. There is no certainty as to whether the hybrid occurred naturally in Britain or whether it was first brought here from Spain. (Hull, 2009: 3)

London Planes have been successfully planted all over the city and have become the most common type of tree. The tree's resilience to air pollution is remarkable, shedding toxins by flaking bark. The trees are known for their longevity, with some specimens more than 200 years old, London Plane trees are more likely to be cut by property developers than to die of old age. I have traced these exceptional trees, starting in August 2015, walking sections of a big loop every couple of weeks⁶³. In June 2016, I completed the loop, bringing me back to my point of departure. The editing of the resulting material is based on a selection procedure; judging the technical quality of each shot, choosing interesting chance encounters that have been registered while maintaining a varying pace of time and location changes. The video reveals the progression of the seasons, the growth and decay of leaves, the flow of pedestrians and traffic, and the wildly different architectural styles throughout London. The trees are the main protagonists, while people and traffic are passing in the background. On the

⁶³ An approximate route map, describing the loop, can be found in the appendix, on page 193.

soundtrack, I have combined street sounds with drone tones in a bid to create a sonic experience that can be related to both the urban environment, the trees and the seasons.



London Plane (2017) © Karel Doing

A second video, shot with an action camera, culminated from a long-running engagement with Deptford Creek. I have made a series of educational videos for the Creekside Discovery Centre as a volunteer, giving me access to the creek on a regular basis. I also organised a workshop at this centre in collaboration with two visiting artists from Echo Park Film Center, Los Angeles. During the workshop, participants could make a 'botanicollage' on film, a technique inspired by Stan Brakhage's *Mothlight* (1963). Walking regularly in the creek has given me the opportunity to explore this area, where wildlife and urban life co-exist in close proximity. The creek is home to many birds, insects, fish, plants and smaller organisms. Despite its unappealing look from above, a surprisingly rich landscape unfolds when descending and exploring its mud banks during low-tide. After shooting and discarding hours of footage, I managed to find a striking point of view, taken from Creek Road Bridge. Again, the action camera is mounted on a boom, but this time the boom is lowered down from the bridge's pavement. In this way, an image of the bottom of the bridge can be recorded, revealing its classic H-beam construction with vegetation growing in its nooks and crannies. Also, the creek flowing underneath and the surrounding crowded urban area are incorporated into the shots. This shot was repeated roughly every 60 minutes during one day in late spring, collecting a series of images in which the sun progresses

around its arc across the sky and the tides are swelling and falling. Simultaneously, the traffic that runs across the bridge makes the whole construction shake and tremble and this movement is visible in the shots. Birds are flying through the frame and traces of other wildlife are also visible. Sound is recorded with a digital recorder, catching indirect noises of the traffic and people passing the bridge, the booming of the bridge and the surrounding building works. A montage of these elements offers the audience a reflection on an environment that is both natural and urban at the same time.

Finally, I made a second expanded cinema work. As a first step, I shot three rolls of film at three locations, each time taking a well-known monumental building as my primary subject while double exposing the film. During the second exposure, I either revisited the building or chose an image related to the national identity of the country where the building is located. The first roll was shot in the UK and shows the Royal Naval College in Greenwich. The second roll was shot in Riga, Latvia and shows the National Academy of Sciences, superimposed with a pine tree forest. The third roll was shot in Rotterdam, the Netherlands and shows the Erasmus Bridge, superimposed with the river Maas. The superimposition results in an overlapping of images that destabilize the realistic point of view offered by standard cinematographic equipment. As a second step, I selected parts from existing optical soundtracks. I had access to a large amount of 16mm educational films from the 50's and 60's and many of these films contain voice-overs in which educational subjects are explained in an expository fashion, typical for that particular era. The third step was a further selection and editing of the material, supplemented with a search for quotes expressing extreme political ideas by politicians who have an outspoken interest in issues of identity and culture. I chose to use quotes by Nigel Farage⁶⁴ (UK), Geert Wilders⁶⁵ (NL) and Joseph Stalin⁶⁶ (former USSR). In the final work, I am projecting the film, while controlling the sound level and 'conversing' with the voices on the film.

Following similar analyses as previously used, in regard to the discussed expanded cinema works, I will reflect on my own work as well. First, the 'ambient poetics' of the described works can be demonstrated. The 'organigrams' in my film *Wilderness Series* can be described as having aeolian, tonal and timbral qualities. The unpredictable element, or natural force, that I have worked with is a mix of corrosive and oxidative

⁶⁴ British right wing populist with autocratic tendencies.

⁶⁵ Dutch right wing populist with autocratic tendencies.

⁶⁶ Autocratic leader of the Soviet Union from the mid 1920's until his death in 1953.

stress on the emulsion, resulting in repetitive but irregular patterns. Also, in some cases, similar marks are the result of micro-organisms literally 'eating' parts of the light sensitive coating and the absorption of chlorophyll into the film's porous layer. The motifs emerging from this process are both repetitive and irregular, reminiscent of Raban's patterns in *Wave Formations* and the chemical traces in Reble's *Instabile Materie*. Each variation has its own 'tone' and 'timbre', a result of the different shapes, colours and rhythms transpiring from the different reagents. To retain a certain amount of control over the result of the various processes, I have repeated each several times, tweaking solutions, humidity, temperature and timing. In the digital postproduction, scanning and animating the images, further control is gained. The result of this balance, between an unpredictable process and a controlled postproduction, foregrounds the underlying patterns produced by the technique itself, giving a 'voice' to that process. During the projection, the audience is immersed in this arrangement, which potentially communicates the 'aliveness' of the filmstrip itself.

In my expanded cinema performance *Pattern/Chaos*, similar imagery is used, animated by the projector and rudimentary editing, resulting in more 'raw' shapes, still displaying the tonal, timbral and aeolian qualities, as mentioned before. Structuring these raw shapes is done live by interfering with the projector's beam. Described with Morton's tools, this intervention could be referred to as 'medial', making a 'comment' on the projection by adding additional (moving) lenses and super-imposing animated shadows and flashes of light on and beyond the screen. The rawness of the filmstrip, which has not been digitised or copied, results in a more direct and tangible tone and timbre, less analytical as compared to the digital variations. This is reflected in an embodied soundtrack, a recording made during a careful walk in a rainforest, with as only addition a slowing down of certain sections.

In the digital-born works *London Plane* and *Deptford Creek Bridge*, the 'aeolian' and the 'tonal and timbral' are much more straightforward. The wind can be seen and heard, rustling through the leaves of the Plane trees and creating waves in the water of the creek. Texture and colour of leaves and stems and the changing colour and intensity of the light are all represented in bright colours and high resolution. The curious position of the camera, high up in the trees or below the bridge, can be referred to as displaying what Morton calls the 're-mark'. By switching what is normally seen as foreground (street, pedestrians, bridge-deck) with background (treetops, branches, underside of the bridge), the audience's attention is redirected to events that normally pass by unnoticed. Finally, the expanded cinema performance *Monumental Errors* can

be understood in terms of 'medial' again, with both imagery and sound disrupting standard representation. There is also an element of 'rendering' in the creation of a new environment through a recombination of disparate elements that previously did not belong together.

Conceptually, the work answers to a 'classic' expanded cinema concept, a revealing of the means of production energizing the audience to partake in the completion of its meaning. In *Pattern/Chaos*, this is made concrete by the interventions between projector and screen, but also the animated organigrams participate in this game between reality and illusion. The images are 'real' imprints of natural processes and simultaneously are perceived as 'abstract', lacking representation from a human centred perspective. Also, the digital born works revolve around a similar concept, as 'nothing' happens in the image but simultaneously, the work is jam-packed with occurrences and surprises. Moreover, all five works can be seen as approaching Kohn's 'ecology of selves'. Inspired by his analysis of the relation between humans, plants and animals in Runa culture, I have engaged with my urban environment as if it were a rainforest. Precise observation and a non-hierarchical approach to the subject matter are used to develop and sustain a dialogical system with that environment. The urban environment is portrayed departing from the idea of a shared culture that is not exclusively human. I have studied that environment both on a microscopic level, mapping activity which normally remains invisible, and on a much larger scale, trying to literally reach beyond my own body size and my own vision. The work in question is not made with a group or collective, but I have extensively sought to collaborate with my direct environment, whether living or dead. The organigrams are the result of biochemical, oxidative and corrosive processes, under conditions initiated by me, subsequently letting the process take its own course and direction. Various micro-organisms, gases and minerals have interacted with the film's emulsion, leaving traces. In the digital born works, trees, creek and weather are the main characters, while humans, traffic and architecture play minor roles. This is achieved by the previously mentioned switching of background and foreground, which is both happening on a level of individual shots (branches, trunks and leaves in the foreground) and on an overall level, protruding the organic elements of the urban environment, instead of showing the city as primarily technological. The point is not to display the technological viewpoint as being pejorative, but simply shifting the standard perspective, showing how natural and synthetic elements intertwine and interact. Additionally, I have undermined the legibility of image and text in *Monumental Errors*, leaving the audience no choice other than the creation of their own meaning. Chaos is created by deceptively simple interventions in

found and commonplace footage. Established signification of architecture, landscape, spoken commentary and political statements are disrupted altogether, questioning ordinary knowledge production.

Regarding methods, I am indebted for my work with organigrams to Jürgen Reble's chemical manipulation directly on the filmstrip. But instead of working with highly toxic chemistry, I have experimentally found ways to create images, using mostly organic materials. Aided by salt, herbs, vegetables and other plant materials, in combination with caffenol developer, I have managed to create images on out-of-date film stock that normally would have been thrown away. Also, the objects created for *Pattern/Chaos* are made from recycled lenses and from branches gathered in a London park. Furthermore, I have walked and used public transport to gather the digital images and I have concentrated on my direct environment. Beyond this direct striving for a low carbon footprint, I have consistently sought to earn my personal maintenance by working for fellow artists by organising and curating events, teaching younger practitioners and running a film processing and printing service aimed at independent filmmakers and artists. Although this might not be seen as part of my research project, I want to argue that by choosing to do meaningful work, I am able to retreat in part from exploitative mechanisms of society. The aim is to approach the lowest possible ecological footprint, produce meaningful work, and support collectivity. To achieve this, a constant re-adjusting is necessary, and no final or perfect results can be expected.

In the next chapter, I will summarise my research outcome and describe how the work could be developed further. Also, I will explore possibilities for further research.

6) Conclusion and further research

Critical posthumanism, first and foremost, questions the human subject and its self proclaimed superiority. This thesis is written in that questioning spirit, carefully probing expanded cinema by looking at context, concepts, forms and methods and how these elements can express critical posthumanism in unison. This concluding chapter aims to find the balance between ambition and humbleness, informed by both the urgency and the complexity of the problem that is at stake. I am determined to work on further exploration, developing the proposed ideas and methodology. What follows here is a summary of my findings, proof of my original contribution to knowledge and a setting out of plans for future research.

I have demonstrated, in Chapter 4, that 'ambient poetics' can be found abundantly in existing expanded cinema works. Moreover, overlaps between critical posthumanism and expanded cinema have been confirmed, as described in Chapter 5. A critical reflection on the role of (projection) technology and (film) material can be found within many expanded cinema works, contributing to the debate regarding human/machine interaction. Additionally, the (human) boundaries of time and duration, the perception of space, in general, and the natural environment, in particular, have been explored within expanded cinema. This inquiry has affinities with a critical posthumanist agenda, the changing relationship between humans and machines, the increasing need to look beyond a human timescale and new insights regarding consciousness beyond the human brain. Finally, collectivity and the disruption of hierarchy have been verified as recurring topics within expanded cinema, overlapping once more with critical posthumanist propositions. Critical posthumanism advocates an enhanced ethical contract between humanity and other living creatures based on reciprocity instead of dominance. Largely absent in expanded cinema is the critical posthumanist concept of inter-species dialogue. Also, no consistent eco-aesthetical approach can be found in expanded cinema, despite a frequent recycling of equipment and footage.

Regarding my own practice, I have demonstrated a recurrence of 'ambient poetics' and an increased engagement with the earth/animal/machine problematics that are central to critical posthumanism. In my work, I use 'classic' expanded cinema propositions, disrupting hierarchy between subject and object by presenting form and signifier instead of disguising an ideological message within those. I am referring here again to Gidal's materialism, as described from a universal angle encompassing all artistic media, not only film, in *Flare Out Aesthetics 1966-2016*: "Its constructedness is

foregrounded, its procedure of construction - of nongivenness - is foregrounded" (Gidal, 2016: 81). Additionally, I am focusing on relationships between natural and synthetic elements and I am aiming to reconfigure these within the work. This is aided by a 'pure' material(ist) approach in combination with more traditional (re)presentational techniques, which are disrupted by reversing the anthropocentric perspective. Finally, I have developed methods advancing towards a more eco-aesthetical approach, particularly the described 'organigrams', but also by using available (minimal) means and (free) resources, working collectively with other artists and advocating collectivity within institutions.

The formal, conceptual and ethical considerations together provide a framework for the desired break from prevailing narratives regarding human relationships with the natural environment. Four elements can be established in expanded cinema that can be used in regards to this aim. Firstly, I argue that expanded cinema has an intrinsic environmental aspect in a formal sense, as each of the considered artworks contain elements going beyond the confined area of the single screen (an atypical approach as compared to regular cinema). Secondly, I argue that expanded cinema artists have taken inspiration from the natural environment and have used either images of landscape, images inspired by natural phenomena (like undulation and refraction), or images that are the result of naturally occurring processes (like oxidation, crystallization and acidification). Thirdly, I argue that expanded cinema artists have displayed an interest in ethical questions and have incorporated this into their work in a variety of ways. Most exemplary in this regard is Chris Welsby and his lifelong dedication to a merging of mind and nature. Fourthly, I argue that there are a growing number of filmmakers who are looking for environmentally friendly methods for moving image making. These techniques can also be used in expanded cinema. By combining and consistently applying the described forms, concepts and methods, a step towards the expression of the posthuman or post-anthropocentric can be made.

What is at stake here is the very definition of 'nature'. In humanism 'nature' is elsewhere, outside of the human, cultural domain. In posthumanism, nature is here; it is immanent. Instead of objectified images of nature that express a dominant and anthropocentric relationship, posthumanism seeks for images expressing this immanent relationship. Neither human, nor technological, nor natural elements take a central role; all of these co-exist on the same plane. This space is as much filled with death, decay and dirt as it is filled with life, growth and beauty. A posthumanist image could be an image showing the microbial life contained within the dirt assembled under

a fingernail. Such an image could have its own intrinsic beauty and give us an understanding of nature in a profoundly different way as compared to romantic visions of pristine forests, lakes and mountains. The posthuman challenges the human longing for immortality and perfection and subsequently, the romantic reflex to preserve and idealise. 'Nature' lives, dies and is reborn constantly, but the ultimate threat to the natural environment is immortality. Consider, for example, industrial produce: plastics, radio-isotopes and other manmade materials with prolonged life-cycles that disturb and ultimately destroy natural cycles. Decay is a virtue to be encouraged rather than to be stopped; on decaying elements, new life can grow. In critical posthumanism, human exceptionalism is challenged, encouraging the human subject to abandon their dominant position and start exchanging culture, values and ethics with others, sharing resources and spaces rather than exploiting all within reach. Within this research project, I have developed and applied such a posthuman approach towards the artefact, in general, and expanded cinema, in particular. My claim to new knowledge encompasses such a precise articulation and expression of critical posthumanism by means of expanded cinema and affiliated forms of single screen work.

In the previous chapters, I have demonstrated that aspects of this posthumanist approach appear in previous expanded cinema works. To summarise, this again: Chris Welsby deploys a fragmentation of landscape and a reversal of (human) foreground and (natural) background in his work. Jürgen Reble uses decay as an intrinsic element while focusing on both microscopic and macroscopic processes. In William Raban's metropolitan landscapes, the flow of the river, the tides, as well as the sun and the moon are given a distinct voice within a complex urban fabric. Anthony McCall draws our attention towards time and duration extending beyond the human perception. Tony Hill uses ingenious contraptions to make moving images that exceed human scale and motion. Loophole Cinema uses technological debris as a main source for their creative process and Metamkine destabilizes the classic 'fixed' idea of the artwork by means of a constantly changing process of improvisation and collaboration, creating syn-aesthetic cinematic 'landscapes'.

Within my own work, I have combined multiple elements, aiming at a more comprehensive posthumanist approach, as I have described extensively in Chapter 5. To summarize, I have created images by means of microscopic processes of decay and growth, I have positioned my camera beyond a human scale and I have sought to destabilize dominant signification regarding urban and natural representation. Also, I have found ways to embed these images within environmental forms of presentation,

using objects, lights, shadows and my own voice as complimentary elements. Moreover, I have developed and used environmentally friendly techniques and materials. All of this has been done within a social framework of collaboration, improvisation and peer review. The resulting works are attempts to express concerns beyond the anthropocentric using various forms of expanded cinema. As such, these works demonstrate the feasibility of the newly found knowledge. Each work combines the summarized elements in a different way. The works should certainly not be considered as a final statement about posthumanism, but should rather be seen as well-articulated studies. The concepts, techniques and formal elements can be used for further exploration towards the expression of critical posthumanism.

An example of expanding these considerations further could be informed by my initial goal to incorporate architectural elements in the project, focusing on the cinematic space instead of the film or video. Again, it would be of interest to combine formal, conceptual and ethical considerations along similar lines as formulated in the answer to my research question. To model such an interactive, eco-ethical architectural space, it will be necessary to find out how a dialogue with a built structure could work. This could result in a space that is simultaneously a film and a living, expanded form of cinema. Kurt Schwitters' installation, *Merzbau* (1923-37), seems to be informing such an aim. This work is extensively described in the essay *Merzbau - The Cathedral of Erotic Misery* (Burns, 2000), which recounts the way the installation 'grew' step by step, first only occupying part of a room, and gradually spreading over the whole room, including the ceiling, the walls and the floor, and spilling over to other rooms. Apparently, Schwitters also incorporated human debris into the installation, including hair, nails and even a bottle of urine, retrieved from his peers who visited the installation. Schwitters did not have a preconceived plan for the installation as a whole and his methodology might have been close to what I describe as 'autopoietic', a process that constantly reacts to the possibilities offered by its environment, while feeding back into that environment at the same time:

Perhaps the most difficult aspect of Schwitters' approach to his art was the fact that the work was both developmental and incorporative. He did not operate according to a fixed strategem, but rather forged his material from events and circumstances as they presented themselves. (Burns, 2000: 4)

The idea of 'growing' an architectural space is not only taken up by artists like Schwitters, but is nowadays becoming part of an architectural practice increasingly

focused on organic building materials and bio-technology. A pertinent example here is *Terreform ONE*, a group of architects, designers, scientists and artists who are experimenting with urban farming, synthetic biology, smart materials and nanotechnology, growing materials, and using scripting and computational modelling for controlled growth (Terreform ONE, 2013). While using such concepts and technologies, a proposal for a space could be developed, in which architectural and cinematic elements would merge with living material. The same set of propositions that have been described in this thesis; ambient poetics and critical posthumanism, should inform such a project. Cinema and film could become one in a space interacting with outside temperature, precipitation, sunlight and visitors, giving a new meaning to the concept of audience performance, as used in pioneering expanded cinema works. Incorporation of living materials will embrace and investigate the possibility of 'shared culture', as previously described in relation to Eduardo Kohn's 'ecology of selves' (Kohn, 2013).

Even though communication with other species, in the form of language as practiced by humans, will most likely remain an unachievable goal, it might be possible to reach beyond the human, towards a culture that is shared with other living creatures. However, before reaching out beyond the human, a tangible achievement would be to collaborate within our own communities. Culture and art, in general, and expanded cinema, in particular, are powerful tools to accomplish such aims.

The thesis started with the following question: How can expanded cinema be used as a tool to reach beyond the anthropocentric? A conclusive answer to this query cannot be given. I have circumvented the question in multiple ways and by doing this I have reached closer and closer to the core. By using minimal means, discarded materials and non-toxic chemistry and combining this eco-aesthetical approach with a profound practice of listening and responding to materials, technology and social actors, while presenting in a live-setting that takes advantage of - and responds to - available space and audience sensibility, I have been able to stage projection events that do communicate *elements* of critical posthumanism. The fact that the research question might not be fully answered can be seen as an intrinsic part of the project, as posthumanism is a line of thought that highlights doubt. My aim as a critical posthumanist thinker is to question my own ability to fully understand and responsibly interact with the environment. A less authoritative and more open-ended approach is, in this case, desirable, not only aiming to express elements of doubt within my work but,

first and foremost, to encourage my audience to doubt their own knowledge system and perceptions and start considering alternative possibilities and viewpoints.

As such, a 'posthuman' form of expanded cinema is an art form, in search of both 'ambient poetics' and a weaving of human and non-human stories. A cinema that is not only in motion on the screen but also in motion within itself, listening and responding to its material and technological counterparts and in dialogue with its audience and environment. Always questioning; metamorphosing, mutating, evolving.

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Note on the filmography

Regarding the filmography, complex questions emerged regarding a consistent way to incorporate expanded cinema works and artist films. *Cite Them Right Online* (2016) does not list expanded cinema or artist film as a separate category. The category *Films or movies* lists *Year of distribution, Directed by, Place of distribution: Distribution company*. All of the former are irrelevant descriptions for expanded cinema works, and also, to a lesser extent, for artist films. A choice was made to follow the category *Media & Art > Visual sources > Painting and drawings*. This category lists: *Artist, Year, Title of the work, Medium, Institution followed by City*, and appears to be the most complete, consistent and comprehensive way to reference the works in question. But this choice did not solve all contradictions: *Medium* still remains problematic for certain expanded cinema works, as some performances include many different elements and ephemeral media: like light and sound, constantly changing technology and different forms of interaction between the work and the audience. I have solved this by simply referring to complex set-ups with the umbrella term *Installation* and I have included either *Live performance*, referring to active intervention by the artist(s), or *Audience performance*, referring to active participation by the audience.

Filmography

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WELSBY, C. (1974) *Anemometer*. [16mm film] LFMC, London.

WELSBY, C. (1974) *Seven Days*. [16mm film] LFMC, London.

WELSBY, C. (1977) *Shore Line*. [Sextuple screen 16mm film] ACME Gallery, London.

WELSBY, C. (1988) *Sky Light*. [16mm film] National Film Theatre, London

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Interview with Jürgen Reble, Bonn, 18-19 November 2014

KD: Your early project, the group Schmelzdahin, how did it start?

JR: The name came in 1980, around that time, but I met Jochen Lempert already in 1974. We were together on art school, he was one or two classes under me. We had a lot of common interests, in theatre and film, not so much in experimental film. We just looked at the films that were interesting in that time, and which were available in the cinema like Kubrick films or Werner Herzog films and so on. We had a lot of discussion about the works and in the first years never thought about making own films. That idea came up some years later when the brother of Jochen Lempert, Matthias Lempert got a super8 camera for his confirmation as a present from his father. Also some of the small super8 cassettes. That was the first time we thought that we could make some of our own films. The first things we tried out were stop-motion, taking a frame, making a movement, taking another frame and so on. This was interesting for us, but not with any aim. We were never trained on art schools. We had a lot of interest in art, also in abstract painting. We went to exhibitions of Sigmar Polke, or Gerhard Richter and we were big fans of their exhibitions. We had never seen abstract films, we could not know about it, because they were not screened in Bonn. There was nobody at that time who was screening Brakhage films or Len Lye films. We tried to play with the material and after a while when we made some shots we said, film has also a material component. Wow that's interesting, let's scratch on it. Lets take a needle or something else and make something with the material, film was not such a holy thing at that time. We wanted to find out things, and discovered that you can also scratch on it. When we put that material for the first time in a projector and we saw exploding structures, elements in the film emulsion, that was an interesting thing, we had the relation to abstract painting, that we both really liked. We were fans of abstract painting, so it was interesting to make a combination between film and abstract painting. Maybe that was the starting point.

KD: I imagined that it might have started with finding films and first worked with found footage.

JR: We did that scratching on our own material. We also made a lot of jokes, we took clothes from the theatre, equipment that the theatre does not need any longer, and that they sold cheap or gave away, when nobody wanted to have it, these things. We costumized ourselves and made some funny films with that, nonsense, nothing. No serious plan or no idea to make a complete film with that. Only filming, this and this and this, some moments that were interesting in a way and then starting to treat the material.

KD: So you also did not consider it as art?

JR: No, never. We also never showed it to an audience, besides friends and on some parties. We had fun about this, because our films were funny. There were a lot of jokes, to behave like a Hollywood actor, costumized, making stupid things. It was "*albern*".

KD: How did it change, you got a name and you started doing performances?

JR: The name came up.. there were some years between.. in 1980, I made a journey, hitchhiking to Morocco through France and Spain, and then I was on a ferryboat to Spain., from Algeciras to Tanger and on the ferryboat I met Jochen Müller, who was the third member of Schmelzdahin. I met him by chance, we were on the same boat, on the same trip to Morocco, having some fun, smoking some hashish (laughs) and so on. I told him that we had super8 equipment and did some experimentation. He said, that sounds interesting, I have some old family films that my father made on Super8, I will come to Bonn and we make scratching or funny things with that. He came in the same year, and that was the moment that the Schmelzdahin idea was founded. We three met together and we said, lets do anything with Super8, anything that is interesting and what we have never seen before and what expands the material and the possibilities of film in our way.

KD: Did you know about experimental film?

JR: Not at all, we also still did not show our films. Before lets say, '83 , would never show them to a public audience. Today, I would show them to some friends, but not more, not for public. These films were not made for public. It changed when in 1984 we made *Stadt in Flammen*. It was the first film... in a way it was like a bomb, we showed it on several festivals, got some prizes for that, we screened on experimental film festivals like the Media Festival in Osnabrück, there were a lot of German festivals,

Kurzfilmtage Oberhausen showed it also. Then we thought, it is also interesting for other people.

KD: It was contextualised?

JR: People said, it looks a bit like Stan Brakhage, but it is not the same, we heard for the first time that there are also other people working in this field. Not only since some years, but since a hundred years. I mean, Len Lye, that is long time ago when he was painting on film and scratching and so on. It was interesting but it did not influence us at all. It just amplified the feeling to make something that one can show for an audience. That is a good feeling, to say, I am able to do that. People like it, and show it and think about it, and reflect it and so on. On the other hand, we became more radical, to go further and further. *Stadt in Flammen* was the point where it is already very radical, because the material is thrown into the garden, it is treated like the emulsion is treated by bacteria, by leaves, or covered with other organic material, with kitchen garbage or compost or something like that and on the other hand it is treated with a sewing machine and a hole punch. The hole punch was used to penetrate the emulsion and the base, in order to create white spots. There was organic decay and scattered, floating colour stuff, when the emulsion cracks and crumbles into powder and dries again. It's a complete reorganization of the complete image. So we could find this element, and also the soundtrack is a very important point, that we developed the first time, a soundtrack on film in a very direct way, because, the film was made silent, the print of *Stadt in Flammen* was made silent, frame by frame, while the projector was burning down the image, that gives the melting effect. You see images in a staccato, but the images are melting in a way, or melting together, by the heat of the lamp, and the soundtrack is made as the last step of the treatment direct on the projector. We did not make any recording on a tape, we did put the film in the projector with a magnetic stripe on the film and just switched the microphone on during the recording, and recorded directly on the film, live. One of us was lying on the ground, looking at the image, and the other one was beating on the chest, in the same rhythm that the image was changing. It was a kind of comment on the film, as a kind of live act. In a way, the technical aspect is very minimal, the whole process, also the decay of the image is not technical. It is not controlled by a thermometer, or taking 100ml of a certain liquid and 10ml of another, but it is just this expressionistic, abstract element, to throw the bacteria over the whole thing and look more into this explosion which is caused by this kind of treatment. It was really satisfying to make that film and also it was good for an audience.

KD: From there you made a whole series of films together.

JR: About 50 films. I recently showed a program in Karlstadt and selected 14 of the best films. The main aspect was on the material treatment. We also did some other kind of experimentation. One thing was found footage of course, and treatment of material, handcraft filmmaking, this fits good together, it is a good combination. *Stadt in Flammen* is everything, it is found footage, we found the material on the flea-market, it is a film without camera, because we did not make the image, we just used the existing film. It was also shown in this celluloid exhibition in the context of camera-less work. It is also a material made film.

KD: was the original material important?

JR: the original film title is *City on Flames*, it is an American Canadian co-production about a small village where there is panic, there are suddenly a lot of explosions in the city. People are making noise, crying, lying in the hospital. Also you could see one scene, where a physician is pumping on a patient whose life is threatened. The film is from the end of the seventies, and it is a B movie. Not very bad, there are some well-known actors, but the super8 reel was compressed to some action scenes, so it was junk in a way. It was not a serious film, that was the reason why we threw it in the garden and used tools to destroy the surface, it was an invitation to do that. It was so cheap, we found the 60 meter reel in a flea-market and we did not use the whole film, we destroyed it and treated it, we used about one minute film, with was 5 meters, and stretched it to 5 minutes, because we took 5 frames of each frame by copying.

KD: You were advanced somehow on the technical side, because you knew how to copy and slow down.

JR: One thing that I already mentioned, the optical printer was not very perfect, it was fragile and the lamp was much too hot. When we did it we thought it was a dilemma that the film burnt down, but finally it was a hit, it was by chance and we could not control it. In a way it makes the film much more dramatic because it is melting away during it's copied. A lot of things came together, it worked good, all the elements came together.

KD: Later there was a transition from more random to more controlled processes?

JR: That came much later, we started with that bacterial decay, weathering was a point, we hang a lot of reels in the trees of my garden, over weeks or months, sometimes over years. We threw one reel into the fish-tank of my garden, the film *Aus den Algen* came out in 1985. *Weltenempfänger* was processed in a liquid of rainwater mixed with coffee garbage and was lying over the summer and became completely red in that solution, a long process over a month. That was not really controllable.

KD: About the coffee, that is now quite popular, but you did not have a recipe?

JR: No absolutely not, we tried out everything. The first thing is that you try compost or garbage from your kitchen, and then we also tried a lot of vegetables and fruits, put that in glasses and the film-material in and then in the summertime it was staying in the garden, developed by heat and organic decay and then...

KD: it was all pure experiment?

JR: We did not know what will come out. It was never our idea to make an expose or a script, to write down what the film should be finally. It was mainly our interest to work with the material to see how it develops, how it goes together and then we made a lot of editing. Also we edited very heterogeneous material, we found let's say ten films on the flea-market, a western, a home movie, a melodrama and an action film and so on, and we filmed our own material, or used old film material, we used re-filmed material from television, television shows, or sound recordings made in the cinema, it had direct relation to films, but it was never before mixed into one film, that is all before we started the chemical things. We did a lot of experimentation, working with sound against image for example. You show an image, but on the soundtrack you use something which is totally against the image, or has nothing to do at all with the image. That starts an interesting process in your brain. You start thinking, what could that be, what could it mean? Does it mean anything at all? But everything means something, that is always the case with film.

KD: You mean humans will always construct a relationship somehow?

JR: Exact, when you hear a soundtrack, when you hear a soundtrack from a western, some people are shooting, and you see an image, let's say from a shopping window, or people moving on the street, then your brain will see the image of the original story, you

don't see it on the screen but in your visual cortex. The brain brings a lot of input through what it already stored in it. And that was interesting, to see what was already in the image, what was in the sound and what was in the brain and to which point that can lead you.

KD: As a group you were working on both the image and the sound?

JR: We had brainstorming periods when we came together all three at my house in Bonn. Everybody brought some new material or edited new material. We brought it together, watched it and immediately started editing. Often films came to life in a day or five hours. Afterwards everybody goes his own way and we did not see each other for weeks or months, just being busy with new materials and sometimes we exchanged and started editing when we got a reel from someone else and the other continued. Finally it is not possible.. we split up '89, there are so many statements who was responsible for this.. We always said, it is a group work, a collective work, somebody edited it, we don't know who or when or how it was done that was all anonymous, behind the label Schmelzdahin. It was the idea to show a collective work and if there is one person that did the editing or the sound, I will not answer any question in that direction.

KD: You did not only play with the minds of the spectators, but also with three minds together, a collective connection of thoughts.

JR: But it never happened that somebody distorted anything that the other had created, we were on one level. It was easy in a way, because we did not allow ourselves to be too serious. We never wanted to make a film that could win a prize or could be a masterpiece. We just wanted to be radical, free and open, to read the film, to be open not only in one direction but in many directions. It is easier with three brains behind, to open it up for a broad audience. But some people were so confused, by seeing our work, especially critics, they sometimes wrote absurd comments on our work, they said, yes there is nothing linear or something that you can follow, it is only splintering elements, nonsense, completely senseless together and so on. A lot of comments like that. But that was OK, we were fine with that we got such beautiful critics of our work, that was not a problem at all.

When it became more controllable, to come back to that point, that was with the chemicals. At a certain point we started to develop the material by our own, and of

course we also tried to find processes that were not completely controllable, but in relation to bacterial decay, or weathering, or mechanical destruction of the material, the chemical process is much more controllable than the other methods. Not 100%, it was never the aim to control it 100%. But the chemicals opened up a complete new field for me, I could get a feel for the result, and I could start imagining what I wanted to create, and this imagination was stronger than giving it to another member of the group so that they could go on, I was afraid of that, I did not want to have it.

KD: So it automatically became something that you identified with as a person, Jürgen Reble instead of Schmelzdahin?

JR: That's right, I was too strongly controlled by my brain or my imagination, my wish to create this piece, and not any piece, or put a soundtrack on it that disturbs it or puts a new point of view on it. I wanted to use the soundtrack as an amplifier to the image, amplify the atmosphere, the strangeness of the image, but that was taboo in Schmelzdahin.

KD: It had to be opposite?

JR: Yes, it had to be opposite, it was not allowed for example, when you saw the surface of water, to add the sound of moving water, like ocean waves or something like that. I wanted to work with that, not one to one, but amplifying the image by using a strong sound, a sound that goes together with the image and not against it. I signed *Rumpelstilzchen* with my own name, and that was the last film we made together. It was not thinkable or possible to do that. The others said; that's not possible, that was it. Our idea was to make collective work, not signed by an author. But that was OK, with the chemicals so many ideas came together that I thought; that is not interesting to work for one or two or three years, but to work twenty or thirty years. And I did that, I still work with the chemical processes, which I developed in the last thirty or thirty-five years.

KD: How did you discover that? An old manual, somebody that told you?

JR: Most things we learned from old photo hand books from the ninety-twenties, where they describe point by point how to develop a black and white negative film, how to bleach it, how to make a copper toning, how to make an iron toning, bleaching, bringing in the metals by salt, ferro ammonium sulfate makes blue, copper sulfate

makes the film red brown, and so on. It is completely described in these old photo hand books. We went to a pharmacy and asked for that stuff, and finally we had thirty to forty substances which are described in these photo handbooks and then started a lot of experimentation, going away from standard processes, making things with homeopathic portion of processing liquids or bleach or toner, bringing toners together which were normally separated. Against the advice of the photo hand books, but of course we mixed it. You get this half image, half this, half that. You don't know exactly where is the line, where is the border, what is negative, what is positive, swimming somewhere between negative/positive, blue/yellow. The interesting thing is that film does not work like an algorithm in the computer, which works on every image in the same mathematical rhythm. You have a chemical process and the film swims, and the emulsion, well you know because you have done it a lot of times by your own. If you shake it more regularly, or only on one side and then cover the other side, or take it out and make light during the developing process, then you have all these half images, not this and not that. I was always impressed by this half world. It is like Frankenstein's monster, it comes out with chemicals and electricity, Dr. Frankenstein creates his monster with both powers, this works especially on film sequences in which people are acting and moving, when you work with electricity and chemicals on that you are creating a monster in a way, but I like that. I like the primitive horror films from older times.

KD: This makes me think about the *Alchemie* performance.

JR: We already developed that with Schmelzdahin, we did that on super8, with three people, sometimes with two, treating the material in a loop, five meter or so. This was more an action, a happening. With the same liquids I used later, acids or peroxide or things like that. Mostly with black and white film, because colour film is not interesting, in the decay the colours fade out a bit but it is not so interesting. With black and white you can totally reorganize the physical structure and reorganize the complete picture, making something completely different of it. Until '89 we did it silent, and then I went on from '89 until '92 before I met Thomas Köner, I did it silent on a 16mm projector.

KD: I saw it in 1990

JR: I rebuilt an old Bauer P5 which I still have, it is still running and I did it without sound more like a meditation, having a long loop of ten meters, working slow with the chemicals, different.. Starting sometimes with bleach, sometimes with developer. One

of the concepts was to have a negative image which is just bleached, it was just developed and then stop bathed. That means that during the projection you can go on with the reversal process, bleach out the black parts, which turn white and leave the milky yellow parts, and then after bleaching start with the second developer and develop the positive black. Finally proceed towards decay and destroy the material. I was using acids, peroxide and potassium permanganate. It is interesting with the peroxide, because it works against.. cooking.. from the inside out.

KD: You did everything that is regarded as important for expanded cinema, but you probably did not follow a list.

JR: Absolutely not, I was not on an art school. It is curious, what is interesting in this context is I tried to go to an art school later, the end of the 80's I applied on an art school in Hamburg. We had already made a lot of films with Schmelzdahin: *Stadt in Flammen*, *der General*, *Aus den Algen*. All these films were running on international festivals and I applied for a film class in Hamburg and they said, well that sounds very interesting, come and tell us, I got into a pre-selection from 1000 to 100, but finally when I went to Hamburg, which was complicated for me, because I had to take three days holidays to prepare and what I was going to say to the professor and so on.. I arrived in Hamburg but the professor was not there, he was filming in the arctic, absurd, he invited students to apply but he was not present. Then there was another professor and he said, well your films were already shown, no problem for the next semester you can become a student, I said fine and went home. Some weeks later I got a letter from them saying sorry, we cannot take you and we cannot give you any explanation. That was such a bomb for me, it is always hard when you are refused from an art school, for everybody that is a hard process, but in this case I was completely depressed over months, because I thought how could they do it, how could they select students? I already had some films that were well known, there was no doubt, we won prizes for *Stadt in Flammen*. That was the point where I thought, art school, no way. It is meaningless, all the students who go there, I don't know why they go and why they are selected. I thought, this is not my world it is a parody of the world. These people are fed with technology, with knowledge, with connections, important connections, to show their work and find other connections and so on. From that point I did my own work and that was during the time that I decided to go my own way after *Schmelzdahin*. Then I met Thomas Köner, the musician, and he had already a concept to survive with performance art. He was not rich, still today I would not say that he is rich, but he had a concept to survive with this performance idea. That was the next

step, with the *Alchemie* performance, thinking about a sound element that did not disturb or destroy the piece. Thomas said from the first moment on, the best idea is to only take the sounds that are already in the performance. What you hear is the motor, the celluloid that is running through the wheels of the projector, then you hear when I pour the chemicals together, some substances when they come together you have smoke and heavy reaction between things. All these sounds, also when I took the material and scratch on it. He said, that is perfect, we only take these sounds and I will expand them, I will make them hearable and make the piece much more dramatic by widening these elements and so we have finally the feeling to sit in the film or in the projector, in the middle of the piece because the sound is so expanded and thrown back into the space. That was '92, it was perfect. From that moment on I did the *Alchemie* performance together with Thomas and I will go on with that because it is the best idea. Not adding any sound, but also not leave the audience in the silence. When you have the sound, the audience has much more the feeling of being in the piece. When you leave the sound away, you have more the feeling of distance. You are more outside and observe it from a distance. I like more to be in.

KD: I experienced a dreamy side to it, and a more destructive, dangerous and aggressive side.

JR: It is a nice description that you gave, and it is absolutely in the piece. There is no big idea behind it, it is like giving birth, starting with an untouched image in the beginning and death in the end, destroying the image and the acting people in it, making them to monsters, swimming away in a kind of half world. This period between giving birth and death is very dramatic because it is compressed into forty minutes, and you can see it state by state, each time the loop passes through the projector it goes more to the end, when you cannot anymore see people acting or people reacting, but finally you observe a dance of the elements or a dance of atoms and molecules, they make an abstract dance in it. That is so dramatic to have that in forty minutes, and say; there will be nothing, there will be nothing left. That makes it maybe hard or strong as an experience, to say; nothing will be left, it is the same with our bodies, when we die all these molecules go away, they go their own way, nothing will be left. It is absolute, it is definitively the end. That is also why I prefer to bring it to that end, because I believe that this is the end, there will be nothing else. So you must be enthusiastic as long as the process is running. You must be clear and follow it and be open.

KD: It is more a way to look at life and not so much a concept of what art should be.

JR: No, I have absolute no idea of art, there is only one possibility that I could imagine, and that is that human beings have a tendency to make art, to be open to art, and if that is the case then everybody has it. It is not possible that one human being has this view or feeling to be an artist and the other not. I cannot believe that. Joseph Beuys said about that; every human is an artist, that is perfect to say that. It is so simple, it is one sentence; every human being is an artist. That's it, there is no selection and you don't have to teach it, you don't have to teach art because everybody knows what it is. Teaching art and selecting students is only for people who want to make their business with it. It is a business that is '*verlogen*', it is a wrong world. I would say I am an artist for my social security only, because I need that. But I would never ask for it, I would not ask to make art. it is like eating or making a compost-heap, that is how I produce art, it is nothing else, completely natural.

KD: I am also interested in the title, it points in a very clear direction, *Alchemie*. Weren't the alchemists subverting the idea of god being central and investigating processes in order to have power over these? We now see them often as pre-scientists. How does your work relate to this?

JR: I think in the middle ages when chemistry did not exist, now we have the Periodic Table of elements, that is chemistry and everything what was before is alchemy, because the people did not know, they really did not know what was going on in the elements and the molecules, what happens when you mixed certain elements together. Alchemy for me is chemistry before modern science.

KD: Right, so 'not knowing' is interesting?

JR: Yes, today that is only interesting for artists, I would not recommend a natural scientist to study alchemy. He can do that for reasons of history, to find out about the history of chemistry and so on. But I would not tell him to use alchemistic procedures. Alchemy is still interesting for artists because it is a way of reorganizing the materials in a 'not natural science' way. That is not the task of a chemist or physicist today. For an artist that can be a way, I know that Sigmar Polke invented a lot of colour stuff by mixing chemicals which he found in books about alchemy, just to bring out a special brown or a special red colour by mixing chemicals. In a way I work similar on the film material, I mix some substances together and I get strong colours from almost colourless substances. The alchemistic idea is to change the structure of the molecules

and the atoms, but not in a positivistic and natural science way, but by having a feeling or an intention that something is going on in the molecules. That you have the feeling, this is a good moment in the process, now start with this bleach or this salt and see what happens.

KD: is it like savory cooking, you cook and taste all the time?

JR: David Lauder said that filmmaking is like cooking, I like that, it comes to a point. And he also worked a lot with chemicals, developing, and he travelled with his van to India and so on, he did a lot of this process, and yes it is like cooking.

KD: So alchemy for you is working with sensitivity and not so much with logic?

JR: In a psychological way I would say you can find gold. That was the highest goal of the alchemists to make gold, and I have the feeling to make gold. Starting with simple elements and finding some very special things. Nobody knows where gold comes from, it is not that gold is forever the hardest or best or most valuable.

KD: Maybe that can be compared to the art-world in an interesting way, where value is produced by institutions, curators and gallery owners and not by the artists themselves.

JR: The real value is inside the materials. That is what very few people believe, or understand, that all the richness is in the material and all the explanation for life, and for everything, it is not in god, who we look for in space, or something else that we look for after death or before birth, or that when life began it was god who created it. We can find all of that inside the material, that is for me an alchemistic approach.

KD: *Passion*, was that in the same year?

JR: 1990. That was in the period that I left Schmelzdahin and met Thomas Köner. 1989.

KD: That is a very personal film, but also universal. It is about your own life and the birth of your child. These are things that most of us experience. To me it appeared as a re-enchantment of daily life, things that we consider very normal and if we would film them it will be a home movie, but you found a way to re-enchant this.

JR: That is a good description. I agree, when you would do that on video it would become banal, when you would not touch the image. But for me things go hand in hand, I filmed materials, I developed them, and they are lying in my living space and in my kitchen, or where the chemicals lie around. It follows the period of 15 months, the *Passion*, it starts in spring 1989 and it ends in summer 1990, and between that my second son was born and you can see that in the film, and it goes hand in hand, it was the way I lived during those 15 months. You find point by point the places where I have been, where I reflected on things or thought about special things in relation to the images, my surrounding. But also, between the different scenes the process takes place. It is not that I filmed one year and then developed one year, but I filmed, developed, filmed, developed, edited, filmed, edited. So it is a process, a ritual of daily life. That makes the film authentic, it gives one year of my life, concentrated on the idea of film.

KD: I think there are also quite some images from the garden here.

JR: Yes, my younger son is born in the epilogue, the spring of 1990 and in the winter time you can see my first born son playing in the snow with a wheelbarrow made for children, and in there he has a lot of film-material that he puts in the garden. It is a point where you can see that everything goes hand in hand, part of the living process, it is a bit like a Brakhage film, like *Dog Star Man*. He films his daily life, processes it, and through this you get an idea what is going on.

KD: Here it is the other way around, in *Alchemie* the image is born and dies in the end, here the birth comes at the end, but it also feels like a cycle.

JR: Yes, it is a cycle. The birth of the son is one of the last images and the last image is that I make a performance here in my garden on a self build stage or theatre place and I open my gate and walk through and into the darkness. And it is fun because I have my birthday on the 24th of May and my son is born the 25th of May. There is only one day between the two, and that was clear from the beginning was my birthday and on the birthday of my son it will end and I have to leave then. It is also a bit dramatic because at that time the separation of my family started, but that is another story. *Passion* was the film that was most strong influenced by my family life.

KD: My partner was pregnant when I saw the film, so in that way it also connected to my own life. My son is now 25. But you did also quite some treatment of the film.

JR: Besides the last part which is relatively normal black and white but the others are treated with chemicals. Optically printed, but not with a lot of manipulations, I did not use a lot of the possibilities of the printer.

KD: I must have seen a 16mm print, but it was all shot on super8?

JR: Yes, I made only one print on 16mm negative, no that is not true, when it was first shown at the EMAF in Osnabrück I needed a print fast, so I made one on super8, but it was not very good and I showed it only one or two times. after that I made the 16mm negative, I threw away the super8. It made no sense to make a super8 reversal print and then it is scratched after 10 screenings.

KD: Yes, I asked about it because the super8 also influences the look and feel of the image and maybe also the way you filmed it, it is a small camera. You can use it in a casual way.

JR: Yes, these observations are not possible with 16mm cameras, they are too big and when you are in a cafe or watching or observing people or somewhere on the street it is much easier to make a super8. Nobody realizes. It is much easier.

KD: It is also part of it, the street observations.

JR: Yes it is really a diary. Yann Beauvais also showed it in a series of diary films. That was quite a good idea to put it in that context. Together with Jonas Mekas and other work like that.

KD: Did that influence you, being seen as a certain filmmaker, did you ever feel that you have to answer that? Or that you wanted to reflect on that?

JR: Maybe. The year before I made *Passion*, I saw the David Larcher films, *Monkey's Birthday* and *Mare's Tale*. You know them? Very long works, over three hours.

KD: No, just *Videovoid*.

JR: They are completely different, made with film, all the material is hand processed. Another thing is that before making *Passion* I saw all the Tarkovski films. That was also

an influence. I wanted to have long images, where things would not change fast. It is different with the chemicals, you have a lot of fast, explosive things. But the images stay for a long time, you have a lot of time to see what is changing. I am big fan of the Tarkovski films, they are masterpieces, all of his films. Also I liked very much the Larcher films. That is why I decided after the Schmelzdahin period and all the short films, the longest film, the last one *Rumpelstilzchen* was 14 minutes. That was the longest we made at that time. When I saw the Larcher films, which were three hours long, or longer, it depends sometimes he shows them on two or three projectors, and then faster because he shows three together. I saw a screening in Osnabrück and I thought, it is interesting to make abstract films with long shots, and longer than one hour. I thought I should try to go away from that short film length which we used in the Schmelzdahin time and make a film that is one hour long, that was enough for me.

KD: because of the difference in experience?

JR: Yes, one needs 15 minutes to study the vocabulary, the handwriting of the filmmaker, just to see what is going on, or what kind of techniques he uses, that is always the feeling I have when I see long films. After 15 minutes you can dive into the film, then you know what he is working with and then you can dive and have the rest of the time just to swim in it. That is much easier with longer pieces. It depends, when the audience is concentrated you can do it longer, much longer, but if the audience is always looking for something else then I would say one hour is the maximum. It is also like that with performance, one hour is a critical point. But that was different in the 80's and the 70's because a lot of filmmakers made long films for example Klaus Wyborny. Do you know some of his work? He is a filmmaker from Hamburg. He edits very short, makes musical structures, he sometimes uses Beethoven or other composers, to find a rhythm, and then he makes shots on the street, films people or landscapes or industry complexes. That is the first step and then he makes a musical structure on that. And that is really long, one and a half or two hours long. I saw a lot of these long works in the 80's and I was really impressed. Also Ken Jacobs, Michael Snow. They all made long films and it was so interesting to be after 10 or 15 minutes completely in the work and keep that feeling for 1 hour longer or more.

KD: It inspired you, it did not restrict you.

JR: Yes, I did not want to make a Tarkovski film. I would never try that. I would never make a film twice, I would always search for new points.

KD: the next work I saw was *Instabile Materie*, but I am skipping some works, am I not?

JR: Yes there was *Das Goldene Tor*, a long work, more than one hour made together with Thomas Köner, one of the main collaborations between me as a filmmaker and him as the maker of the soundtrack. After that we stopped and decided it is better to concentrate on performance. Have you seen *Das Goldene Tor*?

KD: Not sure

JR: It was shown on the Impakt festival in '93

KD: About *Instabile Materie*, the image becomes more abstract and the material qualities come even further forward

JR: The main change was to put the film on a light table instead of in a developing tank with chemicals on top of the film, fading out the image further. It started when I put a lot of 16mm strips on the light table, and started to cover that more and more with chemicals and not wash it out. I did that '97 the first time, until '97 all films were developed in a tank and the chemicals were washed out after the developing. With *Instabile Materie* I decided not to wash them out. I thought it was a waste to throw all these particles that got embedded in the material during the processing or toning. So I decided to let it dry on the film, cover it with some other substances, which make some chemical interaction to the first layer. I could not completely control it, but it was interesting to follow. I was watching the material on the light table and seeing, hey that is an interesting structure. Then I would put some more stuff on it and watch it again a few hours later. Put another layer and see what kind of interaction could happen. I worked in summertime on it, in my garden on a big glass plate. The sun helped to make it dry very fast and I worked with a kind of airbrush system and pipets dropping chemicals on certain places. The composition of the filmstrip, if you see it in front of you on a table, I did not think about first frame blue, second yellow, third red. Some people work like that. I made bigger forms across the strips, like a wave over the whole piece. Putting for example some ocher tones, joining them on certain places together. I worked like an abstract painter, on these filmstrips, knowing that there will be interaction between these different layers, but not knowing what comes out finally. It was always a surprise when the film went into the projector, some moments were very

beautiful, other parts were ugly. I had to throw away about two-thirds. I kept one third, and kept working only on some selected parts. Another step was to work on the optical printer, bringing in new colours, I used coloured light on the optical printer. For example a blue light from the front and a red light from the back. To make it more interesting and add layers in between, get a 3D effect. It was like setting light on a stage. It took a long time to do the optical printing.

KD: The films were exposed in a camera as a first stage?

JR: I could never make an image when you give me a white sheet of paper, but when you give me a paper with some dirt on it, or some leaves or another element from nature, similar to Max Ernst, the painter, he took the screen and put it on a tree and made a print to get the structure of natural elements, of wood and then started to work. I did it in a similar way. I photographed real images and developed those, not in a standard process but with a special bleacher. Before I started spraying on the film I had a sort of relief, I had light and milky parts but no black. I did not want to have any black, because it does not make sense to make a structure on a black part of an image. It was a line reproduction and a gelatin relief, that was the starting point. It was dry, I developed it and put it the next day on the light-table. Then I started the second part of the process, spraying, or airbrushing or dropping liquids on the material. The last and fourth step was the soundtrack, again made by Thomas Köner. There were four steps. First develop images on the emulsion, then spray with the chemicals on them, third; working on the optical printer and last to make a soundtrack. All these processes are separated, they are not connected. I slept in between, I did not go directly to the next.

KD: Each step contained some uncontrollable elements?

JR: When I developed, I knew what would come out and also in the optical printer you see immediately what comes out. You are not really sure about the speed, but if you have some idea of rhythmical things, and you make two images of each or three, or four, or make a rhythm, four, three, two, four, three, two.. then you also have an imagination of what could come out. Where most of the material is thrown away is with the spraying, because there a lot of accidents can happen. But on the other three steps of the process there was no waste. I used 100% for the film.

KD: Can you explain why you did the spraying like that?

JR: In order to have that accident, to find images that you can not think about, images that you can not imagine. The most interesting period during the filmmaking was right after the spraying and drying of the material and then see it the first time in the projector. That was the most exciting moment of the whole work, a lot of new things came out that I did not experience before, things I could not imagine like that. Especially on the borders of the image, where a process happened that you could not control, that brought a lot of surprise. I have an extra projector, I slow the speed down to 6 or 8 frames per second, just to look at it for the first time, because I don't want to have it like a machine gun, that you can not follow. With some Brakhage films it is interesting, the high speed dynamic tempo in it. But I did not want to have that. It was interesting the film that I made seven years later *Materia Obscura*, when I transferred all the material to the computer, I just used the possibility to slow it more and more down. It is great to concentrate on the really brilliant parts and to throw out all the parts in between that are mediocre, choose only the best passages and bring them from one passage to the next one. For me it is more interesting to see it like that, instead of a Brakhage film where every image is different. When somebody asks you what have you seen, I can not remember. It is both interesting, maybe it is also a question of how old you are. When you are older maybe you have more the wish to see it slower.

KD: I think it is also temperament.

JR: But temperament does not change. Maybe the speed is also a special computer thing, because on the optical printer.. film is a very exclusive thing, on the optical printer you don't have to waste colour negative material, but it is expensive. On the computer it is no problem you can make a one hour passage of a five minute film. You can throw it away without using a lot of energy and material and money.

KD: The computer gave you the opportunity to experiment in that direction.

JR: To deal with time, I am much more happy to deal with this on the computer, I would never do that on the optical printer with colour negative material, you have to make many decisions and it is stressful, you cannot work for very long on just three images. I cannot pay that because I have no money for the lab.

KD: The digital opened that area for you?

JR: Yes, that was a whole new area that opened up for me, and maybe I am not at the end. I digitized all my material and also the Schmelzdahin material. With some films I thought they are too fast for me now. Maybe I do them again now, to say I take only 5% and make something longer out of that, focus on what I am interested in today. That was never a problem for me to make a film a second time with a new attitude or consciousness, it is interesting to do it.

KD: About the colours, you enhance, add new colours or even worked against?

JR: Added mostly, never against. When I thought here is too much magenta I tempered it down, to make it more clear. Any colour is clear, but I wanted to concentrate on the red, the blue and the yellow or ochre, and not so much on the green or magenta parts. To have it more on the colours we are dominated by. Those colours, a pure blue or dark blue or dark red colour, we have much more images in our brain in association to this, then to a colour we are not able to define it. It is easier to open the brain to pure colours.

KD: *Instabile Materie* as a title refers to particle physics.

JR: That is how it started, I applied in Hamburg at the film-office for money to do a project at the German research center for particle physics, Deutsche Elektronen Synchrontron, where they have big circles with protons and electrons and make the particles collide and try to find out about material constellations, material that is not stable. That is the most interesting point, physicist can not explain the first couple of seconds after the big bang when the universe started to become a structure. That was the most explosive moment. That is the particle thing, that they want to find out about the most unstable phases of material building. In a way it is absurd but they gave me the grant. It was about 60.000 D Mark, that was a lot in that time. Of course I had to go to the research center, to communicate and film there and speak to the people what they do and why they do it. But I was not interested to make a documentary, I wanted to make an artificial statement about what I think or I feel about unstable material, about what materials are made of. To hint further in that direction I called the first part proton, the second part meson and then gluon. I took that vocabulary from the physicist who were working on this as it was actual at that time. It was in the 80's, today they already have a different point of view. New models, even smaller particles that they cannot control or cannot see. It is much more complicated, I took only the names and I just show the elements where the film is made of, and then you can make your own

image, your own idea of what '*Materia*' are made of. It is a much better explanation for me then to say, '*Materia*' is meson and meson is similar to a gluon but has a positive character, and then you have this element and this element and so on. Sometimes it is negative and sometimes it is positive and so on. Those statements give me no feeling or experience. Its just words to talk about it like that. It was also a way to finish my physical studies, I studied physics from '90 to '92. I studied physics at the university for four semesters, physics and chemistry, but I was not happy with that. The reason why I did it was because on an art-school they did not want to have me. Then I thought I could study physics, but the blah blah finally drove me crazy. The mathematical models about the universe drove me crazy, because I think it is not possible to make a statement in a mathematical language about material. It was difficult to accept for me that all these models are based on mathematical theories. I had to finish that, and I did that with this film. For me I only experience materials by watching, hearing, feeling, smelling. By having a real sensitive experience. It was a statement, I am an artist, I am not a physician.

KD: Was there ever a bacterial component that came back?

JR: No, that was to uncontrollable. When I left Schmelzdahin in '89 I decide to give myself a new name, Film Alchemist, and concentrate on this chemical aspect. The natural aspect, I am not so enthusiastic about that.

KD: Did you zoom in to parts of the frame.

JR: No that is more an impression, I do not have the lenses for that. A super8 image is like a finger nail of the smallest finger. And when you want to zoom in and see only 1/10 of that you would need very special lenses. I have only lenses for 1/1 or 1/2. It is not possible to move the printer and get that close. It would be more interesting to do that on a computer. But then you have a problem of pixilation. If someone would give me a microscope lens, I would say lets try it. It is a question of money and equipment. But I do like the aspect that it feels like looking through a microscope, to have a microscopic view on a 20 meter wide screen. That is lovely to have it. It makes sense. I like to combine macroscopic with microscopic images. I did that in *Das Goldene Tor*. There are many images from the Hubble telescope, and other cosmic events that can be found in documentaries and I combined that with the microscopic. When covering that with chemicals you don't know if you are in the galaxy or in a microscopic world. That is one of the statements from alchemy or esoteric science, that when you look at

the macrocosmos you look at the same thing as when you look to the microcosmos. There is a direct relation, things are in a way the same. That is not understood as such in modern physics.

KD: There is research about Turing Patterns, trying to proof that patterns in macro and microscopic worlds are the same.

JR: Interesting that people centuries ago already knew this, they just said this in some words, and today they are trying to proof this.

KD: So you have an ambivalent relationship to science?

JR: Yes, I am sure they will not find out the rules of the universe, but only can find out what people already know for 10.000 years, but I am always interested in the new models because they give me ideas that I can work on. The reason that I did *Materia Obscura* was that physicist said that 70% of the material is not visible, and only 30% is visible, the biggest part is hidden, we have no access. There is a kind of material that does not exist for us, the dark material. Now they speak about the idea that 80% is dark energy. There is only 20% of the energy that is accessible to us. It is interesting to see how scientist react on any new question that they cannot find the answer to, how they try to escape from one model to the next. It is interesting to follow, and I do agree that we can't access most energy, it is in the material but it is also hidden. I am thinking to make a performance piece about this dark energy, to give an idea of what dark energy could be. Not so much about material things but more on the energetic aspect. It is not about the material so much, the salts and the toners, it could be about energy which is in the computer and anywhere else. I am just thinking. It is like ping pong, I look what the physicists are doing and I think what I could respond.

KD: What about esoteric ideas, are you also skeptical about those?

JR: Yes, I am skeptical about every philosophy that wants to explain the world in two sentences, you cannot do this, you can explain the world now, but in the next moment it is completely different and your explanations have no value. I am mostly interested in the fluxus component, that every time we look things are different. It is the old story about the river, you can never go into the same river twice. You cannot go back, you cannot go to a point where the world has been already. One needs all ones senses to understand what is going on now, fading from one moment to the next, and therefor

you need your energy, not for explaining. To say that is the final result, that is not true, there is no final result. There is no reason for living, it is only to be. It is not more.

KD: For you this is a positive thought, but for a lot of people this is scary.

JR: It is so because they work 8 hours a day to make automobiles or on a computer and they can only explain their world by having a god where they come from or where they come back and not to go to hell but to heaven, this is the only explanation to survive. If you give your life in the hands of other people you can only survive with that idea. I do not expect that people will one day think by themselves or go their own way, social systems are too complex for that.

KD: This is the reason why you choose to be an artist and stay independent.

JR: Yes, and I don't produce anything for money, that was never the idea of art. The first people when they started painting on the caves, they did not do that for money, they were obsessed by what they saw. Art was never done for money. It is the biggest perversion of our times, to handle art as an asset.

KD: Next I saw *Tabula Smaragdina*, can you explain the title?

JR: There was a person called Hermes Trismegistus who wrote a text, the first time the esoteric ideas were written down, he was a greek philosopher, living about 3000 years ago. The *Tabula Smaragdina* was a kind of stone, I am not really sure, it was a table where he wrote down these sentences, what he thought about the universe and human beings. It is a short text, only ten sentences, very compressed. You can find more about it in literature. I found it interesting the idea to have this kind of table, a table where you can find everything, and it is up to us to observe it. Our piece unfolds during the presentation, Thomas Köner is doing the sound, and I am working on three projectors, two 16mm and one 35mm which I use only in the end. Most of it I use two projectors and two longer reels, one hundred meter hand-painted 16mm film and I bring it together on one screen, but the two projectors are not synchronized. I can go forward, backward and change the speed. Meaning that every performance is different, because I always get to different points. I can change speed, and when it gets interesting I can go slower, slower, slower or even freeze the image. I could burn an image by the heat of the lamp. Thomas was directly connected to the projectors, he put two contact microphones on the 16mm machines. When I worked with the speed, the

projector sound changes, and it influenced his digital sound piece. The left projector came from the left channel and the right one from the right channel. It was an expansion from *Alchemie*, being in the projector, in the film. You had the feeling to go into the machine, and there was the flickering, it is very hypnotic, two projectors that are running very fast with abstract image and give you one image after the other. It is very hallucinative, it is very interesting for people that are open to that. For example if you are epileptic, you run a risk to get a seizure. But it is interesting for people who want to give their brain a change to dive into these materials.

KD: It is more serene then the *Alchemie* performance, it does not have the destructive element.

JR: I took the best part of the process that was developed during the *Alchemie* performances and concentrated on that. It was my idea to give the audience the possibility to dive into this world for 40 minutes. It is more like a music event, where you can switch of for 40 minutes. It is similar to Ken Jacobs performance, the *Nervous System*. The hypnotic element is similar. When you enter that stage, you can have a string experience, you always recognize the images half, but you can not define them. Your brain and your synapses are stimulated very strongly. A synaptic storm. Your brain always wants to see something in it, and gives all that input. You get to a point where you can use your whole brain, the whole field, all the images that you stored in your brain. It gives you back answers, or questions, I like to be in this state, this nervous system. Giving the brain a chance to open up to that field.

KD: You moved from observation to a focus inwards. The people have disappeared.

JR: Yes, the narrative aspect is not important in this work. *Passion* is very narrative in comparison to *Tabula Smaragdina*. You have no chance to escape, you either dive into it, or you leave the room and say, I don't know what it is. You cannot say there is a man going along the river with the sun in the background, no chance to give an explanation. It is made in the same way as *Instabiele Materie*. You have always these images behind, where you think, is there something going on, is it a real image or not. I want to give the possibility to the brain to do that, make you think, is that a tree? No, it is not a tree, it is something else, or? Give an entrance, a beginning point. Some images are important. There is a girl sitting at a firing at the end of the piece, a real image. But this does not appear in every performance because sometimes the image is at the wrong position and I could not find it in time. But that does not really matter.

KD: How did digital working methods enter your work?

JR: In *Yamanote Lightblast* I had a video recording, it already had some special effects on the original recording so that you had the feeling that it was filmed from the direction of the train, driving forward. It is orientated towards a centre where the beams of light are falling into. This is composed in the video image, which is also going forward. You have both these aspects, the tunnel effect, the lights that go to the centre of the image, and the moving forward. That was the initial moment that I thought it could be interesting to work on such a piece. With video and digital equipment, but the result was not in that way that I thought it is finished. It was dominated by the computer algorithm and the quality of the computer image. I re-filmed it from the screen and threw the whole thing into chemical stuff, a strong bleacher during the reversal process. Then you get this grainy texture, so the grainy texture is not from the computer, but made by the chemical influences and also it gives the feeling of swimming in the emulsion. There are three layers; moving forward train, the light-blast effect and the film emulsion cracked into dots and spots and powder.

KD: The light-blast effect is an existing effect that you used?

JR: Yes, that was a computer algorithm that was interesting, but not so interesting that you could say that it is finished. I thought that there should be a texture similar to what I have done before with films. Your falling into the image, and the emulsion is like a glass plate that keeps you at a distance.

KD: Was it a practical decision that you took a video camera?

JR: It was a change in the way of living, in the 80's and also in the beginning of the 90's I travelled a lot with my Super8 camera. Then all the cameras where broken and there was no one left to repair them. I got a cheap video camera and said: now I travel with this. I tried to use it in a similar way as the Super8 camera, I never used 16mm because that was too heavy for me to travel with. I made *Passion* like a diary film, my super8 camera was very small. It was very easy to take it from my pocket and film some things as by chance. In the same way I worked with the video camera, I had it in my pocket. It was not planned to shoot on the Yamanote train. That train makes a complete circle, Tokyo consists of a lot of cities, lying around the centre. The centre is not so interesting. There are about ten cities around the center and the Yamanote train

goes around. I was with Tomas Köner there, we did a performance in '98, and we were sitting in the front of the train and I decided that I want to make one complete circle and film that on video. There was no serious plan, it was like a diary recording. In the same way as in former times, I used the super8 camera. At home I had the material on my computer and it was the next step to try some effect on it to make it more interesting. Then I came to the point that I decided that it was not interesting to have only an algorithm on the image, I wanted to have it more in the physical textural image like the films. Concerning the soundtrack, it was the first film where I decided that I did not have to work with Thomas Köner, until then he made the soundtracks for several of my films. Similar with *Arktis*. I decided to make my own sound on the computer. I had the complete control over the whole process, editing the film and the sound is very easy in the computer. That is more interesting then working with filters, it was only a test to work with that filter. It is not my thing to work with computer filters on the image.

KD: The original recording was sped up?

JR: No I used only a passage, not everything was interesting. There were some nice images that I selected and there was one shot that was the most important one, were the images of the train were falling more and more into powder into the chemicals. I thought, that is very interesting because it deals with memory. I did this 5 years after I made the recording. I had the feeling that it was very far away, I was only a few days in Tokyo. It is not a part of me, it is a part of my brain that is somewhere else, on a another planet. I like the moment very much were the train goes more and more into a sort of powder, a darkness, grainy particles, it becomes darker and darker, it fades over five minutes, very slow and you don't know were it ends. It is sinking into the black.

KD: A fading memory?

JR: Memory works in a similar way, after one day you still have a clear image, after a week you don't know, then after a year you mix it up with other things, and after many years it is only a grey substance, it has a half life in your brain.

KD: The digital was not that important here?

JR: No it was more important to have the experience. The same with *Arktis*, the only film were I worked with video recordings, using only digital manipulations, I did that only one time, only with that film. I would not say that it was less interesting, there were

other elements that were interesting like working with sound, I was always fading into black again. It was made in the same period. After I made *Arktis*, I had the feeling that this was not so interesting to work only with video and without physical treatment. It was my wish to leave this again. In *Arktis* I only worked with texture, a cloudy texture that is lying over the image, as if the image is behind clouds or smoke. You can't be sure. After these two films I stopped working with computer filtering.

KD: Is it because you find algorithms too predictable?

JR: Exact, after some seconds you have the feeling that you know the effect, there is no surprise. Your brain already starts to render it. You don't have the surprising moment as with the chemicals. At a certain moment it breaks up and it swims away. There are a lot of images between this and that, positive, negative and so on. You will not find this with an algorithm, then you have to write a program that starts anew with every image. That is a challenge, a person that writes programs should try to do that, but I have not seen a filter that works like that. Even when you fractalise the image, splatter it into patterns and bring those patterns into a new abstract level. It is also not interesting to follow that longer than ten seconds. Then you know what the computer will do and there is no surprise.

KD: But you are using digital media in performance, not?

JR: The only manipulations is the manipulation of time, I use an algorithm that looks for linear movements, and if I have not enough space between two images, or the movement is too fast I use the rendering to find some possibilities between the images, how could the world be between that, I give the computer a chance to do that. Sometimes it happens that I say, no that is too ugly, but sometimes I feel like this is something that could really happen with the chemicals, on single frames when you are drying substances and they are fading, the shapes are fading or changing very slow, when I have the feeling that it looks natural I take it. That is the compromise, I don't take it when it looks like a computer effect, like a morphing.

KD: How does that work live, do you process the images on stage?

JR: No, the time stretching forces the computer a lot, I do the time stretching at home and organize the material in five, six or seven layers, all the layers are connected by keying, chromakey or luma-key, and I can also fade every layer in and out live. I can

follow all the material and decide to go a layer deeper, or leave a layer away, or mix the third and the fourth, because there is an interesting structure. This is my navigation through the performance. Following the music, following the images, every time different, I mix it up. After the performance I take the layers and cut them into different pieces and for the next performance I put them together in another combination, to be sure to find different points each time. I do not rehearse, I just put it on the timeline and then perform live with it, finding interesting points and moments and react to the music. The interaction with that is easy.

KD: What is the difference between performing with 16mm projectors and performing with the computer?

JR: On the one hand I miss the projectors, they offer a bigger attraction, people think it is crazy when they see you are still working with these machines, one likes to have this effect. But it is so easy to travel with a notebook, you can put it almost in your pocket and go to the airport instead of taking hundreds of kilograms of material. I don't like people with notebooks sitting on the stage, it is boring, but we are sitting behind the audience and they might not even notice the difference between *Tabula Smaragdina* and *Materia Obscura*. The audience mostly does not look to the back so the image could be made by a projector or a beamer. I think there are not so many differences between these. There are some but this is not so important for me. You have the flickering of the projectors, which is very intense. The light you feel it in the space and the beamer is only a cold lamp that has no flicker at all. I have some flicker effects in my digital presentation, to give the idea that it is a film presentation instead of a digital one. I like the easiness of traveling with the computer, I don't wish to go back. It could be a solution of the organizers would say we pick you up with the equipment and bring it to the performance place, when you don't have to carry it and it is already build up when you arrive. Then I would do it on film. Secondly somebody should pay for the lab and all the costs involved with film prints. With transport it is already difficult to find an organizer who is willing to pay for that, and when you would add the costs for the prints they will never do it. I had some ugly discussion with hardliners that say that I have to keep using film, and my answer to them is that they should pay for the lab. Film is very exclusive nowadays. They might think it is the same price as video but it is not. In the 80's super8 was '*Arte Povera*' now that is replaced by video. Artists don't want to work with it because it is so cheap and everybody has it, and it is used for business, and banks and so on. It has no charisma, there is nothing interesting about computers, and

that is why it is the 'Arte Povera' of today. To say: I don't care about money, I present it on a computer.

KD: I think what is the most difficult is to have something magic or enchanted coming out of a computer.

JR: Yes, it is very difficult. You have to work intensely to fade out that machine that is doing all the work for you. It is difficult but it is possible. One has to throw out Youtube and Facebook and so on, the machine I work on is not connected to the internet. When I am in a working process, the last thing I want to get is an email. I separate the two completely.

KD: It would be nice when one could intervene more physical with a computer.

JR: Yes I also would get my hands into it and create an event, but you cannot use your hands, you have to use your brain and program and so on. I work with only one program for video editing, effects and compositing, and I know the program now very well. Editing or reorganizing layers of video is now an automatic process, like spooling film on a reel. I don't have to think about it anymore. That gives me free space in my brain for a creative process.

KD: Do you have the feeling you have a complete body of work, or are there new areas to explore?

JR: The last two years I have been depressed about that idea, that I have done everything that is in my power. I have done a lot of work, but I can't make a living from it, no chance to sell it. Until recently I always made new work and then you have new invitations, and some money comes in. But if you need three years for the next work it becomes an existential problem. I now have plans for two new pieces, one is the Dark Energy. I want to work live with only energy, no images, but I am not sure yet how to bring that in. I think it will be interesting to work more with sound than with image. Not together with Thomas Köner, I will have to do it alone. Thomas has his own ideas about sounds and energy of sound-files. I will have to do it alone, and the light should be very low. Long dark parts and some moments with light, so you get more the idea of energy. Your eyes take away so much of your sensitivity to energy, it is not correct to speak about a hierarchy of senses, each sense has another reason to be there, but in a way our visual sense is dominating over all the others. One is always concentrated on that,

and I want to go down and do less and less and less. Other things should happen in the space, I am not sure what, but it should be some kind of energy, which does not come from a visual experience, but comes from the sound and other things. Another project is that I collected 1500 films on a hard-disc, over the last three years, and I am thinking of using this as found footage, inspired by the work of Matthias Müller, like *Locomotive*. He uses many Hollywood films and mixes only elements that happen around a locomotive. That is an interesting area, many people collect films but never touch the material. I have only a raw idea about it, maybe only people looking through glasses or microscopes or open doors, or closed doors and so on. Break it up and combine it into a completely absurd thing. Dealing with this Hollywood language, there is so much made with that language, there is a big surplus of that language. It is interesting to use it and work against it. Many filmmakers did that already. But something can be added, the synaptic storm that I mentioned, situations like Ingrid Bergman sitting in a train and then another person in another film also in a train. He mixes those things up very fast and on three images next to each other and you know the films, you have seen them, you know how they go on. It has an interesting result on the brain, the feeling that you are in a big story, but you don't know how it holds together and the different films come together, simultaneously on the different screens and then it is a very interesting process of following. It is interesting to deal with the Hollywood language like that, it is a broad field.

KD: All the films together become one story?

JR: Yes, they are one story, 99% of the people have seen hundreds of Hollywood films, they know the language, they know the characters and the kind of things that happen. It is a part of our visual memory. It can open the brain for moments in-between certain things. There are not so many different things happening in Hollywood films, and I want to fade out every narrative aspect. There should be no language. I only select films I like to watch, but I also like trash like the 50's Science Fiction films from the East for example. It is interesting that not so many people have seen this, I would prefer this instead of using Hitchcock films. I also like mystery and spooky films, but not splatter. Films where something spooky happens but you are not sure what it is, that is much more interesting. Also in newer films the 5.1 surround sound is nice, when all kind of things happen in the background. It is like being in a concert. If you switch of the image, you can experience it like a concert.

KD: Interesting, this seems to loop back to the beginning with Schmelzdahin.

JR: Yes it is like that, I have done all the things with chemical processes, and I have done so much that now it feels like a repetition to do more. Also the stuff that I have on a hard-disc that is enough to make 1000 performances. The collecting takes a lot of time, I started three years ago with that, I did that parallel to the process of digitizing all my films. The digitalization is now finished.

Interview with William Raban, London, 3 December 2014.

KD: Before making films you made artworks, exploring new ways of naturalism, can you tell me more about that?

WR: In the last two years on the painting course at St. Martins, '68 - '71, I got really interested in the idea of lifting traces from nature as a means of making artworks, and the first I did were tree prints, white canvasses stretched on trees and left there, to pick up the marks of the bark, and weathering effects, at that stage, no paint on the canvas at all. Then I decided I wanted to do some prints of waves breaking on the shore. I did those in the south of Spain where the sea is nicely warm in the summer, just outside Algeciras, facing the coast of Morocco. Those involved mixing up oil paint: two colours, basically the colours were orange and cerulean blue. I made a very thin solution of this oil paint and I bought large sheets of white paper and I went into the sea until the water was up to my stomach just at the point where the waves were breaking. Immediately after the wave had broken, I poured in a line, the contents of oil paint that was in the jar. It floated on the surface of the water and I waited until the next wave came, usually it is an interval of about seven seconds between the waves on a beach. Immediately after the wave came, I scattered the paint, I dropped the paper onto the surface of the sea, behind the wave and picked up the trace of the wave left through the scattering of paint on the surface. That was the start of it. When I came back to England, I decided that I was going to make a series of tree prints, I was going to wash the canvas with acrylic paint after I had put them on trees. I left them for quite short periods of time, about four weeks to expose to sunlight and the effects of rain. I would go back four weeks later and remove them. Those were the weather prints, the tree prints. I developed those, I did a series on the Isle of Wight where I left them for six months, there was an elderly woman who came and asked me what I was doing, she saw me wrapping the tree with canvas, it was at the time that there was a plague of Dutch Elm disease, it came from Holland. I knew that if I told this woman that I was an artist, an art student, and that I was doing some experiments, she would be totally confused. It would challenge her assumptions about what art is, or is not. So I said I have been sent by the Forestry Commission. I am doing research into resisting Dutch Elm disease. She was perfectly happy with my explanation. The last series of tree prints I did in Scotland. I went up during Christmas and I cut sections of canvas, about two

meters tall and 30 centimeters wide. I cut them so that they would fit perfectly around the tapering of the tree, the bark on the base of the tree. They were wider at the bottom than at the top, because of the shape of the tree, conical shapes not quite as extreme as a cone. Each of those panels I dyed with some organic dyes that I got from Morocco. Also my then girlfriend had brought me some organic dyes from Greece. I used these organic dyes to get bright primary colours onto each panel and then I put them on the trees and bound them to it with wire, one set of prints I bound with copper wire, from the base going to the top to hold it in position. And the other set of tree prints on a nearby tree I bound with iron wire. Not only had the weather a tremendous effect on the organic dyes, especially the sunlight produced colours that weren't there in the originals. After six months I collected those canvasses of the trees and I went back to London. I assembled them as big paintings, about four meters wide, because they were big trees, and two meters tall. I put them onto the walls using the same wire that was used to bind them to the trees. It wasn't just about the colours changing from the dye it was also the effect of corrosion on the copper wire and the iron wire. That left its traces on the canvas as well. These were the early paintings that could also be seen as installations. Certainly, the first set of prints that I did on Hampstead Heath, that started this whole experience off, I did think of those as being installations on Hampstead Heath. Of course people vandalized them, and that became part of the mark making process, and one that I set up on the Isle of Wight had been shot through with an air gun, someone took target practice at it.

KD: You made a transition from painting to filmmaking, what initiated that?

WR: It was partly because of the tree prints, I was thinking at that time that what I was doing was quite similar in some ways to using photographic time-exposures in a stills camera. A tree print is a sort of time-exposure, a very long exposure, up to six months. That led me to using time-lapse, first on standard 8 and later on 16mm. I was setting up a static camera in a landscape and I was filming dawn to dusk initially and then later on over much longer periods of time, just recording changes in the landscape. I was often intercutting the time-lapse with footage taken at 24 frames per second. I was interested in the idea of using film to materialize time, getting these two different senses of time materiality, normal speed and speeded up time. That was what got me interested in using film, very simple.

KD: These ideas about new naturalism, did they become part of the filmmaking practice?

WR: I think it was at first connected to more conventional ideas of naturalism, paintings of Claude Monet for example, his serial paintings, the *Rouen Cathedral* series, and all the paintings that he did of the same subject on different days and different seasons of the year. In that sense the paintings were quite conventional, but what I wanted to do was unconventional in the sense that I wanted to find natural processes that would leave marks on the canvas. I was not interested in doing painting as a sort of manual labour of mark-making, I did not want to be the one making the marks. I wanted natural elements, whether it was the breaking of a wave or the exposure over a long period of time with the tree prints to make the marks on the canvas. I had been already very interested in John Cage - his work before doing anything of this and it was in a discussion with my brother who is a writer, Jonathan Raban, and we talked about ideas around naturalism. He first introduced me to the idea of naturalism in John Cage's work. And that made me think how I could somehow turn that into a fine-art context. I think the most obvious example in my film work is *2'45"*. As the title suggests it is not that different from John Cage's *4'33"*. It is what happens in that period of time with a camera set-up static in a cinema, whatever happens in that period of silence is the work.

KD: Even before that you made the films *Basement Window*, *Sky Film* and *View*, there appears to be a connection between the process, the technology and nature.

WR: It is interesting that you talk about that because I am doing preparation for a lecture that I have to do in March - my professorial platform lecture here, where I am going to show *About Now MMX*. I am going to situate that one work with much earlier films and later films as well. One of the films I am thinking about is *View*. There is a piece of writing that Peter Gidal did in his *Structural Film Anthology*. In his little essay that he wrote about *View*, he is writing about a number of filmmakers; Malcolm le Grice, Gill Eatherley, maybe a dozen filmmakers or more and arguing why they make a case for structural film. He says about *View*, although the landscape is the dominant image in the frame - the natural landscape, he thinks that the most important thing in the film is the materiality of time, that is the real content, the real subject. He talks about the film being a documentary of how the camera can deal with time and that being more important than the specific image content.

KD: You are often referred to as a structural filmmaker, do you always feel comfortable with that, or does it leave out other important aspects of your work?

WR: To begin with, I was very happy and flattered with Peter Gidal incorporating me as one of the structural filmmakers working in London, I was young, I was working at the London Filmmakers' Co-op. I was able to feel as being part of a wider movement including people like Peter Gidal, Malcolm le Grice, Gill Eatherley, Annabel Nicholson, and David Crosswaite, who sadly died this year. I was happy with that at the time, but I came more resistant to having my work pigeonholed later on. One of the terms that got coined, especially after I made *River Yar* together with Chris Welsby, the two screen film, people referred to us as landscape filmmakers and I was very suspicious of this term because in 1975 Deke Dusinberre programmed a series of screenings at the Tate Gallery. It went over ten days or so, at the Tate in Chelsea (Tate Modern did not exist then). He called it landscape film, and I suddenly realized that there was a real problem here. Our work is being used as a way to argue that filmmaking can be a legitimate fine-art activity, because at that time, one of the most significant areas of British painting, historically, was seen as British landscape painting, John Constable, Turner, people like that. Richard Wilson as well, who painted landscapes in the 18th century and influenced Turner a lot. I was not very happy with that, our work was being used to say, yes it is OK for people working with film to be seen in a fine-art context. It seemed like a way in to the art establishment, and I have been always been resistant to call myself part of the art establishment. So that is one of the terms that I resisted. Also experimental film is a quite unhelpful term. It means so many different things to different people. With some justification you could talk about Stanley Kubrick being an experimental filmmaker, and yet his films have very little connection to the kind of work that you and I might be doing, which is commonly understood as being experimental film. Artist film and video is another problematic term. Documentary film is loaded too. I am always suspicious of genre or category describing the work. I think it always has to be questioned what is meant by those terms.

KD: Going back to 2'45" it was later understood as Expanded Cinema.

WR: I was not aware of Expanded Cinema, but I was working very closely with filmmakers at the Co-op, particularly Malcolm le Grice, who taught me when I was a student at St. Martins in my final year, when I made my first films like *View*. I made that with Malcolm's help as a teacher, I was interested in his work, and he was interested in what I was making. What was really exiting about the Filmmakers Co-op at that time is that it really worked as a creative laboratory. We are not talking about a large number of filmmakers, maybe half a dozen. There were not so many filmmakers in London at

that time, you could count them on two hands, and now there is about 5000. Malcolm had been doing things where he was using elements of performance with film, like his famous *Horror Film* for example and *Castle 1* or *Castle 2* where he has a flashing light bulb in front of the screen. And so, we took ideas from each other, quite openly. There was no sense of creative ownership, it was what we thought of as a creative laboratory, it didn't matter who came up with an idea. Works were developed in response to other works made by our fellows. I conceived this idea, very much by thinking about John Cage. With structural film content within the film becomes a big problem. The structural film project can be seen as eliminating film's content, so that one arrives at a so called pure, formal position, and it is all about the apparatus, the process and the materiality of the film. I liked the idea of trying to make a film where the content was entirely to do with the showing of the film to the audience. It became like a closed loop in that way. I had the idea for the film in 1972, I planned it out and made drawings for it, I knew what I wanted to do; film on black&white negative film with a camera placed at the back of the audience, a microphone on a stand at the front of the screen, going back to a tape recorder alongside the camera. It was framed so that the audiences' heads are caught on the bottom of the screen. On first projection there is no film, I just switch the projector on for two minutes, forty-five seconds. The camera is set to run at the same time. I walk to the front of the cinema, on the opposite side of the microphone and announce the time the date and the place and say: "2' 45" -and give the time, date and place - a camera is filming the audience watching the blank screen, sounds of the projection and the audience's responses are being recorded". I would walk off and then nothing would happen, maybe people will cough or whatever. I would process that 100 foot of film as a b/w negative usually in a tank. If we were doing film festivals I would process it immediately after the performance and hang it up to dry in the cinema or on a wooden rack that I made. And the next day, instead of the blank screen, I projected the negative. So what comes up on the screen played with the sound that I recorded the previous day is played on the screen as a negative image, where you see me go up saying the time and the place and the rest, and me walking off, and I am re-filming this, with a new 100 foot film in the camera at the back. After seeing myself going off, I would go on again in real life and announce the title, the time and the date and the place; "2 minutes 45 seconds. A camera is filming the audience watching yesterday's audience watching the film of the blank screen, sounds of the projection and the audience responses are being recorded". It built up like that, and when you film a negative image you get a positive. After seven days when it filled up the whole screen with me going on and off in different iterations, that would be the point where I ended it. Sometimes it would go on for ten days. So it became like a receding.. we call it a Dutch

picture, maybe that is a reference to Jan van Eyck, the Marriage at Arnolfini. You see screens within screens within screens receding to infinity, with each iteration, and the film was only 2'45" long. But the other way I thought of it was like another kind of time-lapse, it is not speeded up action but it is condensing all these performances into that length 2'45". It contains all of its iterations in that time frame. Those were the kind of things I was thinking of when doing that.

KD: What is exactly the significance of the materiality of time?

WR: Whether consciously or not, I realize that every film I made over the last 45 years, is in different ways about materializing time. It is part of my life's work, that is what I have been doing, even when I have been doing so in many different ways. You might see no connection, from one film to the next one. I like that freedom that allows me to jump from one thing to another, unconstrained or to be associated with a particular style or trope, in the way that gallery artists might work. For me that is one of the big problems connected to the gallery scene, it turns the artist into somebody who is working for the market place. Fulfilling a demand, an expectation, a certain kind of painter, a certain kind of filmmaker is associated with one particular style and they have to carry on working in that style, almost becoming a slave to it. That is what the collectors demand. It gave me a lot of freedom, not being part of the art market at all, having nothing to do with it.

KD: As human beings we are caught in linear time, maybe that is what makes it so interesting to alter it?

WR: I am not sure if I agree with you, if you have a bigger view of cosmology wider than human existence you might get to a position where you say that time is an illusion. Time doesn't really exist. A Russian writer and mathematician P.D. Ouspensky, he had this idea that you could think of time in so many different ways and he thinks of time in relation to the human being, he says; human time is measured by the time of breathing, it is also measured by the pulse of the heart, 70 beats per minute or whatever and it is also measured by the expectation of ones' life, 70 years, as it was during the time he was writing. But if one tries to imagine time in relation to the earth and its natural rhythms and cycles you get suddenly a different picture of it, the human time becomes tiny and infinitesimal, within a wider cosmological system you might get a much slower sense of time. I suppose that is what I was trying to get at, not with the film I just finished but the film before *Time and the Wave*, where I was thinking that one

might observe time as particles in a wave in the open ocean, a big sea wave that is not breaking, when you see a sea like that from the land or from a ship it appears that the wave is moving across the ocean, but that appearance is illusory, because the particles in that wave are static, they are not moving, it is just that transmission of energy, that locks the particles together and creates that upward and downward movement of the wave. There is no natural movement in the particles whatsoever. I thought that is a very interesting way to look at time. Maybe things don't change, it has just to do with our human experience, because we measure everything according to the changes in our daily life. It is crass in a way to say that my films are about the materiality of time because you might think about any film in the history of cinema and say; that is also about the materiality of time. Film in its essence of process seems to materialize time. Perhaps different to novels, novels do not materialize time in the same way, and a flat painting can't materialize time in the same way, although I think time does operate in paintings. That is why I got very irritated in the 1970's when various fine-art departments started with film courses, or students using film, they used to call it time-based media. I thought that is terrible, painting can also be time-based. Film deals with time in a very specific way that allows you to do these kind of experiments that would be much harder to do with other media.

KD: In relation to this it is interesting to involve others, the audience like in *2'45"*?

WR: Exactly, I think that is the essence of expanded cinema, it is the way that the audience becomes engaged as active participants.

KD: That works makes the audience aware of their own presence.

WR: Yes, conscious of their presence. I think that is unique to expanded cinema, as I argue in that chapter, I think expanded cinema is the only form of cinema which truly exists in the present moment. If you think about any classical feature film, it is always about something that happened in the past, before the event of watching it in the cinema, even when it is a futuristic film, looking into the future, it is still only about the past, something that already happened and it is being represented. It can't be live in the way that an expanded cinema performance can be live.

KD: This idea of activating the audience in the creation of meaning perpetuates throughout your oeuvre, also in the documentaries. Why is this so important to you?

WR: I think in terms of more recent work, work that seems to have a more political context, the films that I made in London, especially *Island Race* that I made in 1996, which has very harrowing scenes of various racist campaigns that took place in Tower Hamlets with the British National Party and the Bengali community being targeted by white racists, when I was making that film I was determined that it should be done in such a way that I wasn't being didactic, I was presenting these images, but I wasn't telling the audience how to interpret them, or to only read them in a singular way. I thought it was very important that when you make a film like that that you got to leave the audience the power to make up their own mind and forge the connections between what they are seeing. It was part of a larger project: to what extent is it possible to make political meanings without using words? Most political films that we are familiar with, would normally have, a voice on the soundtrack, preaching to the audience, essentially. You should have this political position, etcetera. But is it possible to do that by sound and image alone? That was the question I was trying to answer in *Sundial*, *A13*, *Island Race*, *About Now MMX*.

KD: That is very clear, but is also used in connection to expanded cinema isn't it?

WR: Yes, I think that idea stems from expanded cinema, where the audience becomes part of the event. If the audience weren't there, the whole film would be totally pointless. It would not have any existence.

KD: Could you say that it started as a formal investigation and then developed into a more political one?

WR: Yes, I think so. I mean the crisis came, not just for me but also for other people who had been branded as structural filmmakers, through the 70's being called a structural filmmaker wasn't just a neutral term, it was often used as a term of abuse, there was a large part of the independent filmmaking community, particularly around Screen Magazine, which was very dominant in the 70's, they talked about structural film as a form of abuse, this was not to be taken seriously. For me, and Malcolm and other people engaged in that activity, it became a form of crisis, how far can you take that idea, of getting rid of all content in the film. *2'45"* was interesting in the way that it overcame that problem but it didn't do away the content because the audience became the content, and the very projection of the film became the content, ultimately it brought us to a position that there was nothing left beyond the empty screen. There were a lot of films that used just the empty screen, clear leader running through the projector in

an attempt to get rid of all content, so there was a real moment of crisis. Me, Malcolm and a lot of other people rejected all the structural film stuff and moved on. Interestingly there was a core group of people and I include Nicky Hamlyn, Guy Sherwin, who carried on working with it. In their own way, but much more relatable to the structural films of the early 70's. Works like I was producing and Malcolm was producing later became much more content rich.

KD: About the role of the artist in expanded cinema, you have to be there to make it work.

WR: Totally, I have to be there, nobody else could do it.

KD: To me it seems important that the artist is not a heroic figure who produces value out of nothing, but that the artist role is a different one, what is your point of view?

WR: We did not call ourselves artists in the 1970's. It is significant that it was called the London Filmmakers' Co-op, not the London Artist Filmmakers' Co-op. Personally, speaking for me (Malcolm and I disagree on this) Malcolm feels much more comfortable with his films being shown at the Tate Gallery for example. He thinks that the Tate should buy his work for their collection. I am much more concerned of having a legacy (if my work has any sort of legacy or impact at all) I am much keener that it should be within the British Film Institute. I always see my work as being part of film. I am a little bit uncomfortable even with calling myself an artist for the same reason, and I think that is a much later thing. That came much later on, the whole term artist-filmmaker was picked up somewhere in the early 1990's. The first artist to win the Turner prize for a video-work was Douglas Gordon, I think that was 1996.

KD: Filmmaker refers to something different than director?

WR: Yes, exactly. When you put your film, this is part of dealing with the British Film Institute, if you submit your film to the London Film Festival, and they put it in their catalogue, they won't allow you to call yourself filmmaker. They are only interested in you being called director, I don't think of myself as a film director, I am a filmmaker. The objection to the term director is that you are bossing a huge crew of people about, to do their role and bring this collective work together, and the kind of work that I am making involves very few people, sometimes I do everything myself. If I work with other people, maybe I have somebody help me edit and I have somebody help me with the

sound, but it is a very small and intimate crew and the term 'film director' does not really describe what I do.

KD: When you show the work you put yourself on an equal level with the audience?

WR: That is the ideal position I think. I like to think that that is what happens: that the audience becomes empowered and you break down the hierarchy between the filmmaker as a producer and the audience as a consumer, which is the traditional relationship in cinema: the filmmaker somehow as this authorial figure in power, and the audience as passive spectators or consumers. I like to think that Expanded Cinema turns that on its head, and makes the audience every bit as engaged or part of the process as the filmmaker is. The filmmaker is just an agent, enabling that process to come about.

KD: It is not something easy to achieve.

WR: No, it is not, it is an ideal, it is only ever partially achieved, you are right.

KD: Do you think that analogue film is important for expanded cinema?

WR: I am beginning to think that it is not important at all. I am beginning to see that we can make expanded works whether we call them cinema or not. Can the digital really claim to be cinema? - that is another question. I did do an expanded cinema performance at Tate Tanks, in 2012, *Duchamp's Dissent*, which was based on a piece that I did using analogue film, three 16mm loops. I think it worked really well as a digital projection. My own feeling is that I don't have any regret or sense of loss about the passing of film. I know you do use analogue processes, which is wonderful, keeping it going. My own feeling is that it has all gone, unless you are doing what you do, which is process the film yourself and print it yourself. Because when I want to work with film now, I have to get the film developed in a foreign country and print it in a foreign country, and that adds so hugely to the costs and the wait in time, that I don't think it is economic to work with film anymore. Not for me.

KD: Some artists are militant towards using analogue film, what do you think about that?

WR: I am not sympathetic to their position. I think with particular people, for example Tacita Dean, I disagree with her completely, you can't stand in the way of progress. Historical development is inevitable. I loved working with film, but the last film I made, on 35mm was *About Now MMX*. I realize now that that is probably the last film I will ever make on 35mm. I think it is unhealthy to hang on to outmoded practices because something else takes the position of the materiality of film, a reverence almost for something that is already past and gone. It is nostalgic.

KD: You are often using multiple viewpoints, this can be explained as something formal, but also from a more social or political dimension.

WR: The first film I was consciously doing that, is *Angles of Incidence*, which I made in 1973 a two screen film looking through a basement window. My background was painting. I was thinking - is it possible to do something similar as what Cezanne was doing in his watercolors and paintings, in his later work, where you can see very clearly that he was working with the idea that we see the world not with one eye, but with two? You get this slight double image in a lot of his paintings. I was wondering how that might be applied to film, that got me of thinking about that way of working. I think it comes back changed, when I do it in *About Now MMX*, in a very different way, but I think something similar is going on in that film. Even that the viewpoint is shifting in a different way, it can be still related to the idea of cubist space or perspective. Cubism was such an important movement, in the early 20th century when it got started by people like George Braque and Picasso, and how it is related to the whole evolution of modernism. And you can even see it in literature and it had influence in the sciences. It seems to be an articulate moment of cultural modernism that can be seen in a political way as well.

KD: I like to read different newspapers from different countries and see the same thing from multiple viewpoints.

WR: The French writer André Gide does that in his writing, he does that in a much slower way than the kind of speedy cubist things I tried to do. He writes about the same actions from the point of view of different characters. So you constantly go back into the facts, seeing the same action happening from another point of view, a similar point of concern really.

KD: About *Thames Film*, you write that it is an attempt to see things from the point of view of the river, is that similar to James Lovelock's ideas about Gaia?

WR: I was thinking in a slightly different way, I don't reject that connection, I wasn't reading Lovelock at the time. I came to make *Thames Film* by a series of chance encounters, the first of which, Ron Haselden the artist had a boat that he kept moored on the River Thames, and he got me time out on his boat one day. I think we started at Westminster pier where he kept it. That time it was very easy to keep a boat on the river, you could not do it now. It costs too much money, the Thames has become a rich man's playground. It didn't used to be like that. When I first saw London from the river, I thought what have I been missing all these years, you get a completely different idea about the city you live in. The thing that really impressed me about the Thames was, walking across bridges the view is so different whether its high tide or low tide, there is a very big change of height on the river Thames, it is 6 to 7 meters. That changes every 6 hours. It is that kind of life force of the river caused by the fact that it is tidal. It is open to the sea. I saw it almost like a lung that was keeping the air fresh in London - you can see it as a slow acting pump, because the tide is going like this every 6 hours. It is acting like a big bellows, it is refreshing London's air, it induces a constant stream, making tired air replaced by clean air. That was the idea of trying to catch London - trying to see London from the point of view of the river, by getting very close to the surface. The way the camera moves, for most of the film I am just drifting on the tide. The speed of the track is the speed of the river. As the tide either comes in or goes out.

KD: There is that element of time again.

WR: Yes it is not so different from the wave prints. The action is done by the thing itself, not by me imposing an action upon it.

KD: Was *Sundial* the film where you evolved from a more formal towards a more political approach?

WR: It is a different story. I made *Thames Film*, after I finished the film (the film cost me a lot of money) I had some money from the Arts Council, but it did not cover the costs, I was incredibly lucky that Channel 4 bought it, the rights to two transmissions. They paid me good money for that, but also encouraged me to re-apply, to the commissioning department at Channel 4 with a new concept, a new idea. Begonia and I put in a joint application for making a film about survivors of the Spanish Armada,

which is a very conventional film in some ways. It is not really a documentary, but it was conventional in its research, we went to all the Spanish archives, got documents, became very knowledgeable about the subject. We made the film and it went out on television, I quit my job, teaching at St. Martins, and I had a wonderful time working at St. Martins for 13 years, and it's not healthy to stay in the same job for too long. It is not good for you, so I felt it was a good time to leave and I realized once we got this commission, it was a big project, Begonia and me making that film, I had to quit my job. So I willingly gave up my job, and thought that I could make a living as a television producer, doing documentaries for television. Channel 4 changed at this time and became much more conventional, and I realized that the last thing on earth I wanted to do is become a TV producer. I made a terrible mistake in my thinking. I made *Sundial* as a way to get back to the purity of concerns of earlier work. It was a way to go back to some of the things that I seemed to have rejected. I wanted to reclaim something of the structural influences. I don't think you can see *Sundial* as a structural film, some people might see it like that, but then they are pushing it a bit. Because I did not live that far away from Canary Wharf, it became this wonderful constantly transforming object as it was built, and you became suddenly aware of the absurdity of the plan by the Tory government to relocate the financial heart of London to the Isle of Dogs in the East End which was going to produce incredible displacement of local people and changed the local communities in that area forever. I was very aware of that as a political fact. When the Canary Wharf tower was opened at the very end of 1991, it was referred to as 'Thatcher's dick' - Thatcher's prick. Margaret Thatcher was of course known as the Iron Lady, because of the Falklands Islands and the way she identified with British military and colonial power against the Argentinians. The idea of this being a monument to Margaret Thatcher seemed very appropriate. It opened at the time that she lost power, it was almost the symbol of Margaret Thatcher - everything that she stood for: greed, the accumulation of wealth and all those things that were very negative. I realized that I was dealing with a very potent political symbol, while making *Sundial*. I wasn't motivated by this, but I was determined that it could be seen in a political way - as a political reaction towards the building of the tower.

KD: Water as a subject returns in various forms?

WR: Before I made *Thames Film*, partly through the experiences I had going on other people's boats on the river, I bought myself a small boat and I taught myself to sail, even so I sailed as a kid, a bit. I wasn't in anyway confident. I bought myself a boat, the first one was 22 feet long. It was just big enough to sleep on it with two people, when

we would go on holiday or over the weekend when the weather was nice, we could sleep in the cabin. I used that boat to make *Thames Film*. Then I wanted something that could stand up to the sea, so I bought myself another boat, a beautiful boat, 25 feet long. And then later, a big steel ketch that was capable of sailing around the world. From 1982 until 2011... I can't remember when I sold my last boat, so I always had a boat. I had a boat for different reasons, one was to make the films I wanted to make, it was like having a floating studio, and the other reason was, it was my big escape, the best way to get away from people, especially when you are working hard in London over a week, on a Friday night, you could go down to your boat, you could drop your moorings, and just get out there, no matter how serious your worries were. Once you are out there, your worries just disappear, because you are worried about your life. How am I gonna survive, what happens when a storm blows up? Sailing was a huge part of my life. In the end keeping a boat just became far too much in terms of maintenance. I could not afford other people to do the work on it, and did not want other people to do the work on it. I wanted to do the work myself, but found that I was spending too much time looking after the boat, and not being able to do the work that I wanted to do, so the boat became a huge distraction. For a long time sailing the sea was very important.

KD: What is your position thinking about esoteric ideas?

WR: That is an interesting question, I will try to answer it honestly. Firstly, I think there is something in my character that is quite esoteric, I will accept that. There are all kind of things that are beyond our control. Religion has become almost obsolete to most peoples' daily lives. People do not order their life by religious process, but it still leaves a gap for all of us. There is something that is outside of us, that is greater than us. There is a big mystery out there somewhere - about life even, what is the motivating power of life? How does the universe work, all these kind of huge questions. You can't deny those. Simultaneously there is a smaller minded way of thinking about this. Particularly in terms of certain artists work, where they use some kind of principal about the bigger universe, chaos theory or esoteric ideas to justify what they are doing, or giving a reason behind what they are doing. That makes me very uncomfortable, I think one should strive to be rational, even when one might acknowledge that part of our life is not ruled by reason. So I would not say I am strictly rational, but I would like to be able to be held accountable for everything I do in a fairly rational way - at least try to. Even when I appear totally irrational, there is a conflict there. It is not easy, I can't answer your question easily.

KD: I think you already said a lot, it is effective to separate from the kind of artist presentation where people say that they do understand something that normal people do not understand.

WR: That is very dangerous. There is a kind of history to that, the artist as a kind of god. Or, the artist as a god-like figure, master of their own creation. That is dangerous.

KD: So, it is no problem when the audience would understand your work in an esoteric way, but the problem is when you would present it like that.

WR: Yes, very well said, I think you got it. That is close to it I think.

KD: Jürgen Reble also spoke about this and said that he is suspicious of anybody that can explain the universe in 5 seconds.

WR: You should be! Also, equally, maybe twenty, thirty years ago, commonly people would think that environmentalists were very esoteric and they did not need to be taken seriously. But it was just announced that until now - we don't know what will happen the rest of December - that 2014 has been the warmest year so far, since records began. What idiot could deny global warming, when you are confronted with a statistic like that? Environmentalism has become mainstream in a way. It has to become mainstream, a change in thinking to what responsibility people have in relation to the environment.

KD: So now it is more rational, or understood in a more rational way.

WR: It has to be. The neo-liberal right in America are still trying to say that people who are mourning over global warming are very backward and they don't know what they are talking about and there is no reason to change our consumption of fossil fuels and so on.

KD: Maybe this connects in an interesting way to your first works, the tree-prints and the wave-prints.

WR: In some ways yes, but in other ways totally not. If I think in ecological terms, what I was doing, pouring oil-paint over the breaking waves that is polluting the environment. That is a terrible thing to do. It never crossed my mind at the time.

KD: But one could also argue that you were listening to the trees, feeling the waves..

WR: Yes there was that kind of feeling about it, an affinity with nature. But also, like I told you about landscape film being a recognizable genre of work, particularly in England, about the time of that exhibition, just before 1974, I determined that I was going to stop making films in landscapes, I wanted to change my subject, I did not want to make anymore films in the country. I became much more interested in making films in the city, in London, mostly in London. I found the urban environment much more interesting. Even when in *About Now MMX* I have the repeated shots of the moon very big in the frame, the idea of the moonscape is usually associated with the pastoral, or a landscape image, a traditional landscape image. For me it was quite important that I was showing that in the city.

KD: I described your expanded cinema work *Wave Formations* as a seascape.

WR: That is an interesting take on it. Even though, at some levels it is a seascape, in terms of the soundtrack, particularly the soundtrack, several times I have heard the sounds playing against each other, that is just like being on the beach and the sound of waves. You get the spatial effect of waves, left ear, right ear. But the color almost contradicts that, the fact that I am using bright primary colours, blue, red and green filters. This is almost denying the seascape.

KD: It was not conceived as a seascape?

WR: It was conceived with the title *Wave Formations*, so I knew that I was making some kind of allusion to waves on the shore. It is quite hard to say how I might have intended the film to be interpreted by an audience or experienced by an audience, and in some ways it is the film that always surprises me because it is such a simple film, its elements are so minimal, totally minimal. Still, when I am performing it and I am watching it, it always surprises me, there is something that takes me by surprise, something strange happens, something complicated happens that does not seem to be possible given that all the elements are so simple.

KD: You described the shooting of *Thames Film* as using an external force, the river shaping the film, and here there also appears to be an external force.

WR: Maybe. I like to relinquish control, getting a bit wild sometimes. That is what I like about two, three screen works. Every single projection is always slightly different, you never get the projectors in precisely the same relationship to each other. And even the different scales, when you project the work very big, it becomes a different experience than showing it in a smaller space. I think those multi screen works, they work much better in the cinema, than they do in a gallery, especially *Wave Formations*, I love showing *Wave Formations* in the cinema.

KD: This also relates again to John Cage somehow, because he is using chance as well in his compositions.

WR: Yes, so the way the work gets changed by chance.

Interview with Tony Hill, by email on 10 May 2015, and in person, Liskeard, 4 June 2015.

KD: Can you give a description of your performance *Point Source* in your own words?

TH: The simplest description is the one on my website: A small bright light is the projector, several objects are the film and the whole room is the screen. A spatial exploration of the objects with the light projects them as big as the room encompassing the audience.

KD: What can you say about the origins of this work?

TH: I think it came from noticing the kind of shadows projected by a small lamp or a candle. I had started making films while studying sculpture and was interested in the sculptural nature of projection. I liked how it was able to create a powerful immersive experience with such simple means.

KD: Did you perform it rather in a cinema, a gallery or both?

TH: I have performed it in cinemas, galleries and rooms of all sorts.

KD: Was it adapted for the different spaces where you performed?

TH: The nature of the piece means that I can perform it in any interior space although it is better if the walls and ceiling are white or, at least, light in colour.

KD: How much of it was pre-composed and how much was improvised?

TH: I use the objects in a certain order and time actions with the soundtrack but it not strictly choreographed.

KD: What can you say about the relation of this work with your other film/performance work?

TH: Two things: firstly the all-round projection lead me to try to make a film that would be projected like this. In working on this I made the film *To See*, but couldn't make the projection work. Later I made an installation called *The Pool* which does successfully send the projection all-around the room. Secondly I was interested in immersing the audience and making them part of the piece. These ideas I later explored with *Floor Film*, *Role Play* and *The Doors*.

KD: Was there a relation to other filmmakers who were working with expanded cinema?

TH: I did think of the piece in the context of 'expanded cinema', so it related to that at the time. The only other 'physical cinema' piece I can remember from then was *Line Describing a Cone* by Anthony McCall.

KD: In *Role Play* you revisited the concept of expanded cinema, can you describe that work and its origins?

TH: I first performed *Role Play* as part of my inaugural lecture when I was made a university professor. I had recently completed *Laws of Nature* and was showing and talking about this film. I built a jib crane for some shots in the film and wanted to include it in the presentation. I had the idea to set up the crane in the cinema and float over the audience a camera connected to the projector. So the audience, while watching, are also the subject of the piece. It is called *Role Play* because of the dual roles of the audience and also punning on the word 'roll', as I was able to roll the camera over on my homemade rig. It has since existed as a stand-alone piece in other shows.

KD: How would you describe your relation with the audience in the context of expanded cinema?

TH: I do enjoy making work that really integrates the audience both physically and mentally with the piece. I think *Point Source*, *Floor Film*, *Role Play*, *The Doors* and, to some extent, *The Pool* all do this. One of the reasons I was first attracted to using the medium of film was because of the set time and space allotted to viewing it. It seemed to have an inherent way to connect with an audience that was lacking in the way people looked at sculpture.

KD: Your work in general is concerned with movement in 3 dimensional space and point of view beyond a human perspective. Why does this fascinate you?

TH: A good question but hard to answer. The fascination with 3 dimensional space, perspective and how gravity affects our view of the world has always been there for me, where it came from, I don't know.

KD: You are not working with traditional narrative, but rather with movement, direction, speed and rhythm as structural elements. Can you compare your activities with a dancer, a composer or a musician?

TH: I do remember when I was editing *Water Work* thinking that it was like composing visually, being conscious of rhythm and pace as in music. Working with time, but without narrative, is going to have similarities, particularly with the spatial aspects of dance.

KD: Your work might also be interpreted from a technological viewpoint, what can you say about the relation between humans and machines?

TH: A very big question..... In terms of my films, the machines are a means to an end. I made them as a way to realise particular visual ideas, they are tools. Humans have used tools for a very long time and, I think, some have always become significant cultural icons and signifiers of power. Now, perhaps, our machines (cars, computers, mobile phones, etc) are becoming too important and beginning to eclipse our relations with other people. We have too much stuff.....

KD: Films like *Down Side Up* and *To See* seem to be concerned with the global, a relatively new way of looking at reality, very much linked to the space age but also to problems like climate change. Can you comment on this?

TH: I wasn't aware of a link to the space age but did think that my work was like space exploration on earth. Climate change, also was not on my mind when I made those 2 films, although I was interested in eco housing as manifest in *Domebook* and *Shelter* publications and in 1973 visited the eco house in London.

KD: In many of your films landscape and the natural environment are important. How could you describe this importance?

TH: I have always preferred to live in a rural environment and this feeds into the work. I can only say that I like more space and fewer people....

KD: You have built your own sustainable house, in this project your interest in space, point of view and landscape somehow seem to come together. Can you tell me more about this?

TH: Perhaps it is easier for you to see these connections as an outside viewpoint than I can from living in the house. We can talk about this when you come down.

KD: Does the object in *Point Source* have an architectural quality or should it be seen from its original utilitarian perspective?

TH: There are 4 objects in *Point Source* which were chosen/made for their potential to be explored spatially. Their original use is not particularly significant.

KD: You are not writing scripts beforehand, the work evolves while making it.

TH: I suppose that is in opposition to the way lots of films are made, where people write very precise scripts. Sometimes you read about a filmmaker saying; when I had such a good script there is no need to make the film anymore. You are not going to learn anything. It is filmmaking as a process of discovery. I particularly remember when I made *Laws of Nature* I knew what I wanted to do but I also had a strong feeling that it was impossible. I did not know what the outcome was going to be. That is an exciting part of the process, when you got a vision of... OK there is filmmaking and there is the landscape, just by thinking about landscape and looking at it, how do we relate to it? I can gradually develop ideas about different ways to see it. But I don't know what they are in the beginning. I just know that I want to pursue that as an activity. And it does seem quite impossible at the beginning. I don't know, how am I going to do this? So there is not gonna be a script for something like that. There should not be a script. Because you discover stuff. The only ones that were scripted were the one minute films that I did. *Short History of the Wheel* and *Holding the Viewer*. When you are dealing with such a short piece of time, you can't really work in that way and they were instrumental in getting me that kind of commercial work I did, because they were concise. But the other ones: *Downside up*, *Waterwork*, *Expanded Movie*, *Laws of nature*, all those films, they all started off with some ideas, try things out and look at it

and then OK: that works, that doesn't work, I think I will try this. So that is the process of evolving really.

KD: You could not have done it in another way.

TH: No, and I think it is also interesting for people watching the films. Lots of scripted stuff, we see it all the time on TV, where you actually know what is going to happen next, because it is all so set-up, predictable. If you watch something that never had that process then it is going to be more unpredictable in a way and surprising. So that is another element, the camera is doing this thing I have not seen before... But the other thing in relation to that, I usually had a feeling of how long an idea might be sustainable. When you make applications you need that, you need to say, well OK, I've got these ideas and I want to explore them and I can maybe make a 10 minute film out of it, or 12 minutes, or 20 minutes, or something. Then I can say, I do a 4:1 shooting ratio, in the old days with film, so I need this much film stock and I can do a budget then. If I had that kind of idea set really.

KD: also reappearing: relativity and gravity

TH: Visual relativity, yes that is a lot about what is going on. And gravity relates to that as well, how does gravity effect how we see, which is interesting. When I made the films like *Short History of the Wheel*. You are fixed to the wheel, so your motion is relative to the wheel, but the wheel is turning so you've got this kind of visual relativity happening. My stability is the wheel, not the ground, so that reverses the usual set-up. There are other films that use that kind of idea where your frame of reference is changed.

KD: But where does it come from?

TH: It relates to different ways to see that upset your normal perception of how you see things, which interests me. Somebody else might say: there is another film of Tony playing with his camera. There is an element of that as well. Which is an important element, it relates to the unscriptedness of the films. This is a camera, what can I do? How can I explore the visual possibilities.

KD: Play is a learning process, a part of how we become conscious human beings.

TH: Yes of course, and most artists will say that anyway. There should be that element there, and it is discovery as well, isn't it?

KD: You write about *Point Source* as a starting point of films that surround the viewer.

TH: I had that idea, a long long time ago, in about 1973, just after I left college. I had some super8 films and that piece. The super8 is kind of expanded cinema, one is projected on the ceiling, one is projected on my chest, stuff like this. There was a Dutch filmmaker called Barbara Meter who organised a little tour in Holland for British filmmakers who were doing this kind of work. 1973, 74. I can't remember when it was. I went to the Stedelijk Museum and art centres in Utrecht and Groningen, with another filmmaker David Dye, I was going with him and Gill Eatherley another friend of mine, and probably William. Sorry I lost my track... The surrounding thing, this came from way back when I made *Point Source*. I really like the simplicity of it and the enclosing nature of it and the lack of frame. I did spend some time trying to make that work filmically, using a film process. I was using super8, and I came up with the idea to use a hemispherical mirror. I thought when I project on a hemispherical mirror the image will be reflected all around. And if I film the reflection in the hemispherical mirror and then project that onto the hemispherical mirror it will recreate where I was. Basically, all around anamorphic. Which kind of it does, but I was using super8 and a little super8 projector and the amount of light you need on the one hand makes it nearly impossible and the other thing is that the images have to be fundamentally dark with small areas of light, because otherwise you just fill the room with light and everything just grays out. You've got no contrast, because that reflects over there and that bit of image gets bleached out. Anyway, I liked the images that I was getting from the hemispherical mirror and that is when I made the film called *To See*, a two screen 16mm film. But I was still pursuing the idea of projecting on the hemispherical mirror. I made an installation, where basically you cut a small hole in the wall in a gallery space and I had a 16mm projector with loops of film, projecting through the hole on the hemispherical mirror and it gets reflected. I can show you documentary stuff of that. Which I did later as a video installation, two or three times. That does work. It is called *The Pool*. The images are underwater and I used some images from *Waterwork*. So you've got basically a dark image with people in it, floating around. It gives you this around kind of feeling, it goes over all the walls and the ceiling.

KD: You studied architecture, is there a relation?

TH: I studied architecture for two or three years. It is not really related. Something like the installation or the shadow piece you can do anywhere, if you are in an interior space you can just do it. Obviously when the walls are light coloured then it works better. It did not really relate strongly to the actual architecture. My piece *Doors* is more related to the architecture. Three doors are projected live size, and the real door into the space is next to them. People coming into... they are performing their own entrance. It is a 10 minute piece. There are 6 channels of sound and three projectors, three DVD's. There are people coming in talking about coming into an installation, and talking about the installation that they are part of. It is postmodern or something, you are watching this thing and there are people coming in and discussing: are we going to see this, ah its just a load of old doors. Just playful really. When I show it in a gallery and there are people inside watching it and more people come in, they are watching them come in. So like I said, unaware they are performing their own entrance, which is quite nice. Also there is a sequence with people on mobile phones in the piece, and then sometimes peoples phones go of while they are watching and they rush out. Quite entertaining. Also quite simple really. There are several pieces where I played with the audience in that way. *Floorfilm* is probably the first one.

KD: When reading about expanded cinema it can appear as if it started from a theory.

TH: No, I would never work from a theory. I always thought you should not ever work from a theory as a filmmaker or an artist. Theories are things that people who look at work make up.

KD: It seems like a liberating experience for the audience, loosing their normal purposeful behaviour.

TH: The audience realizes that they are also actors. They are performing being themselves in this thing. When their phone goes of there are other people who are watching that. They are really part of what is going on. That is an interesting cross-over, where the audience are also actors. Which happened with the 16mm *Floorfilm*. I built this whole structure that I can take around with a mirror up above. You got a room, a small room, three meters by two and a half or something and the whole of the floor is screen and there are black walls up and the screen is soft screen, stretched over foam rubber, and you take your shoes of. You have people outside, and the projector projecting into the mirror going down. People could watch it standing on the screen, but you could also have another part of the audience sitting behind the projector and they

will look in the mirror. So the audience who has gone in there are also actors for the people who are out here. That makes it into something else, they can swap around, and the people inside become more aware of the fact that they are performing. I travelled around with it a lot, showed it in a lot of schools. Watching it you could see the fundamental differences between girls and boys and how they act. Basically girls pay attention and boys draw attention. For younger kids that was what happened. It was also good to show it in situations that there were adults and children, children respond instantly physically. The children show a way to the adults how to watch the film which is lost to them because they have become adults. So that interested me as well, situations where there were adults and children.

KD: You found that out?

TH: To be honest when I was making it I never thought about children watching it. By chance I knew somebody who knew somebody at the Tate gallery. There was just the one Tate then. I showed it somewhere and somebody must have come along and seen it and they said, we want to book it and show it in the Tate gallery for two weeks or something. It was christmas time but the schools were not on holiday yet, so they organised lots of school-kids coming in. Pretty hard work, but lots of kids came.

KD: When I go around the house their is something cinematic, how the windows are placed.

TH: No, not really, its rather sculptural.

KD: In this article it says: I like to make things.

TH: Yes, that is right, that is a kind of fundamental... The article talks about what people are about. While making those films, I would do everything, all the sound, all the editing, even neg [negative] cutting the film. And then building the rig, building the whole structure to show the floor film. Because it required this special arrangement. I made the film and I thought when I don't make a portable set-up to show this, it will never get shown. So I built this portable set-up, it took about an hour and I had the whole thing up and running. Just needed the head-room.

KD: The physical element, the body, is also important isn't it?

TH: Yes, generally in film, by the time you get to the audience you lost the physical element. Because they just know, there is a screen over there and I am hearing sound through the speakers. I sit here in a dark space and it is all happening up here. That is what interests me in the floorfilm. You are standing on the screen, your scale relates to the scale of the images. It is a completely different relationship and it is a physical relationship. And similar with the doors piece and a bit with the pool, although that is different. You are physically in the space that is being projected around. And you are looking to images of people and another thing about that, like the shadow projection, there is no frame. It is not held in that cinematic frame anymore. When I first showed it, a friend said: it is like a *Sistine Chapel* kind of painting, images of people without a frame. It is a sort of video fresco. It is distorted as well.

KD: In your writing you mention Anthony McCall's *Line Describing a Cone*.

TH: Yes, that is a sculptural work. He did several similar to that. I was thinking of the time that I was doing those early pieces, that was the closest to what I did.

KD: Is it better to say that your work connects with sculpture, not so much with architecture?

TH: Yes, I think sculpture is better. When I got onto the sculpture course... we had TV, but film... the projection of film is a sculptural thing. Anthony McCall's work is a sculptural thing, and that was what I was interested in, the projection and the sculptural aspect of it.

KD: Maybe one could describe *Floorfilm* as a sculpture... but it is a performance as well.

TH: It is an audience performance. The idea of going into a gallery and looking at a piece of sculpture, a physical object, when I was a student I remember, not being able to relate to that so well. Although I do remember going to exhibitions and enjoying that. Anthony Caro had an exhibition at the Hayward, I remember going down there. I saw that when you presented film, you made it a bit easier for people to relate to what you are showing because it had a specific time, you had to troll over the linear progression of it in a way. That seemed a good aspect of film, compared to: I made this object and I am putting it there. There is a sort of accessibility.

KD: Did you have any political motives?

TH: I wanted rather to communicate a sense of wonder; isn't it amazing, space... I was always fascinated by space in a way. When I was doing architecture that was my main interest, space. How you perceive space, and space-frames. The geodesic dome, Buckminster Fuller.

KD: He is pretty political isn't he?

TH: Yes, *How much does your house weigh?* Yes, he was.

KD: Can you say something about landscape.

TH: I wanted to make beautiful films about landscape without falling in the trap of the picturesque. There is nothing wrong with it, but you see a lot of nature footage; spiders on dewdrops, cobwebs and stuff like that. I was conscious of that seductive thing, and I was avoiding being seduced by that and looking at other things in other ways. Still being beautiful to look at, but not seductive in the same way. There is also a lot of cliché in there, to be avoided. I didn't want to use time-lapse either.

KD: It says something about the separation of nature and culture.

TH: Yes, following an ideal. I think it is good when you start a project what you don't want to be as much as what you do want it to be. I made a documentary on a farm. There are 15 seconds of talking head in it. A tiny bit of footage of somebody saying something on camera, and I didn't want to use any music. Because I hate the way music is used in documentaries. In fact I made a little bit of music later on for this documentary from the sound of somebody cutting trees with a chain saw, and I manipulated the chain saw sound so it came to the tune of *Old McDonald had a Farm*. It is good to know what you don't want as much as what you do want.

KD: Can you tell me something about the commercials?

TH: It was an interesting thing to do for me. It just happened. Some of the things I did caught the attention of some people who actually went to the Arts Council and asked if they had some interesting filmmakers who they could promote for doing commercial work. And there was Andrew Kötting, he is a good friend of mine. So that came along,

and my work came along. From my point of view, I was teaching filmmaking for years and years and I knew a lot about film, everything about the Bolex. I could teach film, the whole process inside out. It was early nineties and the digital thing was just coming. Video was completely changing. I knew nothing about that. So it was a fantastic education for me. I never directed a crew, and then suddenly being in a studio in Milan directing a commercial. That was an extraordinary experience, but a massive learning curve. I made an advert for a car, maybe I should not have been doing that (laughs). I was using my own rig.

KD: Nowadays an artist is expected to be an entrepreneur.

TH: How to make money out of your art, impossible! I realised really early on that I could not make money out of my art. So there was teaching, and then the commercial as well. I did not want to give up teaching and be a full time commercials director because I could see that you might not get a job for a year. Then someone offers you McDonalds, or something that you don't want to do and then you think: shall I turn that down or... I kind of need the money... You could find yourself in impossible situations. So I would take unpaid leave and shoot the commercial on the side. So I balanced it in that way really. I used it to learn a huge amount about production.

I do remember talking to John Smith about art practice and the commercial thing and he said that when he would do that kind of work it would corrupt his art practice. It would undermine the integrity. I also remember one production company I was working with who had bits and pieces of my work, and they said about John Smith's work that people could nick his ideas and use them more easily than they could use mine. That was the lucky aspect of it, that I was regarded as the expert of my own techniques. And they would let me do how I thought it would work best. But obviously they were ripped off as well, lots of music videos and so on doing the same thing.

KD: You made the switch to digital. Would you still use analogue film nowadays?

TH: I got a huge amount of camera equipment down there that I have not used for quite a while. I can't imagine using it now. I mean I could imagine using it, but how could I get the money to do anything? That option is gone. William does not shoot on film anymore, does he?

KD: Does digital offer something new?

TH: Well yes, it can do. Like the GoPro (shows a hand-drill with the GoPro action camera attached to it) I was not going to be able to do that with a Bolex. So obviously these little camera's if you are building rigs and you want to do crazy movements and things, having a camera like that is much easier then a film-camera. Just because it is so small and it is solid state, there are no mechanics. To experiment with it, it does not cost anything. If you are shooting on film, everything costs a lot.

Interview with *Loophole Cinema*: Bea Haut & Greg Pope, London, July 10, 2015.

With insertions written by Paul Rodgers, and a reaction by Ben Haymen, both send by email.

KD: Did the group emerge from an interest in multiple projection and live sound/music?

GP: It emerged much more from multiple projection, then live sound/music. That was a kind of addition.

BH: It did start with installation work.

GP: Yes, there was installation as well, so it's more from the visual side then from the sound side. There was a *Loophole Cinema* that was me and some of the people left over from the *Situation Cinema* in Brighton. That was much more installation and multiple projection.

BH: The audience travelled through it, they were the shadows, engaging with the projection.

GP: The first 'official' *Loophole* show was me, Ivan and this saxophone player that I knew from Reading, called Tim Hill. So I always wanted a sound element. That was kind of invented in my brain and I got Ivan to help me. That was a labyrinth of see through screens and super8 projection. A shadow screen already. And Tim playing saxophone. Very soon after that Bea came along. Before Ben Hayman joined, who was our sound person, we were making our own sound. The sound was an interlinked element.

PR: I was invited to join by Greg soon after Ben joined.

KD: On your performance list one of the first shows is described as 12 super8 and one 16mm projector.

GP: That is probably the show in Glasgow, for the *National Review of the Live Arts*. That was what I was talking about, when I phoned Ivan and asked him: can you come and help me. Because I knew he was good in putting things up.

BH: He was doing installation, he was a sculptor.

GP: He was used to squats and putting wires up in spaces. I, actually, in that time was pretty useless with practical matters. I needed a practical person. I knew the film side of things, but not the building. Ivan was really good at that.

KD: Was it rooted in a kind of punk esthetics?

BH: Not consciously, but we all came from that.

GP: It was part of us, but we did not say: this is going to be punk.

BH: But when you make that comment, I would say that is true, because that is how we grew up.

GP: When we are talking the influences of the time, we are talking 80's early 90's, then it was all this other down and dirty stuff going on. Like the *New Toys Waste Company*, they build a kind of cars and did parties with crazy machines.

BH: The rave scene was all about doing it yourself. Get a warehouse and make a party.

GP: *Throbbing Gristle* you had all kinds of industrial music going on. That all fed in. You don't think: this is good because... you grab a bit of that action.

BH: The things that were exciting.

PR: I was into *TG* [*Throbbing Gristle*], *23 Skidoo*, *Cab's*, & *Nurse With Wound*, also shooting a lot of super 8 films, also some video too.

KD: In the early performances you had the *Cacophony Room* and the *Shadow Maze*.

GP: The *Shadow Maze* that was from that first thing, and from *Situation Cinema*. With that group we did things with lots of Super8 loops. Super8 projectors were easy to get and cheap.

BH: And super8 films were easy to make, and it was pretty and colourful.

GP: It was easy to fill a space, we made a few of these things then and it carried through to the one in Glasgow.

BH: The first show that I was part of was the one at the London Filmmakers Co-op, we made that maze. We made a big scaffolding wall with all the noise.

GP: The *Cacophony Room*, very early on, we had this idea when we visited these industrial spaces; there is stuff around that needs liberating, stuff that nobody wanted. There are some fans up there, lets take the fans. In the *Cacophony Room* we had two huge industrial fans and two 16mm projectors. And then we figured how to put it all together, somehow we hang the fans so that they rotated. It was extremely dangerous, I wouldn't do it now. These huge fans just missed each other and could rotate freely and then outside of this, this blib-blab, almost flicker film loops on 16mm with the sound turned up, everything turned up. That was the *Cacophony Room*.

KD: Can you describe the sound?

BH: The blib-blabs, or was it just the white noise?

GP: It was kind of white noise.

BH: And the fans would go: GRRR GRRR GRRR

GP: The film was just using the internal speakers of the 16mm, hanging projectors.

KD: So people went actually in there?

GP: Underneath these really dangerous pieces of equipment. In this day and age I would never do that. Because it is just to crazy.

KD: Punk?

BH: Danger, exciting.

KD: Was there a direct link with the expanded cinema from the 70's, or did you reinvent it?

GP: We invented it, I didn't know much. I read about expanded cinema; Gene Youngblood's book about the American thing. But it had nothing to do with the English expanded scene. I knew people like Guy Sherwin and Malcolm le Grice from working at the Filmmakers Co-op, but they were not making any expanded cinema then, they were not showing it. They were making films to sell to Channel 4. They were making beautiful films, but it wasn't expanded in any way. I didn't know that they were even interested in expanded cinema at all. I knew that Malcolm had a history of making that kind of stuff.

BH: I was in sculpture and installation.

GP: For me the history goes back to *Situation Cinema* in Brighton. The way it happened, as I remember it is: a friend of ours suddenly had a space available, a theatre space above a pub in Brighton. He said; you started this group, you can have this space for 5 days. There was quite a lot of us, 15. We were thinking, we haven't made a film. I was thinking of normal film practice, you need a camera man, you can act in it, you can do this or whatever. Make a proper film and edit it. Suddenly we had this room, and what could we do? And we thought; how many projectors have we got? I got one, I got two, I got one. Suddenly we had 15 Super8 projectors. This is where the expanded thing comes from. I thought we invented a new thing. I did not know that it was all done before. We dump all the projectors in the space and had live music, because we knew musicians. And that was it, from there everything took off. So I would say, it's not connected, not to the English historical thing.

BH: But it was required to perform, rather than having a ready made film.

PR: Well, for me: I was from up North I'm from Yorkshire, I did the Punk thing back in the late 70s, Also looking out for other music like TG, also in the start of the 80's in Doncaster there was a film group, run by Peter Samson, he was making 16mm films and had money from the Art Council, to make them.

KD: (to BH) you came from sculpture and installation?

BH: From Goldsmith fine art. I knew Ivan, I was at college with Ivan. So Greg goes: Ivan help me, and Ivan goes Bee help me! I had been doing super8 installation, making shadow worlds inside of a dark room.

GP: Bee was doing textiles, so she actually knew how to sew. She could actually make a screen, which was really valuable, because suddenly we needed to fill bigger and bigger spaces.

BH: I only found out using film as installation right at the end of my fine arts course. My final work was a little dark room with a carpet and curtains and I showed films. So when I did this with you guys it was like, yeah! This is really the way to go. It was exactly where I needed to go. I was always a bit uncomfortable performing, but we all were.

GP: I wasn't because I am a natural exhibitionist.

BH: You were in a band, a musical band.

GP: I was doing theatre and bands, but these two artists were like... uh.

PR: Me and a mate were in a band called, *Sagittal Suture* at that time we had money from the group, to make a music video. There was a visual side to the group. We made films. I had a Standard 8 camera & projector, when we play live we projected the films also 35mm slides we made, I put dead fly into the glass side mounts and cut up film neg's and other things. When we made the video we hired all the equipment from a film group in Sheffield, also they had the editing equipment too, so we filmed from the train window the journey from Doncaster to Sheffield. This is when Thatcher was closing down all the steel works, the end of the industrial north of England and the coal pits too. Around the same time Peter Samson hired the film *Stalker* by Andrei Tarkovsky, a film about the zone. That film had a big influence on me. Also *Sagittal Suture* made music for one of Peter's, films. *A Classic St Leger* (1986), me and my mate we had bit parts in the film too.

KD: About the shadows: you wrote about Javanese shadow puppets as an inspiration, and I heard you talking about Christian Boltanski, and I have seen work by Tony Hill, which appears as a very direct inspiration?

GP: Didn't know Tony Hill. None of the English guys were in interest. Boltanski, definitely, that shadow stuff that he did with the ghosts.

PR: I had seen Tony Hill in Sheffield, in the 1980's he showed some films, and did his *Point Source* performance. Also the Nam June Paik show at the Hayward gallery, and Boltanski with Bee and Greg.

BH: We went to the show together, it was in the Whitechapel, you can go back to the year [1990]. We saw the show with the little shelves and the tiny wire figures.

GP: And the one that dances around. It was like a zoo-trope.

KD: Did you also see Wayang performances, or was that just from a picture?

GP: I read two books that started the whole *Loophole*, so changing gear from the *Situation* thing to *Loophole*. The books were *Marvelous Méliès* a fantastic book and the one that was about early cinema was *the Dream that Kicks*. That is a fantastic book by an English academic writer, film-writer. I can't remember his name but you can look him up [Michael Chanan]. Those two in conjunction sowed everything, the whole thing about the origins of cinema and back to Plato's cave, Javanese puppets, shadow puppets, this is a form of cinema.

BH: And you always said that one of your key things was *A Line Describing a Cone*. That solid light cone is so perfect.

KD: That is expanded cinema.

GP: I did not think of it as expanded cinema.

BH: As a sculpture. That was the point of it.

GP: I projected *A Line Describing a Cone* so many times when I was working as a projectionist at the *London Filmmakers Co-op*, but I was seeing it from the projection booth.

KD: That is kind of weird, was it projected from a projection booth?

GP: Yes it was, yeah. And everyone smoking, because there was no hazel. It was projected on a screen, like a film. So it was halfway everything. I loved the print because it was old. I did not know Anthony McCall was English, I just thought he was

an American. I did not know anything about him, just the name and that one film. I liked the print, because it was scratched, so you saw the scratches firing at the wall. As well as the drawing.

BH: There was quite a lot of white dust, like snow.

KD: Boltanski was more like a catalyst?

GP: Mixing up that figurative thing, figurative filming plus the very abstract stuff.

BH: Formal, sculptural. I know it only retrospectively, but for me there is a connection with architecture. Architecture is the space we live in, I am talking about the art of architecture. It used to be that painting, architecture and sculpture were the three fine arts. Concerning architecture; you build your house, you build yourself and your identity with the space around you, you work with it. I would not have been able to recognize that that was what I was interested in, but I now know that that architectural element, building space...

GP: With *Loophole* we were always looking for good spaces, it wasn't so that we did not want to go into cinemas or clean spaces, we were always looking for these industrial, secret spaces.

BH: You respond to these amazing spaces, and it was always a really creative process.

GP: Building your own little paradise in a way.

BH: I think architecture is really important, because it is the space that we see ourselves within. It reflects ourselves to ourselves. Maybe that is Plato's cave again. We become visible to ourselves by being within a space, and you know how far away you are from another person or a wall. If the ceiling is high, that is how you see yourself. For me, that is the importance of site-responsive work, with creativity responding to the site.

GP: Unlike our French compatriots [Metamkine] who could go into any theatrical space and make a work where ever in a room, and just needed a couple of hours to set up...

PR: Tony Hill came from architecture to make films.

KD: *Metamkine's* system projecting through a mirror, frees them from thinking about the space, they are like a band performing on a stage.

GP: We were very unlike that, I am much more like that now. With Loophole Cinema we needed 5 days in there to figure it out, to think about the space.

BH: To make interventions, cut it up, brake it down and then reveal it back to the audience.

KD: You mentioned pre-cinematic tools, but you also did use modern technology; live video feeds, sampling...

GP: Ivan influenced that a lot, modern technology, early computer stuff.

BH: Paul Rodgers was also really into that. He would say: look I just bought this surveillance camera.

GP: Little chip cameras.

BH: He was at Central St. Martins and he was always going into these shops in town buying weird video kit.

PR: I was a student at Central St Martins doing a BA in Fine Art Film/Video, the course was set up by Malcolm le Grice, but not by the time I got there the people that taught there William Raban,

Anna Thew, Tina Keane, Mark Nash, John Smith, Peter Cusack & Dave Parsons. I became a technician there a year after my time as a student so technology was my thing and it still is. I love taking things apart to rebuild in another way, but it still has to power up and work as it did before but in another way.

KD: You are actually saying that it is because of these different characters, that is why it mixed?

GP: Ivan was bringing in the early computer stuff, he jumped on that very early. We were using overhead projectors, because there weren't any video projectors at that time, so we had overhead projectors with this kind of laptop that had a transparent

surface when you took the lid off and you could put it on the overhead projectors. This was a way to project video. I was always pooing video because you couldn't project it. There wasn't any reason besides it wouldn't go BIG and fill a space. I was not interested in little boxes, monitors...

BH: We did not have any puritan ideas. We were very promiscuous. We could do anything.

GP: We did slide stuff, we did video stuff, early computer animation, I made on my 386 PC, little squares shifting around. We were no purists about film.

KD: Concerning performance, a lot of performance art has deep psychological implications, and it can be very dramatic. You did not seem to be interested in that, you were more like workers in a dream factory.

BH: We described ourselves as engineers.

GP: We had this phrase shadow engineers and shadow engine. In the end we invented our little theory that a show would be like as if the audience could be shrunk and walked around inside a 16mm projector with all the cogs and shadows and lights cast. Being inside rather than outside. We were the little engineers scurrying around, keeping the cogs turning.

BH: There was no acting. We had a lot of difficulty being placed, people would ask: what do you do? We said something like film, site specific performance. Then they would say: oh you are performance artists? NO!

KD: There was the joke about the *naked fish slapping*.

BH: Yes, we would say; we can always get the fish out, being naked with fish...

GP: That was performance with a capital P.

BH: We got programmed in a lot of performance festivals. But then there was live arts, suddenly it became live art. On the continent it was slightly different. They have *Son et Lumière* and circus. We were more circus, like the continental circus. But it did not seem to fit here. We were often at experimental music festivals.

GP: It is the same now, for what I do now. Some music festivals, some film festivals, some performance festivals, some media festivals, whatever that means.

KD: On Greg's website I found this quote: Exposure and the rejection of the mystery of image creation its industry and technologies. This actually is an expanded cinema strategy.

BH: That was a post-modernist strategy, it was like deconstructing. It was what we all have been learning at art school in the 80's. It was all about what do you learn about the material, the medium is the message. This was the theoretical speak of the 80's.

KD: My question literally is; why did you reject the mystery of image creation.

GP: You don't reject it, but you make it an open secret. It just happens naturally anyway, so you say: here look, I am scratching this film or whatever.

BH: Suspension of disbelieve. Like puppet theatre; you can see me here doing a puppet, but you can still be drawn and charmed by the magic of the puppet, even if you can see me moving it.

GP: There does not have to be the mystery of: fuck what is going on, but it creates its own mystery.

KD: It was important to show how you were doing it?

GP: Always, yes.

KD: Why was that important?

BH: Because we like to object things.

GP: Because we rejected making an obscure thing.

PR: Our bodies were just other shadow object.

BH: We were also anti romance, it was a punk thing again. We did not like story telling, anti narrative. We were also quite shy people in a profound way, we were not ready to say: I am going to tell you how I feel. We hid behind this: we object! Ivan was maybe the shyest. There was an interesting defensive thing in there.

GP: There is the big bad art world that knows everything, and you are newcomers and we thought: oh fuck of, we just do it like this. What was happening at that time in the experimental film was Anna Thew, very lyrical films, Derek Jarman, Romantic Aesthetics, loads of lap-dissolves. Stuff fading, people dressed up in weird costumes, dancing erratically around. We were like: pfff we are not that! John Mayburry, there was all that. Paul was actually connected to that kind of scene. He knew these people, Franko B this performance artist, Saint John who made these videos. He was very much into this video technology. It was that sort of time.

PR: Yes, I was into video technology, but still into super8 and 16mm. I also helped Franko B, I did some filming for him and with Saint I was in some of the videos he was making back then. Saint did some of the *Cabaret Voltaire* videos, with the *Cab's* which were from Sheffield that's where Saint did art school, I tried to get in to the art school there two years running but didn't get in they didn't like the look of me I think, but that second year I applied for St Martin's and got in, FUCK Sheffield art school, St Martin's and London and Loophole, change my life, maybe that's a working class thing, I know art school not of that world.

BH: We defined ourselves away from that.

GP: We presented ourselves as hard-edged.

KD: About the industrial spaces, was that a choice, or were these spaces available?

BH: They were available.

GP: But it was a choice. Very much so. From the first thing we did in Glasgow, my friend Steve Slater who had been in *Situation Cinema* he got into arts administration, he moved from Brighton to Glasgow and got a job and he asked us to come up and do something, that is how we got the gig. He invited me on a blind and I admire him for that. He just took a chance that it will be alright. He said: we got this space, you are not in the main arts centre. What was then called *The Third Eye* a left over hippie title from

the 70's. He said: I have got this very dark space this industrial basement in Renfrew Street down the road. And we loved that so much, and we thought that performance was quite successful and our first thing. So from that moment onwards we thought: this is us, we fit in these industrial spaces. It had a lot to do with the architecture, like we said before. If the audience did not know the space we were happy, because then it was like a journey of discovery for the audience. A procession, a journey of discovery.

BH: We often got commissioned because somebody would have seen a show. And they would come up and say, bloody hell that was great. I've got this building, it would be brilliant to get you into this building.

KD: So it worked from two sides, you liked it and wanted it, and people saw it.

BH: Yes, like: oh wow they could do this in the rock climbing tower...

GP: Or even *Glockner* in Germany. Ralph [Sausmikat] came and saw us somewhere in London I suppose, I don't quite remember. And then he was like: oh I got this space for you for you for next year, this industrial space. Here are the keys to the warehouses, three huge warehouses. Yeah, great!

KD: Interesting, you just said procession, seems like a contradiction with industrial space.

GP: When you cut it up, with screens and you reveal certain sections. People don't know. What the audience has is like a door in an industrial factory wall. They have never been inside that space. We have spend 5 days figuring it out completely. Chopping it up, having these screens, so we can open it up as well. Close it and then open it. So they come in and it puts them into a complete state of bamboozlement, confusion. they don't know how big or small the space is. They just see a door in a wall and they don't know. That is what we love, that is our little trick. Our little hidden, magic trick if you want. It was all about the space, a lot of it was about the space.

BH: You can say it was duration, if you take everybody into a space and it is already open then it just becomes an installation. But when you turn it into a film, into duration where you travel through it then you come into different landscapes. You change the landscape for people.

GP: It is also like an economic thing, because some of it was like: I can't afford to make a 40 minute film but I can make a few 3 or 1 minute loops so I got them around and bring people through so that you use up the time. Its fragments everything, so it is not like a narrative.

BH: I was thinking about the red rose gig where we had that hospital screen that we found. It was a *London Musicians Co-op* gig. It was a normal stage and we did not have any time to change it, so we decided to take this really awful operating theatre screen and we did this tongue in cheek levitation shadow show with lots of dramatic music. During that show it took a strong turn, performing with shadows. There was so much that you could achieve, the fluidity of having torches.

GP: When we went from hanging lamps and plugging things in and out... we just found our own technology, suddenly we discovered the mag-light.

PR: I made some hand held objects out of loops/lenses that I had taken out of old theater lamps,

with some perforated metal, within a cylinder, I used some of the objects in the poster for the *International Symposium of Shadows* and booklet.

BH: Paul came up with it.

GP: Paul Rodgers; fuck these lights, I have got a 5 cell mag-light, six foot long.

BH: Mine is bigger then yours mate.

PR: Mine was bigger because it had to be, I use it to make a, 4 screen video / sound work.

The mag-light was use to film on super8 and 16mm. In the Paris catacomb's, the work was *Below the Surface*.

GP: These were brilliant, because you can focus them. Metamkine still uses mag-lights and they got that from us. That is great.

BH: Each space provoked dialogue and response and threw us some challenges. Let's try this, you would find a new way, or try something out, introduce a new piece of technology that somebody had come across. Often there was a development, and we

would say that was really weird how well that worked. Then we would develop it and it would become bigger. So it would keep changing.

KD: Film is related to scale, you can project something small very big.

GP: That goes back to *Situation Cinema*. I always loved the Super8 image, this minute image, projected. So you could be in a 50 meter space, with one projector. If you would try to make a painting or a solid object to occupy that space it would need to be huge to sit in that space. But this tiny little thing suddenly becomes this magnificent big thing. So that is the whole scale thing I always loved about film. Maybe that goes back to *Line Describing a Cone* as well. Just exactly this kind of sculpture.

KD: It is not only about the screen but about the space between the projector and the screen as well.

GP: The space in-between, absolutely. I think we were all on that in *Loophole*. It was always about filling that space.

BH: Yeah. Claiming it, making it present. Not hiding the projection. But that relationship between the projector and the image and the space in-between and the audience and the projectionist and the engineers. That this was all present.

GP: Shadow engineers that would be all of us who were manipulating either projectors, the sound, the screens, the shadows, whatever we were doing.

KD: You defined yourselves not as performers but as workers.

GP: Industrial workers and this is our factory and now we are going to make you a show in our factory.

KD: What about the *Propaganda Beacons*?

GP: The *Propaganda Beacons* that was me and Ivan. What happened that the Filmmakers Co-op used to do the experimental section of the London Film Festival happening down at the NFI [National Film Institute], at Camden at the Filmmakers Coop. They curated it. The programmer asked us to do a piece downstairs underneath the Filmmakers Co-op. It was an old laundry, another great derelict space and I was

thinking OK lets do a kind of installation because it was on for a week or something. And I was thinking it would be nice to make a kind of projector, something that projects light and sound in synchronisation but is not film. So I just started from: what isn't. How could you do that, how could you project image and sound without using a projector or film. And somewhere I saw a picture of one of those Philips portable record players, dance-sets or whatever you call them. I thought when you just played the record, that is the sound, and when something is turning and then when something is turning on the record like a cylinder with holes cut in it and a light in the middle, projecting, that is the image and they are in synchronization with each other. The name comes from the Russian constructivists that I was really into at the time. I thought when we can imagine making these machines with the dance-sets and cylinders and stuff and I am going to imagine in my head that they are hundred scale. So that we make them, but they are just a maquette for something hundred times bigger that would be outside. Across the city, these huge machines making this sound and that they would be hundred scale speed so that these would go a hundred times slower then they were going. So they were incredibly huge, slow moving monolithic sculptures. That was what I was thinking of with the *Propaganda Beacons*. That was going on in my head but did not really need explaining to anyone who came to see them. Ivan was really great with those, he took this kind of detritus from a squatted studio he had, which where a kind of cloth hangers, metal parts. And also, we had been skip surfing, we used to do that all the time, pull things out skips and we had loads of industrial windows, glass panels. He knew how to weld, he learned that at Goldsmith.

BH: And Rick had welding.

GP: So we built these beautiful ugly frames so that was a really good collaborative piece between me and Ivan. I had the idea, and this constructivist, a bit like *Tatlin's Tower* that moved and Ivan said, we should cut holes in the backs of the lids and put grills in there so that it captures the lights of these. So it all turned out a bit like a William Burroughs *Dream Machine*. But I wasn't thinking of that. It was mesmerizing, because what happened that we just picked random records from a junk-shop, everything was done for nothing, we started with putting the needle on the outside of the record, but then we were playing them and the needle came to the cylinder and it would just repeat one track of sound.

BH: random

GP: It became this hypnotic thing, beyond our expectations it worked really well. I hang the glass panels in front. This really dangerous thing that people walked into in complete darkness with exposed edges of glass. That was the *Propaganda Beacons* and the name came from Eisenstein, the filmmaker. He had this phrase: my films are a propaganda machine for the revolution. And I thought these are like a propaganda... beacon, shiny beacon for dada, for junk.

BH: For not film.

GP: So that is how these came about, sculptures. We remade them when we went to Birmingham in a much lighter form but they were never as good.

BH: The scratch dance-set, I remember doing that with lovely bits of concrete, sitting on the record. They wrecked the needle with stuff on the record.

GP: Oh yeah, the technology, the whole strategies and technology were straight incorporated into the live events.

PR: The *Propaganda Beacons*, was the time I met Greg and Ivan, I had the use of a Hi8 video camera so Greg asked me if would shoot some video for him so I did and edited a short video for them.

KD: Concerning the spaces, were you mainly constructive or did you also break walls and ceilings and drill holes.

GP: Yes, sometimes. Paul was really good at that. He loved to drill and have big macho pieces of equipment and get through walls and stuff. The crest, the peak of that was the Birmingham thing. That was in the tower-block, *Fine Rats*. We occupied one flat, it had five rooms in a row and these rooms were separated by very thin breeze block walls, Gerry build in the 70's really dodgy, horrible. We thought, what we can do is, the audience can be in the central chamber and then when we knock down the walls to the two outer chambers, waist high they can look through to the other side of the walls. We are in the very outside two chambers drilling through with very strong lights behind us, and that creates an image, the dust, it is a bit like *Line Describing a Cone* pure punky.

BH: Concrete brick dust.

GP: Horrible dust, makes me cough just to think of it. We were with sledge hammers and drills going through from the two sides, that made a hell of a racket and a mess, but what was really good about that gig was that some of the people who actually lived in that flat were looking at the performance, and afterwards came up to us and said, I have been wanting to do that for years, and years. Just knock everything out. Smash it up.

Paul: Ivan I think had one the old *Propaganda Beacons* record players with us with the record with *I've Got a Lovely Bunch of Coconuts*, on it playing speaker system, full volume, as we were breaking down the walls.

KD: You also used elements like fire and wind, how did that became part of the performance?

BH: They were just other elements like screens and projectors. Fire was really good because it made smoke and you could project into it. They were things like that, extensions. Elements or materials that you could work with.

GP: Once we discovered fire, it was really nice with the smoke and the projection. We used it on quite a few occasions when we had an outside space, not inside. This was another strong influence from Paul with his fireworks.

BH: and flares.

GP: Yes flares from ships, this came from Paul and *Bow Gamelan Ensemble* used that kind of technology, so we under influence from all of that. Also *Welfare State* and other companies who did these big performances, so we were pulling things in that we could grab.

PR: I had been to the première screening of Derek Jarman's film *The Last of England*. Lot's of flares are used in the film.

KD: Was there a desire to merge the industrial with the natural?

GP: We often thought about industrial nature.

BH: Like the industrial forest, that was a fantasy that never came. But natural, what is that? In terms of our site specific, the way we worked, working with the environment, is that natural? We were mostly in cities.

KD: Fire quickly becomes something primitive.

GP: That goes back to the pre-cinema, Plato's cave, to my mind it is more like that, urban rather than nature.

BH: Yeah, we never thought of nature.

KD: The sound was sometime more musical and sometimes more direction sound-art. Was there a decision about that?

GP: Sometimes we had singers.

BH: In the early days we had quite a lot of different people who would come in for different reason. When it was really big we would try to get more engineers, mixing in. So again like elements that you could mix in.

GP: And then we had Ben, who was brilliant. He had a sampler and was recording natural sounds and put them in samples. That was all beyond me at the time.

BH: He was genius, he worked with an Icelandic voice artist and Andy Diagram, who was raga. He was quite good in working with other people. Again it was like mixing in another element. We met this woman the other day, she did this amazing voice thing. Maybe we could get her.

GP: It was more chance than having a strategy. We had our core and then when someone had an interesting friend who could add to it, than why not.

KD: Then you did the *International Symposium of Shadows* an expansion in size and it succeeded brilliantly, but after that the group stopped performing.

GP: We did a couple of things after, but yes the *ISS* was exhausting.

BH: I think it sort of killed us of pretty much yes.

GP: Groups don't last forever anyway, apart from *Metamkine* (laughs). People go in other directions. It sort of drifted of, people had jobs, people had babies, people moved countries, people got into try to become millionaires. Whatever, you know. The energy dissipated, we did a couple of things after, but it was harder and harder to hold it together, when there was someone saying, no I can't do that I have a conference in Vancouver.

BH: I remember we got the feeling that we got very very proficient. We were really good in what we did, and in a way. That gave us the feeling... and Paul left.

GP: Ivan and Ben became very busy with their computer stuff.

BH: Then there was just the three of us and he gigs had to become a bit more neat and tidy in a way that they were still manageable and then we thought, god we have done such amazing things. Will we just keep on doing this? You need all kind of new things to give you a new challenge, make new discoveries. Perhaps we had run an arch.

KD: Does the time with Loophole Cinema inform your present practice?

GP: Yes of course, in ways we probably don't even realize. Everything that one has done in the past informs what I am doing now.

BH: Yes, absolutely. I think it brought me in a performative kind of mode. That maybe I did not have before. The whole understanding that film and projection performs. The living, the breath and the live. The event and the performance space. That is what I learned from Greg and *Loophole*. That is still present, even that I don't perform anymore. It is in my films and sculptures.

GP: I don't know. *Metamkine* we mentioned. It was all cross-referencing. It is already so long ago. Maybe Vicky Smith, she kind of... but you have to ask her.

PR: For me Loophole Cinema will inform the work I do now and *Metamkine* I still show students here in Oz, the films from the groups I worked with in the past.

"Those who do not remember the past are condemned to repeat it". George Santayana.

So long as done in another way.

Reaction / Addition from Ben Hayman per email July 20

Loophole had three phases based on how well we formed as a collaboration. It's all down to the people, our confidence and how we worked out how to work as a unit.

Forming - First we didn't function as a unit at all. We were a collection of individuals. Some stronger than others and a lot of uncertainty. No shared language between us. What we delivered was a loosely assembled combination of inputs and it showed. Greg and Ivan had a "thing" that meant any of the stuff they did on their own / mostly on their own worked in a joined up way - but the bigger performance stuff involving me, Bea, Ruth and later Paul didn't work nearly so well.

Being - Then we started to discover a language for our collaboration. This happened through fighting, arguing, laughing and accepting what we all brought to it. This group was at it's core Greg, Paul, Bea and I but Gavin was a huge part in supporting us as well and really the 5'th member. We didn't really acknowledge the language or approach much. Sometimes we'd stand silently in a new space looking away from each other for ages then turn and laugh as thats what we always did before we suggested any ideas to each other.

Exploring - Then we used the language and unspoken standard approach to do whatever gigs we could and started to explore tools and reusable symbols. This involved imagery that became our vocabulary, the words in our oddly told stories. These things were fans under strobes, pre shot film of lens manipulations, hands and eyes of us as a group and the ways we hung and moved projectors, screens and lecterns in spaces for shows. We jumped to digital at the end of this process with live feeds and prerecorded digital material being added.

Without us creating our collaborative language, an agreed but almost unacknowledged way of communicating then we would have not made anything of any real merit.

I always think our best work was made from the space we were showing/performing it. The shadows we engineered were from the shape, sound and past of those spaces. When I made sounds they were generally from that space, recorded as part of setup then looped stretched and overlaid with others. Some of the sounds carried over from one location and show to another. Some echo'd on for years into most of the events.

There is also a thing about primacy of our senses. At first as I say it was an assembly of stuff based on fact we were not a team, we had no joint language or understanding. When we developed a language (and some trust in each other as a team) it was a fusion of physical, imagery and sonic senses. Once we got that balance our work got better. The sounds could carry the emotions and bridge the joins in how we handled the imagery/physical changes in the events and bind things together rather than fight against it. I tried collaborating with some musicians from other expanded cinema backgrounds and discovered that thats not how most other sound artists worked - they were still in the First stage of maturity - it was a fight to be heard, a fight for primacy.

There were several formative / milestone gigs I think;

Birmingham tower blocks - could we survive doing something at some scale when we had not been together long

The ICA - could we survive the expectations and location and brand of London Art elitism

Klokner - could we deliver on the dream location we had always asked for (our bluff was called)

Bridewell - could we bring our more mature, confident Loophole language into a conventional space again and have it work

ISS - could we ignore our own work and assemble something that worked at the last minute as well as curate

Some words that relate to my view of loophole;

abandon

repetition

ego

collective

fragmented

passion

echo

friction
mediated improvisation
afterwards
outsider
courage
scared
synchronisation
out of phase
buzzing
eskimos dancing
angel storms
dogs
fan loop

Interview by email with Chris Welsby, 23 January 2016.

KD: Is it correct to say that your work started as a formal investigation towards the relation between nature and the moving image and that during the further development of the work ethical questions about the relation between humans and nature became more and more apparent?

CW: I have said this on a number of occasions and I think it may be true. However, we are talking about what a twenty something year old thought almost half a century ago. Also it is likely that I knew a lot more than I thought I knew! When Peter Wollen wrote that first essay on my work I was astounded. I knew exactly what he was talking about but the knowledge had been part of one large rumbling mass of ideas and feelings. Peter's essay simply order the muddle for me. That is when art criticism really works!

Sometimes I think that this is what art does: It makes us aware of things we already know but don't know we know.

KD: Can you describe how this process took place, was it during the making of *Sky Light* that the ethical component became more expressed?

CW: I think I answered this question above but yes to some extent *Sky Light* was a turning point for me. I had just become a father. I guess just grew up! I realized how angry I was about the state of the world and the ridiculous posturing of the powers that be. When I first started making films the environmental movement had hardly begun. Remember that *Silent Spring* was first published in 1968 only a few years before I shot *Wind Vane*. It took a while for the movement to register in the mass psyche and a bit longer for me to make the connections!

KD: Meanwhile, the formal investigation in your work has also progressed further. This appears to me to have similarities with scientific investigation. In the arts a rigid formal questioning seems to be a way forward towards a better (reflexive) understanding of our observation of the world that surrounds us. A major difference between science and arts is in my opinion that artistic research can produce results without pre-conception. In other words, art produces different knowledge than science. Where science conceptualises the world while observing it, in the arts the researcher can postpone

conceptualisation. Do you think my description of this process is accurate and does this apply to your work as an artist?

CW: You make an interesting distinction between science and art. I am not sure about this, but you are of course right Einstein had a pretty clear conception of what would happen if you tried this $E=MC^2$ and he was right! However the theory of relativity, astounding though it is, was as we now know, deeply flawed and only a partial view of the sub atomic world. Einstein was very skeptical of the findings of quantum mechanics. So I guess that even his pre-conceptions were muddled.

Personally I suspect that scientists and artists are closer than either camp believes.

I don't believe that science proves anything. It's not really their job . They just muddle through with a bunch of more or less useful hypothesis and from time to time they come up with some sort of representation which is either useful or changes our understanding of the world. Is what we do so very dissimilar?

After all we both set out to find different ways of understanding the world. We bring what we discover back in the form of a representation. However as Wittgenstein pointed out "the map is not the territory" Kant said something similar. But the map is crucial and in the end it is the combination of all our "maps" which manifest themselves in our lives and the way in which we view ourselves in relation to the world. The world as such is only made manifest through these maps. Here is a quote for you:

Merleau-Ponty on Cézanne "it is Cezanne's genius that when the overall composition of the picture is seen globally, perspectival distortions are no longer visible in their own right but rather contribute, as they do in natural vision, to impression of an emerging order, an object in the act of appearing, organizing itself before our eyes."

Would it be true to say that: we exist in this world through our conceptualizations not only of what the world is but of what it might mean to be human at this point in history and to exist WITHIN it. This will of course change considerably over time and both scientists and artists will contribute to that changing picture. As a representation therefor it is constantly interacting with the world and the scientists are part of the performance. The representations are a by-product of this performative process. Representation is therefore always partial, subjective and subject to modification.

You are right though in saying the scientists and artists have different ways of constructing their respective maps.

These are all very important questions and I don't really know the answers. I can only tell you what I do know, or think I know, and I look forward to hearing your responses to my answers.

KD: In the period that you started making films, structural materialism was a leading theory. Today many artists refer to the materiality of film, but they do this from a very different perspective. Either from a nostalgic love for the cinematographic image, a desire to work in a more tactile way (as opposed to digital video), or from a desire to work independently from industry standards. Personally I am not negative about any of these deliberations. Still, I want to take a further step and take into consideration the place of materials (film, digital tools) in our ecology and the possible harmful or beneficial effects of making certain choices. In the light of these thoughts can you describe how you make your choices for materials and tools?

CW: This is a huge question! I have written many many times about this. Sorry but please may I refer you to my writings on this subject

<https://sfu.academia.edu/httpwwwsfucawelsbyIntrohtm>

KD: In your work you have often used aeolian forces. Can you describe how this has progressed through the years, and if your investigation has led you to new insights?

CW: I don't think I can answer this question. I don't think I make work in order to have new insights. Generally the insight comes first and the work grows out of that.

KD: Similarly, you have used tidal forces. Maybe the tides are more constant than the wind, as the forces of the wind are subject to climate change. From your experience, is that correct and is there more to say about these different forces and how you have related to these over a prolonged period of time?

CW: I suspect that everything will be effected by climate change. I have simply tried to find ways in which the simple technology of image making – frames sprocket holes, shutter, emulsion, sample rate, bit rate, compression etc can interact with observable

events in nature. The question of how technology as a whole might find ways to do this is of paramount importance if our species is to survive.

KD: You have mostly shot your moving images in outside situations that can be described as beautiful. Could you imagine shooting in a horrifying landscape, for example a place where tar-sands are being mined?

CW: I often get asked this question.

Nature is beautiful. Isn't that the point? Otherwise why bother saving it? Just concrete it over ! The real question is how are we to interact with it and what is our position within it? I am not interested in showing what a mess we have made. I think that main-stream media, docs and so on already do a great job of this.

But It's simply not enough to show the mess we are making. (Political economical and environmental mess). If this strategy worked there would have been some serious changes by now! I am more interested in contributing (if only the slightest bit) towards a massive shift in consciousness away from reductionism, dualisms and control of nature towards an ontology based on collaboration and interaction with nature. Without this ontological shift there is little we can do to change the situation.

"Save the Planet" This makes me laugh! How typically arrogant and humanist this slogan is! Surely the planet will be fine once we are gone it's the people on it that need saving! Sorry about the rant.

KD: Your work has been associated with expanded cinema. Expanded cinema is often described as an art-form that aims to activate the audience. How would you describe the (desired) relation that the audience has (or could have) with your work?

CW: I suspect that all cinema is designed to activate the audience. The question is in what way? Mainstream cinema activates the nervous system and stimulates basic animal reflexes and involves some brain power to follow the plot. It is very good at doing this. Expanded cinema and structural film both invite the viewer to be more conscious, more aware of what is happening in their immediate surroundings, rather than being in a passive state, aware only of what is happening on the other side of the screen, with motor functions running amok! In expanded cinema the projection event is the story: the projector is in the room and not hidden away in a sound proof box. The

film-makers are present, sometimes they are the performers but, unlike actors, they don't usually pretend to be someone else. I regard my installations as being expanded cinema but Dave Curtis et al refuse to accept this. Suffice to say that I have some issues with the current understanding about what constitutes expanded cinema. By which I mean the theories derived from Filmaktion's work in particular. As I understand it their notion of the performative is that a human performer must be present. I say the wind and weather is a valid performer (post Humanist that I am!). The projectors are also performers. They run in and out of sync. The chance of getting a row of images the same twice is like playing a one arm bandit gambling machine. So the image over all is never the same twice. Has no one heard of John Cage and Robert Smithson? There is also the question of finite duration. I say that all human duration is finite. I should add that I am a total admirer of Filmaktion's achievement. That is not the issue and I stubbornly insist that I am correct.

KD: In my own research I am referring to the post-human, in a bid to describe thinking that tries to go beyond the human, decentralizing ourselves. Do you have any affinity with the term?

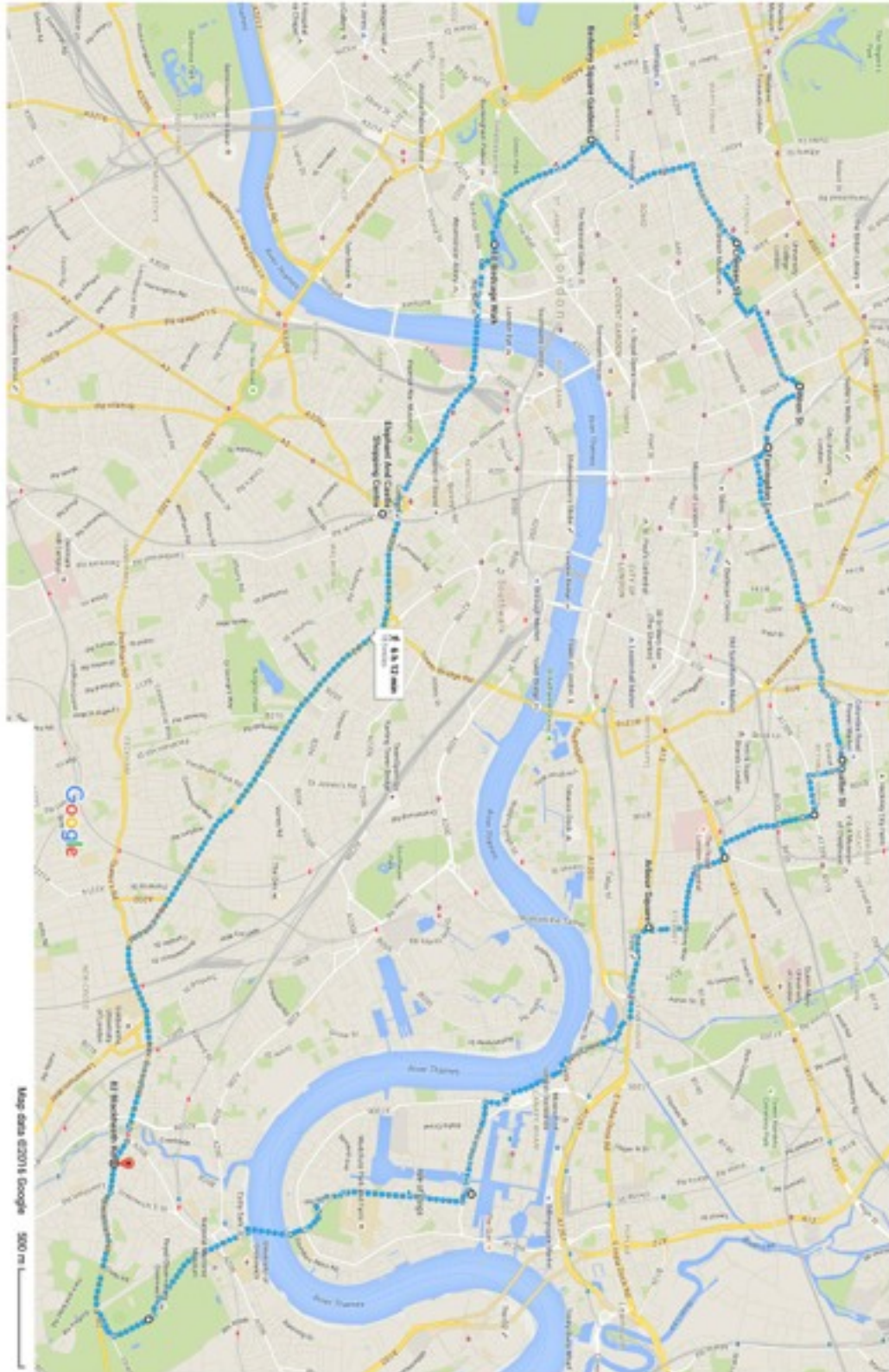
CW: Indeed I do! But like Donna Haraway I am very concerned to distance myself from the Trans Human camp which, just smacks of more human suprematism. I find the whole Artificial Intelligence thing to be deeply disturbing and very sick. Trans-humanism seems to me to be a very sinister manifestation of super race building and we have seen all that before!

Having said that post humanism itself , as in Bateson, Maturana and Haraway, Pickering and so on, has been a really strong influence for me.

The idea put forward in the Santiago Theory that consciousness is a complex form of cognition and that cognition is present in all animate organisms, and therefore in the process of evolution itself, is a wonderful relief after so many centuries dominated by human suprematism, and the dualisms of the Enlightenment.

Incidentally : I don't have the reference but I think it was Maturana who likens consciousness to the cinema. There are dog cinemas, snake cinemas, human cinemas bug cinemas because we all see the world differently. The more aware one is of the projection the higher the level of consciousness. As a structural film-maker this of course makes perfect sense!

Route map for *London Plane* (2016) Karel Doing



This route was improvised by spotting Plane Trees and using my sense of direction, while aiming to complete a loop in a set amount of time.

Vimeo links and passwords:

Pattern/Chaos

<https://vimeo.com/141660945>

Signal15

Wilderness Series

<https://vimeo.com/162811073>

Cognition

London Plane

<https://vimeo.com/202524377>

Acerifolia

Creek Road Bridge

<https://vimeo.com/202605397>

Deptford

Monumental Errors

<https://vimeo.com/202377854>

thegreatandthegood

