Southern Outfall: sensible ways in evolving installation

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ABSTRACT

This is an exploration in evolving site-specific installation through development of an artistic ecology as field-artist within the Victorian sewage pumping station at Crossness.

Methodology is entwined in written discourse and artwork which together form a process for unfolding event rather than planned journey towards a known point of arrival. Frame is established through positioning as artist-volunteer with the Crossness Engines Trust. The site carries rich relation to changing technologies and the inevitable redundancies that come through scientific advance. Context is further explored through the sewerage system as extension of biological gut transit, and in the goings-on of a slightly ramshackle voluntary organisation.

Artistic activity is considered through the maintenance art of Mierle Laderman Ukeles, the positioning of artists with the Artists Placement Group and it's evolved forms, and in the relative siting of *Longplayer*.

Drawing on concepts of process philosophy through Alfred North Whitehead, and a machinating of thought traced through a host of other thinkers, results in a form of understanding that follows collective effort. Michel Serres' *Five Senses* underpins exploration of sensory engagement that continues through Whitehead via Isabelle Stengers, in recognition that common sense has given way to the authority of specialist knowledge. Stengers proposes recovery to an encompassing commonality of sense.

This journey is one of encounter with a range of organisms leading to modes that encompass multiplicity of being rather than singularity of self, in concepts that see all things as parts of ecologies rather than existing in separation. A range of disciplines are engaged - from eastern philosophies through theoretical physics to the unknowingness of art practice.

Crossness shifts from being instigator to conduit for this journey. The knowledge exists in the form of the part-works made on the way, and the event-installations that will briefly exist in the old sewage pumping station.

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INTRO

In the preface to *Meeting the Universe Halfway* Karen Barad acknowledges everyone and everything that supported the way to her book where 'the practice of writing is an iterative and mutually constitutive working out, and reworking' (Barad, 2007, p.x). And so this approach is echoed here where the list of thanks is part of the work and is by no means exhaustive as it becomes tricky to discern just where one being begins and another one ends. The extent of processual encounters that lead to the evolving work go beyond possibility of defined mention in affect upon this journey.

The old sewage pumping station at Crossness becomes location through which all aspects of journey are woven. It is in exploration of the place, through the apparent layers of architectural and historical richness that implicit meanings begin to unfold. Cutting edge technologies were constructed here at time of local environmental crisis in Victorian London when all sewage and wastewater went straight into the Thames through open sewers, provoking the Great Stink. Crossness became the first operational sewage pumping station at the end of the complex of conduits that wormed across south London to the Southern Outfall. Yet this is no historical report, these concerns exist in the work of others, although historical elements are drawn on and used throughout, entwined with current activity of a voluntary organisation that is the Crossness Engines Trust. Interest initiates through the:

Beam engines as once cutting-edge technologies.
Historic response to local environmental crisis.
Functioning of a voluntary organisation.
Village that once existed here – a historic community.
Community of people here now.
Sewage system as extension of the human gut.
Redundancy of technologies.
Entropy and processes of restoration and reconstruction.
Processes of oiling a beam engine.
Aesthetic detail of architecture and engineering that reaches far beyond the bounds of functionality.
Sensible qualities of acoustics, smells, and dizzying scale.

Connection along the Thames path to the University of Greenwich, the Brunel Museum and the old and new industry in between.
Multiple perspectives in history.
Multiple perspectives now.
Banter, tea-drinking and eating of cake.

All become conduits for installation and discourse.

My position as artist-in-the-field is established through becoming artist-volunteer with the Engines Trust, where function is not to observe, analyse or critique from without, rather to get fully involved and be part of things, uncoiling understanding from within. The role of prior artists and artworks that exist 'in the field' will be explored with evaluation of the terms used to describe such artistic positioning.

We shall encounter Mierle Laderman Ukeles' residency with the New York Sanitation Department, and the now historical placement of artists in industry through the Artists Placement Group, and the iterations that followed in Organisation + Imagination and the Incidental Unit (that still operates today). The use of another relative industrial heritage site on the Thames as location for expansive artwork is explored in *Longplayer,* a durational composition set to play for a thousand years.

Having established this ground thought will turn to the sewerage system as constructed extension of the human gut in exploring multiple ways of thinking through organismal definitions and bounds. In these travels we shall encounter organisms, super-organisms, extended-organisms, the more-than-human, symbionts and holobionts – leading to a mode of thought that encompasses multiplicity of being rather than singularity in sense of self, concepts that see all things as parts of bigger ecologies rather than existing in separation. It is in arriving at Gaia hypotheses that we comprehend our planetary function as a large organic system, yet the positioning of human perspective remains problematic here in name. So we reach an organismic mingling through 'Biogea' where all matter can be considered as organic and evolving rather than through separations that divide the human from animal, animate and inanimate. This understanding suffuses development of installation at Crossness for it is through a processing of territory that has been explored by others and through feedback into my artistic methodology that forms new

knowledge. Finding sympathetic ways to be in and comprehend ourselves in our environment, in a manner that is not about domination, is of pressing concern.

Organic exploration becomes one of encounter with the philosophy of organism found in the work of Alfred North Whitehead, also known as process philosophy. In a brief unfurl of some basic concepts we shall come to understand a position in which everything is formed through encounter and occasions of experience – where activity becomes the root of everything through scales of event. We shall find strands of thought that resonate with this through the work of John Latham and in the evolving work at Crossness where artistic encounters shall exist briefly, in human terms, within finite timeframes as event-installations.

Through the concepts of process philosophy found in Whitehead comes a machinating of thought traced through a host of other thinkers resulting in a form of understanding that follows collective effort. Isabelle Stengers is a key figure in contemporary interpretation of Whitehead's philosophy of organism. We shall discover through her, and the writing of others, an understanding that is not derived from singular endeavour, rather through collective machinations which lead to a form of common sense.

It is in the development of institutional and objective knowledges that we find a denial of sensory and bodily encounter as valid modes of understanding. This refutation of common sense is found in the bifurcation of nature brought about in Cartesian duality where the separation of mind and body generates schisms that impact realms of objective scientific fact that exist far from the knowledge generated by sensations of direct experience.

Leading from Michel Serres' *Five Senses* comes exploration of sensory engagement that continues through Whitehead via Stengers, that explores where common sense has given way to the authority of specialist knowledge. Stengers proposes recovery to a commonality of sense that encompasses subjective and objective positions, where values can meet, merge and be held in tandem in a form of reconciliation. Artistic underpinning will be reflected in modes of sensible encounter through multi-modal artworks.

Sensory engagement in practice will be explored through tai-chi chuan, an internal martial art that is rooted in Daoist philosophy. Eastern philosophies meet western thinking in tai chi and the movement of energy within the body, as reflected in quantum physics where everything is

understood in energetic terms rather than as substantial matter. We will oscillate from notions of uncertainty in contemporary physics to that of contemporary art practices where modes of encounter and intuitive understanding are based on complex sensory processing that leads to an evolving of work rather than planning by design. The book *On Not Knowing – How Artists Think* becomes a key text in understanding uncertain approaches that resonate across many practices.

Following from this comes some specificity on my own approach to practice with details of works generated so far on the way to Crossness. These 'partworks' exist as separate entities but inform the journey to generating larger event-installation at Crossness. Discourse and installations are not developed in isolation but co-evolve through crossing modes of processing and understanding in a reciprocity of exchange. This approach to practice rests on much that exists implicitly within the work, leaving space for encounter to unfold and be made through meanings that are specific to audience subjective experience. My interest lies in the possibility of a slow unfold in encounter with work, rather than unpacking and getting things quickly, at the time, then forgetting and moving on. Some of the main aspects will be touched upon in the final sections with elements relative to the continued unfolding of work and of the partworks already made, but in main the connections will manifest directly, implicitly and explicitly, through the stuff of event-installation.

Methodologies cohere through the generation of written discourse and artwork, which together form a process of unfolding event rather than planned travel towards a known point of arrival. The ways of producing work are very specific though not at all formulaic in an evolving approach that requires deeply sustained engagement and much decision making on the way. This process evades bifurcation of writing and practice, where developments are inextricably entwined and each section of thought presupposes elements of understanding from the others, in a looping of meaning and weaving of connections throughout.

At times Whitehead's writing can appear dense and seem almost impenetrable. The means of evolving essay and installation is a way to unfold understanding and to explore philosophy of organism through a circular process between practice and words, advancing into the obscure nature of expressions, relating back to foundational principles through process philosophy in action.

Account of encounter with Crossness itself will entwine through all other written elements forming an abstract yet connective route through. In drawing loosely on a multifarious range of disciplines and modes of thought, many strands of knowledge and activity are brought into play, rather than

delving deeply into singular aspects. This is an approach that seeks broader connections, in seeing, feeling, thinking through encounter while drawing on bodies of scientific and objective knowledge. It is through the endeavour of an actively engaged artist that a practice forms with potential to unsettle while holding multiple positions in contention, in seeking new ways of thinking through the generation of site-specific installations and partworks. It is through Crossness specifically, and the confluence of sewers, as a point where this process of questioning and thinking occurs. In following many strands and exploring intricate connections that take form through an evolving mode of process led artistic research-practice, manifesting in the form of large scale, multi-modal, sensible, event-installation – *Southern Outfall.* Crossness becomes nexus for the ephemerality of an event-installation that shall leave no fixed legacy.

It is through the activity in generation of work that new knowledge may be embodied, in broader discourse within all the fields connected by a practice that has potential to generate some little ripples through holistic understanding of process as a generative framework for art practice, and particularly in that of site-specific installation.

1 CROSSNESS

Standing on the south side of the Thames, on the Erith Marshes, on a curve of the river, is a slightly crumbling historic sewage pumping station that serves as final conduit for the Southern Outfall sewer. Functioning since 1865 Crossness became redundant from the mid 1950s when the site fell into disrepair. Thames Water closed up and moved on to newer technologies for pumping and processing the sewage that arrived from across south London. In its abandoned state the historic building was easily entered. Much material was looted or damaged until a keen group of volunteers took responsibility to care for what remained.

The historic pumping station at Crossness is a site of significant historic interest. It is a former industrial location that carries important aspects of Victorian sewage processing heritage, being the first complete and operational station in London at time of public health and environmental crisis. The heritage of the place has global significance and the rotative beam engines there are thought to be the largest of their type remaining in the world.

Practice centres around the position of being volunteer at Crossness. Having encountered the site from the exterior during the years of lockdown I was intrigued to get inside when the place opened back up to the world. Booked on to a small group tour that was led by Bob L - my education began, listening while wandering agape, gazing up and down with a hand on hard hatted head to maintain protection.

This is not a journey started recently. Interest in industrial history began with ‘o’ grade history and introduction to the industrial revolution, a period of study that ended with the Great Exhibition and construction of the Crystal Palace. Industrial interest also figures through my schooling that took place in a landscape that was scattered with industrial remains in the radiant orange shale-bings, or waste heaps, from the first British oil boom that began in West Lothian in 1850 and continued until oil extraction from shale ceased in 1964. It is a long journey from this background to the redundant sewage pumping station at Crossness (Scottish Shale, 2024).

Becoming a member of Subterranea Britannica, an organisation that states on its homepage: ‘We're fascinated by man-made and man-used underground places — from mines to railway tunnels, military defences to nuclear bunkers and everything in between’ (Subterranea Britannica, 2024) brought second visit to Crossness on a group tour, as part of their Spring Meet in 2022. I skipped

my official group and joined Bob L's tour again (the L is important as there are a good few Bobs at Crossness, of varying type) to pick up conversation about becoming a volunteer. I left with relevant paperwork in hand.

There were originally four functioning beam engines which powered the pumps. By cobbling together bits from the remaining parts of the four engines, the volunteer trust was able to restore a single beam engine back to working order. Prince Consort (the four metal megaliths were each named after members of the Victorian royal family) steamed again for the first time in 2003 after 50 years of inactivity. Restoration of a second beam engine, Victoria, continues now with the hope, at some point, of having two working engines and one half of the beam engine house fully restored - the other half living on in ruined state to acknowledge the entropic phase of history. In this field of restoration there are always many questions over which aspects are preserved, just how much should be restored and by what means. The restoration to an interpretation of original Victorian glory sees eradication of layers of crud, erasing phases of history that hold trace of other times.

I became a volunteer coincident with starting studies. A paid scholarship allowed precious time to be there – learning the basics of steam engineering, of stripping substantial engine parts and restoring for future function. I did many things; sold stuff in the shop and reorganised display, cleaned hard hats after visitor tours, saw into basements and nooks and crannies of the building that public never get to see, began learning to oil a beam engine (a process that takes years), swept floors, scraped paint, spilled paint, drank tea, baked cake, ate cake. It is difficult not to become involved in the fractured politics of a voluntary organisation that almost collapsed through loss of income in lockdowns. I was sucked into activities to shore up for the future, to bring in new generations of volunteers, to support the workload of aging volunteers, and within all that, new openings and meanings are found through this collaborative activity; engrained within the org, openly artist from the start, but grafting in that role with everyone else; becoming involved in the processes of applying for museum accreditation. I don't want to go on the board - it is more important to stay in the restoration and steaming teams and function from within, trying to bridge the 'us and them divides' that add to the complexity of the place. It is infectious to step through the door – with everyone collectively engaged in keeping the place alive, one way or another. When we talk of 'the place' meaning encompasses the bricks, stone, ironwork, engineering, every little oiler pot, every empty biscuit tin and all the people within.

This marshy spot on the Thames was chosen as the best location to evacuate sewage into the capital river. After testing with batches of corks floated onto the receding tide, Crossness was deemed the first clear point where matter was successfully sucked down the Thames estuary and out to sea, rather than back towards central London.

Sir Joseph Bazalgette was appointed chief engineer of London Metropolitan Board of Works in 1855 going on to mastermind the design and construction of a comprehensive sewer system that was to rescue London from the 'Great Stink'. At this time of industrialisation and substantial urban growth all sewage and wastewater were discharged freely into the nearest point of the river, making central London riverside a fetid place to be.

This has put me in position to generate work from within, through the three-year period of voluntary labour that scholarship allows. The 'work' is happening all the time, artworks manifest, through the journeys, the politics, the activities, the travel beyond, invitation to exhibit in New Delhi, taking Crossness thinking there with me - a slightly extended, or perhaps we could say convoluted, journey to get there, and back…Crossness, the history of sewage processing, and the voluntary organisation become vehicles for thinking and making through the Southern Outfall.

Arriving at Crossness past ponied roundabout, going round the houses through Peabodied perfection, past glassy library and clean bricks to dirtied concrete blocks beyond, towering over fabricated lake. Mayflies coupling blue over polythened and plasticised reflection. Walking on edge pathed in crumbling concrete too. Chucking wetting rain. Green towards the river with small horses in context to dumped stuff on a dirtied road, chain linked fence, tall in stature to keep on course, brambles defy the barrier, lurching over and through, spitefully impede pedestrian way, but reward road walking with handfuls of plump berry bursts. Puddle paddling after heavy rain detours from pathway too, while 'water' trucks trundle by generating waves and on through roadway barrier to a looming grey bulk of a building made darker by the rain. This is no welcoming way, yet there is richness to unfold in every element.

(Ackroyd, 2012. Coulls, 2019. Crossness Engines Trust, no date. Crossness Engines Trust, 2017. Crossness Engines Trust, 2023. Dobraszczyk, 2013. Douet, 2023. Jackson, 2014. London Museum of Water and Steam, 2019. Yorke, 2018) [1]

[1] Information on Crossness is drawn from a variety of sources in the spirit of an organismically mingled approach. Much information has been passed casually from the knowledgeable body of volunteers at Crossness alongside the above sources and processed through me as field-artist. In reference to site and context material has been drawn from across these sources for general background throughout this text.

2 ARTISTIC PRECEDENTS

For every foot of cleaned ironwork in the Engine House there are shovels of dirt swept into dust-bags full of droppings, in a tireless process of restoring - making mess - and cleaning to keep the engine house presentable for open days. The hoards who enter are perhaps not so aware of the huge undertaking of labour to clean up a beam.

Coming to know a site, Crossness, through inside engagement puts emphasis on a specific method of field work that is consistent with the idea of process. Through embeddedness as artist, operating in the field, rather than studio, highlights differences of being artist within a place or situation, for a substantial duration as an intrinsic part, rather than the dipping of toe that other modes can engender. Working in the field, getting to know a place deeply, understanding the detail, gaining the trust and support of the other volunteers at Crossness means being an integral part of the team, leading ways to constructing work that could not otherwise be done. Accessing and understanding the complexity of spaces as well as organisational functionality allows for interventions that are sympathetic to and work with the place, while engaging challenge, rather than imposing their own order.

2.1 Mierle Laderman Ukeles

An important precedent figure of embeddedness can be seen in the work of American artist Mierle Laderman Ukeles who wrote the ‘Maintenance Art Manifesto’ in 1969. This was response to exploring the undervalued position she found herself in as wife and mother, undertaking regular, thankless tasks of cleaning, cooking, washing, alongside the extended raft of domestic duties that are in perpetual need of attention to keep a household running - anti-entropic processes. She brought attention to often undervalued forms of labour through using the manifesto as a creative strategy for making art, art that existed entirely through process (Ukeles, 2016).

The period of financial crisis in New York, in the mid-nineteen seventies, saw the city on the verge of bankruptcy. The New York Blackout of 1977 triggered a chaos of looting and violence attached to this period of hardship. At this time Ukeles became the first and only ‘artist in residence’ with the New York City Department of Sanitation. She continues still, despite now being in her eighties, in this unpaid role that has allowed her to introduce new ways of thinking through radical art practices within expanded ecologies (Steinhauer, 2017).

The concept of what a residency may mean for artists can vary greatly. They may differ in duration from a few days, through weeks or months and, less commonly, to years. The point of deep interest in Ukeles relationship to the Department of Sanitation comes through the length of time she has spent in the role, a position that could be described as deeply embedded and that allowed her to become an intrinsic part of the organisation.

Ukeles describes herself as ‘an artist crazy about the public domain as our common home, wild about public systems, infrastructure, and public workers’ (Ukeles, 2015 p.17). She produced iconic bodies of work, from *Touch Sanitation* where she shook hands with, and personally thanked, 8,500 sanitation workers for their part in keeping the city clean, to *Seven Work Ballets* - choreographed pieces which now have existence in the form of a book documenting written proposals alongside images of the realizations of the ballets made over many years - with trucks, barges, mechanical sweepers and dustcarts, and the people who operated them. These durational performance works were poetic attempt to bring recognition to, and identify beauty within, the often-overlooked acts of maintaining a modern metropolis.

As her first, and only, major publication *Seven Work Ballets* was not produced until 2013, coinciding with solo exhibition at the Arnolfini Gallery, Bristol and Grazer Kunstverein, in recognition of the extensive work produced. It documents the sustained duration, commitment and focus on a practice that evolved through time. (Gruijthuijsen, 2015, p.7)

This evolving practice was acknowledged in Lucy Lippard’s essay from 1991 titled *The Garbage Girls*, where Ukeles is recognised for her endeavour to ‘make every part of the process of waste and waste management visible to everyone participating in it (that is everyone) so that the redesign of the degraded becomes a symbol of transformation’ (Lippard, 1998, p.260).

The reference to the participation of the whole of humanity in the production of waste recognises a collective approach to both the generation of rubbish, and the processing of it beyond. This collectivity of action can be considered within an organismal frame.

Ukeles’ relationship to working in dirtied domains allows reconsideration of the value involved in the processes of urban maintenance and the people that undertake it. In drawing attention to the often-overlooked activities of processing waste, after it has been bagged and dumped into lidded

bins, highlights that general awareness is usually only alerted when processes cease for some reason and the dirt starts to pile up. This lack of consciousness ripples across contemporary developed cultures in a broader disconnect from the aftermath of all that we make and consume, implicated through the divisions, schisms and bifurcations that will be reflected on at points to come.

Artists 'including Mierle Laderman Ukeles have variously conceived the site not only in physical and spatial terms but also as a cultural framework' (Kwon, 2013, p.34). Ukeles activity constitutes an important precursor for work that leans upon, engages and uses the immediate meaning of environs as well as the people involved – far from the isolated ideologies of a blanked gallery. The environment is not separate from, but part of the work.

Ukeles practice in sanitation and maintenance is of specific importance as precursor to being entrenched in a sewage pumping station, in drawing attention to things that we are all participant in yet give little valued perspective to the often unseen or undervalued labour of keeping things clean. The sewage system, for most part continues in operation underground and out of sight, and smell, as far as possible. This reflects in the labour of an artist that is also not always visible in the processes of getting to know an organisation and site.

2.2 APG/Barbara Steveni

Being absorbed into the org means to understand in a functional way, gaining sensitivity to the subtleties of the overwhelming architecture through hours of activity and lingering, coming to understand the delicacy of relationships and structures within the voluntary org, contributing to the culture and ongoing function of the site as a working museum. All the while building trust and understanding, to enable the longer-term potential for generating a sympathetic, multi-modal art installation appropriate to and sensitive of the site and all activity therein. This cannot be done through cursory engagement, the difference between being a visitor, a tourist, and getting under the skin, through the layers, becoming a part of a place, in quantum position of observer being part of the experiment.

'Context is half the work' is a key phrase for the Artist Placement Group (APG). Established slightly prior, yet in parallel, to Ukeles' practice in the USA unfolds the activity of APG in the UK.

Conceived by Barbara Steveni, APG was founded in 1966 by the artists John Latham, Barry Flanagan, David Hall, Anna Ridley, and Jeffrey Shaw alongside Steveni (known as Barbara Latham at that time). There are variants of the telling of the founding and development of activity, that shall not be explored here, rather taken as understanding that the organisation's history does not exist through a singular definitive vision, rather from multiple perspectives – it was, after all, an organisation that instigated activity with and through the positioning of a number of artists (Context is Half the Work, 2016).

> The APG was neither an artists' collective nor a placement agency. There was no explicit membership, but rather a loose network of artists who would be proposed for placements. (Context is Half the Work, 2016).

Steveni was the figure focussed on administrative tasks while undertaking relentless communication and negotiation in arranging placements within industry, government and education.

The APG placements were focussed on finding positions for artists within industry and government, to establish paid roles that gave them value equivalent to other workers within the organisations. The premise being that artists have the capacity to think differently around situations and to bring alternative solutions to ways of business and politics. The Tate archive holds document of much communication between Steveni and leaders of industry, her belief being that it was always best to start discussion with someone at the top:

> The central premise of the negotiations was the principle of the 'open brief', a type of carte blanche intended to guarantee open-ended work during placements. The artists were intended to function as independent observers within the organisations, with the substance of their work developing from the on-site process. John Latham coined the term 'incidental person' for this role in placements, one far beyond the classical understanding of the role of an artist. (Context is Half the Work 2016).

The terms employed by APG are of specific meaning, new terms were developed to combat the preconceived ideas of how artists may function in the broader world. 'Context is half the work' is one such underpinning phrase which recognised the position of artists operating within

organisations, industry and social settings, not in removed studio or gallery, where the environ; the political, social and historical context provided interaction and content for work produced. Another key term is that of the 'open brief' where 'the central premise of the negotiations was the principle of the 'open brief', a type (of) carte blanche intended to guarantee open-ended work during placements' (Context is Half the Work 2016). This meant freedom to work beyond the bounds of pre-set agendas as are so often attached to artistic placement.

The role of incidental artist is many sided and complex. It was the term favoured to describe an actively engaged role, not just that of observer. We can perhaps understand one of the values of APG positioning artists in industry as not being 'specialist' in that area, but in bringing a different perspective or outlook through novel ways of thinking around and with things. Terry Measham gives a description of the 'Incidental Person' as a role where 'the function is more to watch the doings and listen to the noises' (Measham, 1976, p12) but we can suggest, as this description sounds a little like bringing an external objective view, that it is a deeply engaged, participant observation.

Steveni was committed to a process of documenting and archiving the activity of APG and its following iterations. Through notetaking, minuting and organising material she generated substantial amounts of archival substance. This led her to undertake a process that she termed 'sifting', an activity that allowed her to reactivate her own practice through the archive, where document of previous activity becomes material for further action.

As with Ukeles there was a blurring of boundaries where Steveni's 'diaries set her art practice against the domestic' (Lane, Vaknin, no date). An introduction to 'The Barbara Steveni Archive' exists on a website prepared and approved by Steveni before she died in 2020. The authors Victoria Lane and Judy Vaknin suggest here, quite strongly, that:

> Although Steveni was the founder and creator of the idea behind the concepts of APG and O+I, in addition to leading both organisations, she was hidden behind the acronyms. This was partly an unconscious suppression due to gender inequalities, but the traces of her work, which constitute the archival record of her practice, are a testament to her considerable and largely unacknowledged role (Lane, Vaknin, no date).

The role of administrator, although crucial in directing activity, is a position that can be overlooked, perhaps a little less prestigious than that of frontline artist although her role here was as artist in

operation too. In recognition of her endeavour, and currently in the making, will be a substantial solo exhibition, a retrospective, focussed upon her activity and celebrating seventy years of work. *I Find Myself* opens to the public at Modern Art Oxford, on the 1st March 2025. (Modern Art Oxford, 2024).

It is through Steveni's relentless endeavours 'behind the scenes', in making things happen for others that we encounter another layer of obscured labour different to that found with Ukeles maintenance work. These often-unseen labours reflect in the processes of artistic activity through placement at Crossness, where no one really knows what I may be doing.

The group of retired men who make up the restoration team warmly welcomed the first female apprentice steam engineer. So much of their time and passion infests the place. A team built with camaraderie and humour, finding meaning and activity in redundancy after retirement kicks in. With fresh apprentice supportively embraced in their duty of care, they teach and train an eager newbie in the ways of dirty, oily, steam.

2.3 John Latham

John Latham is artist of specific interest for many reasons. He took up position as an 'Incidental Person' with the Scottish Office Development Agency from 1975-76. Within Latham's practice the 'artworks created during his placement would forge a formal bridge between his own sculptural practice and the industrial landscape' (Jackson, 2017, p.149). His activity here attempted the designation of waste heaps from the early shale-oil mining industry in West Lothian that began around 1859 (coincident with the period of planning and construction of the London sewage system) as art (Richardson, 2012).

Most of the shale from the many disappeared bings (as the waste heaps are locally known) is now widely distributed, much of it forming aggregate base for motorway and road networks that span the UK. As a result of Latham's residency, a shift in perception of the bings occurred such that they were no longer viewed, in official departments, as just spoil with a potential monetary value when sold as aggregate to a recognised aspect of industrial heritage worthy of protection. Latham produced documentation and imaginative exploration of a site to the east of the borough. Through 'the Feasibility Study… Latham urges for the bings, being materially unique, to remain tethered

to their topographical and social context in order to preserve them as unconsciously-formed sculptural monuments' (Richardson, 2017, p84).

Personal connection to this post-industrial landscape comes from having lived in Livingston New Town, West Lothian, a mile or so from the foot of the 'Pumphy bings', within modern ideologies constructed amid this industrially scarred landscape. Growing up there I had no awareness at the time of Latham's endeavour as incidental artist and the attempt to preserve and designate part of these sites as process sculpture. Latham viewed *Niddrie Woman*, the name he gave to the cluster around the Greendykes bing, as a coherence of non-organic landscape matter imagined into human form (Richardson, 2017, p84). Although I was ignorant of such art practices at the time there was a youthful recognition in the magic of running up and down these wholly fabricated, fantastical, rusty coloured hills.

Although the bings are monumental in scale, as an artwork *Niddrie Woman* forms an ever-shifting part of a local ecology. Cal Flyn opens her book *Islands of Abandonment* with a visit to the West Lothian bings (the nearby Five Sisters rather than Greendykes). Her book explores the reclamation and shift of environments beyond man-made engagement…not rewilding but a re-building, differently, anew, the industrial remains remain but form part of a new environment supporting another ecology that never existed there before. This industrial abandonment did not stay devoid of life for long (Flyn, 2021, pp.15-21).

The development of 'process sculpture' is another pertinent element of Latham's practice, where the focus is on the process of articulation and making as way of conveying meaning in physical works. Beyond this he sought to construct a unified explanation for existence through developing his own cosmology, Flat Time, based upon recurring, time-based events focussed on the notion of the 'least event'(Latham, 2006). This theory is evidenced in the apparent, rather than obscured, processes used to make his sculptures. The parallels between his world view and that of philosopher Alfred North Whitehead bear strong relations through the concept of event.

Latham had a history of working with books as a mode of generating process sculpture. This began in 1966 when he borrowed a copy of Clement Greenberg's *Art and Culture* from the library at St Martins School of Art where he taught. In the generation of a work titled *Still & Chew* he invited students to chew up a page from the book and spit them into a jar, followed with a form of chemical

treatment. When asked to return the book some time later he took the jar to the library. This act of dissent led to him losing him his job (de Duve, 2005, p.28).

Latham made many pieces with books, playing with a reversal of letters to form works called *Skoobs*. These existed in many manifestations such as *Skoob Towers* where a column of books was constructed before being destroyed by fire (Richardson, 2017, p.85). Latham's destruction of books was a controversial means of challenging institutional authority. Pavel Pys directly quotes Latham in essay for a posthumous exhibition held in New York, saying that 'Latham's words could not ring more true than today: "Knowledge is one of the modern means by which power is exercised by the few over the many"' (Pys, 2018, p.9). These processes can be viewed negatively as destructive, but they instigated reprocessing in generating points for emergence of the new.

The John Latham Estate is represented by the Lisson Gallery in London. This short description from their website gives a very concise portrayal of his approach:

> John Latham…was a pioneer of British conceptual art, who, through painting, sculpture, performances, assemblages, films, installation and extensive writings, fuelled controversy and continues to inspire. A visionary in mapping systems of knowledge, whether scientific or religious, he developed his own philosophy of time, known as 'Event Structure.' In this doctrine he proposed that the most basic component of reality is not the particle, as implied by physics, but the 'least event,' or the shortest departure from the state of nothing. The entire universe is to be viewed as a system of events in time, rather than objects in space. Thus, for Latham all artworks were considered events and were activated as such through diverse processes ranging from spraying, chewing, shredding or spitting to simply declaring (Lisson Gallery, 2024).

This highlights connections between Latham's approach to process sculpture as entrenched in philosophy and physics, relative to the process philosophy of Whitehead. These modes of working are not model for but offer deeply reflective terrain for my own methods and approaches to art making.

2.4 O+I/IU

The Artist Placement Group was not formed as a fixed entity, rather as a shifting group cohered through the co-ordinating activity of Barbara Steveni. APG has gone on to evolve through iterations, developing into Organisation + Imagination (O+I) through to current form of the Incidental Unit (IU).

APG ceased activity as the adoption of the term ‘placement’ by various institutions changed the expectation of activity, rendering it other to the mode of involvement and position of artist as valued by APG. O+I became the next mutated form – with a focus on educational reform. Latham had a history within educational settings where he found the restrictions and conservatisms difficult to negotiate (Richardson, 2012). It was through belief that education should be open and challenging that ‘O+I staged interventions and encouraged students, teachers and inspectors to critically question the education process, and more significantly, incorporate the arts into the learning environment’ (Jackson, no date). Activity took place through schools in South London, with Chelsea School of Art and to an expanded network that spread across Europe

The iterations from APG through O+I to IU express processual shifts and the need for a group, and its underlying methods and make-up to change over time, adjusting and responding to a dynamical world. This has been no static organisation yet there is underlying continuity in principles that connect the nature of activity throughout.

Current form is found in the Incidental Unit (IU). Evolving from a series of meetings ‘initiated by Barbara Steveni, Neal White, Tina O'Connell, Gareth Bell-Jones and Marsha Bradfield in 2016-17’ where ‘the idea of being incidental within a societal context remained an urgent concern for all. The meetings have shared just one open agenda item; 'unfinished business'’ (FTHo, no date).

IU revisits John Latham’s use of the term ‘incidental’ to provoke debate around the position and activity of artists. There is no fixed membership for this group which continues to meet monthly online. All that is required to participate is an internet connection and digital device, alongside an interest in the legacies of APG and its relevance to current artistic activity.

IU activity is at the moment mostly focussed on the monthly online meetings. Through this convening a phase of collaborative activity is beginning to cohere. On occasion meetups happen in person, through research visits to archives where the relation to archival study continues Steveni’s activity of sifting, of working through and reactivating material in a contemporary context. Though work is mostly continued in the world through Incidental Persons (IPs) focussed on diffuse activities, with the meetings forming support as:

> …a collaborative critical discussion space to support the role of the IP and to define what it means to be an IP now. The IU seeks to encourage and foster IPs in their approach that

> interrupts existing institutional code, thereby creating the opportunity to develop new patterns in education, administration, planning processes and more.
>
> The IU provides critical support space in which to discuss and exchange ideas with artists, curators and IPs without the expectations or evaluative frameworks of an artistic commission, gallery briefing or social project. (Wright, no date).

It is through the monthly meetings that I have found a network of supportive practitioners. It is not in addressing the minutiae of individual practices but rather through unpicking and expansion of broader thought and approach that underpins through a loose organisation that continues to shift and respond to context.

2.5 Longplayer

The extant lighthouse at Trinity Buoy Wharf was constructed in 1864, the year before Crossness opened. This the second experimental lighthouse to have existed at this location was used for optical tests conducted by Michael Faraday (Trinity Buoy Wharf, 2024).

This lighthouse, redundant form original purpose, is now base and key listening post for *Longplayer*, a composition by Jem Finer, constructed from recorded singing bowls composed into sequences, that requires digital means to keep it playing continuously for a thousand years without repeat, at which point it will theoretically begin again. There are other physical listening posts located around the world, and the composition can be accessed online from any place with connectivity, at any point in time. *Longplayer* was originally supported by commissioning body Artangel but is now in the care of a (voluntary) trust (Artangel 2024. Longplayer, 2024a).

The lamp room at top of the building forms listening post, with speakers replaying sound as a vista from bend in the Thames holds expansive view. Housed inside a building that was site for experimental light technologies in the late nineteenth century, the space develops another layer of historical redundancy as it is currently home to a growing archive of outdated computer equipment that has perpetuated play for the first twenty-five years of *Longplayer*. Although not site specific as such, *Longplayer* is singular in its artistic and industrially sited relevance - connecting to Crossness across and along the Thames.

It is not specifically in the playing of this composition that interest lies, but in the spin-off projects and activities that occur around the perpetuation of this sited yet dislocated, durational, digital work.

Longplayer conversations have taken place over many years since the work's inception as a series of public events involving the likes of Jem Finer, James Lovelock, David Graeber, Brian Eno, David Attenborough, Richard Mabey, Richard Holloway, Marina Warner, Timothy Morton and in 2024 with a turn from Kate Briggs and Daisy Hildyard (Longplayer, 2024b).

The thing with the Longplayer composition itself, taken in isolation, is that things seem to close down when you 'get it'. The question is answered, issue resolved. In listening to the extended piece, it is easy to have a general anticipation of what will be encountered on second listen, or third…because it operates with a pattern of self-similarity that will never be exactly the same, but because it is self-similar there are no surprises, it effectively sounds the same. One of the key concepts for setting in motion this piece that will play for a thousand years, is to engage with longer term thinking and concepts of deep time. It is interesting to imagine the piece to be emergent, to entertain the thought that in a couple of centuries time the composition may barely resemble that from which it started. But there is something reassuring in the repetitious nature of a thing that repeats yet is never quite the same, the same but somehow different.

Ella Finer, outgoing chair of the 'Longplayer Trust' and eldest daughter of Jem Finer talked of her and her sisters' relationship to the work which has changed as they grew up. She said that her younger sibling, who would have been a youthful teen at the time of its inception, described the work as 'boring Longplayer'. But relationships change and over time they have both come to take responsibility for care and perpetuation of the work, and the expanse of activity that goes alongside the ongoing event (Finer, 2024).

Longplayer can be understood as a dislocated work that exists in multiple locations through digital space, though it is not disembodied as it requires hardware to exist. Where exactly is the work situated? Is it in the composition itself; in the lighthouse that houses the core of it; in the global listening posts; in the Longplayer conversations; in the expanse of other event activity that functions around? Perhaps there is no definitive location other than through the immediacy of each encounter, in a work perpetuated by an ecology of people through the Longplayer Trust. It is in the continuity of this work and the scope of more expansive thinking across time that interest lies in

relation to the site at Crossness, that is not just about the glorious moment of its construction but in the continued work, activity and communities that shift and change in function through the place, over time.

APG now exists mostly beyond the scope of its progenitors, newer generations of incidental artists continue activity, forms modified. IU was established with Steveni. Now she has gone it follows new interpretative continuations of thought and action. *Longplayer*, although held by a trust, is still very much in the care of the originator and family, though their guardianship will be brief given the scale of proposed duration of play. Will the specificity of Ukeles role and collective activity end with her life? The potential legacy of all these practices may continue in other ways through the memory of artworks, manifestos, archive…instigating new evolutions of artistic activity. A slow relationship to *Longplayer* has unfolded for me, from early dismissal of a work that I thought was already neatly bound up and concluded in its own grand remit, yet a niggle continues to hold. It is over time that my frustrations have diffused through relation to perpetually unfolding events that emanate from the centrality of the compositional piece. There are live resonances of all these practices touched upon in the ways that I am working now.

The perpetual redundancy of industrial technologies contrasts with the quality of construction and engineering that sees things still just about functioning here today. This is an appropriate place to ponder the perpetual redundancy found with contemporary digital technologies – to evade, for a little while, the pace and speed of perpetual change in the solitude that can be found on the extensive site at Crossness. Alongside the camaraderie and internal politicking there is plenty space to indulge in the contemplative and mystical nature of the 'Cathedral on the Marsh'. It offers space for the imagination to expand into, a place to extend into, reaching towards the obscure, dark and rusting corners.

2.6 in the field

Being volunteer has opened understanding of how the Historic Engines Trust, as with many other voluntary organisations, is reliant upon the immense number of hours that are given annually by volunteers – it is on the strength of an incredible contribution of an intensely committed few, supported by the slightly less intensive endeavours of a number more, that keep the place just about functioning. Loss of income from open days and tours cancelled through lockdowns saw the

org just about collapse, being not far from locking up and handing back the keys of the crumbling Grade 1 listed building (currently on the Heritage at Risk Register) to an almost bankrupt Thames Water. There is renewed effort now to update aspects of the org and to ensure this bit of industrial heritage is kept functional enough to hold cultural meaning and existence beyond current times.

APG placed Artists in industry, with aim for them to have recognition, both monetary and ideological, by seeking equal value for the role to the rest of the workforce. The position Ukeles undertook with the sanitation department was unpaid. There are fundamental reasons for validity in both positions. Being paid demonstrates value in a role yet there are the dangers of then having to conform to the demands of an 'employer'. The voluntary role as artist can allow for more manoeuvrability in terms of territory yet there is always the issue of paying the bills. At Crossness I have become voluntary artist within redundant industry, a realm where work is mostly done not for money, but rather for belief and value in a place. The position of studentship allows me to do this for a while, as pensions do for others. It feels like a precious position to be artist in redundant industry, the richness in being part of the experiment, within, not looking from a position without.

There are many terms that have been used to describe the act of being artist out in the world; resident, embedded, incidental, placed. They have shifting meanings. As the term placement became adopted by other organisations and funding bodies that positioned artists in terms that were not wholly aligned with those of APG, gave one of the reasons for re-formation as O+I. 'Artist in residence' is a term often used today for positions that come through funding with organisations that recognise the benefit of artistic activity though it is often attached to already written agendas, the operational space generally comes with defined strictures. Incidentality is the term still widely used, as seen in the Incidental Unit, for activity of artists that is about being positioned in the world through a means that allows reaction as events and occurrences unfold. An 'embedded' artist suggests a position that is deeply entrenched within a place. These terms do not sit in set categorisation and there is much merging of function and understanding between. And so it is that I find the role of artist at Crossness also not to be one of fixed definition. My role is voluntary, no money has exchanged hands, I am there because I placed myself in position, because funded education allows me to do so. Incidentality has allowed me to manoeuvre certain processes of change within the org, assisting in generating an environment that is more welcoming for future generations, and for those that are within it now. I frequently feel embedded, entrenched within a community that is often divided, but one that deeply cares. I am resident, because I have moved in – the place has that aspect of familiarity that makes you feel at home. These are all appropriate

terms, though it is in describing myself as field-artist that I find a breadth that encompasses all. Operating with small audio recorder in pocket to make opportune field recordings fits the term too. As does the sculptural background and practice through which I have emerged – defined by Rosalind Krauss in her iconic essay *Sculpture in the Expanded Field*. When I first read this 'historical rupture' (Krauss, 1998, p.233) it felt like being struck by lightning inside a room. Then there are the abstract fields and planes of space, time and immanence, with which physics and philosophy bamboozle and tease. And I've always been tickled by 'out-standing-in-your-field' jokes…so field-artist fits all, for the now.

The relationship to post-industrial landscape, industrial heritage and legacies leads to the dawn of a digital age that has emerged from big industry and mining of the planet. Digital dematerialisation is another illusory layer as the materials required for generation of, and to power, new technologies possess another level of material requirement that is in no way sustainable. This reflects in the equipment required to manifest digital artworks - *Longplayer* now only needs an ipad to perpetuate and internet to disseminate, alongside a connected audience to receive, as IU requires internet and a piece of hardware to participate in virtual meetings. It all still requires an energetic and physical aspect to exist, as with the controlled movements of chi within a body.

It is in daily encounter with the post-industrial site at Crossness that a means of collecting thought notes and evolving observations of encounter unfurl through word. Collecting field recordings, photos and film footage generates an archive of material from everyday experience to be sifted and sorted at some point later.

It is a precious thing to climb inside the internal chamber of a biomass boiler unable to get out without assistance, with vacuum cleaner nozzle in hand. There is such delicate care lavished upon this heating beast (for it warms the building through winter chill) by a team of two, a retired heating engineer and a pump repair expert. The biomass boiler undergoes annual professional checks. Each year the inspector commends, time and again, the extension to its life that such duty of care proffers to this heating machine. It is an honour to have been allowed inside, to briefly exist within the burned-out belly. To tickle its innards with vacuum nozzle and remove the previous seasons soft soot from crevices within. Wearing the black beanie, a hat of honour, to protect pale, arctic hair, lying belly flat on a bench on wheels, arms outstretched in front, like some filmic superhero flying-through-the-air to rescue, is the only route of entry into this small cave. This line of flight is perhaps less than glamorous, rolled into the biomass bowels on a small, wheeled bench

that was originally made as prop for am-dram Frankenstein. Working in such small space the boiler men are on constant standby to pull a body out, foot-first, should the confinement get too much. Trust is implicit in understanding that retreat will be aided once job is done, as there is no means of getting out of that hole alone - absolute teamwork and trust.

3 ORGANICITY

The area over the vast subterranean sewage tank, constructed from brick built vaulted chambers, was grassed over and provided playing area, cricket pitch and general village green to a small community who lived in cottages constructed on the site. These were the families who oversaw continual operation and evacuation of matter through the Southern Outfall into the Thames. Meeting community needs, a school also formed part of the settlement upon the sewage storage tanks. The people were an integral part of the place. The site could not function without them.

As theoretical interest is held in multiple positions the following list outlines definitions from a range of disciplines and contexts. It is by no means exhaustive but introduces some of the encompassing meanings that hold relevance for the chapters to come:

Organism:

> -Organic structure -A whole with interdependent parts, compared to a living being -An organic system. -In Philosophy, the theory that in science everything is ultimately an organic part of an integrated whole. -An individual animal, plant, or single-celled life form. Also: the material structure of such an individual -Organized existence as a whole organization -The development or coordination of parts (of the body, a body system, cell, etc.) in order to carry out vital functions - The condition of being or process of becoming organized -The way in which a living thing is organized; the structure of (any part of) an organism. -An organized structure; a body; an organism. -The condition of being organized; systematic ordering or arrangement; specifically the way in which particular activities or institutions are organized -The action or process of organizing, ordering, or putting into systematic form -The arrangement and coordination of parts into a systematic whole -An organized body of people with a particular purpose, as a business, government department, charity, etc. (OED online, 2004a).

It is in the spirit of multiplicitous meaning and a playful blurring of boundaries in overarching concepts that the shortened term ‘org’ shall sometimes be employed to hold an open space of thinking beyond the bounds of individual disciplines, as a colloquial abbreviation that encompasses all the definitions above, where we can consider organisations as organisms too.

Without the vibrancy of people within, Crossness becomes a mutely crumbling point at the far end of an economically collapsing Thames Water site. Far out from the centre of the city, a forty-minute walk down a dirty, dumping road from Abbey Wood station. Past Thistlebrook and the destruction of the Clockwork Orange estates.

3.1 Organisms

In the essay *Machine and Organism* Georges Canguilhem reflects how the structured mechanism seems to have become the dominant frame from which to understand organisms (for example how the human skeleton and the hinged joints that allow it to move are considered mostly in mechanical terms). He points to the issue where mechanistic views dominate and we forget to think through the organic qualities that many things may function with – engineered or otherwise. He suggests that this structured mode of thinking is tied into a Cartesian perspective of the world. His proposition to shift frames of thinking into an organic mode supports a position of thinking organismically (Canguilhem, 2021 pp. 278-295).

We can take everything back to classical roots as the time where comprehensive notation of knowledge begins – through early Western philosophers. We attribute this knowledge to a named few, but the origins are likely not singular in their gestation, rather reflections from other unscribed perspectives. We can feel the ghost of their presence throughout, but interest here lies in the processing of more recent accumulations of speculative knowledge that emerge in the wake of industrial revolution, through modes of meaning and interpretation that have evolved and exist for the fleeting now.

The restoration team is thinning, a sensitive head lost swiftly. A vacant lead that leaves a small team struggling for order, while processing loss, meaning is sought, lost and found, within this capacious building.

Shoring up for the future - as the dedicated team share a hefty load but are not getting younger - so we look to establish a Sunday team that will be inducted and instructed by the older team, to extend capacity for work while building and passing on a legacy of skills, knowledge and enthusiasm for future generations. Grateful to have been taken under the wing of the team - taught and tolerated (even when encounter with tin of geranium red paint didn't go as anticipated). Looking forward to welcoming new energy and skill into the team, to ensure continued maintenance for years to come.

In the introduction to their biology paper on 'organisms as reality or fiction' Charles T. Wolfe and Boris Demarest talk around the idea of organisms as in some way complete, and of Whitehead as philosopher of organism where he:

> insists on the irreducible properties of wholes - sometimes, living wholes in particular. In addition, the idea of organism is sometimes appealed to in a polemical way, as when biologists or philosophers angrily oppose a more 'holistic' sense of organism to a seemingly cold-hearted, analytic and dissective attitude associated with 'mechanism' and 'reductionism'. (Demarest, Wolfe, 2016).

An approach to holism is of interest through an 'organic realism' that rejects bifurcation of nature, of mind and matter: 'we' are not separable from 'nature' - refuting the mind body duality of Descartes. The division of nature as intellectual bifurcation of body and mind are detrimental distinctions that are perhaps root for where our relationship to our environs has gone so wrong. Attitudes to the distinction between humans, animals and the inanimate is an area to explore and blur – seeking quantum connection and communication through the lens of Whitehead in a cosmology that coheres through process – and relation to other process – how processes continue to advance as the becoming of all entities. The process of becoming, of constantly creating ourselves is formed through occasions of experience.

It is not the problem of science itself, but in how we think about, use and absorb information into our culture and into our multiple selves as fixed points of knowledge. It is necessary to take things as an understanding for the now, not as set knowledge, though there is much reliance upon the 'zone of middle dimensions' where the classical laws of physics are applicable to many functional processes – we must understand that they only function within this middle zone, and do not explain everything.

Just where does the division of human/animal/stuff begin and end - is there a leap or non-separable slide? These classifications only exist through the scales and measures that we impose.

In *Time, Technology and Environment* Marco Altamirano says, in relation to the Cartesian split, that:

> …the bifurcation of nature into a physical aspect and a conscious aspect facilitates a picture of the human in confrontation with nature, rather than in an ecological relation, whether humans are conceived as stewards of the earth or human life is conceived as emergent within an environmental system. (Altamirano, 2017, p.32)

Perhaps we can seek ways to think through relation with this environmental system in terms that proffer alternative to humancentric focus.

3.2 human biome

Sensational headlines like ‘More than half of your body is not human, say scientists’ (BBC News, 2018) highlight expanding research into the rich complexity of the human biome and dissemination of knowledge beyond scientific domain. The short article briefly outlines how DNA sequencing has revealed that human cells make up only 43% of the body's total cell count, the rest being formed from microscopic colonists. The human body becomes opportunistic architecture, housing for the many. Popular science titles such as *Dark Matter: The New Science of the Microbiome* (Evans, 2024) demonstrate new biological knowledge, yet figures such as Lynn Margulis have been at the forefront of writing and publishing accessible literature about bacteria and symbiosis in human evolution since the 1970s. The science is not new, it just continues to develop and unfold. The bold title also suggests relationship to other branches of science, borrowing the term ‘dark matter’ from quantum physics as an encompassing phrase to describe stuff that we have an inkling of but do not yet understand and cannot fully account for.

The waves of popular communication continue through other media - New Scientist presented a substantial cover feature in a special issue on ‘You and Your Microbiome’ (New Scientist, 2023) followed by an article in September 2024 that leads with statement: ‘the brain has its own microbiome’ (Robson, 2024). Yet another biome within that has potential impact on the processes of thought.

Research into the human gut biome continues in earnest with global organisations such as ZOE, who were responsible for substantial Covid pandemic data gathering and analysis in the UK through quick adaptation of their research systems and mobile phone app. This organisation is at the forefront of an extensive field in pioneering intestinal research. Although attached to academic institutions they are an independent company that are focussed on making knowledge public while capitalising through sales of tests, dietary plans and supplements. (ZOE, 2024).

We would have a very miserable existence, if one at all, if our corpora were depleted of the colonising critters that eat the dead skin in eyelash follicles, or the biotics that aid gut-rumbling transit of food through lower belly in the extraction and processing of nutrient.

New understandings of our expansive humanness begin to cohere. Could we instigate further breakdown of gender pronouns and definitions by completely blasting the very notion of being singular, losing personal pronouns completely?

In the introduction to *influx and efflux* Jane Bennett states that '…a swarm of nonhumans are at work inside an as us. We are powered by a host of inner aliens, including ingested plants, animals, pharmaceuticals, and the microbiomes upon which thinking itself relies' (Bennet, 2020, p. xi).

Understanding more about the gut biome and just how microbially influenced we are gives the term 'gut reaction', and the concept of bodily thought, more credence. With the complex interweaving and influence of the conglomerations of bacteria and adjoining archaea through the gut brain axis, it becomes more evident that the state of the gut biome has impact upon mood and behaviour, on the very nature of ourselves. So how can we think of ourselves any longer as a singular self? Surely from this point, 'I' must become 'we'…

3.3 super organism

Crossness was followed by a sibling site on the North side of the Thames, Abbey Mills, completed in 1868. It is a slightly more grandiose sewage pumping station. It is still in back-up operation today though the original beam engines have been removed, and more modern technologies carry the load. It is thought that Crossness, on the poorer side of the river, was the prototype. Many approaches and details were refined in the northern kindred site, though Crossness carries its slightly wild and rough character very well, appropriate to its exposed location on the marsh.

In *The Buzz About Bees* Jurgen Tautz explores the collective functioning of multiple organisms and the individuality of roles within what is now regularly termed as a 'superorganism' through the study of activity and group phenomena in colonies of bees (Tautz, 2008). Can we also apply the term super-organism to the human biome? Can we apply the term to a voluntary organisation? The description of super-organism generally refers to the collective behaviour in multiples of the same species – as with a swarm of bees, and possibly therefore with a crowd of humans.

Visiting other pumping stations - observing things that are the same or similar and the individuality within sites, in the distinctive colour palettes and ornate patterns of decorative ironwork, in the different kinds of engines employed to do the pumping, and the types of boilers used to generate power - sees shifts in environmental aesthetics and means of function, yet the overall connectedness between sites comes through similarity, the same but somehow different.

There are several relative historic steaming sites around greater London, each kept running by its own dedicated voluntary team. There is attempt to revive an overarching organisation to keep connection across these communities. There is no need to manage all the problems and work in isolation when there are other similar functioning bodies out there with which to share.

3.4 extended organism

Crossness was constructed at time of noxious local environmental crisis in London, in the mid 1800s, when the Government was considering relocation from the Houses of Parliament, on the north side of the Thames, to a less central location that would provide sweeter, healthier air. To avoid this move the quick construction of a vast sewer system proved an incredible engineering feat.

The vast Victorian tanks at Crossness ceased ejecting untreated sewage into the tidal Thames in 1888, though solids were still dumped by boat further out to sea. The extensive vaulted underground reservoir to this day acts as a holding location for excess wastewater in times of flux, meaning there is a little less direct release of untreated material into the Thames from this site. In essence, once it is operational, the new northside 'super sewer', with intercepting south-sided leg, will be doing the same as the Victorian tanks, but on a larger scale, acting as a 25km holding chamber until sullied flood waters can be treated post deluge.

Current media reporting regularly highlights contemporary sewage release statistics, details that are often obscured from public knowledge. Organisations such as Surfers Against Sewage, highlight these matters, one of many groups proactively bringing issues to common consciousness, of the billions of gallons of sewage and contaminated wastewater that are pumped into UK waterways and seas on an annual basis. Current sewage processing facilities suffer from

underinvestment through misappropriation of funds so no longer have capacity to manage all that comes their way in times of deluge (Surfers Against Sewage, 2024).

To time discharge of wastewater from Crossness with an ebbing tide, the accruing sewage was held within an underground reservoir, with capacity to hold 25 million gallons of malodorous fluid. The receding tide would carry ordure further away from the city, though not good times to have lived in Erith, a problem shifted rather than eradicated.

The concept of an organism purely as a whole becomes complicated at a certain level in the face of developing research around the colonising of what have previously been considered as singular beings. As the gut is inhabited by multitudes of bacteria so is the ordure that results from gut transit. If the extended organism relates to the constructs and architecture that organisms build perhaps we can consider the sewerage system as extension of the human gut.

Following extensive subterranean sewage transit Crossness forms the eastern arse of the Southern Outfall, as evacuation point into the Thames. The subterranean sewage system is an extension of collective southside guts.

This expansion of our relationship with the inorganic can be considered through the concept of the extended organism, with the habitats and tools that extend the boundary of being. J. Scott Turner explores this from a biological perspective in his book on 'the physiology of animal-built structure' through the blurred boundaries of organism:

> …. superorganismal physiology (is used) to describe physiological processes that extend beyond the conventionally defined boundaries of the organism. The noun has a much broader meaning: a superorganism is any association of living things that, through the coordinated actions of its members, behaves with all the attributes of an organism. Thus defined, the term has been used to describe things as varied as ecosystem, symbioses, human societies….as well as the colonies of social insects. (Turner, 2002, p.179).

Turner draws on the metaphor of social insects as superorganisms (as with Tautz and his bees) going on to expand the philosophical and scientific concept of the superorganism to include the environments that are constructed around, where architecture becomes an extended fluid boundary, where beings and things combine.

As we find with the understanding in the Artists Placement Group that ‘context is half the work’, and where Alfred North Whitehead’s ‘environment enters into the nature of each thing’ (1968, p.136) and the inverse where ‘the group of agitations which we term matter is fused into its environment’ (Whitehead, 1934. p.31).

The extended organism sees a blurring of boundaries, exploring the possibilities of where the organism begins and ends through use of tools, into architecture and environment beyond. Turner concludes his book by referring to the spectre of ancient thinkers ‘who brought a deliberately holistic perspective to the matter of life and the environment, in which the boundary between organism and its environment was not so strongly drawn as it is today’ (Turner, 2002, p.213). New philosophies and sciences are transforming the notion of boundary and singularity of being once again. With further extension of human bounds through new technologies the connection and distinction between what is human and non-human blurs further into a tangled mesh. There is difficulty in understanding the term organism as a defined singularity when we explore all the fuzzy, blurry sciences, philosophies, and technologies to find that the distinction of boundary is not so fixed. The perpetual shift and change, the being that is ‘we’ is not the same today as it was yesterday, last night or a few minutes ago – there is constant mutation, shifting, addition through consumption. We are consuming our environment, we become the environment, the fossil fuels that have been dug up, some made into plastics, are breaking down, entering the food chain, becoming part of us again. The environment is within, as well as without. The extension becomes limitless, as the body becomes earth after life. Broken down, if left to do so naturally, by multifarious micro-organisms; we sustain them, become their food, get inside them.

3.5 symbiont

Effort required in finding more voluntary organisms to expand the team – group work at every point relieves the strain on individual pinch points.

Symbiosis is the process of conjoining two elements. The term emerged in biology through the study of cells and archaea that were found to co-operate and conjoin. Lynn Margulis is a key figure in the history of research on symbiosis in evolution through the second half of the twentieth century. Her extensive research laid fundaments that lead to current understanding of the ways in

which bacteria not only exist within and upon other beings, but have also become absorbed into cell structure, forming a fundamental aspect of evolutionary process where bacteria 'shape animal development and behaviour' (Bosch, Miller, 2016, p.1).

Margulis has written many books on evolutionary biology and symbiogenesis. She worked closely with James Lovelock on the development of Gaia theory. In the expanded understanding of social symbiosis Margulis also wrote many of her later books in tandem with her son Dorian Sagan – in reflecting the content of her research there was little work undertaken singularly.

In *The Natural Contract* Michel Serres expounds on symbiotic thinking as potential for other modes of conceptualising our existence, beyond the division of nature and times of globalisation that constitutes mass production and consumption:

> Back to nature, then! That means we must add to the exclusively social contract a natural contract of symbiosis and reciprocity in which our relationship to things would set aside mastery and possession in favor of admiring attention, reciprocity, contemplation, and respect; where knowledge would no longer imply property, nor action mastery, nor would property and mastery imply their excremental results and origins. An armistice contract in the objective war, a contract of symbiosis, for a symbiont recognizes the host's rights, whereas a parasite – which is what we are now – condemns to death the one he pillages and inhabits, not realizing that in the long run he's condemning himself to death too. (Serres, 1995, p.38).

There seem to be fewer cars at Crossness. Fleeting existences that end by one means or another, age itself is never the blow, but some neatly named condition or ailment that snuffs out. The loss of leadership, a gentle figure that gave direction and focus to restoration. A slightly ramshackle team left not quite knowing what to do while swimming in loss. The spirit lives on, through memory of encounter with others, in others, in the place - not completely gone, still quietly present.

3.6 holobiont

The following simple description comes from the landing page of the 'Centre for the Holobiont' within Imperial College, London: 'From a non-biologist perspective, a holobiont can be thought of as a complex and interconnected system of organisms living in close association with each other' (Imperial College, 2024). Moving on from the understanding of symbiosis as relation between two forms of entity, comes development of a term which encompasses multiple organisms conjoined, meta-organisms – also known as holobiont. As the super-organism consists of self-

similar elements the holobiont consists of many varied things, as an ecology. ‘It is important to understand and explore the concept of holobiont more closely because it can have significant implications for various fields, including medicine, ecology, and agriculture’ (Imperial College, 2024). Yet surely there are further implications for social and psychological perspectives in terms of understanding ourselves as multiple agglomerations of being, as part of complex ecologies rather than singular selves.

The Holobiont Imperative opens with a statement that situates the generation of the book at a point where big shifts of understanding are occurring within the life sciences. As now understood:

> There are no germ-free animals in nature. Epithelia in contact with the environment are colonized by microbial communities, and all multicellular organisms must be considered an association of the macroscopic host in synergistic interdependence with bacteria, archaea, fungi, and numerous other microbial and eukaryotic species. (Bosch, Miller, 2016, p.1).

Humans, conjoined with their microbiome, are holobiont too – as composite organism. So how can we ever describe ourselves as anything other than more-than-human? This reiterates the impossibility of singularity in being human, even though we may psychologically maintain a core sense of self.

If we consider our being in the world as reliant upon the micro-biomic complex of critters, it can also open out the other way, as well as introvertedly thinking of our bellies, to think expansively towards the extended environment and our actions upon it as conglomerations of beings. It requires a shift of mindset to think of humanness in expanded holobiontic terms - we are never alone:

> The increasing realisation that animals cannot be considered in isolation but only as a partnership of animals and symbionts has led to two important realizations. First it is becoming increasingly clear that to understand the evolution and biology of a given species, we cannot study the species in isolation. Second, the health of animals, including humans, appears to be fundamentally multiorganismal. Any disturbance within the complex community has drastic consequences for the well-being of the members. (Bosch, Miller, 2016, p.2).

Cleaned ironwork lies in waxed and shrouded state – the old sheets and blankets that once clothed bodies, now cover these pitted hulks, the sheets keeping off dust but absorbing moisture and holding it to cold metal corpse. The restoration team loses its head, passed on, the body continues, finding new ways to organise and think for its selves.

3.7 more-than-human

Your sweat and blood are in the place, as it's dirt and dust are in you. Become one. Now bodily form has gone, a figure passed on yet in all objects touched, small presence remains.

Through Whitehead we begin to arrive at a philosophical understanding that throws off anthropocentric dominance:

> Our knowledge of the body places it as a complex unity of happenings within the larger field of Nature. But it's demarcation from the rest of Nature is vague in the extreme. The body consists of the co-ordinated functionings of billions of molecules. It belongs to the structural essence of the body, that in an indefinite number of ways, it is always losing molecules and gaining molecules. When we consider the question with microscopic accuracy, there is no definite boundary to determine where the body begins and external Nature ends. (Whitehead, 1934, p.80)

In taking the term more-than-human, we expand from the concepts of extended organism that reaches into environment through architecture and tools, to understand the expanse of the non-organic world in terms of broader affect and intelligence, rather than as mute objects. Lynn Margulis and Dorian Sagan say:

> …that material systems exhibit intelligence in extracting energy via cycles. Do we want to claim exclusive possession of mind and purpose when the very cells of our brains have multiple precursors in a far more-than-human natural world? (Margulis, Sagan, 2023, p.8).

This position continues to de-anthropomorphise the world and is taken up by Jane Bennet:

> Contemporary theory has taken a nonhuman turn that locates the human on a continuum of lively bodies and forces – a continuum that elides conventional dichotomies of life and matter, organic and inorganic, subjective and objective, agency and structure.
> (Bennet, 2020, p.xi).

We touch lightly on the intricacies of being more-than-human, just enough to ask again if becoming 'we' rather than 'I' could eradicate the need for gendered language, levelling out the field – with the benefits of de-specification leading to an encompassing 'we' that takes 'stuff' on board too. Bennet ends *Vibrant Matter*, a book that explores vital materialism, by saying 'I believe that encounters with lively matter can chasten my fantasies of human mastery, highlight the common

materiality of all that is, expose a wider distribution of agency, and reshape the self and its interests' (Bennet, 2010, p.122).

Yet these modes of thinking are not new. We can take another perspective through the writing of Robin Wall Kimmerer where work as botanical biologist encompasses her native American heritage in a form of understanding that exists through combination of scientific research alongside ancient traditions. Kimmerer's approach is one of respecting the interconnection between all things, purveying a very different understanding of position in, and relation to, all the stuff of the world. These older knowledges are gathering credulity again, or whatever remains of them after processes of cultural dominance almost saw their eradication. (Kimmerer, 2020).

The kids in the village of workers at Crossness pulled rags and silk hankies from the grilles that filtered the mire, washing them and selling back to gentry in a flushed circularity of economy

3.8 Gaia/Biogea

Approach on road past burned out vehicles, dumped stuff, spiteful bramble and briar finds relief on parallel Ridgeway, views afforded from a position of height, held aloft by a double layer of perpetually moving outfall, a lush green stripe over, through urban greys, obscuring transit under.

James Lovelock is known primarily for origination of the Gaia hypothesis. It encompasses the evolution of the earth and life upon it as a singular process through which environmental regulation emerges. In the words of Lovelock, Gaia is 'a thin spherical shell of matter that surrounds the incandescent interior…and proceeds…outwards through the ocean and air to the even hotter thermosphere at the edge of space. It includes the biosphere and is a dynamic physiological system that has kept our planet fit for life for over a billion years' (Lovelock, 2021, p.2).

Based on an article originally published in 1984 by Lynn Margulis and Dorian Sagan, *Gaia and Philosophy* was re-published as slim volume in 2023. Sagan begins with an introduction that concerns position of Gaia fifty years on from its genesis. The introductory descriptor says, 'Gaia is a body in the form of a planet' (Margulis, Sagan, 2023, p.1). Sagan goes on to describe the evolution of the theory that was formally proposed by Lovelock. It was only through collaboration with Margulis and her extensive knowledge of microbial biology, alongside his own in

atmospheric chemistry, that the theory developed. In addition, the naming of the theory came from writer William Golding, who happened to be a neighbour of Lovelock, so we find a symbiotic approach throughout its development. (Margulis, Sagan, 2023, pp. 2, 3).

Lovelock states ‘We have to think of Gaia as the whole system of animate and inanimate parts.’ (Lovelock, 2021, p.2) emphasising that the theory is one that encompasses the more-than-human. According to Margulis and Sagan, Gaia operates through loops of complex feedback, in a hyper mingling of organisms and environment which turns environments into bodies. The concept being that the Gaian complex makes and remakes its own environment, achieving a form of stability that sustains life, with microbes regulating that environment – as on another scale where bees and termites, in their extended architectures, regulate temperature and humidity within their hives and nests in a mode of organismic operation that is driven by the senses. (Margulis, Sagan, 2023, pp. 9, 27, 41).

In terms of self-regulation there is current awareness of microbes that are developing capacity to digest plastics (Buranyi, 2023). On an ever-evolving planet it may not be possible to revert our world to what it was before mass human intervention, but it becomes anew, there is possibility that humans may generate their own extinction, but very unlikely that of the world beyond. Humans are relatively new within these Gaian feedback cycles where ‘our exponential population and industrial increase is not sustainable’ (Margulis, Sagan, 2023, p48).

Diversion at the Ness necessitates driving as easier means of arrival. Taking the Woolwich way, past newly risen flats, already under threat of deconstruction, the result of the need to feed developer greed, more abodes squeezed and pushed beyond expectation, extending corrupt boundary. This gluttonous activity turns thoughts to the failure of pumping stations, where processing incapacity justifies untreated release into river, for if not ejected it would fall up rather than out, backing westward along the Thames - imagine the way that sewage would surge up, overspilling pristine loos...

The functioning of Gaia exists beyond selfish individualism to the point where it denies the sanctity of human attributes, with acceptance that the materials of the world are embraced as a part of the organic – where human bones contain calcium, where a body consists of many chemical elements, and that being simply would not be without the functioning and co-reaction of all the parts. Gaia

theory sees a blending of organism and environment through a modern rationalist reformulation of ancient intuitive sentiment (Margulis, Sagan, 2023, pp. 43- 46).

In *Biogea* Michel Serres talks of a narcissistic view of humanity where:

> …we only listen to languages and human rumblings…by splashing about in this foul rubbish of meaning, we appropriate the world…. yet we're beginning to decipher the codes of living things – true living languages, authentically foreign – and the inert things of the Earth, both of which, like us, receive, transmit, store and process information. Formerly philosophers understood that everything conspires or consents. We now know that Biogea converses. Scientific or imagined…. these languages heard by building a first megaphone for Gea: seas, rivers, lands, glaciers, volcanoes, winds; then for Bio: rats, wolves and jackals – fauna, apple trees, wisteria, oaks and lindens – flora; lastly by connecting these megaphones to our own encounters and cries. (Serres, 2012, pp. 196,197)

In *Biogea* Serres has generated a dialogical word that encompasses multiple realms of existence, a term formed from two others, symbiotically conjoined in expansive meaning. The term Gaia can be considered problematic as the name is rooted in a form of anthropomorphism, albeit a godly one. Rex Weyler was an environmental activist who was a director of the original Greenpeace Foundation. According to Weyler, in an article exploring the theory 'Gaia was the Greek goddess of Earth, mother of all life' (Weyler, 2019). But is it not more appropriate, in the process of de-emphasising an anthropocentric perspective, to use a name that does not rely on a godly, female personification of the earth? It situates Biogea as a far more open term through which to contemplate and act within the broader realm.

Serres takes poetic turn in *Biogea*, fusing personal experience with science, history, politics and myth, allowing for humanity to exist mingled in commonality with all other things, not subordinate to, nor above.

Echoed in the words of Jane Bennet where 'efforts towards rhetorics and experiences of self that exceed anthropocentric propensities are uncertain. But we be trying. (Bennet, 2020, p.118)
That attempt at and will to change is at the necessity of all, where inactivity constitutes a form of consent.

Isabelle Stengers contributes a chapter to a book titled *The Anthropocene and the global environmental crisis: rethinking modernity in a new epoch*. In the chapter 'Accepting the reality of Gaia', which constitutes a philosophical revision of the hypothesis, Isabelle Stengers finds we

require a ‘reclaiming and cultivation of cooperative intelligence, the art of giving voice to powers, human and non-human’ (Stengers, 2015, p.142). Through the chapter she highlights that the term Anthropocene, used to describe the era in which humans have existed and impacted substantially upon the planet, is a misappropriation, that it should in fact be termed the Capitalocene to reflect the period of ruthless exploitation, though we should note the term Capitalocene is not of her own making – nothing in singularity. If we follow Margulis and Sagan we find a different refutation of the Anthropocene by reducing its status to ‘event’ rather than ‘epoch’. They consider it a conceit to name an epoch after ourselves going on to say that ‘despite our intelligence and apparent ability to peer haltingly into the depths of cosmic origins and life’s organisation, we are dispensable to the global life form’ (Margulis, Sagan. 2023. p.15).

Living through event over the grandiosity of an epoch turns towards a humility found through Whiteheads occasions of experience.

3.9 organismic mingling

bitter pasts and old disputes mean that plumbered care is no longer there, the pump professional carries on without companion until new boiler expertise comes in to play - phew - the org would never get through winter chill without a bit of internal combustion

James Compton Burnett is responsible for the earliest known use of the term ‘organismic’ in his 1886 book titled *Diseases Of The Skin From The Organismic Standpoint*, published relative to the period just after Crossness came into operation. He was an orthodox physician who converted to homeopathy, publishing over twenty books on a range of medical subjects in the course of his practice. He took issue with prevalent medical perspectives of the time, that could be narrow in view, for example in the treatment of skin diseases applied locally rather than consideration of them holistically, in relation to the rest of the body:

> That the skin is a very important living organ of the body. That it stands in intimate, though ill-understood, relationship to all the internal organs and parts…That skin diseases are most commonly not merely organic, but at the same time organismic, or constitutional. (Compton Burnett, 1886, p.ix)

Constitutional can be taken as belonging to the broader composition of something – making up part of, forming, composing. In understanding human constitution not only through individual elements Burnett's approach to medicine, in large part, connects with contemporary modes of medical research and practice that are beginning to further encompass the nature of biological ecologies and complexity in relation to health, particularly in areas of study like the gut microbiome. There is a whole raft of historical indigenous, folk and traditional approaches to the treatment of illness and disease that encompass holistic approach, but they have been somewhat over shadowed, or even lost, through the dominant discourses of objective Western medicine – which has of course had enormous positive impact on public health and longevity but equally has lost sight of a broader scope.

The work of Burnett can be understood as 'ecological' through consideration of existences within environments: 'how are the bacilli to thrive unless the soil be, for them, of the right kind?' (Compton Burnett, 1886, p. viii).

In *Time, Technology and Environment* Marco Altamirano echoes this understanding of ecologies over a century later:

> The mechanisation of nature is not likely to encourage an ecological view of the human within its environment…the bifurcation of nature into a physical aspect and a conscious aspect facilitates a picture of the human in confrontation with nature, rather than in an ecological relation (Altamirano, 2017, p. 32).

It becomes fundamental to encompass existence within ecologies, to stop thinking of ourselves as separate from nature, from environment, from world - but as dynamical, ever shifting parts of it. We are ecologies, within bigger ecologies, in a nesting of existences.

Where holobiont, Gaia hypothesis and Biogea converge is a meeting point, or nexus, through which to consider our being as mingled with the broader context of the world. Where Serres suggests that our 'world view has lost the world' (Serres, 2019, p. 71), perhaps we can reclaim connection through a co-existence in the 'common house' (Serres, 2019, p. 83). Through *The Natural Contract* and *Hominesence* Serres calls for a radical shift in thinking through a new partnership with the natural world, while we are still able.

In dark times of mass warfare and planetary pillage there is yearning for return to respectfully pleasurable, organismically mingled existence. The final page of *Biogea* ends with ‘Joy: the matter from which the Biogea is made’ (Serres, 2012, p. 200).

It is through definitions of life and organism as self-organising that contrasts to a position that wants to inflict humman design upon all. We are a part of nature that has lost control over its own industry and waste – the bi-products of processes that sustain but that also have destructive capacity. These aspects all connect through the constructed and organic qualities that are already embodied and interplay through the site at Crossness.

The org that is the Historic Engines Trust is not in great health after economic devastation following lockdowns and lessening of income in the aftermath of social distancing and reduced visitor numbers. The Trust is a voluntary org that exists only through the commitment of its volunteer members, and the amount of work put in at all points. Engineering, restoration, workshops, finance, lecturing, tours occur, though the place is almost anarchic, chairmen come and go in the face of challenge. In-fighting has eroded atmosphere - energy is wasted on internal wrangles rather than restoring health. But things change, no thing remains the same, there is resistance but the will to survive is there, to keep the org for future generations. Like Triggers broom, the parts are replaced but essentially the broom remains the same, the same yet somehow different. Tea breaks bring small respite and little trickles of joy.

4 PROCESS

With structural issues resolved and lifting points, tested, repaired or replaced - assembly of the steaming beast will start in earnest once the months of painting tasks are done. The process of reassembling, securing and sealing engine parts will involve the hands of many.

4.1 philosophy of organism/ process philosophy

As the definition of organism has multi-form it seems appropriate to turn focus to the philosophy of organism, or process philosophy as it is also known. The philosophy of organism is the metaphysics of mathematician and philosopher Alfred North Whitehead. Whitehead, being neither materialist or idealist, focuses on where processes, experiences and relations prevail, not material objects or Newtonian certainty. His mode of thinking is aligned with the uncertainty that exists in quantum theory. He sees the extension of organismal thinking as applied to all things (Whitehead, 1963, p97).

It is in this continuation of organic thinking that extends across disciplines, rather than mechanistic and reductive interpretation, that holds fundamental position. Whitehead conceives of individual entities as a series of moments of experience rather than masses of static substance. Within each moment an entity is influenced by others, creating its own identity and propelling itself into further experiences. 'Nexus' is the term used by Whitehead to describe multiple occasions of encounter. Based in an ever-unfolding organicity, rather than that of fixed matter 'the concept of the order of nature is bound up with the concept of nature as locus of organisms in process of development' (Whitehead, 1963, p.72).

Whitehead is also concerned with the problems emanating from the bifurcation of nature, the splitting of matter and mind where:

> Scientific reasoning is completely dominated by the presupposition that mental functions are not properly part of Nature…. The points that I would emphasise are:
>
> First, that this sharp division between mentality and Nature has no ground in our fundamental observation. We find ourselves living within Nature. Second, I conclude that we should conceive mental operations as among the factors which make up the constitution

> of Nature. Third, that we should reject the notion of idle wheels in the process of Nature (Whitehead, 1934, pp. 70,71)

The mechanistic world view of mute matter, of 'idle wheels', is untenable when everything is considered as active through event or encounter. Mind and matter must be cohered in terms of this encompassing position.

Seeking deeper understanding of Whitehead as ecologist and cosmologist comes not through solo endeavour, it is the work of many, it is the filter of multiple interpreters and processors of thought, as well as direct from source. Comprehension does not emanate from a singular point or position as encounter is filtered through multiple occasions with Stengers, Shaviro, Kennedy, Bennet, …

We find example of nexus through Whitehead through Shaviro through Kennedy, in a quote within a quote within a quote, in shared siftings of thought. Stephen Kennedy finds:

> …an alliance with Steven Shaviro in his 'Without Criteria', in which he develops the argument of A. N. Whitehead as follows:
>
> > In 'Process and Reality', Whitehead strictly distinguishes between occasions and events, between entities and societies. He 'uses the term 'event' in the more general sense of a nexus of actual occasions, inter-related in some determinate fashion in one extensive quantum. An actual occasion is the limiting type of an event with only one member' (Whitehead, 1985, p.73). At the limit, an event may be just one particular occasion, a single incident of becoming. But more generally, it is a group of such incidents, a multiplicity of becomings: what Whitehead calls a nexus. A nexus is 'a particular fact of togetherness among actual entities' (Whitehead, 1985, p. 20); that is to say, it is a mathematical set of occasions, contiguous in space and time, or otherwise adhering to one another. When the elements of a nexus are united, not just by contiguity, but also by a 'defining characteristic' that is common to all of them, and that they have all 'inherited' from one another, or acquired by a common process, then Whitehead calls it a society (Whitehead, 1985, p.34). A society is 'self-sustaining in other words…it is its own reason…The actual things that endure.' And that we encounter in everyday experience, 'all are societies' (Whitehead 1985, pp.203, 204).
> >
> > (Shaviro, 2012, p.18)
>
> This rather long quote needs to be unpicked so that its relevance here is clear.
> An event is the connection of occasions that when joined form one extensive quantum: a singularity, an energy that is formed from a particular fact of togetherness'. This togetherness, or 'mathematical set' can be identified as contiguous or as having a 'defining characteristic' in common that is 'inherited' each from the other (Kennedy, 2016, pp. 148, 149).

This lengthier layering of quotes is demonstration of accumulated understanding, not only where knowledge is added to, but where opinion butts up against another to provide the friction of encounter that is necessary to philosophical argument – itself a processual encounter, even if firmed up on a page. There is a fractal quality to aspects that are self-similar, of quotes within quotes, of repeated form.

In interview Stephen Shaviro talks of the genesis of his book *The Universe of Things* as 'a result of casual but intriguing encounters', going on to say that his introduction to Whitehead came through Isabelle Stengers (Shaviro, Poe, 2015).

Would Whitehead have developed his philosophy in singularity? Surely not, again he was harnessed to an extensive microbiome, to family, students (including Bertrand Russell), to other mathematicians, academics and philosophical thinkers. And so there can be no singular approach that can claim authorship of the philosophical understanding explored in this essay, it comes through the direct words of Whitehead alongside the processing of others – reprocessing and filtering from many sources, podcasts, poetry, essays, books. Through varied opinion a mode of collective understanding manifests, in another form, another interpretation.

Crossness as nexus where a seemingly random set of people come together through a geeky interest in old engineering and become part of a community… Speculative and imaginative approaches, feeling ways to other ways of being that accept and encompass multiple perspectives through encounter and argument – held together in this small yet diverse society - finding space and acceptance for differences in the small economies of exchange that exist within the constant push and pull between objectivities of engineering and subjectivities of opinion and encounter.

> Science can find no individual enjoyment in Nature; science can find no aim in Nature; science can find no creativity in Nature; it finds mere rules of succession. These negations are true of natural science. They are inherent in its methodology. The reason for this blindness of physical science lies in the fact that such science only deals with half the evidence provided by human experience. (Whitehead 1934 p.66).

Whitehead employs a metaphor of science looking at the coat while forgetting about the body within (Whitehead, 1934, p.66).

We can begin to unfold relationships between the process sculpture of John Latham and the process philosophy of Whitehead. In the paper *Process Philosophy in the 21st Century* Latham highlights a knowledge-based division where the 'vulgar (non-expert)' is criticised but finds that 'Whitehead's solution is to return the vulgar notions to the process philosophy' (Latham, no date). We shall go on to find further relation to the vulgarity of the non-expert within 'common sense'. The above paper exists in the archive of John Latham, online through digital means and on paper at his former home, which now constitutes a living archive and place for artistic residency and research.

Latham conceived of his cosmology - Flat Time - through the 'least event' where Flat Time House (FTHo) becomes an embodying space for the cosmology. Latham viewed FTHo as a 'living sculpture' in relative understanding of the organic nature of event (Latham, 2014). The 'least event' postulates that the basis of everything can be considered through an unfolding of events in time, articulating a lineage from Whitehead's philosophy of organism, formed through occasions of experience (Latham, 1984, pp. 8,9).

In interview Latham said that 'The universe is a recurrent event and is more like an organism than is implied by the language of physics' (Brouwer, Latham, 2014). This echoes the earlier words of organic understanding in *Science and the Modern World* where Whitehead states, 'Biology is the study of the larger organisms; whereas physics is the study of the smaller organisms' (Whitehead, 1963, p.97).

Latham shared Whitehead's interpretation of everything as reducible to energy, or event:

> The continuous effort to understand the world has carried us far away from all those obvious ideas. Matter has been identified with energy, and energy is sheer activity…The modern point of view is expressed in terms of energy, activity, and the vibratory differentiations of space-time. (Whitehead, 1934, p.30).

The understanding of all as energy can also be found in ancient practices and forms of knowledge, pre-quantum physics and modern philosophy. It can be taken back to classical Greece and to forms of eastern mysticism though the concept exists broadly in many forms of 'primitive' thought, which are perhaps less well documented, or acknowledged. (Nail, 2024, pp.1-6).

Whitehead takes the concept forward to the realm of emotional experience:

> The object of the lectures is to indicate those elements in our experience in terms of which such a cosmology should be constructed. The key notion, from which such construction should start, is that the energetic activity considered in physics is the emotional intensity entertained in life. (Whitehead, 1934, p96)

There is an underlying relationship between the philosophy of organism, as ontological, to the seeking of meaning that seems to be at the root of motivation for many who volunteer at Crossness, finding meaning in being and doing within the cathedral on the marsh.

Security needs changed route around a bend in the road through new-fangled barrier. Unable to carry straight on, journey convolutes past eras of processing technologies. This is no easy way to walk, the bubble of a car can keep safe barrier from the sullied world, another skin of protection, where traffic light stop affords a view of 'Royal Arse' on travelling the Woolwich way, that divides new from old, gentrification from decay, the curved corner of a building, with large words following the arc atop to advertise hotel under, yet the bended view eclipses the word, 'nal' appears in shadow. It suits theme in following outfall flow towards the Ness.

4.2 technology/redundancy

Census statistics describe London as a city that expanded from a population of just over a million in 1801 to well over three million by 1861. A threefold increase of consumption and production of waste matter in just over half a century. This has tripled again to just over 9 million today for the entire London region, and we still rely heavily on the sewage and wastewater systems built in Victorian times.

The ideology behind generating the sewage system was to provide structure not only for immediate needs but with planned capacity for the demands of a city that was continuing to expand. We still rely upon this system today. Construction of the new Thames Tideway Tunnel, or 'Super Sewer', is to alleviate current issues of dirty water release into the Thames. It is a marvellous piece of contemporary engineering but only supplements the magnitude and complexity of the extant Victorian system. Work began on the Tideway Tunnel in 2016. At conception the plan was for it to be functioning from 2020. Despite clever contemporary engineering technologies, it is not yet operational, is costing a substantial amount over initial estimate and is exceeding the deadline for

completion in 2024, now scheduled to be operative from some point in 2025. Comparatively Crossness, and the sewage system leading to it, was in full planning from 1858 and was fully functional by 1865, though there are many questionable ethics surrounding its construction.

Alfred North Whitehead clearly highlights the problems that emanate from fixed perspectives:

> Every age manages to find modes of classification which seem fundamental starting points for the researches of the special sciences. Each succeeding age discovers that the primary classifications of its predecessors will not work. In this way a doubt is thrown upon all formulations of laws of nature which assume these classifications as firm starting points. (Whitehead, 1968, pp. 127, 128).

Perpetual doubt becomes something that needs to be embraced. The need to reconceptualise understanding of organism is recognised by Audrone Zukauskaite in *Organism Oriented Ontology* through relation to process that follows from Whitehead's philosophy of organism:

> The notion of an organism-oriented ontology prioritises three main ideas: processuality, multiplicity and potentiality (potential for qualitative change). In contrast to ontologies based on the priority of identity and substance, organism-oriented ontology examines organisms as developing, changing, evolving (Zukauskaite, 2023, p.11).

Zukauskiate refers to Gaia theory as a mode of thought that can 'reveal the continuity between nature and technology' (Zuskauskiate, 2023, p.153) as developments in technology lead to emergence of identifiable organic qualities found in learning through feedback as used in developmental processes for artificial intelligence.

The extension of perception through technologies is at the root of activity for the Captivate Heritage Laboratory based within the University of Greenwich. This group of researchers use the latest scanning technologies to explore heritage environments through spatial modelling. In a presentation by Simon Withers and Stephen Kennedy, given at *Time, Space and Monumentality* conference held at the University of Greenwich in conjunction with Culture&, Kennedy outlined activity as framed through 'setting up quite a complex theoretical and philosophical model that is drawn on process philosophy', from Alfred North Whitehead and through the lens of Isabelle Stengers who 'reappropriated and represented this idea of process philosophy in a contemporary context' (Kennedy, 2024).

An aspect of Captivate research that combines this philosophical base with practical activity has been in exploring Cleopatra's needle on the Victoria embankment, using Lidar scanning technologies - this being a site of specific relevance that Whitehead used to explore aspects of his philosophy. To paraphrase Kennedy - Whitehead uses the needle to describe relationships of permanence and transitoriness. The needle seems solid, is made of granite. Its seeming solidity contrasts with the flow of the Thames and the people around, expressing the interplay between transience and permanence through different modes of encountering the world. Monuments stand as symbols, to make sense in a world of bewilderment, fixing things in a notion of permanence. As with cathedrals which can be seen as 'crude examples of how we express ourselves' through to a scaling and refinement into sophisticated systems that become a means of understanding the world around us, attempts to understand the cosmos in full complexity (Kennedy, 2024).

It is through the embedded layers of history that the current context of Cleopatras needle becomes such key referent. It can be read on many levels, through multiple aspects from ancient history, of the formation of the stone, its carved origination in Alexandria, through transportation and locating on the Thames embankment where it is situated over a tributary sewer to the Northern Outfall, to the levels of movement of people and water nearby, down to the gathering of dirt on the surface, and weathering which causes erosion of the stone. (Whitehead, 1990, p.167).

Whitehead asks:

> Where does Cleopatras needle begin and where does it end? Is the soot part of it? Is it a different object when it sheds a molecule or when its surface enters into chemical combination with the acid of a London fog? (Whitehead, 1990, p. 171).

This description dates Whitehead's London encounter to a time other than the one we exist in now, in which ULEZ charges and technologies for cutting vehicle emissions have gone some way to transform air quality from the days of engulfingly dense acidic smog.

Michel Serres echoes Whitehead's relation to processes of change through the river Seine, and the matter of perspective and scale in relation to event:

> Having never sailed in fresh waters, the poet, from the height of his bridge and his inspiration, didn't see the eddies or the counter currents that sometimes went against the barges going downstream. Softer than the solid, this is the liquid. The water of the Seine evaporates, forms clouds; it rains. The water has statistically returned, but it is not the same. (Serres 2012 p191).

Serres is concerned with an overall patterning here that sees the activity of the water as consistent. On one scale, the Seine flows on, as with the continuation of the *Longplayer* composition where there is no exact repeat, but the more general sense of encounter is one of familiarity. The fluid nature of being allows for a certain form of consistency to exist. As Serres highlights, it is the fluid that prevails in mutability whereas the seemingly solid objects lose form, where the effect of rain drops make 'the hardest mountains flatten, grain by grain' (Serres, 2012, p.191).

Within the expansive realm of process philosophy this action of erosion reflects the redundancy found with technologies, while the organic aspect inserts emergence and renewal.

> …our present laws will fade into unimportance. New interests will dominate. In our present sense of the term, our spatio-physical epoch will pass into that background of the past… (Whitehead 1934 p68).

Serres talks further on the wearing away of solid things, where architecture becomes another temporary means of countering perpetual loss, as does the redundancy of computer hardware. As a means of thinking through this he invites us '…to visit the places where the history of technology is read the best: ship graveyards, railroad yards, downgraded cranes, whose masses border the typewriters and computers of the first and even more recent generations…' (Serres, 2012, pp. 190,191) or perhaps in the site of a slightly crumbling Victorian sewage pumping station on the banks of the Thames.

In engineering, replacing parts, fashioning anew; as with bodies, ball joints and sockets, knees and hips replaced, cataracts of milky film removed. Coagulated oils protect and preserve, yet Renaissance wax struggles to fulfil on scale in this brackish climate. Is there a form of renewal to be found in redundancy? – the volunteers who come to Crossness after retirement may affirm.

The layers of redundancy entrenched within Crossness echo the ghosts of technologies piled up at Trinity Buoy Wharf - the existence of *Longplayer* points to the previous layers of technical hardware that have existed at that site, through the testing and development of equipment for lighthouses and lightships. *Longplayer* itself echoes this within the old lighthouse, with its own accumulation of redundant computers and hardware that have kept the piece running for the first twenty-five years.

Outmoding of technologies runs parallel to the theories and understanding that once explained aspects of the world, how they lose meaning in light of theoretical development, and so common sense ceases to be as originally derived from direct encounter with the world.

> At first sight there are sharp-cut classes within which we can sort the various types of things and characters of things we find in Nature. Every age manages to find modes of classification which seem fundamental starting points for the researches of the special sciences. Each succeeding age discovers that the primary classifications of its predecessors will not work. In this way a doubt is thrown upon all formulations of laws of Nature which assume these classifications as firm starting points (Whitehead, 1934, p.10).

There is new route into Crossness, a lurch round to the right, newer bigger barriers, spaces to stop for security check – mostly vehicles waved through as no longer much ease in arrival on foot - a journey across an expanse of generations of processing treatment technologies, past the architectural structures that house them, from Victorian to Brutal to contemporary slick.

4.3 uncertainty

Amber Scoon mulls through body-mind-tool relations in *Quantum Art* in a way that speaks with the concept of extended organism by reinserting the body forgotten inside the scientific coat, and goes on to blur the two together:

> What is the body? The body is a being that becomes aware of itself as a whole. The body from its earliest stages, uses itself as a tool to observe, mimic and create itself. The body is also the senses, the mind, the organs, the cells, the molecules, the muscles, the consciousness and all the other parts which we do not have names for and have not yet imagined. The body is also a tool. For example, the brain uses the hand as a tool to reach for an object. The hand uses the senses as a tool to decipher an object's temperature, and so forth.
>
> The body is, therefore, a being as well as a tool. The body's most obvious tools are its brain, its eyes, its muscles, its hands etc. However, it is also made up of external tools such as the pencil, the camera and the computer. Consciousness can be considered a tool, although we do not know where it resides in the physical body.
>
> Quantum physics inspires the questions: Where is the separation between bodies? Do bodies share tools? Do bodies share being-ness? (Scoon, 2017, p.36).

These questions are applicable to the softening of boundaries, in attempt to define where one thing begins and another ends, of just what is organic or expresses organicity – taking us to a place of less disciplined and fluid scaling over rigid categorisations.

A merging of thought from across defined disciplines is highlighted in the introductory chapter to *The Ghost in the Atom: the strange world of the quantum* in which editors Davies and Brown highlight relations between quantum physics and eastern schools of thought where:

> The quantum reality of the microworld is inextricably entangled with the organization of the macro world. In other words, the part has no meaning except in relation to the whole. This holistic character of quantum physics has found considerable favour among followers of Eastern mysticism, the philosophy embodied in such oriental religions as Hinduism, Buddhism and Taoism. Indeed, in the early days of quantum theory many physicists…were quick to draw parallels between the quantum concept of part and whole, and the traditional oriental concept of the unity and harmony of nature. (Davies, Brown, 1986, p.12).

This book contains a transcript from a BBC radio interview with theoretical physicist David Bohm. Bohm is an interesting figure for the way that he connects the realms of physics to Eastern philosophy (Bohm, 1986, p.118). There is an expansiveness to Bohm's thinking that relies on embracing the potential for change, in knowing that theories and ideas are not fixed but require new questions and approaches, rather than holding to seemingly solid points of knowledge. This is a process of understanding that perpetually evolves and sits in alignment with the process philosophy of Alfred North Whitehead.

Bohm's breadth of scope found him in dialogue with many key figures in physics, philosophy and religion. His ongoing conversant engagement with Jiddu Krishnamurti is documented in *The Ending of Time* (Krishnamurti, Bohm, 2008). This book is a space where transcribed dialogues unfold across the pages in a questioning and merging of perspectives. There is a back and forth in asking and expounding thought that weaves its way through a book that offers no conclusions, just processes for working things through.

One of Bohm's key books *Wholeness and the Implicate Order* presents processes of thought as perpetual movement, unfolding and enfolding, where everything is internally related to everything else, where the universe is contained in everything, unfolding into our perceptions through a single, indivisible whole that includes consciousness. His organic way of thinking addresses philosophical

questioning of scientific orthodoxies where it is no longer possible to analyse by cutting things up into little bits, as found with classical physics.

Bohm seeks a new form of language, the rheomode, that preferences use of verbs over adjectives and nouns. As inventing a whole new language is untenable, the suggestion of 'what can be done is provisionally and experimentally to introduce a new mode of language' (Bohm, 2002, p.38). It is a tricky thing to unlearn the forms of language that are ingrained. The notion being that 'as one develops such a mode and works with it for a while, one may obtain the necessary skill in using it…without the need of conscious choice' (Bohm, 2002, p.39). This suggests a process of learning and unlearning that comes through commitment to practice. Buckminster Fuller precedes the application of rheomode through *I seem to be a verb* (Buckminster Fuller, Agel, Foire, 1970), an elusive book that can be difficult to get hold of as few copies circulate, even those in the British Library collection have gone off on travels somewhere. This is a book made through collaboration with Jerome Agel and Quentin Fiore. The book toys with traditional form as it reads in both directions, from front to back and inverted from back to front so each double page is presented one up, one down. There is a merging of text in differing fonts and sizes that sit in relation to the graphics and images that play across each page. There is no singular pathway in this activating use of language. In terms of evolving ideas, *I seem to be a verb* was published in 1970, preceding Bohm's rheomode by around ten years. The book highlights existence in a dynamical world, is active in its very essence, encouraging reader to unpick meaning through image, word and form.

These challenges to language inspire approach to thesis in seeking flows of words that evade cutting and calculated linguistic turn often applied in academic research that probes, dissects and tactically defends, and even performs autopsy - language entrenched in fragmentary analytics, reductively carving-up and battling in a relativity to the language of warfare. Though tai chi is also a martial art it offers other ways of thinking through dualities that spring from the dao, where there is perpetual shift to find unities within.

Gary Zukav merged aspects found in disparate ways of thinking through relating the movements of energy within tai chi to that of quantum physics. Fusing the fundaments of physics with Eastern mysticism becomes a means of developing understanding through key connections. In his book *The Dancing Wu Li Masters* Zukav says, 'when I studied physics in Taiwan…we called it Wu Li…It means patterns of organic energy' (Zukav, 1988, p.4).

Accepting indeterminacy does not leave everything open and woolly - it allows for very specific and defined encounters, while accepting and acknowledging that others may be possible, or even happening simultaneous to - should we wish to enter the multiverse - where experiences are continually unfolding, immanently held within a larger, or very much smaller, potentiality.

The iron work of a deconstructed beam engine is cleaned and restored again, awaiting the process of reconstruction, no matter how waxed and shrouded with care, the parts continue to oxidise under wraps. Twenty years now since work began on the second beam and ever a hindrance to delay re-formation. The question now is finding memory of how to reassemble the parts, *though there will be many adaptations in connecting contemporary oil-fired steam boiler.*

5 SENSIBLE

On coming nearer to Crossness, the smell often precedes its looming physical presence. The miasma gets inside you without consent. This entices a way to artistically explore, perhaps the only way to explore, is in sifting through the subtleties of sensory encounter.

There are multiple senses of sense. A jaunt around various interpretations may provide no definitive route, rather a way of thinking through the complexity of activity in getting to and generating event-installation at Crossness. Approaches to evolving work through expanded encounter emerge from thinking around and with the place, the people, the scientists and the philosophers.

The sensible development of installation will foray softly into expanded sensory fields, in exploring ways to extend experience through immersion in subtle and layered sensationalism, not only those of overwhelming spectacle. Though there is little more to be done beyond taking a journey through Crossness as, before any artistic intervention, the place is already crowded with sensory adventure.

5.1 senses

There were more people in the room with hearing aids than I'd encountered before, throwing out questions - like how to work with subtleties of sound for someone who suffers from nine identified forms of tinnitus?

In imposition of order, Aristotle is responsible for the first known numbering of the five senses in *De Anima* – 'which I take to be sight, hearing, smell, taste and touch' (Aristotle, 1986, p189). This ordering is picked up way down the historical line where:

> …the sort of observations most prominent in our conscious experience are the sense-perceptions. Sight, hearing, taste, smell, touch constitute a rough list of our major modes of perception through the senses. But there are an indefinite set of obscure bodily feelings which form a background of feelings… (Whitehead, 1934, p.63).

Scientific developments show that different neurological classifications reveal twenty-one possible senses, or even up to fifty-three depending on subtle forms of classification (Sensory

Trust, 2020). Differing cell types related to processing of sensory material generate a more expansive list of senses beyond the big five, though they can defy tight classification with blurred areas of overlap. Their impact on the function of a being is expansive: 'Various sensory perceptions… influence voluntary and involuntary motor activity to facilitate interaction with the world'. (Gadhvi, Moore, Waseem, 2023)

Michel Serres playfully examines *The Five Senses* through separation into single sensory sections, before slamming them back together in an inter-sensoriality, or 'mingled bodies' of encounter, through a holistically mixed experience of the world. It seems of value to hold to this book through the development of a sensible approach to installation, that goes beyond purely phenomenological encounter, tying the senses into the richness of worldly experience through bodily processing, where Serres poetic prose stimulates another layer of sensibility:

> The ear knows the distance all too well. I can put it out the window, project it far away, hold it distant from my body.
>
> Lost, dissolved in the transparent air, flowing with its every variation, sensitive to its shallowest comas, shivering at the slightest breeze, given over to the world and mingling with its outbursts… (Serres, 2014, p.94).

The sense here is that the body extends into and becomes a part of the world, as with the extended organism, 'mingling' in Serres term, beyond material form into energetic fields of vibrational sound.

Serres defines three areas of worldly noise, though it is possible to propose that they may cross or co-exist, one within the other, changing from intersecting to sub-sets, and back. The first from within:

> The primary source of noise is within the body, whose subliminal murmur our proprioceptive ear sometimes strains to hear; billions of cells dedicated to biochemical reactions, the likes of which should have us all fainting from the pressure of their collective hum (Serres, 2014, p.106).

…not to forget the belly-rumbling additions that our multitude of gut bacteria contribute too.

> The second source of noise is spread over the world: thunder, wind, surf, birds, avalanches, the terrifying rumbling that precedes earthquakes, cosmic events...this noise also resolves itself into information via the neatly complicated box of the inner and outer ear, but we

> often build equally refined boxes around our bodies: walls, cities, houses, monastic cells. Sounds reach the monad softly, through doors and windows (Serres, 2014, p.107).

The extended organism manifests again through constructed environs. Even monadic separation brings some form of collective connection through sound. Nothing in singularity, as hermits do not remove themselves from the world to be entirely separate, it is done to listen and process with more subtlety and intent, and there will always be that churning biotopic bellyful to keep them company – 'The last source of sound comes from the collective, surpassing others by far…' (Serres, 2014, p.107) – perhaps this can take us in both directions to micro and macro collectivities.

The monadic room, on initial visit to Delhi, at first brought disappointment, windowless other than to an internal shaft up through the building (voices from within), became quiet haven to retreat a little from, and process, the intense noise of the world.

In being part of all else in the world, we are required to think of 'collective' in the broadest sense, beyond biological being, beyond matter, as part of the underlying energy that constitutes all.

In *Future Sounds* Stephen Kennedy describes noise as 'the interaction of all elements within a system rather than an external infringement' (Kennedy, 2018, p.153). Perhaps then it depends on the size of the system concerned, and whether the system is open, closed, or universal. And then there is the means of filtering, of how the sensory material is encountered – as Serres suggests one possible filter being that of the ear, though there are multiple routes to holbiontic processing:

> I do not know if talking of filters will help us understand how thunder, noise, the vibration of sound waves (whether audible or felt through our skin) subtly become meaning (Serres, 2014, p.115).

Monitoring the engine on a steaming day not only requires use of eyes and ears in the reading of gauges and listening to rotational clanks, but physical receptors that pick up the rumbled vibration through architectural surrounds, that bubble up through flag-stoned floor, through the toes and shins, up into corporeal core – rotation of flywheel, the clipped flip of a steam valve, all become one, not disconnected from the flesh and bone that absorbs as it operates, but a becoming part of the machine, with reciprocal impact, even if minute, upon overall function.

Whitehead draws attention to the distinctions between modes of sense perceptions, between those that forget the body – he uses sight as example, where vision take us away from the body and out into the visible field, where the body becomes recessive – and other perceptions that connect us more closely to it (we could consider the sensitivities of touch). He suggests that 'this dual reference – external reference and bodily reference – should be kept in mind'. He suggests that, in his time, philosophy had become neglectful of reference to the body (Whitehead, 1934, pp. 63,64).

Whitehead eloquently points to the rift between body and mind as encountered in sciences that would be empty if they were to rest only with information gathered from sense perceptions, finding '…the truth in that our sense-perceptions are extraordinarily vague and confused modes of experience' (Whitehead, 1934, p.64). He goes on to draw attention to account where 'Modern physical science is the issue of a coordinated effort, sustained for more than three centuries, to understand those activities of Nature by reason of which the transitions of sense-perception occur', where objective science only takes 'half the evidence provided by human experience' (Whitehead, 1934, p.65).

In considering body-mind relations Whitehead states that 'All sense perception is merely one outcome of the dependence of our experience upon bodily functionings' (Whitehead, 1934, p.76). Enjoyment in existence comes precisely because we are not aware of our sensory information – if we are in pain and aware of the body, we are generally not having fun. He terms this 'the derivation of emotion from the body' (Whitehead, 1934, p.78).

At the back of this authorial body-mind, and its feeling of unity, is consciousness of the impactful presence and activity of multitudinous microbiota.

In *The Birth of Physics,* in a chapter titled 'The genesis of sense', Serres opens with the words: 'Chaos is the background noise, disorder. Chaos, you say, is non-sense.' (Serres, 2018, p.173).

A 'sensible approach' engages multiple modes, thinking and non-thinking, embodied thought, entwined - sound as rumbling physicality, audible, felt and thought, a knowing of things innately, - rather than overtly, consciously intellectualised - a physical, embodied knowing, a gut response based upon a complex of sensory perceptions and filtered bodily processing that cohere a form of sense.

If intuition can be understood as a sense that is based on the reception and processing of sensory material, without intellectual processing, then it becomes a fundamental element in approaching development of work in Crossness. Terry Measham reflected on the approach John Latham often took in making work: 'because of his respect for intuitive processes, Latham acknowledges that earlier works express notions which he had not consciously recognised at the time but which have surfaced later' (Measham, 1976, p.12). The suggestion here that the mode of intellectual processing is applied after initial intuiting shows potential for intellectualised understanding to arise after intuited understandings have manifested.

Being at Crossness involves complex multi-sensory experience: through the sounds of the place working, with movement through the building, touching the metal surfaces to see if they are smooth enough to paint, balancing on a higher level - reaching out to dust a 52-ton beam, a gentle touch at the stretch of an arm. After a day spent oiling joints and points to keep the engine running, the feel of grease and oil on the skin, the soft crunch of grainy hand cleaner cleansing away the skin-deep grime, the resting of bones on plastic chairs, the banter and laughter over warming cups of tea, if we're lucky, with a piece of cake (shop bought is good, homemade is better and chocolate cake, no matter how unctuous, is definitely most divisive). Only recently returned to steam, the moist air that condenses entices touch to surfaces and shapes suffused with dampness and warmth. The air filled with internal petrichor release. The sound of a gentle beam engine turning is punctured with a slightly concerning clank. Sound is often the first way to tell if something is wrong. The clatter as a body fell off a low scaffolding platform.

At Crossness it can feel as if flesh is consumed in the atmosphere and architectures in 'a complex labyrinth of sense striving alternately towards the internal and external, and vibrating at the limits of each' (Serres, 2014, p25).

The listening benches of old offer invitation to think through sound, stone built into the architecture, to sit and audit daily function of these colossal churning pumps. The ornate richness of the architecture seduces with satisfying caresses of the eye. The dizzying quality of being up on the beam floor, walking on gauzy iron wavelets, no sense of solidity, standing on a disconcerting mesh that allows light to flood through to flagged floor far below.

Tai chi involves extensive use of multiple senses in a mode of 'listening', the word employed to describe the process of sensitively 'reading' an opponent (we lack specific words to describe the

range of physical sensitivities so must borrow from other realms). The ‘dantian’ is thought to be physiologically located somewhere in the gut or navel, just below and behind the belly button, and is considered the seat of all energy (Cheng Man-ch’ing, 1982, p.11). This makes sense when considering gut reaction and gut thinking, based on the extent of bodily senses, in a subtle gathering of information from multiple types of receptors. It is common reaction to devastating news, where nothing physical has touched, to somehow feel like a belly punch has landed.

Laurie Anderson, while known for working in performance and sound, is also a tai chi practitioner. In her foreword to the recently released edition of *Quantum Listening* by Pauline Oliveros, she talks of listening behind, as her tai chi teacher instructs, and of how newly acquired hearing aids have a function that allow her to listen behind specifically (Anderson, 2022, p.3). Both are interesting applications in perceiving spatial qualities through the senses.

Tai chi listening does not usually refer to hearing something audible – rather a deep sensing that comes through a subtle reading of movement through a combination of senses; sight and touch, gauging the weight and balance of opponent – in a way becoming one with a partner, through feeling the subtlety of their actions and the tensions in their movement, the movements of energy within a system.

> In contrast to the western mechanistic view, the eastern view of the world is ‘organic’. For the Eastern mystic, all things and events perceived by the senses are interrelated, connected and are but different aspects or manifestations of the same ultimate reality (Capra, 1991, p.29).

Are people listening when they walk around, mobile in hand, talking at phones? Listening to dislocated conversation, but not to their immediate realm. The realm of awareness has shifted to digital space, to other worlds within. Digital encounters fused in this same reality.

Travelling to Crossness pleasure is derived from gazing out of the window, at the richness of worlds passing, occupying a space between places, yet it is easy to lose sight of that windowed world in the small screen of mobile tech.

Jane Bennet uses the poetic turn of Walt Whitman as the basis for her own exploration of non-human and beyond-human encounter. She talks of remaining in a processual state – where

information has been taken in, but prior to response being given out – in 'The interval between influx and efflux….as we 'loafe' in the interval, we are unconsciously feeling things out – receiving and responding to signals operating at what Alfred North Whitehead called the 'visceral' level' (Bennet, 2020, p.xvi). The suggestion that there is benefit to be derived from dwelling in that space between, lingering in the 'and' between influx and efflux, or 'riding the hyphen' as the term Marsha Bradfield uses to describe the occupation of position between multiple roles (Bradfield, 2024). In brief Bradfield is an academic-curator-director-educator-writer-artist, and one of the founding members of IU who is key to its continued function.

The city as site, from city to city, travelling between, one capital to another. Delhi erupts sensory explosion…incredible place to think through the senses with perpetual background movement, busy-ness, ant-ness of everyday stirrings…shifting noise, cacophonous car-horns, a river of movement entwining car, tuktuk, cows, people, somehow all existing in the same arterial space, shifting through riots of colour moving. In following your nose, journey continues through intermingled smells – of spice and sweat, perfume and ordure. Walking through popular streets means perpetual dodging and a little pushing and rubbing of shoulders, there seems to be much acceptance of undefined personal space, boundaries loosely drawn. Warmth pervades to the core of being, though a layer of smogged air filters damaging rays. Sensing retreats gently into less-lit night, a softer level of murmur ensues, punctured by occasional dog bark.

Are Manning and Massumi also describing a sensible approach when they refer to 'embodied cognition and its younger offspring enactive perception?' (Manning, Massumi, 2014, p.19). They explore understanding through alternative responses and ways of being in the world, in those who have a different form of relationship and attention to the environment around them '…for all the challenges of autism… a dance of attention is the holding pattern of an immersive, almost unidentifiable set of forces that modulate the event in the immediateness of its coming to expression. Attention not to, but with and toward, in and around' (Manning, Massumi, 2014, p.4).

Erin Manning has undertaken much activity with people who function outwith 'standard' zones of mental processing, somewhere spectrally further, where things exist on a sliding scale and not with strict boundaries of definable categorisation, where sensory perceptions and processing can take precedence over relations to the world formed through words. Her background in dance brings her to engage through physical approaches with people who find linguistic processing tricky so articulate in forms other than verbal language – the problem then perhaps becomes one of the

receivers comprehension. Developed societies have become very dependent on verbal and visual modes over other visceral processing of subtle sensory information.

Is it possible to explore the sensible, not just in generating work that engages multi-sensory encounter but in the accumulation and processing of sensory input prior to emergence as intellectualised, verbalised thought?

Whitehead promotes an understanding of sensory qualities as conjured up in the mind, not as actual qualities of the world:

> The primary qualities are the essential qualities of substances whose spatio-temporal relationships constitute nature. The orderliness of these relationships constitutes the order of nature. The occurrences of nature are in some way apprehended by minds, which are associated with living bodies…But the mind in apprehending also sensations which, properly speaking, are qualities of the mind alone. These sensations are projected by the mind so as to clothe appropriate bodies in external nature. Thus the bodies are perceived as with qualities which in reality do not belong to them, qualities, which in fact are purely the offspring of the mind. Thus nature gets credit which should in truth be reserved for ourselves; the rose for its scent: the nightingale for his song: and the sun for his radiance. The poets are entirely mistaken. They should address their lyrics to themselves, and should turn them into odes of self-congratulation on the excellency of the human mind. Nature is a dull affair, soundless, scentless, colourless; merely the hurrying of material, endlessly and meaninglessly (Whitehead, 1963, p55).

The intention here is not in salving all the differences in approach and modes of understanding, or to fully express them on a page, rather throw them all up in the air and catch parts as they swirl around in the vertiginous process of generating essay and installation.

> You only have to pass a small opening, a blocked corridor, to swing over a handrail or on a balcony high enough to provoke vertigo, for the body to become alert. (Serres, 2014, p.19)

Serres suggests that this alertness also brings with it a sense of the ego, but for purpose here the intention is still to consider any sense of 'I' as a conglomeration of things, albeit a cohesive entity. He refers to this event of conjoined sense awakening as coenesthesia, which we can understand as an immediate feeling of existence.

Writing about embodied thinking yet the team at Crossness just do it - thinking through the world, well beyond the page.

5.2 common sense

There seem to be fewer cars at Crossness. Fleeting existences that end through one means or another, age itself is never the blow, but some neatly named condition or ailment that snuffs out. The loss of leadership, a gentle figure that gave direction and focus to restoration. A slightly ramshackle team left not quite knowing what to do while swimming in loss. Encounters live on, not completely gone, still quietly present.

We can think of common sense in multiple ways: of knowledge derived from group consensus in a common understanding, innate understanding or natural intelligence, the collective workings of the faculties of sensation and perception, as consciousness produced from the unity of sense impressions (OED, 2004b). In developing thesis and installation aspects of all these come into play, confused and bamboozled, through intellectual and sensory frame combined with the input from writers, philosophers, academics, engineers, volunteers, rail journeys, crumbling architecture, cinnamon buns…in a form of common sense.

For Alfred North Whitehead 'Philosophy is the welding of imagination and common sense….' (Whitehead, 1985, p.17), which is in turn taken up by Isabelle Stengers:

> The task Whitehead proposed for philosophy, welding common sense and imagination, came in direct response to what he considered to be the mortal, even fatal weakness of the modern world: discrediting common sense, especially through specialized theories that revel in persuading common sense to give way to the authority of "those who know". The task of philosophy, then, might be said to be one of *re*activating common sense, since we are familiar only with common sense as it has been defeated. (Stengers 2023 p9).

She continues:

> The fact remains that everything changes at the start of the twentieth century. Physics then takes on greater authority, and its authority is subsequently defined as revolutionary, as destroying the certainty of what is now, correlatively, characterized as common sense (Stengers, 2023, p.10).

Stengers reference is to a common sense that has mutated far from earlier understandings of the world that were cohered through the senses, to a common sense that has become subsumed by and based upon institutions of knowledge, particularly those of science. Stengers outlines how the adoption of a mechanistic view from classical physics became common understanding, there was some form of 'convincing' people to recognise this as a common sensical view (Stengers, 2023,

pp. 9, 10). Modes of commonly understood sense have shifted from those originally gathered from sensory encounter with the world.

There is a real beauty in the concision and clarity of Whiteheads book *Nature and Life* published in 1934. The content comes from two lectures delivered at the University of Chicago in 1933. It is a gentle follow to his great work, *Process and Reality.* His thought is not static, expressed in the very nature of his own being are perpetual shifts in knowledge and understanding. *Nature and Life* becomes a fundamental text in interpreting the value of 'common sense'. Science and philosophy came to disregard knowledge formed through worldly encounter, and quite rightly as the processing of sensory information is purely subjective and often illusory. Yet Whitehead points out that it is folly to 'omit those aspects of the universe as experienced, and our modes of experiencing, which jointly lead to the more penetrating ways of understanding' (Whitehead, 1934, p.26).

Whitehead calls upon the necessity to reunite scientific knowledge 'with the direct experience to which it should apply' (Whitehead, 1985, p.16) as the mechanisms of Newtonian laws 'left Nature without meaning and value.' (Whitehead, 1934, pp. 23).

Objective knowledge dislodges sensory understanding. Developments in scientific thought have 'gradually discarded every single feature of the original common-sense notion' leaving no space for it in interpretations of the world. He goes on to say that on the other hand 'this common-sense notion still reigns supreme in the workaday life of mankind' (Whitehead, 1934, p.15).

From direct experience and understanding of the world there are other modes to be accounted for:

> …we compose a straightforward characterisation of Nature, which is consonant to common sense, and can be verified at each moment of our existence. We sit for hours in the same chair, in the same house, with the same animal body. The dimensions of the room are defined by its spatial relations. There are colours, sounds, scents, partly abiding and partly changing. Also the major facts of change are defined by locomotion of the animal bodies and of the inorganic furniture. Within this general concept of Nature, there somehow have to be interwoven the further concepts of life and mind. (Whitehead, 1934, p.12)

According to Stengers the philosophy of Whitehead, in large part, is in the reconciliation of modes of abstraction which require philosophy to tie together the worlds of senses, consciousness and objective fact through imagination.

> It is when something suddenly demands us to pay attention that we feel ourselves conscious. For Whitehead consciousness is not a stable attribute; it flickers, embarking on a permanent adventure in modes of abstraction distributing what matters and what may be omitted under such and such a circumstance. And it may be the taste for this adventure that the imagination, set in motion by fiction, translates. As for those who wish to enclose us within the finite framework of what we may legitimately know, whatever they may say, we know very well that a truth can always conceal another within it (Stengers, 2023, p.22).

Crossness is a place of multiple stories, where every tour guide tells a different history, from engineering, architectural to social and cultural, and the facts can be inconsistent too, told for different emphasis, or in mis-memory. There is no singular truth, no one perspective, the history evolves through these multitudinous tales and knowledge bases and encompasses them all.

We exist in times of disparity, where science in theory and laboratories can seem so removed from their effects on the world. The effort is in finding new ways to process multiple forms of knowledge to hold divergent understanding and opinion in ways that engender dialogue; open, deliberative, generative – a space where multiple perspectives can be held, avoiding the splits that come through forms of bifurcation, where knowledge ceases to be taken in terms of fixity. What if we operated with scope for multiple positions to interact within a dialectical arena, without the fear of rejection that often releases rigid defence of position, where new modes of thinking may arise through the application of imagination, and where there may just be alternatives to the destructive progression of capitalist condition? Perhaps through the kind of philosophy that Whitehead describes where 'Philosophy is the welding of imagination and common sense into a restraint upon specialists, and also into an enlargement of their imagination' (Whitehead, 1985, p.17).

Where the subtitle of Stengers book calls for *A Reading of Whitehead in Times of Collapse,* what is there to lose in being open to possibilities for existing in other ways, as we face the fact that the bigger effects of human activity are beginning to force other ways?

Crossness as world that expresses a unification of objective fact and common sense - in the mathematics and engineering that allowed its construction with the sensory operation of the beings that kept it running. Is knowing just how much to open a steam valve intuited rather than calculated, through the feeling in the turn of a hand? Understanding when a gentle clank has shifted from one of health to one of misfunction…the old processes for pumping sewage echo in the contemporary restoration and running of engine purely for public pleasure.

It is through the senses that both Serres and Whitehead find 'joy', the very pleasures that are attached to being – something we can easily forget to value – warm delight in a trickle of tea on a cold day, the evening waft of jasmine after time spent working at whiffy pumping station - beauty in small encounter.

Isabelle Stengers has written two books that think with and through Whitehead. She writes in French, Whitehead wrote in English – and so the role of translator becomes crucial in this process of understanding, from English to French and back again. It entails not just translating word for word, but digesting and processing the sense of the text, feeling a way to the voice of the author, to represent on similar terms, in different language that is constructed from other words and idioms. A nexus arises in this generation of common sense, digested through multiple beings, excreted in the form of translated book.

Making Sense in Common: A Reading of Whitehead in Times of Collapse is translated into English by Thomas Lamarre. Although the form of a book is fixed in certain terms, in the translator's foreword Lamarre reflects on the content therein, where a 'consensus... implies an agreement to be reached and held, the unity of the common aims at the relevant future. Making sense in common is an ongoing process, an aim instead of a goal' (Lamarre, 2023, p. xiv).

Lamarre comments on how, through this process of translation, back and forth, 'Whitehead's prose affected Stengers thinking, for there is a way in which Whiteheadian turns of phrase seep into her turn of thought' and of how, in turn 'Stengers seeps into Whitehead' (Lamarre, 2023, p. xv). The role of authorship begins to blur.

He concludes the foreword in speaking of a 'sense in common' found through 'contrastive synthesis':

> In a time in which it is impossible to deny that living on a damaged planet is upon us, Stengers, with Whitehead, teaches us how to live in the ruins by imagining a future relevant to what we know.' (Lamarre, 2023, p. xvi)

Christopher Watkins speaks of 'global intuition', a form of common sense, as a term Michel Serres used to describe what he was trying to produce with his writing, a suggestion of ways of being in the world that incorporate all our faculties and sensibilities - not only intellectual, through

participation in things, where nothing is monolithic, and everything is interconnected. (Watkin, Webb, 2020).

We can rest this part with the thought that ‘for Whitehead, there is no stable definition of common sense any more than there is a fixed identity to the human species.’ (Stengers, 2023, p.7). Through that instability of definition, for Whitehead, becoming is a creative advance into novelty through a welding of imagination and common sense.

6 PRACTICE

A Historic England authorised crack repair returned structural integrity to the supports on the Victoria side of the Beam Engine House allowing restoration work to be picked up in earnest. Peeling back the layers of dirtied paint, generations of moods changed through coloured strata (it is believed that in wartime all the ironwork was painted dull grey). The rust that clings to all elements and bites in to pit, leaves minute craters under the contemporary layers as subtle evidence of the period of neglect, detectable through sweep of finger or eye. Every bit of surface, all the little nooks, are carefully gone over with wire brushes and scrapers, needle-gun, soft brush and cloth to remove dust, then painted in layers; with primer, undercoat, then decorative colour to restore original Victorian gaud. A process that is repeated on every part.

6.1 uncertainty continued (not knowing)

On not knowing - how artists think is a book that is singular in the focus it takes to reflect on the nature of artistic production found through forms of uncertainty. The book brings together essays from a range of artists and academics through collected voices that explore a diversity of perspectives on the value and range of uncertainty in art practice.

In describing practice as thinking through doing, Elizabeth Fisher and Rebecca Fortnum describe where ‘some methods used by artists to drive the creative process or work out problems can seem counter-intuitive or irrational: distraction or relinquishing control, embracing chance and collaboration; following a hunch rather than a rationale; privileging the senses over the intellect.’ (Fisher, Fortnum, 2013, p.7).

To expand on the words of Rebecca Fortnum - it becomes necessary to maintain space for practices that exist outside: the realms of funding application with pre-specified agenda; educational systems that have primary focus on assessment and outcome; art markets that prefer fixed articles that will hold their value; commissions that dictate expectation and seek specified outcome before work has begun (Fortnum, 2013, p.77). All these means can be important to support artists through paid work of one form or another but often to the detriment of the quality of journey in getting there and the unexpected outcomes that could occur from that travel. The role of an artist based in the mutability of process philosophy stands in contrast both to commodification and the drive for usefulness and meaning implicit with funding bodies.

Fitting work into the specificities of the criteria of others can be a tricky position to negotiate, rather than arrival at modes of understanding through processes of getting to know, that allow for failure as well as success on the way. The capacity to respond productively to failure is surely useful and reassuring given the state we find our world in.

'Art offers ways of approaching and articulating knowledge that are not utilised in other disciplines' says Fisher, going on to emphasise that the Artists Placement Group were at the forefront in achieving recognition for artists working in openly expanded roles within wider political and social contexts. (Fisher, 2013, p.11).

Within the essay 'Creative Accounting: Not knowing in talking and making', Fortnum explores the voice of several artists to articulate her thesis. In a section titled 'how artists come to know: an example' Fortnum follows a conversation between Vong Phaophanit and his partner. He talks of a process of film making where no story board is involved, where he reviews film footage with the hope that the meaningful elements, the incidental moments, will reveal themselves. 'He describes evaluating ten hours of film footage as letting 'the dust settle' or 'digestion time'' (Fortnum, 2013, p.82).

Fortnum suggests that the introduction of so many strictures that surround art activity seem to suggest that:

> …it appears faith has been lost in the legitimacy of art practice as a mode of enquiry in itself. The artist Sonia Boyce who at different times has a material, critical and relational art practice has said:
>
> > …When I'm able to step back, I see that besides the things that I thought [my] work was about, there's other things seeping in. Now I don't need to adhere to a declaration of intent; a right and a wrong. Instead I say, 'let's just see what this is and how it unfolds'.
>
> (Fortnum, 2013, p.77).

As we already found with John Latham there can be later recognition of what was already in the work, that was not intellectually accounted for or verbally articulated at the time. While descriptions and written interpretations are important tools, they should perhaps take less prominence in artistic encounter on more occasions. The root value lies in the experience with the work.

Fortnum concludes the essay with:

> My hope is that if we understand more about the kinds of 'space' we need for 'not knowing' within the creative process we might make them more visible in our accounts of practice and so resist the superficiality of our current systems, as well as the instrumentalization of notions of knowledge. This is important because as artists we will always need to be called to account for what we do on a fundamental level (Fortnum, 2013, p.85).

Uncertainty is not about evading accountability, just following another route through it. The position of artist can be invaluable where independence of thought is preserved in positions that allow overview of perspectives and knowledge bases to find unforeseen potential through other ways of negotiating the world and, with that, an understanding that artists may be expert in doing so.

In *The Hidden Order of Art* Anton Ehrenzweig explores the psychology of artistic practice not only through intellectual and critical facility but also in unconscious processing based on an expanded sensory field. He talks of developing intuited practice as something that can be honed and developed over time. In terms of learning practice, he states:

> students must be taught...not to wait on their inspiration and rushes of spontaneity, but to work hard at being spontaneous through choosing tasks that cannot be controlled by analytic vision and reasoning alone. This learning may take months, years or a whole lifetime (Ehrenzweig, 2000, p.146).

An encompassing continuity found in the uncertainty of practice can be recognised through a finessed reactiveness and flux of approach that has precedence over stylistic form, for as Whitehead asserts, certain forms of knowledge 'omit our intuitive modes of understanding' (Whitehead, 1934, p.26).

We can consider a relationship to uncertainty in art practice through an openness to unfolding of encounters. This responsive approach does not dictate form, or outcome, rather negotiates experience through objects of encounter. It gives space for imaginative potentials to unfurl into possibilities that could not be foreseen.

Artists may feel unable or unwilling to talk, particularly about work in progress, because they themselves do not yet know what it is they are making. We have found that understanding can be

innate and intuitive, so modes of production that preference unfold over design can allow for things to manifest that exist beyond surface appearances; operating, whether acknowledged or not, through a frame of process philosophy that is entrenched in a world where knowledge (artwork) is made and reformed through openness to encounter and experience. It seems that process philosophy may exist innately within many practices - we may not know it as or call it that, but we are doing it anyway.

6.2 practice as process

Regular presence at Crossness allows for working and thinking through restoration, an active, bodily engaged research. Not theory free days as such but a different way of reflecting, absorbing and digesting intellectual matter in an embodied mode.

Practice is formed through process evolved over time. Skill and acuity come through repetition and continual development. An understanding of the non-static nature of practice can be found in the Whitehead lecture *Forms of Process* where he notes that '…in the history of human thought no scientific conclusion has ever survived unmodified by radical increase in our subtleties of relevant knowledge' (Whitehead, 1968, p90). This reflects an approach to practice where forms of understanding can only ever be taken as a momentary arrestment within perpetual process of redundancy and re-formation.

In *A Philosophy of Practising* Antonia Pont 'talks of the mindsets and reasons behind 'practice'' more generally, not specifically art practice. There is suggestion that an approach of excessive busy-ness in 'good practice' can often take over, in what she describes as an 'over-scheduling' rather than 'the idea that a practice is slightly useless or at least innocuous (rather than 'good', 'helpful', 'healing' or 'instrumental') is important.' (Pont, 2023, pp. 87, 88). Contemporary culture can be obsessed with the necessity for productivity (I don't know how many sessions on overcoming procrastination have been offered throughout the generation of this work) yet the space for non-focussed activity, a form of mindlessness, can be a valid part of practice as a mode of processing too – it may just not seem that way from the outside. This is an understanding of practice that again does not necessarily align with a goal-oriented mode of operation as an artist.

Body-mind is an old term initiated in Zen Buddhism that came to more general use in the 1980s. Allan Badiner outlines these origins saying, ‘Buddhism has always maintained the thesis of the non-dual oneness of bodymind’ (Badiner, 2011, p.61).

Here the functioning of the body and mind are seen as holistic, not as separable entities, in a mode of being that works against the bifurcation of nature found with Cartesian duality, through ways of understanding the connection of consciousness and matter. Bodymind can be cultivated through varying practices. Tai chi is one such practice where we could understand this in application.

Tai chi chuan is an internal martial art that uses the principles of yin and yang as a highly effective type of self-defence based upon evasion and deflection. The more familiar aspect of tai chi is in the slow moving ‘form’. These forms are stylised and slow-moving routines based on the original martial applications. Tai chi is a deeply layered practice that takes years to unfold, and even when practicing at a high level there are always new things to learn. (Tai Chi Union, 2024) (Masich, Pace, Silfverstrale, 2024).

As a martial practice tai chi chuan explores internal structuring of movement and energy within the body. It is based on the development of fighting skills not factored purely on strength but through skilful evasion and subtlety of technique. The terms yin and yang describe the extremes between which there is a continual shifting of energy. Although it sits within a slightly problematic use of the terms yin and yang as male and female (hard and soft can be preferable terms) the art never locates itself fully in either dimension, the binary becomes blurred. It speaks inherently of perpetual states of flux.

You cannot think or talk your way through tai chi chuan. Knowledge is deeply entrenched in the body, developed through the active practice of doing, and takes years to learn, refine and comprehend. Tai chi can also be considered a sensible practice where, as previously mentioned, ‘listening’ is the term used to read the subtle movements and shifts in energy of an opponent. Tai chi is focussed on evasion over fight where sensitive sensory reading of an attacker is fundamental to avoid being overwhelmed in a challenge. There is a perpetual shifting of energy, with an underpinning rootedness, a solid base that is not fixed to a single point of ground, but as a shifting groundedness that moves as all else moves around.

As with other practices, the art of tai chi is learned and passed through many lineages that vary in approach through forms of knowledge that continually mutate, develop and evolve, where a collective, organic carrying of knowledge is in effect (Masich, Pace, Silfverstrale, 2024).

Daoism is the underlying Chinese philosophy on which tai chi draws its principles of perpetual flow, where nothing is ever static or fixed, as understood in quantum physics - eastern philosophies collide with contemporary scientific thinking. Qigong is another aspect of tai chi practice, working purely on energy flow within the body. A blending of domains is embodied through Imke Bock-Mobius as physicist and qigong teacher. In her book *Qigong Meets Quantum Physics* she talks of:

> Exploring, from a scientific background, the fluctuating space (quantum collapsing of time/space) where western scientific method meets and becomes one with ancient eastern philosophies. Explored specifically here through the practice of taichi, qigong and daoist principles of yin and yang (Bock-Mobius, 2012, pp. 77,78).

Michel Serres reflects daoist ways when he says 'I rediscover…the methodical path along which I've been walking. I've been climbing, slowly, from granite to water, from the hardest to the softest, from the sea and rivers to the breeze and wind. More and better from the hard to the soft…' (Serres, 2012, p.193).

In his seminal book *The Dao of Physics* theoretical physicist Fritjof Capra also explores the relationship and parallels between religious and philosophical traditions tied to physics. He talks of difficulty in letting go of fixed ideas:

> The mechanistic world view of classical physics was based on the notion of solid bodies moving in empty space. this notion is still valid in the region that has been called the 'zone of middle dimensions', that is, in the realm of our daily experience where classical physics continues to be a useful theory. Both concepts - that of empty space and that of solid material bodies - are deeply ingrained in our habits of thought, so it is extremely difficult for us to imagine a physical reality where they do not apply. And yet this is precisely what modern physics forces us to do when we go beyond the middle dimensions (Capra, 1991, p.74).

He suggests that many eastern religions, specifically Hinduism, Daoism and Buddhism, are focussed on an experience of the world that is not so heavily focussed upon intellectual understandings but are deeply rooted in practice. As with many early European and pagan understandings, and in other global cultures now largely lost or forgotten, that are based in awareness that all things are interdependent and part of some larger cosmological realm and are

therefore inseparable in their potential effect upon the larger whole. Where some forms of western rationalism and objective knowledge have generated schisms, Capra brings attention to the fact that contemporary scientific theories that incorporate uncertainty, energy fields and states of flux, are very closely connected to these earlier modes of thought in understanding relation to all other things (Capra, 1991, p.22).

We can take these fields of energy to the dematerialisation of the art object. In *All About Process: The theory and discourse of modern artistic labour* Kim Grant relates this dematerialisation in art practice to a focus on temporary event, as with process philosophy, where Whitehead '…insisted that the stable 'thing' was a mere convenient abstraction, an arrested process of forces in time and space'. She goes on to say that 'most process artworks… are often concerned with broad and interrelated systems in terms of material, context, and environment, as well as all the human actions these involve' (Grant, 2017, pp. 190, 191). This breadth of interrelated perspective is crucial in thinking through making work at Crossness.

On a journey through the developments of process art Grant goes on to say that 'process has now become a dominating concern of contemporary artistic production….process represents a vital alternative to the conception of the artwork as a commodified object'…..'the work of art as a material object is the result of a process, and it serves to instigate further processes of thought and feeling in those who encounter it' (Grant, 2017, p.222).

Through this interest with interrelations, we can return to the sciences through Andrew Pickering where the concise text on the back cover of the book says that he describes 'science as a zone of encounter where machines, instruments, facts, theories, disciplined human practices, and social relations are intertwined' - engaged in a ceaseless and open-ended interaction he calls *The Mangle of Practice*, a space where imaginative approach is not only the preserve of artists (Pickering, 1995).

All these forms of practice do not just reflect a mode of organic philosophy but are living embodiments of the very thought - process philosophy in practice.

6.3 approach to practice

The proposition for an art practice that is alive, mutable, and constantly shifting can be found through a methodology rooted in process philosophy.

Processes of coherence are met in fleeting points of definition as artworks. As with the trajectories of scientific thinking where theories become outdated yet provide meaning and understanding for specific times, the artworks exist in certain form, can go on to re-form in another place, at another point in time, not as entirely new works but evolved and adapted to setting. The physical elements used in construction can often be disassembled and disseminated back into the world for re-use, new existences found in a form of recycling.

The ageing volunteers at Crossness are very resourceful, many materials and items are genuinely recycled, re-used, repurposed. Getting something new only comes after the process of finding, improvising, mending or making do, fails to resolve. This is a more circular system of reuse than the singularity of use oft promoted through contemporary capitalist consumption.

The processes of research that the practice entails do not end at some finite point. The findings can never be fully comprehensive through artworks that are only ever a momentary arresting of process in point of encounter. As found with shifting scientific advance, encounter allows understanding of and for the now, that will most likely be outmoded or updated at some later point.

Coming to understand theories as fleeting rather than fixed reflects the issues of permanence in sculpture. We exist in times where many statues, less than hallowed bronzes that once hailed honour upon singular perspective of esteemed figures entrenched in less than ethical histories, are no longer tenable. The questioning of such statuary comes through political and social moves that activate retelling of histories from multiple perspectives, that require outcomes that are not focussed upon veneration of a dominating existence. We can find, through scaling of organismal cultures, that nothing is ever actually achieved in individuality, rather through societies that co-exist across the scales. This shift in understanding requires forms of expression that are openly inclusive in terms of encompassing multiple perspective.

Reflections on the invisibility of labour was introduced with Ukeles and the under-recognised processes of cleaning and maintenance work which continued through the administrative functions

within Steveni's practice. Being unseen reflects on the nature of certain art practices that exist in the field, in aspects of my practice, as a form of invisible labour too, or as activity that some may not even consider to be work. Modes of discrete operation can be useful in close observational and participant engagement but can come at detriment to the value in complexities and impacts of activities that happen with little recognition.

The 'expanded field' propagated an opening of practice that entered and embraced the world beyond the gallery, defying the notion of sculpture as something fixed and clearly delineated. Multiple modes of artistic operation in the field embrace the term defined by APG where 'context is half the work'. Artworks do not exist in isolation but through the politics and cultural references surrounding the physical context in which they are situated. The smoothed and whitened walls of a gallery are not redundant, they are still important places for the location of art but must be taken in relative understanding of the science-lab, as spaces of dislocation from the broader domain. These modes of working through the multiple organismal do not exclusively mean having to work in groups, as the collective is still there in a quiet studio, in the thought, the philosophy and worldly encounters that become engendered in the person and therefore also within the work made, along with the fact that more than half of this, or any other human, is bacterial and therefore not really human at all. The biomes on skin and within contribute as community for construction of works made in an ecology of their own. This way leaves little space left for singular assertions, particularly where statuary is concerned that has often paid little heed to the breadth of context of construct of generation and that in which they are now found.

Where the singularity of grand narratives no longer stands, this mode of practice seeks existence through organismically mingled installation. Groupings of works, from collaborative practices alongside distinct authorships, presented in multiple modes, are found nesting together within the broader scope of installation, in articulations that attempts to hold multiple strands of thought within.

Event-installation becomes an appropriate term to describe the nature of artworks that exist in a context of such encounter. Preferencing of this term describes a focussed occasion of experience where audience, by their very presence, become a part of the work, even completing the work if we can use the idea of a momentary totality. Where encounter can be one of looking, smelling, listening, moving through, as engagement with the work. The viewer is present within the art and the art is activated through their presence. As with the site-specific nature of the work that cannot

be separated from the location within which it is embedded, so the audience become part of the more-than-human work where installation encompasses all elements within the domain.

The emergence of novelty is of interest, rather than construction by design. Planning for event-installation is necessary, but not at the expense of invention, where things are only pinned down to specific form near to time of event. Where objects are used, they are often borrowed from the world in pre-existing form, bringing with them a wealth of associative qualities, or as materials that find shape through generative processes of morphological accumulation.

In playing with linearity films and sound pieces are usually formed from many layers, playing with time where sequences are used at varying speed, slowed up or down a little, or reversed, in a process that allows for many strands to occupy the space of the work - multiple things held in contention or sympathy, happening all together, at the same time.

In this understanding a processual practice is not about illustrating ideas and philosophical concepts, but thinking through them, with them, in methods of making that establish novel zones of encounter.

A history of this approach, within my practice, is illustrated through the iterations and developments of a work made, and remade, from 2015 to 2019 titled *perpetual doubt, constant becoming*, where:

> The title of the work reflects the overarching uncertainty of process through which one may burrow to arrive at the production of an artwork. The work is a processual murmuration where any seeming point of arrival quickly loses itself as it melds into a point of departure – the journey to seek form continues – arrested momentarily by fleeting instances of articulation (Vari, 2017, p.409).

This mode of practice has capacity to work through change rather than resist it, through acceptance of finitude and openness to vulnerabilities. It is the brevity of existence that gives a precious value to things, to be appreciated and valued at that point in time, before they have changed or gone, rather than taken for granted in a state of fixed continuity (Hagglund, 2020, p.369). This comprehension is reflected in many eastern philosophies, and in understanding found through process philosophy.

The approach to evolving work is one where the practices of writing and making are intrinsically entwined, they do not develop separately rather grow together. Essay is the effort to define and name this approach in linguistic terms, through a process of verbal unfold. This is not to close things down through fixity but to find articulation through word and art, where neither intellectual nor artistic output takes precedence but roll around together as process philosophy in practice.

Part of the methodology for writing comes through accumulating and moving books around, into piles, seeking connections but not definitive categories, an analogue way of playing with a multitude of quotes and references, with resonances across – thoughts cohered into note, to sentence, to paragraph. It reflects the mutable methodology for generating installations, of borrowing things that already exist in the world and processing into accumulated form where novelty may be found, while discreet entities exist within.

In thinking while moving intellectual processing does not take lead, rather it plays with the instinctual through embodied thought. Meaning is formed not only through words but through the things that come into existence through operation of combined bodymind, where the philosophy of organism mingles in feedback loops between modes of art practice and theory; of making, intuiting, reading, feeling, exploring, verbalising, making… theory feeds practice feeds thinking feeds practice…

The work is made in a perpetually shifting world of relations and experience and through all the challenges and pleasures that may bring. As with tai chi it is necessary to take everything that comes our way and deflect it or use it as material re-formed into work.

The material for thesis unfolds itself, often on the hoof, through extensive expanding iPhone notes and scrawls on random bits of paper. This is no static methodology for writing but one that encompasses all the journeys, events and encounters on the way. Writing can occur at bus stop, on train journey, mid-conversation, halfway up a beam engine or sat at desk in a hard wooden chair.

As non-static media mobile technologies are preferenced for generating material through field recording – always tucked in a pocket for opportune moment. When on journey, working at height, or in some usually unseen corner, the iPhone is there, ready to be whipped out to capture moments of interest.

When it comes to software processing for gathered material, digital decay can occur when films and audio are pushed through standard presets, a degraded quality found through compressions and conversions of files echoes the interference of clicks and pops in recording technologies of old. The struggles of iPhone camera to read multiple subjects simultaneously becomes object of interest, where algorithmic strictures reach a zone of uncertainty and the camera does not know quite where to focus, things blur in and out of view. These contemporary technologies continue the processes of updating and outdating, though rather more quickly than with Victorian engineering.

The approach to generating work is often found in mixed modes of conveyance. Audio and objects, films with sound, where every element is considered an aspect of the language of the work in an encompassing approach, down to the very cable and plug that provides power, the wall socket into which it is fixed, the wall that holds the socket, and the roof propped up by wall….

A multimodal approach engages a range of sensory perceptions. Journeys around environments can be guided through a map of some sort, encountering the smells of a place, touching surfaces as passed, walking across a range of terrain changes the nature of encounter. Objects positioned can point a way that may or may not be taken through a sensible approach. The sounds of environment conveyed through vibrational waves speak to the underlying energetic condition of all.

The inputs and influences of all involved in generation of event-installation sees relationship to encounter through negotiation and adjustment of position, there is no universality in an art encounter, just a jostling of parts. This community of inputs, through operation at the sewage works, coheres in a form of common sense, from information and experiences gathered in the world combined with specialist knowledge. It is not possible in the first part to ‘think’ the work, it needs to be felt, intuited; senses applied before levels of conscious recognition and control. There are manifold aspects that contribute to a sensible approach.

Working in the field I became incidental through studentship within the university, having unintentionally been so in every paid job I have ever undertaken and that have funded practice as artist on the way. It is almost impossible not to be actively engaged artist, in a critical position, analysing, reacting and responding in some way within immediate cultures.

Influences and further educations in sound come in learning the objectivities of physics in action, of waves and the acoustic complexities and encodings in working with ambisonic sound. Working through the Sound/Image Research Centre and within the shifting schools of art and design and stage and screen means coming to understand new aspects of working through spatial sound, ambisonics and the minutiae of detail in the soft and hardwares necessary to compose and play through formal systems. It is still difficult to exceed the wonder in setting off sound from a singular point in a brick built, cathedralesque space and allowing the acoustics of the architecture to do their own thing in generating immersive encounter. Working in a spatial sound studio with material from a site does offer great potential in translating this site to other spaces through acousmatic sound.

Having always made work that leans heavily upon the context, not knowingly to begin, but through years of practice as perpetual process, arriving at understanding by doing and through relation to the work of others. The emergence to verbal articulation sees shift in communication of the processes of cohering uncertainty through practiced skill and judgement.

Being self-declared artist-in-residence – out in the field - has become habitual: within aspects of the university as part of communities within, as well as at Crossness, and in the Brunel Museum where contractual volunteer agreement confirms this role. Facilitated by finding people who are open and trusting to an approach where the processes and nature of collaborative working lie not only in the actual generation of work, but also with those who establish the conditions that allow it to become. We can navel gaze and thank our lucky gut microbiome for health and activity as well as the range of facilitators and influencers affecting with thought, word and deed from afar, as well as those in the immediate sphere. We cannot separate ourselves from the environments in which we exist and operate. Therefore, a mode of being artist that acknowledges all seems appropriate over complete focus on individual ego.

A collective approach does not necessarily mean working directly together but in variant activities that converge through installation. This approach offers dialogical potential where aspects of work can sit counter to each other, holding space for diversity through a willingness to work and bring work together. This process also involves a level of trust as ultimately the decisions made in situating or embodying work mostly comes down to a me. An inherent trust underpins all. Sensitive handling of other material is imperative.

Effort effects a continual balance between restoration and the perpetual processes of entropic decay - trying to stave off the rust, needle-guns and Renaissance wax at the ready, though despite waxed protection it seems the slightly salty marshy air corrodes almost as quickly as the team can repair.

Practice, as the act of doing things repeatedly, leads to embodied knowledge that can aid the process of arriving at event installation. Activity as artist means not just 'making' work and showing it, but how the whole thing comes about through everyday engagement with the world. This practice initiates from activities where approaches are often made through the quotidian, working with materials that are familiar and yet often overlooked as the stuff of art.

In recognising that a coilus valve is leaking through unsuspecting puffs of steam

The practice can be modest, such as baking sourdough loaves, grown from a pet culture of 'THEM', as a bread-friend referred to the colonies of yeasty gunge. These colonies have been cared for over the years, cultivated and employed in the generation of soft sculptures that are fixed into temporary form with a hot oven bake, then consumed and processed through intestinal transit and encounter with gut biome, then sent on the way, through lengthy underground journey to Crossness and beyond. Through embeddedness at Crossness the practice of baking bread has been superseded by one of baking cake as more satisfying to the inhabitant culture there.

If our internal organs were all competing against each other, we wouldn't feel so good. Thinking through a symbiotic view of evolution, rather than just survival of the fittest, offers more in terms of holistic stability and health from a human perspective as well as for ecologies beyond. This also applies to generation of installation.

Sewage processing is an aspect of our environment that is mostly concealed, a form of unseen labour that is often considered offensive, but embracing this element of our own function is crucial in not seeing ourselves as separate from our environment. The sketch of a non-human centred ecology, an all-encompassing nature, requires us to integrate with rather than dominate our environments again, as part of – not just in or on.

So artistic presence at Crossness has impact upon the broader ecology of environment in the digestive systems that constitute the bowel of the voluntary org at Crossness. The ideas of

symbiosis inform conceptualisation of the role of an artist within an organisation, as do all the organismal terms explored, in finding position that becomes part of and works with rather than against. This does not mean functioning without challenge and contention, but doing it in ways that have beneficial impact for all, and it does not mean some righteous attitude of getting 'it' right all the time either, rather using the tricky situations, the mistakes, problems and conflicts of opinion as spaces to begin to working through, as means of holding multiple perspectives in tandem while functioning together as an operational org. This is an ecological approach, that considers the sensitivities of environment through attention to the impact of all activity on other activity within the broader whole. Small shifts in ways of acting and thinking can have impact upon the overall sense of wellbeing and pleasure in participation. This approach has potential to be impactful when taken on planetary scale.

Through engagement with uncertainty in art practice it is important to maintain environments where artistic labour can function as something that escapes the measurement of commodification – beyond the agendas and specificities of outcome dictated by many funding sources. The conditions of funded study have allowed a pocket of precious space to exist and to work through, though there are strictures and bounds that I have bounced off throughout, working, researching and thinking with Crossness has largely come through the establishment of my own parameters of artistic operation informed by the theoretical framework outlined through the complexity of discourse that becomes a synthesis of many strands.

This is an idea of a practice that is entrenched in embodied experimentation, in relation to a site, where making is a means of forming holistic understanding, and perception of a society as a nexus of multiplicities of becoming. It is through practice and fleeting outcomes that a complexity of layers is enfolded and enmeshed. The process of generating the work is an open methodology, installations are the research outcomes.

Bus route 188 connects Brunel Museum to Greenwich
177 connects Greenwich, Woolwich, Abbey Wood
Crossrail makes up other connections, though Thames path, in echoing river course, connects them all.

6.4 outfalling

The adulation of individual figures can be found at Crossness. Sir Joseph Bazalgette is rightly acknowledged for overseeing the complexity of design and construction for an expansive sewerage system that contributed to transformation of London into a modern metropolis. However, this veneration of individuality can come at the expense of forgetting the myriad existences that supported its generation and function.

A precedent of site-specific, immersive artwork installed within Crossness titled *Luminary* was made by 'artist partnership' Heinrich & Palmer in 2019. As outlined on their website the work commissioned by Peabody and the Engines Trust was:

> …a unique and spectacular multi-media art installation, commissioned for Crossness Pumping Station, to celebrate the 200th anniversary of the birth of Sir Joseph Bazalgette; the great engineer who built London's sewers. Luminary combines 3D laser scanning technology, video projection, sound and lighting effects to create an ethereal and immersive exploration of this iconic heritage building (Henrich, Palmer, 2019).

Having not encountered this work directly, my understanding is derived from other casual account. The work appears to have been well received, with a positive response to the use of technologies in relation to site that resulted in encounter of enveloping, seductive spectacle. Leading from this my approach will be relative, yet other. Through a more subtle use of technologies and material that will find position nestled within the architectures, with intent to acknowledge both the current and historical work of many. Glorification of individual excludes collective respect for everyone and everything that establish the conditions for an individual (Bazalgette) to instigate great things. Although *Luminary* encompassed the engineering and architecture as vehicles for celebration it appears to have been undertaken without account of the conditions that perhaps favoured Bazalgette's position at the time; his genetics, his family, a (possibly) supportive wife, financial means, quality of food for microbiome, fast developing technological and industrial knowledge, and the communities of people and things that contributed to the successful construction of the extensive sewerage system. Bazalgette had not 'built London's sewers' but played an important part in directing the organismic community that did.

In this the 160th year since the pumping station began operation, it seems pertinent to generate event installation that goes in some way to acknowledge and celebrate the collectivity of

community therein, with it also being the 40th year since the establishment of the first voluntary group at the site. The fact of anniversaries has come to light through the period of volunteering at Crossness, though there was recognition from early on that the Southern Outfall was the attractor around which activity would take place.

Crossness is a rich environment, full of sensory encounter. It seems the busy-ness of the org should not be disrupted through the generation of art, and with volunteers that may not even value such work the sensible approach seems to be one that treads lightly where installation is concerned. There is no evangelistic intention to convert anyone to contemporary art practice, just to bring them along on this occasion. This means making work that slips in and exists around the activity of the place, working in sympathy or gentle challenge, while drawing on assistance and involvement of one sort or another from the community around.

Being entrenched in the place, finds not only socio-political environment with its own economies of exchange, but also a realm already full of overwhelming sensory encounter. Through operating in the field within Crossness, through working as a volunteer, comes an understanding of the building, the people, the voluntary organisation, the bigger political and economic context within which it operates. I become a part of that organisation, as a living element contributing to its ongoing existence, not an observer, not an outsider who delivers artwork into a space, but as a living cell within the bigger org, playing a part, contributing somehow to its slightly struggling existence.

The time spent at Crossness is full of occasions of experience, multiple and ever-unfolding. The installation work will be echo of these experiences brought together through event-installation which will of itself unfold new occasions of encounter through a convergence of people as audience, much as the mingling of matter occurs through the sewage conduits under. Encompassing multiple realms of contemporary fine art; tai chi chuan; Abbey Wood and Thamesmead residents; people from Greater London and beyond; old engineers and new volunteers (wannabe engineers); SubBritters; students; academics; other artists - in a colliding of orgs and ecologies through new encounter, centred around the old sewage pumping station as a place of convergence and flow.

This nexus is formed through art, though not all will necessarily be there for arts-sake on early May open day but will still be there because of it. There is no need to like any art or this art, though

presence means already being engaged as part of the event as observer and observed, as expanded, incidental audience.

Crossness becomes the vehicle representing decay, crumble, and reconstruction, it's never quite the same when I go there, neither are the people – volunteers come and go, or shift in temperament, yet the sense of place remains even though the stuff of it has shifted.

Hanging out at Crossness, drinking cups of tea and eating homemade cake over a bit of banter is a part of the process for generating work, being in and around this world, in some small ways putting in to embodied practice the 'joy' of existence found through sensory encounter, of which both Whitehead and Serres speak.

iPhone becomes most important instrument of research – this mobile tool, pocket computer, is always with for practical function as well as means of generating art; as light to see into oily corners, for photo to remember what is there, as film to document the changes, in quick sharing of information flicked over app, sounds captured through extended ear, images taken, activities filmed with extended eye, messages sent and received, scans of all dimensions, a wonderful tool that augments processing of encounters - though lacks considerably when it comes to capturing smell.

Field recording is an important means of gathering; the sounds of the building while empty, while operating and the background hum when crammed full of visitors. Small handheld recorders, both stereo and ambisonic, capture spatial sound of activity echoed around capacious chamber. Though environment can be tough, and digital technologies can be vulnerable when thrust in vicinity of warmly steaming machines.

The discipline of practice, of doing things over and again, reworking, learning, muscle memory, to develop embodied knowledge can also be found in the process of learning to grease and oil two hundred and eight oiling points of a beam engine, a vital activity necessary to avoid seize.

Thinking around the development of organismic installation at Crossness comes with intent to blur boundaries between what can be perceived as the nature of an organism and the functioning of the voluntary organisation. This is no singular, complete or fully functioning entity, but a multiplicitous, perpetually evolving, entangled and mutating body in the form of a community of

diverse volunteers. Understanding that, as humans, we are not singular beings – that we only exist with the myriad microbes and other little critters that live on our skin, in our guts, eyes, ears, nose, or any other crevice that skin enfolds. With skin folding in, seamlessly connecting internal orifices through a blurring of out and in, there is no defined point where one ceases to be out and becomes within in a loosely defined organism. The works will encompass the broader context, the journeys to and from Crossness, sometimes from as far as New Delhi, into the immediate environs, the shell of the building and the depths within.

The concept of organisation as organism becomes appropriate here, using the voluntary Engines Trust, and observations from within, to expand possibility for the interchangeable analogy of organism as organisation, or of all as orgs - a more fluid, encompassing definition, plausible for what may constitute this type of body.

As we can explore the beingness of the extended human organism through the architectures that we construct, so Crossness becomes one such site in thinking with the community of volunteers within, through Whitehead's 'notion of existence (that) involves the notion of an environment of existences' (Whitehead, 1968, p.7).

Approach to working through Crossness makes use of APG's 'open brief' where the incidental artist is not tied to a specific agenda prior to embarking on activity and there is no pre-planned outcome. Plonking myself in Crossness was done with openness – always gently declaring my position as artist, with the aim of making installation of some sort but steering away from preformed notions of what that may constitute (and thankfully nobody asked). This has allowed for things to evolve in genuine response to being within and part of the place.

In the case of Crossness the context really is half the work – as being part of the org has meant getting quite involved, in aspects of restoration, in oiling the beam engine (the synovial fluid that keeps everything moving), in generating archival material on the current processes of restoration, in accreditation working group, in day to day banter and making and eating of cake – all part of being field artist, all involving perpetual creativity and inventiveness.

The Ness (as it is often fondly shortened to in restoration volunteer group Whatsapp chat) is indeed completely immersive. A day there can leave me exhausted, exhilarated and often overwhelmed with the beauty and rich complexity held within, and tired by the little political wrangles, for

working at Crossness means working with a community of mostly ageing volunteers, with an array of perspectives that can often be quite far from my own – so the act of practice, the immersion of practice becomes an entirely absorbing and encompassing act.

The emerging works begins to gather, as with the objects that have been witness to travelling time, whose molecules have decayed as part of that passing, yet as they decay may bear some trace or remnant of the things that have occurred around them – like the London soot and polluted particles that attached to the crust of Whitehead's Cleopatra's needle. This effect repeats in pages of a first edition Whitehead book, found cheaply online and only removed seven times from library since publication in 1940, that must contain traces of the oils, skin and possibly microbes from the legacy of fingers that held pages open, meaning found not only through the printed words. Becoming eighth reader, I was aware of a lineage of thought processing and wondered on who may previously have held this book, the energy contained within, of events and encounters passing. A bit of random internet browsing (distraction activity from the essay at hand) found other first editions, and vintage sewing machines in varying states of disrepair, tracing shifts and adaptations of early mechanised stitching technologies. These bring possibilities for work made in relation to the history of the Beam engines through smaller domestic form, in a fractal reflection. These antique sewing machines still function now, with a little care and repair, after more than a century enclosed in wooden case - faring slightly better through storage than the beams at the Ness.

Seduced by vibrant orange fabric in Khadi, amid the bustle of New Delhi, I bought a bale, secreting it in large suitcase for journey to Crossness. There was no planned use for this fabric though possibilities of connections and use emerge, of potentially expansive ideas that require more than a single bale. Emails ensue with cross-continental communication resulting in transaction and slow sea shipping of a bundle more – three months on, an ethical source of material from small producers arrived, bringing connection between capitals.

I shredded some books, not with any wish to destroy the contents, rather take them and reflect on them in some other form. These book bricks are another strand of relation to the practice of John Latham.

Multiple recordings have been gathered, some already employed in multiple phone film works. Add Lidar scans through iPhone app, sound recordings made using multiple mobile recorders as means of tracing activity around this site of redundant technologies and through the journeys in

getting there. Generating gluts of material to be sifted and used in generating multi-modal installation. Though on some days it is good to just sit awhile on an old stone bench listening to the function of the place.

With much formal schooling now focussed on STEM subjects involvement at Crossness brings opportunity to reinsert the arts to generate STEAM in a pertinent technical location. There is space here for creative practice alongside the resourcefulness of the old engineers. Entwined thinking and input from many makes for better potential in healthy survival for the org, being open to broader communities, encompassing and accepting, and allowing smaller ecologies to exist within. There is fractal reflection of this cosmos in the bacterial microcosms of the gut, and to anaerobic sewage processing where the colonies of critters already extant are encouraged to thrive through enhanced conditions, in a way that is beneficial for their own existence as well as those at large, through an ecological processing of sewage. General org health in turn impacts on societies beyond in potential affect of wavelets going out.

Multi modal installation is appropriate for bringing together multiple strands where there is no rigid linearity and everything is happening all together, at the same time. Audience will choose their own journey through, so pathways will become defined. As with the generation of *patter* (an installation made in the Old Royal Naval College) there is no right order of encounter, the meaning builds through unfolding occasions specific to each journey.

Trundling around the building in an embodied attempt at measurement through walking activity with an orange rotating wheel, counting the clicks in auditory mode of measurement that converts to metres. There are any number of ways to measure the place, through maps and plans that have evolved, through processes of architectural and technological change. The main entrance became absorbed within the place when additional construction of triple expansion house saw walls and roof built around, so out becomes in. The end boiler house wall has shifted position, moved metres further out, the same but different, when extra boiler capacity was required. This building has no fixed or singular history but multiple layers that have shifted through time. The village that once existed over the vast storage tanks has now been replaced by field of solar panels to power contemporary processing needs. Organic evolution encompasses machinery where beam engines, sewing machines, metronomes all reflect each other's function and become potential elements for making work.

The construction of a body of work, as we can understand from organic perspective, is something that evolves, that may constitute many parts that go to make up something whole. The generation of 'part-works' – of art objects and installations that exist as distinct entities yet form part of a larger body through iterations and installations that consist of multiple strands and elements converging, journeys weaving through and around different approaches, varied aspects of thought, fuse elements while holding aspects in contention.

The process becomes an outfalling.

6.5 evolving partworks

Partworks is a useful term to describe the differently shifting pieces that go to make up a larger body of work. The partworks, taken individually, carry evolving meanings and titles contributing to the development of a larger entity as well as having individual value and presence as singular works in the world. Documentation of the evolving partworks is gathered into a single webpage of *Southern Outfall Works*.

The typed details of the works given on this digital page find home on a background of the first blank paper page from an uncorrected first edition of *Process and Reality* by Alfred North Whitehead, printed in 1929 (Whitehead, 1929).

Documentation of Southern Outfall Works can be found in the Research Catalogue:

https://www.researchcatalogue.net/view/3278752/3278753

zone of middle dimensions

in *Two Moons*

Maze Collective Studio Terrace, New Delhi.

19/11/2022 – 24/11/2022

Anna Brass, Anto George, Esteban Torres Ayastuy, Ian Dawson, Irati Urrestarazu, Jignesh Panchal, Jos Martin, Karin Ruggaber, Leire Muñoz, Mark Hosking, Mhairi Vari, Niharika Chauhan, Oona Grimes, Plastique Fantastique, Sachin Tekade, Shivangi Ladha & Aditi Babel, Siddharta Kararwal, Vandana Kothari, William Farr.

Co-curated by Ashish Sahoo and Jasone Miranda-Bilbao.

zone of middle dimensions, 2022. Stereo audio, Bose sound-link micro speakers, papier mâché bricks (formed from: Cook, 2016. Bachelard, 1994. Docherty, 2003). Duration 7hrs 28mins 18secs.

This work consisted of durational stereo sound composition composed from over fifty layers of TFL (Transport for London) noise. This was transmitted from the studio rooftop into the broader Delhi soundscape through bluetooth speakers. The rubberised stereo speakers sat on top of papier mâché bricks composed from books pulped into re-formed state. The sounds of the cities merged and dissipated in an ever-shifting scape.

Multi-perspectival views were encompassed in a film made by the curators that was composed from, as well as part of, the exhibition works. The audio from *zone of middle dimensions* constitutes a uniting element in the soundtrack throughout this film:

> The artworks at Two moons are filmed from above and the aerial view situates them in the location from within a perspective that is different to that from the ground. Both aerial and terrestrial views, actual works and filmed footage, form part of the exhibition. (Miranda-Bilbao, 2022).

zone of middle dimensions (coloured shapes in motion)

in *Is the image even human?*

Online from 10:00 am 7 February 2023

Is the image even human? was an exhibition of two parts that operated in conjunction - one half taking place online, the second in a gallery in New Delhi. In the first iteration:

Anna Brass, Hot Desque, Ian Dawson, Jemma Egan, Jignesh Panchal, Jos Martin, Karin Ruggaber, Leire Muñoz, Mark Hosking, Mhairi Vari, M Pravat, Ole Hagen, Oona Grimes, Plastique Fantastique, Sachin Tekade, Sarah Kate Wilson, Shivangi Ladha, Srinivas Kuruganti, Ted Le Swer, Vandana Kothari, Xintong Zhang.

Curated by Jasone Miranda-Bilbao.

zone of middle dimensions (coloured shapes in motion) 2023, HD film 09:52

In this work multiple perspectives are blended as two layers of a single film. The first view is from a window on a train journey that, in passing, looks down upon a ‘blue’ subway beneath parallel rail lines. It is in front of this blue subway that the second layer of film is located.

This is the first introduction of tai chi form performed in hi-vis workwear, at this location with multiple trainlines passing over. The merged films become a confluence of motion. The performing tai chi figure presents a relation to the movements of the train and of landscape passing, reflective in the principle of a grounded point that is itself not fixed as all else moves around. The blue of the underpass is reflective of a history of previous works I have made that employed this colour, a ‘virtual blue’, in relating back to the not-so-distant time of blue screens that were used in the layering of filmic objects amalgamated with other virtual backgrounds. At points faint reflections of the artist filming the work are visible in reflections of other trains passing thus encompassing the act of looking-through-filming which gives a subtle yet intrinsic presence within the work where the observer is not removed.

The film was made in London encompassing aspects of the journey to Crossness and made specifically for digital exhibition in a space of dislocated online viewing.

Thanks to Jim for Practical Tai Chi Chuan short form.

zone of middle dimensions (coloured shapes in motion - expanded view)

in *Is the Image Even Human?*

Instituto Cervantes, New Delhi 9/03/2023 – 5/05/2023

Anna Brass, Asim Waqif, Esteban Torres Ayastuy, Hot Desque, Ian Dawson, Irati Urrestarazu, Jemma Egan, Jignesh Panchal, Jos Martin, Karin Ruggaber, Kunj Chawla and Arpan Kumar, Leire Muñoz, Mark Hosking, Mhairi Vari, M Pravat, Ole Hagen, Oona Grimes, Plastique Fantastique, Ritu Sood, Sarah Kate Wilson, Sculptors and Sailors in collaboration with Niroj Satpathy, Shivangi Ladha, Srinivas Kuruganti, Sukanya Ghosh, Susanta Mandal, Ted Le Swer, Uzma Mohsin and Andy Naorem, Vandana Kothari, Xintong Zhang.

Curated by Jasone Miranda-Bilbao

zone of middle dimensions (coloured shapes in motion – expanded view) 2023.
Wire coat hangers, coloured strand, tripod frame, mobile phone clip arms, iPhones, micro-link mini bluetooth speakers, cables and connectors, audio, video, papier mâché brick (reprocessed from: Cook, 2016. Bachelard, 1994. Docherty, 2003).

The site-specific sculptural development of this work was initiated through invitation to exhibit in New Delhi. Through a brief residency within the space the work became an expanded embodiment of the sonic and filmic iterations already made. Ten days were spent working in the gallery to generate the work, having some preformed notion, but not entirely knowing exactly how the work would exist. Materials and equipment were taken there in suitcase and others were found or sourced in the locale to complete construction and meaning. In extrapolating and separating elements of the film and sound a sculptural form was generated to house the mechanisms through which the elements were conveyed. An armature was constructed from wire coat hangers temporarily tied together using red and gold braids sourced from a market stall nearby. In response to the exhibition title this frame housed two Bluetooth speakers, two iPhones and a book brick in a form that loosely resembled a large head – where speakers became ears, iPhones eyes and the papier mâché book brick was positioned as mouth. The tripod base on which the work was hung was found rusting and forgotten at the back of a store cupboard in the base of the institute. The work unfolded in the gallery through a slow labour in a process of generation that was witnessed over the period by the cleaning and caretaking staff of the building who had offices nearby, a daily engaged audience for the developing work.

zone of middle dimensions (little egg of finitude)

'permanent' installation, E-studio, Cervantes Institute, New Delhi

Instruction was left for the end of *Is the Image Even Human?* in the Cervantes institute, for the work to be disassembled and the parts put back into the world. The technology was returned to London, and it was only on return visit a year later I found the rest of instruction had not been followed. The technical staff took ownership of the braided coat hanger frame and, not wanting to dismantle the piece after witnessing the labour of its making, suspended the empty shell from the ceiling of a teaching E-studio adjacent to the gallery (or perhaps no one had care to untie the many strands of braid). Accepting this as a further evolved existence of the work I found a small (soft) basketball from the neighbouring market and pushed it into the middle of the sphere in a new gesture that referenced the material I was developing at the time with a basket-ball player. This small act reclaimed other meaning for the work by turning it into a suspended, cell-like structure with ball at the core. For all I am aware it is installed there still as a semi-permanent work and as object of distraction for language students and teachers who work in that room.

zones of middle dimensions (coloured shapes in motion)

film screening - *Sound Image Festival*, Nov 2023

This work made on iphone for initial online conveyance was screened large as part of the experimental film programme for the annual Sound/Image Festival at the University of Greenwich.

zone of middle dimensions (swerving matter)

in *Planetary Scale*

Filet, London 20.06.2024 / 30.06.2024

Aakriti Chandervanshi, Aditi Kulkarni, Ana Genovés, Buket Yenidogan, Dheer Kaku, Ellie Reid, Hiromi Tsuha, Ian Gouldstone, Jessica Voorsanger, Johanna Love, Mhairi Vari, Niroj Satpathy, Niyeti Chadha Kannal, Oona Grimes, Parul Gupta, Prasanta Mukherjee, Radhika Agarwala, Sabitha Kadannappalli, Sarah Staton, Shivangi Ladha, Sneh Mehra, Susanta Mandal, Willa Hilditch, Yuuki Horiuchi.

Curated by Jasone Miranda-Bilbao.

zone of middle dimensions (swerving matter), 2024. Video, audio and stuff.

Digital material gathered between New Delhi rooftops and London airport make two multi-layered films – 'swerving left' and 'swerving right'. This work takes in a more expansive journey to Crossness via New Delhi. These vastly different environments are connected through the rich sensory journeys that lie therein. The films again merge times and locations through multiple perspectives from; taxiing aeroplane at Heathrow airport, elevated metro line traversing the east of New Delhi and across the Yamuna River, rooftop to rooftop. The journeys to, from and across New Delhi are dislocated and represented in London, connecting capital cities. Again, presented on iPhones housed within a sculptural form, from objects sourced from both cities. This time the hi-vis figure performs yoga routine.

Thanks to Jasone for Ashtanga Yoga Mysore style sun salutations.

zone of middle dimensions (swerving matter)

Stephen Lawrence Gallery, Sound/Image Festival exhibition, Nov 2024

Curated by Olive Gingrich and David Waterworth

In this exhibition the work was installed on an internal window fin of the gallery. The piece was plugged in and played perpetually for the entire duration of the exhibition, visible and audible internally and seen mutely from the street outside through the plate glass windows – merging the realms of out and in and extending encounter to those passing who may not chose to enter a gallery or that pass by when it is closed.

there and back again

Brunel Museum 2024

This film occupies space between the two historic museums, Brunel and Crossness (both of which I am in 'residence') taking in the larger context along the Thames. In exploring the space between the two sites through combining multiple clips of film footage taken over a period of several years constitutes another multi-perspectival and layered work formed from phone film and field recordings. Another layer of film is added that follows the movement of an orange ballcock caught in the flows and eddies of moving water.

Set to loop, the journey from one place to the other continues repeatedly. The piece is played on an orange iPhone, held in orange hi-vis floor stand with orange cables to power the work. The hi-vis elements hold formal function in acting as visible safety mechanism for installation in public space while at the same time referencing other layers of meaning.

The work is installed within the Brunel Museum with sound gently projected through the phone speakers. It was initially shown as part of Open House weekend on 21st/ 22nd Sept 2024, but the piece has been adopted by this heritage museum based around the Thames tunnel shaft and continues to play whenever the museum is open.

there and back again

Crossness, Thames Festival, 2024

At Crossness this work was installed in front of the derelict expanse of the triple expansion house. Two bluetooth speakers were secreted in this part of the building so the stereo audio suffused the substantial space with dislocated spatial sound.

On Sunday 8th Sept 2024 as part of the Thames Festival the work was playing in both locations simultaneously, constituting an expansive installation that conceptually encompassed the eleven mile stretch of the Thames, occupying the space between the two heritage museums.

patter (vacuous matter)

Sat 11th Nov 2023

King William Court, Old Royal Naval College

An event-installation for Sound/Image Festival 2023

Set in motion though exploration of the nuclear history of the King William Court in the Old Royal Naval College, taken in tandem with the ambition of the historic Apollo moon missions, this event-installation plotted a journey through the building to encounter multiple articulations in manifestations that all nested within an overarching ‘patter’.

On finding myself as artist in the field, incidental within the University of Greenwich at a site of significant interest where focus is usually placed upon the older historical aspects, a focus for activity was found in the former placement of a low power nuclear reactor within the Old Royal Naval College for teaching purposes. This information was kept low key at the time as Greenwich was a nuclear free zone, apart from the little square boundary that was drawn on a map around this site. Jason, the low powered Argonaut reactor was situated in the Grade I listed architecture of King William Court. The space it once occupied is now a lecture theatre, the place of operation and control has been filled with a contemporary staircase and the locations used as part of the clean-up process after decommissioning now form a broad corridor and cutting-edge spatial sound studio. These were the spaces occupied by the event installation *patter (vacuous matter)*.

Instigated and developed through my orchestration, the event encompassed the work of thirteen invited and collaborating artists alongside my own, much of it produced or shaped specifically for this event, including; three writers (one dramaturge and two poets), an actor, a composer and classical percussionist, a basket-ball player, a choreographer and dancer, a calligrapher, an architect, an ambisonics composer, a graphic designer and 'fine' artists of varying type. It was a rare and exciting thing to work with a diverse set of respected practitioners who were open and trusting for me to play with their material in developing overall form.

Corridor:
The '**invigilators**', or exhibition stewards, dressed in hi-vis orange vests, assisted in wayfinding around the installation. All were artists who contributed to the installation and became a part of the work themselves through this role.

Hazel Seoige took open brief to design a double page broadsheet with function as exhibition guide but that also existed as a multiple artwork in its own right.

Ole Hagen
poems
Jim Andrews
calligraphy
water colour/gouache/ink on dayglo card

Hagen's poems were scribed in calligraphic lettering by Andrews, with pencil guidelines left in place as evidence of the process of making. The script used was from the period in which the King William Court was originally constructed. The labour of making these works is pitted against the cheap dayglo cardboard sheet used as ground.

A poem was placed on the door of entry to each area of the building occupied by installation.

Anne Stansfield
Ukraine 24th February 2022 to 24th February 2023. Carbon Copy Drawings 1 - 9.
(waxed carbon paper, graphite, newsprint, layout paper)

Innocuous black plastic chairs were positioned down the sides of the corridor where the framed drawings were placed. These carbon drawings made from reprocessed newspaper images were drawn from reporting over the first year of Russian invasion of Ukraine. Stansfield mentioned some of the many references drawn from in this work at the end of a chain of text messaging:

> PS have glanced thro' my file of papers re the work, and find downloads from Web relating to carbon, nuclear graphite, carbon black, Chernobyl, EPS, Health risks of Newspaper ink, Zaporizhzhia Plant, Azovstal Nuclear Power Station, Iron and Steel Works. The latter of these being the industry my late husband worked in, in this country and abroad. It was the superimposing of the clean faced soldier by a drawing of the same man, injured after the war, that gave me the idea for the final work (Stansfield, 2025).

A processing of the events is sensitively portrayed in naïvely styled, yet knowing, hand drawn translations made through trace.

It is not possible to put nails in the walls of the listed building, even in newer bland corridor, so the chairs acted as plinths for the heavily framed drawings giving a slightly foreboding sense of this as a place of waiting.

Rhea TW
Bamboozled

The work with Rhea TW formed part of a continued collaboration. In *Bamboozled* TW's choreographed dance has been abstracted from its original music track. Her outfit and part of the room have had colour enhancement to affect a radiating glow. Screened on a laptop the fragments of choreography have been edited together and looped to generate popping, energetic forms. The

film was located on top of the case of a 1971 cold war Polish DP-66 Geiger counter, with the equipment placed next to it while actively playing the subtle clicks of live background radiation which became soundtrack for the dance.

Spatial sound studio:

Andrew Knight-Hill

Through an Ocean of Storms – a spatial audio composition

This work was key to the inception of the overall event installation:

> Originally composed as a soundtrack for a short film celebrating the 50th anniversary of the Apollo 12 mission, this revised sound work explores the extension of human potential via technology. Made entirely from NASA Audio Recordings and extended trumpet (performed by Bede Williams) the work seeks to evoke the wonder, awe and challenge of human endeavour and exploration into space (Knight-Hill, 2023).

Knight-Hill's *Through an Ocean of Storms* is an immense sound work made around a phase of historical activity that extended beyond earthly domains. In drawing from the wealth of NASA recordings from the Apollo 12 mission entering the spatial sound studio was like being taken to another realm of gently ricocheting sonic elements. The work is a carefully woven composition that immerses and transports through the subtleties in a complex of human perspectives and conversations between ground control and astronauts, and of other dislocated voices involved in communications during the mission. On asking if there were a defined number in the piece Knight-Hill said:

> I haven't counted the number of voices in total. Each Apollo crew was three men, and you have JFK, and then you have for certain more than three distinct voices in ground control, could be up to ten different voices but likely many, many more. (Knight-Hill 2025)

Knight-Hills work, in commemorating the achievements of these missions does so through a collective connection to the range of individuals and technologies involved, though when we think of these missions and the voices attached, they are inherently male.

Mhairi Vari

sweet spot

HD film

The new spatial sound studio in KW006 is a beautifully sculpted arrangement of 32 speakers projecting from a rig in a darkened room creating a dome above, or hemisphere, of encompassing sound. There are little glowing lights to denote each speaker is turned on in this carefully measured and calculated space. To make the film I stood in the centre of the room, in the sweet spot at the heart of this little universe, and spun around like a child, with mobile phone in hand, until too dizzy to carry on. Echoing the movement of a solar system or particles spinning through atom core the film looped and silently played on laptop, on a plastic chair in the room that had once been used as decontamination space for nuclear reactor clear up.

Lecture theatre:

The lecture theatre was the original site of the Jason nuclear reactor core. When the reactor was dismantled two metres of ground had to be removed from around the central point of the core. The excavations took the form of a hemisphere underfoot, similar dimensions to those of the dome recently installed across the way overhead – conceptually completing two halves of a sphere.

Fragile July

by **Oscar Nearly**

performed by **Hannah James-Scott**

Fragile July is a piece of theatre initially made for the lecture theatre that had previously been home to the Jason reactor. The work was written specifically for James-Scott in this their second collaborative work, with Nearly and I having developed works in tandem on several prior projects. Nearly says of his process:

> I can't say how Vari's other collaborators 'design' their work for one of her installations, but my approach is to gather as much information about the intended location, themes, and (where possible) other artists and artworks, then to think these together as a process of (de)territorialisation and assemblage that I might be able to balance, unbalance, recast, counterpoint, flee from… my work with Vari is site-specific in that sense (Nearly, 2025)

Relative to the other works Nearly:

> …was broadly interested in threat and catastrophe as a form of event, (where) I'd avoid reference to nuclear threat and deep time (which characterised the exhibition and many of its individual pieces already) and instead aim for something with a sense of naivety and nostalgia. Thus, the speaker of the monologue remembers obsessively a summer when she was ten or eleven, just before a catastrophe that is never described; she believes the summer was influential somehow and is trying to work out why. (Nearly, 2025)

In terms of specificity of this space there is a photo at the entrance to the stairwell that shows the physicists involved in the managing and reporting of the reactor removal. Nearly 'was especially struck by one detail from the removal report, that excavating the contaminated soil underneath the reactor revealed an ancient chimney-shaped structure, with soot deposits still visible on the inner brick facings'(Beeley, Lockwood 2001) (Nearly, 2025).

In relation to this piece Nearly employs a 'structure of iteration and a linguistic register caught between clinical description and rough-hewn repetition.' (Nearly 2025). Nearly has often toyed with shifting repetitions in subtly evolving strings of words that seem to be perpetually seeking and questioning their own meaning through the process of iteration, rather than pinning things down. Relative to the structure of the *Longplayer* composition these texts repeat but are never quite the same, always somehow different.

The (edited) script of *Fragile July* will be published by Broken Sleep Books in March 2026

Fragile party
Sound by **Richard Whitby** (with original drums by Amit Sud)
HD Film by **Mhairi Vari**

Whitby composed a soundtrack to exist as background for the performance of *Fragile July*. This was set to film by Vari and played through the in-built lecture theatre system of stereo speakers and three projection screens.

Stairwell:

Jack Davis
Wayfinding

On each floor of the stairwell there were directional sign boards that outline roughly what is extant on that floor of the building. On each of these signs were two blank lines at the bottom.

In response to the decommissioning report of the nuclear reactor (Beeley, Lockwood, 2001) Davis composed a site-specific poem formed of four two-line sections, that played with the notions of wayfinding and was designed to be read from the ground floor up. The lines were printed in vinyl cut lettering and applied, as with the other directional information, to the blanks in the signs, stretching the work across the height of the stairwell, turning each encounter with the words into a subtly extended event.

The text was removed after event-installation, but in honour of the work and the unused sign spaces, one line was left in situ and remains there still.

Mhairi Vari
LOL memory
Silk ties, sockballs, jubilee clips

LOL memory was a site-specific reinvention and expansion of an older work. This sculpture is made from several hundred coloured silk ties that are fixed together in pairs, two thin ends attached to the single fat end of another tie and secured with a jubilee clip. It becomes an expanding bifurcation. Through install it sat mostly as a lumpen tangle, part cascade, part stuffed into the architecture, occupying the height of the stairwell drop.

Sock balls stoppered the loose end of each unfinished bifurcation, playfully placed yet pointed in meaning. All the elements carry external references to the work while the title, and the weaving of these strands as they cascade down the stairs, refers to the ‘core rope memory’ that was a handwoven complex of cables used to control the guidance systems in the rockets for the Apollo

moon missions. These technical wirings were carefully hand-constructed by women, often older, so the ropes garnered a nickname name of ‘LOL memory’ – short in this instance, for ‘little old lady’. This piece sits with its ties and sock balls in relation to the male voices in Knight-Hill’s composition as a work made in honour of this intensive yet generally overlooked female contribution that was fundamental to the success of the Apollo missions.

Mhairi Vari
patter, films and audio made with
Ngozi Ramos up quark - basketball
Cameron Sinclair down quark - percussion

Consideration of the movement of energetic matter and nuclear particles that once bounced around the building instigated a two-part film and sound work. Composer and percussionist Cameron Sinclair was invited to ‘play’ the architecture of the stairwell. It was through collaborative experiment that the film of the ‘down quark’ was generated.

The necessity of balance saw invitation to basketball player, Ngozi Ramos, to exercise his skill in bouncing a ball on each step as he ran up the staircase to become the ‘up quark’.

The films played on iPhones while the dislocated stereo soundtracks were transmitted to bluetooth speakers secreted into the architecture of the stairwell, with the resultant sounds resounding up and down the hard surfaces and height of the well.

It was through committed playfulness and deployment of their arts, alongside immense trust, that both Sinclair and Ramos contributed their skills to the generation of this work.

Mhairi Vari
Parched
graphite nuclear reactor core block (carved into the form of a mug), milky tea

Parched was situated on a black stone slab, next to the iPhones, part way up the last flight of stairs in an area that once constituted a fume cupboard within the Old Royal Naval College. Hot milky tea was made in the mug which dissipated heat, in a small entropic gesture, through the duration of installation.

Richard Whitby

Jason Model

Plaster, tin cans and sound

Located in a niche at the top of the stairwell, under the final lines of Davis's poem this translation of the model of the Jason nuclear reactor (held in the ORNC museum next door) was originally used by students to get an overview of the layout of the reactor construction. Whitby remade a version of the model with tin cans, evidence of his everyday existence, that were filled with plaster. This loosely echoed the white structures of the original reactor model. Wires connected the modules and powered a ticking sound, that echoed that of Geiger counter but was actually formed from an accumulation of alarm sounds emitted while making a particular word-processing error on his laptop.

Simon Withers/ Captivate Heritage Laboratory

aftermath

Withers used Lidar scanning techniques to capture the physical elements of the installation situated within the contemporary Dannatt, Johnson stairwell located within the historic building King William building designed by Sir Christopher Wren. The documentation of layers within this heritage site and the temporary artwork that momentarily existed there captures multi-perspectival layers of event (Dannatt, Johnson Architects, 2002, p.21).

Crystal Clear

Crystal Palace Concert Platform, Crystal Palace Park

21st Sept 2024, 3pm and 5pm

Crystal Clear was an acousmatic, ambisonic composition from the Sound/Image Research Centre, played through a site-specific speaker array at the concert platform, in the bowl, at Crystal Palace Park.

I initiated and steered the project where work was generated through a collective approach in a merging of fortuitous conditions and with the support of the Crystal Palace Park Trust.

The earliest known recording of classical music was made on to yellow paraffine wax cylinders at the Crystal Palace in 1888 (NPS, 2015). The grainy and ethereal quality of these recordings constituted an anchor point for the development of contemporary experimental composition.

The concert platform in the park, designed by Ian Ritchie Architects, is made from Cor-ten steel and resembles a rusty laptop. The space of interest for composition sat between this ‘laptop’ performance space - as laptops are intrinsic to the processes of mobile digital composition - and these early ambient recordings, that was performed in the shadow of the iconic Crystal Palace transmitter.

Site visits and extensive field recording were merged with aspects of solo practice that lead to a durational collective composition that was fifty minutes long. A site-specific speaker array was collaboratively designed to encompass a ring of eight speakers facing into the stage, with another four speakers held aloft and facing out to the bowl, four speakers facing the back of the platform that would send soundwaves up the steel structure, and two more speakers secreted behind and within the platform building. This generated different zones for listening, either through actively wandering around, on the stage itself, or from out front on the grass across the expanse of water.

The composition was generated through mapping an approximated template of the site at Crystal Palace onto the 32-speaker array in the spatial sound studio KW006. Composing within this space required a layer of imagination to the possibilities of play-back across the acoustic spaces of the site-specific speaker array.

The composition was played twice, for two audiences.

Although collective in approach and involving input from a range of practitioners within the Sound/Image Research Centre, the project would not have succeeded without the unseen activity in Emma Margetson’s careful planning and organisation of logistics as well as significant contribution to the shape of the creative work. The composition would not have formed without the commitment and imagination of Rob Taylor-Parton and Chris Sciacca.

coloured shapes in motion (Southern Outfall)

Proposed film projections

Crossness

6-8pm 28th Feb 2025 (unrealised)

Tai chi masters in motion - four figures dressed in hi-vis orange performing tai chi form are dislocated from original filmic background and will be projected across the curves and crannies of the external architecture at Crossness generating a gentle flickering of activity across the surface of the building on a winter night.

Southern Outfall

Event-installation

Crossness

PV 1st May 2025 6-8pm

Open day 3rd May 2025 12-4pm

An event installation encompassing the internal expanses of the grade I listed buildings at Crossness, with artistic collaborations and support from the voluntary organisation within.

INTRO CONTINUED

Southern Outfall is the main sewage conduit system for South London. All the pipeage connects at Crossness. This system functions as an extended gut, where transit of material is afforded an excremental exit point into the Thames (with or without sewage treatment processing). Constructed at time of environmental crisis, these once cutting-edge technologies form an appropriate location from which to consider our relationship to - and being in and of - the world, to current environmental conditions and sense of separation from them, in our relationship to technologies and immersion within. The magnificent crumbling architecture here reminds of continual processes of repair and mend, struggles against gradual entropic decline, things continue to shift and change, processes of decay entwined with the care of repair.

This written journey has taken a course that evolved fully entwined with the practical work at Crossness. It is in identifying this site of global significance as a location in which to work through process philosophy in practice that the specificities of research have formed. The complexity of the research unfolds through deep engagement with the heritage site, with the layers and strands of histories including the forty or so years of voluntary activity that revived the place. The specificity of this location, of redundant technologies and layered histories, trails beyond to the broader Thames Water site filled with further generations of sewage processing methods that evolved from the technologies that existed within the now redundant Victorian pumping station. Layers of organismal form and sensible thought can be explored in relation to the functioning of this site in the make-up of the voluntary organisation, in relation to gut processing and microbial activity and the extension of bodily function found through expansive sewage system.

Interest in Crossness as a site of industrial importance existed before my formal studies began and activity there, in thought and deed, will continue well beyond. These processes of generating and thinking through practice have evolved over many years through engagement with uncertainty and knowledges that are not fixed but rather continue to mutate. Arrival at a developed framework and understanding has come through this research, in a position that is itself not fixed but carries meaning for the now.

It is in the specificity of thinking through Crossness that knowledge is made manifest in partworks, elements of practice that can be taken as individual entities, but that also constitute part of a larger body of work that will result in sensible event-installation. It is in the doing of art practice that this

philosophical position coheres, accumulating at the Ness – as a fatberg may be generated through accruing deposits in the sewers below, that can be broken down and dissipate or re-form anew.

There is no attempt at a comprehensive history of Crossness and the construction of the world's first sewage system of scale, or its impacts on public health. These histories exist in alternative tomes, disciplines and the practices of others. Though it is through engagement with elements of both personal subjectivities and grander narratives, and in the play between, that activity occurs, while questioning the very solidity of these knowledge bases.

These industrial relics are testament to incredible imaginative endeavour that transformed public health, but they are also tied to a period that kick-started ruthless capitalist growth and the excesses of consumption and production of waste that we now all live with. Are there ways to think more holistically through this site to reconnect with a bigger sense of our participation in ecologies at all levels? Crossness is a place to celebrate ingenuity but also to contemplate and reconsider our position within it all. Gaia theory suggests that the world could continue with or without the relentlessly parasitic human element, but it would be good to consider we may have a part in it all for a while longer.

What if we did just let it all crumble? Getting involved after the near collapse of the Engines Trust through lockdowns activated my social conscience, it is difficult not to get involved with the establishment of a legacy of existences, reflective of philosophical position, in a move to form teams for tasks rather than reliance upon individuals which often results in vulnerable pinch points. In instigating establishment of a Sunday restoration team, for those that are otherwise occupied through the week, and in supporting the position of a woman at the helm of this team, sees a significant shift in demographic. This as contribution to the broader work going on to make the place more openly accessible and meaningful for new generations, while bringing along the old to support the new, with perspectives held in tandem. It is through my own sense of value in the place that I infect others, as happened to me when I began. There are many efforts to impact change, and much resistance too. It is a complex process to negotiate multiple positions that requires imagination and sensitivity at every turn.

The function of Crossness is now other to its original use for sewage pumping, seen as a place to wonder at the significance of impact on the health of an early modern metropolis through marvel in the beauty of engineering. In opening the doors for hundreds of people to flood through on open

days and in the many educational trips and visits, the place has become a space to think through the grandiosity of engineering, in the restored vibrancy of a working beam engine alongside the rusted redundancy of two others, and one mid-way between in process of repair. It can become a philosophical space, a place in which it is possible to imagine, and enact, other ways of being. It is a place where many volunteers have come to seek meaning, and camaraderie too.

On first entering the organisation I was told 'don't let anyone tell you what to do, just do what *you* want to do'. It felt like a genuine encounter with anarchy, and although this is a place of negotiated activity the comment did make it feel like I was in a suitable spot to explore how notions of fixed knowledge may begin to be unsettled through art practice undertaken through the place.

It seems there could be few other pertinent locations, with Crossness already embodying so many strands of thought explored within this essay and practice, both explicit and implicit, brought to light by the doings of an actively engaged artist operating in the field.

As we found in the Artist Placement Group where 'context is half the work' so it is working through embeddedness at Crossness, towards generation of a substantial installation that leans upon the architecture as well as the layers and complexities of thought and activity that spring from artistic journey and the generation of evolving partworks. The construction of this work, and of this thesis, is not singular. It is an accumulative, shifting process, drawn on the work of many, this artist 'I' becomes a strange attractor, the point around which an approach evolves and coheres.

My role as artist encompasses activity attached to the many terms for site-specific working, all of which are applied and all of which have validity; in incidentality, embeddedness and residency, though they cohere through an encompassing term for operating in this expanded domain as field-artist.

Defining the terms of field-artistry continues through maintenance ideas and activities, where artistic function is undertaken with reference to the practice and legacy of Mierle Laderman Ukeles and her *Maintenance Art Manifesto,* in paying heed to under acknowledged effort. Regular sifting occurs, of notes and other iPhone media that is continually generated on and around the site in a respectful reflection of the processes of coherence and reinvention of material employed by Barbara Steveni. Existence of extended practice within a redundant industrial heritage site carries echoes along the river from *Longplayer*. And there are layers of relevance that can be traced

through the practice of John Latham; in relationship to the use and reprocessing of books in sculpture, where a seeming act of destruction can also be taken as a gesture of re-formation; in relation to thinking through scientific concepts as a means of playing with and questioning that very knowledge; and in thinking through artistic potential in post-industrial landscape.

If we think organismically through these artists too we find that none of them operated in isolation: Ukeles would have no practice without the labours undertaken for her family and without the sanitation workers; APG would not have existed without Steveni, Latham and all the other artists that contributed activity, alongside the organisations that they engaged. So the nature of my practice and relationship to Crossness is not singular, it comes through a legacy of pioneering activity of other artists, and through the org that is the Engines Trust, and with all the other extended cultures, families, societies and organisations to which I belong.

In working through Crossness, it is not just the people and place, but the engineering within, the bricks, the weeds, the cups of tea, the boilers - that all come in to play as objects of thought, through the interactions and exchanges therein, taking us to the realm of the extended organism. In the generation of installation influence from all these will impinge on the form of the work.

Taking the range and types of organisms together arrives at an organismic mingling where aspects of all are applicable, to think in terms of multi-perspectival ways of being, in understanding there are communities and ecologies in operation at all levels across the scales, in a form of fractal repetition. This makes it difficult to use personal pronouns. It seems like ‘I’ and ‘me’ should just become ‘we’. But then there is an inherent conceit in talking for ‘others’ by always referencing a ‘we’ – it becomes a dialectical dilemma to hold these positions in tandem, so ‘I’ have employed both terms, so ‘we’ can continue to think about them (and in most instances the pronouns could be interchanged).

In a contemporary culture that is very focussed on individual identity we can try introspecting in a different way through turning to look at the biomes of our innards, a different form of navel gazing that encompasses multiplicity. From this angle of ‘me’ culture we can accelerate down through to indefinable interactions of energy in fields and waves – and onwards and out to the larger ecologies of Biogea, universe, cosmos.

It is important to understand this approach as one in which everything is enfolded in finitude. Process philosophy does just that through perpetual shift in encounter, as we find in the seeming fixity of knowledge that works on some levels but is completely ineffectual when it comes to others. There can be no universality other than the condition of perpetual flux. It is through a mashing together of many strands of thought and disciplines, in zones of encounter, that we can begin to speculate and imagine other ways – this is the intention of these words, and of the artworks too, where thought evolves through and with practice, manifesting briefly in a *Southern Outfall*. Although they may have discreet existences, none of the words and none of the works evolved alone, we can consider each aspect through its environment of existences. Thus event-installation becomes temporary embodiment of process philosophy in action, where process philosophy is practical philosophy, existing through encounter, exchange and subtle shifts of position. We are at the sewage works? We are part of the sewage works.

The evolving of sensible installation encompasses processes of care - for the many makers involved in the work, and where the artwork can be seen as extension of ourselves. This care extends to use of language. This is not research that dissects, probes, defends or even performs autopsy - as the examining scientist cuts, stabs, injects or splits their subject in the order of objective research – so we need to beware. We relate to our environments through a filter of language, pillaging and exploring for our own near ends. Small adjustments in thinking and shifts in linguistic turn, following Bohm's rheomode and Buckminster-Fullers being-as-verb, have potential to impact too.

This artistic approach is about generating little ripples that have potential to create tidal waves, or to continue in subtle dissipation where laws of conservation state that energy is never lost and that we exist in a closed system where things continue in perpetual process of re-formation, as we understand for now. If we dissolve to the level of vibrating energy, it becomes a question of how these shifts in energy will re-emerge. In times of much doom and gloom this offers a position of hope through possibility for other ways, we just need to keep working on those small wavelets as the more that are sent out, the more likely that engulfing wave of change becomes (as seen in the movements of *#MeToo* and *Black Lives Matter*).

In valuing multiple forms of knowledge rather than that of a dominant few, we can seek shared points of understanding, imaginatively wrapped in processes and outcomes that may be other but do not thin down the rigour of knowledge and discourse, rather extend its scope.

The once cutting-edge technologies at Crossness went through many phases of updating with the introduction of developed engineering. The successive methods of pumping and processing sewage make for appropriate material through which to consider redundancy. This is also reflected in a place where many come to find meaning after retiral, as a voluntary replacement to paid work.

The triple expansion house was later extension to the original building, as changing needs required more pumping power and so the mechanisms developed. Walls were moved and rebuilt to accommodate more, and more powerful boilers. Although a single fly wheel that regulated pumps of old still has rotational capacity today, with the beam that rises and falls moderated by that rotation, this movement no longer undertakes mechanical load, there is no lifting effort to be done, it has become a thinking engine, a feeling engine, which rumbles through the floor. This is a place to experience awe and wonder, a place to understand and share in community, a place to consider the relative position of being in that bigger world and a place to indulge in sensory encounter.

Crossness, standing out on the Erith marshes, is the site of a historic sewage pumping station. All the shit from south London converges at this point still, now processed via contemporary technologies for treatment of sewage. The Crossness Pumping Station sits at the far, riverside of the contemporary Thames Water site. It is difficult to access as the current sewage processing plants are secure territory. Security pass shown at the little middle-of-the-road hut raises barrier for entry. Most people drive in, but for those that enter on foot, hard hat and hi-vis must be adorned to traverse the roadway until safely through the trust gate. A sensible approach, as on entering the vicinity it is impossible to ignore the smell, the place gets inside you before you set foot through the door.

Within the Engines Trust the perpetual politicking and negotiating across the org suggests a way to think through types of common sense. The collective knowledge held within the organisation is immense - historical knowledges, of which there are many, with differing perspectives hung around key aspects of the place. In the restoration team there is banter about other people in the org having no common sense when it comes to understanding the basics of steam engineering restoration and how it should be approached. At points it seems incredible that anything ever gets done in a place of such differing opinion, yet somehow, with everyone beavering away at their own bit of activity, in their own way, things happen.

We have seen through the work of Isabelle Stengers that a return to validity of common sense is necessary, in tandem with the objectivities of knowledge, to enable a shift to active participation in our world that sits beyond one of greed and consumption. Where scientific developments have displaced understandings once based on subjectivity and sensory perception to those of objective fact, means we have hit an extreme where the bifurcations of nature manifest in a big disconnect to our impact upon and loss of respect for our ecologies and environments. Stengers, through Whitehead, proposes a return to value in qualitative aspects of existence that comes from all that sensory encounter entails.

The process of gathering information across a range of knowledges and experiences through involvement at Crossness derives a mode of practice that evolves as a form of common sense, in subjective sensory encounter alongside abstract levels of intellectual understanding. It is in the generation of installation that senses may be held together in open dialogical space, where objectivities are merged with marginalised positions in a return to original understanding of common sense, derived from the immediacy of sensory information and all the qualities of experience therein, as valid forms of knowledge, and with the merging of that into larger objective realms.

The elements of installation begin to draw on extended sensory encounter through multi-modal approach encompassing journey through smell, touch, taste, sight and sound. I have worked with sonic elements in installation for some time, though working directly within a culture of music and sound arts rather than fine art, has allowed for a developed sensibility in sonic practice. It is interesting to encounter varying approaches to composition in the means of gathering and generating material (making music) and in how these things hang together. Being around a community of people who spend time with their eyes closed and intensely listening to the world brings a different emphasis, as do the spaces and tech involved in the production of spatial sound composition. It has been interesting to translate worldly spaces through processes of mapping onto the refined and removed structure of a spatial sound lab. This offers much potential for exploring site-specificity when it comes to working away from, yet through, non-standard and heritage locations.

We looked at monumentality in statues where veneration of individuals does not offer recognition for the collective effort of everyone and everything that contributed to the conditions that allow for an individual to do great things. And with the rise in understanding of neurodivergence we

seek space for different modes beyond the set standards that constitute rigid structures through adherence to certain disciplines at the expense of others. Divergence does not mean watering things down or making allowances, it means accepting other forms as valid. There are parallels found in return to eastern philosophies and indigenous knowledges that are not so heavily reliant on linguistic structuring and the rigours of objectivity, yet express sensitive holobiontic understanding and relationship to ecology that has become largely forgotten in developed worlds. So we find that process philosophy, in all its interpretations and manifestations of encounter, offers openness to many ways. The possibility of a world, multiple worlds, where there are flexes for bodies of knowledge to healthily intersect, where there is value placed upon different forms of expression, allowing for truly diverse positions to be held simultaneously. Where there are problems of dominance in singular agendas and perspectives, we are seeking practice that encompasses diversity and gives space to modes of non-static thinking. It is through collective understanding drawn from all fields of knowledge that we may find ways to common sensible existence.

It is in a process of allowing research questions to emerge from occasions of experience - through 'feeling' a way - that we arrive to a point of coherence through artistic articulation. The work is formed as a journey that unfolds; of jaunts along the Thames path and rail travel, via Crystal Palace and New Delhi rooftops, that lead us to Crossness.

This understanding and approach to being in the world is reflected through an art practice that does not have fixed goal, other than ambition to produce a 'sensible' installation of some form, generated through journeys of thought and activity. This is not a quantifiable process and therefore difficult to justify in terms of initial objective aims.

Artistically an organismically mingled approach becomes one in which collective methods are taken in the production of event-based installation, even if filtered through a singular holobiont. It is a process of gathering, over time, through embeddedness within a place, with people, within an organisation.

Activity as field-artist means not just making work and showing it but the whole process, how it comes about through everyday engagement with the world. Through embedding within Crossness and working as a volunteer, an understanding of the building, the people, the voluntary organisation, the bigger political and economic context within which it operates has been gained. This is a form of socially engaged practice undertaken through being an organic element within

the org, contributing to its ongoing function, not as an objective observer, not as an outsider who delivers a work into a space, but as a living cell within, as a bacterial being, playing a part in contributing to the culture of the whole. Here creative practice does not emerge from a single mind but from the plurality of being, from interaction, dialogue and exchange, from writings, philosophies and thought legacies, from what we ate for lunch. Things swirl around, in loops of feedback and stochastic process. Conglomerations of stuff emerge as wee islands in the morass of events. Conversations whirl around all, some bits stick, and as the Victorian children used to pluck silk handkerchiefs and other sullied items that caught on the sewage filters, finding wealth within the filth.

This work is not finished, it is evolving. The thesis asks questions as it seeks to unsettle fixed epistemological ideologies by thinking through diversity of knowledge in an openness to new understandings that are not permanently fixed, that can be playfully explored through generation of event-installation.

As form follows function it has been necessary to toy with the form of text and voices within, as with installation, that are by no means an illustration or explanation for the works constructed but an entwined element in other form, in a process of accumulating meaning. I sensed from early on that the Southern Outfall at Crossness would be appropriate location around which this activity could be hung. Being entrenched in a socio-political environment with its own economies of exchange, and within a world of former sewage processing that is full of sensory encounter, could only prove rich environment to process through too.

In generating a form of knowledge that exists through looking at broader connections across a range of disciplines and subjects, rather than delving too deeply into single specific nodes, it becomes a body of work that engages specific aspects of those broader knowledges while hoping to avoid a ‘superficiality of broad generalisations’ (Whitehead, 1934, p.30). This is not a holistic approach as that term presupposes some form of totality – but rather a partial or momentary completion within a processual whole, that takes shape and gives understanding for a fleeting moment in time; as with a murmuration of starlings that will never take the same shape twice; as with *Longplayer*; as with Whitehead’s needle and river. The partworks arrest singular moments, fleeting points, taking temporary ‘concrete’ form in referencing and harnessing ever shifting encounter. In evolving the work while evolving the question, perhaps the work becomes the question, through being and doing before intellectualised knowing. This is a discourse that could

only be arrived at through practice with undefined question, from position of not explicitly knowing, that follows innate senses that have dismissed much other material on the way, in a form of sifting that allows for connections to be formed that rational processing may not allow.

It is interesting to note that many of the books and media referred to within this text are based on interviews, dialogues, lectures as non-static means of developing and conveying concepts through an underlying activity of encounter, where thought is given condition to evolve.

There is capacity for this mode of practice to be translated and mutated in relation to the specificities of working and thinking through other heritage locations, where seemingly fixed histories can give way to a wealth of multiple encounters relative to the details in existence there, as I am still unfolding through relationship to the redundant tunnel shaft of the Brunel Museum.

As I come to the end of this part of endeavour, leafing through old notebook pages revealed a loose note, dissociated from source, written in green pen, paper folded in four, from a hand that no longer exists. Timely words that said, 'Whitehead envisions a dynamic world of entities that make decisions, of entities whose very being consists in the decisions they make'. No source of origination is defined, it could be the authorship of the hand, or a quote from a page in a book in a pile, a quick 'google' suggests (Shaviro, 2015) – there is no intended plagiarism in using these dissociated words, just a sharing in the thoughts, echoes and decisions of the many voices at play.

This essay is an outfalling of thought and the result of decisions made on the way. There are contradictions and non-conclusions throughout that are an intrinsic part of a process that encompasses uncertainty and the holding of multiple perspectives simultaneously. It has been formed through exploration of a range of modes of thinking, making, doing, rather than in cohering conclusive fact. It proposes a processual mode of being given physical existence through the decisions involved in making the work.

The work isn't illustrative of or about process or process philosophy or philosophy of organism, it is the embodiment of them, instances encapsulating process philosophy as practical philosophy that encompass moments of encounter within a bigger realm of experiences, in a becoming that takes place at the site of a historic sewage pumping station standing on the banks of the Thames, and through encounter with all that lies therein. These words constitute a moment in the formation of thought, fixed on page but not in terms of their continued unfolding. Thought and act will mutate

and develop, extend into dialogue and practice with others, crumble and reform beyond, in a world of flux and impermanence. This outfall is only the beginning of the next part of the journey.

The smell of the place is inside you before you arrive through the gates. The entwining, mingling and blurring of boundaries has begun. The nature of the voluntary organisation as a place where many come to find involvement and meaning, as people also seek meaning in artistic event. The beautifully functional, yet overly ornate, architecture that is extension of gut transit makes this a wonderful analogous location, a building that now perpetuates its existence through the collective activities of a ramshackle voluntary organisation that functions within, the tangle of visitors that trip through the doors on open days and for guided tours, provide sustenance with their entry fees. The heritage organisation needs a new generation of volunteers to come in and find new meaning within the place, or perhaps this extended organism dies, as the sickly beam engines once stood for forty years in rusting and vandalised state, mutely decaying. These mechanical beasts may seem far from 'human', yet emanate as extensions of our own function, as do light switches, hearing aids, VR headsets, bionic limbs, chip implants…. Seeking a process of evolving installation for the things that may not be present, for a team whose digits no longer round up in multiples of five. Making sensitive sound work through spending quiet time at the Ness, listening; to people, to stories, to complaints and moans, life's grumbles, machinery, needle guns, pumps and pipework rumbles, and the soothing, repetitive clicks and grind of a large mechanical, oily, beam in motion, powered by hot air and warming bursts of steam. The moist warmth of the atmosphere releases unknown, delicate smells of the place in an interior petrichor release.

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