

2024

Landscapes of Play: An exploration and illumination of children's unsupervised play close to home and a researcher's journey to becoming posthuman.

Andrews, Mandy Jo

<https://pearl.plymouth.ac.uk/handle/10026.1/22235>

<http://dx.doi.org/10.24382/5165>

University of Plymouth

All content in PEARL is protected by copyright law. Author manuscripts are made available in accordance with publisher policies. Please cite only the published version using the details provided on the item record or document. In the absence of an open licence (e.g. Creative Commons), permissions for further reuse of content should be sought from the publisher or author.

COPYRIGHT STATEMENT

Copyright and Moral rights arising from original work in this thesis and (where relevant), any accompanying data, rests with the Author unless stated otherwise¹.

Re-use of the work is allowed under fair dealing exceptions outlined in the Copyright, Designs and Patents Act 1988 (amended)², and the terms of the copyright licence assigned to the thesis by the Author.

In practice, and unless the copyright licence assigned by the author allows for more permissive use, this means,

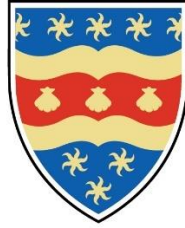
- that any content or accompanying data cannot be extensively quoted, reproduced or changed without the written permission of the author / rights holder; and
- that the work in whole or part may not be sold commercially in any format or medium without the written permission of the author/rights holder.

Any third-party copyright material in this thesis remains the property of the original owner. Such third-party copyright work included in the thesis will be clearly marked and attributed, and the original licence under which it was released will be specified. This material is not covered by the licence or terms assigned to the wider thesis and must be used in accordance with the original licence; or separate permission must be sought from the copyright holder.

The author assigns certain rights to the University of Plymouth including the right to make the thesis accessible and discoverable via the British Library's Electronic Thesis Online Service (EThOS) and the University research repository, and to undertake activities to migrate, preserve and maintain the medium, format and integrity of the deposited file for future discovery and use.

¹ *E.g.* in the example of third party copyright materials reused in the thesis.

² In accordance with best practice principles such as, *Marking/Creators/Marking third party content* (2013). Available from: https://wiki.creativecommons.org/wiki/Marking/Creators/Marking_third_party_content [accessed 28th February 2022]



UNIVERSITY OF PLYMOUTH

Landscapes of Play:

An exploration and illumination of children's unsupervised play close to home and a researcher's journey to becoming posthuman.

By

Mandy Jo Andrews

A Thesis submitted to the University of Plymouth in partial fulfilment for the degree of

DOCTOR OF PHILOSOPHY

School of Society and Culture

March 2024

Acknowledgements

I would like to thank my supervisors Ulrike Hohmann, Alun Morgan and Ken Gale, in the order of appointment for their encouragement to completion, interesting ideas and prompting through personal and philosophical challenges as I limped my way to completion of this thesis through years of wilderness, the Covid pandemic and its complications, and writer's block. Also, thanks to Joanna Haynes who with Ken, drew me into the Posthuman Reading Group where I found inspiration. I thank Sue Waite who also played a part in the initial stages of this journey, pointing me towards anthropology and geography. I should also like to acknowledge the support of the Doctoral College administration, particularly in the later stages.

A huge thanks must go to the 28 children who talked about their play, generously drew me into their activities and showed me their spaces and places of play, their meanderings and places, perhaps later to be 'defended in their minds'? Without the generosity of my young co-researchers this thesis would not have come into being, or would have been very empty and I would have understood much less about where and how you 'play out' today. Thank you.

My appreciation goes to my family, my long-suffering husband, Tony, who facilitated the community play events, accompanied me on my research forays, and has always listened to my ideas and held my concerns. I also acknowledge the patience, love and encouragement from my daughters and apologise for being 'always busy' and 'not to be disturbed' for so long. I am looking forward to leaving my attic study and engaging in our family social and life events again (... for a writer of a thesis about play my life has not been very playful for a while). Finally, for Dad,.. I would not be here without you.....but oh what trouble you have caused!

I am also very appreciative of the financial support afforded to me by the Plymouth Institute of Education and of the collegiate support and advice offered by so many PIOE colleagues both in the institute and elsewhere on this journey to becoming posthuman. Thank you all – it was appreciated, and motivational.

On submission struggle – a re-use of Virginia Woolf following a spring day on the beach....

'.....on a summer day waves collect, overbalance, and fall; collect and fall; and the whole world seems to be saying 'that is all' more and more ponderously, until even the heart in the body which lies in the sun on the beach says too,That is all. Fear no more, says the heart.....committing its burden to some sea, which sighs collectively for all sorrows, and renews, begins, collects, lets fall.And the body alone (lusting to be free) listens again to the passing bee; the wave breaking; the dog barking.....' (Adapted from Woolf's Mrs Dalloway, 1973: Loc 938). Ssssssh Yes....that is all...commit.....aaaaaah.....and renew.

Authors Signed Declaration:

At no time during the registration for the degree of *Doctor of Philosophy* has the author been registered for any other University Award without prior agreement of the Doctoral College Quality Sub-Committee. Work submitted for this research degree at the University of Plymouth has not formed part of any other degree either at the University of Plymouth or at another establishment.

This study was financed with the aid of Plymouth Institute of Education.

During the period of research and writing up I have undertaken a range of training from the University of Plymouth Doctoral College on the following topics: Research Methods; Introduction to NVivo; Preparing to submit on PEARL; Preparing for your Viva.

Aspects of this work have also been published/presented at the following conferences:

Andrews, M (2017) *Landscapes of Play: Exploring Young Children's experiences of play close to home*. Paper presented to 27th EECERA Conference, Bologna, Italy, August-Sept 2017.

Andrews, M (2017) *Landscapes of Play: Exploring Young Children's experiences of play close to home*. Paper presented to BERA September 7th, 2017.

Andrews, M (2018) *Playing as Intra-active becoming: Exploring Young Children's Experiences of Play Close to Home* Paper presented to EECERA 2018, Budapest, Hungary. August -Sept 2018

Andrews, M (2018) *(Attempting) A Posthuman Perspective on children's play: the equalising effect of a relational ontology*. BERA Conference 11th September 2018, Northumbria University, Newcastle.


Andrews, M (2019) *Landscapes of Play: A practical workshop exploring play theorising through clay and found objects*. University of Plymouth Post Human Research group conference 27/03/2019

Andrews, M (2019) *Agency, Accountability and Play*. A paper presented at EECERA Conference 21st August 2019. Thessaloniki, Greece.

Andrews, M (2019) Influences of macrosystems on children's spaces: regaining the paradigm in Alcock, S and Stobbs, N (Eds) *Rethinking Play As Pedagogy*. London: Routledge pp173-189 <https://doi.org/10.4324/9780429454042>

Andrews, M (2022) *Landscapes of Play Playing and Becoming*. University of Plymouth Adventures in Posthumanism May 2022: <https://adventuresinposthum.wordpress.com/2022/06/29/doctoral-conference-held-5th-may-3/> (prose-poem reproduced in the final section of this thesis)

Word count of main body of thesis: 83,741

Signed: 

Date: 03/04/2024

Abstract

Title: Landscapes of Play: An exploration and illumination of children's unsupervised play close to home and a researcher's journey to becoming posthuman.

Author: Mandy Jo Andrews

This thesis explores children's play experiences and engagements out of doors close to home. Adopting a Deleuzian informed posthumanism the researcher's journey towards immanence prompts re-thinking about play, childhood-nature entanglements, and play-space-place-player generation. Children's unsupervised play outside of organised settings such as school or adventure playgrounds is less researched than that of organised settings. This thesis puts to work Deleuze's process philosophy and Barad's agential realism, together with Haraway's biology informed multispecies manifesto, Bennett's focus on vibrant agential matter and the literature of Virginia Woolf, to experiment with and illuminate some molar and molecular play adventures, constraints, escapes, intra-actions and entanglements experienced by and with small groups of children aged between 3 and 12 in their 'playing-out' in 6 housing areas in South West England. Each location chosen had access to a range of man-made and natural, mineral and biological play opportunities, cues, affordances and potentiality. The research questions initially focused on where children choose to play, what they do in the favoured play places, and how they materially experience play spaces and places. As the human focus was decentred during the study it became post-qualitative research of assemblages, haecceities and entanglements of the becoming players illuminating the molecular richness of the play events. The questions progressed from where does this happen and how does it feel, to how does this work, and what does this do?

A range of new methods were introduced into the research doings, including clay plaques prompted by the materiality of play spaces and collage 'merzboards'³, sound and visual recording, and thinking with the agents and acts of playing and diffractively through other writings. Putting to work these intra-actions prompts a re-turning to re-thinking of a children's play engagement model, 'the play cycle' and together with a new conceptualisation of topoludic⁴ agency in landscapes for play acknowledges it as a creative and vital process. Further new knowledge emerged from this entanglement with landscapes of play and players as it offers an illumination and exemplification of some children's outdoor play as intra-active, interpellating events, a consideration of 'topoludic' potentialities of the contextual landscapes, and play as a vital 'wobble' a challenge to the expected, that sets new lines of flight running, offering new intensities and events. Finally, it offers insight into the tensions experienced between traditional academic expectation and researcher 'becoming posthuman' over the period of research, as I let go of the constraints of the academy to explore in immanence and fluid creativity.

³ I adopt Kurt Schwitters' collage approach he called 'Merz' of dropped items (often scavenged agentic scrap) which are then presented for meaning.

⁴ My own neologism for the influence of the topology and topography of the land (the relationship of undulations, rises, dips and linkages) upon play choices.

Prior Notes:

On books, referencing and the environment: In some places I use 'Loc 52' or similar where you may normally see a page number. There seems to me a cleanliness and efficiency in having several books with me on my tablet and an ability to take a small library around with me at all times without environmental destruction (see below). I consequently made a conscious choice to use the library, second hand and e-books where possible despite the referencing difficulty for the latter. E-books for Kindle and Apple Books do not always have the same page numbers as the printed books. In Kindle books they are sometimes referred to as 'location' so where an e-book has been accessed via these devices I use a shortened ':Loc.' and numerical site where you might expect to find a page number after a colon.

Thinking behind the use of e-books: I love books, the smell of the print on paper, the smell of a library, a printed book smell compresses time for me as I spent many days walking past an industrial book printer (Hazell Watson & Viney) whilst play meandering with friends in my childhood years. However, that experience of walking past a printing factory, alongside a canal, with the vegetation shining white from the printing process, holding my nose against the richness of the sweet chemical stench (that new printed smell of books) and the little pools of grey in the canal water in which elsewhere could still be seen water voles swimming, heads up, making a v-rippling wake, has prompted me now to choose other ways of reading. Water vole populations declined by 30% between 2006 and 2015 (Wildlife Trusts, online: no page). I have not weighed up the environmental impacts of use of an i-pad (though their claims for the environmental credentials of the product can be found here https://www.apple.com/environment/pdf/products/ipad/iPad_PER_Sept2021.pdf).

On Gender and pronoun adjustments: some of the older texts that I quote refer to his and him without reference to she or her. In some cases I put (she) (her) or (they) in brackets beside the gendered use. In other places the authors (such as Barad, 2007) have begun to use multiplicitous pronouns such as 'they' as an unbounded posthuman is always more than one.

On Copyright and Images

- 1) On p26 I present an image of a Merz collage by Kurt Schwitters.
- 2) On p293 I present an image of a playground design by Patricia Johanson reproduced with her consent.
Both 1) and 2) are images from Tate exhibitions. The Tate website indicates 'The following uses of Tate copyright content are permitted: '....Reproducing Tate copyright content, and Tate owned copyright expired artworks, for non-commercial research, private study, criticism and review, or for the purposes of teaching and instruction within an educational establishment. Where any artworks are published, the source of the content must be identified and the copyright status of the content acknowledged, e.g., 'Title, Artist, Date of Work, Photo: © Tate, London [current year]'. [Further written consents were obtained from both the Tate Britain and Patricia Johanson for the purposes of the online deposit to PEARL].
- 3) On p221 I present a referenced image from a text by Deligny . Copyright permission has been obtained from University of Minnesota Press and L'Arachnéen, Paris with whom copyright remains. They have asked for the following acknowledgement: 'Illustration entitled 'Monoblet, August-September 1977' in Deligny (2008), *L'Arachnéen et autres textes*, Paris: L'Arachnéen, translated in English, *The Arachnean and other texts, Translated by Burk, D.S. and Porter, C.* Minneapolis: Univocal publishing, 2015; Reproduced with kind permission from L'Arachnéen, with whom copyright remains and the image may not be reproduced.
- 4) All other photographs are the Author's own.

Table of Contents

Contents

Acknowledgements.....	2
On submission struggle – a re-use of Virginia Woolf following a spring day on the beach....	2
Authors Signed Declaration:	3
Abstract	4
Prior Notes:	5
Table of Contents.....	6
List of Figures:	11
0. Glossary: offering an understanding of some terms used in this text.....	14
1. Orienting Paragraphs and Entry Point	21
1.1 A brief comment on ethics:	30
1.2 A summary of the focus of this thesis	32
1.2.1 Working differently with theory.....	32
1.2.2 On Virginia Woolf.....	37
1.2.3 On questions, propositions or considerations.....	38
1.3 How should one read this thesis?	40
1.3.1 Contribution to Knowledge	42
2. A Metalude.... and Three Preludes	44
2.1: A Metalude – a moment of pause, a collection of thoughts before the play begins.	44
2.2 Writing in the middle	48
2.3 the Play Cycle Refrain	49
2.4 Prelude 1 – Rationale: I Played as a Child	51
2.5 Prelude 2: Welcome to the Anthropocene, a change of direction	56

2.5.1. Carbon dating plus: the soil within us.	57
2.5.2 Whiting the Ocean: destructive mastery.....	64
2.5.3. Thinking with the minority more-than-human of no economic value.....	66
2.5.4 On Plastics.....	71
2.6. Prelude 3: An introduction to posthuman research	75
2.6.1 A Consideration from Woolf’s writings	78
2.6.2 Another post-Edenic trouble?	79
2.6.3 Becoming empirical research – research assemblage and experience.....	81
3. On Play	91
3.1 Introduction to play.....	91
3.2 What do we know about where children go?	95
3.3 Play Spaces	106
3.3.1 Play as research: theoretical construct	108
3.4 The use of ‘Play’ and understandings of natural ecology.	112
3.5 Play out of doors and on playing field and street.	112
3.6 Play as posthumanism, life’s wobble.	114
4. Thinking Through Childhood	116
4.1 Thinking through childhood part 1.....	116
4.2 A challenge to the equity of monist immanence childhoods as experienced	122
4.3 Thinking through childhood part 2.....	122
5. Space, Place and Time.....	128
5.1 Introduction, On Time	128
5.2 On Space and Place	129
5.3 Barren spaces of containment	136
5.4 Space, place, tension and creativity.....	139
5.3 Space-Time-Mattering.....	141
6. Theoretical Landscape	142

6.1 Introduction.....	142
6.2 Posthuman considerations.....	146
6.3 And so to my journey to posthumanism:.....	153
6.4 We are Shark in the Trees (a snack)	161
6.5 An assemblage of tools for working with posthumanism.....	167
6.5.1 Decentring the human.....	171
6.5.2 Commutation, subjectivity in the act of making.	172
6.5.3 Diffraction and diffractive thinking.....	172
6.5.4 Entanglements, following the Rhizome to Haecceities	174
6.5.5.The importance of making, worldling, playing, walking, storying.....	176
6.5.6 On Storying:	177
6.5.7 The Processes of data collection	179
6.5.8.Positionality and clay	180
6.5.9 The initial observation of play locations and playways, residual data and trails.	183
6.5.10 Guided tours and shared experiences.....	184
6.5.11 The machines were offered to gather data – Smiley Face Cameras, Recording devices.	186
6.5.12 Walking Methods: performing spaces.....	187
6.5.13 Drawing the threads together, apart.	192
6.5.14 Ethics.....	197
7. Participants, Locations and More Than Participants.....	201
7.1 Introduction.....	201
7.1.1 Location 1:	203
7.1.2 Location 2:	205
7.1.3 Location 3:	208
7.1.4 Location 4:	210

7.1.5 Location 5:.....	211
7.1.6 Location 6:.....	213
7.1.7 Summary	214
8 Approaching the Field, Diving through the Strata and moving onto the Plane.....	216
8.1 Playdays and Material Artefacts	216
8.1.1 Drawing Play.....	216
8.1.2 Early Merz – the Plaques.....	217
8.1.3 Moving to Merzboards.....	218
8.1.4 Lines and cartography, meandering and mapping.....	218
8.2 On Mapping and Tracing	219
8.2.1. Deligny and lines of landscapes.....	221
8.2.2 Fields for play, striated and smooth, conceived and perceived.....	233
8.2.3 Nomadic lines of Flight from the conceived spaces	235
8.2.3 Living in pockets.....	235
9: Assemblages at Play	237
9.1 Introduction.....	237
9.2 The Embodied Experiences	238
9.3 Chair, hill, wind, dog, meadows	240
9.4 The football field a molar or molecular experience?.....	243
9.5 Thinking with Worms	247
9.5.1 The importance of the worm.....	249
9.6.2 Playing with worms, a case of mastery or kinship?.....	253
9.6.3 Worm conundrum	254
9.6 Merz, Mineral, Plastic and Sand	262
9.7 From Sympoiesis to Metal Caving, from outside in.	266
9.7.1 On Metal	271
10: Cycling or Waving – the play return.....	278

11 A Speculative Fabulation.....	293
11.1 A Speculative Play Fabulation	296
11.1.1 Child 1	296
11.1.2 Child 2	299
12 Expressing posthuman researcher after Woolf: a dissolution?.....	302
13 Dissolution, figuring something from the strings, knotting the ends.....	305
13.1 A contribution of new knowledge: of ways to work with children to gather data.	306
13.2 Where do children play?.....	307
13.3 The contribution of the neologism ‘Topoludic’	307
13.4 How are spaces and places perceived and enacted?	309
13.5 How might we rethink play as posthuman: The contribution of rethinking the play cycle.....	310
13.6 Illumination of posthuman thesis writing	311
13.7 On Children’s Play Out of Doors, Close to Home. New knowledge?.....	313
14 Postlude and the claiming of new knowledge	320
Bibliography/List of Sources	325
Appendices.....	1
Appendix 1: A Lefebvrian/Deleuzian influenced conceptual framework for considering childhood space and place.	1
Appendix 2: Ethical consent and consent forms	3

List of Figures:

Figure 1: Researcher as rhizome - diagrammatic presentation of the crossing themes	25
Figure 2 A Kurt Schwitters Merz Picture 46 – a Skittle Picture. Photo: © Tate, London. https://www.tate.org.uk	26
Figure 3: An annotated example from fieldwork of Children’s drawings about their play	45
Figure 4: The Play Cycle after Sturrock and Else (1998) and a playful Ouroboros doodle	49
Figure 5: Author’s Drawing from a media photograph of over 100,00 Whiting Deposited in the Atlantic off France, February 2022	64
Figure 6: A Child's Drawing of a Chough with research data annotation	70
Figure 7: A combination assemblage and acknowledgement of the diffractive elements of research and play.....	82
Figure 8: Hidden Picture; Magic-eye, embodied knowledge and posthuman concentration to see differently.	84
Figure 9: Dog, human, pipe, water, bridge, microphone, camera.....	88
Figure 10 Illustration diffraction wave pattern from the two-split experiment.....	144
Figure 11: tree root meeting place as affordance and agentic in assemblage.....	148
Figure 12: Shark image distorted - Author photo of original image in ‘Wild Cornwall’ Spring 2015	161
Figure 13:A Rhizome	174
Figure 14: Five Merz Plaques: Fieldwork data representing the play spaces and places.	181
Figure 15: An example of a Merzboard.....	182
Figure 16: Images of play by ways and paths of flight from molar striated play spaces.	184
Figure 17: Recording methods were Smiley Face Camera badges, Dictation machines, digital cameras.	186
Figure 18: Field evidence of children's play activity without a focus on the child.	202
Figure 19: Location 1 Images	204
Figure 20: Drawn map of Location 1 -a cartography not a tracing.....	205
Figure 21: Drawn map of Location 2 – field notes.....	207

Figure 22: Location 2 images of the small children’s playground, stream and large play equipment.....	207
Figure 23: Drawn map of Location 3 – field notes.....	209
Figure 24: Location 3 images of play in areas beyond the bounds	209
Figure 25: Map of Location 4 – field notes (close area only).....	211
Figure 26: Drawn map of Location 5 – field notes. The play area is the upper part of the small kidney shaped area in the centre...the lower green was not used.	212
Figure 27 Drawn map of location 6.....	214
Figure 28: children's nature drawings.....	217
Figure 29: Examples of the children's Merzboards.....	218
Figure 30: Example of Deligny Cartography of movement and intensities - Illustration entitled ‘Monoblet, August-September 1977’ in Deligny (2008), <i>L'Arachnéen et autres textes</i> , Paris: L'Arachnéen, translated in English (2015) <i>The Arachnean and other texts</i> , Translated by Burk, D.S. and Porter, C. Minneapolis: Univocal publishing. Reproduced with kind permission from L'Arachnéen, with whom copyright remains and the image may not be reproduced.	221
Figure 31: Deligny inspired cartography of motions and intensities of children's play in Location 1.....	225
Figure 32: Deligny inspired cartography of movements, motion and intensity of engagements in Location 2	226
Figure 33: Deligny inspired cartography of movement for Location 3.....	227
Figure 34 Deligny inspired cartography of location 4 and accompanying images.	229
Figure 35: Deligny inspired cartography of location 5.....	231
Figure 36: A Deligny inspired linear cartography of Location 6.....	232
Figure 37: Striated Conceived Playgrounds. An example of common playground signage offered by this particular local authority.	234
Figure 38: Images of Conceived Spaces as playground.	234
Figure 39:Routes for lines of flight - escape routes from conceived play areas into liminal spaces.....	235
Figure 40: Perceived and Lived opportunities in pockets of land.....	236
Figure 41: Some creatures in play (in life and death).....	239
Figure 42: Child, wind, chair, dog assemblage.....	240
Figure 43: Football field assemblage	243

Figure 44 Worm in the wet - photograph from field work.....	247
Figure 45: A photograph of the concluding page of Darwin's (1881) The Formation of Vegetable Mould through the action of worms ..	249
Figure 46 Author's drawing, Sept 2022: a play-full, becoming immanent, ouroboros doodle ..	256
Figure 47: VIII The Worm in the Blood, a letter from Spinoza (1665) illustrated in Curley, 1994: 82-84.	259
Figure 48: Plastic based Merzboards demonstrated in proximity to the supermarket.	262
Figure 49: The underside of the car	266
Figure 50: The Play Cycle (Adapted from Else and Sturrock, 1998).....	281
Figure 51: An amended play cycle	286
Figure 52: The amended play cycle.....	289
Figure 53: Patricia Johanson's speculative 'Urban Playground' 1969 Illustrated in the Tate's 2018 brochure for Virginia Woolf, an exhibition inspired by her writings. © London: Tate p45	293

0. Glossary: offering an understanding of some terms used in this text

A criticism of Deleuzian philosophy and of some forms of posthumanism is the complexity of the terminology and the proliferation of neologisms. Although it seems rather static and non-post-human, I here present a glossary of the terms and ideas used in this thesis. The purpose of this glossary is twofold: it formed a process for me of working through the varied terminology, especially as I was putting to work a range of understandings, and it also offers underpinning understanding for the reader, a reference tool, also supported by footnotes to the main body of this thesis. It is placed here at the front of the thesis in the hope that it may be read first so that a scaffolding is presented but looking up the terminology does not distract from the flow of reading.

Adulteration	The moment when an adult interrupts a play flow with negative effect. Adults can join children's play without having caused an adulteration if they form a part of the play assemblage in flow (Sturrock and Else, 1998). Adulteration refers to adult dominance in a situation that restricts the experience. I also use 'adultist' for adult dominated policy and acts of control (after Horton and Kraftl, 2018).
Affect	Affect in Deleuzian thought does not denote personal feeling, but draws on Spinoza's <i>affectus</i> and is 'the ability to affect and be affected, a movement, the passage from one state to another in response to intensities that enhance or diminish the body's capacity to act (adapted from Massumi, 2012: xv)
Aeffect	Affect is generally used for personal feelings (except see directly above) and to effect is to have an impact on, or cause to happen. The combination of affect and effect is used in both philosophy and psychology and as used here, to combine the two aspects of emotion and impact.
Agentic Cut	The ontological approach in this thesis is not based on a priori representation subordinated to subjective identity but on a commutation of agents involved intra-actively in their emergence. This thesis, as with a presentation of any static moment is consequently a process of slicing through the ongoing continuum of reality, or processes of becoming, and is therefore a 'cut'. It is agentic in as much as such a 'cut' through motion and commutation space-time-matterings enact that the agent of observation and the agent observed are co-constituted simultaneously; the cut 'does something' (after Barad, 2007; and Athanasiadou 2018:86-89).
Agential Realism	Barad (2007:392) explains that in agential realism the world in its complexity is both real and generated through action or event, matter is a dynamic expression (and articulation) of the world's intra-active becoming. Particles are real and objects come into being through events.
Alterity	Generally meaning otherness, becoming other, altered and alterable, but in this work also meaning the quality or state of being radically alien to the conscious self or a particular cultural orientation (Braidotti, 2018:93)

Annihilation	Sturrock and Else (1998) use the word annihilation for the moment that the play cycle and flow is brought to an end by the playing children. As it is rather a strong word meaning completely destroyed or obliterated, I have chosen to replace it with 'dissolved' in my own reworking of the play cycle. It seems that an event is not necessarily annihilated by another (destroyed in a moment), but that the energy of the first assemblage is dissipated or dissolved as the intensities weaken.
Anthropocene	A now commonly used word to indicate the current epoch of geological time in which humans have had the biggest impact on the earth, an era in which 'living arrangements that took millions of years to put into place are being undone in the blink of an eye' (Tsing, et al. 2017:1). 'Anthropocene' has not been formally adopted by the International Commission on Stratigraphy (ICS) and we are still in the Holocene. However, it is very commonly used to refer to the current age. Haraway (2016) is critical of the term Anthropocene as she considers it contains an overt faith in technofixes and prefers to use the term Chthulucene (see below).
Arboric	Tree-like. The traditional Cartesian binary approach which separates mind and body, and in which man is separated from creatures and things, led to a certain form of classification structure in a dominant scientific fashion branching from the major domain down through class, order, genus to species. Such a hierarchical, branching system is an arboric system. Deleuze and Guattari (1987/2012) posited instead that we should think in a rhizomatic fashion – see explanation of Rhizome below.
Bifurcate	Split into two. To divide. The process of splitting.
Chthulucene	The term Haraway (2016:1-2) prefers over Anthropocene. A compound of 2 Greek words meaning time now and beings of the earth. Chthonic ones are beings of the earth, ancient and current, and 'having no truck with ideologues' are able to make anew and 'stay with the trouble' and in molecular activity can live and die potently as a 'fierce reply' to the dictates of Anthropocene or Capitalocene. Haraway indicates playfully that the 'game is not over' but shows how we might learn to live comfortably with the trouble of the Chthulucene as things adjust.
Critical cartography	A generative creative mapping process. Deleuze writes of the enhancements of mapping, not tracing, and bringing into actuality potentialities in the process of cartography. Tracing means more of the same, whilst a critical cartography challenges the status quo and actively seeks and highlights difference. A map 'is entirely oriented toward an experimentation in contact with the real' (Deleuze and Guattari, 1987/2012: 12). In play Lester perceives this (cartography as method) is to pay attention to the condition in which playfulness thrives (Lester 2017)
Diffraction	This is a methodological practice of reading 'insights through one another' (Barad 2007). A diffractive reading of data through multiple theoretical insights moves qualitative analysis away from

	habitual normative readings toward a reading that spreads out in unpredictable patterns producing different knowledges (Mazzei 2014)
Haecceities	A mode of individuation that is different from that of being a person, subject or thing. Outlined by Deleuze as being a non-personal individuation through events, concepts can be haecceities too (Deleuze,1987/2012:304). He refers to himself and Guattari writing in partnership as a haecceity. Haecceities are the sum of the factors and forces that are actualised in the creative emergence of a thing made up of many parts, emergent through the event.
Home	Home is widely used to describe a positive experience of a shelter with, and positive emotional connection to, a place of living and dwelling (Coward, 2018). In my research I recognise that not all children’s experiences of their common family living spaces are considered ‘home’ in terms of a positive emotional connection. However, for the purposes of this thesis I use the term ‘home’ to refer to the usual dwelling place of the children engaged in the study and ‘close to home’ to mean their usual unsupervised roaming distances from their dwelling place, considered safe or endorsed by their families (or perhaps just beyond given that play boundaries are leaking into liminality).
Individuate	Creation of an individual, an identifiable body or a division of something from the multiplicity of the virtuality (Deleuze and Guattari,1987/2012).
Imbricate	Overlapping/overlapped, as the pan tiles on a roof overlap, the mass of individual tiles making a cohesive whole by their being in place, each supporting the other to make the whole.
IWC	Guattari (1989/2000) uses this term to refer to Integrated World Capitalism a critique of the dominance of the economic priority of neoliberalism. This short form is also used by Ingold (2015) to refer to ‘information without constraint’, by which he means the media information accessible with new technology which is unconstrained and generates sound walls of messages or media generated understandings.
Liminal	Usually refers to a position at or on both sides of a boundary or threshold. Liminal may mean just outside the boundary, or at the threshold between the inside and outside of a bounded space for example. My Oxford dictionary also gives an example of liminality being the space between past and present. Liminal also relates to a transitional stage of a process. In psychology and literature, it could refer to the pathway to becoming, the move away from fixity as being, to becoming something new through relational change. Wilson (2016) writes of the liminality of play, at the edge of the play areas, of the threshold from which play and new understandings (knowledge) occur.
Ludic	From Latin ‘Ludus’ meaning playful, without end direction or prior purpose. Ludic covers a range of playful activities, play, games, even sport and drama, it also refers to a creative process. The

	opposing word 'epistemic' being about exploration 'what is this?' and Ludic being 'what does this do/what can I/we do with this'? (See Hutt, 1979)
Metalude	Sturrock and Else (1998) indicate this as the pause just prior to play encounter. Drawing on Spinoza Sturrock describes this moment as a conatus; the drive to commencing the process to persist in being (Sturrock, in King, 2018, p104). Spinoza links Conatus to power. So this is a pause before a surge.
Molar	Deleuze and Guattari do offer several conceptualisations of Molar and Molecular. For the purposes of this thesis the macro or Molar level corresponds to society as a whole. For example, the establishment of playgrounds is a molar activity, prompted by legislation and striated by policy as a result (after Bell and Colebrook, 2009)
Molecular	Molecular on the other hand pertains to the individual and local, in the context of the playground might focus on how it is perceived, lived, smoothed and territorialised. Molar purpose may be aligned with the molecular, or might be at odds with it (as when housing policy to build on recreational land overrides the minoritarian individual's desire for a place to play football).
Percept	Deleuze's adaptation of perception. Whereas perception is located in the perceiver (as in 'I have a perception of sadness') Deleuze's percept and affect are not located in the individual perceiving something, but exist in themselves. A response to a piece of art presenting sadness may not be a perception of sadness, but we may know the percept is presented by the art regardless of who perceives it (after Colebrook, 2020:14)
Place	A complex concept which for the purposes of this thesis is considered the 'lived spaces' of Lefebvre (1991) and the place of attachment of Tuan's (1977) understanding. 'Places are centers (sic) of felt value where biological needs, such as those for food, water, rest and procreation are satisfied' (Tuan, 1977:4). This is not the place that 'places man' (Heidegger, 1958:9) Deleuze's striated space, but an inhabited space which contains meaning, affect, is localised and emerging or becoming 'with historical and cultural change new elements are added and old elements disappear' (Relph, 1976: 3). Place involves an integration of elements of nature and culture, each place has its own order or special 'ensemble' which distinguishes it from the next place (Relph, 1976:3). Places are part of a framework of circulation, but also of attachment, of time emergence, spaces 'defended in the mind' (Bachelard, 1994: ix).
Play Cue	An activity which displays or communicates a desire to impel forward towards an intuited future encounter, seeking the possibility of joint attention (Sturrock and Else, 1998). Whilst Sturrock initially conceived of the cue as a signal coming from the child to another person I take this forward to acknowledge there are also cues or sparks initiated in the contextual virtuality more

	widely sparking to the child from more-than-human and landscape prompting environmental intra-actions and assemblage encounters.
Play return	A cue for engagement going forth requires a return signal to prompt the meeting together or coming close enough for something to happen in the space between. Sturrock and Else (1998) note the symbiosis of the return. If there is no return the play event does not come into being as the commutative space is not created.
Rhizome	The opposite of arboric. Rather than adopting a hierarchical tree-like approach of classification from a position of a priori knowledge hypotheses and teleological understandings the rhizome burrows away underground, sending out nodules and shoots in all directions, perhaps in places criss-crossing, in others moving around the agency of something, pursuing a range of threads, and leaving others, but not with a fixed end in sight (Deleuze and Guattari, 1987/2012).
Singularity	Is used in several different conceptual ways in Deleuze's work. A moment in time resonates to produce a singularity, a person is transported from personal concerns to a singularity, freed from dependence. A thing stripped of essence, and subjectivity, also referred to as an event, generates singularity as bodies are co-constituted in an act of intensity arising out of the virtuality. Deleuze and Guattari (1987/2012:8) write about what they call a singular multiplicity. The singularity is not in opposition to multitude, but each rests within the other. Singularities are made up of or coordinated by multiple aspects and the multiple is made up of singularities. There may be an element of co-ordination to make a singularity from a multiplicity.
SF	Donna Haraway (2016) plays with the initials SF indicating they are a sign for all the following: Speculative Fabulation - which in itself is a mode of attention, a theory of history and a practice of worlding rooted in storytelling and making practices. She also uses SF for; String Figuring Science Fiction Science Fantasy Speculative feminism, Science Fact All relate to creating with, and collaboratively (except for Science Fact). Speculative fabulation, the use of creative storytelling is considered and used as a method in the latter part of this research.
Smooth and striated spaces	A conceptual pair of words that enable a rethinking of space, engaging with concepts of the nomad and the sedentary, with molar and molecular. On reading Deleuze I conceived of smooth spaces as the felting of the lines of entanglement, of flight. The sea is a smooth space, open water moved by the wind, other spaces can be smoothed through living with and making one's own. Spaces can be striated through molar (policy and cultural) influences restricting their use to conceived purpose.

Somatic	Pertaining to the body, as distinct from the mind.
Space	Space as used in this thesis is not an empty void waiting to be populated, but is informed by Deleuzian philosophy in which space underpins thought, as everything takes place on a plane of immanence, a vista of plateaus, landscape folds, with nomadic meanderings creating concept (Deleuze and Guattari, 1987/2012). Spaces come into being through acts of engagement, they can be striated by state control, policy and work, or smoothed by lived experiences and interpretation. There is a distinction between ‘free action’ [such as play] taking place in smooth space-time of societies and ‘work’ taking place in the striated space-times of capitalist formations’ (adapted from Holland, 2013:58).
Sympoiesis	Haraway (2016:58) tells us that this is a simple word which means ‘making with’. It refers to the understanding that humans are ‘never alone’ and builds on the idea of symbiosis (mixed organisations living with and through each other in mutual harmony) and ‘ecological assemblages.’ Poiesis is to make or bring a new formation into being. So sympoiesis is to be and make together.
Teleology	The explanation of phenomena in terms of the purpose they serve rather than the cause by which they arise. Aristotle, for example, claimed that an acorn’s intrinsic ‘telos’ is to become an oak tree. So, a child’s <i>telos</i> , could be to become an educated and culturally informed adult. There is a common teleological understanding of children being incomplete and therefore ‘becoming’ in a negative sense, directed towards a culturally and socially informed economically active adult. As a result some early childhood texts have focused on ‘being’ rather than ‘becoming’. Posthuman and Baradian process ontology (Barad, 2007) is more interested in the immediacy arising through event and in an ongoing becoming something other than currently, but not necessarily in linear progression to perceived teleological end. This releases ‘becoming’ from its directed form.
Topography	I use this term in a geological sense, but refined to refer to the arrangement of natural and artificial features of the locations. The topography of a housing estate may include the grassy greens, the rocks placed to restrict car access, slopes and undulations, trees and bushes, and also the concrete structures, pavements, walls, skate park, kerbs, bars to constrain shopping trolleys and so on.
Topology	I choose to use the word topology here in the geographical sense of a focus on qualitative relationships between layers of surface shapes and features. In Human Geography it also has use in relation to post-structural philosophies of space. It is also a word of multiple meaning, used in psychology as perceptual space, in maths as connectivity between geometric forms in a space, and has potential to refer to the combination of spatial relationships and potentialities for play and playful events.

Topoludic	Is my own neologism for the combination of spatial relationships and the potentialities (Deleuzian 'sparks') for the eruption or enactment of play and playful events. It refers to the features within the arrangement of nature and man-made structure that offer affordance (human perceived use) or agentic cue or percept not having an a-priori symbolic affordance but still sparking agentic signals for linked responses.
Virtuality	This is an ever-present force from which many possible actualities can be created. It is a plane of immanence from which all things are folded. It is a way to see what escapes cognition by paying attention to the incorporeal and inorganic and the intra-actions between them (Colebrook, 2020 :17).

1. Orienting Paragraphs and Entry Point

Of play:

‘To a child there is more joy in a rubbish tip than a flowering rockery, in a fallen tree than in a piece of statuary, in a muddy track than in a gravel path.....To a child the best parts of a park are the parts that are the least maintained. It is in his (or her) nature to be attracted to the slopes, the bushes, the long grass, the waterside ’

(Opie and Opie, 1984:15)

..and of a piece of writing;

‘In a book as in all things, there are lines of articulation or segmentarity, strata and territories; but also lines of flight, movements of deterritorialisation and destratification. Comparative rates of flow on these lines produce phenomena of relative slowness and viscosity, ... of acceleration and rupture’

(Deleuze and Guattari, 1987/2012:2)

The latter passage above appeals to me as a former playworker turned researcher, it being like the motion of play, out of doors and unfettered. These together represent a playfulness, both present a disruption to the norm, the seeking of the other, the challenging, the new lands to become familiar and intra-act with, the off-path routes more chosen and shaped by that engagement, the lines of flight, flows of intensity, and rupture.

This is a thesis about children’s play out of doors, close to home unsupervised by adults and is also about my journey towards acknowledging I am posthuman and researcher. It is a thesis that presents a journeying through landscapes (the landscape of Deleuzian philosophy and the landscapes of children’s play ways), of engaging with matter and acknowledging motion and movements, constrained by striations or activated by lines of flight, fantasy and movements of territorialisation and de-territorialisation. Beginning

in the middle, I indicate the end. Just as play can turn the social world upside down, and experiment with the real, so postmodern and posthuman thinkers are overturning the accepted Western Philosophical and academic traditions and prompting experimentation. This research work has explored molecular play and topoludic attractions and affirms the Opie's (1984) understandings of the lure (to children out at play) of the less managed spaces of rubbish tips, compost heaps, liminal spaces and elements (such as air and water) in play, and at play. It explores the more structural and molar elements as I put to work Deleuze and Guattari's (1987/2012) lines of articulation, strata and territories illuminating the lines of flight, de and re-territorialisation, intensities of flow and points of acceleration and rupture.

I draw on the philosophies of Deleuze and Guattari (1987/2012;1983/2020; 1995/2001; Deleuze 1966/1991, Deleuze 1988; Deleuze 1995/2001) and posthumanist thinkers (Barad 2007; Braidotti, 2013, 2019; Haraway, 2016 and Bennett, 2010 and 2020) to work with a philosophical conception of an experimental, playful, process onto-epistemology in the Spinozean monist orientation of immanence and active conatus ('the tendency to maintain and confirm existence in relation to others in response to intensities')(Deleuze, 1988:99). I am working with these philosophical understandings (which I will as a group call posthuman philosophies, although Deleuze never referred to himself as posthuman) to explore, illuminate and work with children's outdoor play close to home in the young human's and more-than-human's⁵ local 'landscapes' of play and of both urban and rural cues. From this philosophical posthumanist understanding in this research I seek out, explore⁶, experience, illuminate and exemplify in small vignettes some children's

⁵ I throughout this thesis acknowledge the 'more-than-human' as creatures and matter also matter in the play events.

⁶ I am using the current tense in this case in acknowledgement of the ongoing nature of becoming with the world, of the world (Barad, 2007).

(particularly 28 children aged 3-12 years of age) play assemblages and events out of doors in 6 communities in the South West of England.

There is a focus on sensation in this research, as Deleuze refers to experience, empiricism and conceptualising as an essential combination of knowing in a methodology he referred to as 'transcendental empiricism':

'Empiricism truly becomes transcendental, only when we apprehend in the sensible that which can only be sensed, the very being *of* the sensible: difference, potential difference, and difference in intensity as the reason behind qualitative diversity. It is in difference that movement is produced as an 'effect', that phenomena flash their meaning like signs.....This empiricism teaches us a strange 'reason', that of the multiple, of chaos and difference....'

(Deleuze 1994/2020: 71)

.....Ah how playful this sounds; doing and sensing, moving, experimenting, feeling, leading to concept, and knowing differently, specifically, experimentally, contextually through the virtuality of multiplicity and chaos that generates différenciation.

Deleuzian influenced posthumanism acknowledges an immanence, a virtuality, among which the more than human (be that biological or mineral) is also affective⁷ and effective in the ongoing commutative becoming of the world in its procreative relationality. My work is also informed by diffractively reading the playwork theory of Sturrock and Else's (1998/2001) Colorado Papers and play cycle through posthumanism. I perceive that in a process ontology there is a flow of sensation, percept response, offering a return, coming together and influencing each body, or bodies, simultaneously as a commutative act that generates events, concepts, difference and subjectivity. The agency of bodies emerging from a common virtuality and becoming entangled effect and affect each

⁷ Deleuze and Guattari tend to use affective where in English one might use effective, and it is used as a combination of affect (feeling) and effect (impacting upon, or doing).

other as they engage together generatively shaping each other (interpellating) through the event, the action in that moment of engagement and interaction or intra-action⁸ generating anew (Barad, 2007). Play perceived from such an onto-epistemological stance emerges as phenomena that is about relational engagement, creativity, event and emergence of alternatives, other-wise or alterity.

A posthuman process ontology such as the above, but based on acknowledging the more-than-human as agentic too, promotes a reduction of human hubris, a decentering of the human position, and a shift away from the post-enlightenment transcendence of man (Barad,2007: Braidotti, 2010, Haraway, 2016) that has been a dominant element of the academic canon at least since Descartes stated the *cogito ergo sum* (I think therefore I am) in 1637. Combining the work of Deleuze and feminist posthuman authors reconnects mind and body from the binary of the Cartesian split (for they were always already unbifurcated) seeing the interaction of the different elements as key and acknowledging the potential of agency in the more than human (including in the intensity of unpredictable flow of words on paper from diffractive thoughts as here in this thesis). This challenge to the mind:body split not only disrupts and ruptures past linear thinking about concepts, including play as something that can be identified, bounded, dissected and defined, but it also disrupts classic forms of writing and thesis construction (Richardson and St Pierre, 2008; St Pierre, 2019; Honan, Bright and Riddle, 2018). Play and playful writing in poststructural form becomes fluid, vital, unbounded and undefinable (St Pierre, 2016; Honan, Bright and Riddle, 2018). There is not a

⁸ an intra-action is an engagement that shapes and is shaped by all parties or bodies in the process of intra-acting

'theoretical framework' to *apply* to data, but a pursuance rhizomatically of the data that glows taking the researcher, like play, to 'who knows where'....for that is the point.

In a process-oriented monist onto-epistemology⁹ on a plane of immanence an author/researcher will choose no longer to sit above the data as if transcendent, bounded individual to critique and synthesise ideas, signposting the reader through the text, but rather responds to the rhizome¹⁰, it's meanderings, nodes and lines of flight wandering who knows where, around the immoveable, and tunnelling through. This logic is not one of rationality but one of the unusual, responding to sense, movement, tendrils crossing and interlacing in entangled assemblages, of writing otherwise (Deleuze and Guattari, 1987/2012) (see Figure 1).

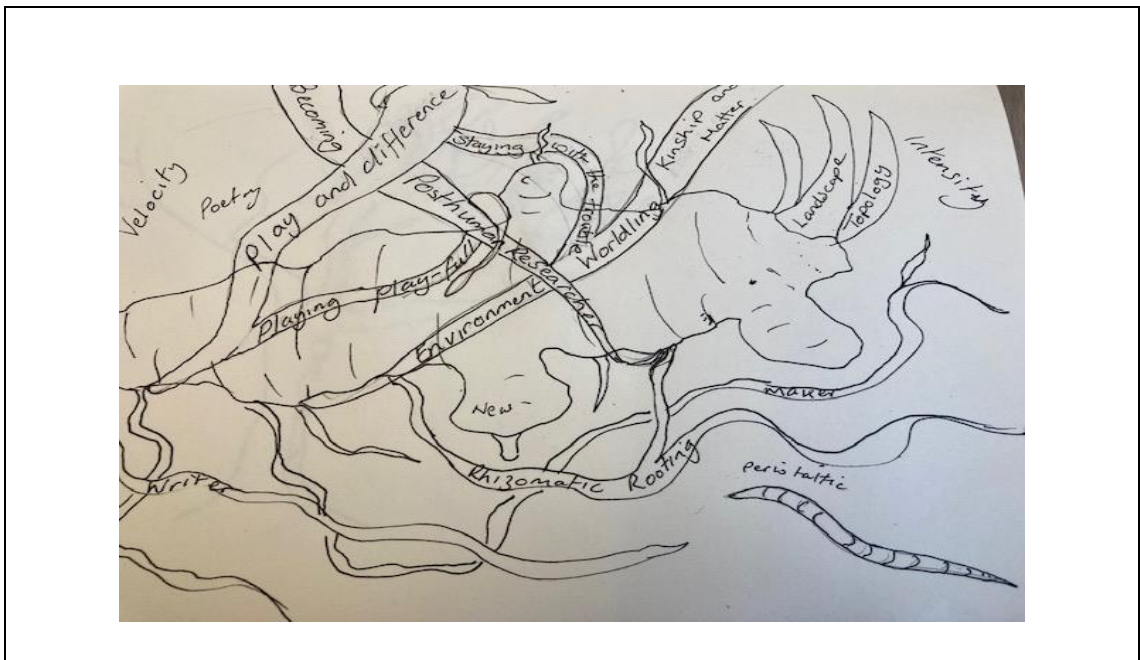


Figure 1: Researcher as rhizome - diagrammatic presentation of the crossing themes¹¹

⁹ A process by which knowing arises from event.

¹⁰ The opposite of arboric classification. Rather than adopt a hierarchical tree-like approach of classification from a position of a priori knowledge and teleological understanding the rhizome burrows away underground, sending out nodules and shoots in all directions, perhaps in places criss-crossing, in others moving around the agency of something, pursuing a range of threads, and leaving others, but not with a fixed end in sight.

¹¹ I choose to use hand drawn images in this piece for their immediacy, and integrity to the research notebooks.

As an alternative to a more traditionally conceptualised stratified thesis this posthuman thesis is presented as an eclectic offering of doings, an agentic cut¹², or series of agentic cuts presented as plateaus¹³, a form of collage with words and images, the plateaus of which can be read in any order, the writing having followed lines of flight and thinking through and with the research data presented as play vignettes, landscape materials, drawings or doodles (inspired by Bennett, 2020) and also of a reaching for the intensity of poetic stream of consciousness writing as thinking, subjective being-becoming without being the expression of an interiority of one's own (Bennett, 2020).



Figure 2 A Kurt Schwitters Merz Picture 46 – a Skittle Picture. Photo: © Tate, London. <https://www.tate.org.uk>

¹² The ethico-onto-epistemology of Barad (2007) and Deleuze's process ontology is not based on a priori representation subordinated to subjective identity but on a commutation of agents which are involved intra-actively in their emergence. An agentic cut is a slicing through this event of motion and commutation space-time-matterings that enact that the agent of observation and the agent observed are co-constituted simultaneously – (this footnote draws on an explanation by Athanasiadou (2018))

¹³ Deleuze and Guattari use the notion of Plateaus in 'A Thousand Plateaus'. They attribute the use of plateau to Bateson, indicating he uses the word to designate 'a continuous, self-vibrating region or intensities whose development avoids any orientation towards a culmination point or external end' (Deleuze and Guattari, 1987/2012: 23)

As well as writing from stream of consciousness and doodling as non-interior subjectivity I am also in part inspired in method by the found materials 'Merz' collages of Dadaist [Kurt Schwitters](#) (see Figure 1) in which the random dropping of found materials on frame or canvas then generated pleasing auto-arrangements without a-priori artist conception, and were post-event considered. I was led to Schwitters by a comment in Deleuze and Guattari's (1994) 'What is Philosophy' referring to Schwitters and Commerz und Privatbank. Schwitters states that his collage is a challenge to Commerz, and that 'Merz' is a scrap of Commerz. However, Deleuze and Guattari appear a little critical of the Merz (whether this is Schwitters 'Merz' or the general idea of commercial marketing is unclear). A consideration of 'shameless rival such as 'Merz' and the 'society of information services'' gives 'the giggles' to the authors who instead pursue the creation of concepts as aerolites¹⁴ (Deleuze and Guattari, 1994 :10). Nevertheless, this idea of Merz collage appealed to me as aligned to playfulness, the doing of something because it is there to be done, the challenge to commercialism, and after creation exploring the concept formation emergent in that doing.

My selection and juxtaposition of ideas following rhizome threads offered in agentic cuts forming this thesis is consequently perceived as a series of collages and research images which inform this thesis of eclectic ideas that have potential to become doings as knowings, linked through the writing as a form of anarchic (Somerville:2020) (an anarchic being the reuse of the work of others, an upcycling, thinking anew with the old materials making adjustment and adaptations). In this thesis the juxtaposed contents of the plateau (as anarchic thesis within collage frame, holding text, images,

¹⁴ An aerolite is a meteor made of stone – so presumably their ambition is to generate stellar philosophical theory.

poetry and fantasy) speak to each other, but in a way that was not initially envisioned by their creator, leaving commutative space for consideration by the reader just as play arises commutatively from cues for the taking up (Sturrock and Else, 1998)¹⁵. Later in this thesis I describe how I also use what I call ‘merzplaques’ (clay and plaster versions) and ‘merzboards’ (cardboard versions) as Schwitters inspired collage-palettes, which children in this research use to gather matter as data relating to and illuminating of, their play spaces and places.

I also draw on Virginia Woolf’s stream of consciousness, with her refrain singing in my head ‘one must learn how to think’ (Woolf, 1923:32). For Woolf thinking is also about acknowledging the breadth and depth and potential collision of experiences of any one moment, day, week:

‘In one day thousands of ideas have coursed through your brains; thousands of emotions have met, collided and disappeared in astonishing disorder’.

(Woolf, 1923 *Mr Bennett and Mrs Brown* in Woolf, 2022: Loc 2930).

Woolf’s stream of consciousness acknowledges the internal commutation of collisions of a flood of daily experiences of any person, of the astonishing range of interesting experiences influxing into one, and is a response to the increasing understanding that there is not a fixed ‘outside’ out there and inner world of self, but that the two aspects of experience, the inner and outer worlds of reality are also colliding and interacting (Woolf, 1973). Drawing also on Haraway’s ‘sympoiesis’(2016:58) I work with an understanding that bodies are leaky and symbiotic, that matter has agency and intra-acts with humanity on a plane of immanence, and that head and body and inside and outside binaries are also disrupted in creative collision.

¹⁵ Sturrock and Else’s play cycle is explained in 2.3

This thesis creation is a response to posthuman onto-epistemological understandings that also challenge the traditional structure for a thesis, and of the claiming of new knowledge as one's own (as there is no 'one' as for Deleuze (1987/2012) and Barad (2007) we are all multiple becoming together in a manifold of intensities and affects). In such commutative process ontology, the meaning of this thesis is as much developed in the eye of the beholder, the reader diffracting with the vignettes and creative elements as with direction sitting in the hands of the writer. In acknowledgement of the ongoingness of the world I respond to the call from both Deleuze (1987/2012) and Barad (2007) to be creative, and also to recognise we start in the middle, for we are always in the middle in a process ontology, in the milieu of potential connections, and what we may think we know today will be overturned in the ongoingness of the world's becoming.

Despite this milieu and working with shifting sands, there needs to be an entry point for an active reader. I have made an assumption that the first words will be the entry point and so these early paragraphs are offered as an orienting feature, outlining the onto-epistemological emphasis of process and knowing through event, and of acknowledging the manifold variety and conceptual underpinning. This orienting entry point is followed by a Metalude and three Preludes setting out the main themes and values. Throughout the work I put Sturrock and Else's (1998) Play Cycle (see Figure 4) to work as a refrain drawing the affect back to play. Sturrock and Else (1998) refer to the Metalude as the important moment of pause and collection before play engagement and flow, the ebb before the powerful surge of persistence, which I visualise as a lull in the motion of waves of becoming, the onomatopoeic 'aaaah' before an energetic burst of agentic potentiality shshshs (my ritornello). I am also influenced by Bennet's interest in influx

and efflux (Bennett, 2020) and I have engaged with a sense of ebb and flow, of the energy and pull back of waves in motion, explored further in the consideration of many play cycles as like wave motion under surface in Plateau 10.

A prelude, in contrast to the metalude, is the culturally accepted thing before a play or piece of writing. It has a cultural role of introduction, of setting a scene, a pre-play pause and observation, it could refer to a child's self-aware and consciously self-centred empirical overview of the topography before them in relation to prior knowledge (as opposed to spontaneity) before engagements of play. Finally, I end with a postlude, a formal closure and dissolution of the energy of this flow.

1.1 A brief comment on ethics:

Perhaps it is odd to mention ethics so soon in a thesis. However, to engage ethically in the entanglements of the ongoingness of the world is essential. As Haraway (2016:12) reminds us 'It matters what choices are made' and 'it matters what ideas we use to think other ideas with'. Whilst procedural ethics were applied with consents and assents through community key workers, parents and children, a process ethics must join a process ontology (Barad, 2007). Ethics is entwined with every response that prompts affect or affects. It matters what choices are made regarding engagements, what potentialities are pursued, that adulteration is curtailed, which stories are told, and how they are told subsequent to engagement.

'It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties. It matters what stories make worlds, what worlds make stories' (Haraway, 2016:12) .

As I am working with a process of knowing through doing and becoming, an onto-epistemology, it matters how we engage in the doing, such that we are working with an

ethico-onto-epistemology¹⁶ (Barad, 2007:185) which recognises acts of intra-action¹⁷ (Barad, 2007:178) and play as event in the ongoingness of the world's becoming (Deleuze 1987/2012:359). All choices made throughout are important. Ethical choices on an ongoing process basis have relevance as molar ecological considerations as much as the minoritarian disturbances of molecular exploration in this research. As being and becoming in the world generates concepts, choices are made regarding the types of engagements and the selection of sparks that are plugged into as they emerge from the virtuality as cues, as agents for engagement.

I make choices whilst taking unusual turns in following rhizomatic phylum threads. In such a philosophical and creative mix importance is placed on the process of subjectification arising through the process of intra-actions and events of various bodies in action. Things, bodies, events, phenomena come into being through relationality, placing elements in variation, Deleuze's 'And.....and.....and ' (Deleuze and Guattari 1987/2012:114), generates anew, in effect going 'who knows where'¹⁸. As there is not a teleological outcome there must be an ethics of engagement as the things that are emphasised, put in focus, responded to, are given priority, valorised and potentially enhanced in future existence through the shape of the event which emerges from the

¹⁶ Barad (2007:18) argues for the practice of knowing in being and then considers ethics 'what we need is something like an ethico-onto-epistemology – an appreciation of the intertwining of ethics, knowing and being – since each intra-action matters'.

¹⁷ Intra-actions are described by Barad as 'nonarbitrary, nondeterministic causal enactments through which matter-in-the-process-of-becoming is iteratively enfolded into its ongoing differential materialization.iterative intra-actions are the dynamics through which temporality and spatiality are produced and reconfigured in the materialisation of phenomena and the (re)making of material-discursive boundaries and their constitutive exclusions' (Barad, 2007:179) This effectively refers to a process in which agents (subsequently understood as identified bodies) are co-constituted simultaneously in actions of engagement.

¹⁸ 'Going who knows where' is a phrase common in play training, removing the predicted outcome of the play moment (Hughes 2011) producing who knows what in each novel connection made, and each embodied motion felt.

choices that are made. There is a response-ability in the processes of ongoing engagement.

1.2 A summary of the focus of this thesis

In summary: this thesis is about children's play experiences close to home and is also about the researcher's journey into Deleuzian influenced and posthuman philosophical understandings, to a 'becoming posthuman' as playful researcher sloughing off the old snakeskin of classical enlightenment informed research and Kantian paradigm wars (Kuhn, 1962). It is about reaching for playful combinatorial and compound flexibility and thinking¹⁹ (Brown and Patte, 2013) in action through active assemblage phenomenon of multispecies and matter entanglements without striation of traditional categorisation and arboric thinking.

1.2.1 Working differently with theory.

My approach to theory also arises from a journey through a range of readings and events from which I have followed phylum threads, rhizoming my way through the literature, and pursuing links that 'glowed' (MacLure, 2013a) rather than purposefully predicting an ending by designing a structured theoretical framework applied to thinking. The approach I have engaged with could be considered a non-methodology (St Pierre, 2019) and is also an 'anarchive' (Somerville, 2017 and 2020), the reworking of the work of others. Somerville indicates that the anarchiving approach acknowledges in her work that many sentences are the words of others gathered together in new form and it is

¹⁹ Hughes (2011) noted that combinatorial flexibility was the ability to put ideas, things, concepts together at speed to find a solution. Brown (2003:53) wrote of compound flexibility that it '*involves the gradual growth of an interaction between a flexible environment and an increasingly flexible human being. In other words, given ideal conditions, the growing child [or player] makes use of whatever flexibility there is in the environment, and so becomes more flexible, and able to make even better use of elements of flexibility in the environment*'.

this unique combination of words and ideas that generates something new and unique. Such an approach ties in with my interest in Schwitters' Dadaist collage events, in which found things were dropped onto a canvas of clay, and subsequently given meaning; and so I have considered I am collaging with ideas.

The Glossary to be found at the front end of this thesis was a form of anarchiving, of initially researching the complex understandings presented by Deleuzian philosophy, but in the process considering these findings in tandem with other related understandings. I have explored, reworked and reiterated to give both some clarity about the many new terms and neologisms offered by Deleuze and Deleuzian informed/feminist posthumanist theorists and seeking some stability in the shifting sands of immanence and potentiality.

St Pierre (2018) argues that as post-qualitative research uses an ontology of immanence in transcendental empiricism it cannot reach for pre-existing research methods and practices to be applied. She considers that 'it is methodology-free' and refutes the convention of 'application' of theoretical framing. In contrast to a-priori framing she suggests that reading widely across a range of disciplines, philosophy and social theories, history and so on will enable the inquirer to find and diffract concepts that 'reorient' their thinking, working through; 'concrete, practical experimentation and the creation of the *not yet* instead of a repetition of what is' (St Pierre, 2019: 25). This approach aligned well with my own ontological positioning as a critical, qualitative researcher and ex-playworker with an eclectic understanding very much influenced by my modular first degree which crossed boundaries of Literature, Art History, Art Theory and Philosophy, with a bit of general History and politics thrown in (as you cannot understand the shifts in thinking and 'movements in time' without the context). My ontological position is

also influenced by my own play experiences, and a concern for social justice and the impact of the Anthropocene. I have struggled with identifying my own onto-epistemology but class myself as an agential realist (Barad, 2007) working in a Deleuzian philosophical paradigm, an ontology of becoming and a commons approach to epistemology, with a critical orientation.

As I have already indicated mine is a 'journey towards' or 'becoming posthuman' (although I also acknowledge that we are always already posthuman (Braidotti, 2018)). At the core of this journey through ideas, underpinned by Deleuzian thought is his adoption and adaption of Spinozean monism, and his transcendental empiricism as reconciliation of a paradoxical tension between transcendental philosophy and empirical action. Rolli (2003) highlights how Deleuze perceives these two, normally incommensurable empirical traditions as entwined rather than in conflict. This notion of entangling the paradoxes rather than sitting with critical binary, and of subjectivities emerging from a monist virtuality of immanence which holds a manifold of potentialities sits at the core of an onto-epistemology of becoming, of movement, and of mutual influence and commutative interpellation. My early reading of Deleuze's 'A Thousand Plateaus' (Deleuze 1997/2002) acknowledged the geographical nature of his philosophy, and the mention of smooth and striated spaces, of haecceities on horizons and nomadic behaviours to escape through lines of flight from the molar restrictions imposed by the state or apparatus of power, with commuting and connecting as a creative act of becoming other as a positive freedom. At the time this diffracted with a paper by Wendy Russell (2013) drawing on Lefebvre to consider a spatial theory of playwork. Following the rhizome, but at the time nearing the point of transition to PhD, I picked up on the similarities between Deleuze and Guattari's spatial philosophical metaphors and

Lefebvre's (1991) Marxist influenced conceptualisation of space and the conceptualisations of space by the state, a situation in which the capitalist state dominates society and so there is a struggle over the production of space. The state may conceive of the space and generate the urban habitats, but this space may be perceived and lived, space interacted with by a majority populace who are in minority power, but who can appropriate space and make it their own, engaging in subversive activity, perhaps as a collective, to appropriate those spaces (Lefebvre, 1991). This led me to the development of a conceptual framework of space, drawing in and refining the different perspectives of Deleuze and Lefebvre regarding space control and appropriation or inhabitation (See Appendix 1) which was also refined further through political consideration of the play cycle and playful lines of flight as acts of minoritarian resistance to acts of play control. This framework is not intended to be 'applied' to space audits and evaluations, but is a prompt for thinking otherwise about how spaces are imposed, perceived and used.

The rhizomatic journey continued in a different direction as I first came across Lenz Taguchi's (2010) work some ten years ago which left me with a lasting understanding of the materiality and conceptualisation of being in, on or of the world, prompting a personal shift to a more immanent, monist ontology with agentic material the important link between thought and experience. The exploration of concept through clay presented by Lenz Taguchi was a prompt to use of clay as method in my research method, Merzplaques. Theory and materiality, theory and practice, praxis, was presented and explained and the theory and practice divide implemented as a practice which drew together sensing bodies, matter, material environments and spaces and

places, and worked these with pedagogical practice (Lens Taguchi, 2010: Somerville, 2020).

This theoretical conceptualisation rhizome is now running, picking up Haraway's (2016) biological influenced conceptualisation of sym-poietic, unbounded holobiome leaky bodies, and speculative fabulation as a form of lived space, 'staying with the trouble' rather than running from it (or trying to fix it). Staying with the trouble is about meeting the human and more than human in unexpected (often playful) collective interactions and collaborations, or utilising speculative fabulation and string figuring as a mode of attention and practice of worlding something different. Finally, I came to Barad (2007) in my archiving and collaging of non-methodological rooting. Barad's agentic realism and use of quantum physics to explain the science of diffraction and the implications of photon interactions and intra-actions in mutual involvement, impacted by machines of measurement. Barad's (2007:149) case that,

'discursive practices are ongoing agential intra-actions of the world through which specific determinacies ...are enacted within the phenomena produced' and that 'meaning is not a property of individual words or groups of words but an ongoing performance of the world in a differential dance of intelligibility ad unintelligibility'.

..takes me back to Deleuze and the elan vital of his Bergsonism (Deleuze, 1997) worked with the Spinozean monism (Deleuze, date) and call for freedom through events arising as a result of desiring actions in motion across planes of immanence. Is this a framework, or a collection of ideas collaged together that make sense when aligned because they draw on the same motions of continental philosophy, minoritarians stimulating inhabitations in new ways of thinking? Braidotti (2013a) also reminds of the need to move on from humanist hubris and the marketised commodification of life,

and reminds that we always were posthuman, and moreover, the posthuman predicament is not ours to solve.

The interweaving (string figuring or riding on the edge of a knotty chaos) of these different but similar concepts of relationality, intra-activity, commutative relation, and becoming minoritarian with others reveal that cartesian binary thinking has no place, nor do Kant's (1929) paradigm wars, and that there is no finality to boundary making practices, but an ongoing opportunity (perhaps an eclecticism) for stimulating new ways of thinking and working generously in an entwined way, arising from an immanence, a soup of ongoing agential intra-activity and intensity that bubbles up, connects and imbricates and interpellates playfully dancing to new becomings in a positive vein. So, I actively seek alterity or other ways of thinking through the research processes and data.

1.2.2 On Virginia Woolf.

Deleuze and Guattari's eclecticism meant that they mention many disciplines and artists in their philosophical writings. One of the exemplars offered is Virginia Woolf's writing. I have been an avid reader of the work of Woolf, and as I have read her work alongside Deleuzian philosophy another diffraction has occurred. I can see Deleuzian thought about immanence and event, and also time space and matter. Deleuze pointed out that Virginia Woolf wrote with an immediacy, 'putting everything into it' and eliminating everything that exceeds the moment, eliminating all that is resemblance and analogy (Deleuze and Guattari, 1987/2012: 327). Not only does her writing reflect movement, event, but also draws the outside in, whilst speaking from the inside in connection with the outside, most exemplified in the words of Bernard in 'The Waves' (Woolf, 1931). Woolf's focus on learning to think, event, and time along with the impact of waves and

what became an aural refrain in my work, the sea, as expressed in onomatopoeic sounds sshshshs, aaaah, indicating an ebb and flow, a pause before a surge, or the falling storm to calmness. This led me to attempt forward movement in writing and the presentation of ideas as though in waves, each wave giving new diffractive opportunities, or greater theoretical depth.

1.2.3 On questions, propositions or considerations

It is normal early in a thesis to indicate the questions being considered. ‘Questions’ implies a level of transcendence and metacognition as they are applied to the topic and subsequently answered. Other researchers have used the idea of *propositions* (see Manning and Massumi, 2014 for example, or Fairchild, 2017). Dictionary definitions of ‘proposition’ indicate it can be about making a suggestion, offering something for consideration or acceptance, and in logic it is a statement that can be either true or false. Given that I am not working with binary true or false, nor in acceptance by others of a proposition, I have decided to use the term considerations rather than questions or propositions. A consideration is a careful thought, perhaps over time, it also refers to being considerate of others so ties in with ideas of ethical engagement in human and multispecies kinship (Haraway, 2016), and is something taken into account in deciding something, or understanding something better. A consideration also reflects the ethics of commutative intra-activity, Haraway’s (2016) emphasis on the importance of choices made can be put to work with Singer’s (2015) ethical consideration of equality of interest among humans and other species. My considerations are: Where do children play close to home? What are these play landscapes, spaces and places and how are they perceived, engaged with and enacted? How might we rethink play as posthuman, and finally, what does becoming as a posthuman researcher do for play research?

Between 2016 and 2019 I explored with small groups of children their experiences at play, unsupervised, out of doors in six housing communities with access to both built play structures/and manmade spaces and what we might perceive as rural or natural landscapes in one town in the South West of England. After some exploration and posthuman experimentation with the gathered data of children relating to their landscapes of play I explore thinking with the matter of play, and diffractively re-read Sturrock and Else's 'Play Cycle' (1998/2001 and King and Sturrock, 2020) acknowledging as a result that it is not only the child throwing out play cues to invite others to join him/her in play; but that an agentic environment can throw cues, or set sparks running, encouraging a 'plugging in'²⁰ via return, and an intra-active coming together in a commutative, interpellating, event that is play.

²⁰ Deleuze's (*Deleuze, 1990: 7-9*) use of 'plugging in' to the spark or current; to connect with the energies.

1.3 How should one read this thesis?

In common with many authors working with Deleuze and Guattari's work I use the conceptualisation of the Plateau. Although I am a little concerned plateaus are flat topographical features, in philosophy Deleuze's plateaus are open systems, without a final word; each plateau is 'an open equilibrium of moving parts...with its own trajectory' being 'a fabric of intensive states between which any number of connecting routes could exist' (Massumi 2012: xii). I offer a series of pieces of writing intended to illuminate and exemplify the data that glowed in relation to children's play out of doors, its sharing prompting thinking or perhaps diffractive event. These can be read from beginning to end, or as individual sections read in different order.

I also initially offer some 'Preludes' (Ludic is Latin for playful, offering pre-play thoughts, moments of pause and collection before the play begins). If you were to read the Preludes and Plateaus in order as offered you would find that in the first part of this thesis I intentionally leap into the middle with some data, and a stream of consciousness piece about the overall research, before moving to a consideration of play, the Anthropocene and my 'becoming posthuman' as researcher and player. The stream of consciousness was prompted by Deleuze's praise of the work of Virginia Woolf and how he noted she wrote 'without organs' writing with energy, 'putting everything into it' and eliminating everything that exceeds the moment, eliminating all that is resemblance and analogy²¹ (Deleuze and Guattari, 1987/2012: 327), writing movement into everything.

²¹ Deleuze is critical of resemblance and analogy as more of the same, a mirror reflection, rather than creation.

After opening in the middle, shortly with my own stream of consciousness summary of the research I have undertaken, but which is still residing with me, I have laid out the field, explaining the methodology and methods, and will move on to explore concepts of play, childhood, and space and place. In Plateau 8 I expand on the field data in consideration of lines of drift, and the use of Deligny's (2015) cartographies, and Deleuzian assemblages and haecceities, lines of flight and smooth spaces. In Plateau 9 I pursue more than human rhizome phylum threads in consideration of play and the more-than-human agency of worm, rock and metal. In Plateau 10 I return to Sturrock and Else's (1998/2001) Play cycle. Finally in plateau's 11 and 12 I explore with speculative fabulation and prose poetry 'play' and my posthuman researcher becoming, before drawing the threads together to some form of dissolution which is not an end, but a summary as postlude, prompting ongoingness from a moveable middle adjusting the folds of becoming.

There is through all the sections evidence of something of a schizophrenic writer, 'becoming posthuman', being eclectically challenging, but still losing the traditional researcher skin, in places informed by more traditional qualitative research approaches, of conceptual frameworks 'applied' rather than emergent and acknowledged. I find I am at one point explaining and at another 'doing' slipping the academic leash and moving between transcendent and immanent, following lines of flight that spark an interest to be plugged into, but then pausing and shifting plain to explain. I have throughout the period of research continued to seek greater lucidity and fluidity, earthiness and 'breath' (Koro-Ljungberg, Loytonen and Tesar, 2017a) in my writing as creation. In the final Plateaus I work with greater acknowledgement of posthuman freedom and diffractive illuminations as events as I progress to close narratives, the use

of cartographic lines, doodling, thinking with the minor actors, and poetic prose to think other-wise about play and related themes; seeking the cartographic additionality rather than duplicating tracings of what is in a canon of thought. The final act Plateau 12 and Postlude draws to a conclusion this particular research journey and sets new rhizomes running for the next research event.

1.3.1 Contribution to Knowledge

This thesis makes a number of contributions to new knowledge which will be further illuminated throughout this thesis and particularly in section 13. The contributions form two kinds; three relating to conceptualisations which are applicable to play, and three relating to this researcher's journey to becoming posthuman.

The play based contributions are: an updating and extension of Sturrock's (1998, 2020) play cycle to add a Deleuzian and Baradian immanence, decentering the child interpretation and acknowledging sparking cues to plug into; a neologism of Topoludic, the combination of topos and ludos and acknowledgement of the agentic influence of landscapes that prompt play and connections that may be made; the concept of play as a 'running off the true' a 'wobble' that stimulates sparks and lines of flight, or even overturn (in line with gyroscopic quantum physics).

The contributions to research understandings are: an acknowledgement and illustration of the struggle of 'becoming posthuman' in the academic field (and in particular for doctoral studies) and the illumination of the tension in keeping faith with the 'thinking otherwise' and learning to defocus to see differently; the pursuance of different ways of working with methods such as the Merzplaques, to collect material data with children and of different ways to work with data in motion and intensity (Deligny's lines for example); and finally an illumination of the writing up of thesis as a series of sections

(which we might for now call plateaus) as collage, stream of consciousness and diffractive readings and illustrations of bringing theories into juxtaposition in new, and perhaps disequilibrating, ways.

2. A Metalude... and Three Preludes

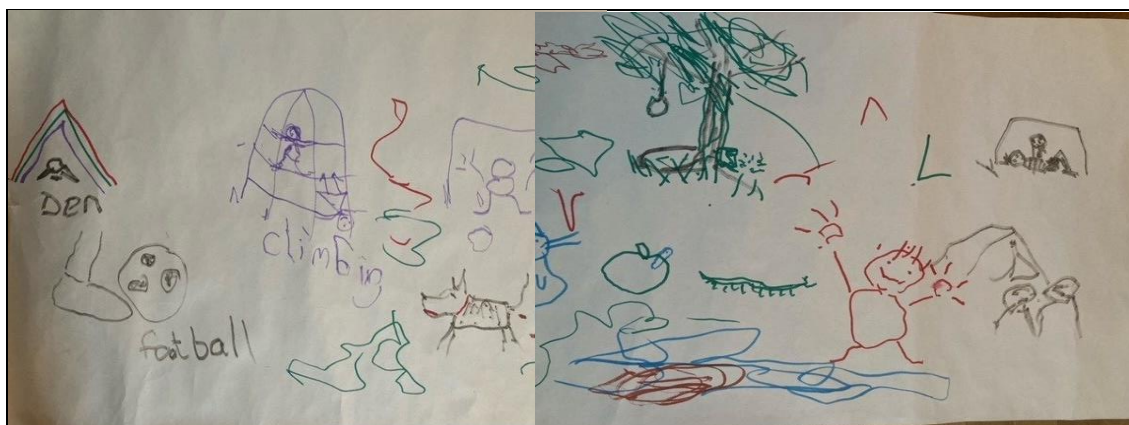
2.1: A Metalude – a moment of pause, a collection of thoughts before the play begins.

The stuttering milieu:

‘Children²² never stop talking about what they are doing or trying to do; exploring milieus²³ by means of dynamic trajectories and drawing up maps of them’
(Deleuze, 1997:61)

‘The child’s urge to ‘body forth the forms of things unknown’ in the microcosm of child art and play bears a distinct resemblance to the morphogenesis²⁴ characteristic of nature’s long-term history.....’

(Cobb, 1994 cited in Sturrock and Else, 1998, p84)..



A cartography (it is not a tracing) In the early stages of this research children aged 3-12 were asked to participate in group drawing to illustrate their favourite play activities and play places, talking to a recording device as they did so. They drew organised games (football, camping and dens), the fixed structures of climbing frame and goal frames, the importance of creatures (dog, centipede, birds, cat, maggot and rabbit), the relevance of natural elements (tree with rope swing and roots, the puddles) and some illustrations of fluidity of motion in meandering lines of movement. In the centre is a disruptive humour of the dog doing what dogs do on playing fields whilst a disgusted cat looks on. I perceive the tree and organic elements fall in the centre whilst the cultural football, den, climbing frame, tents are largely peripheral to this core in the above image. In the middle are bodily functions the maggot eating its way through the apple and the dog dropping its faeces on the play areas.

²² Deleuze perceived children as able to operate ‘without organs’ unadulterated by cultural norm.

²³ ‘Milieu’ in French mean both ‘middle’ and the milling around of things in motion.

²⁴ Morphogenesis is the development of form and structure in an organism during its growth from embryo to adult and/or the evolutionary development of form in an organism, it’s becoming.

Figure 3: An annotated example from fieldwork of Children's drawings about their play
A moment of madness? A stream of consciousness motion of play research; writing as process after Virginia Woolf .

'Madness need not be all breakdown. It may also be breakthrough'.

(Deleuze and Guattari, 1983/2020: 156)

I leave my attic writing room, a room of my own, to join with others. A research plan in hand, materials in the box. Off to a play day. Boxing things in without intent. Seeking truths, but receiving mere tracings....

At first there is fishing for playing players. How is play perceived? A Funday in the park. "Come and talk to me" "Where do you play"? But now the mimicry begins. "Football"....."football".....".football". "I come here to meet my mates". "We come here because they come here". "We say what they have just said. We're mates". Researcher power restricts the knowing as players provide a priori propositions. Striated approaches elicit tracings as responses. Each traces the other. The spark remains unplugged.

Now players participating with playing researching providers. An adulterised event. Let's make a play space. Here's a frame. So many materials. Let's collage. What is that clay doing to you? Why not press those seeds you have gathered. Let's go together through your playworlds - "Show me". Look how the ball bends on the bumps. How terrible that those ropes are cut, dens removed. How awful those signs telling us what to do, and all those dogs that poo.Are you showing me what you think I want to see? Militant about play spaces. Conceived research unravelling as conceived spaces striate. Desires for lines of flight and disrupt. But here... well- intentioned rights-based play research restricting irrationality. A textbook note 'Must make more madness' (Thanks Ken (Gale, 2018)). Where is the play?

Later becoming with playing players. The Fun Day of initial engagement is now long gone, interactions and kinships grow. Let's go play together. Shared disruptions and lines of flight.....now embodied experiences.....I am on my knees in the dirt at the base of the tree, we are lying at the base of the tree, the smell, the turning, the actions, the worms, all events. Now elevated on swing flying through the air, the pendulum is heavy and ponderous as the branch creaks with my weight and my heart beats with

fear.....what if it snaps.....a memory leaps from past to now; doing, knowing, fearing, holding....on.....tight... to childhood memory, now, here, and making for a future. Laughter fills the air. But stop.....A dead bird held in the hand, an extinct Chthulu²⁵ recognised. I am not becoming child, pretending child, but am researcher researching rhizomatically now becoming player, past child alongside now child, where is the researcher now? Deep in the milieu.....turning away the meta thoughts, transcendent.....working with immanencebut the meta will return, behaviourally ingrained. I am schizophrenic researcher here and there, neat and chaos alternate and together..... calm mind.

A lighter spirit on the rope lines flies faster. "Look at the shiny soil streaking past.....the leaves are in my face....now witches fingers beckon...the maize sighs.....to the snake beneath the tin...and Troglolithulu²⁶ in the cave beneath the cars - deep, eternal returns differentiated for new aeons. Now we, together apart, are players together becoming, played by worldling differences in landscape specificity. Here and there data emerges from events glowingly, not gathered, no more fishing, no participants, just players worldling with others something yet to come. Not reductionist but schizoanalysing, exemplifying difference, working with ludicrous complexity, ontological heterogeneity²⁷.

And then..... writing about writing I return to attic office room so unplayfulI press the button on the research apparatus and am immersed in playing sounds now, a wall of sound, outdoor sound come inside. This is reality detached, a new reality, an assemblage of book, computer, recording device, pencil for margin marking diffractions. Disembodied headSitting in front of book surrounded computer assemblage, my fingers flying, now embodied touch-knowing letters without cognition. Merleau Ponty (1948/2008) comes to mind, telephone fingers, musician fingers. Body mind in dissect yet harmony. Aah, refrains sound. Sound, thoughts, words, books, images, memories assemblage. Dis-organised body. Lost organs. Play layers, word layers, theory layers, seeking not the layers but complexity in sympoiesis. How does one write a thesis playfully? How does one know play in doing? Where does play happen? Write a thesis

²⁵ Donna Haraway (2016: 2) refers to the Chthulu as dwellers in place – those linked to the soil..

²⁶ Troglolithulu relates to caves, and is here added to Haraway's Chthulu, soil dwellers in place.

²⁷ This is a reference to Guattari's words 'rather than moving in the direction of reductionist modifications which simplify the complex, 'schizoanalysis' will work towards its complexification, its processual enrichment, towards the consistency of its virtual lines of bifurcation and differentiation, in short towards its ontological heterogeneity' (Guattari, 1992:61) cited in Gale (2018:49).

in posthuman form.... Just do it.....Holding a bubble of vitality.... Let it flow, cart it about, don't trace the patterns, make it with words ... and pictures... lose that cognitive consciousness of Cartesian categorisation, of paradigm... Cogito ergo Sum, you're done. Mundus ludens²⁸ slips chaos into your striated space.

²⁸ Mundus Ludens translates from Latin to English as the world at play or playing world.

2.2 Writing in the middle

I begin here, in the milieu, a middle that is also a beginning. How odd! Yet we are always already in the middle for there is no real beginning or ending in the ongoing becoming of the world (Deleuze, 1987/2012). On the other hand, there must be some entry point for the reader of a thesis and I would expect that the majority of readers begin reading at the introduction. *That's just common sense!*²⁹ So for disequilibrium and curiosity I have here offered an image, two quotes and a stream of consciousness inspired by the research.

'Ludic' is Latin for playful and 'prelude' means 'before play'. But further, this first prelude is a pause and entry point, which makes it a metalude³⁰ even, a moment for gathering thoughts, an ebb before the flow, a perception of percept³¹. I offer an image and quotes as prompts to pique a curiosity to join this play of word on page as diffractive reader³², seeking also to shift the perspective from a priority on the valorisation of the word, through use of images. The intention is that the Images invite early connection with this thesis collage, just as sounds floating out across the landscapes of play call from environment and child to child 'come join me out at play'! I wish I could also offer smell and sound in this thesis, spring birdsong, new cut grass on football green, maize rustling

²⁹ Deleuze and Guattari (1987/2012) criticise common sense forms of knowledge as tracings, copyings rather than innovations.

³⁰ Metalude is the pause prior to intuitive engagement in a play encounter. Drawing on Spinoza, Sturrock considers this a conatus, the beginning of a process of action of persistence in being and becoming (Sturrock in King, 2018:104). The term is repeated here as an action of persistence.

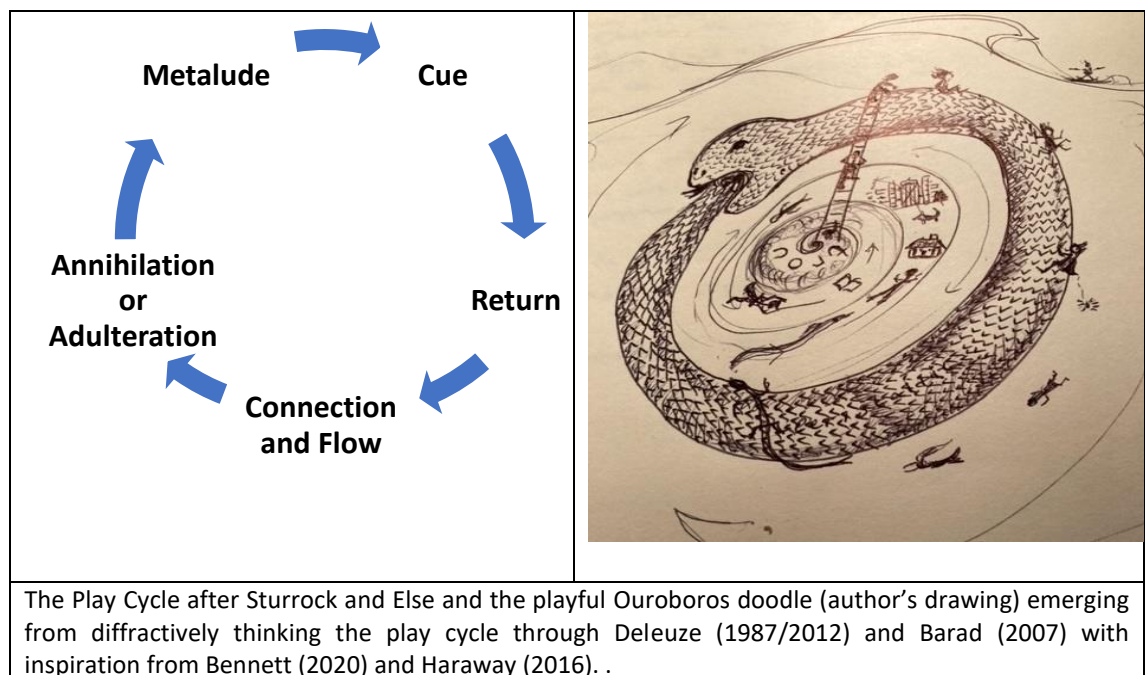
³¹ Deleuze uses the term percept, which is not quite perception as they are independent of the state of those who experience them, they exist...and I visualise them as cues to be picked up by perceiver.

³² Van der Tuin (2018) argues that diffraction is a reading method that is neither negatively critical nor reflexive. It is a reading strategy that 'does justice to cracks' in the standard canon. A reader diffractively zooms in on how texts, artefacts and subjects interpellate each other. A writing in the margin of a text is a diffractive moment if it considers how various things might inform each other leading to new concepts in-formation.

come play with me.....but my technology is not there yet. Descriptions of these must suffice in replacement for the sensing element of vital collage. Two quotes sandwich a picture, children’s cartographies of play, then a Woolf inspired stream of consciousness, Deleuzian writing without tracing. The journey summarised at the start, written at the end and now a doodle and concept juxtaposed. For how else does one write a playful thesis about play than with the world turned upside-down?

2.3 the Play Cycle Refrain

A refrain, a ritornello, a thread pulled throughout this thesis, like the echo of a familiar song, is that of the play cycle (Sturrock and Else 1998/2001).



The Play Cycle after Sturrock and Else and the playful Ouroboros doodle (author’s drawing) emerging from diffractively thinking the play cycle through Deleuze (1987/2012) and Barad (2007) with inspiration from Bennett (2020) and Haraway (2016).

Figure 4: The Play Cycle after Sturrock and Else (1998) and a playful Ouroboros doodle

How does play start? A pause, a metalude, engagement, cue, return, intra-action, flow, intensity, molecular inspiration, flights from striation, adulteration, dissolution or annihilation, and pause.....and it starts again³³ (Sturrock and Else, 1998; and see Figure

³³ This draws on Sturrock and Else’s play cycle but is diffractively read through Deleuze and Guattari’s (1987/2012) concepts of the molar and molecular.

4 above). The Ouroboros snake (also known as a worm, which creature I discuss later) eating its tail came as a doodle whilst thinking through the play cycle and I plant this doodle here as a beginning rhizome for ongoing consideration of a refrain which will return. I envisage the play cycle now diffractively not as child centred socio-psychological system emerging from an understanding of play as compensatory and therapeutic as Sturrock claimed to in 1998, but of play as a vital, intense, vortex on a plane of immanence, a spinning snake, the wave energy under wave motion with potential to travel a thousand miles. Cues not just being thrown out by the bounded child for a return, but being drawn into a commutative space of potentiality, from which directions change and choices to climb out and make contact are made.

This ludicrous³⁴ thesis is emerging as a doing, a rhizomatic meandering, ruptured and repaired, it should not be a tracing, a pedestrian process of following a well-trodden path, beginning at the beginning and continuing until the end, but one of walking off the path, even performing with the path (Abulhawa, 2018), engaging with a spark and seeking lines of flight, of making as collaging, in doing an acknowledgement that we are always in the middle, always in flux, always becoming (Deleuze and Guattari, 1987/2012:298),..... and always playful with.....(Haraway, 2016).

I wonder,will this be a deviation as some children disrupt constraint to pave the play way for those that follow their lines of flight? Or will this be a safe writing process, tripping along a path, pretentious in practising the playing that others have done before in order to become scholar? Deep play is fearfulness faced. Ah.....so the experiential with the binary creeps in again....Shshshs.....aaaaah³⁵ the complexity of sand as knowledge.

³⁴ Ludicrous not in the sense of ridiculous, but looking again to the root, a playful writing about play.

³⁵ I live within sound distance of the sea, and am influenced in this work by Virginia Woolf's ('the waves', and as I worked with the material found myself echoing this refrain of wave sound, so have woven it in

2.4 Prelude 1 – Rationale: I Played as a Child

A new prelude now....

‘As children you and I and all safe and well-fed kids *experienced* play as important.....it bubbles forth naturally and is the engine that drives much of the spontaneous activity of our childhood. (Brown, 1998: 258)

At risk of being a little romantic about play, it is something most children have engaged in, regardless of background, health and economic situation. Children have played on bomb sites and in war zones (Feldman, 2019), they play in famine settlements (Chatterjee, 2018). Literary authors, such as Dylan Thomas (1943) in the example given here, generated lyrical passages about their own childhood play experiences;

“.....And that park grew up with me. That small world widened as I learned it’s secret boundaries, as I discovered new refuges in the woods and jungles; hidden homes and lairs for the multitudes of imagination, for cowboys and Indians and the tall terrible half-people who rode on nightmares.....And though we would explore it one day, armed and desperate, from end to end, from the robbers' den to the pirates' cabin, the highwayman's inn to the cattle ranch, or the hidden room in the undergrowth, where we held beetle races, and lit the wood fires and roasted potatoes and talked about Africa, and the makes of motor cars, yet still the next day, it remained as unexplored as the Poles - a country just born and always changing’.

(Dylan Thomas, 1943³⁶)

I too played as a child, out of doors, close to home in bushes, woods and jungles. The choice of outdoor play, close to home as a subject³⁷ for this thesis was in part influenced by my own childhood outdoor play experiences and an awareness of the remaining

places. Koro-Ljungberg, Loytonen and Tesar (2017) acknowledge data as breath, functioning as immaterial material generating diversity in assemblage.

³⁶ I list this as Dylan Thomas here for ease for readers but the reference is listed on the reference list as Thomas, D (1943).

³⁷ I use the term ‘subject’ at this opening point of the thesis but you will note that later in the work I challenge the conceptualisation of subjects and objects of study, as in the ongoingness of entanglement subjects, objects and concepts emerge from intra-active processes.

impression and place connectivity of that affective outdoor, childhood time and space entanglement that is still defended in my mind (Bachelard, 1994: xxxv). This was later further developed by my adult Playwork and Sure-Start³⁸ experiences in communities of players. Our lives are punctuated by poetic images which are more than memory, are not mere reflections, but ‘resound with echoes’ collapsing time and space. Bachelard (1994: xvi) refers to a phenomenology which drew on Bergson³⁹ and argues that recalled poetic images offer ‘.....a feeling of participation in a flowing onward.....expressed in terms of time, and secondarily expressed in terms of space’ (Bachelard, 1994:xvi). This section illuminates something of my own outdoor play experiences and childhood-nature⁴⁰ time-space connections and the personal rationale for this particular play research.

I played as a child, aged under 5, in beech-mixed working woodlands close to my home, with a group of neighbours and friends, and not closely under the ‘watchful gaze of adults’ (Spilsbury, 2005) but older peers. As a small child I was jumping into the beech leaf lain sawpits, making dens in drooping holly bushes, and running, running along tree root threaded undulating paths, down banks and up again, past charcoal burners, beechnut rooting pigs, and bodgers still working wood where it fell. Fences were no constraint as there were always holes and so we, a gang of children and dogs and other creatures, ranged from woods to glades to fields. I had snails and sowbugs as pets, learnt of hoopoe through experience, and was imbued with the smells and sounds of

³⁸ [Sure-Start](#) was a programme introduced by the then Labour Government in 1999, intended to support regeneration by focusing on the young, and later Every Child Matters which focused on children’s Social, Health, Economic, Education and Participatory experiences. Sure, Start settings over time became Children’s Centres.

³⁹ Bergson presented that the multiplicity of phenomena is related to a unified consciousness, and has been interpreted by Deleuze (1991:93) that ‘all degrees coexist in a single time, which is nature in itself.

⁴⁰ I use the term childhood-nature connection in acknowledgement that child is of nature, not that these are dual singularities.

that place. My early play place is still a special space 'defended in (my) mind' (Bachelard, 1994). I knew/know it well. Experiences of that time re-turn from time to time to be reworked anew when motion, sounds and smells recall.

I moved when I was 5 to a more urban area. I still played out, but with less range. My play was different now, responding to age, capability and location. Play was more culturally influenced. Here I rode my bicycle in the largely traffic free cul-de-sac at the back of the houses, roller-skated on an iced pavement (with poor results), and walked the non-road routes to the greens to play football with my brothers stopping only to squeeze through 'giants' leg' trees. I/we played on old allotment sites ready for redevelopment, gathering lupin from deserted plots, or playing on the piles of earth from the land clearing, or along the banks of the canal where the smell of industry was rife but the water voles swam, and we went swinging across the sludgy shallow overflow stream on a strong rope. This range of play has left me with a personal understanding that an assemblage of geographical topology, natural, man-made, sound, smell and social influences has potentiality to stimulate (or to restrain) flowing free-play in landscape, including in the built landscapes of humans. The 'Child 1' I had been was attracted by the undulations of the woodlands, the smells of smoke and pigs, the sounds of birdsong. The 'Child 2- I' had been, knew of soil heaps, metalled roads, the life of the compost heap, the smell of the lupins, the sounds of industry, birdsong and moving water, the temptation of a rope. These things mattered, the context mattered and had agency and affect in their mattering. The concept of landscapes of play was emerging in my recollecting.

Many years later I was in a position to facilitate play at an adventure playground, for those children who had less opportunity to 'play out' unsupervised for a range of

reasons. Here again I saw children's nature engagement, the fascination with the bees around the flowering currant by the open doors, or the wonder at the sound of the woodpecker chicks in the old tree; the gathering of leaves and flowers to make 'potions'; pond-dipping or scooping for minibeasts and bugs. I am very aware of Karsten's (2005) critique that there is a danger of bias in that we can see 'it all used to be better' and I continually check myself, and with colleagues. The children were also stimulated by urban affordances (Gibson, 1996): the sloping sides of what was an old railway cutting, the aerial runway swinging towards the trees, and the steps of the walkway up the bank. Children experimented with the physicalities of their bodies on slope and swing, their relational engagements, connecting to landscape, performing with the landscape, and responding to the opportunity to do so.

Even later still in my working career I regularly walked past an open area on a social housing estate in which around 30 children of various ages under 12 were obviously 'playing out' together, one large game broken into smaller social units. At first I was interested in the transporting that was going on as children carried planks and pushed trolleys and prams to take their chosen 'loose parts' (Nicholson, 1971) for play and wondered about studying schema in the streets (I was doing an MA at the time). I was also interested in the social hierarchies and engagements seemingly displayed, but did not pursue that research then. But what has remained with me as an interest from that informal observation was the landscape interpretation (or topological⁴¹ stimulation) that was going on. Children were moving around the estate in patterns of their own making. The climbing frame became a fort, the stone wall with trees and orange lilies

⁴¹ I choose to draw on the word topology here in the geographical sense of a focus on qualitative relationships between layers, surface shapes and features. However, it is also used in psychology as perceptual space, in maths as connectivity between geometric forms in a space, and in Human Geography it has use in relation to post-structural philosophies of space.

growing from it was 'inhabited' by children who seemingly enjoyed moving themselves and other things over or along the old stone wall, another group were building dens on the flat mown grass, pausing to make daisy chains and plucking at the greenery nearby. The materiality of what I shall for now call the natural environment (a term addressed later in this study) and the topological undulations of the landscape, walls, climbing frames, and Cornish-hedge banks were prompting responses that appeared to shape the free-ranging play. This has prompted me to generate a neologism of 'topoludic' understandings, referring to an event in which the shape of the land and topography is agentic in eliciting playful response. Topoludic is the combination of spatial relationships and potentialities for play and play events.

The concept of Play is discussed further in Plateau 3, but for the initial purpose of this study and mindful of collage, I have moved through a range of understandings of play, from the bounded human rights based approach of free choice and intrinsic motivation (Gleave and Cole-Hamilton, 2012), through the understanding of play as a portable tool for being/becoming 'not tied to objects but brought by people to the complex interrelations with and between things that form daily life', (Sicart 2014:2), and finally to that of Rautio and Winston, 2013:17) who propose;

'..... play as intra-action. In accepting that play is all: practice, progress and a mode of being and knowing in itself, the emphasis in studying play as intra-active shifts from seeking a definition of what play is (for) towards the ways in which playing (re)generates those playing, all in complex relations to each other'

It is this latter understanding that sits well with me as an understanding of play appropriate for thinking as posthuman player/researcher.

2.5 Prelude 2: Welcome to the Anthropocene, a change of direction

'Welcome to the Anthropocene: Humans have changed the way the world works. Now they have to change the way they think about it too'.

(The Economist, 2011 cited in Masny, 2020:244)

Whilst I am writing about play in landscapes I am also writing about myself as author acknowledging my posthumanism and the world in its becoming, a becoming which is deeply challenged in the current time. As sympoetic humans 'of the world' (Haraway, 2016, Lens Taguchi 2010; Casey, 2001) anthropocentric induced changes will in turn shape the way humans and other creatures are shaped by the world and shape locality in the responses. It will shape the nature of the wildlife to engage with, the nature of the soils and chemicals within us, of the impact of the sunlight on our skins and may further change the level of access to outdoor spaces for fear of skin cancers, for example. It therefore seemed vitally important to acknowledge our link to the world, the anthropocening that has been happening, and the need for a lessening of the human hubris in order to 'stay with the trouble' (Haraway, 2016) in seeking new ways to think with the world.

'The world is in a bind' (Institute for Public Policy Research (IPPR), 2023:21)! Many scientists and researchers now perceive there is a historical failure of man to adjust the human impact on the climate and the ecological crisis. Whilst there are those who disagree with the concept of global warming (see Inhofe, 2012), the IPPR (2023) has recently issued a report that highlights humanity is in danger of being in a 'doom loop' in which the currently experienced impacts of the 'ecological crisis' (flooding, drought, extreme weather conditions and changes in biodiversity limits) will draw resources away

from future investment in tackling the causes ‘which then create more severe consequences, diverting even more attention and resources and so on’ (IPPR, 2023:5). They conclude that ‘the world is in a bind’ (21) because as societies have been unable to take the action required to limit global warming to 1.5°C they will from now need to spend more on disaster responses, and this may distract from the core focus required to invest in changes focused on the future. Offered as a solution is that;

‘One particular need is to help younger generations, who will ... be called upon to navigate the throes of a deepening storm’
(IPPR/Laybourn, Throp and Sherman, 2023:21).

Contained within the report are multiple references to supporting younger generations (referred to both as ‘millennials and younger generations’), to understand the magnitude of the challenges as it is they who will bear the greater brunt of the strategic risk and who have the potential to save mankind. There is a tension between the younger generation seeing the older generation as the root of the issue and the older generation seeing the younger generation as the salvation for the issue. A perception that leads to arguments that the younger generation need to be out in nature (Waite, Rogers and Evans, 2016; Elliott, Arlemalm, Hagser and Davis, 2020) to better understand its working and be its future saviours.

2.5.1. Carbon dating plus: the soil within us.

It is insufficient to consider that going out into nature and reconnecting is the panacea for sustainability ills. Humans are of nature, and of the world. The human nature split is a conceptual bifurcation. In archaeology it is possible to see where someone, whose ancient bones are rested in the soil for centuries, has hailed from, by testing minerals in teeth and bone (Betsinger and De Witte, 2021). Human beings are not only resident on

the earth, but composed of the earth, porous bodies filled with minerals of the land of their making, becoming compost once done with life (Haraway, 2106). Lens Taguchi (2010) makes a useful distinction between three attitudes to/of the human; as being 'on the world', 'in the world' or 'of the world' (Taguchi 2010). The dominant culture in the UK has established over a long period of time an attitude of being 'on the world'. A view in which man has mastery over nature, adopting a mediating signifier of 'farming' land and sea, not 'exploiting' it. The language sanitises the mass destruction in the name of mastery of the land and sea. A position bolstered by a theological symbolism that man was made in the image of God and that there is a hierarchy in which the animals were there to serve man, made first, then the beasts (Genesis, 1:26-28). Woman too was second to man, and child placed in a confused and dated position possibly only valued by the teleological outcome of becoming future economically active adult.

In contrast being 'in-the world' implies a relational activity, being among people and the 'more-than-human critters' (Haraway, 2016) and agentic elements, interacting, communicating, respecting. The final position, of being 'of-the-world' (Les Taguchi, 2010) acknowledges the porosity of the human boundary, a porosity which means a two-way leakage of the outside in and the inside out. Haraway points to the work of Lynn Margulis in highlighting this human porosity, as a sympoiesis of minerals and bacteria that make bodies (Haraway, 2016).

It is impossible not to ignore the indications that the world is getting hotter, pollution has so affected the ozone layer that we may be at a tipping point, there are more and more destructive extreme weather events, natural resources are depleting, the ecological diversity of the world is reducing (and at an alarming speed) and the ocean communities are impacted by plastics (all indications drawn from the contributors to

Thunberg, 2022, for example). I write this at a time that is recognised by many as ‘the age of the Anthropocene’ (Crutzen and Stoermer, 2000), a period in which the influence of humanity on the earth and the more than human is clearly visible and measurable. The world potentially remains ‘on course for increasingly dangerous levels of climate change’ (Climate Change Committee, December 2022: 4) and government policies appear unable to work swiftly enough to have any impact on these. The number of UK species has declined in abundance since 1970 by 41% and 15% of species were on the red list at risk of extinction in 2019 (Hayhow, Eaton, Stanbury, Burns, Kirby, Bailey, Beckman, et. al.,2019), there are more and more challenging extremes of weather, and further damaging man-made fire-based destruction of afforested ‘lungs of the earth’ in the Amazon (Malleret 2023) and in the UK the incredibly important ‘intestines of the earth’ (worms) are also declining by up to one third of the population of 25 years ago (Pass, Morgan, Read, Field, Weightman and Kille, 2015). Some outdoor educators decry a generational environmental amnesia (Kahn, 2002⁴²) as humanity is apparently detached from nature and only concerned about money and jobs (Lundberg, Vasques and Das, 2021).

Some of these issues are linked to a popular understanding that children are the site of the future but currently spend too little time out of doors connecting to ‘nature’, or are even experiencing a ‘nature deficit disorder’ (Louv, 2005 and 2012). Gill (2011) also found that children have little or no meaningful contact with natural places in the city. He considered as a result, they may be denied the many and varied benefits that experiences in nature bring: experiences that many adults understand at a deep

⁴² Kahn (2002:113) stated the basic idea of generational amnesia as, ‘People take the natural environment they encounter during childhood as the norm against which they measure environmental degradation later in their life. With each ensuing generation the amount of environmental degradation increases, but each generation takes that degraded condition as the normal experience’.

emotional level from their own childhood memories. He writes that they may also grow up indifferent to nature, and unsupportive of the need for environmental stewardship.

The argument is often made that if only children spent more time out of doors the environmental issues may be able to be 'fixed': for after all reconnecting to nature is key to growing a larger environmental awareness and movement (Louv 2012: 284). I have some sympathy with such a view, but wonder whether such a responsabilisation of the next generation is entirely appropriate, and also whether these concepts will become neoliberalised, milked for its purchasing power rather than molecular insight. Besides if one is always already 'nature' this negates the need for re-connection but highlights that what is required is a philosophical shift to acknowledge we are always already nature (Braidotti, 2019) and appreciate the existing sympoiesis in action.

Anxiety about the environmental issues and the placing of responsibility on the different generations seems to be reinforcing yet another binary; that of adult versus child, and within a human/nature disjunct, such that now we can also read of the younger generation blaming the older generation for the predicament;

'The future of all the coming generations rests on your shoulders. Those of us who are still children can't change what you do now once we're old enough to do something about it'.

(Thunberg, 2019:11),

and the older generation indicating that it is the work of the younger generation to fix it;

'..... children are the world's hope for a better future. For all of us'

(Lake, A. (UNICEF Executive director), 2016:no page)

Many feminist authors have also drawn our attention to the environmental issues, but adopt a transversal perspective, taking responsibility *and* acknowledging complexity and a need for thinking otherwise than the simplistic recoupling of human and nature as solution.

‘we live on a human-damaged planet, contaminated by industrial pollution and losing more species every year – seemingly without possibilities for cleanup or replacement. Our continued survival demands that we learn something about how best to live and die within the entanglements we have’.

(Swanson, Tsing, Bubandt and Gan, 2017:M4)

Such a position appears somewhat in opposition to that expressed by policy makers and seen in a recent Environment Agency publication (Environment Agency 2022) in which anthropocentric hierarchy is clearly visible in the language used, despite acknowledging human society within the web of life it is clear that ‘Nature’ here is perceived as a thing that provides essential services for man’s needs;

‘Human Society exists within nature’s web of life and ultimately, we depend upon ecosystems to provide **us** with essential services. These include clean air and water, fields for crops and livestock, forests for timber and fuel and the drawdown of greenhouse gases which threaten us through climate change. Simply put, humanity would not be able to survive without these ecosystem services’

(Environment Agency, 2022:8)

Haraway’s response to the posthuman environmental predicament is to encourage her readers to ‘stay with the trouble’ (Haraway 2016). Swanson, Tsing et al (2017) remind us of errors of ‘simplifications’ of an assumption of individualism within distinct bounded bodies and the assumed efficiencies of such as industrial monocultural farming, for example. They remind us that one possible solution to the ‘posthuman predicament’

(Braidotti, 2018) is to maintain humility and respond by ‘noticing’ small details, both wonderful and terrifying, in order to work against the monster of ‘singular notions of modernity’ (Swanson, Tsing et al. 2017, M7). Coupled with this multiplicitous noticing is a critical questioning of whom ‘we’ are; being both subjectively diverse and also made up of a symbiosis of creatures, bacteria and enzyme – a holobiont rather than an individual (Haraway, 2016). The call is for a mutual or commensal sympoiesis⁴³, and aware engagements with other sympoetic humans and the more-than-human. In Deleuze and Guattari’s writing this might be about entanglements and haecceities of a very equitable becoming; as the wolf, the horse, the child cease to be subjects and become from events on a plane of immanence distinguished only by speeds and affects, not form and subject;

‘.....in assemblages that are inseparable from an hour, a season, an atmosphere, a life. The street enters into composition with the horse, just as the dying rat enters into composition with the air and the beast and the full moon enter into composition with one another.Climate, wind, season, hour, are not of another nature than the things, animals or people that populate them, follow them, sleep and awaken with them....

(Deleuze and Guattari, 1987/2012: 306)

Haraway (2016) is playful in her response to these issues as she reminds us to ‘stay with the trouble’ through knowing of the workings by making and storying, entangling and playing, making replica corals with wool to consider the fate of the corals for example and emphasising that there is an ethics involved in this human humility, of thinking with

⁴³ Haraway uses the word Sympoiesis as a play on Symbiosis (meaning ‘living together’ or relationships between two dissimilar organisms) and poiesis which means ‘to make with’ (in Greek). She considers only the positive symbiotic relationships of biology – those that are mutual or commensal, ignoring the parasitic and competitive. Although she does acknowledge that it matters which choices are made for ‘nothing makes itself; nothing is really autopoietic or self-organising’ (Haraway 2016:58)

whilst making of. I too have chosen to employ a technique of thinking whilst making and drawing-with to explore children's landscape connections.

It matters what choices are made within expansive sympoetic assemblages (Haraway, 2016) it matters what connections are made and nurtured. There is a sense of dwelling with the issues in Haraway's work. Something Braidotti (2020) also picks up in her writing when she reminds us that issues are not mankind's to 'fix'. Bennett (2010:113) looks to Guattari's (1989/2000) 'The Three Ecologies' for a reminder that we should think differently to pursue a more ecological sustainable relationship with nonhuman nature. Braidotti and Bignall (2019: 12) draw attention to the 'common predicament' of climate change and threat of environmental collapse whilst acknowledging this as an uncertain future faced by humanity and by non-humanity and by naming it the 'posthuman predicament' reflect upon the unification of this understanding together with an acknowledgement of the uneven fallout that engulfs more precarious human and more than human life forms more completely and quickly than others. The predicament is not humanity's to fix, nor is it appropriate to just take a neutral 'inhuman' approach but they argue that we could develop our awareness and that it should be possible to 'both decry human exceptionalism and species privilege' whilst 'attending to the 'specificity of human responsibility and potentiality in conceptualising adequate forms of response to the many damages arising significantly from human activity' (Braidotti and Bignall, 2019: 22), and to look to Deleuze's assertion that 'the system must not only be in perpetual heterogeneity, it must also be a heterogenesis'⁴⁴ (Deleuze, 2007:365). It is not enough to be diverse, but must generate diversity and change.

⁴⁴ Heterogenesis is about the many and creation. Deleuze states that multiplicities continually transform themselves into each other and each multiplicity is already composed of the heterogenous in terms of

How does this relate to children's play? Well, there seems to be some hope in playfulness;

'Monsters are entangled-and contaminated-bodies. Ghosts suffuse landscapes with many kinds of time. Following ghosts and following monsters are different ways to know the terrors of the Anthropocene. Ours is a playful invitation for collaborative methods and a call for new creativities for worlds that are possible and an urgent cry against the irreversibility of damage and the extinction of things that are not able to survive'

(Swanson, Tsing, Bubandt and Gan: 2017: M 176)

So, collaboration, relationships, creativities and fabulations generate new worlds of understanding as a cry for survival for all. It seems play has an essential role in the fabulations, creativities, relational engagements and generation of the new.

2.5.2 Whiting the Ocean: destructive mastery.

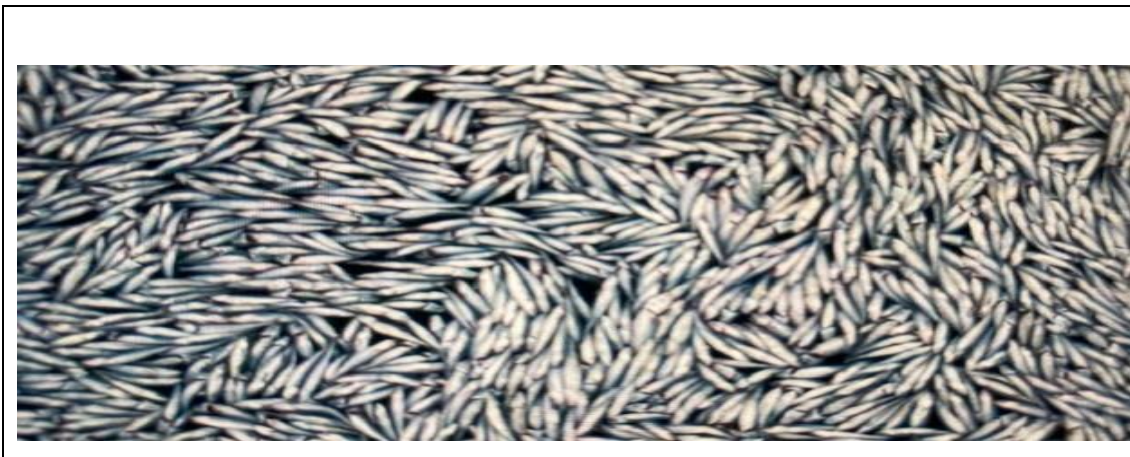


Figure 5: Author's Drawing from a media photograph of over 100,00 Whiting Deposited in the Atlantic off France, February 2022

"aaah poor fish, why don't they swim away? Child research participant aged 5 on seeing a dead fish".

On the 5th February 2022 a 'super trawler' the F V Margiris, the world's second biggest fishing vessel shed more than 100,000 dead fish into the Atlantic Ocean off France covering thousands of square metres of the surface of the sea, deadening the waves.

The Margiris is 142 metres long, displacing 9500 tons and can catch around 250 tons of

symbiosis, transforming into a string of other multiplicities through 'thresholds and doors' (Deleuze and Guattari 1998/2012:291)

fish each day in nets that are 600 metres long and 200 metres wide (British Sea Fishing, 2023). The bodies may feed a few sea birds but I recognised that there is a marked absence of Gannets and those that fish live fish in the photos of the event. The destruction of such shoals potentially destroy more than these shoals. (This is also a time of Bird Flu (Gov.uk, 2022b) in which, as a result of man's intensive farming of poultry, sea bird populations are affected by a virus that is impacting on populations of such as gannets).

The huge whiting catch released by a fault in the netting systems are dead, lifeless, life un-giving spoils of man's mastery of the waves that will become polluters. The F V Margiris bottom-fishes with a net at least 1 kilometre long killing everything in its path, including spawning areas. One of these nets split spilling this great slick of tonnes of whiting. Integrated World Capitalism (IWC)(Guattari, 1989/2000), or Income Without Conscience, a mastery of nature, prevails. There seems to have been no consideration that it may be important to haul the fish in some other way once net burst freed; the economic imbalance of man's financial desire versus natural balance is such that it is not efficient to use that haul which broke free through a failure of the net. The fish have ceased to have value in comparison to the cost of recovery, so they rot and pollute and the equivalent tonnage in a new spawning area is gathered. It is only when the value of fish rises that there will be any likelihood of such recovery, until then a whiting's life is of little value. Hence a call for a greater politics of commonality,

'we live in a more precarious age and one that requires more heterogenous, experimental, and scientific forms of governance. The human should not be conceived as the one and only host in today's oikos. The parliament shouldn't assume that humans representing other humans can exercise sovereignty over the entirety of the Earth as we know (and don't know) it'.

(Watson, 2014:93).

2.5.3. Thinking with the minority more-than-human of no economic value

In Prelude one, I outlined my own childhood play connectivity to the locality in which I experienced my early becoming and I illuminated how I still know the seasonal smells and I had recognised a random bird visitor (the hoopoe) many years later from that early childhood experience and connectivity. In Prelude 2.5.2 I presented the ‘trouble’ we are staying with through playing with, the implications of the Anthropocene. Here I join the two in a collage piece around the sounds of a skylark.

The assemblages of play I experienced as child of nature in the worlds worlding, left me with a deep memory of that area, Bachelard’s ‘topophilia’⁴⁵ emerging from ‘felicitous space’ (Bachelard, 1994:xxxv) and its symbiosis, within which I played a part, traipsing along the woodland trails. I have already acknowledged the importance of sound and smells. Deleuze writes of sound refrain (1987/2012), the ritornello. One of the refrains of my life is the sound of the [skylark](#)⁴⁶. I heard it as a child on Christmas Common (a place of family picnics in the summer), I heard it again when I first moved in with my partner and we walked the hills near our first home, and it used to be very common where I live now near the Cornish coast. Waves of high-pitched sound trilling out from above, small bird rising beyond sight, travelling far, sound rising and falling (and far from the trite and weak epithet given by Hardy below). Pindar and Sutton (2000:5) remind us that,

‘It is a sound that Thomas Hardy, in another century, could take for granted.

‘The voice of a weak bird singing a trite old evening song that might

⁴⁵ Bachelard uses the term ‘topophilia’ and acknowledges its source as Tuan (1999) and its meaning being the affective bond with one’s environment or emotional and cognitive ties to a place.

⁴⁶ The name is here hyperlinked to a CC recording of the skylark deposited on Xeno-Canto (2022).

doubtless have been heard on the hill at the same hour, and with the self same trills, quavers and breves....for centuries untold .’

‘The Three Ecologies’ translators Pindar and Sutton (Guattari, 1989/2000:5) link the decline of songbirds in the UK to the influence of post-industrial capitalism (which Guattari (1989/2000:32) calls ‘Integrated World Capitalism’) infiltrating and saturating the unconscious and impacting on the environment. They highlight particularly the decline of skylarks from 7.72 million in 1972 to 3.09 million in 1996 and how in such a short time almost 60% of that particular bird population, with its very distinctive high air summer call and rising and falling trill, had disappeared. The ecological niches for these particular birds have been eroded by intensive use of agrichemicals, pesticides, intensive farming of monoculture grasslands regularly maintained by heavy agricultural machinery at the times that the birds are nesting are all contributing to their decline (Browne, Vickery and Chamberlain, 2000). In time it may be that a sound refrain is missing from the UK environment as it pours out its full heart ‘in profuse strains of unpremeditated art’ as in Shelley’s ‘Ode, To a Skylark’ (1839).

Pindar and Sutton (2000) remind us that Guattari called such conjunction of sound and territory a ‘refrain’ and that there are many refrains in our lives, but Guattari (1989/2000) notes the dominant media jingles of the commercial world create ‘sound walls’ around us such that it is difficult to know where, or rather (as singularities are created through events) *who* we are. Habitation has become increasingly constrained for humans living in a world ‘turned outside in’ in which we imagine habitation can be contained, and inside so many images and sounds have been reconstructed in tracings, ‘simulacrum’ of the exterior (Ingold, 2015:41). Such an experience of habitation as

containment affects conceptualisation of what it means to inhabit a world. Ingold elaborates:

‘We are led to suppose....that the ground outside, like the floor, is a kind of baseboard or infrastructure on which all else stands: hills, valleys, trees, buildings...we expect plants to grow *on* the ground not *in* it and imagine that animals scuttle over the surfaceWe treat the landscape as a view, and imagine that we see the world in pictures, optically projected into our minds as upon the white walls of the interior room. In this picture-landscape there is no weather, the wind does not blow, nor does rain ever fall. We even suppose that when we go outside the sounds we hear will be recorded and call it a ‘soundscape’. (Ingold, 2015:42).

Think of runners in a park, with motivational music in the headphones, which whilst useful is also rupturing the runner from the natural sounds of the park environment, of birdsong and breeze or of the current trend for fake (plastic) grass in school and nursery to give the image of a clean lawn without mud, worms or bugs. These experiences in their deficit potentially offering the limitations as baseboard experiences to which Ingold refers. I was waiting outside a supermarket in the London area in 2019, and noticed the sound of many starlings, but then realised it was being piped from speakers. I assumed it was some form of experiment to see if natural sounds relax shoppers, a soundscape for psychological soporification. With such piped sounds, the masterful human may think, why would one worry about the loss of the skylark?

Ingold is pressing for humans (and children within that categorisation) to leave their containments and falsity (the fake sound walls) acknowledging the importance of the process of simultaneous becoming,

‘We do not live inside our bodies but, in breathing and eating, continually and alternately gather the world into ourselves and release ourselves into the world’
(Ingold, 2015:42).

Ingold contrasts the 'picture landscape' with its contained fixities with the infinite variation to be found out of doors. Outside the world is imperfect, it has bumps and blobs, grit and granularity. For Ingold it is perceived kinaesthetically, is infinitely variegated, composite and is in a process of continuous generation. A place of play in all its combinatorial glory, there for the sensing as part of the process of becoming-with.

In the last 20 years the skylark sound has noticeably dropped out of my life and I assume also of the children living nearby. When walking locally I and my partner sometimes hear a single skylark call in spring. We hope they make it through the season, but the small Cornish fields are becoming industrialised. Stone, dirt and vegetation of Cornish hedges are shockingly removed (annihilated in one day's digging) so that the field may now cater for the larger and larger agricultural machineand vital complexity is adulterated. The once cattle meadows of rich variety have become a monoculture of specifically planted, sturdy, grass. This grass is also regularly maintained by tractor and chemicals so that it makes good cattle silage for indoor and intensively corralled animals. Silage is cut within the breeding season of these small birds. Skylarks are ground nesting in divets in grassland, they stand little chance against big wheels and regular tending of man-chosen-mono-grass field topped up with fertiliser and pesticides. The assemblages are out of kilter, it matters what choices are made (Haraway, 2106) response-ability not mastery is an ethical concern. In attendance with me/us on some of our local walks a young play participant knows the sound of the skylark, but will the generation after her? Generational amnesia (Kahn, 2002) is a symptom of the lack of diversity and differentiated experiences, a sign of the more negative effects of the anthropocene.

If there is a complexity of potentiality in becoming together a depleted assemblage of place means it's becoming-potentiality is also depleted. An assemblage complexity

amnesia in the making. Complexity becoming simplicity, assemblage reduced to single thread. Assemblages of potentiality are disassembled by anthropocentric mastery. Adders disappear with the demise of Cornish hedge stone walls and hedgehogs are scarce. Although chough populations, tended by man from the brink of local extinction, have increased through anthropocentric effort as illustrated by the child players of this research in their data contributions of wildlife awareness see Figure 4 below. Near extinction and human concern helps the species to join the 'sound wall' of marketing, reintroduction of finance sourcing stream, but must something reach such a deficit and media message before being nurtured back into being? I should like to see a situation where play and species maintenance is in priority, not IWC first.



The children's drawings of wildlife do show a level of connectivity with their local environments. On a play walk with one of the young participants we heard corvid sounds, higher pitched than rook or crow, 'that's a chough' she said. Knowing that choughs were quite rare, and that I had recently become very excited in seeing a pair some distance from where we were I unthinkingly offered an adulteration – 'that's very unlikely, they are very rare'. 'I know that's a chough, they are our school emblem', she replied, and showed she was able to know the bird by sound and was able to tell me of the red legs and beak. She had also seen a chough before on her playful walks. Shortly a black bird with red beak and legs was clearly visible flying past and then hopping on the granite cliffs.

.... Later she supplied me with the drawing above, just so I would be clear.

Figure 6: A Child's Drawing of a Chough with research data annotation

2.5.4 On Plastics

Birds are sentient creatures at risk. Let us now consider the proliferation of an agentic matter. The issue of plastics waste in the ocean, and on land, has long been an area of consideration and emerges as agentic matter in my play research as later images of the data gathered for this thesis as 'Merz collages' will show. Plastic slicks have been identified in the sea wider than the whiting slick, not just 1 square mile thick but many more (Thompson, Olsen, Mitchell, Davis, Rowland, Anthony, McGonigle and Russell, 2004). The same researchers also identified that microscopic plastics are common in sedimentary forms on the beaches in the south West. A recent report in the news identified that plastic items at least 50 years old were regularly being washed up on our beaches, sweet tube tops and bottle tops seem quite prolific (Lyons, 2018). There has been a steady increase in plastic production, and given the longevity of plastic, and the disposable nature of plastic items contamination is likely to increase, aside from the potential for plastics to absorb, release, and transport chemicals and encourage spawning in areas that do not contain the right sustenance for the creatures spawned (Thompson, Olsen, Mitchell, Davis, Rowland, Anthony, McGonigle and Russell, 2004).

It is expected that by 2040, 29 million tonnes of plastic will enter the oceans globally, the equivalent of a dustbin lorry full of plastic bottles dumping its load into the Atlantic Ocean at the rate of one a minute for the entire year (Kaza, 2022:384-5). Just as minerals enter porous bodies so do plastics. They have been found in stomach, heart, lungs of marine creatures and in humans . From a limited survey of microplastics in the air, water, salt and seafood it was identified that children and adults might ingest anywhere from dozens to more than 100,000 microplastic specs every day, depending on where they live, equivalent to a credit card's worth of microplastic a year (Koelmans, Redondo-

Hasselerharm and Kooi, 2020). Indeed, 'We are of the world and the world is within us' (Casey, 2001).

I share these understandings here as a consideration, to think about the ethical importance of Anthropocentric influence awareness in all that we do, including the choices we make. This is an ethical aspect of this study. If children grow up with a sense of doom, with piped access to birdsong, and with a responsabilisation pressed upon them by the current aging generation in relation to sustainability, or develop with a sense of mastery and importance of money over ethics of choices relating to mass death and extinction of the more-than-human creatures and plants, then this may potentially impact on the subjectivity arising from the assemblage in action, as the assemblage complexity will be diminished, the ethics of the onto-epistemology altered. I consider this awareness and responsabilisation may also restrict the vitality of play. It is an understanding which underpins the work of Barad (2007), Haraway (2016) and Braidotti (2013, 2019), and Braidotti and Bignall, (2019). Rather than seeking quick fixes to 'make an imagined future safe, of stopping something happening that looms in the future' (Haraway, 2016:1) they have all indicated we should question our relationship to the future. The world is not ours to 'fix' (Braidotti 2019:Loc 15) with potentially faulty science that has a narrow perspective on one problem without the broader complexity, but rather there should be a reclamation of diverse agencies and accountabilities in the context of current inhumane processes of production and potential redemption in the age of the Anthropocene. A new way of thinking about and with 'the differential nature of human influences in complex interactional systems' (Ibid). Braidotti (2019) asks whether, when subjectivity is considered apart from intentionality, posthumanism can offer a framework for responsiveness to complex

interactive ecologies. Haraway highlights that the task is to become 'capable with each other in all of our bumptious kinds of response' (Haraway, 2016:1) and learning to be truly present;

'not as a vanishing pivot between awful or Edenic pasts and apocalyptic or salvific futures, but as mortal critters entwined in a myriad of unfinished configurations of places, times, matters, meanings'.

Such bumptious playfulness to stay with the unfinished of an environment in its becoming, despite we are perceiving this from a troubled middle, requires some ongoing engagement with the richness of the environment out of doors (childhood-nature engagement) and playfulness as a balance to, or overpowering of, the synthetic IWC of the indoor spaces and walls of fake sound mentioned by Ingold (2015). Barad approaches this moral issue from a different perspective. She asks, if looking at this from a humanist tradition, how far might we need to stand back to make wise decisions and ask ourselves whether we should use the world or the universe as a toy model to tweak and test a few things and see what happens? (Barad, 2007:396). The answer, she highlights is that it is ethically wrong to do so as there is no exterior position when it makes sense to say, 'do I dare do this' as we are *of* the universe, there is no division between man and nature, 'there is only intra-acting from within and as part of the world in its becoming'. The analogy of the world as toy model as experimental microcosm is contrasted with the creative, sensitive, cartographic becoming of the engagement from within the world in its becoming. Like Haraway's call to stay with the trouble Barad also calls for a hold

'If we hold on to the belief that the world is made of individual entities, it is hard to see how even our best, most well-intentioned calculations for the right action can avoid tearing holes in the delicate tissue structure of entanglements that the lifeblood of the world runs

through. Intra-acting responsibly as part of the world means taking account of the entangled phenomena that are intrinsic to the world's vitality and being responsive to the possibilities that might help flourishing. Meeting each moment, being alive to the possibilities of becoming, is an ethical call, an invitation that is written into the very matter of all being and becoming. We need to meet the universe halfway to take responsibility for the role that we play in the world's differential becoming'.

(Barad, 2007:396).

This is a long quote for a thesis, but it felt inappropriate to cut it; to make an agentic cut of shortening the affective impact of the chosen and presented word assemblage. So, it is not for humanity to fix the universe, nor to look for escape to other planets; the world will most likely continue without humanity, but it is about 'being alive' (the *elan vital* Deleuze found in Bergson (Deleuze 1966/2011)) to the creative possibilities, of kinship and acknowledgement in the world's ongoingness and of which humans are a part. Given that things come into being in the process of intra-action and that the outcome is never clear due to the complex impact of each specific situation intra-actively in the process of becoming Barad asserts it is not sensible to implement big quick fixes. But there is a need for engagement and sensitive, ethical dwelling in the processes of becoming together in all its/our/their richness. This equates to being outdoors for the maximum complexity and combinatorial flexibility (Brown and Patte, 2013) and nurturing an ethical responsiveness; to being of the world whilst playing outside.

2.6. Prelude 3: An introduction to posthuman research

It is possibly by now evident that the posthumanism that I adopt draws on the work of Deleuze and Guattari, particularly in *a Thousand Plateaus* (1987/2012) and combines this with the work of Barad (2007), Haraway (2016), Bennett (2010 and 2020), and Braidotti (2013, 2019), an assemblage of thinking that acknowledges a distributed agency, and emergent subjectivity through intra-action as event, and humanity as of the world. Such posthumanism does not focus on the end of humanity but, as Braidotti (2013:101) highlights, emphasises *'the end of a certain conception of'* the human in which a human is an autonomous subject who has a purpose to dominate and control nature. I recognise a current move in childhood and play studies towards a new philosophical perspective of posthumanism, new materialism and agential realism, a 'third way' (Murriss and Reynolds 2023, also evident in Russell, Ryall and Maclean, 2018). I am informed by or with the playwork philosophical workings of Russell (2013, 2016, 2018 and 2019) and of Lester (2013, 2016 and 2019) as they combine Deleuzian philosophy and playwork theory applied to inform practice. Lester (2013), for example asks us to play in a Deleuzian playground in reconsidering the hero in Jack and the Beanstalk from a posthuman perspective acknowledging the agentic assemblage of Jack, soil, beans cow, mother, giant and so on, overturning the common moral tale. He concludes that play is 'a restless desire to release new virtualities into the world through novel assemblages' (139).

"Being' in this playground foregrounds an ethos of experimental relationship with the world that attends to its eventful liveliness. It poses an ethical question 'how can we come to experience a maximum of joyful passions' (Deleuze 1988)?..... witnessing everyday playful moments, not to colonise and over-code children's desires, but to open ourselves to a 'generous sensibility; one that might be capable of re-enlivening our affective

engagements with others and fostering a heightened sense of what might be possible.....’

(Lester, 2013:139)

The joyful passions Lester mentions are possibly the desires of Deleuze’s later work and generous playfulness should be nurtured through this generous sensibility, sensing, and being sensible of, enlivening or re-enlivening, giving vitality to and being vital through generous engagement with others, human or more-than-human. Although such movements seek to decentre that adult dominant human discourse this decentring of adults is also perceived as offering an opening for children and other ‘missing peoples’ (as mentioned by Braidotti, 2019; Bennett, 2010; Murriss, 2016) a reduction of hubris, and recentring of community. Dominant views of child as economic resource, and education as a teleologically humanizing project are challenged (Murriss and Reynolds, 2023). The dominance of childhood research and understanding based on psychological, social, cultural and biomedical perspectives is useful but leaves a gap for other perspectives to be included. Moving away from attempts to define the essence of what an entity *is* (including the ‘child’) new materialists engage with the materiality of a world that does not sit still; they focus on what bodies (human and non-human ones) can *do* . Phenomena of emergence through engagements and events, not bounded bodies, are the focus for material-discursive analyses in a context in which space and time matters and are mattering.

Whilst the adult anthropocentric focus is ‘decentred’ to allow other than ‘Cartesian hierarchical perspectives enabling acknowledgement of the voices and makings of the minority and missing peoples, the posthuman researcher cannot be ‘decentred’ and detached from the research as they too are part of the apparatus that impacts on the event (Barad, 2007) and the children are a central part(icipant) of the analysis in an

immanent entanglement. An element of autoethnography is also appropriate for such research, acknowledging the agentic (even if unintentionally so) role of the researcher in the research mattering. My stream of consciousness, my autoethnographic recall of childhood-nature connections, and my underpinning of playwork shape my own ontological self as posthuman researcher as machine of influence on assemblages and haecceities. It matters what choices I make, what engagements I press, what stories I tell.

2.6.1 A Consideration from Woolf's writings

'The leaves are gathered round the window like pointed ears', said Susan.

'A shadow falls on the path' said Louis, 'like an elbow bent'.

'Islands of light are swimming on the grass,' said Rhoda. 'They have fallen through the trees.'

'The birds' eyes are bright in the tunnels between the leaves,' said Neville.

'The stalks are covered with harsh, short hairs,' said Jinny, 'and drops of water have stuck to them.'

'A caterpillar is curled in a green ring,' said Susan, 'notched with blunt feet'.

It is very early, before lessons. Flower after flower is specked on the depths of green. The petals are harlequins. Stalks rise from the black hollows beneath. The flowers swim like fish made of light upon the dark green waters. I hold a stalk in my hand. I am the stalk. My roots go down to the depths of the world, through earth dry with brick, and damp earth, through veins of lead and silver. I am all fibre. All tremors shake me and the weight of the earth is pressed to my ribs. Up here my eyes are green leaves, unseeing. I am a boy in grey flannels with a belt fastened'
(Woolf, 1931: 5).

The above quotation from Virginia Woolf highlights an imbrication of humanity in the world and nature as part of its ongoing interpellation. The children above are part of the world, with roots going down to the depths of the world, holding a flower stalk the child becomes the stalk, thinking with the stalk, being stalk, there is a depth and perceptive affect that is also a doing, this is not a tracing, but motion, as tremors shake, the earth presses, and that pressure is the knowing whilst sensing, percept, affectively.

We have considered how humanity is 'of the world' in its becoming but that 'mastery' of it is potentially skewing human engagement with becoming subjectivity. Sitting with the trouble (Haraway, 2016) involves the metalude, a pause for knowing, seeing, connecting, active in the inner stream, ready for engagement with the outer reality in its becoming-with.

2.6.2 Another post-Edenic trouble?

Outdoor engagement and play is important to understanding the locality and local context within which humans exist (Casey, 2001). It may be that humans have a place attachment (Little and Derr, 2020) in their becoming of a particular location and landscape. However, there are many who claim children's free play and ranging distance is reducing (Woolley and Griffin, 2015; Gill, 2007, Whewey, 2015). There are also growing concerns for 'nature deficit disorder' (Louv 2008) or nature disconnect (Almeida, 2020, Arlemalm-Hagser and Elliott, 2020) a concern that children are becoming disconnected from the 'natural world', the biological and mineral world and its practical, material and embodied understandings (Kahn and Kellert, 2002; Cutter-Mackenzie-Knowles, Malone and Barratt Hacking, 2020a:10). This appearance of childhood 'disconnect' is also occurring at a time when there is a growing awareness of the impact humans are having on global ecology; this current period now being called 'the Anthropocene' (Crutzen and Stoermer, 2000)⁴⁷ in recognition of the identified damaging impact of human activity on global ecology.

Synthesising these understandings and experiences has left me with a consideration that perhaps, just as ethologist Fagen (1981) identified in animal play in which young rabbits, some of children's play close to home, unsupervised, is about connecting with the local landscape, materiality and wildlife around them, a place based connection (Little and Derr, 2020) that leads to place identity, intra-action, sympoiesis and respect for the

⁴⁷ A phrase used in 2000 by Crutzen and Stoermer and now only 19 years later being proposed to the International Commission of Stratigraphy (the organisation whose role is to Internationally precisely define global units of the International Chronostratigraphic Chart) by its 'Anthropocene Working Group' as a scientifically established and definitive term to "denote the current geological time interval in which many conditions and processes on the earth are profoundly affected by human impact" (ICS, May 2019). The proposal had not been accepted at the date of writing this (June 2019).

other-than-human in located assemblages (Deleuze and Guattari, 1995/2001, Haraway, 2016). If place is within us and we are part of a generating place (Casey, 2001) then choices to engage are part of the process of becoming, as all is becoming. Engagement from within rather than entry to nature from a point of mastery of, may lead to greater understanding, kinship, pausing to enable regrowth rather than control. On the other hand, if fewer children are 'playing out' than in previous generations (Woolley and Griffin, 2014) but there is a human attachment to nature in place (Little and Derr, 2020) as human-nature virtuality on planes of potentiality there is potential for greater person, nature, and place identity disjunct as the assemblage opportunities become more artificial. There are choices to be made collectively.

Post Deleuzian and posthuman understandings (Barad, 2007; Braidotti, 2013; Haraway; 2016 for example) promote a new way of acknowledging that humans too are 'of-the-world' (Lenz Taguchi 2010) not the transcendent users sitting 'on-the-world' enlightened mankind has perceived itself to be for several centuries now. In this disruption of the traditional order of things the world and nature is not there to be surveyed, mined, analysed, but is a processual concept, requiring monist intra-action with respect as bodies are now recognised as unbounded, leaky, a collection of potentialities (Deleuze and Guattari, 1987/2012); nature-childhoods (Cutter-Mackenzie-Knowles, Malone and Barratt Hacking, 2020).

Cartesian understandings of hierarchy and mind:body dualism are being challenged with greater complexity awareness and material, embodied and other than human engagements are promoted in this new becoming-with; along with a decentring of the anthropocentric gaze and releasing of the need to identify actions as solutions to address the anthropogenic concerns (Haraway,2016; Barad,2007; Braidotti,2010; Lenz

Taguchi, 2010). Material, embodied experiences in location become more relevant and important; it is not just about 'knowing about' nature or 'working out how to fix' the world, or where children play, but involves human hubris falling to humility and acknowledging that there are other than enlightenment cognitive ways of knowing and becoming-with the world (Braidotti, 2013a).

Countering this interest in 'becoming' in intra-active, unbounded, relation with the world as 'outdoor play' of benefit for future environmental well-being; there are others (Holloway, 2000 and 2014) who acknowledge that little is really known of where children play and how they engage outside of organised activities, these being more difficult to research than experiences in purposeful (adult directed) settings. Much of what we think children do on their own is based on our own experiences and suppositions (as I too have stated in this thesis) rather than care taken to explore with children how they engage with their locality and its more than human elements and topological potentialities.

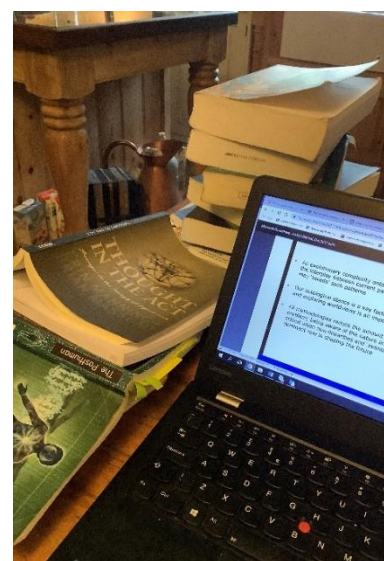
2.6.3 Becoming empirical research – research assemblage and experience.

As a result of this melting pot or assemblage of influences this current study into children's 'Landscapes of Play close to home' is an attempt to address that gap of not knowing where or how it works in a very small way whilst also engaging with Deleuzian process philosophy of becoming (1987/2012) and the agentic realist posthumanism of Barad (2007), multispecies manifesto of Haraway's staying with the trouble (2016), and the vibrant materialism of Bennett (2010, 2020). Emerging from this melting pot of concerns and acknowledgements is this written piece, an agentic cut through a sea of

potentiality. This thesis, like the ideas above is now ‘becoming thesis’ rhizomatically (see glossary) and is not predictably binary and contradictory with a classic structure of theoretical framework applied to explore a hypothesis. It is a collage assemblage of diffracting ideas in the same pool, eddying and swirling, revealing light and dark, it is.....

a challenging leap into messy,
the unknown,

emerging from the edge of
chaos.



<p>Figure 7.1 Research Data - Girls: leaping from granite blocks placed strategically in landscape design to stop ball games in a housing estate; an illustration of Lefebvrian (1991) conceived space appropriated for play.</p>	<p>Figure 7.2: Research Data - An assemblage collage generated by a child during this research in response to my request that we make a collage or palette of things that represent their play place to them. (Material responses extend from the natural to the human made, with more plastic being evident the closer to the supermarket the play places are).</p>	<p>Figure 7.3: Research Data - The writers writing and thinking place assemblage of books, laptop, kitchen paraphernalia.</p>
---	--	---

Figure 7: A combination assemblage and acknowledgement of the diffractive elements of research and play

Although prompted by serious concerns about playfulness and the ongoing sustainability of the earth, I imagined this at the outset as a playful thesis, celebratory of the play moments which illuminate the process of vitality (Lester, 2018) rather than

critical of theory and depressingly binary. To acknowledge play as creative collaborative deviation in the spirit of ‘and....and...’ it should be, ‘potent and generative’ (Deleuze and Guattari, 1995/2001), asking ‘What will this ‘do’’?⁴⁸ I attempt to introduce some deterritorialising play-full moments into the writing, challenging arboric structure (Deleuze and Guattari 1987/2012) and offering both images and actions to prompt diffractive processes and playfulness. I also offer ‘snacks’ of data to lighten the areas of more dense reading.

I have been puzzling over how one might illustrate on paper experiential processes, embodied experiences and material engagements rather than cerebral reflections. Words can *describe* but that is not the same as *doing* and one must have *done* some things being described to even begin to relate to them (another experiential process aspect of play). So I throw a play cue to invite engagement with this printed material in a different way. The cue is a picture below, which you are invited to look at, without blinking, for 3-5 seconds. You may wish to follow the instructions.

⁴⁸ Deleuze and Guattari (1987/2012:xiv) prompt that the question is not ‘is it true?’ but ‘does it work?’ and what new thoughts does it make it possible to think?, and what new sensations and emotions does it make it possible to feel?



www.magiceye3ds.com copyright free images downloaded 26-11-22

To see a 3D image, hold this picture close to your eyes and keeping focus fixed, almost cross eyed, move the image away. Such a focus on un-focusing to see differently is like the decentering of the anthropocentric in posthumanism; all is not under control, but may be controlled difference. It takes effort to see otherwise, but once known becomes habit, boredom even.

Figure 8: Hidden Picture; Magic-eye, embodied knowledge and posthuman concentration to see differently.

A bear in a box emerges from the bones (or is it Schrödinger's cat⁴⁹?) and can be perceived in 3D form from this ink on flat printed page, but only with concentrated relaxation of the observer's usual focus when two eyes are used. I find I have to let myself see differently. The 3D image is lost as soon as the eyes are allowed to wander back to normal. The viewer has to concentrate on remaining unfocused. When the 3D image is seen for the first time there may be an exclamation of disequilibrium and surprise which similarly occurs if the image flips. There is an 'aliveness' or vitality (Lester 2018) in such a disjointed expectation that may generate laughter, a moment of

⁴⁹ Schrödinger's cat paradox is discussed by Barad (2007:275-287) to highlight the problems of entanglement and measurement, and the difficulties of measurement of the wave function as the fate of the cat is entangled with a radioactive source and moreover is in an 'entangled state' influencing and being influenced. The fate of the cat depends on the decay of the atom, but the measurement machine determines the fate. The apparatus are also entangled and influential in the data which may emerge from this ludicrous experiment.

disequilibrium and connection. Once found the 3D experience is an example of embodied knowledge, your eyes may 'know' how to find it again just as Roth (2010; in De Freitas and Sinclair, 2014) noted that fingers can 'know' the pattern of phone numbers in embodied knowledge before cognitive recall.

We could look up how these pictures are generated and know of the 'parts' but that does not give the *experience* of seeing in 3D from a flat image. This experience means one can now think of the eyes and eye muscles 'knowing' something and holding that knowledge in the muscle, and so we can join de Freitas in asking now we know this, 'might we also be able to conceive of bodily encounters whereby 'knowing' extends beyond the boundary of the skin'? (De Freitas, 2014:16); and I am reminded of locality play being a process for such nomadic encounters? This also illustrates how ontologies can be entangled, in response to percept, with affect, and concept. For readers who cannot see the 3D image there may be frustration and negative affect, highlighting further the link between positive engagement, affect, and success; something I will return to later in this piece.

The above 3D image also illustrates how I have found the exercise of maintaining a non-anthropocentric focus and posthuman perspective as researcher, for this thesis. There is an effort of concentration on decentering the human, and of predicted and expected ways of knowing and being, committing to looking askance to see the other that emerges from the dots. It takes effort to remain decentred, is hard to maintain this thinking otherwise, seeing otherwise, using the body to see differently, making to know. The effort misses the mark and offers surprising new insight. It is a perspective easily lost when embedded habitual Cartesian, enlightenment rational and binary ways of seeing dominate to lose the focus on the whole. Knowing a priori that this is a printed

2D picture on a page, for example, may restrict the ability to sense, perceive, and engage with the third dimensional space emerging through lessening one's senses.

Finally, I should like to highlight the social, cultural, ethical element to this exercise. It matters what decision is made by the reader, regarding engagement with this activity. I have placed a play cue (Else and Sturrock 1998), but it is the reader's choice whether to engage with that cue and the affect they carry to it. Posthuman authors promote that the ontology and epistemology (what one knows and how one knows one knows it) go hand in hand as knowing in doing, but in this 'onto-epistemology' is also led by ethical considerations an ethico-onto-epistemology (Barad 2007), or choices. In a world of relational encounters it matters which connections are made and which are unmade (Haraway, 2016). In this case the choices made in response to the cue, actions pursued, alignment with the play request and effort released by the reader have a range of consequences. To not engage is like skipping a paragraph and may feel subversive and energising, on the other hand to engage may feel like being 'told' to play and not be playful at all; to try but to fail to see differently may be frustrating and leave others blind to a particular understanding. If the cue is engaging, the choice is easier, the efforts tantalising and then satisfying, but if the cue is dull, as one has engaged in this many times before, then it ceases to be of interest, the intensity of the potentiality wanes, a different assemblage spark may be sought. Ethical decisions and affective experiences impact upon the process of playful engagement, in this case participation in the becoming of thesis with reader engagement generating an intra-activity with the materials and commitment to the conceptualisation emerging from the action.

'It is very early, before lessons. Flower after flower is specked on the depths of green. The petals are harlequins. Stalks rise from the black hollows beneath. The flowers swim like fish made of light upon the dark green waters. I hold a stalk in my hand. I am the stalk. My roots go down to the depths of the world

(Woolf, 1931: 5).

'..and that park grew up with me. That small world widened as I learned it's secret boundaries, as I discovered new refuges in the woods and jungles; hidden homes and lairs for the multitudes of imagination, for cowboys and Indians and the tall terrible half-people who rode on nightmares....'

(Dylan Thomas: 1943; 13 minutes)

'..... she ran about in the village with the other children and played down by the stream. The children made toy boats out of big leaves. Soru liked to make little mud figures of people and set them in the boats. The boats always sank and the mud figures dissolved quickly in the muddy water, becoming swirls of tiny particles drifting downstream'.

(Le Guin, 1989. P131)

The first of these short passages is repeated from Virginia Woolf's (1931) stream of consciousness novel 'The Waves' in which words of plants, simile, fantasy and affect entwine as a symposium (Haraway 2016) of child and earth; the second is offered by Dylan Thomas (1943) on radio recalling the affective residual response to his space of becoming as a child, a space which became place, always changing, which grew up with him; the third passage is a brief piece of 'speculative fabulation' created by Ursula Le Guin, an author who was an inspiration to Haraway's (2016) posthumanism in which imagined futures, fantasy tales and creative acts can also be as the 3D Magic Eye picture (p84) in offering a different way of seeing, offering insight to alternative, post-

anthropocentric potentialities as we stay with the trouble. The juxtaposition of the three offers interpellation, becoming together and space time contraction, and the return to compost in the becoming silt. I have illustrated the collages of experiences that can be read diffractively and join these with the offering below from my field notes gathered during this research, of a morning of play moments and the chance agentic-realist intra-active encounters (Barad, 2007) of water, or playing with the sound in the intra-actions of assemblages of girl, dog, water, pipe, dictaphone. What follows is a snippet from my Landscapes of Play Field Research notebook.



Figure 9: Dog, human, pipe, water, bridge, microphone, camera.

It was a sunny day.....The girls are leading the way, the play ways unfolding as we walk. We avoid the hut, have crawled below a wall so as not to be seen, and emerge from the woods into the field, looking at witches' finger maize roots, rushing through a brief fairy fantasy in the tall grain, and stop to see a black beetle emerging from its soft silted hole in a meadow, watching each of its six legs in turn precisely lifted. At last a bridge is reached and the pipe straddled across a stream affords young human alignment alongside the bridge tunnel and just above the water, the stones are wet, the pipe bounces under weight of the child – I am told it is a place for shouting big echoing 'aaaahs', just because you can. These sounds are recorded in their fullness on the small Dictaphone carried by one of the girls (a research tool); "aaaaaaah" Aaaah aaah aaaah aaah.. The sound echoes, amplifies and weakens, balance is shaken, the Dictaphone drops from above into the swirling water "oh noglug.....shshshshs..... (giggles, gurgles). The swirling waters envelop the spoken word (still audible on the machine when replayed later) among the rushing sounds of water pushing fine silt shiny stone particles, drifting downstream mingled with the sounds of shocked laughter and a heady fizz of white noise.....shshshshshs....

(Landscapes of play research field record 23/08/2017)

All four pieces acknowledge, or exemplify (Spinoza, 1996) an importance in childhood place engagement out of doors whether affectively aware of being of the world, chaotic assemblage of material reality or socioculturally influenced fantasy. Although adult interpreted and owned words, these excerpts are placed to be read against each other (to diffract⁵⁰) and stimulate further insight. They may also diffract with the research related pictures preceding them, and the experiential activity offered. Understanding can be commuted by the reader in the space between the explicit and the vague⁵¹. The intention here is not that these are read with an eye on ‘what is the writer wanting me to know’ but that they commute to something new, the reader playfully ‘flying alongside’ (Hughes, 2011) the author, or the researcher alongside the child, or the child alongside dog, on grass, by football, on slope, and making use of the gaps between the bodies entangled in that particular assemblage, or haecceity. All three literary quotes about play appear to me to be illustrations of the breadth and potentiality of located topoludic⁵² engagement and creative, environmental intra-actions without prior purpose (which I may call play) they are there to be read differently, diffractively even, perhaps leaving a residual awareness of play-full differentiation. I too may read and view them again at different points, as I progress through the writing of this thesis, and I am sure different elements and alignments will emerge at each reading as although

⁵⁰ diffraction is a methodological practice of reading “insights through one another” (Barad 2007). A diffractive reading of data through multiple theoretical insights moves qualitative analysis away from habitual normative readings toward a diffractive reading that spreads out in unpredictable patterns producing different knowledge (Mazzei 2014).

⁵¹ Vague means both left open and indefinite, but is also a word used by Deligny (2015) that in French means to wander, and a ‘wave’ as in a water wave.

⁵² I have generated the neologism ‘topoludic’ as a result of awareness of agentic topological cues that prompt playful re and intra-action. These are not just affordances perceived by child but are stimulants for being different.

now fixed as black ink on paper, or screen, these are also fluid and temporal themes with potential to be read differently according to space-time mattering⁵³ in context.

So now from this, seemingly distracting, but hopefully diffracting, series of pre-ludes my hope is that you, as reader, are engaged and intrigued with what in material reality is merely black dots on screen or ink on paper, a collaging of ideas in diffractive potentiality, but as thesis 'thing' may become more agentic than a written vehicle for transmission of author ideas. It will consider children, childhood, landscape, material, affect and play, becoming thesis as the author is becoming posthuman, adopting that ethico-onto-epistemology of being, doing and knowing within an axiological understanding that ethical choices will be made. Will my thoughts and research interact with your understandings to dance differently in continued becoming, as authors such as Erin Manning's (2014) expression of the concept-making as performance has danced with mine?

⁵³ A subject at root is the synthesis of the present and the past in the light of the future (Deleuze 1991: 92-3)

3. On Play

3.1 Introduction to play.

'To play is to be in the world. Playing is a form of understanding what surrounds us and who we are, and is a way of engaging with othersI see play as a portable tool for being. It is not tied to objects but brought by people to the complex interrelations with and between things.....'

(Sicart, 2104:1)

Play is the ugly duckling of social science research (Fagen 1981:33); it is a convenient, but scientifically inexact term use to denote certain locomotor, manipulative and social behaviours characteristic of young (and of some adult) mammals and birds under certain conditions in certain environments.

'The term 'play' may be defined structurally or functionally. It may refer to a category of behaviour, to a behavioural or social relationship or even to a mental state.'

(Fagen, 1981: 21).

It is largely defined by what it is not (play being the opposite of work, for example)'. Brian Sutton-Smith (1997) and Smith (2010:39), whilst supportive of play, argued against what they termed 'the idealization of play' in which many theories about play, and indeed the very definitions of play, reflect the needs of adults to control children's behaviour rather than reflecting the actualities of the play events. Posthuman thinking potentially offers a path to a further, deeper understanding of play as process rather than play from the adultist perspectives of what it is (how it can be defined) what it does (for example in assisting physical development) how it feels (play as therapy or play as pastime) or how it supports the more valorised activity of work and learning (the rest in play being a contributor to greater productivity it seems).

Ward (1978) explored children's play out of doors, inspired by the Opies, and concluded that 'Children will play everywhere and with anything' (Ward, 1978:72).

Starting in the middle again I promote the point of this section, as Lester stated;

'is that life is sustained and sustains itself through play; it is a process of continuous, indeterminate variation to see what more can be done with life'.

(Lester, 2018:23).

Ah, so play is the 'elan vital' the prompt arising from the desiring machine that sparks, plugs in and works to generate the intra-active events.

Whilst much is known about play in educational settings less is known of where young children choose to play, unsupervised beyond the adult gaze and how those play spaces and places are experienced (Malone, Dunn and Tesar, 2020). There are claims that roaming distances are reducing (the most influential report here being Bird, 2007, and the comment about roaming distances in Sheffield reducing per generation), playing places restricted (Gill, 2007; Loebach, 2016) of childhood-nature disconnect (Louv 2008, Gill, 2011), and of negative impacts founded on anthropocentric mastery of the world (Braidotti 2010, MacFarlane 2020). Others claim the value of childhood-nature engagement and entanglement for wellbeing and world saving (Kahn and Kellert, 2002; Louv, 2011, 2016; Malone, 2016; Sobel, 2002; Taylor, 2013) a position challenged by Cutter-Mackenzie-Knowles, Malone and Barratt Hacking (2020) on the basis that children *are* nature and of-the-world (Taguchi, 2010).

In the UK it has been stated that there are two competing general narratives about children's unsupervised outdoor play close to home (Horton and Kraftl, 2018:215):

i) the rhetorical 'common sense'⁵⁴ understanding that play out of doors is good for health, creativity, well-being, and social development and ii) the concern that access to outdoor play spaces, and children's freedom to roam is becoming more restricted and that children are increasingly 'spatially limited'. These two understandings may have in part arisen from the requirement for local authorities to develop play strategies in the first decade of the 21st Century in order to attract funding from the Playbuilder Fund. Between August 2000 and 2001 the UK Children's Play Council had been commissioned to undertake research for policy development relating to children's play opportunities, funded by the then Department for Culture, Media and Sport (Cole-Hamilton, Harrop and Street, 2004). A part of the process was to make the case for need based on deprivation and lack of play opportunities. This would potentially lead to a negative narrative. Capital investment in play facilities reached a peak during 2008-2010 under a Labour Government releasing Playbuilder or Play pathfinder funding; money from the Big Lottery Fund's Playful Ideas strand (London Play Association, 2023).

These translations of play to adultist agendas and local financial requirements have shaped perceptions in the UK on what play outside of formal environments is and does. It may be that the pragmatics of this play funding (which was largely used on playgrounds, although beneficial to secure play spaces) has shaped perceptions on play. The rich tradition of play connectivity to location has potentially been reduced to quick fixes with future focus (Seath and Sturrock, 2019). There is now a significant amount of research indicating that children's opportunity to engage freely and playfully with their environments is reducing (Gleave and Cole-Hamilton, 2012) and continues to

⁵⁴Deleuze and Guattari refer to common sense knowledge as inappropriate 'everybody knows' understandings without depth of thought or conceptualisation.

highlight a range of benefits of early play and outdoor experiences of children including physical health, social skills, geographical and spatial awareness and independence (2012, Wheway, 2015).

Play can be difficult to research. The machines of measurement can impact on the phenomena being measured (Barad, 2007). Adult research interest into children's secret play has the potential to 'adulterate' (Hughes, 2011), or alter through intervention, the children's play being considered. On the other hand, children's play outside of home and formal organised environments deserves to be researched, illuminated and recognised, particularly if it is considered as an essential aspect of the ongoing world's becoming (Lester, 2018) . It is not an 'add-on' to the economic race, nor teleological tool to focus on a child's development to becoming economically active adult (in a culturally determined understanding). I conceive that Play is an act of differentiation in its own right.

Valued play spaces and free ranging opportunities may in some areas be completely lost to children in future (Wilson, 2012, Loebach and Gilliland, 2016) through house-building, adult planned and purposeful activity for children (Spilsbury, 2005), and the dominance of 'conceived spaces' (Lefebvre, 1991) designed by planners with a concern for safety may impact on the opportunities for children to play independently in their local environments (Gleave, 2012). Such restriction may be in direct conflict with understandings of play as an essential human drive (Brown, 2010; Hughes, 2011) and the fulfilment of these drives.

3.2 What do we know about where children go?

Although there is a growing interest in Children's lives and their spatial engagement, there is a gap in researched understanding of children's unsupervised play. Hart (1979) asked,

'Where do children go when they leave their homes every day; how do they differentiate the environment into places; and how do they find out about these places?'

These are key questions, still relevant today. Sobel (2002) wrote of how little is really known or written about 'why children gravitate to certain localities' (p vii). More recently, children's geographer Holloway (2014) acknowledges that from a quiet start there is now a growing body of research into, and greater understanding of, children's experiences of place and space.

Some of this difficulty in identifying where children go is due to the secrecy of many children's play activities. Opie and Opie (1984) had highlighted the value of children playing outside and beyond adult supervision, in the 'secret spaces', 'where no-one else goes'. Wilson (2012) similarly recognised that children engage in play in the increasingly limited 'liminal spaces' on the borders of society. She expanded this understanding with a claim that;

'Liminality broadly describes the state of a 'threshold'; a place of ill-defined purpose; a state of being 'between two existential planes'.

(Wilson, 2012:32)

She argues that the process of playing not only thrives within liminal landscapes, but *is* also a state of liminality. It happens on the threshold between the internal and external worlds of the child. Children playing together improvise creatively at the point of 'interface' between their internal lives, each other, and the physical space and environmental conditions around them. For Wilson Play is in an 'impoverished state',

but can be supported by respecting ‘the swinging gates that lead to nowhere’ and the streets and alleys children use ‘between home and the completion of an errand’, where trees and bushes might be found (Wilson, 2012:35).

At a time that children’s free play and spatial experiences are increasingly being given importance by key writers and speakers (Hughes, 2011, Gopnik, 2016, Wilson, 2012) there is a growing concern that free ranging play is under threat. Significant proportions of the population (particularly children and young people) may be ‘disconnected’ (whether physically, spiritually or emotionally) from the outdoor natural environment (Lovell, 2016:1). Ingold (2015) highlights that many experience the outdoors as a fake baseboard representing the richness of the outdoors, but without the full experience.

Children’s opportunities for play, and ranging distance for play have been severely reduced in recent decades for safety reasons (Gleave and Cole-Hamilton, 2012; Loebach and Gilliland, 2016a). Gill (2007:12) acknowledges a shrinking freedom for children as they experience a growth in adult control and supervision. He uses travel to school as a proxy for freedom from adult concern, claiming that in 1971 eight out of ten children aged 7-8 years in the UK went to school on their own but by 1990 this figure had dropped to less than 1 in ten. Although the percentage of primary children walking to school had not greatly reduced since 1990 at the time of the report, the number who are supervised during this walking had continued to rise from 64% in 1990 to 75% in 2010 (Shaw, Watson, Frauendienst, Redecker, Jones, & Hillman, 2013). Supervision of walking to school is considered an indicator of school aged children’s freedom to play. Although children may be supervised they do not all dislike that supervision, instead feeling safe to undertake their play activity enroute to school (Mackett et al., 2007). Despite this safety, however, unaccompanied children exhibit a greater level of exploratory

behaviour than those who are supervised (Mackett et al., 2007). In contrast to the figures above the Department for Transport (DfT, 2020, no page) reported a generation drop from 70% walking to school to 51% and has introduced a target of 55% of primary school children to be walking to school by 2025. However, the images accompanying the policy are of a crocodile of children supervised in their walking highlighting for me an awareness that I am researching outdoor play in a very much more rural area and there is a greater need for research into the nature of walking to school and access to play pockets⁵⁵ in more populated urban areas.

Wilson (2012) recognises a structural benefit in adult proximity to unsupervised play and suggests children could be both overlooked to enhance safety (for example by housing overlooking play spaces) and unobtrusively observed at the same time. She recognises the impact of a reduction in 'community' indicating that in the past many eyes would have seen but not interfered with children at play, children were relatively safe, but left alone under these distant watchful gazes.

Government policy for access to Green Spaces (Public Health England, 2020) emphasises the relevance of access to green spaces but largely for health (including social cohesion) reasons (unsurprising given the department producing the report). They reported that play is the main motivation for children's time spent out of doors and that this usually takes place in local parks, recreation grounds and playgrounds, 'and to a lesser extent in woods, nature reserves and the wider countryside'(PHE, 2020).

For evolutionary ethologists play exists in human and animal (or more-than-human) to both hone life skills and support the development of social bonds. The function and

⁵⁵ I use this term 'play pockets' in recognition that there are often small undeveloped pieces of land which are usefully engaged with by children as play spaces and places.

evolutionary significance of play is not about power dominance or social cohesion but individual adaptive development according to context. Different environments call for differentiated control of particular behaviours and so, through play, adaptation and evolution occurs (Fagen, 1981). This evolutionary approach to play was also highlighted by biological ethologists such as Hinde (1987) and Burghardt (2005) who acknowledged the innate 'play drive' to be a risky element of juvenile mammal and human life, but recognise it as essential to a long and successful one. Ethology and play has fallen rather out of favour, but I was re-drawn to it as a result of reading Deleuze and Guattari's mentions of Ethology.

Burghardt (2005) defined play through five key features which are presented below and are contained in most contemporary definitions of play;

1. It is spontaneous, rewarding and intrinsically motivated
2. The player is to some extent protected from the normal consequences of behaviour
3. The behaviour consists of actions or thoughts expressed in novel combinations
4. Individual actions or thoughts may be performed repeatedly, incomplete or exaggerated relative to non-playful behaviour.
5. ~~Play is an indicator of well being and only occurs when the player is free from illness or stress.~~ (I cross this latter out as it has been identified that children do play in war zones and through humanitarian crises (Feldman 2019 and Chatterjee, 2018).

Bateson and Martin (2013, p12-13) challenge Burghardt's (2005) claim that *all 5* have to be present for something to be 'play' but added a sixth criteria which aligns with the exploration above about the 'affect' of play in that it is:

6. A particular positive mood state in which the individual is more inclined to behave (and think) in a spontaneous and flexible way.

In other words, to play is also to be 'playful'. Csikszentmihalyi (2002) also argued that Play is an experience in which 'the actor's ability to act matches the requirement for action in his environment' (Csikszentmihalyi and Bennett, 1971:45) and offered the

concept of 'flow', and play in flow as 'a state of capability, joy, creativity and total involvement'.

There are few definitions of play in common usage that do not draw on the above understandings together with these words of Huizinga (1950/2014:)

'.. we might call it a free activity standing quite consciously outside 'ordinary' life as being 'not serious' but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest (or gain).....'

Ever since Huizinga's words we have been able to 'find play under nearly every rock in the landscape' (Feezell, 2013), and may now consider that there is even no 'outside' to ordinary life, everything being folded from a plane of immanence (Deleuze and Guattari 1987/2012). Huizinga positively identifies play as a magical world with its own rules and goals, freedom, and escape. Affect and absorption go hand in hand. *Homo ludens* (playing man) Huizinga (2014) says cannot help playing if the conditions are right.

A more recent definition, and one that will be used in this study, incorporates children's right to play and takes us back to the ethologists claim that play is a 'drive':

'Play is a process that is freely chosen, personally directed and intrinsically motivated., children and young people determine and control the content and intent of their play, by following their own instincts, ideas and interests, in their own way for their own reasons...All children and young people need to play. The impulse to play is innate'.

(Playwork Principles Scrutiny Group, 2005 cited by Gleave and Cole-Hamilton 2012:4).

By this definition play is not merely non-work, frivolous, or outside of normal life (Caillois, 2001), it is not a tool to support development or learning, but is a core function of life prompting adaptation to context. Children have the 'right' to play in a way that is 'freely chosen' (i.e., not dictated by others).

The ethological indicators of play are useful indicators of the behavioural representation of the phenomenon and have been translated over time to incorporate power tensions between adults and children. A political construct of a playing child consequently arises

in these research discussions, which recognises concepts of children having an innate drive, capability and agency, but who are bounded by dominant adult structures (Corsaro, 2015, Ergler, 2016). A child may not merely play, but 'play with', and perhaps resist and adapt, accepted culture in their locational activity (Huizinga, 2014). This resistant play activity offers potential for creativity and adaptation, and often annoyance to adult agendas that may be disrupted as a result.

Play may lead to evolution and adaptation and some also argue that play is an indicator of past evolutions. Hall's (1904) 'recapitulation theory' of play identifies kicking, throwing, hitting and hunting games as emergence of a latent vestige of past times, when such activities were valid for hunting and defence (time mattering?). Hughes (2011) also writes of 'evolutionary play' and Griffin and Tyrell (2003:228) highlight the fundamental 'wisdom of the species' held in stories handed down through generations as universal experiences. They refer to adventuring away and coming back changed, generating living spaces of caves and dens, or stories of water and the elements. Sobel (2002) also writes of children making dens as something quite primeval, but also evolutionary and transitory. Sobel's children are not just acting out past den and home-making drives, but are using those spaces to detach from family and transition to independence.

Another construct relating to play, that of the bio-ecological child (Bronfenbrenner, 2005) offers understanding that the child may both influence and be influenced by the socio-cultural *and* physical environments around them. Prompted by innate drivers for action they operate as players within an influencing environment or 'ecology' that offers prompts and requires return responses in a ripple effect back and forth. Although Bronfenbrenner's (1989) Bio-ecological model is largely considered to be a social

systems model of childhood he recognised the ecological return; as the child is influenced by environment so environment is influenced by the adapting child, and this response is temporal and reciprocal. Such constructs do not define play, but may be facets of play that can be seen, after all it has been claimed, 'play has its own essence, independent of the consciousness of those who play' (Feezell, 2013).

Malaguzzi, speaking to Gandini (2012:63) said of education that its purpose was to narrow something so big (the hundred languages of children) into something so small (the planned and purposeful curriculum outcome expectations). It seems to me that we can apply the same thinking to play. It is a small word that is trying to narrow down something so big into something definable and manageable (Andrews, 2012), but in doing so effectively disrupts the process that it is. A return to definitions of play may be limiting and what is required instead is an opening out of the concept and consideration of it as a process, expansive, procreative, lively, promoting and engaging with the wave of differentiation.

Taking this idea further Lester (2018) argues that 'life possesses a vital tendency towards dis-organisation and playing is an exemplary process that actualises the creative desire that makes life possible'(13-14). He is arguing from a Deleuzian (Bergson influenced) perspective for a vitalist perception, a 'momentary and pleasurable form of differentiation/individuation that oversteps the boundaries established by molar lines' (Lester, 2018:24). Fundamentally Play, with 'infections vibrations and energetic morphing' (Bennett 2001:168) is evidence of an attachment to life itself, of being connected in an affirmative way to existence, to knowing 'it's good to be alive' (Lester 2018:24). The playing person knows they are alive through the affective return.

How do you 'evidence' such vitalist conceptions? You cannot it seems, they are more a philosophical awareness, a doxa or belief rather than evidenced understanding. If we think of play as knowing by doing-with, and that it includes the application of thinking and experience as part of the event, in the process of which the child is becoming-subject-in-intra-action with landscape also affected, and from which there may be residual Bachelardian (1994) affect, then we might understand this transcendental empiricism as appropriate for researching play. This is a move away from noun-based signification of unity and subjectivity ('oh look there is a playing child doing fantasy play', for example) to a creative and engaging process of life in its ongoingness as a series of diversions of intensities and specificities, a becoming-with, in intra-active process through which subject and object emerge but remain constantly in flux.

This means that the researcher is merely a part of the assemblage of ongoingness, including shaping the event by being in it, but not with a priori expectation of outcome, or taxonomies to apply. Given that the Cartesian binary approach is so embedded in academia one has to remain unfocused in order to see the new reality (recall the prompt to defocus to see the 3D image in the Magic-Eye picture on p84).

I choose to add diversions to this mix of understandings about play in acknowledgement of Vilhauer's (2010:22-23) interpretation of Gadamer's conceptualisation of play as a point of differentiation, a wobble, a play on the machines of life, with a conclusion that play and its diversions from the expected running is a commutative process of vitality itself. Vilhauer, however, considers that commutative process as being a hermeneutic one between conscious subject and object such as a painting in which the artists meaning is not known to the viewer and so a new subjective meaning emerges in the moment of the viewing. Deleuze extends such hermeneutic considerations to one in

which the moment is agential and contingent with the ongoing continuity of the world, not just the human consciousness (Deleuze, 1988:93).

Although Gadamer and Deleuze represent opposing poles of thought in many ways, the one informed by Heidegger's Dasein, the other by Leibniz's Monadology they both share a strong temporal conception (Tatla, 2009:270) of things as emergent through a form of commutative process. The subject is an autonomous entity for Gadamer and understanding comes before interpretation, with the conception of things generated in a space between, whereas for Deleuze the event is the moment of generation of subjectivity in an assemblage in process. Gadamer's perspective on play as presented by Vilhauer (2010:32) is summarised thus:

'It is not a subjective act or attitude but is, rather an activity that goes on *in-between* players and reaches beyond the behaviour or consciousness in any individual player. Play has a life essence or spirit of its own that emerges from the players' engagement in their to-and-fro rhythm'.

The activity of play results in players becoming absorbed in 'a dance of mutual responsiveness that takes on a unique pattern, and that it is this pattern of movement that becomes the meaning of play. She continues, directly quoting Gadamer:

"The players are not the subjects of play; instead play merely reaches presentation (*Darstellung*) through the players and it is the game itself ...that is the subject or subject matter of the play, and this game has the character of an 'event'....Play, then is fundamentally something larger than the individual player or his mental state. It is a pattern of movement that surpasses the players, and is something to which both players *belong*'.

(Vilhauer, 2010:32)

Essential to play for Gadamer is also seen in common use of the word *play*, 'when we speak of everything from the play of light, waves or colours to the play of gears, forces or words, ...(it is of) a spontaneous back and forth movement that continually renews

itself'. And further play is less a thing that a person *does* and more an event in which a person becomes caught up; 'all playing is a being-played' (Gadamer 2000:106) or perhaps it is play playing the players? Note here too that play has moved beyond the human dimension to gears, leaves, wind and light, objects, elements....to matter.

Despite the different ontologies at work, I wonder if this is so different from the commutative ontology of Deleuze and Guattari that refers not just to play but an ongoing becoming and *elan vital*. In 'Immanence, a Life' Deleuze (1995/2001:30-31) writes of very small children who are infused with an immanent life that is pure power, filling out a plane of immanence or the elements of the transcendental field free of empirical determinations, 'One is always the index of a multiplicity, an event, a singularity, a life.....' and

'A life contains only virtuals, it is made up of virtualities, events, singularities. What we call virtual is not something that lacks reality but something that is engaged in a process of actualization following the plane that give its particular reality. The immanent event is actualised in a state of things and of the lived that make it happen. The plane of immanence is itself actualised in an object and a subject to which it attributes itself. But however inseparable an object and a subject may be from their actualization, the plane of immanence is itself virtual....Events or singularities give to the plane all their virtuality, just as the plane of immanence give virtual events their full reality'.

(Deleuze 1995/2001:31)

So, from a Deleuzian perspective too we might consider play as something that reaches presentation through the players, larger than the individual player, but the players are not singularities but become engaged with a pattern of movement in an entangled intra-active event emerging from a virtuality full of sparks to be plugged into, generating movement, and patterns of movement, of intensities and efflux, a heterogenous event.

To return to the research theme: this piece of qualitative research aims to explore young children's play experiences close to their homes whilst they are '*not under the watchful gaze of adults*' (Spilsbury, 2005). It focuses on young children aged under 12 living in 6 semi urban/rural housing estates in South West England. The considerations are: Where do children play close to home? What are these play landscapes, spaces and places and how are they perceived, engaged with and enacted? How might we rethink play as posthuman, and finally, what does being a posthuman researcher do for play research?

Play can be difficult to research. Adult research interest into children's secret play has the potential to 'adulterate' (Hughes, 2011), or alter through intervention, the children's play being considered. Deligny (2015:Loc 6) also noted of his recalled play on a construction site,

'if the observer had been present, his gaze alone would have disturbed the architecture of trajectories and should his presence have lasted or recurred the 'vague' space would have become vacant'.

On the other hand, although complex to research, and potentially disruptive, children's play outside of home and formal organised environments deserves to be researched and recognised as a) it is an important aspect of engagement in the world's becoming and b) valued play spaces and free ranging opportunities may be completely lost to children in future (Wilson, 2012, Loebach and Gilliland, 2016) consequently reducing the assemblage potentiality. It has already been highlighted that house-building, adult planned and purposeful activity for children (Spilsbury, 2005), and the dominance of 'conceived spaces' (Lefebvre, 1991) designed by planners with a concern for safety may impact on the opportunities for children to play independently in their local environments (Gleave, 2012). Such restriction may be in direct conflict with

understandings of play as an essential human drive (Brown, 2010, Hughes, 2011, Lester, 2018)) and the fulfilment of these drives.

3.3 Play Spaces

As we have just seen, there is a wide body of understanding that all children play (Ward, 1978) everywhere, and with everything. There is a universal right to play as enshrined within Article 31 of the United Nations Convention on the Rights of the Child (UNICEF, 1991), although a rights-based approach is limited in relation to a process based ontology it is still a breakthrough protective piece of agreed convention, in many places enshrined in legislation.

As with education, each person coming to this topic will have some experience of their own play, play engagements, restrictions, freedoms and so on. However, Brown (2013:143) prompts a widening out of consideration of play, to play spaces, and acknowledges that spaces where children play are not just organised parks and playgrounds, but includes 'natural areas'. In my experience, and supported by this current piece of research, spaces where children play are not just designated spaces, but might be farmland, footpaths, urban open spaces and wide pedestrian thoroughfares, unclaimed parcels of land, little copses, car parks and so on. Brown's (2013:143) advice that it would be simple enough to 'identify play-space as exactly that and guarantee its designation into perpetuity' consequently seems to not acknowledge the complexity of children's choices of play activities and spaces. Rather acknowledgement of the complexity of the term and locations for play demand an open understanding of what play *is* and where it occurs.

Play can be considered in binary terms as everything that is not work, nor serious (Huizinga, 2014). Being defined by what it is not, is concomitant with a common understanding that children are also socially constructed as not yet adults, and this binary position and straited constraint potentially gives scope for freedom and lines of flight. In the definition above there are also indications of other qualities of Play as intensely absorbing and deeply meaningful asserting play as facilitating deep concentration and involvement precisely because it is distinct from what might be called the 'paramount reality of everyday existence' (Csickszentmihalyi, 2002:72).

In contrast to such admiration for play and depth other authors and researchers' critique that play as conceived today is not a transhistorical, trans-geographical phenomenon, but a cultural construction that shifts and changes, adapting to the social, cultural and economic imperatives of its time (Connor, 2005:6 cited by Nelson and Mattes, 2017:277). Nelson and Mattes' contribution explored play and the materiality of Lego™, contrasting the dominance of the Disney™ style marketing with release of a Lego film with positive global messages whilst the Lego is built of Shell™ branded oil. Play as we understand it today, they argue, is also a product of the neoliberal capitalist society and this subtle appropriation of concepts of play by a toy company undermines the understanding of play's 'special powers' acquired by it being a part of the alternative to work, with work being socially constructed post industrial revolution as a focused and serious activity. The takeover of play by a priori understandings offered by marketing must be disrupted in order to return to a position in which play illustrates a 'vanishing world of spontaneous, unchecked, self-delighting impulse' (Connor 2005:6). On the other hand, that conceptualisation of the special powers of play may be a little romantic,

for, as Connor argues, play conceived as freedom is perhaps merely an accidental by-product of the dominance of the conceptualised world of work.

Play can be considered by what it is not, or by what it does for the developing child, how it might be characterised by classifications (the various taxonomies of play)(Hughes, 2012), or how it feels (therapeutic play) (Sturrock and Else, 1998/2001). However, I wanted to work with both empirical data and philosophical ways of thinking that appeared to align with my understanding of play as a process, experienced as a vitality and fluid pursuance of lines of interest (Lester, 2018). I choose to work with the writings of Deleuze (1987/2012) , Barad's (2007) agential realism and understandings of vibrant matter (Bennett, 2010) to encompass the more-than-human and work with a concept of play as ontologically distinctive, but of process in nature. This is a challenge to research integrity as the research design must also be fluid in line with new ways of thinking that seeks to disrupt the canon of Cartesian dualisms and binary thinking. This was a prompt to find new ways to engage in the ' non-methods of post-qualitative research' (St Pierre, 2019). In order to foreground data that glows (MacLure, 2010) I look to illuminate and exemplify vignettes of play and material intra-actions through following rhizomatic roots to explore landscapes, material prompts, and stories of bodies, agency, motion, intensities and flows, the creative entanglements of play; sometimes child, field, mud, rock, rust assemblages at other times adult researcher, data, child, man-made landscapes and machinic assemblages.

3.3.1 Play as research: theoretical construct

The study has been from the outset focused on 'Landscapes of Play', being influenced by my experiences as a playworker in adventure playground, the work of the Opies (1984) collecting information on children's games outdoors and Lester's (2013) paper,

'Playing in a Deleuzian Playground'. This becoming thesis was initially conceived as a piece of phenomenological research, participatory in nature, and focused on the play spaces and the child interpretation of the play phenomenon (asking where do children choose to play, what do they do there and how do they interpret their play experiences out of doors close to home?). Cloaking the mantle of researcher and engaging as a curious homo ludens seeking not to 'adulterate' (Sturrock and Else, 1998/2001) play, I set out (between 2016 and 2019), to observe, engage with and identify where and how children (aged between 3 and 12 years) play out of doors, close to home in 6 housing estates/locations in a town in the South West of England. In practice, although participatory, the initial research approaches appeared insufficient, adulterating and limited. A shift to posthumanism as perspective and a rethinking of play as event prompted ludic methodologies that began with found materials in collage through clay plaques (merzplaques) and collages (merzboards) and continued through walking and playing methods. Children became not 'participant' but 'peer', and shared their play as events in motion recorded with camera, voice recorder clay and sticky boards (and researcher) all part of the agentic ludic assemblage.

The ethico-onto-epistemology of a process approach in which 'becoming' unpredictably was the underpinning theory, drawing on Deleuze and Guattari's (1987/2012) development of the monism of Spinoza and the elan vital, intuition, and time considerations of Bergson (Deleuze,1988). These are further developed by the concepts of sympoiesis from Haraway (2016) with her multispecies manifesto, Barad (2007) with agential realism and Bennet's (2010) agentic matter. Deleuze wrote of his methodology as 'transcendental empiricism' which highlights a commutative process reliant on intensities and transitions between philosophical thinking without a-priori

conceptualisation, and empirical experiential sensual understanding and consciousness emerging in a plane of immanence where subjectification occurs in the process of an event.

The empirical elements of this research offered rich illumination of children (and adults and the more-than-human) playing where they can close to home, with play events occurring in small liminal spaces, pockets of green spaces, where light flickers and water flows, where concrete prompts, rusty metal glows and landscapes are experienced as performed. Drawing on the work of Deleuze, Barad's (2007) agential realism and ethico-onto-epistemology, Haraway's (2010) playful 'speculative fabulation', and Bennett's (2010) work on vibrant matter, moving towards a 'becoming posthuman' play researcher positionality that is inclusive in its decentring of the adult human to acknowledge the more-than-human and child not 'on' the green, nor 'in' the woods, but of-the-world (Lenz Taguchi, 2010) and play-worldling in the places they find themselves. This rhizomatic journey to new ways of thinking about play both drew on and challenged enlightenment binaries, and techniques of critique and meta-reflection and prompted poststructural and new generative ways of thinking; both with and through, play-scapes and theory-scapes. Playing with text and experiences on paper is also diffractively ludic as being-becoming intensities as texts such as the 'Play Cycle' (Sturrock and Else, 1998/2001) can be read through data vignette and wave theory illuminating alternative understandings of play as commutative, cyclical, always in motion yet always in place.

I remind here too that this thesis also illuminates the researcher journey as 'becoming posthuman' researcher, which seems something of a tautology and illustrates tensions in academic research and authorship from new material, postmodern and posthuman perspectives. As the thesis reveals researcher shift and increasing lucidity to creative

critical becoming-posthuman-minoritarian researcher (acknowledging the ethic of choices, a certain creative neophilia and respect for the more-than-human) the thesis becomes no longer about presenting critical breadth, but rather is actively seeking alternative ways of seeing and thinking; not either: or, but ‘and....and...’ (Deleuze 1987/2012:114)and alternative ways of thinking. I have chosen to think of collage as a part of the process as this both allows for the ‘and....and’ and potentially leaves an element of chance, and commutative space between the bodies offered.

There is a tension between academic tradition and such intra-active ludicrity. I am sitting on a fence, both as player and researcher, seeking new ways of thinking yet constrained by thesis expectation, adulthood, and my own self-construct as researcher that I struggle to release. An author as creator does have voice, but Deleuze reminds us to ask not what this thesis is, but what does this *do*? In order to ‘do’ the thesis closure must be left open. To leave it open leaves things unsaid, without closure, potentially without new knowledge claimed. In place both Barad (2007) and Haraway (2010) remind us that it matters what choices are made, what stimulants stimulate responses, *and what stories are told..* Deleuze emphasises the importance of what presents itself through event. In my becoming posthuman I can voice that it matters that we illuminate that spaces designed for play are peppered with structured instrumentalism, molar, striated, adulterated yet prompting of liminal, generative, nomadic playful behaviours and more-than-human engagements. It matters that clear social distinctions are illuminated in the stories told, highlighting the contrast between childhood-nature-play assemblages and urban neoliberal childhood-plastic-vehicle play assemblages and what these might ‘do’ .

3.4 The use of 'Play' and understandings of natural ecology.

The above discussion indicates the potential of play emergent in affective spaces to 'anchor' the theory of research and child in space-time-mattering as they play at the borders of the physical, the conceptual and the social selves. In acknowledgement of the breadth of use of the word play in its wide encompassing of all that is not work I will from here choose to use the word 'play' for all children's self-directed activities. This also highlights the need to respect and to advocate for their right to play and so maintaining use of the term 'play' has a political connotation.

3.5 Play out of doors and on playing field and street.

As I stepped outside of my academic door into the play researcher's playing field, I was aware that although there is a growing body of research into children's geographies and play experiences (Horton and Kraftl, 2018), it is often stated that little is still known of why children gravitate to certain localities outdoors and what these places mean and offer to them (Holloway 2000, Weir, 2023). Adult powerful influences on children's lives mean that play is often conceived as a tool to support 'playful learning' or 'purposeful play' in children (Ofsted 2017), with 'play' becoming subsumed by adult agendas. This is a very adult anthropocentric position based on conceptions of past stability, teleological understandings and predictable and controllable futures. My perspective is that play is not something to be broken down into types and classes in an arboric form, but that it has a particular ontology of its own (Feezell, 2013) being a process of vitality,

differentiation, flow, variation and challenge; a process of creation. More recently there are authors and researchers revealing a more monist ontology and fluidity of becoming who offer that play is not a 'thing' to be categorised but a process to be exemplified and acknowledged as such a process of generation of vitality and difference (Lester 2016, Russell 2018, Rautio and Winston, 2015) and they drew me into the work of Deleuze and the posthuman approach.

There are key questions, still relevant today, about choices of places to play and engage. Sobel (2002) wrote of how little is really known or written about 'why children gravitate to certain localities' (p vii). Castonguay and Jutras (2008) identified through a photographic research method that children photographed liked parks and playgrounds, and places with vegetation, but that their fears were of stranger danger, dark alleys and topographical barriers. Some of this difficulty in identifying where children go is due to the secrecy of many of their activities; the Opie's (1985) concern for children playing outside and beyond adult supervision, places 'where no-one else goes'. Some free ranging play is about children 'grasping' space and creating places that are then loved and recalled, perhaps even forming the individual (Casey, 2001). Opie and Opie (1984) and Hart (1979) indicate children's interest in secret spaces and the feelings that such spaces can elicit. Play can be supported by respecting 'the swinging gate that leads to nowhere' and the streets and alleys children use 'between home and the completion of an errand' where trees might be found (Wilson, 2012; 35).

3.6 Play as posthumanism, life's wobble.

This recognition of play as actions independent from consciousness and singularity offers a path to a further, deeper understanding. The phenomenon of play in landscape may also be generously explored through a post-humanist positionality.

There are many forms of posthumanism, some informed by cybernetics and the growth of technology (Ferrando, 2020). Most recognise the reduction of the centrality of the human species, hence 'post-human'. There are a swathe of feminist posthuman academics, researchers and writers who recognise the current period as the age of the 'anthropocene'; of an over emphasis on the human as central to the world, life, and the future (Braidotti, 2018, Haraway, 2016, Barad, 2007). 'Man' has not done well in caretaking the environment and so, it is argued, should experience some hubris as we seek a different way of being, a different way of thinking about existence. The purposeful, thoughtful reduction of the dominance of the perspective of the rational human at the centre both enables opportunity for voices of minorities to come to the fore, and allows for an exploration of the embodiment of experiences and responses to the materiality of things (Barad, 2003, Braidotti, 2013a).

Gibson's (1996) 'affordances' have long been applied to children's activities to understand play responses, but represent the coming together of the nature of the object or thing and the viewer's culturally stimulated interpretation of it. So a slope will lead to a particular walking response, a tree stump might be used as a seat. The post-human view of material agency is one in which non-human things are able to influence actions (Änggård, 2015), not merely being stimulants for observer response to cultural expectations. Thus, whilst a log can be something to sit on, or 'ride' (cultural

understandings and affordances) it can also enable the child to engage with its materiality, feeling or peeling the bark from it in an engagement with the thing itself. The human is not a master of, nor lone explorer to, central to and controlling action, with subjective responses to things around them (both human and non-human), with whom or which they come into contact. Rather, life is a process, a 'dynamic, self-organising structure' (Braidotti, 2013b) in which biological and non-biological matter, players and plants have a role. Perhaps grass is designed to be picked by children so that seeds are spread (as a child once asked me during this research)? The grass then has agency. This complexity 'life theory' can appropriately align with discussions of play as a phenomenon (Lester, 2013) and would acknowledge the child's response to the elements, the roughness of a tree-bark, the shape of a stump (Waller 2007). With such a concept the potential play space is no longer merely an 'empty abstraction' (Lefebvre, 1991) or a 'place' imbued with human culture requiring a particular response (Preston, 2003). Post-human and Deleuzian influenced understandings are liberating in releasing concepts of play from adult ends and perceived organised futures (i.e., of child as future economically successful adult as worker).

Approaching play from a process ontology perspective leads to a consideration not of what play 'is' but 'how does it work' or 'what work is this doing'? Working from the middle in this way has enabled a consideration of molar striated spaces, molecular place making and material and more-than-human engagements. It evokes that play is about agency, differentiation, multiplicity, heterogeneity⁵⁶ and becoming as the world is

⁵⁶ Heterogenesis in Deleuzian terms is about growing and difference as multiplicities continually transform themselves into each other and cross over. We are already heterogenous as humans are already symbionts; 'each multiplicity is already composed of heterogenous terms in symbiosis, and ...a multiplicity is continually transforming itself into a string of other multiplicities, according to its thresholds and doors' (Deleuze and Guattari, 1987/2012:290-291)

becoming, always in flux, a vital energy disrupting and setting flows in motion that continue long beyond the horizons of current vision. From such playful doings new subjectivities, understandings and concepts may emerge (Deleuze and Guattari, 1987/2012).

4. Thinking Through Childhood

4.1 Thinking through childhood part 1.

This is a study primarily about *children's* play, consequently I need to address the troubled notion of childhood and portrayal of childhoods. This plateau considers how it might be possible to both disrupt the conceptualisation of child that 'everybody knows' (Deleuze and Guattari, 1983/2020:172) and acknowledge that various children's lives and experiences are unique. The concept of a child is a political construct usually considered as bounded subject, age delineated and becoming adult. The age delineations of 'childhood' are contested with differing legislations indicating different 'end ages' (does childhood in the UK end at 16, 18, or 21 or 24 for those with disabilities?)(Gov.Uk 2022a) . The concept of child's vague age boundaries is very clearly illustrated by Nxumalo's (2020) consideration of the found child: woman with amnesia whose age could be 13-early 20s but as it is not known sets a structural dilemma of how should this person be considered, as child, or adult. This illustrates clearly that competence and capability is not a determinant, but social construct leads to constructed response and maintenance of child or adult identity.

But we may not need to age bound or even label childhood as there is no universal childhood, but specific experiences. The more fluid ethico-onto-epistemological approach of a Deleuzian influenced posthumanism suggests a decentring of adultism, a

reduction in signifiers, and a moving in and out of focus in order to think differently about how children are generated as entangled within processes (Kraftl et al., 2020) rather than what children are.

Aries (1996) had emphasised that childhood was socially constructed, promoting a shift away from medical positivism. Just as 'play' is a limited word for all that it encompasses, so concepts of 'child' are largely limiting labelling and fixing. Many conceptualisations of childhood present child as unfinished, often not fully capable or agentic, psychologists' understandings of the unfinished mind (Piaget and Inhelder 1969) for example. There are others which present the capable child and promote opportunity for risk, particularly in play (e.g., Van Rooijen and Newstead, 2017), but still define the child as other than adult, defined, like play, by the binary of what it is not.

Children are often dependent on others and have often not been appropriately socially included in their own right, for example parents' views are often promoted as representative of the child's (Christensen and Prout, 2002). The development of human rights, including the United Nations Convention on the Rights of the Child (UNCRC) in the late 1980's (UNICEF 2022) promoted respect for the views of the child and their right to play, freedom of speech and to receive and input information. However, the UNCRC (UNICEF 2022) is still developmental and promotes a particular view of the child as both vulnerable and a 'still maturing adult-in-the-making' (Murriss 2016:83). I acknowledge the UNCRC was of great value and a huge leap forward at the time in elevating a child to rights-bearing individual. Murriss acknowledges that the focus has now shifted to matters of discourse and language, the political and the cultural following poststructural analyses of the complexity of childhood (e.g., Dahlberg, Moss and Pence, 2013).

Deleuzian concepts of child were also surprisingly often limited and contained stereotypical underpinnings, drawing on the noble savage idea where he refers to children as operating bodies without organs (Deleuze and Guattari, 1987/2012:296-8) although he valued this conceptualisation of the freedom of childhood. So, children can operate without the cultural and theoretical baggage of adults and have capability, but are still highlighted as other, the child who 'everybody knows' (1968/2020: 172). Now there is also a call to freedom from expectation in the process ontology of becoming by highlighting difference in children's experiences, calling out and enabling minoritarian acts.

The feminist posthumanisms of Barad (2007) and Haraway (2016) challenge the representation of existing things through label and language, the signifiers; instead implementing molecular practices of engagement and mattering, relationality and event. Working from a monistic virtuality after Spinoza (Deleuze, 1988) has a level of equity of agency and disrupts binary opposition. Murriss (2016:91) promoted a new label to identify child as an acknowledgement but also disruption with the use of 'iii'. She acknowledges that humans inhabit human discourses that cannot be removed, except where new neologisms are introduced. The promotion of 'iii' foreground child subjectivity as body-mind-matter, a part *of* the world, not a lesser being *in* it nor as an object in space and time. This neologism 'iii' for child she offers as promoting a continuous material discursive challenge to the binary discourse that everybody knows.

A child is,

'an entanglement, constituted by concepts and material forces, where the social, political and biological are intertwined' and child becomes an 'unbounded mangle – an inhuman materialdiscursive becoming "iii"'.
(Murriss, 2016:91).

On consideration of this complexity, for the purposes of this research I have decided not to adopt 'iii' (Murriss, 2016) but will continue to use child (although a term that everybody knows, but few think deeply about). In so doing I will have destroyed Hart's (1992) ladder of participation which, whilst based on human rights, and well-intentioned and useful in the time that it was written, still *others* children who are invited to participate at different rungs on the ladder of adult engagements. I will know through telling minoritarian stories that I am implementing an ethico-onto-epistemology that seeks to facilitate and acknowledge children's varied lives and experiences, whilst also seeking to become minoritarian researcher to meet at the plane of immanence.

I acknowledge that children have agency as all have agency in this ongoing process of becoming-with and entangled with the more than human that is also absorbed into the bodily sympoiesis as becoming with soil, air, atmosphere, a link to Casey's (2001) world within us. However, I consider too that the use of the term 'child' is important not to lose the focus for rights advocacy where it might be needed in the soup of the virtuality, just as we have not lost the use of 'feminist' or 'woman' in the fight for equality in posthumanism.

I work with Allen's call to 'search for the breach that permits the silent specter to enter our midst' (Allen, 2009: 15) and work with data in young children's voices and actions that challenge assumptions about lack of competence in complex situations. Allen (2009) highlighted, like Murriss, that the premise of children's rights of participation needs to be examined seriously as it is tied in with predominant constructions of ideal childhood, linearity of development and deficit thinking about children. Adults are complicit in both creating opportunity for voice and silencing them. Braidotti (2019: loc216) writes of the need to acknowledge the 'missing peoples' but it has been noted

that children are omitted from Braidotti's list of 'missing peoples', but I choose to replace them there. I think about theories of rights and supporting play as 'empowerment' and what this means in the light of Deleuzian process philosophies of immanence. In the virtuality of immanence there can be no 'right' of empowerment as the child as player should not have been disempowered in the first place in an ontology of becoming, worlding, thinking by playing in a virtuality of potentialities. Who am I to 'empower'? With the emergence of posthumanism there is a growing argument that Human Rights emancipatory positions have been appropriated by the marketplace economic concern and by a neoliberal perspective on the world that might be considered 'advanced capitalism' (Somerville, 2017). The ethico element of the onto-epistemology comes into play here with an integrity and honesty that rises above the marketing of child capability within advanced capitalism.

The process of playing is in itself multi-layered being perceived as disruptive, deterritorialising, agentic. Children at play have been variously defined by policy and academic writing as anarchic, troublesome, outsider to general (adult) society, in line with Hobbesian (2016) understandings of children as unformed but needing to be bounded and controlled for their own good, sometimes pathologized and considered as a lesser 'not yet adult', sometimes subject to adult conceived direction (Corsaro, 2015). The locating of skate parks and teenage playgrounds away from housing to direct children's areas of travel is in line with such an understanding. I choose to acknowledge childhood is a constructed, structural feature of all societies (Hendrick, 2008) distinct from adulthood, but that the concept does not have to remain there. Difference can be highlighted and traditional concepts disrupted. I recognise child as positively other than adult, becoming in the way that we are all becoming, capable and agentic, and impacted

by powerful adult social constructs and intentions, and state apparatus. However, in what may be seen as a level of confusion, I recognise that a child is a concept that 'everybody knows' but generates an element of self-construct in the knowing. The research position adopted here will, whilst challenging the notion of child, also advocate for children's potential to take minoritarian action, to have a say on the things that affect them (UNCRC, 2013) recognising that children are impacted by adults, but capable of operating as social actors in their own right though they may not be practiced in doing so.

Braidotti highlights (2019: loc216) how 'Class, race, gender and sexual orientations, age and able-bodiedness continue to function as significant markers in framing and policing access to 'normal humanity' and that to adopt a critical posthumanities approach provides a 'frame for the actualisation of the many missing people, whose 'minor' or nomadic knowledge is the breeding ground for possible futures'. She asks who is the 'we' whose humanity is now at stake and what 'we' could we become as a species in 'interlinked material cultures'? (Braidotti 2019: loc 167)

Understanding child as a 'human/nonhuman entangled phenomenon' (which Murriss terms 'iii') helps us to move away from deficit discourses about child and childhood. This decentres the concepts of child as a signified being (with stable personality characteristics and essence) whose age determines her (or his, or their) abilities which can then be assessed and assumed as standard. Murriss' shift in subjectivity is not 'a denial that there are individual children who exist' but that 'the reconfigurations resist erasures between past fixtures of language and construct'..... 'The past and the future are always already threaded through the present and childhood is not something adults leave behind' (Murriss, 2021:81)

'... the notion of the posthuman challenges us to decentre ourselves and the children we are researching with, to pay more attention to the wider worldly relationships that we are *all* enmeshed in'.

(Arndt, Semenec and Diaz-Diaz, 2020:3)

4.2 A challenge to the equity of monist immanence childhoods as experienced

In Deleuzian thought it is not a mere neutrality that exists in the immanence, but difference rather than repetition and sameness, and there is potential to continue to stimulate difference in minoritarian action. Stagoll (2010:76) states that we should learn to think in terms of difference, setting the bounded concept aside and focusing on the singular and circumstances of its production. Deleuze wrote of the majoritarian and minoritarian that the majoritarian may not be in the majority, but has the power, the minoritarian does not have power and may be in the majority but their lives and experiences may be shaped by the majoritarian. To 'become minoritarian' is a political act of reducing hubris by the powerful and a minoritarian can generate events that have political action in subjecting the majority standard to processes of disruption, variation and deterritorialisation (Deleuze and Guattari 1987/2012: 106), in itself also a political act. Whilst all childhoods may not be the same 'Everyone may attain the creative power of minority-becoming that carries with it the potential for new earths and new peoples'. (Patton, 2010: 78). So differentiation is a political act highlighting variety, a movement to be counted, that generates something new rather than an acceptance of sameness in the virtuality (Parr, 2010: 79).

4.3 Thinking through childhood part 2.

I am aware that in section 2.4 I present my own childhood understandings and a very Western perspective of childhood play as I draw on my own childhood experiences

(which were actually more diverse than space allowed me to express) and use quotes from early Twentieth Century European literature. A challenge set to me has been that there is a danger that adoption of a monist decentring of the anthropocentric could be neutralising all to a plane of immanence. A focus on the material molecular could be depoliticising to the intersectional experiences and issues that are powerfully experienced and shape bodies. Braidotti and Bignall (2019:22) argue it should be possible to both 'decry human exceptionalism and species privilege' whilst attending to the specificity of human responsibility, and potentiality in conceptualising adequate forms of response'. Similarly, it should be possible to highlight the molecular specificity in illuminating different experiences of childhood.

A reader's challenge to trouble with indigenous thought the conceptualisation of child and childhood I had presented at Viva Voce defence stage has highlighted to me that whilst we may emphasise Deleuzian and Baradian immanence as equalising there is a potential for a monistic ontology to either reduce or enhance difference and in doing the latter may be taking action to ameliorate White global minority and powerfully influential discourse and perspectives so not discounting the struggles for recognition needed for those with lesser opportunity to voice and be heard.

Indeed, my ethical stance was challenged and cracked when I read Nxumalo's (2020:537) critique of the insufficient and problematic developmental framing in relation to children's engagements with the issues of the Anthropocene. With reference to Taylor (2016) Nxumalo questions the overwhelming economic privilege and whiteness of nature-based pre-schools, and how structural inequality is rendered invisible through common sense. Nxumalo (2019: 2020) argues that there is a danger of the posthuman immanence not prompting sufficient political awareness in many. I

paused as I read this and reflected on my presentation in section 11 of the fabulation, the child running along the street, connecting to the old man, and responding to the topoludic influences sparking as he runs and how I had set that against a flat dwelling child who had no connection to nature as the opportunity was not made immediately available to him/her. Nxumalo has highlighted that persistence of binaries is fuelled by such 'perceived absence of certain children's relationships with nature (Nxumalo, 2020:537). I had inadvertently, in consideration of opportunity for access, not thought about socio-cultural divide, because I was privileged and had generalised childhood experiences, I was blind to socio-economic status in the areas in which I was working (in part because I had perceived that children in the most deprived community in which I was researching seemed to have the greatest freedom to roam). I had very early in the study decided not to share the socio-economic status of the children as I (and the community) had felt it was irrelevant to the study. However, this neutralising of children's experiences to stereotypical and universal 'childhoods' and the subsequent challenges to this have highlighted that there are indeed many and contextually specific childhoods and a need for ongoing revelation of the molecular granularities and complexities. For Nxumalo (2019: 2020), Todd (2016) , and Pacini-Ketchabaw and Taylor (2015) among others the indigenous child experiences should be counted and acknowledged. Indeed, for many such children the very different experiences always already were ones of childhood-nature entwined.

Pacini-Ketchabaw and Taylor (2015) remind that things are never 'just are' and that they (and so conceptualisations of child and childhood) should continue to be 'unsettled' with the continual asking of hard and provocative questions, that trouble norms and interrogate conventional understandings. They also point out that the seemingly

unthinkable use of language (and other actions) reveals in inadvertent entanglement with the ecological legacies of colonialism. I had long ago been prompted by Dahlberg, Moss and Pence, (2005) among others, to move beyond developmental theory and practice towards equality and the awareness of complexity and context, for thinking differently, with material, and acknowledging and promoting potential ruptures to colonizing pedagogical practices. Place matters' both discursively and materially in identity and resistance or disruptions of striations (as is also shown in my diffractions of Deleuze and Lefebvre at Appendix 1). For Pacini-Ketchabaw and Taylor (2015) although there are discernable patterns and similarities in the colonialist legacies felt in a range of contexts it is possible to focus upon how these legacies work differently and quite distinctively in different historically, geographically, and politically distinctive spaces. This is so for all children's experiences. Although there may still be a plane of immanence, a virtuality of potentialities, these are shaped by existing tensions and complexities that influence the majority, minority and emergence and materialisation of subjects in their own local early childhood environs.

I am prompted to remember that there is not one childhood but many, and each is unique in the influences upon the emergent potentialities and to acknowledge this is a political act. Pacini Ketchabaw and Taylor (2015) argue for a 'common worlds' pedagogy that is based upon 'a multispecies 'ethics of conviviality'' (citing Van Dooren and Rose, 2012) within children's local environs that also operates with awareness of the paradoxical differences between benign children's narratives, violent colonial histories and fraught realities of contemporary (post-)colonial settler child-native animal encounters.

As an example of this, Power and Somerville (2015) reflect on the ways that the fence in Australia is both a metaphor of division demarcating settler territory, prompting a consideration of the settler/colonised power relations of Self and Other. The fence is both a literal and 'symbolic technology of power'. Fence as conceived space can also be read as an aspect of post-colonial early childhood influence, restricting potentialities by supporting the segregation and constitution of childhood as 'other' fenced in playgrounds as places of constraint, striated conceived places for play, for example.

So, there is a danger of assimilation to a homogeneity perception of child in the discourses of neoliberal multiculturalism (Ashton, 2015) of treating all children the same and it is possible to inadvertently articulate a discourse of diversity that positions those who appear to embody it as 'other'. In order to balance this complex tension of inclusion as assimilation or inclusion as othering Ashton argues (like Haraway's argument to 'stay with the trouble') that we should stay with incommensurability, and look for ways to articulate and reconceptualise in ways that unsettle. Tesar (2015) similarly highlights that there may be a way of interweaving a range of culturally influenced and indigenously experienced discourses about childhood and early years such that each challenges the other. There is potential to lessen the binary adult:child dichotomy by interweaving adult and child perceptions and experiences of play and playfulness without situating play as an othering process held within work free childhood spaces and places.

Finally, colonialist discourses and the legacies of settler colonial societies still structure our thinking and the ways in which we understand ourselves, our practices and relations. Binary position of colonizing self and colonised other perpetuate in Deleuzian language. It is one of territorialisation and deterritorialisation, of migration and nomads, and has

been picked up by others as colonization and decolonization. It is easy to use these terms as picked up from past literature without question and continue their use and power inadvertently.

Subsequent to the initial draft of this thesis I have rethought the use of these terms initially drawn from the writings of Deleuze and acknowledge the highly loaded legacies of these terms, I have replaced 'colonising' and 'decolonising' with alternative terms 'inhabiting' and 'decamping' in an attempt to indicate the movement in, inhabiting for a while and then moving out of play spaces by children. I was struck by how difficult it is to find words to replace these that once had a wider meaning (as unruly plants can colonise gardens far before powerful humans colonised the lands of others) as they have been so much appropriated by the economic colonialising projects of previous Western generations. Language is so imbued and embedded an alertness is required in working in the virtuality. Pacini Ketchabaw and Taylor (2015) highlight how the liberal rhetoric of freedom and equality obfuscates neocolonial inequities being perpetuated through 'capturing desires and redirecting flows' (loc 35). For researchers this requires a methodology that 'is attentive to and responsive/responsible to the *specificity* of material entanglements in their agential becoming. (Barad, 2007:91). As Nxumalo (2020:42) reminds us;

'small everyday pedagogical encounters matter in generating what Haraway terms staying with the trouble; 'modest possibilities of partial recuperation and getting on together (2016: 10) '

5. Space, Place and Time

5.1 Introduction, On Time

Time for the purposes of this thesis is considered not as a 'succession of evenly spaced individual moments' (Barad, 2007:180) but is conceived of as relative. Space, time and matter are 'mutually constituted through the dynamics of iterative intra-activity' (Barad, 2007: 181). She/they link(s) space-time-mattering to the fold and how the dynamics of enfolding reconfigure the connectivity of space time and matter as manifold and as a changing topology. Becoming 'is not an unfolding in time, but the inexhaustible dynamism of the enfolding of mattering' (Barad, 2007:180). Becoming is also not about following a teleological trajectory (the concept of becoming that is often challenged in early childhood) but is about differentiation, the 'sedimenting historicity of practices/agencies *and* an agentic force in the world's differential becoming' (Ibid).

Deleuze, influenced by Bergson, also challenges the subjective understanding of time towards a theory that is non-reliant on subjective interpretation. Deleuze drew on Bergson's notion of the virtual to develop a novel ontological conception in which time past is contemporaneous with the experiencing subject (Bluemink, 2020).

'How would a new present come about if the old present did not pass at the same time that it is present? How would any present whatsoever pass if it were not present *at the same time* as the present?'

(Deleuze, 1968/2020: 107).

Bergson, Deleuze informs us (1988:33) conceived of time as both objective (that set by clocks, train timetables and calendars) and 'la duree' or duration which is conceived of as a form of lived time 'one perceives any number of durations, all very different from one another'.

The past is contemporaneous with the present, past and present are not two successive moments but two elements that coexist as experienced by the perceiver simultaneously. 'In short we are all determined by a past that exists externally to, but at the same time constitutes, our experience' (Deleuze and Guattari 1983/2020:). Time is layered, heterogenous, and allows movement that must be virtual across planes of time which are repetitions but also emergent. The whole of our past....

'...is played, restarts, repeats itself *at the same time*, on all of the levels that it sketches out....it is in this sense that one can speak of the regions of Being itself, the ontological regions of the past 'in general', all coexisting, all 'repeating' one another'

(Deleuze, 1966/1991: 61)

Deleuze argues that Bergson's famous dissolution of sugar is not only about waiting, but also signifies that the observer's duration, impatient of waiting and slowing time as experienced down serves to reveal 'other durations that beat to other rhythms' (Deleuze 1988:32)

5.2 On Space and Place

The following discussion moves from social spaces for play – guided by rules of the game (Football, meeting mates on the field, hanging out as a gang) through Lefebvre's (1991) phenomenological theory of the production of space as conceived, perceived and lived, to Deleuze and Guattari's presentation of 'territory' and the implications of this in relation to the shift from transcendent and embodied to a non-transcendent, leaky understanding of the body. I consider ideas of commons and dwelling in relation to the production of being not on the field, nor in space, but becoming of and with the playing

spaces in their commutative emergence as sites of relevance to young people at play and what this means for the more than human in the play space assemblage mix.

‘The plane of organisation contains all the strata and mega-strata, including – once we reach the organic and alloplastic mega-strata – the organization of organisms, of signification and of subjectification. Lines-of-flight and becomings tip these strata away from the plane of organisation, detach molar beings from this plane and lead them in the direction of ‘the (anorganic) imperceptible, the (asignifying) indiscernible, and the (asubjective) impersonal’.

(Holland, 2013: Loc 145)

In sharing illuminations of becoming, players of topoludic landscapes, intra-acting with materials, peers and creatures; speak of being played with by the land, as the players play the landscapes (and researcher plays a paragraph), generating players (and playful readers).

Braidotti describes life as a process, a ‘dynamic, self-organising structure’ (Braidotti, 2018) in which biological and non-biological matter, players and plants have a role. With such a concept the potential play space is no longer merely an ‘empty abstraction’ (Lefebvre, 1991) or a ‘place’ imbued with human culture requiring a particular response (Preston, 2003). Post-human understandings may be liberating in releasing concepts of play from adult ends and perceived organised futures (i.e., of child as future adult worker). We can call such post-human space ‘agentic space’ as a space that not only affords a response, but requires a response, independent of the consciousness of the player, as part of the ecology within which the child finds him or herself. Theories of embodiment suggest our understanding of the world is conditioned by our body, we walk to the shops, feel warm, must spin around and around etc. In a similar vein children may just run into the wind, spin amongst swirling leaves, and ‘pick’ at grasses and

flowers. We may find that a space 'calls' to a child and the child draws on their cultural understandings to also shape that place but they may also respond to the materiality of space with a physical, embodied response.

Throughout the literature considered the terms 'space' and 'place' have been used quite specifically drawing on both Lefebvre (1991) and Preston's (2003) understanding that whilst 'space' is abstract and undifferentiated 'places' are the result of people pausing for a while in a location and instilling some of their cultural values into the landscape. Place is generally considered to be something much more personal than space although in the literature the two concepts can sometimes be interchanged. Lefebvre (1991) asserted that space, considered metaphysically in isolation was merely an 'empty abstraction' (12), like energy and time but that space is on the whole 'produced' by the actions and motives of man with 'understandings of cause and effect, motive and implication' (37). A core conceptual triad to be found in Lefebvre's work is that of 'conceived space, perceived space and lived space' (Lefebvre, 1991, Russell, 2013). 'Conceived space is created in an abstract way by scientists, planners and social engineers to prompt humans to operate, or act, a certain way, this space is created for a purpose and the intentions are clear. The creation of a playground to keep children from playing near to sheltered housing would be such a conceived place. However, Lefebvre argues, space is not just produced, but may also be 'perceived'. Lefebvre gives the example that an ecologist's perception would be to take 'natural ecosystems' as their point of departure to show how human actions upset the balance of these systems. A historian would on the other hand consider time and perhaps a chronology of human actions that have led to layers of space and institutional tension. To put this idea in the

play context, the playground conceived for social engineering purposes may be 'perceived' as 'too young for us' by the children it is intended for.

Lefebvre also writes of 'representational spaces' which he also terms 'lived' spaces; 'directly lived through associated images and symbols and hence the space of 'inhabitants' and 'users'' (39). The 'lived space' is inhabited by creative people, and is a space which the imagination 'seeks to change and appropriate' (39). This is the space 'where people can be whole', a 'space of emotion, affect and representation', a space of 'resistance' and 'dis-alienation' the spaces where 'play resides' (Russell, 2013). If space is abstract and undifferentiated and place the result of cultural overlay into such spaces, then Lefebvre's 'lived space' reinforces Preston's (2003) concept of 'place'. Russell's (2013) mention of 'dis-alienation' and 'resistance' in play spaces is also about child assertion and the 'anti-culture' of play (Huizinga, 2014) which may be a demonstration of emotion, affect and representation leading to generation of alternative culture and new 'place' for living.

Deleuze and Guattari 's (1987/2012) philosophical concepts of spaces can also join this conceptual mix. Lefebvre's and Deleuze's spaces both draw on post-Marxist understandings of production of capital, state politics and the influence of historical factors. Space is not neutral, nor an empty void, but is produced, in a society that has power and financial differentials. Deleuze added a new dimension to this state, individual, commerce tension with the introduction of the creative 'nomad' who runs counter to the state, being actively creative to innovate (Marcussen, 2008). The state may in time 'capture' nomadic creations and appropriate them to the ends of the state, so transforming them again into conceived and controlling purposes. The artistic 'creative nomad' could be the playing child generating alternatives, the creator of 'lived

spaces'. Imagine, for example children making skate ramps in an area from old boxes, bricks and planks. They are the nomads creatively moving into an area and making a lived space. The social engineers see this, but consider it is in the slightly wrong place, and perhaps fear for children's safety. New skate parks are built nearby, echoing, but extending, the playful skater's creations. This new provision of conceived council run skate parks that echo the self-built creations could be an illustration of the playful nomad (the skater) generating a new culture that is then appropriated by statutory bodies and consequently becomes structured, conceived space.

Deleuze and Guattari (1987/2012) also wrote of 'smooth' and 'striated' landscapes and spaces in their philosophical construct. Smooth spaces are those generated by the creative, anarchic nomads: complex tangles that appear smooth, like felt and yet are open-ended enabling creativity; whilst 'striated' spaces are those spaces of tension generated by the state and fenced in, boundaried, controlling, conceived (Deleuze and Guattari, 1987/2012). When I think of striated spaces I visualise a canal in opposition to a river; the banks seem constraining, the flow managed. With regard to play I think of the many playgrounds fenced in for the safety of the children, but which appear as a result to have limited flexibility for play. In smooth spaces and landscapes there is no harsh delineation but the elements respond to a series of haecceities tensions and interactions between things: wind, undulations as of sand or snow and so on. Deleuze (2005:) writes of space and the 'natural play of distinct things (or haecceities) of varying degrees, intensities and events' hence space is not an empty plateau but 'never presents anything but differences' (Deleuze 1988:31).

This brief foray into space and place considerations has led to a synthesis of these conceptual models. Deleuze and Guattari's work can be usefully applied to a study of

children's locational play. Like the creative nomad on the Thousand Plateaus, it is possible to stray from conceived spaces through creativity, and from Deleuzian named molar tensions through nomadic activity and chance interactions of things, perhaps of post-human indication. These models of space allow for 'lived place' as an alternative to the controlling conceived spaces of commerce and state, which may or may not be perceived as intended. The nomadic player finds and generates the new experiences and challenges boundaries, perhaps by being 'aggressively creative', or lives in 'liminal spaces' (Wilson, 2012). There is also scope for incorporation of post-humanist perspectives on space through the chance coming together of things and gentle actions and reactions Deleuze refers to in the landscapes and horizons of smooth spaces. If we apply this to play and playing spaces we can see a range of alignments: the nomadic 'metalude' (Else, 2009) of the child seeking a place to play, the innovation and experimentation leading to anarchic creation; tensions between intention, perception and use of spaces, the chance meetings that may be prompted by elemental factors, such as the wind, coming in to play and the lines of flight from striated spaces to the smooth.

Space is no longer an 'empty abstraction' (Lefebvre, 1991), it may be experienced in an embodied form (Braidotti, 2013a, Barad, 2007, Casey, 2001) as part of a self-organising system, or as spaces perceived as conceived by people for social purposes. Place, on the other hand indicates a place of creativity and alignment, a 'lived space' a becoming affective space as acknowledged by Bachelard (1994), Sturrock and Else (1998) and Casey (2001). Casey argued that the body geographic (the body being the 'first space' for Casey) goes out to meet space (self interior to exterior nomadic activity) but in return

in a nod to the evolutionary system, considers the places the body has known are also borne as traces in the body:

‘in every case we are still, even many years later, in the places to which we have been subject ...because they are in us, indeed *are us*’.

(2001, p688).

This links back to the references to the work of Gaston Bachelard and his affective ‘Poetics of space’ with those spaces that are defended in the mind (Bachelard, 1994, xxxv) and also with Sturrock’s (1998/2001) understanding of the therapeutic inner journeying outwards. Casey’s understanding of space is one in which self and felt experience is ‘deepened by the body’ but ‘broadened by the landscape’ (Casey, 2001:689). However, Casey understood the body as a singularity, bounded and individuated. The sense of space being a container in which self and felt experience is deepened by the body which is in itself a symbiosis and broadened by the landscape of folds and virtuality still further broadens this body: landscape connection.

Bachelard (1994) also recognises the affective memories of space in writing about the impact of spaces that may be ‘grasped’, ‘defended’, ‘loved’ (xxxv), which places include huts, corners, minute places, and places of immensity. Here again we have a Bergson time understanding. The affective element of play may be a driver for continued play, a ‘vitalist’ tendency (Lester, 2018) it may be related to the concept of ‘anchoring’ the child in their locality (Casey, 2001), or it may be spiritual or central as a mechanism to enable the individual to cope with certain types of environmental stressors (Siviy 1998:235). Else and Sturrock (1998) recognise the affect arising from play as an intrinsic drive through which children develop their physical and spiritual identity and generate balance in relation to the world around them. The Department for Health (2020)

considered affect as a driver for play and physical activity. A child in play may also be rearranging their world so that the internalised states of consciousness can be externally expressed and met Sturrock and Else (1998/2001). They drew on the term *aeffect* applied to play as a combination of affect and effect, the coming together of feeling and action. Casey (2001:689) also considers that place 'anchored' the child in a 'place-cum-self' identity, further indicating that there was 'no place without self and no self without place' (684). The geographical self started with the body, but was 'broadened' by the landscape (689): as self-concept and locational self become entwined. Deleuze would argue that self emerges from the folds of the virtuality of difference that is space. For the purposes of this thesis I will consider space as an area of potentiality or of conceived areas of particular utility and place as lived spaces. Both are opportunities of potentiality.

5.3 Barren spaces of containment

'The failure of an urban environment can be measured in direct proportion to the number of playgrounds' (Ward, 1978: 73).

Architect Ward's (1978) research considered how children play in urban environments. He found that children play anywhere and everywhere, playing in built environments, concrete walls used for ball-games, or climbing over for example. He emphasised the importance of informal spaces that children can appropriate for themselves (which he termed *children's places*) such as pavements, parks and residential spaces. He revealed the affordances and use of simple things such as a garden hose, ditch, ponds and piles of sand. Insightfully he understood that;

'Because some bit of the city is designated as a play-space on a plan, there is no guarantee that it will be used as such, nor that other areas will not be'.

(Ward, 1978: 180)

Spaces can be designated, or appropriated, territorialised and de-territorialised accordingly. Through play, appropriation and imagination children can counter adult-centric intentions and controls of the built environments in which they live too.

'To a child sport is the sweetest where there be no spectators. The places they like best for play are the secret places 'where no one else goes' (Opie and Opie, 1969: 15).

but

'If children's games are tamed and made part of the school curricula, if wastelands are turned into playing-fields for the benefits of those who can conform and ape their elders, if children are given the idea they cannot enjoy themselves without being provided with the 'proper' equipment, we need blame only ourselves when we produce a generation who have lost their dignity, who are ever dissatisfied and who descend for their sport to the easy excitement of rioting, or pilfering, or vandalism.children should be allowed this last freedom, to play their own games in their own way'.

(Opie and Opie, 1969:16)

This piece written in the middle of the last century appears very prophetic, though it has taken longer than predicted to get to this dissatisfaction, perhaps because children do, in the absence of playgrounds and designated play spaces, find small spaces, non-designated spaces for play, in which they play, I will give these a signifier, pocket spaces.

Frost (2010) on the other hand highlighted that scientists are acknowledging that what he calls the 'natural ecology' is also disintegrating at an ever more rapid rate due to the excesses of its human residents. Many of these same forces are impacting on Children's play and playscapes, and the pockets of land they may play in, resulting in deprivation of traditional forms of play and natural grounds for play..' (Frost, 2010: 196-7). It is perhaps just the land pressure that is putting pressure on play as the useful building

plots cease to exist when built on to house a steeply rising population, the untended fields no longer exist where farming is intensive and farmers need and want productivity from all their farmland.

Moore (1990) undertook research in the UK with children in 3 locations concerned with relations between the child, other people and the physical habitat and drawing on a new interpretation of Bronfenbrenner's (1994) ecological theory. Moore recognised the impact on children's lives of the social changes and ecological risks. However, I am able to identify many similarities between his findings decades ago and that of my own research – which indicate some universality to locality play, which will be expressed later. Moore found children playing or meandering through patches of woodland, open spaces, playing with concrete bollards, the importance of football pitches and so on. Moore (1990:17) refers to the concept of spatial range being the roaming distance of children 'encompassing a child's play and leisure places and the pathways connecting them' (3). He refers to habitual range – being that close to home, and accessible for daily use, 'frequented Range' less accessible but used regularly, perhaps with age limitations to use and then 'occasional range' which he described as 'highly variable extensions of frequented range by foot, bicycle and public transport, dependent on the children's personality, the degree of freedom and training facilitated by parents and the fact there were some attractive destinations some distance away. For the purposes of this research I have focused predominantly on 'habitual range', that close enough to home to be accessible for daily use. I have not considered the restrictions imposed by parents, but have considered the impact of the topographical opportunities and restrictions.

5.4 Space, place, tension and creativity.

Although Deleuze and Guattari's work is open to a range of interpretations and consequent criticism, it can philosophically inform and shape the action of a study of children's locational play. This brief foray into space and place considerations has led to a synthesis of these conceptual models. Like the creative nomad on the Thousand Plateaus, it is possible to stray from conceived spaces through creativity, and from Deleuzian tensions through nomadic activity and chance interactions of things, perhaps of post-human indication. These models of space allow for 'lived place' as an alternative to the controlling conceived spaces of commerce and state, which may or may not be perceived as intended. The nomadic player finds and generates the new experiences and challenges boundaries, perhaps by being 'aggressively creative', or in 'liminal spaces' (Wilson, 2012). There is also scope for incorporation of post-humanist perspectives on space through the chance coming together of things and gentle actions and reactions Deleuze refers to in the landscapes and horizons of smooth spaces. If we apply this to play and playing spaces we can see a range of alignments: the nomadic 'metalude' (Else, 2009) of the child seeking a place to play, the innovation and experimentation leading to anarchic creation; tensions between intention, perception and use, and the chance meetings that may be prompted by elemental factors coming into play. There are also the distractions of matter (Bennett, 2010).

This brief review of literature of play, space and place has raised issues in relation children's locational play: of empty space and the child who has an innate drive to play; the space: child agency relationship of the materiality of the post-humanists; the affordances of spaces and prompts for cultural interpretation. There is potential to

interpret Lefebvre's (2015) lived spaces in which the creative self-appropriates and aligns with the location; conceived spaces created by planners and architects of the lives of others; and the fenced in striated spaces that jar in modern life; and finally the smooth spaces of the nomad at rest (See Appendix 1 for an attempt to chart this synthesis). All may all be useful as conceptual lenses through which to consider what children do and where they go when at play. A mental synthesis of ecology, politics and space is beginning to take form, with emphasis on 'multispecies neighbourhoods' (Acampora, 2004) or perhaps multi-agent neighbourhoods. The first recognising the intra-agency of humans and other species, the second also acknowledging the complexity of mineral and other inanimate matters which are also agents in the shape of a locality and its topoludic potentiality. Space is not given, but 'repurposed, reappropriated or hacked in accordance with a politics of being collectively out of place' (Shaw, 2018: 186); space being produced by the players, a potentiality that is morphologically fluid and open to recomposition, disruption and re-use. In places children's actions align with conceived and perceived space, at other times children are making imaginative use of the townscapes, practising parcour on concrete walls and bollards and disrupting perceptions of safe play (or no play) in organised striated locations.

5.3 Space-Time-Mattering⁵⁷

‘Staying with the trouble does not require such a relationship to times called the future’ (Haraway, 2016:1)

We may perhaps call such post-human space ‘agentic space’ as a space that not only affords a response, but generates a response, independent of the consciousness of the player, as part of the ecology within which the child finds him or herself. Theories of embodiment (Merleau-Ponty, 1948/2008) suggest our understanding of the world is conditioned by our body – we walk to the shops, feel warm, must spin around and around etc. So, children may just run into the wind, spin amongst swirling leaves, and ‘pick’ at grasses and flowers, swing from ropes. In so doing they may be shaping space. Living spaces are agentic in generating something else, perhaps byways for creatures, open glades for growth? We may find that a space ‘calls’ to a child and the child draws on their cultural understandings to also shape that place but they may also respond to the materiality of place with a physical, embodied response or a making. In Deleuzian understanding the space itself, and the child, come into being through engagements from the virtuality, there is no space without event and intra-action.

⁵⁷ Space-time-mattering recognises the forces engaged in the process of new becomings, acknowledging that intra-actions between human and more-than-human matter are also influenced by the entanglement of time and space (after Barad, 2007). Haraway (2016:125) refers to the concept as ‘timespace’ a convolution of time past, present and future, and of ‘the immenser community of space’.

6.Theoretical Landscape

6.1 Introduction

This section outlines the philosophical understandings and concepts being put to work on the theme of Children's play close to home. I begin with a consideration of posthuman philosophies relevant to this study, and then move on to a consideration of a range of tools and aspects of the process ontology as outlined by my assemblage of thinkers (Deleuze and Guattari, 1987/2012, Barad, 2007; Braidotti, 2013; Haraway, 2016: and Bennett, 2010 and 2020).

As has been illustrated so far this thesis draws on Deleuzian process ontology and concepts of entanglement, assemblage, fold, cartography, smooth and striated spaces and lines of flight. I also draw on Barad's (2007) concept of agential realism and the importance of diffraction and Haraway's (2016) blurred boundaries and sympoiesis, these working together as a 'greedy bag of possibilities' (Malone, Duhn and Tesar, 2020:19) to enable new encounters to flourish for thinking differently about play, play spaces and events. Barad's (2007), understanding of quantum physics leads her to understand in a similar vein to Deleuze of a subjectification through event, that bodies are always formed in intra-action in an ongoing process of becoming, that boundaries are blurred, atoms entangled and agentic in intra-active influential connections. Barad emphasises that she (although she now refers to herself as 'they' in acknowledgement that humans are not always singular, never alone) acknowledges an alignment with posthumanism rather than naturalist philosophies that may be more generally aligned with a scientific approach. She perceives that the latter tend to maintain a nature-

culture divide as a bridge to cross whilst posthumanism and agential realism continues to trouble this distinction in an all-encompassing eclecticism (Barad, 2007, note to p139). Drawing on the work of Neils Bohr who called into question the classic Cartesian belief in inherent distinction between subject and object through quantum physics, Barad (2007:138) claims he, 'finds a way to hold on to the possibility of objective knowledge' in the crumbling of grand structures of physics. His is not an understanding of 'mere idle philosophical reflection' (perhaps a little harsh on the philosophers) but is based on empirical findings in relation to atomic physics development in the early 20th Century. His work informs Barad's move away from a representational focus on words and the fixity of things, to an understanding of a fluid realism which aligns with material atomic physics understandings and Deleuze's philosophical creativity, as she highlights;

'relationality between specific material (re) configurings of the world through which boundaries, properties and meanings are differently enacted (i.e., discursive practices, in my posthumanist sense) and specific material phenomena (i.e., differentiating patterns of mattering). This causal relationship between the apparatuses of bodily production and the phenomena produced is one of agential intra-action'.

(Barad, 2007:139)

Such an understanding deepens the concepts of entanglement offered by Deleuze as it emphasises that there is influential agency in the act of measurement, that there is diversity as some agents align, that others may neutralise agency, and others sparkle with intensity and peaks in a diffractive process. Diffraction as a process was key to my grasping the understanding of this process ontology. Imagine waves curving through two caves parallel to each other, the sunlight catching on the peaks and the shadows in the dips, some waves cancel each other out, others heighten the intensity, and underneath it all is an energy moving forwards, always in flux, always in motion. (The physics of diffraction presented by Barad (2007) also leads me to think further about the

waves that are the diffracting pulses of energy and I notice that waves are indicated throughout this work).

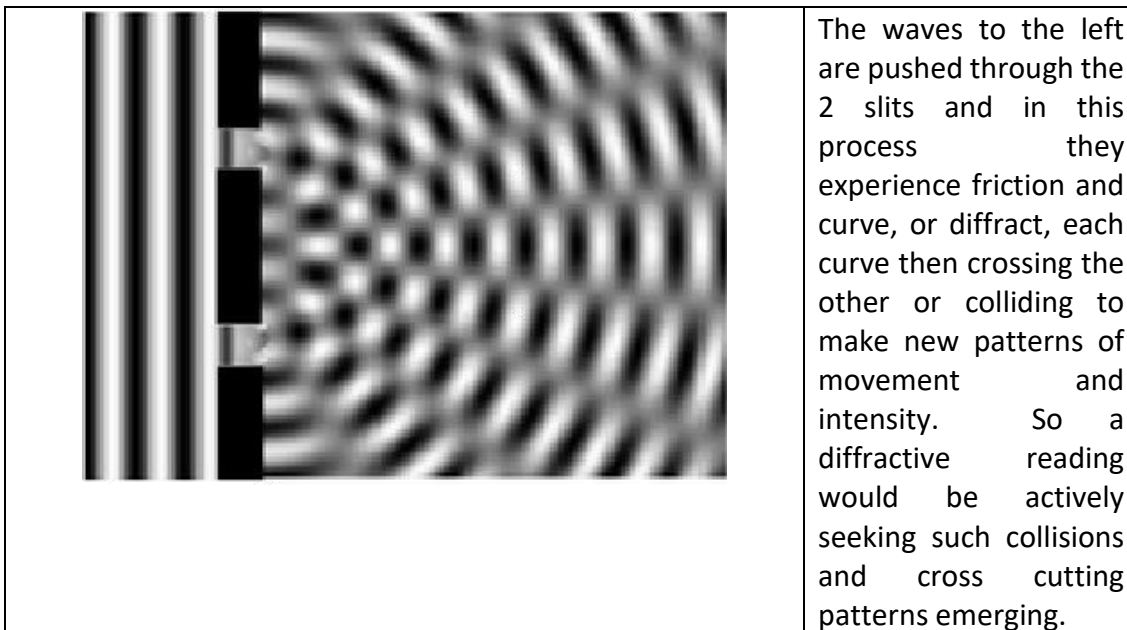


Figure 10 Illustration diffraction wave pattern from the two-split experiment.

Such a philosophical positionality eschews representationalism which require adherence to a bounded individual able to interpret the mediating functions between knower and known to; but is a performative understanding of discursive practices in which humans are not a transcendent reflector on the action but are engaged in performing ‘understanding, thinking, observing and theorizing as practices of engagement with and as part of the world in which we have our being’ (Barad, 2007:133).

The ontological shift prompted by the many writings of Deleuze, and by Barad (2007) have led to new ways of thinking about research, data, and the role of the researcher. In many cases the focus has been on the bodies affected by the ontology, so ‘thing theory’, actor network theory, assemblage theory, new materialism, and so on. St Pierre (2016) highlights however that whilst these offer different approaches to inquiry

as they seek different descriptions of ontology and empiricism, it still remains difficult to 'inquire differently' (St Pierre: 2016:26) because conventional humanist methodology, even converted to 'post' methodology is still grounded in the cogito and humanist qualitative approaches. Acknowledging Deleuze's (1968/2014) transcendental empiricism highlights the 'concrete richness of the sensible as it exists for itself, not for us after mediation by language, reason or a-priori categories (St Pierre, 2016:29). St Pierre (2016:34) concludes that;

'we will have to resist *the idea of methodology itself*, which will prevent us from producing the new that is everywhere, immanent and exhaustible, that we might actually actualise'.

She emphasises the need for new concepts and conceptual practices rather than methodologies and knowledge practices. However, as St Pierre (2019) emphasised it is difficult to let go of traditional humanist practices and the influence of other towards approaches to 'apply'. Becoming posthuman is not an immediate casting off of humanist conceptions of epistemology acknowledging ontology, but takes time and effort to remain decentred and is a becoming, casting off a-priori assumptions and learning how to 'live with' emergence arising from the virtuality.

Lenz Taguchi (2010) had highlighted engagement with clay as matter that is tactile and malleable. This is an engagement with matter as doing I too chose to reproduce with the use of clay as the base for the early version of the Merz-plaques. I had envisaged that children would choose matter and material of meaning, conscious or subconscious and intrinsic, to press into clay, offering a combination of perception, sensation and action, the clay agentic in its slow fluid responding to the creative hands plying it and so knowing of earth as clay in

motion. I choose these methods as offering playfulness in material exploration as a ‘.. mode of knowing and being in itself’ (Rautio and Winston, 2013:17).

In my research experiences children engaged with, experimented with, responded to cues and sparks arising from, worked with heightened sensation and theorised from the observing and doing. Children made with the clay and objects, but were not sufficiently released to ‘play with’ the fluidity of the clay and lose a priori conception, especially with the additional ethical complication of power of adult researcher alongside and some children’s desire to meet the brief (see Figure 14).

6.2 Posthuman considerations

Posthuman thinking potentially offers a path to a further, deeper understanding of play as process rather than play from the perspective of what it is (how it can be defined) what it does (for example in assisting physical development) how it feels (play as therapy) or how it supports the more valorised activity of work and learning.

Such positionality challenges and develops concepts such as perception and Gibson’s (1996) idea of ‘affordances’ which have long been applied to children’s activities to understand play responses, but represent the coming together of the nature of the object or thing and the viewer’s culturally stimulated interpretation of it. For Gibson a slope will lead to a particular walking response, a tree stump might be used as a seat. The item is bounded and perceived by the dominant observer of it and their cultural perspective. The post-human view of material agency is one in which non-human things are also able to influence actions (Änggård, 2015); they offer percepts, not only the

stimulants for observer response to cultural expectations but the cued opportunities for perception and affect leading to subjectification. Whilst a log can be something to sit on, or 'ride' (cultural understandings and affordances) it can also enable the child to engage with its materiality. The human is not a lone explorer, demonstrating mastery that is central to and controlling action with only subjective a-priori informed responses to things around them (both human and non-human), with whom or which they come into contact; rather they are embroiled in the midst of an emergence of bodies prompted by potentialities as cues which generate subjectivities through entanglements. St Pierre cites Bryant (2009) thus:

'....the transcendental field is a set of genetic conditions presiding over the individuation of individuals. Here 'individual' could be a rock, a person, a colour, or five o'clock in the afternoon...the entity comes into existence not through an internal act of synthesis by the transcendental ego (no human needed here) but by the external, chance intersection and divergence of series through external relations or associations on the plane of consistency.....the transcendental field is composed of relations of the unformed that are expressed in empirical states of affairs'

(St Pierre, 2016:31).



Field notes 2017 - Tree root meeting place: in location 3 the children followed 'lines of flight' from the striated space of the bounded recreation ground over a low stone wall to the small wood to the northwest side of the hill. A footpath ran down one side of the wood and paths had branched out to the west meandering through this area. It was clear to see that this was an area of play potential perceived and lived. There was a rope swing hung from the branch of a tall tree, a small ditch below it. At the base of several of the trees, dens were made of propped branches. There were large granite stones clearly used for sitting as sweet wrappers and bits of plastic toy were matter residue that sparked out for eye attention, along with tufts of synthetic dolls' hair which lay where it had been squarely cut. At the entrance to this area was a large trunked tree, with a particularly interesting 'floating root' as the soil had eroded beneath it and it formed a natural 'seating circle'. This root was also used for balancing and jumping off and into. The root surface was smooth from many years of wear, of being walked on, and from children, sitting, stroking and picking the bark.

Figure 11: tree root meeting place as affordance and agentic in assemblage

The primary ontological units are not 'things' but phenomena or events which Barad (2007:141) describes as 'dynamic topological reconfigurings/entanglements/relationalities/(re)-articulations of the world' in material-discursive practices. It is the dynamism that is agency, and agency and perception are not attributes, but are part of the process of ongoing configuration of the world. Tree root place emerges from the actions resulting from cue sparks affordance of balancing place, and child returns the cue such that child and tree are entangled relationally in becoming, child foot pushing up on bark and down on soil is agentic, along with wind and water, in eroding soil, and

smoothing bark, and so the thing that is 'meeting place' emerges from balancing root, with soil erosion, offering percept, engagement and affect. Child now experiences and knows embodiment of balance, social engagements and place of meeting. Time and space mattered commutatively, then becoming now, a place of return, familiar, lived, perhaps defended in the mind as it returns to past child as adult.

The notion of the assemblage (Deleuze, 1987.2012) helps to illuminate such ongoing configuration through entangled engagements of child at play with matter or creature in environ beyond perceptive affordance (challenging and diffusing the subjective human) and it is through processes of diffraction that further insight may be gained via considering these 'specific material configurations of the world's becoming' (Barad, 2007:91). Although I discussed conceptualisations of play in Plateau 3 and broadly considered as 'freely chosen, personally directed behaviour' in the first instance (Prelude 1) I have moved on to conceive that play is not a 'thing' to be categorised, but is a process of potentiality and differentiation, emerging from time-space-mattering⁵⁸ (Barad, 2007, Rautio and Winston, 2015:17) and in its affective, effective capacity gives prompt and life to wordlings of becoming, a ludic 'elan-vital' actualising the virtual vitally (Deleuze 1998:113).

Like play it is impossible to predict what will occur from such potential encounters and commutations. Each contextual encounter or event has heterogeneric potential with manifold vitalities. The security of the arboric categorisation is removed and in the sections that follow and those small vignettes from field research offered so far, I

⁵⁸ Space-time-mattering is a term for the continual process of becoming through shifting entanglements of space, and time, and matter.

rhizomatically explore and illuminate, through sharing 'data that glows'⁵⁹ (MacLure, 2013), some vignettes of children's unsupervised outdoor play close to home, negotiating and intra-acting with landscapes of play in 6 locations in the South West of England.

As researcher I have moved from researcher on, to researcher with, not 'being child' but becoming with others and anarch-researcher flying alongside. I have been a rhizomatic rooter, invisible as researcher, experimental and creative in non-methodological (St Pierre, 2019) generation of understanding in doing. This shift was illustrated in the research stream of consciousness of section 2. Researcher-on-child asked, 'what do you do when you play, and where'? Researcher-with-child asked, 'show me'? Researcher alongside not being child, was a tag along adult. Anarch-researcher began to be playful with, and alongside, experiencing the rope swing, the balance root of meeting, the badger trail through redundant allotment to a stone water trough, the keen removal of the twigs at the base of the bug house tree. Anarch-researcher becomes with assemblage including the human other and matter. Not child, but playful adult. I began to 'perform' the landscapes with my younger human participants as peers. Rhizomatic rooter as researcher dug away with the children on the plane of immanence, explored beetle dens and meandered in maize fields taller than I, again pushing to who knows where, following mycelium, tendrils and criss-crossing roots where the whims of players led. A sense of scale reminded by the vegetation.

⁵⁹ MacLure (2010:282) describes data that glows as bits of data that 'start to glimmer, gathering our attention' and when we are aware of such time seems to 'both slow down and speed up' (a reference to time-space-mattering and aligned with Csikszentmihalyi's (2002) conceptualisation of the impact of playful 'flow').

Through playful methodologies and researcher-child-and more-than-human entanglements and diffractive reading the data is curated and presented in an anarchic⁶⁰ (Somerville, 2020) of collage that illustrates the social, the fabulative⁶¹, the material, and ludic agentic worlding of children playing out-of-doors.

I am reminded of the words of Murriss (2021:1):

‘There is a complexity and risk involved in an ontological shift from qualitative research to postqualitative complexity and one must lose the urge to get lost in dense abstraction’.

But players love to get lost in these liminal spaces..... (Wilson, 2012).

I follow the approach of Koro-Ljungberg, Lotyonen and Tesar (2017) in which data is allowed to irrupt and illuminate, disturb, or interfere with the flow and linearity of the text. The anarchic is dispersed across the rise and fall of the landscape of the research thesis and I acknowledge that data can function as an escape from theoretically dense moments ‘providing readers a snack’ (Koro Ljungberg, Loytonen and Tesar, 2017:5). In lieu of themed and placed chapters of linearity and structured organisation I offer resistance to linearity, data snacks, and possible lines of flight in reading or observing (or even acknowledging sound refrain). The offer is of ‘diverse linguistic, material, textual and collective traces’ (ibid) to produce different, differentiated and perhaps unexpected data affects in readers. You will have already seen data presented as image and text irrupting throughout the written flow. Soundscape too might be data as in skylark trilling or maize rustling. Data are agents enabling scholars to approach matter as vibrant, lively and vital in its generative potentiality. This takes data beyond the

⁶⁰ the reuse of the work of others with thinking anew adjustment and adaptations

⁶¹ Haraway writes of speculative fabulation as a way of thinking through storying, drawing on Stengers’ speculative thinking. Storying is not about denouncing the world in the name of an ideal world of fiction, but is about generating thinking through storying in a way that is detached from the reality but prompts thinking otherwise about reality in the presence of those who will bear their consequences.

guidance found in the methodology textbooks and leads to new ways of experimental writing, art practice and performance as 'ways of attending to that which lies beyond the limits of language and rationality' (MacLure, 2016: xviii).

6.3 And so to my journey to posthumanism:

'Begin at the beginning' the King said gravely 'and go on until you come to the end; then stop'. (Carroll, 1865/2020: 72)

But what if there is no beginning or end, but a general on-goingness, and no stopping now as flux is inevitable! (I feel like the walrus and the carpenter running round the rock, or Alice in the courtroom.... reside in the virtuality and happenings will happen).

I see from the doctoral thesis guide that there is an expectation of a declaration of new knowledge offered by the researcher through this research. However as has been promoted in the previous section, in a postmodern, Deleuzian process ontology approach there is no fixed knowledge to give, but a process of offerings to others so that they may in turn work diffractively with the material (Van der Tuin, 2018) to reach a conclusion of their own; just as a good film or Haraway's (2016) speculative fabulation, leaves the viewer with a range of deep thoughts rather than presenting the meaning before the viewing. As I draw on the 'thinking otherwise' of Deleuzian, posthumanist theoretical perspectives and re-read my work I see it offers illumination of my author researcher's journey of letting go, moving from ingrained enlightenment informed transcendent thinking with a-priori understandings and critical application of theory to practice, to an adoption of the ethico-onto-epistemology of process becoming as knowledge, putting the unusual together as an 'and.....and....' rather than critical transcendent either: or (Deleuze, 1987/2012:114). This is attempting research doing as thinking, playing with knowing, writing as event, rather than thinking applied to doings

as research, which becomes mere tracings with additions⁶². I visualised this process of transition as a diving through layers of thinking, as though through the layers of the atmosphere, to reach the plane of immanence; a process of peeling back the socially constructed molar striations and consciousness of constraint to a point at which thought emerges as molecular commutation between intra-active agents as events, of ludicosity, and schizoid creativity.

There are playful tensions in writing a thesis that claims to new knowledge about (through or with) play in a Deleuze and Baradian ethico-onto-epistemological transcendental empiricist and agential realist philosophical awareness. The tension arises because there is no end, no mere tracing of prior knowledge then expanded taken from the shoulders of giants, but rather an understanding of the new knowledge always forming, thinking differently generating difference, concepts always becoming renewed anew, players playing with thought, constructed in the contextual specificity of the moment of connection, and the cutting, constructively. Consequently, any new knowledge does not belong to a transcendent meta-thinking doctoral student to present and claim, but will be the readers as much as the writers, as the focus is not on what does this mean, but what will this do, and what does this do in relationality to something or things other than it? It is the reader who will have diffractively read the inky tentacular (Haraway 2016) linking words and events with interwoven thoughts and experiences as any reader notes comment in a margin of a book (see van der Tuin, 2018) generating new thoughts and concepts in the manifold commutative process of in-between. I visualise myself as researcher like that playworker sitting, or surfing, on the crest of the

⁶² Deleuze discusses the difference between cartography and tracings, the latter being more of the same, duplication, the former being creative acts of interpretation and extension.

wave at the edge of the frothy chaos of uncontrollable play (Battram, 2002; Gill, 2007) a researcher on the cusp of fully acknowledging my Deleuzian informed posthumanity and bravely freefalling into the chaos, but currently not entirely catching the wave for fear of retaining academic credibility, the surfer on the ouroboros (see Figure 4).

A diffractive reading offers the potential juxtaposition, interpellation and co-production of new understandings through the light and dark, the peaks and troughs of different materials, particles or atoms set in motion against each other to overlap, illuminate, shade and imbricate ideas. A diffraction being most clearly explained by physicist Barad (2007) as she refers to the 2-split experiment in which waves are pushed against each other to form light and dark, peaks and troughs, moments of illumination and areas which are neutralised by the coming together of the other (See Figure 10). Matter in the process of becoming does not generate neat straight linear patterns in line with the slits, but in wave theory bend with the push through, then bounce across each other setting into motion more random patterns further pushed by the conchoidal curves of wave behaviour, peaks and troughs, intensities and negations (Barad, 2007). Such intensities and negations may be seen later in this thesis in the line drawings of the play location events inspired by Deligny's (2015) work (see figures 29-33).

This thesis began as a piece of work dependent on the understanding of the human focus as a bounded subject able to interpret the phenomena of play (the play cues and moments of affordance). I had initially thought I was taking a posthuman approach, but then realised how bounded in philosophical dualisms I was; with such a clear indication of 'them and us' at the start of this process. A consideration of child interpretation of play spaces from individual or social perspective became quickly insufficient and limited in depth in the light of the emergent rich field data and the reading of the process

ontology and philosophies of entanglement, assemblage and commutation found in the writings of Deleuze and Guattari (1987/2012) , and the ethico-onto-epistemology of physics posthumanist Barad (2007) and biology informed posthumanist Haraway (2016). Adjusting the human researcher gaze to a combination of postmodern post-anthropocentrism and posthumanist commutative and process ontologies was potent to a richer, deeper understanding of play, playfulness and play experiences, as ongoing, vital, processes of becoming within human and more than human assemblages and entanglements close to home.

The tradition of academic enlightenment thinking influenced by Cartesian dualism dissected head, brain, cognition, from body and embodied understandings, a point highlighted by many authors (Deleuze and Guattari, 1987/2013; Barad 2007; Haraway, 2016; Murriss, 2016). It enabled and promoted the segregation of 'I' from them, me from others, and although Descartes was considered rational and radical in approach at the time he also continued a hierarchical thinking that preceded the enlightenment, of an ideal image of God as being higher than man (who was made in the image of God) and there being an ideal hierarchical order to the world. Posthuman authors (Barad, 2007; Haraway 2016, Bennett,2010) all remind the reader that Descartes famously stripped away all that he understood to be challengeable, such as the senses, and through this reduction to thought as the only thing trustworthy, concluded that 'I think therefore I am'. The fact that he knew he was thinking meant that he existed, but all else was not so certain, so the body had a lesser role as container for the cognitive brain.

A bifurcated approach of head body separation usually creates in research a distance between the subject and the object of empirical observations, resulting in an anthropocentric (human centred) model and the expectation that the researcher as

separate entity can transcend the research data, meta-analyse, critique, and reflect on the separate subject of research. The enlightenment philosophies building on Descartes generally continued to promote an adult humancentric⁶³ and unequal approach. Haraway referred to this as the 'God Trick' (Haraway, 2016:4) and highlighted the restrictions of these binaries in her *Manifesto for Cyborgs*;

'certain dualisms have been persistent in Western traditions: they have all been systemic to the logics and practices of domination of women, people of colour, nature, workers, animals – in short domination of all constituted as *others* whose task is to mirror the self. Chief among these troubling dualisms are the self/other, mind/body, culture/nature, male/female, civilised/primitive, reality/appearance, whole/part, agent/resource, maker/made, active/passive, right/wrong, truth/illusion, total/partial, God/man. The self is the One who is not dominated, who knows that by the service of the other; the other is the one who holds the future, who knows that by the experience of domination which gives the lie to the autonomy of the self. To be One is to be autonomous, to be powerful, to be God; but to be One is to be an illusion, and so to be involved in a dialectic of apocalypse with the other. Yet to be other is to be multiple, without clear boundary, frayed, insubstantial.'

(Haraway, *A Manifesto for Cyborgs*: 1985:60)

I would also add adult/child to Haraway's dualisms listed above, and prompt the awareness that the insubstantiation of the 'other' opens up space for the generation of non a-priori singularities (Movahedi, 2021) and the production of events (Deleuze, 2005); a collaborative approach. I now consider play is the intensity of event production a wobble of differentiation. As I reflect on this addition to my grab bag for playing with theory I am reminded of Freire's (1995) questioning of how can I/we dialogue (or intra-act) if I call them mere 'its'? I couple this with Haraway's reminder that it matters what choices are made (Haraway, 2016). An ontology with related epistemology is emerging (onto-epistemology), in which children are raised to the plane of immanence and

⁶³ I refer to adult humancentric as I consider that the binary also applies to adult/child.

research hubris is reduced, and an axiology of the ethical importance of being open to the more than human in a world that is not one of non-dialogue with 'its' but making a choice not to 'other' other humans and more than human agents and so allow space for commutative becomings in an acknowledgement of my own leaky boundaries and collaborative constructs.

Such an approach also cuts away from hierarchical and idealist thinking often referred to in shorthand as the image of Leonardo da Vinci's Vitruvian Man⁶⁴ being closer to a Platonic ideal, with woman, child, animals lower down the pyramid. But as Haraway responds to her statement of dualisms in the Cyborg Manifesto (and also develops further in 'Staying with the Trouble') these ideal conceptions have been challenged, first by technology, and then with an increasing awareness of the leakiness of biology. Haraway is serious about play and plays seriously with concepts such as self and other, rather claiming that instead of human hubris we should acknowledge that really we are all relational with other humans and more than human, mere compost.

With increasing scientific awareness of the importance of biological communities to human well-being, acknowledged by Haraway (2016), along with the quantum physics awareness of the movement of molecules, protons and atoms (Barad, 2007) singular humanist thinking of bounded individuals now seems outdated and we can playfully widen the net of engagements. The focus on the ideal 'I' is open to challenge in the light of so much more information about the body and the more than human. But the 'I' may remain in memory of intensity and time-space convergences. 'I' exist, but do not

⁶⁴ Vitruvian man is a drawing by da Vinci of a man of ideal proportions superimposed in two positions with arms and legs apart placed within a circle and a square. It is archetypal of enlightenment thinking and concern with geometric proportion and ideals of interpreted ancient world (Greek and Roman). It illustrated idealism and the split between man and nature and of geometry informing culture.

preconceive, I become into being in relation with others, a singularity, subjectified, from the encounters in the virtuality, which may, in the earlier times of life, be essentially expressed through play as event.

Merleau Ponty (1962) began to put the body and head back together, challenging dualism with his argument for the primacy of perception. His understandings about embodied knowledge and how, for example your body may remember the pattern of action not cognitively, but through bodily memory of patterns of motion, is of some importance to understanding aspects of children's play relating to roaming, swinging, and physical capabilities. It also challenges the binary perspectives in reconnecting body and cognition, but stops short of unbounding the playing human.

The Posthumanism prompted by the works of Haraway (2016), Braidotti (2010,2020), Barad (2007), often building on the work of Deleuze (even if not always acknowledged) prompts a decentring of the humanistic hubris and the unbounding of the body through acknowledgement of mutual constitution. Such a post-anthropocentric approach is not just about this shift of focus from a central focus on the human to a broader focus on the more-than-human; it is also central to a shift from the ongoing promotion of a conceptually bounded subject to a commutative production of difference through the intra-action and simultaneous emergence of subjectivity (an interpellation). Deleuze presents a process philosophy of assemblage entanglements and imbrications of lines of flight (Deleuze and Guattari, 1987/2012:9) whilst Barad (2007) draws on quantum physics and Bohr's diffractive wave theory to highlight unpredictability and the machinic influence on data even, Haraway focuses on the biological and emphasises the nature of being human (or indeed other than human) as a sympoiesis, a word 'proper to complex, dynamic, responsive, situated historical systems' (Haraway, 2016:58).

Researching with a Deleuze and Barad influenced posthuman ethico-onto-epistemology and in consideration of Haraway's (2016) decentring and multispecies manifesto, is a challenge to researcher, to traditional hierarchies, to thesis construction and to claims to knowledge but opens out the possibility of thinking otherwise about play, policy and bodies and things in the relational motion of becoming as the world is becoming. Haraway (2016) promotes not only staying with the trouble, but also being seriously playful, and playfully serious!

So rather than proposing new knowledge this posthumanist inspired thesis plays with, illuminates and exemplifies some children's play experiences and engagements out of doors close to home not under the watchful gaze of adults and prompts thinking about play, childhood-nature entanglements and play space/place emergence, inhabitation and event-full creation.

6.4 We are Shark in the Trees (a snack)



Figure 12: Shark image distorted - Author photo of original image in 'Wild Cornwall' Spring 2015

Through diffraction we gain insight via 'specific material configurations of the world's becoming' (Barad, 2007:91): a drawing in the margin of a book is offered as a diffractive moment by van der Tuin (2018:101) for example an assemblage intra-action and thought offers new knowledge of being shark as interpellative instant.

As an illustration of playful diffraction consider a picture of a basking shark with its mouth wide open which has natural white and blue patterns on the inside of his gaping jaw. A child looks at the glossy shark picture on which the sun falls through the window, the image slightly distorted. Moving the magazine to see the image she states, "look ...that shark has the world in his mouth", a diffraction has occurred between world symbol and colour, shiny print, child a priori knowledge and Basking shark image in sunlight together generating something new.

Rather than as affordance response (Gibson, 1996), this moment is understood as a diffractive playful commutative moment that could generate a new affect, or conceptualisation of something the importance of which is as yet not known. If image were art and sculpture constructed as representation of globe mouthed shark as just

perceived it may have significant impact on its hermeneutic viewers (Vilhauer, 2010). It was generated by more than human interpretation alone as image, sun, child, magazine gloss, are all imbricated in that moment of entanglement and diffraction. The child has no intent to share further. She goes outside to play, yet memory of shark world image mouth globe diffraction is carried in her mind, a new fund of knowledge, latent for how long? The child now of landscape becomes entangled in realist fabulations, commutative potentials explode; memory percept, space, time, imagination at work. Affordances spark responses in commutative spaces and entanglements occur as the more than human and human child interpellate each other. Willow tree branches stroke the face becoming seagrass, and shark world comes into being beneath the green drooping fronds as seeds gently wind blown into the sunlit air prompt refabulation as plankton. The willow rustles and 'plankton' seeds are both wind and child-blown-dispersed with joy. Child play space tree seeds sound light air assemblage becomes child-place, void space outside no longer, now being imbricated, internally with rich potentialities of stimulating agents, sparks perceived and felt experience together prompting affective response, con-tent, play en-framed. Skin feels leaves, eyes follow seeds as pollen dust eddying in breeze, mind and body stimulated, play-full, responsive, vital. From such a perspective play cannot be perceived as a 'thing', to be labelled, a taxonomy, nor a therapy, a psychological developmental necessity, but a 'doing', an event, vital, differentiating and generating, procreative in a world in which all is in flux, all becoming together-apart. What does this play *do*? The import of shark world diffraction and ludic engagements and intra-actions are not yet known as the child plays, at the point of germination ideas grow as played-out event, moments of potentiality and in time such spaces may re-emerge as space-places 'defended in the mind'

(Bachelard,1994) shaping future ethico-onto-epistemological choices and engagements but for now dissolution has occurred.

As this thesis is attempting to put to work Deleuzian process philosophy, Barad's (2007) agential realism, Haraway's (2016) biologically informed multispecies manifesto and Bennett's (2010) focus on agential matter I feel like an apprentice posthuman drawing on this 'grab bag' which prompts rethinking play and theory, and prompts engagement with some unsupervised outdoor play entanglements and intra-actions relating to small groups of children aged under 12 (28 children in total) playing out in 6 housing areas in South West England. What results is an illumination of the creation of children's outdoor play events, spaces, places and the more than human entanglements in agentic landscapes.

Adopting an entanglement of agential realist and 'transcendental empirical'⁶⁵ approaches the research questions initially focused on where children choose to play, what they do in favoured play places, and how they experience these spaces and places (the affects). It moved to a consideration of assemblages, haecceities and entanglements of the becoming players on a plane of immanence in a political and socio-material world, creatively thinking with materials, using cartography, and re-making with ideas of play reconceptualising the landscapes and play experiences in their molecular richness.

A range of methods were introduced into the research doings for this engaging research, including clay and collage, sound and visual recording, and thinking with the acts and agents of playing as participants and researchers travel together through the play

⁶⁵ Transcendental empiricism is a term used by Deleuze that will be explained later in this thesis.

landscapes. Creative artifacts illuminating the play-working through playful intra-actions, including poetry, cartographic sketches and images to disrupt, fold and work away from the normally valorised reflection and transcendent writing to prompt thinking otherwise. Diffractive readings of the writings of others complement such playings. Putting to work these intra-actions prompts a rethinking of children's play and place experiences, of the vitality of play as differentiation and a developing conceptualisation of topoludic agency.

This thesis now is emerging as a posthuman becoming and a form of radical empirical-and-theoretical exploration of children's play close to home, of becoming player and putting to work a 'transcendental empiricism' (Deleuze, 2007:62) and post-qualitative post methodological research (St Pierre, 2019) as active eventing researcher. In her article that rethinks the empirical in research St Pierre highlights her refusal of the concepts of method and methodology as currently used in most empirical educational research, choosing to disrupt that Cartesian understanding that to be is to know, and looks for a different empiricism not grounded in the humanist subject. She cites Deleuze and Parnet's (1977:54) writing;

'Empiricism is often defined as a doctrine according to which the intelligible 'comes' from the sensible, everything in the understanding comes from the senses. But that is the standpoint of a history of philosophy: they have the gift of stifling all life in seeking and in positing an abstract first principle. Whenever one believes in a great first principle, one can no longer produce anything but sterile dualisms'.

(Deleuze and Parnet, 1977:54)

Empiricism acknowledges that the senses inform understanding, but in that understanding the practice of it is stifled or contaminated by the abstract first principle,

leading to sterile 'tracings'⁶⁶ of research . Deleuze explains a transcendental field as distinguishable from transcendence and experience in that it does not refer to subject or belong to object, but is 'pure a-subjective stream of consciousness, as pre-reflexive impersonal consciousness..' (62).

'...transcendental empiricism is the term that I will use to distinguish it from everything that makes up the world of subject and object. It is certainly not the element of sensation (simple empiricism), because sensation merely cuts a slice in the continuous stream of absolute consciousness. Rather it is the passage from one sensation to another, however close two sensations may be, as a becoming, as an increase or decrease in power...'

(Deleuze, 2007: 388)

So here again we have commutation. Deleuze removed the subject (the researcher) from its transcendental position 'as the synthesising, unifying agent of judgement who recognises and orders the world with a priori categories and concepts, thereby knowing it' (St Pierre, 2016:30). For Deleuze the transcendental plane, the plane of immanence, is a plane of pure potentiality not a restrictive possibility constrained by Cartesian or Heideggerian authority (Rolli, 2016). It is a plane of freedom to think differently. The empirical is not taken as it appears to us or for us, but 'for-itself' in its difference with no mediation by the human. The commutation from one sensation to another, the intensities and speed and slowness of transitions in the becoming of the world with time actual and experienced differently are what are important. As a human engaged in attempting posthuman Deleuzian influenced research I acknowledge that it is very difficult not to be a mediating human, difficult to work at the point of commutation. Battram (2002) highlighted a similar issue when referring to working with play, as being

⁶⁶ Deleuze writes elsewhere of 'tracings' as limited duplications rather than the ongoing development of new thinking.

on the edge of chaos, riding the wave: trying not to be controlling, nor to fall into chaos, but riding with the play in its wave like journey to who knows where.

Deleuze's transcendental empiricism illuminates a commutative process reliant on intensities and transitions between philosophical thinking without a-priori conceptualisation and empirical experiential sensual understanding and consciousness in a plane of immanence where subjectification occurs in the process of an event. However, that subjective moment of becoming in event may also be an intersection between material physicality and inner consciousness (Stagoll, 1998, Bennett 2010), but each formative event is unique in relation to its time-space-mattering. The autoethnographic understandings of the researcher are part of the assemblage of space-time-matter. Deleuze (1991) draws on Bergson with his concept of virtuality and refers to memory as he highlights that Bergson 'develops the notion of the virtual to the highest degree and bases a whole philosophy of memory on it' (Deleuze 1991: 43). Rolli explains 'Deleuze combines two aspects of manifold and pure past, thereby making the present actuality of consciousness dependent on the unconscious actualisation processes of a..... virtual manifold' (Loc 532). A subject at root is the synthesis of the present and the past in the light of the future (Deleuze 1991: 92-3). Whilst Deleuze and Guattari consider philosophy to be the art of forming and fabricating new concepts they also indicate that concepts are not forms, discoveries waiting to be found, but are always in the process of creating themselves. Concepts are extracted from events. (Holland, 2013:31) with concept also 'in-formation' as event (Manning, 2007: xvii)

Deleuze writes of a radical empiricism;

‘When immanence is no longer immanent to something other than itself it is possible to speak of a plane of immanence. Such a plane is, perhaps, a radical empiricism. It does not present a flux of the lived that is immanent to a subject and individualised in that which belongs to a self. It presents only events, that is, possible worlds or conceptual personae. The event does not relate the lived to a transcendent subject = self, but on the contrary is related to the immanent survey of a field without subject’

(Deleuze and Guattari, 1995/2001 :48)

Research may be both transcendental and empirical whilst working not to be transcendent. Is it possible to lose oneself to become immanent? Deleuze tells us that the transcendental is not the same as transcendent (Deleuze, 2007: 389) and there is something ‘raw and powerful’ (Deleuze 2007:388) in transcendental empiricism. A raw power that can be understood too in the raw power of play in its energetic vitality (Lester, 2018).

6.5 An assemblage of tools for working with posthumanism.

This play research then intends to illuminate from data that glows (Maclure, 2013) exemplifications of children’s ludic intra-actions close to home. The transcendental empiricism and immanence offered in the process ontology of Deleuze and Guattari (1968/2014 and 1987/2012) is combined with the physics informed agential realism and commutative becoming of Barad (2007), the multispecies, speculative and fabulatory approach of Haraway (2016) and the focus on vibrant agentic matter expressed by Bennett (2010). This use of such theoretical assemblage generates a post-qualitative inquiry (St Pierre, 2019), in becoming, seeking to work through a plane of immanence, considering varying assemblages of child, critters and landscape as a radical empiricism.

The relevant theoretical ideas are expressed further as tracings in the sections below before the cartography and play begins.

The field of interest for this research is that of children's unsupervised, free, play out of doors close to home. It was in part inspired by personal play experiences, experience as a playworker, and with awareness of common-sense assumptions of childhood: nature disconnect with which I had some sympathy. In traditional social research terms, my initial motivation or personal rationale was to illuminate experiences in order to advocate for children's free outdoor play experiences. In shifting to posthuman immanent research I have no power to advocate, for how can I dialogue (or effectively intra-act, if I see others as lesser and to be advocated for (Freire, 1995) but I can illuminate experiences as events and consider it may prompt ethical choice⁶⁷ in others' entanglements with this material. With a shift in perspective my focus becomes not only the othering 'research questions' which were 'where do children play close to home, what do they do there and what do the spaces and places of play mean to children?'. Rather the consideration draws on Deleuze in asking 'how does this play work'? What does the landscape do? It is a consideration of the place based intra-active connectivity to the landscapes of play⁶⁸ close to home as generators of affective subjectivity, intra-actions and differentiations explored through free play.

Despite seeking an immanence and a-subjective stream of consciousness in the research writing I have to acknowledge there was an order to my researcher transition. Following an initial observation and cartographic mapping of the places where children play (see

⁶⁷ In a monist ontology, an equalising ontology, I have no power to advocate for, but may only illuminate within immanence.

⁶⁸ Landscapes of Play are explained in the very broad sense of landscape encompassing the landscape features, creatures, plants and biology, as well as the social and political territories in which children play.

Section 7) I engaged, through locality play days, with 28 children of varying ages between 3 and 12, and in varying group sizes, in 6 housing areas in South West Cornwall. The locations chosen for the research contained both built and natural areas in which unsupervised play occurred. The broad age range of participants was chosen from awareness from playground research that often children as young as 3 are out at play with older siblings but there appears to be a change when siblings reach secondary school. Although something of an assumption, this was echoed in the sample groups.

The research process progressed from an offering of playday events to connect to parents and children, through an observation of where children played in the selected localities (without focus on the child), and a range of participatory research activities and invitations to express *their* play influences and connections (Merzplaques and Merzboards, drawing, recordings, badge making), and finally to joining with the children in ludic explorations close to home in a form of extended, walking method, intra-acting with, performing and reimagining landscapes as we moved through them. Abulhawa (2018) who writes of walking through and performing with the city landscape, balancing along lines, and jumping across paving slabs, argues that such performativity is not only vital, but it also releases the rhythmic ontology of play in line with Lefebvre's (2015) ontology of rhythmanalysis.

Walking methods generated a great deal of data and artefacts about children's free play in their localities and the interconnecting experiences of landscapes of play. This data was then lived with, turned and returned like mixed matter in a compost pile and has been reworked, unloaded from its bin and played with as a re-creation, disrupting former understandings and seeding new plantings for the growth of concepts of play. I shifted from an ethology informed phenomenological researcher considering questions

of what and why, through a 'how is this perceived', to a Deleuzian influenced posthuman asking 'what does this do?' and 'what are these doings doing'?

The initial research methods were participatory and sought a range of ways to ask children and gather from children their views on where they played and why those places were important to them, but it was evident that the common social construct of play was the dominant discourse and understanding in their minds. Deleuze writes of 'common sense' and how that leads to reproduction of more of the same. He asks that we think differently, at times through performativity with the plateau on which we are working at the time.

A question I have struggled with in the design of this thesis (*a transcendent act, surely?*) is how I might write about children's play, a subject engorged with conceptualised doings and baggage of developmental understandings, to a processual engagement with the social, ecological and material as raw and powerful events. There are undoubtedly recognised tensions between posthuman research with its decentering of the transcendent humanist perspective, and the expectations of presentation of a doctoral thesis by a doctoral student (see Honan, Bright and Riddle, 2018; MacLure 2017; St Pierre, 2016). Gale (2018) writes of madness as methodology referring to Deleuzian schizoanalysis. To be such a doctoral research student is to be somewhat schizophrenic⁶⁹. To work without a sense of them and us, child and adult, play and

⁶⁹ Deleuze and Guattari challenged psychoanalysis contemporary to their writing and focused on desire and disruption rather than oppression and lack. In *Anti-Oedipus* clearly stating that they are moving on from paranoia and reactionary understandings but still recognise power in molar structured aggregates that crush singularities. The opposing approach to such powerful crushing is schizoid, drawing on desire, molecular multiplicities and identification of the large Molar aggregates as so many useful materials for their own elaborations. Rather than adhere to coded, molar, striated constriction Deleuze argues, we should follow desires, lines of escape, decoding and inventing 'nonfigurative breaks or schizzes that produce new flows, always breaching the coded wall or territorialised limit....' (Deleuze and Guattari AO 1983/2020: 416)

event, author and reader, on a plane of immanence without self, takes much concentration and the seeking of a playful free-flowing way of writing (Koro-Ljungberg, 2017), an adventure. Research on locality play becomes entanglements of bodies, matter, and policy; players playing as becomings in an ongoing process of worlding with others including the more-than-human. Yet there must be anchors for readers. In the Plateaus presented in this thesis, I am aware some will appear more static and others less fixed as I move towards greater acknowledgement of posthuman becoming (as we were always already posthuman) (Braidotti, 2020).

The following section of the thesis explores the theoretical underpinnings of the field and presents the prompts for moving through participatory and empirical research to a creative posthuman intra-action with the data and more-than-data actively thinking otherwise, including seeking to 'think with' the more-than-human.

6.5.1 Decentring the human.

There are many posthumanisms, but in most a key concept is the decentring of the human. The line of posthumanism I follow has one focus on removing the hubris of the hierarchy generated by Cartesian dualisms of the enlightenment period and the mind:body split of the 'Cogito' that valorised man over 'other than man' and thought over senses, and established a hierarchy of bodies.

Whilst Deleuze focuses on becoming within the milieu, which automatically implies becoming with others and the other than human, Haraway is more explicit. She writes of 'becoming with' (Haraway, 2016:12). Her use of the '-with' renders the non-human partners 'capable' in this decentring. Haraway describes the process thus:

'ontologically heterogenous partners become who and what they are in relational material-semiotic worlding. Natures, cultures, subjects and objects do not pre-exist their intertwined worldings'.

(Haraway, 2016:13).

For Haraway 'companion species' (animals and biota) are relentless in their 'becoming with' and use of the term helps her 'to refuse human exceptionalism' (Ibid). I also did not wish to adulterate the play. An accompanying witness helped me to manage situations and provided feedback at the end of the day.

6.5.2 Commutation, subjectivity in the act of making.

A second core concept in a process ontology is that of motion and adaptation, a shift from subject and object, a removal of the centrality of the human, and a replacement of categorisation with a process in which there is a capacity to change with the environment, to affect and be affected, to come into being through intra-action (Barad, 2007). This is a process of commutation, the emergence of subjectivity through the process of event, acting, together, in the space between (Athanasiadou, 2018). Putting this into action I focus on the action, relationality, emergence of bodies and concepts through the process of engagement and interpellation in the space between the bodies and the bodies themselves.

6.5.3 Diffraction and diffractive thinking

Diffractive reading is about reading in a way that juxtaposes texts and creates new understandings. Van der Tuin (2018:101) reminds that 'diffractive readers do not care about canonical renderings of texts or artefacts' but rather 'zoom in' on how texts, artefacts and humans and non-humans inform each other in their subjective

entanglements. It is a reading method that is neither negatively critical , nor reflexive , juxtaposing text, artefact, photograph, fiction and other matter, and again seeking the commutative emergence of new ideas as interpellations and affects occur, or identifying gaps in the academic canon through seeing in a new way. I found it useful to continue to visualise the diffractive pattern of waves through the double slit experiment (see Figure 10) and consider the peaks and troughs, the cancellations through matching intensities of flow and the light and dark areas of the rise and fall emergence and shadow. In this thesis data glows (such as the excerpts from Woolf, 1923 or the play field research data) and is diffracted through Deleuzean thought, the play cycle (of Else and Sturrock, 1998/201), and thinking through and with the materiality of matter, such as metal. Diffractive reading is a critical practice for making a difference (Barad, 207:90). Just as quantum physical interference illustrated in such a double slit experiment is not about particles hitting an object, but is about patterns emerging through the entanglement of atom, and light and measuring device and objects , so in different writings, or even a comment in a margin, patterns emerge that offer greater illumination (van der Tuin, 2018:101). A diffractive reading and revisiting of Else and Sturrock's Colorado papers (1998/2001) and the play cycle illuminates the wave like ebb and flow of intra-active play engagements, and time-space-mattering as playful acknowledgement of and plugging into the sparks highlights the molecular interpellation of child and place simultaneously. The diffractive reading of Ingold (2015) through Deleuze (1987/2012) led to the use of Deligny's (2015) lines to generate a cartography of intensities and motions in play.

6.5.4 Entanglements, following the Rhizome to Haecceities

The rhizome has already been described and discussed and is the introduction to the major philosophical arguments of Deleuze's *A Thousand Plateaus*. It is a way of prompting thinking in an alternative way to the arboric linking of a-priori classifications. Deleuze presents it as anti-arboric. Deleuze prompts us to think of a root system, wandering unpredictably under the surface, connecting to green shoots in another location, or of rats digging a tunnel in random directions. He also applies the concept of rhizome to forms of thinking such as Freudian unconsciousness, and even the path of a pool of oil as it runs downstream. The book '*A thousand Plateaus*' was even considered a rhizome.

A rhizome has no beginning and end, is a matter of alliance rather than affiliation and proceeds by the linking 'And.....and.....and...' (Deleuze and Guattari, 1987/2012:114). We are told Virginia Woolf offers rhizomatic direction in stream of consciousness. In visual terms a rhizome may be pictured as a ginger root with long tendril roots reaching out, crossing over, exploring unusual progressions (as in Figure 13 and Figure 1).

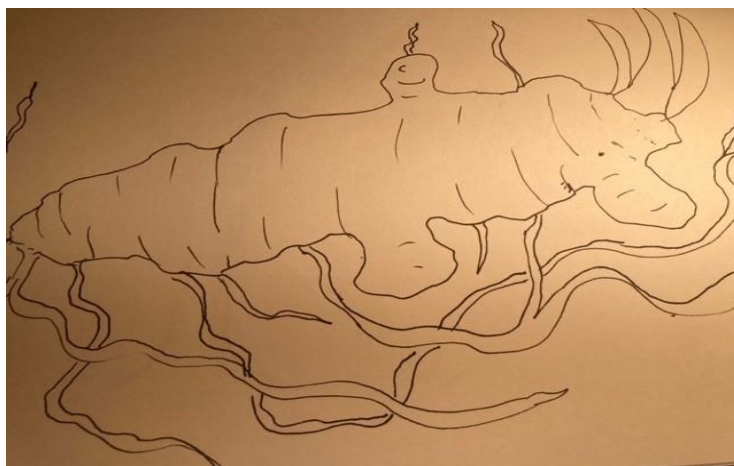


Figure 13: A Rhizome

Such tendril roots could also signify an entanglement, of multiple threads amassed in motion, escaping striation and not yet felted smooth.

The posthuman nomadic subject is materialist and vitalist, embodied and embedded – it is firmly located somewhere according to the radical immanence of the ‘politics of location’It is a multi-faceted and relational subject, conceptualised within a monistic ontology , through the lenses of Spinoza, Deleuze and Guattari, plus feminist and post-colonial theories. It is a subject actualised by the relational vitality and elemental complexity that marks posthuman thought itself. (Braidotti, 2013:188).

We can juxtapose this usefully with the words of Deleuze:

‘One is always writing to bring things to life, to free life from where it is trapped, to trace lines of flight. The language for doing that can’t be a homogenous system, it’s something unstable, always heterogeneous, in which style carries differences of potential between which things can pass, come to pass, a spark can flash and break out of language itself, to make us see and think what was lying in the shadow around the words, things we were hardly aware existed’

(Deleuze, 1995:141)

Haecceities appear to be similar to, but different from assemblages. Referring to ‘thisness’ from Duns Scotus (1266-1308) Deleuze and Guattari translate an understanding in which the body is not defined by its form, labels, substance nor cultural influences or ‘organs’. Rather it is delineated by relations of movement and rest, speed and slowness (longitude) and by intensity and affect capability at a given power/potentiality (latitude). Haecceities can be perceived as a mode of individuation that is different from that of being a person, subject or thing. Outlined by Deleuze as being a non-personal individuation through events. Concepts can be haecceities too; as concepts arise from events, and what Deleuze outlines with haecceities are the speed and slowness and intensity and affects. There is a relationality in a haecceity. Deleuze refers to himself and Guattari writing in partnership as a haecceity. Haecceities are the sum of the factors and forces that are actualised in the creative emergence of a thing made up of many

parts, emergent through the event (Deleuze and Guattari, 1987/2012: 304). The relationality makes the difference and individuation as haecceity we are told, is very different from that of a person, subject, thing or substance (Ibid). Finally, Deleuze and Guattari, after giving many examples of haecceities, including the intensities of wind, things, people, faces, and words in Charlotte Bronte's *Wuthering Heights* return to the assemblage and tell the reader;

'A haecceity has neither beginning nor end, origin nor destination, it is always in the middle. It is not made of points, only of lines. It is a rhizome'.

(Deleuze and Guattari 1987/2012:307)

I pursue rhizomes, following threads of interest, which become entanglements of assemblage, in turn becoming haecceities in combination of intensities and velocities, which are rhizomes.

6.5.5. The importance of making, worlding, playing, walking, storying

Deleuze and Guattari (1987/2012) promote the primacy of processes of becoming over static 'states of being', and it is through 'doing' or 'making' with material its tensions, elasticities, flows and resistances can be experienced. Whenever we encounter 'matter' it is in movement, flux and variation, so that 'matter-flow can only be followed (Deleuze and Guattari, 1987/2012:478). They highlight, with a specific focus on metallurgy, that 'artisans are practitioners who follow the flow,.....itinerants, wayfarers, whose task is to enter the grain of the world's becoming and bend it to an evolving purpose' (adapted by Ingold, 2013:25). Ingold summarises (Ibid:31) that the challenge to the hylomorphic

model, which reduces matter to inert substance, is the relation between making and vitality.

‘in the act of making the artisan couples his own movements and gestures, his very life, with the becoming of his materials, joining with and following the forces and flows’.

(Ingold, 2013:31).

In making an artisan can discern life in the material and collaborate productively with it (Bennett, 2010:60). Lenz Taguchi (2010) illustrated this in her piece on student work with clay as being ‘of the world’. I have chosen to make (and think) with matter through drawing, cartography, collage, and photography as part of my process of becoming with the worlding that the play has thrown up. Children also engaged in the making with clay, plaster, merzplaques and merzboards, clover and maize and many other ways to make their becoming way with materials, worlding the world and playing the inert players so breathing life into the commutative moment.

6.5.6 On Storying:

Although I have argued for a decentred human, allowing minority peoples, which I perceive includes children, to come to the fore, I also acknowledge the strength of the human as storyteller, imbued with their own autoethnography and speculative ability to generate imaginary futures for thinking about the present. Whilst presenting words on paper that generate something in the process of writing (Richardson and St Pierre, 2008) there is also an undercurrent of the person writing it, their time welling up from past and present to join the space-mattering. The presentation of the vignettes of children’s play and the annotations beneath the images of data collected with the children are stories. Through them I tell a tale a certain way which in reader diffraction will prompt understanding or thinking, or to seek clarity and further probing. In this thesis the

Preludes relating my own experiences of play in childhood and of the lives of whiting, skylark, chough, and children are stories. Thinking through worm in Plateau 9 is storying with researched information and experience. A good story highlights with finicky and disruptive detail that reaches into pasts and sustain thick presents, they make the listener or reader think, and perhaps think differently, about the thing being storied (Haraway, 2016:125). Storytellers should have a zest for facts, telling a story craftily, without undue stress or excitement so that we savour the parts rather than ‘swallowing it whole and jumble(ing) the parts together’ (Woolf, 1925/2022 date: Loc. 1064), the storyteller must ‘let us stop, give time to think and look about us, yet always be persuading us to move on’ (Woolf, 1925/2022: Loc 1065).

Woolf writes of storying with prose as having the ability to make us think, to ‘sting us wide awake and fix us in a trance which is not sleep but rather an intensification of life – a basking, with every faculty alert...’ (Woolf, 1925/2022:Loc 1220). Haraway presents us with the worldly-wise words of Ursula LeGuin and her therolinguistics⁷⁰;

‘and with them, or after them, may not come that even bolder adventurer, the first geolinguist, who, ignoring the delicate, transient lyrics of the lichen, will read beneath it the still less communicative, still more passive, wholly atemporal, cold, volcanic, poetry of the rocks; each one a word spoken, how long ago, by the earth itself, in the immense solitude, the immenser community, of space’

(Haraway 2016:125 citing Ursula Le Guin’s ‘the Acacia Seeds’).

Storying with the data is an important part of thinking differently, it is through storying that one learns to think (Woolf, 1925). Or as Haraway (2016:3) puts it ‘Science fact and speculative fabulation need each other’ with an author ‘plucking out fibres in clotted

⁷⁰ Therolinguistics is a word created by Ursula LeGuin referring to the language of animals. Geolinguistics is her word for the language of the earth/ground/land (and all that lives with it).

and dense events and practices' to 'follow the threads where they lead' in a playful way to find the tangles and patterns, adventuring with them, and making and unmaking figures to pass on.

In this thesis I adopt a speculative fabulatory approach in the penultimate section, storying and speculating about children's play futures in an ever developing topographical urban/rural space and urban/rural space disconnect. By this latter I mean that the urban can sometimes restrict the access to the rural which generates a binary such that the rural is then accessed by human as something other than the regular urban existence which in turn regenerates the old binaries of urban sinful and rural good whilst in reality nature-culture are entwined and intersubjective just as the urban emerges from the rural and the rural invades the urban in all their goodness and future worlding: the inside out and outside in as Deleuze might comment - a peristaltic pressure point, pushing on to something different.

6.5.7 The Processes of data collection

The initial research methods were participatory and so established a schism between participant and I researcher although I sought a range of ways to ask children and gather from children their views on where they played and why those places were important to them, but it was evident that the common social construct of play was the dominant discourse and understanding in their minds (with football play, playgrounds and toys). Deleuze writes of 'common sense' and how that leads to reproduction of more of the same. He asks that we think differently, at times through performativity with the plateau on which we are working at the time. As I relaxed into becoming posthuman I realised that it was important not to try to be transcendent, but immanent, becoming with the players playing the matter mattering to them in their/our momentary playful

worldling. A shift to accompanying, joining with, and following the forces and flows of the players' play lines. Data was 'collected' I suppose, in that it was still gathered, photographed, stored in the archive, lived with and turned and re-turned to....., but was also created, performed, experienced, and 'glowing'.

6.5.8. Positionality and clay

Lenz Taguchi (2010) highlights the different positionalities of being on the world, being in the world and being of the world. As researcher I have understood and worked through these positions. Being on the world and outside of children's play for fear of adulteration of it. But then placing myself inadvertently as more powerful 'other' bounded, binary, adult asking child of their views on their play, adulterating through perception. In data collection for this thesis this approach attained very stock answers – 'I play football, I build dens, we come to this field as it is the only playing field around, I come here to see my mates'. The answers were useful, but limited to the transcendent subjectified understanding of play. The instrument of research was shaping the research even though carefully thought about methodologically. I then reached for matter as research tool, influenced by Kurt Schwitters' artworks and Lenz Taguchi (2010) I offered clay, wooden frames, found materials gathered and shared, to illustrate and illuminate play spaces and places. The move was to a subliminal response to place through material presented then discussed. Some children responded by playing with the clay, as clay, hand, matter, water, colour assemblages and no research data artefact was produced (though with hindsight I should have also considered that as data). Other children were very representational in their approach, using the materials to reproduce drawings in collage form, of dens and climbing frames. Some did generate 'found item' collages, 'Merz plaques' illuminating their play places through seed heads and rope pressed into the clay and then removed generating plaster relief plaques. I was looking

for material engagement and the apparatus of data collection prompted the data expected.



Field research -artefacts generated at playdays. Children were asked to gather anything from the play areas that would help me to understand the importance of where they played. They built frames and clay tiles for bass relief, pressing the found materials into the clay tiles before removing and covering the reverse relief with plaster. Here you can see the importance of seeds and seed heads, leaves, seashells, found seed pods and nuts. The climbing frame is represented along with the rope of the rope swing, and seashells. The bottom of the 4 plaques in the top image above is a representation of the monster who resides nearby. Materiality and fantasy, subconscious and conscious representation are all offered. The white plaque was from a location near the sea and has small found shells, seagull feather and rope on the sand.

Figure 14: Five Merz Plaques: Fieldwork data representing the play spaces and places.

A second iteration of the Merz approach was to offer a cardboard sticky palette on which found materials could be dropped.



Field Research 2017: a Merzboard from location 6. Illumination of material that helps to illustrate how children are anchored in their sense of place. This board was generated by three children, one of only 3 years 'helped' by two of 10 and 12 respectively taking back things from the walking play environment exploration. It shows snapdragons ("plants that can talk like puppets"), shiny soil (contains mica that "shines in the sun when rubbed on the hands"). Mouldy wood ("it stinks"), fluffy bit of ("dead") bunny, "fairies" – the white fuchsia flowers being likened to dancing ballerinas, an orange petal which "looks like the sunset and is smooth like velvet", seeds for picking ('are they designed by nature to make us want to pick them for distribution as we recognise seeds are coloured to attract birds?'), sweetcorn hair (the affordance offered at the top of the maize husks, that became clip on pony tails), a seed "like a skull" capturing the 'horror' of the maize monsters just told in a story, squashed blackberry "mmmmm but there is a lot of black colour in there", 4 leaf clover (not just picked but created from two as something special to put on the board) and things to just pick and scatter. The honesty seed that can be peeled, the seeds that spin, the nettle that can be picked if you are very confident in doing so and it will not sting you. This board was one that made me realise the micro connectivity of children within their childhood-nature-space entanglements.

Figure 15: An example of a Merzboard

6.5.9 The initial observation of play locations and playways, residual data and trails.

The initial approach, before even the making of Merzboards or Merzplaques, was one of just sitting and observing, an ethologically influenced approach, seeing the children's play trails and movements answering the question 'where do children play'? I drew maps of the locations and notes of the movements, taking photographs of key areas where children had been playing or pursuing lines of flight. Such observations identified that they play not so much on the organised play spaces but in the liminal areas around the molar designs, leaking out of playgrounds, pathways crossing the streams, going up the banks, through the hedges and gaps, circling the tree trunks, and going unusual ways down highways and playways, following intensities, creating flows. I gathered photographs of where children play, I cartographically mapped where the fluid areas appeared to me.





The initial observations of the play spaces and places highlighted the many lines of flight –children’s playways and byways away from the playgrounds designed for them. Some led to water running, or pools in which creatures could be fished for, an old cattle trough, for example. Others led to holes in bushes, walls, allotment hedges, escape routes, threshold places, movements through boundaries. Paths, runs, ‘holes.

Figure 16: Images of play by ways and paths of flight from molar striated play spaces.

6.5.10 Guided tours and shared experiences

Whilst being in the field with children at the playdays opened up more understanding from the children I was then ‘flying alongside’, I was no longer in the cockpit (Hughes, 2012). Queuing for bobbing apples gives the opportunity to hear and talk to children about their play opportunities and conversations around issues that affect them as we are in an experience together. The swinging ropes kept getting cut down they told me in all of the locations. The dens were similarly appropriated by others, then reterretorialised and deterretorialised again. The junk-built skate areas were destroyed by local authority officers who then steered the skaters towards the new skate park. The tree root meeting place was vitally important, but then ‘burnt out’ by older kids invading ‘their’ space (it survived but is more dusty and blackened now). There are

continual territorialisations, deterritorialisations and reappropriations in the children's spaces of powerful tensions. Molar places were disrupted molecularly, but then appropriated by the molar, the striations bounding children's experiences but with a continual process of lines of flight and deterritorialising: disrupting acts by children refusing to be canalised in their play. Then a pause as the places were lived-in for a while before further disruption. New skate areas are built and destroyed, then existing places not for skating are used as such (supermarket shopping trolley park bars for example, or steps and kerbs). Some spaces become both perceived and lived (the new concrete skatepark in the estate recreation area, the football goals on 'the only free pitch around'.

'you never know what a body will do what it can do, in other words what its affects are, how they can or cannot enter into a composition with other affects, with the affects of another body, either to destroy that body or to be destroyed by it, either to exchange actions and passions with it or to join with it in composing a more powerful body'.

(Deleuze and Guattari, 1987/2012:300)

Children swung from building site poles, climbed trees, gate-flipped over fences and five bar gates, and some even climbed the all-weather net boundary or backflip somersaulted off vertical concrete. They appropriated and claimed territories, and experienced deterritorialisations prompting new settlements. The given playgrounds were observed as meeting places from which adventures occurred, the attractions of the elements, and the marking out of territory (my recounting here is a storytelling from the data, and this is further illustrated by the location maps and the lines of intensity of Figures 29-33.

6.5.11 The machines were offered to gather data – Smiley Face Cameras, Recording devices.



Figure 17: Recording methods were Smiley Face Camera badges, Dictation machines, digital cameras.

After initial observations, playday creations, and children’s guided tours from events I found myself working with 28 individual children who gave assent and a form of consent in writing, prepared to show me their play spaces and places close to home. I now introduced methods of gathering data in the moment. Although aware of Barad’s comments about the machines of measurement becoming part of the intra-active commutative elements and so shaping the phenomena being measured I put to use digital equipment. I was inspired by Waite’s (2013) research on children out of doors, researching with recorders hidden in worn red bags which signified the wearer was wearing the device so that other children could assent or withdraw consent. I found bright yellow ‘smiley digital camera badges’ (see figure 17) which would signify the user was wearing a recording device and also digitally record the event. Children agreed to wear these on the days that I accompanied them on their play. Sounds and sights were recorded as from a child’s eye, but as assemblage with wind sound, water sound etc

depending on how they were used. The children as players journeying captured the agentic rustle of wind over the movement of child on scooter over rough tarmac rushing past now recorded on film too, an assemblage of sound and sight. The child climbing the tree wearing the smiley camera told of how she had climbed the tree before and fallen, but was now secure in being able to see far from the top, and the camera recorded the closeness to the bark and the creatures living in it, the hanging caterpillars, the rustle of the leaves and scraping of the branches.

The equipment was immanent to the play created by and with the playing players playing the world as the world was playing them and moved the research to another level. Here there was the opportunity to see, hear and feel the increased molecular minor entanglement with the materiality of the locality and the importance of that to children's play locally. I experienced the closeness to the minerality of the roads and kerbs, the motion of movement towards ground in a tripping, the flow of wheeled play. There was a momentary flight from talking about maize corn, to peeling the leaves and pulling the hairs, making dolls that became witches as the roots became witches' fingers, and then the physicality of the running into the maize lines between the corn, screaming, hiding, seeing the rich soil, hearing the loudness of the rustle as the wind gently blows the corn with a loud shshshshshshshshshsh. 'It sounds like the sea, waves of shhhh, aaaaah,' the vital energetic rushing has come to a pause, not annihilation, more a gentle attrition, dissolution, and we lie on the ground soft with moss at the end of the field aaaaaaaah a metalude, a pause, a moment of regathering, after such intense entanglements.

6.5.12 Walking Methods: performing spaces.

Several posthuman authors and researchers write of performing spaces (i.e., Abulhawa,2018), of walking methodologies to understand the engagements, of being and becoming with for understanding as doing rather than asking from. As we walked with and through environments, as players together, we encountered opportunities to intra-act with each other and the materiality of spaces and places. We walked with and experienced through sensorial bodies performing with environment, with the result that we know as we go (Ingold, 2000). Walking-with and through environments as players provided opportunities for the children and I to encounter each other and the materiality of spaces, the arising potentiality of events, to be with objects, intra-act and co-create sensory, nature based knowings. Living in and being with the world means we encounter ‘a lifetime of intimate gestural and sensory engagement’ (Malone and Moore, 2019: 9). Walking methodologies figure centrally to the view of place based post-qualitative work adopted in many projects, for example Malone and Moore (2019: 12; citing Aldred, 2014:31); ‘..... To move through a landscape is to dwell in the movement, occurring relates to and reflects on the material world as it is experienced and moved through’ .

A pattern I saw in many of the play experiences – the fluidity of movement from child scooter on roadway, thrown down as we move across a small cut lawn green to the stepped landscape and trees at the boundaries, into the blackberry and ivy we went together to find the dens influenced by the agentic shape of the branches of the trees, social and material entanglements in time space mattering in pockets of land, the child uses the cleft of the spreading tree to make rooms, which further smooth and spread the tree enabling further room creation, just above ground level, not on the floor, immanent with the earth, but raised, transcendent bark peeling connection to the earth.

There is a moment of social play, of making the den places, before a pause, a metalude, motion stills, the children rest. They look around – ‘look I’ll show you how I climb that tree’ We move back to the large tree on the edge of the green. The camera captures the bark so close to the climber, and the motions and movements up and down the tree. There is again a vital energy. “I can see the sea””I fell off here once”The adult me as researcher comes rushing back and I am close to adulterating this play, an ethical dilemma....And so in this molecular entanglement the ethico-onto-epistemology of my Deleuzo-Baradian approach illuminates so much more, the data glows, the meanings resting before becoming actualised in intra-actions with others.

Traditional qualitative research is committed to revealing patterns and regularities, an approach that MacLure calls retroactive, and ‘makes things stand still, and the price of the knowledge gained is the risk of closure and stasis’ (MacLure, 2013b:662). Shifting the gaze to seek expansive thinking otherwise and creatively engaging and exploring together-with-others and diffractively the nature of locality landscape and person play engagement and intra-action of human and more than human players illuminated new understandings.

This became a piece of research about the researcher decentring her humanistic gaze, acknowledging the more than human and learning to think otherwise, and ethically in the moment, in the process of becoming creatively posthuman player. Researching such locality based free play also prompts a rethinking of play as concept. The light and shade of the play diffractions highlighted data that glows and knowledge production became a collective affair.

Deleuze and Guattari’s post-modern process ontology and concepts of immanence, assemblage, lines of flight, folds and haecceities are put to work and prompt a rhizomatic

diving through the layers of childhood-culture-nature to an illumination of molecular entanglements and detail highlighting the play-full posthuman ethico-onto-epistemology of knowing by putting unusual things to use, interpellating, imbricating, layers of experience being created with by players responding to sparks of interest whilst they are played by the topology of their local landscapes for play. Smiley camera captured motion of child leaping from rock that had called to her 'climb me, jump from me', rustle of clothes, gasp of fear, giggle on landing, knees bending grass rising, assemblages in action. Participation by children became playful engagement-with-children-and-the more-than-human as many were accompanied by dogs, or found creatures.

Some authors (e.g., Lester 2013) remind me/us that the appeal of Deleuzian philosophy (and the same could also be applied to Barad's quantum physics-based understandings) lies with its potential to be used in 'many different ways and in direct relation to practices and events in everyday life' (Olsson, 2009:24-5). It is through Deleuzian geophilosophical process ontology (1998/2012) and the imbrication of Barad's (2007) quantum physics informed agential realism that I/we are challenged to decentre anthropocentrism, the centrality of adult humanity, and are prompted into a space that actively challenges habitual ways of seeing and representing the world. I was not being playing child, but playing with the landscape too, playing with the assemblages, creating from the doings. Doing so 'reveals a realm of ever-present virtualities, of the not yet known, waiting to be released' (Lester, 2103: 131).

Such thinking differently about play 'disturbs the foundation upon which dominant understandings of the nature of children's play, and by inference childhood and adulthood are constructed and reveals a different way of attuning to and caring for

multiple and lively ways of being together' (Lester, 2013:131). It highlights the value of movement, performance, experimentation and doing as concept fabrication (Manning, 2012, Ahmed, 1999). All is in the process of becoming, with potentialities not yet known until actualised through intensities from the virtuality. There is an alliance of Deleuzian language of action with what we might expect of definitions of play. A philosophy of movement, experimentation, shifting locational familiarities, lines of flight and workings and reworkings

'Children's play marks a timespace in which ever-present virtualities are actualised, producing moments of children *becoming-different*; that is, following their own desires rather than following adult determined pathways'.

(Lester, 2013: 131)

The work of Haraway is also 'seriously playful' (Haraway, date) through 'injecting disturbances into habits of thought and common sense to produce new and (potentially) exciting possibilities' (Lester, 2013:132). Barad (2007) acknowledges how the diffractive process 'plays with' the peaks and troughs, light and dark of wave reactions and intra-actions. Deleuzian rhizomatic, potentialities offer a perspective that moves 'towards new more agile thoughts that palpates what it cannot perceive and gestures at what it cannot grasp' (May, 2005:115). Haraway's approach is evidently playful through its tentacular thinking, fabulations, language puns, and the lively shifts from one idea to another. To hear Haraway speak in her film, *Story Telling for Earthly Survival* (Haraway and Terranova, 2016) the playfulness and continual disruption and reconnections in experimentation is so obviously playing with philosophy 'in all its bumptiousness'. Tentacular thinking leads to nomadic wanderings. A player, as posthuman nomad, is also embodied and embedded, waiting for actuality through enhanced event. The place engagement is not of secondary attachment, but being *of* the landscape, political and

potential. Motion through the landscape, whether of thought or in action. This is more about attitude than process, but I have tried to maintain some sort of bumptiousness in my approach.

6.5.13 Drawing the threads together, apart.

In this section so far, I have indicated the range of methods used to produce 'data' for this thesis study on children's play out of doors and of my researcher journey to acknowledging my posthumanism. The methods indicated can be summarised briefly as follows:

- 1) Playdays to inform communities and connect with families and children and achieve consent. At these events were also data producing activities such as drawing and badge making, merzplaques, and interviews with children.
- 2) Initial observations of the play spaces and places within the communities who have accepted a role in the research. This produce data of notebook drawings, journal entries, photographs and maps, and merzboards collages.
- 3) Further events or meeting up, in which children and I and my partner as uninvolved witness went for a walk so that children could show me their play spaces and places. Some children wore Smiley Face Cameras and other had Dictaphones. This generated more digital data in the form of interviews, sound recordings, photographs, film and notebook entries and physical data in the way of found objects and further merzboards.
- 4) I worked particularly closely with some children who engaged in play with me, taking me further into their play landscapes and byways; this generated film

data, from several sources/angles on the same events, field notebook data, Merz collages and recordings especially of field sounds.

I had now generated a great deal of data of different types, across several days of engagement over 3 years in 6 play spaces and places. This formed my 'archive' of data. I now had to consider how to make something from this data.

Choosing to work with immanence disrupts normal discourses of methodology. In her outline of post-qualitative inquiry St-Pierre (2019: 3) argues for a denial of 'a social science research methodology with pre-existing research methods'. We should be seeking creation of the not yet, instead of a repetition of what already is. Methods are not 'applied' but understandings or concepts come from events and in order to think differently we should find ways to reorientate our thinking and perhaps to generate events. Whilst I had generated events in the production of the data, I was cautious not to stifle and still the data at the point of analysis either.

I decided not to transcribe the data for that would segment and dissect the wholeness, but, drawing on Ingold's mention of the sound wall, decided to immerse myself in the sounds as I was working, playing the data over and over, or taking time to look through the photographs and drawings. The archive was categorised into location so that I immersed myself in one location at a time.

I now focused on how I might analyse the data that I had collected. I did not want to do a 'thematic analysis' or any form of approach that would flow against the becoming anew concepts of Deleuze and the feminist posthuman theorists and researchers mentioned throughout this thesis. I found inspiration in Somerville's (2017:35) 'anarchive', which she describes as a new creation from the recent research data.

Somerville uses her past data to generate the new. The process is to extract the data segments and then pair them with new creation of some form that continue to work with the decentring of the human and exploring new modes of thought and reconfigurations of the data. Her approach generated for her; poetry, storying, and a consideration of the nature of water.

I wanted to work with both empirical data and philosophical ways of thinking that appeared to align with my understanding of play as a process, experienced as a vitality and fluid pursuance of lines of interest. I choose to work with the writings of Deleuze (1987/2012), Barad's (2007) agential realism and understandings of vibrant matter (Bennett, 2010) to encompass the more-than-human.

There is a prompt to find new ways to engage in the 'non-methods of post-qualitative research' (St Pierre, 2019). In order to foreground data that glows (MacLure, 2010) and so I looked to how I might work with the data to illuminate and exemplify vignettes of play, play-space experiences and the more than human implications such as material intra-actions through following rhizomatic roots to explore data of landscapes, material prompts, and stories of bodies, agency, motion, intensities and flows, the creative entanglements of play, at play.

Deleuze and Guattari recognised the challenge of such letting go and experimenting in creation and pressed for experimentation;

'Make a rhizome. But you don't know what you can make a rhizome with, you don't know which subterranean stem is going to make a rhizome, or enter a becoming, people your desert. So experiment'

(Deleuze and Guattari, 1987/2012:292-293).

So, I experimented. I thought through the play spaces with Lefebvrian conceptualisation and Deleuzian smooth and striated, I thought through the merzboards whilst thinking with matter. I looked through the photographs with an eye on the glowing. With rhizomatic rooting through the data, following the threads to where they led me. I threw off my master's gown and put on my play suit, and then played with the data. It led me to consider the interpellation of the 'Shark in the Trees' through a streaming of ideas that made depth of something seemingly so easily understood, the interpellation and imbrication of experience, assemblage stimulation and fantasy enactments. I thought through football field and cave. I was led to consider the arachnean gossamer lines and pearls of Deligny (2015) as intensities and flight, and how this might further illuminate the motions of children's play spaces and places. I thought with matter in line with Bennett (2010), of worm and metal. And thought with words and sound, and rhythms enacting a 'methodological pause – a temporal stasis in which space-time-matterings shift. Slowly' (Ulmer, 2017:207). I thought diffractively through the Colorado Papers (Sturrock and Else 1998/2001) and drew doodles of play cycles in thought processing event. I thought through writing prose poetry, engaging in writing that 'follows the rhythms of celestial bodies, land formations, climates and seasons, flora, fauna and our material selves (Ibid). to 'do' research that only ever seeks to animate life in its vitality, to set life free (Henderson, 2018:157). I built a collage from the bits that fell attractively from the heap.

Of his Merz Schwitters said

'Merz had no meaning when I formed it. Now it has the meaning which I gave it. The meaning of the concept 'Merz' changes with the changing in the insight of those who continue to work with it. Merz stands for freedom from all fetters' (Schwitters in Chipp, 1968:382)

The data percepts too changed with the insight of the researcher working with it, trying to remain free from all fetters, making rhizomes.

Deleuze and Guattari use words in different ways throughout the same work which can be confusing at times. The rhizome, the role of which is to overturn order and to find new cartography rather than tracings is identified in places as a collaboration, a sympoiesis of different elements or bodies and this use contrasts with other places where they have emphasised the importance of being a rhizome, as if it is a movement rooting in different directions. Deleuze prompts us to think of a rhizome as a root system, wandering unpredictably under the surface, connecting to green shoots in another location, or of rats digging a tunnel in random directions. He also applies the concept of rhizome to forms of thinking such as Freudian unconsciousness, and even the path of a pool of oil as it runs downstream. Regardless of how it runs a rhizome is multiple, event, and unpredictable, requiring experimentation. The data analysis and presentation was similarly to be a multiple event. I am prompted again to think of play and how, regardless of what is offered, or even if the same park is visited as in Dylan Thomas' words, the rhizome event will take different turns and directions giving each encounter a new milieu, intensity and singularity.

In adopting an ethico-onto-epistemology in which concepts and understandings emerge as events, through entanglements and commutative subjectivity there is a compromise. It is not possible to predict the direction of travel but there must be some signposting. Tools are used to gather data, but these will also influence what is gathered, and form a part of the assemblage in action through to the analysis. The Dictaphone dropped in water prompts giggling and records sounds of water seeping past. The smiley camera focuses on chest height bark passing and without muffle captures the sound of wind in

distorted diffractions. The listener listens and understands the assemblages, the creator creates, the reader makes sense again from data offered.

6.5.14 Ethics

Working with a becoming ontology (Deleuze, date; Barad 2007) is a challenge to traditional research integrity and ethics as the research design must also be fluid in response-ability in relation to the intra-actions and events that occur. I am reminded again that the Deleuzian informed posthuman research philosophy prompts new ways of thinking that disrupt the canon of Cartesian dualisms and binary thinking, leaving an awareness that in every engagement, interaction and intra-action there are implications, and that there is a responsibility in even engaging in the commutative space.

However, there are primarily 3 core approaches to ethics that are illustrated in this section, and in a way these also mimic my journey and acknowledgement of the tensions between a desire for advocacy and critical awareness, academic expectation and the Spinozean ethics as a result of acceptance of monistic immanence and the fluidity of diffractive emergence that requires a responsive ethics 'in the moment' rather than a-priori.

Traditional ethical procedures and protocols:

These (traditional) ethical protocols arise from transcendental perspectives of a higher morality and othering of bounded individuals (researcher and participants) and inform traditional ethical approaches such as the seeking of consents, the concern to do no harm and remain objective.

In terms of this particular research this involved the seeking of consent from communities as gatekeepers, from parents/carers in order to work with the children who were then participants giving assent. These are outlined as stages 1-3 on the ethical protocol and each had their own ethical considerations in terms of process, being informed and non-coercion.

I did have a couple of concerning areas in relation to this very static, bounded approach: the initial observations of where children played (the mapping out of the landscapes of play before the individual participant consents, and secondly the use of video cameras and audio recording devices and the lack of control I would have over boundaries (non-consenting children engaging with the research conversations for example). The solution to the former was initially to claim it was more ethical to operate within a position of non-adulteration when children were playing and, having sought community consent, to be walking as any member of the public would, through the estates in question but noting residual evidence of play, with the potential of also having been able to see some general gatherings and play in action, recorded generally not specifically in the research diary. The data captured at this point was largely photographic evidence of the topography of play, revealing where children played and what they left behind (tracks, trails, dens, hanging fish buckets etc.).

The second issue had been addressed in my ethical application through a procedure drawing on work by Waite, Rogers and Evans (2013) in which the recorders were put into red 'backpacks' worn on the front by the children so that the other children could easily identify those recording and move away from them if they chose to withdraw assent. However, in practice I discarded the backpacks as I had both identified bright yellow wearable 'smiley face' cameras which were easily discernible by other children,

and found that it worked best for the children to monitor their own engagement with the voice recorders by holding the recorders and knowing how to turn them on and off. I also recognised that the recorders could capture conversations that are inappropriate. If this happens the nature of the issue will be considered and dealt with at the time. I had pre-empted events and expectations and addressed issues of bullying stating, if children are heard bullying others, that will be addressed directly with the children, if there is concern at a level of abuse that requires further engagement the researcher is trained in child protection and will take appropriate steps. (In practice I saw no bullying, rather without the boundaries of school fences, or walls the children seemed able to flow in and out of relationships in a way that managed de-escalations, but this is an area for future research).

6.5.14.1 Critical ethical activity and praxis

These are ethical considerations that sit within an ethics of affirmation within radical immanence, a non-acquiescence with the conditions of the present (Braidotti, 2020). It matters that I tell stories of children's play in order to illuminate the opportunities and nature of the engagements and events, it matters that I amplify children's voices, it matters that I choose to work with the posthuman predicament of the anthropocene (Braidotti: 2013a), and staying with the trouble (Haraway, 2016).

6.5.14.2 The ethico-onto-epistemology of Immanence

Finally, this is not a morality from above, but an ongoing recognition of our entangled multiplicity as a being: becoming subjectified through assemblage intra-actions, which require an 'ethics of experiment with intensities' and an 'enlarged sense of interconnection between self and others' (Braidotti, 2013a). This latter combining of ethical values as praxis within an enlarged sense of community bound by a collective

effort towards experimentation and actualisation is very different from that shaped by and for bounded individual subjects drawing on morality from above, it is a rendering of others as affective and affecting, as capable (and generous) contributors to the entangled community in its becoming other.

I have already highlighted Haraway's reminder that for the successful ongoingness of the leaky bodies in sympoeisis,

‘It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties. It matters what stories make worlds, what worlds make stories’.
(Haraway, 2016:12)

Secondly, in an ongoing becoming ontology in which intensities provoke potentialities and subjectivity arising from the virtuality the details matter as they disrupt matters of scale, size and age. For researchers this requires a methodology that ‘is attentive to and responsive/responsible to the *specificity* of material entanglements in their agential becoming. (Barad, 2007:91).

The posthuman agential-realist ethico-onto-epistemological perspective acknowledges that all action has an impact and therefore we must work with an ethic of care throughout; secure in the understanding that being and becoming are intertwined with knowing through activity or action; and that the world is in flux in a process of intra-activity generating intra-emergence through an ongoing process of meeting and differential mattering. To continually work with a process ethics and process ontology requires ongoing reflexivity and choice.

Ethics was applied both procedurally and continually. The transcendent procedural ethics drawing on external moral rules were applied in seeking consent first from the

community through playdays, then from parents and carers in writing, before assent from the children themselves (see Appendix 2).

7. Participants, Locations and More Than Participants

7.1 Introduction

The human participants were 28 children aged between 3 and 12 years of age living in each of the 6 residential areas chosen (and which are outlined in 7.1). They volunteered to take part through a process of contact via Playdays that I organised in each community. I followed through by making connection with specific families who wished to participate. The playdays were a combination of offering bouncy castle and arranged activities including drawing, badge making, clay and plaster casts, and sports equipment of various kinds. Activities at the playdays varied slightly between locations according to the community request and size of play areas. All had access to basic recording equipment for interviews with children either with me as interviewer, or children interviewing each other. I worked closely with 28 children, but had informally observed the playing movements of more through emphasis on their trails, paths, worn areas, the engagement in the play days and other evidence of activity as below.



Figure 18: Field evidence of children's play activity without a focus on the child.

The locations were chosen on the basis of my personal awareness of the town's playing fields and places to play in those communities. I had sought out places that had easy access to both man-made landscapes (roads, skate parks, play equipment, pavements, railings and so on) and natural⁷¹ semi-wild environments (unbuilt-on corners of land with mature trees, patches of bramble bushes, pathways through woods, or meadows and so on). One location was the housing estate on which I had in my professional past some 15 years ago seen the 30+ children at play in the same broad game using the climbing frame as castle and the stone walls as play areas for hiding in. The stone wall was now fenced outside of a new purpose-built play area (on which I very rarely saw children playing).

I have thought hard about sharing the ages of the children and was asked at the transfer discussion to consider presenting the level of deprivation of the communities. However, given that I have emphasised that all children play, and with knowledge that I observed

⁷¹ I am aware that there is no such thing as a 'wild' semi-urban environment as humans shape the land, but I use the term to cover things like rough areas of land to the edge of the playing fields, patches as yet unbuilt on that are covered in blackberry brambles and old man's beard but with pathways through them.

children playing over 3 years and that children do not develop at the same pace I have decided not to share ages, (except to indicate the broad range 3-12 years and to refer to 'youngest' and 'oldest' where it seems appropriate in relation to the data produced). I have decided not to offer deprivation statistics as to do so does not seem to be in line with Deleuzian or Baradian thinking, especially as the machinations of collection may generate self-fulfilling prophecy for the areas concerned.

7.1.1 Location 1:

A large housing estate, of largely social housing, close to the town centre. Has access to several green spaces, a skate park 2 children's playgrounds, and a large sloping field suitable for fundays and football on which are sometimes to be found a pair of goals (they were not always present and so presumably were removed for events or grass cutting). Children used jumpers as goals when the physical goals were not present. The field is also bounded by Cornish hedges⁷² and there are some bushes and trees planted to the edge of the field. A pathway from the playing field to the housing estate (and Youth/Community Centre) has been blocked off by a half wall that children climb over easily, continuing to use the paths now diverted. The main entrance to the recreation ground is up some steps from the pavement by the main road through the estate which takes one almost immediately to the new concrete skate park and all-weather basketball/multi games area. There is a second entrance with a more sloped access that then runs past the children's playground of fixed equipment on one side and small pavilion/office on the other.

⁷² For those who do not live in Cornwall, or even the UK, a Cornish hedge is a stone wall, often with earth piled over it, that is then colonised by or planted with hedge plants, such as gorse, hawthorn, and the usual foxglove, creeping vines, ivy, and so on. For children it is good for climbing and may be slightly dismantled to enable a new child way to be generated.

Another play area on this estate further away from town towards the ring road used to be an open patch of green (mown grass) with an old Cornish hedge line with orange lilies growing on it but several years ago it had a small playground erected on it, with safety surfacing, which was fenced in with curved municipal railings (excluding the Cornish hedge from the play area), and a temporary building was erected in front of the playground as a community centre. This new playground was hardly ever in use when I visited.



Figure 19: Location 1 Images

The children tended to migrate from the concrete skatepark and play areas on the recreation ground, to the shops halfway through the estate on the main road through. They also moved down the alleys and side roads to small greens found in the centre of

housing communities, on one of which they erected further skating opportunities with planks propped up on the kerbs, until these were removed. An old hedge line has a path running almost the length of it traversing the estate and this is a key area for children to be found playing and travelling between points, or hanging out and picking at the plants on the walls. Children were often transporting things by pram, shopping trolley, or themselves on bikes and skateboards.

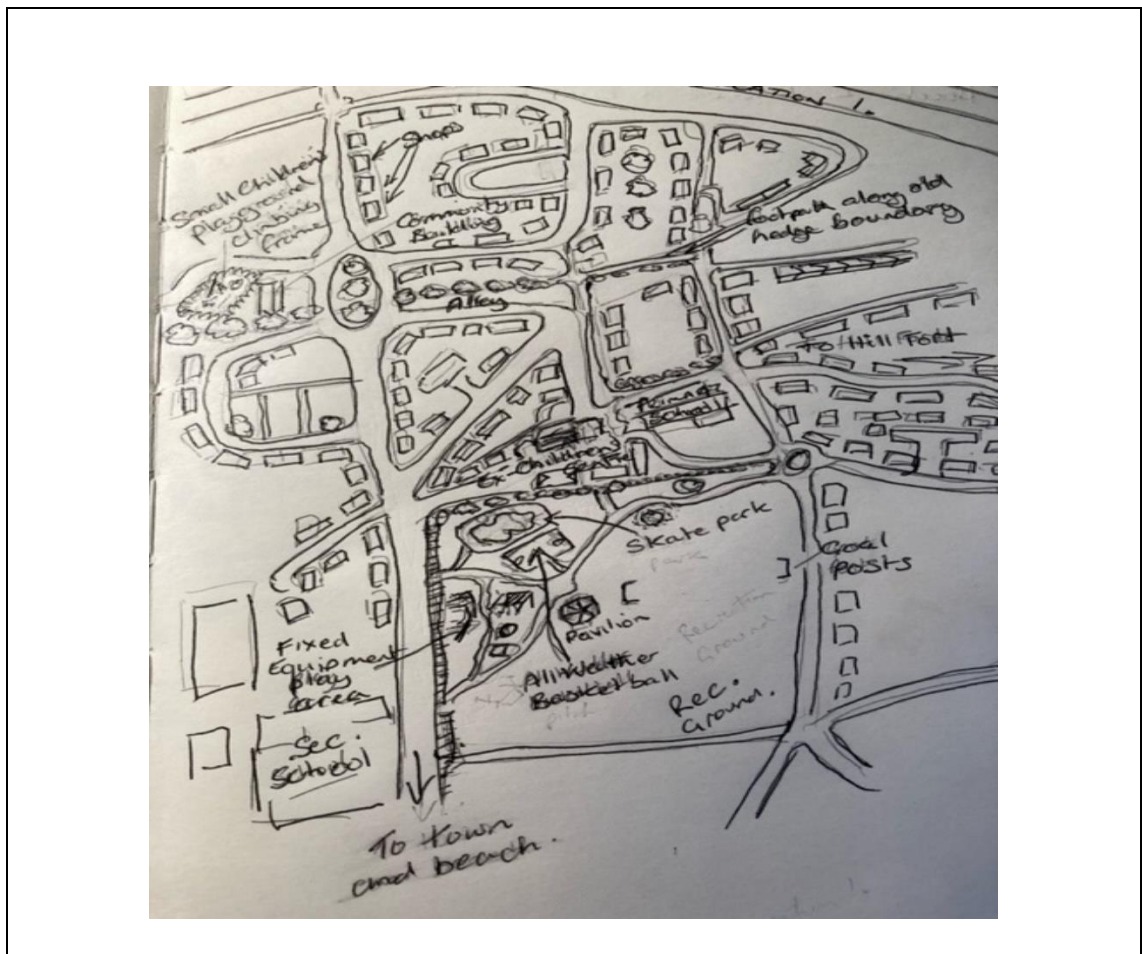


Figure 20: Drawn map of Location 1 -a cartography not a tracing

7.1.2 Location 2:

This was effectively 2 closely linked housing estates, one established estate built in the 1980's and one very much newer built in the first decade of the 21st Century. In the established housing estate was one large playing field with erected purchased play equipment that appeared to be well designed with a mound under the slide. To the

west perimeter of the playing field was a brook that ran along one side of the playing field and out past the houses. The playing field was abutted on 3 sides by a strip of waste land and then the back gardens of houses. On the third side there was a line of trees and then allotments. The field is accessible by 2 pedestrian gates.

Within a short 5-10 minute walk along the main road from the first playground towards the newer estate is a teenage play area, with hangout shelters and more challenging equipment. This appeared to be unused and was always empty. Further on still is a small children's play area in the centre of a cul-de-sac overlooked by houses. This fenced in area has climbing frame and slide and spring toys. It was in regular use by the young children from the houses nearby. It was noticeable that the children on this location were 'owning' this play space, marking the floor with chalk, just leaving their scooters on it when distracted and tying rags as tents and dressing up clothes to the fence. This was a small purpose-built play area that appeared both conceived and lived by the young children accessing it. this was a relatively small community of housing on the edge of the estate and a cul-de-sac.



Figure 21: Drawn map of Location 2 – field notes



Figure 22: Location 2 images of the small children's playground, stream and large play equipment.

7.1.3 Location 3:

Is an open playing field with no fixed play equipment on a high piece of land at the top of a housing estate built probably in the 1950s. It has 2 goals that look like they are made of scaffolding poles, with no nets. The playing field is overlooked on 2 sides by housing – backing onto the gardens of these houses. To the north of the playing field is a tall radio mast, and below it a temporary building that has been there a long time but is not used by the public. The community are involved in the maintenance of this site and the mowing waste is often scattered around the edge of the playing field forming compost heaps that are good for slow worms and other wildlife. To the West end of the field there is an opening onto what I am told used to be old allotments (no longer in use) and then to the northwest there are 2 openings created by the children into a hilltop meadow area and then on to a wooded area on the lee side, with the large granite stones from an old hill fort in it. There are often rope swings hanging from the trees and an area of tree root that is very well worn from children sitting and climbing on it. Children clearly have a worn path from the playing field to the meadow and woods. The children refer to making dens and appropriating the dens of others. There is another opening from the field to the northeast that opens onto allotments and from there children can circle back to the meadow. The meadow area seems to be waste land, not managed and has long grasses, dry in summer, and some blackberry bushes. Being high it catches the westerly wind and overlooks fields and the ring road below. This location is addressed in Plateau 9 'Chair, hill, wind, dog, meadow' and see also 9.5 The Football Field. It was noted by children as 'the only free football pitch around' although there is also one on location 1, that is some 2 miles from this estate.

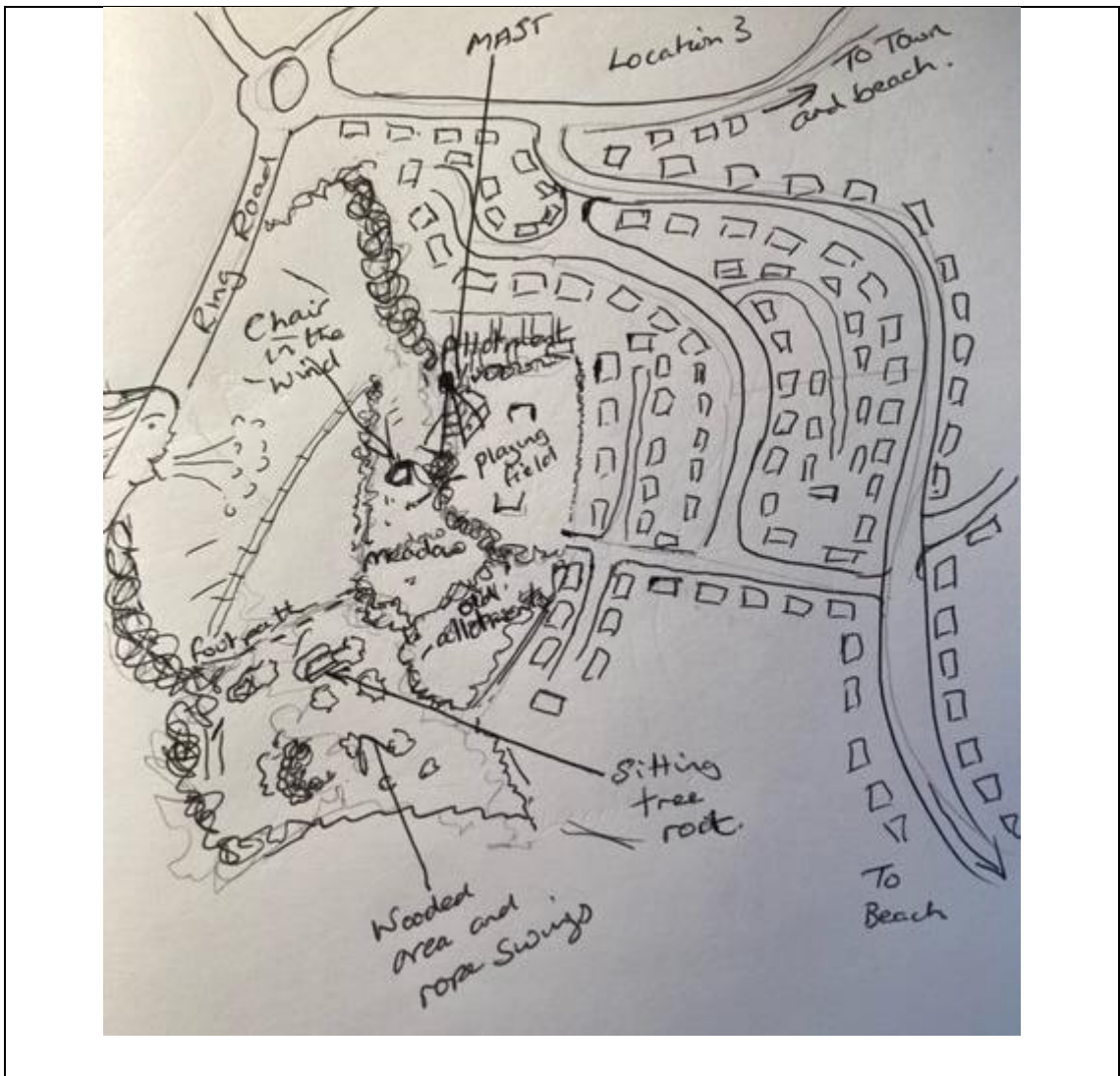


Figure 23: Drawn map of Location 3 – field notes



Figure 24: Location 3 images of play in areas beyond the bounds

7.1.4 Location 4:

This is a more modern housing estate – built between 1990 and 2000. It is at the end of a cul-de-sac and has a sloping road from the garages down to a T-junction and the road then sweeps up to a further T-junction. There is little traffic on the roads up to the second T-junction. The slope downwards from the houses was demonstrated to me as being good for riding bikes, scooters and other wheeled transport. There is a small green nearby not large enough for ball games, but is of sufficient size for picnics and sitting chatting. At the north end of this small green there is a mature tree on a raised step of land, and behind the mature tree an area of ivy and brambles with smaller saplings infilling a gap between the end of gardens. Further north still there is a building site on which a couple of new social housing units are being built. These have building fences around them for safety but there is some scaffolding set outside the boundaries of this building which sit on grass and are used by the children for swinging on. On the opposite side of the road is another small piece of land, on which cars used to park so big boulders have been placed there to prevent parking. The children use these boulders to jump off (see Figure 7.1).

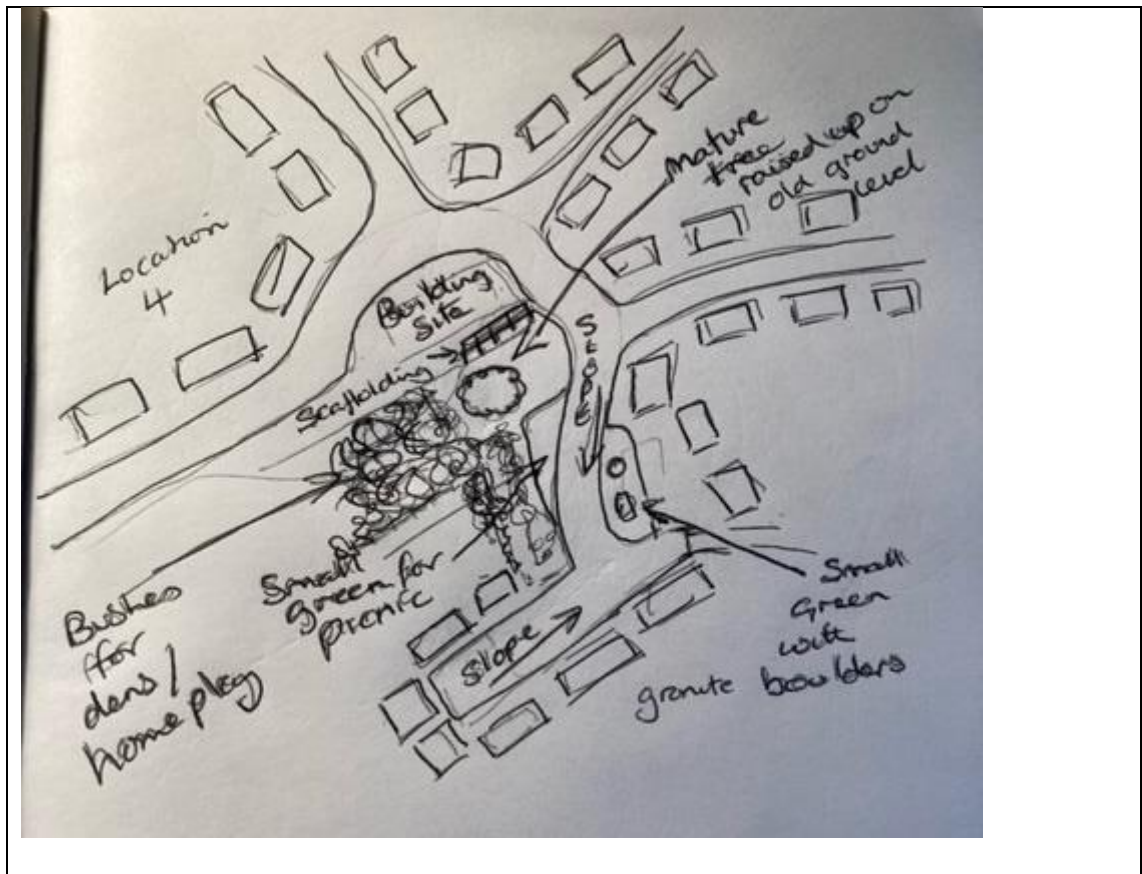


Figure 25: Map of Location 4 – field notes (close area only)

7.1.5 Location 5:

This is a housing estate close to a supermarket and only about 100 yards from the beach. In theory it has access to the beach via a traffic light crossing across a dual carriageway and a footbridge over a railway but the children said that they do not go to the beach alone, only when accompanied. It is bounded on three sides by a road, two of which are busy, being the road to the supermarket and a road parallel to the dual carriageway out of town with the petrol station on it. Although there is a footpath up to a village on the Northeast side of the estate the children also did not use the footpath, being worried about the other residents on the estate. They tended to stay to the front of the estate Children at the older end of the age range were allowed to cycle in a circle to the edge of the estate and then back in through another roadway and footpath back to the green. The green is at the end of a short access road, that terminates with a car park, for the

residents only, in front of it. Several houses have front gardens that open onto the green rather than to a road, and it was very much used by children under 10 from these houses, accompanied by their dogs. There was a strong community feel to this play area, with families joining us on the green with picnics as we played. The children took out their own small goals to play football.

To the west side of the green was a fence with bushes and pampas grasses, among which the children would hide. Opposite this fence, across a busy road, is the supermarket, and there is a great deal of rubbish blown into the fence from the westerly winds. The fence provided division, security and safety from the road. A year after my field research the council took down the bushes and fence, exposing the green further to the wind, supermarket and traffic.

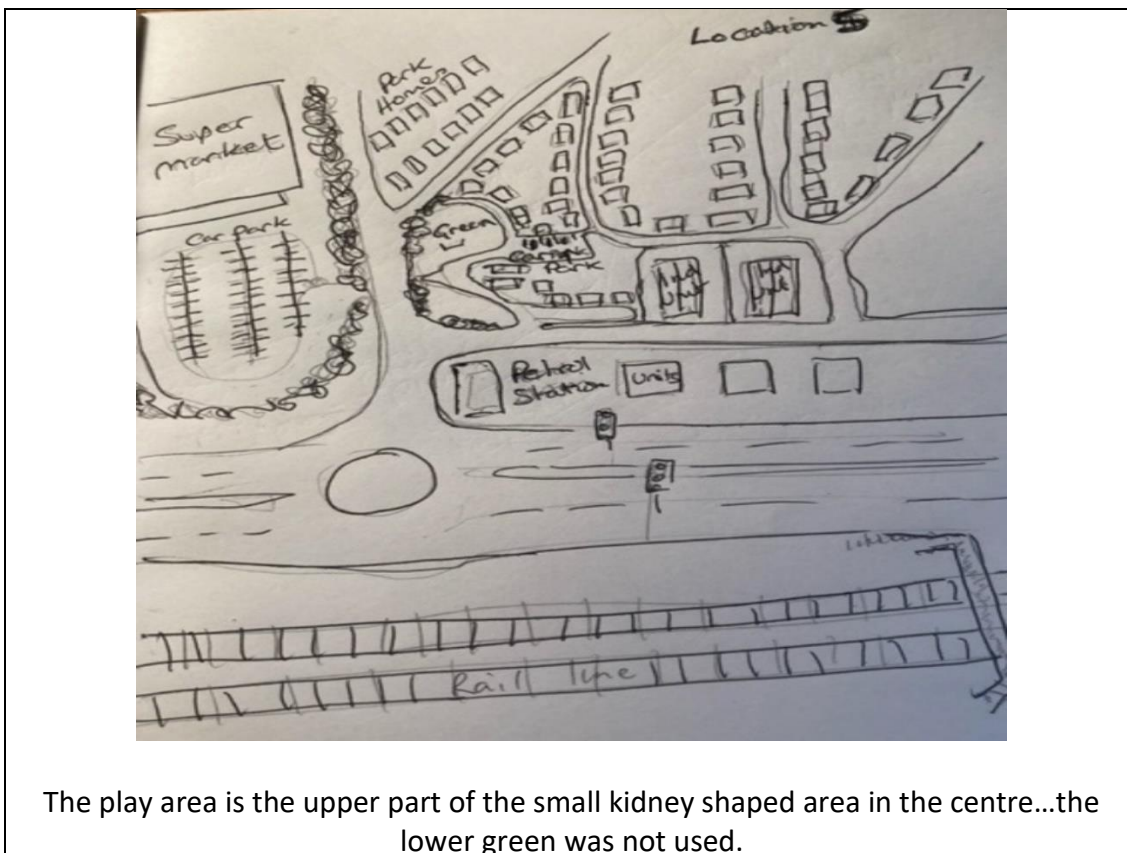


Figure 26: Drawn map of Location 5 – field notes. The play area is the upper part of the small kidney shaped area in the centre...the lower green was not used.

7.1.6 Location 6:

This is housing on the boundary of a rural area with walks from the gardens straight into woodland, fields, open access meadow and a stream some mile or so away. The houses are clustered together, an unusual group of self-made and temporary housing with several young families and artists. There were no busy road boundaries. The family I was with most closely had children aged from 3 to 12⁷³ and the 10- and 12-year-olds were able to range some distance with the family dog. These children ranged through wooded footpaths, via rope swings, and a cave, and through Maize fields and meadows with blackberry bushes down to a road with a wide stream fast running under a small bridge for vehicles. There was an obvious affinity with the more than human elements of the natural world as the children played with honeysuckle, snapdragons, and peeled cow parsley apart to see earwigs. They watched beetles rising from the ground and slow worms under tin in the hedgerow, they knew of the shiny soil and fluorescent lichens. The dog accompanied them on their playing walking and there were regular shifts from epistemic exploratory play in assemblage to speculative fabulatory play arising from assemblages such as child, maize, corn husk, hair, channels, roots dust, wind and rustling leaves.



Figure 27 Drawn map of location 6.

7.1.7 Summary

All 6 locations and play areas are very different, and are used differently by the children playing there. One has a skatepark and a range of alleys and routes that are used to traverse the estate and transport things, another has a stream and 'lines of flight' into liminal areas, an unused teenage area and a very well used small children's playground. The third has the only free football pitch nearby and lines of flight into meadow and woods. The smaller area has play opportunity in small pockets of unused land and construction site and a location overlooked by housing has become something of an extension to the gardens of the housing as families spill out to picnic on the green. The potential of the different material aspects of the locations prompted different assemblages of play. There were some commonalities in molar spaces being unused or

challenged, of tension about rope swings, and the use of recreation areas as meeting places, but then the experiences diverged and were differentiated.

8 Approaching the Field, Diving through the Strata and moving onto the Plane.

8.1 Playdays and Material Artefacts

The initial foray into the communities was by way of 'Playdays' to engage the public as parents and children and to inform them about my research and desire to work with children at play whilst unsupervised by adults. The playdays took the form of a van with small marquee taken onto a green with some inflatables (bouncy castles) and activities. Information sheets were posted up on the van and on a stand for the taking along with consent forms for parents and children to take and return (Appendix 2). I also took voice recorders so that I could record consent as I ask children where they played (with a priori parental consent), and that they could interview each other.

8.1.1 Drawing Play

At the playdays children were invited to draw their play experiences (see Figure 2). Common elements in the drawings across each of the areas were football, den making, swinging of some form and nature. Whilst the drawings were useful as an initial foray into children's perceptions of their play spaces they remained limited to presentation of common shared ideas of play, and the recordings demonstrated that some of these were mimicry of their peers. Many boys said 'football' after the first had said 'football' for example and the badges (I had taken badge making equipment as another way of eliciting drawings of favoured play) ended up as drawings of favourite footballers or football strips. Children continued to produce drawings throughout the research and

this produced many images of nature, birds, leaves, and a range of animals (Figure 28), illustrative of nature connectivity in children who had access to green areas.

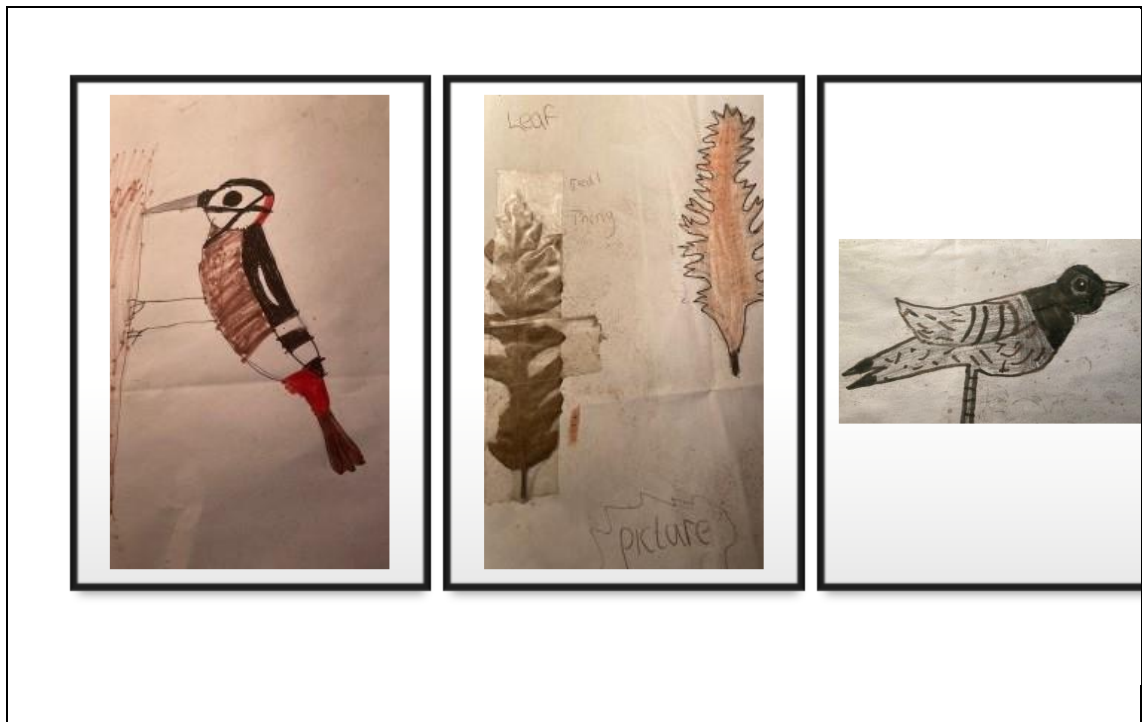


Figure 28: children's nature drawings

8.1.2 Early Merz – the Plaques

The Merz plaques were inspired by both Schwitters Merz collages (some being pressed into clay) and Lenz Taguchi's (2010) use of clay to illustrate being of the world. The Merz plaques engaged children in play and found materials. They were tactile and immediate in the engagement with play space materials and matter of earth through clay and use of fluid plaster to create solid relief plaques. However, the children focused more on the product than the process, as they had done with their drawings, and some appeared very conscious of what they were laying where. The spark was partially stilled by the organs of culture.

8.1.3 Moving to Merzboards

My second use of Merz Boards is one of creating palettes from stiff cardboard and double-sided masking tape. The children were then asked to use 'found items' that represented their play spaces and drop these onto the palettes in the style of Schwitters 'Merz'. We then talked about the contents and offered heuristic meaning from the items collected. The Merz are both about the materiality of the spaces, local matter that mattered, and also a form of diffractive intuitive thinking about the space mattering in time. In one area the merzboards were all green leaves and plants, in another sand and lichen, dust and seaweed and in yet another a series of found plastics, very illustrative of the varying environments in which the children were playing.

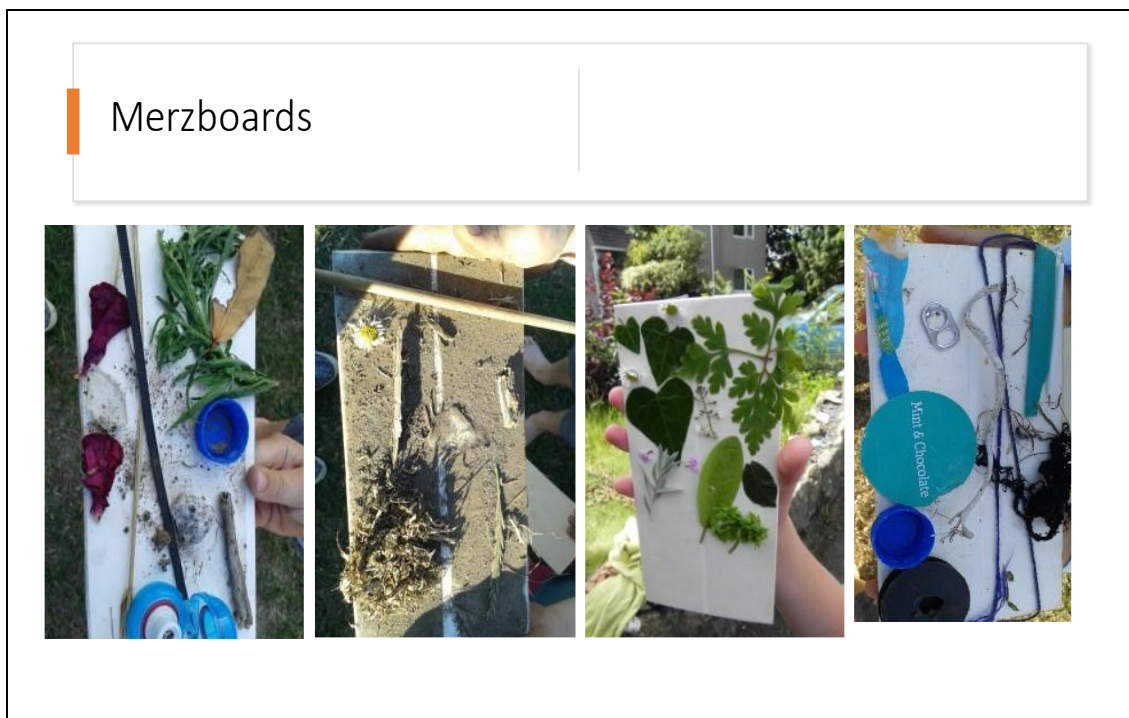


Figure 29: Examples of the children's Merzboards

8.1.4 Lines and cartography, meandering and mapping.

Deleuze and Guattari have highlighted that children are bodies without organs (not constrained by expected habituation) (Deleuze and Guattari, 1987/2012:296-8) and so illuminate the enlivened attuning and enabling of meandering lines of drift. In the estates children were seen to meander, with multiple changes of direction, velocity and intensity. This is further explored in 8.2.1 with Deligny's lines applied as a cartography.

8.2 On Mapping and Tracing

This plateau considers the lines of play and meanderings observed as children engage with their environments. I/we consider mappings as creative, not being tracings, which are more of the same, and draw inspiration from Lester's (2018) insightful use of Deligny's (2015) lines to illuminate something of children's space performativity and lines and entanglements of de and re territorialisation and travelling whilst generating space.

Throughout this work I have chosen to draw on the processual, commutative onto-epistemologies of , Deleuze and Guattari together with Barad (2007), Braidotti (2010) and Haraway (2016). This drawing together of ideas from these key thinkers was also supported in my work by the multispecies and critical posthuman approach of Haraway (2016) and the vibrant materiality expressed in Bennett's (2010 and 2020) work. I have been attempting to write a Deleuzian inspired thesis that acknowledges the ongoingness of the world's becoming and begins in the middle, develops rhizomatically, through events, trying to write a thesis as a doing, rather than a static proof of competency.

Deleuze and Guattari, (1987/2012:12) implore their readers to be creative and to eschew tracings in favour of cartography. They consider that tree logic (arboric thought and structure) is a logic of tracing and reproduction. In contrast a rhizome inspires cartography, creative extension to mapping as tracing.

In section 7 in which I offered my notebook illustrations of the locations I consider that I offered a tracing, perhaps with a little bit of creative adjustment rather than a cartography. However, in the use of Deligny's lines which follow I offer a cartographic illustration of flows, intensities and velocities in movements relating to place to play. This is a cartography not a tracing.

'Make a map, not a tracing. The orchid does not reproduce the tracing of the wasp; it forms a map with the wasp, in a rhizome. What distinguishes the map from the tracing is that it is entirely oriented towards an experimentation in contact with the real. The map does not reproduce an unconscious closed in upon itself; it constructs the unconscious. It fosters connections between fields, the removal of blockages on bodies without organs, the maximum opening of bodies without organs onto a plane of consistency. It is itself a part of the rhizome. The map is open and connectable in all of its dimensions; it is detachable, reversible, susceptible to constant modification. It can be torn, reversed, adapted to any kind of mounting, reworked by an individual, group or social formation. It can be drawn on a wall, conceived of as work of art, constructed as a political action or as a meditation.A map has multiple entryways, as opposed to the tracing, which always comes back to 'the same'. The map has to do with performance whereas the tracing always involves an alleged 'competence'.

(Deleuze and Guattari, 1987/2012:12)

One of the suggestions Deleuze and Guattari offer is that we could use Deligny's method and 'map the gestures and movements of an autistic child, combine several maps for the same child, for several different children' (14).

I perform the estates on which the play occurred by mapping it in my field notebook, and by mapping the intensities and velocities of the play movements across the

landscapes of play, inspired by Deligny's (2015) cartographies of motion of the children he was working with. The lines becoming gossamer expressions of the travelling across space, of the meanderings from the points, the intensities of actions in certain areas. Through mapping and not tracing a play of images 'shakes loose, challenging the hegemony of the signifier;

'In the case of the child, gestural, mimetic, ludic, and other semiotic systems regain their freedom and extricate themselves from the tracing', that is ...from the dominant competence of the teacher's language – a microscopic event upsets the local balance of power'. (Deleuze and Guattari, 1987/2012:15)

8.2.1. Deligny and lines of landscapes



Figure 30: Example of Deligny Cartography of movement and intensities - Illustration entitled 'Monoblet, August-September 1977' in Deligny (2008), *L'Arachnéen et autres textes*, Paris: L'Arachnéen, translated in English (2015) *The Arachnean and other texts*, Translated by Burk, D.S. and Porter, C. Minneapolis: Univocal publishing. Reproduced with kind permission from L'Arachnéen, with whom copyright remains and the image may not be reproduced.

I was introduced to the work of Deligny, through a piece by Lester (2015) and was surprised to also find Deligny's work referred to in Manning (2015) and Deleuze and Guattari (A thousand Plateaus: 237-238). One of Deligny's images of lines of doing sits on the cover of 'Thought in the Act' (Manning and Massumi, 2014). A French educator, and filmmaker Deligny worked with autistic children in the Cevennes area of France, with some guidance from Guattari. I too have worked with children in my professional life, and have at various times 'mapped' children's movements around an organised setting, but mine were functional maps of locational travel, much more static, striated and pragmatic than those of Deligny which sought to think differently in understanding the movements, emotions and intra-actions of the young people he worked with. In Deligny's lines there are , intensities, changes in direction, emotional responses, flows. Deligny was intent on the cartography of maps that were not mere tracings but that revealed an energy and vitality in their gathering of woven nets of lines of trajectory and so the 'architecture' disappeared (Deligny, 2015:Loc 342)

'let us discuss the net of our trajectories. If such a net was woven, what was it supposed to capture? It was a question of using opportunities, and moreover, chance, that is, opportunities that did not yet exist but would come into existence through the use we would make of the 'thing' we had come across'

It is clear here to see the link to Deleuze and Guattari's process ontology of becoming. Becoming posthuman or acknowledging posthumanness as a researcher prompts thinking otherwise and seeking different ways to think about, through and with data (St Pierre, 2016). An early part of the empirical part of this study was the viewing and mapping of how children moved around their local landscapes of play. Following the initial community playdays (which established my presence as a researcher in the communities). I reflected on where children played and how play as event was

performed in the locality in which they were becoming. It has been written in the past (Fagen 1981) that animals and children play to hone skills for fighting, or to give heightened spatial awareness of the places in which they lived, so rabbits play at running through their burrows to mentally map the safe routes should a weasel enter. Burrows are rhizomatic in form and so in-form-ation and familiarity with flexibility, potentialities for creative escapes, are needed. But Deligny's (2015) mapping of lines opened up another way of thinking about the intensities, flows, velocities of the play engagements in the landscapes and spaces. Deleuze and Guattari said of lines;

'Individual or group, we are traversed by lines, meridians, geodesics, tropics and zones marching to different beats and differing in nature. We are composed of lines, three kinds of lines. Or rather, of bundles of lines for each kind is multiple. We may be more interested in a certain line than in the others and perhaps there is indeed one that is, not determining, but of greater importance....if it is there. For some of these lines are imposed on us from outside, at least in part. Others sprout up somewhat by chance, from a trifle, why we will never know. Others can be invented, drawn, without a model and without chance: we must invent our lines of flight if we are able, and the only way we can invent them is by effectively drawing them in our lives.'

(Deleuze and Guattari, 1987/2012:237).

In response to such thinking Deligny (2015) highlighted the web weaving of a spider (the arachnean) between points and that became an inspiration for thinking differently about the tracings of motion and movement, the travelling between points, and the intensities left behind in gossamer lines thread with pearls of connectivity. A part of Deligny's explanation focuses on his childhood. He explained how there must have been something lacking in the streets where he lived as a twelve-year-old, as a network was woven there (indicating the web crossing a void). He, along with other children, found a construction site attractive 'A site that was off limits, moreover, not that this fact has ever prevented networks from forming; perhaps we should even say quite the contrary'

(7). He writes of the attraction of the *'Vague'* which in French is a word that means both wandering (to stray and wander at random) and wave as in the waves of the sea.

'This is how the construction site seemed to us when we came upon it, once the workers had left at the end of their day. We would go there and wander. we took advantage of the space...the small wagons on rails carried several passengers while others took turns pushing; it was a merry-go-round, a mine, a surprising outgrowth of heterogenous shelters in which we took the risk that an untimely shove would bring down on our heads.

...I am certain that an observer would have perceived often repeated trajectories whose goal was not at all obvious, for wander is a verb that needs no object. But we see quite well that there is a necessary complicity between these trajectories of wandering and chance encounters.

If a certain number of our trajectories involved wandering (*vaguer*), it is clear that, from one day to the next several opportunities having come to fruition, attending to them (*y vaquer*) was the point.....with regard to our trajectories within that empty lot, that vague terrain, my memory is not exact enough to retrace them.

Moreover it is highly probable that the most tenacious of the wandering trajectories were enacted in a completely unconscious way, prepared to inscribe nothing of themselves into memory unless they found an opportunity that would end up justifying the act. To put it another way: the aspect of wandering that is nonetheless essential , because what is at stake is the quest for chance – tumble daily into the darkness of complete oblivion.

(Deligny, 2015:7-8)

This may seem a long quotation to use in this thesis but has such richness and resonance.

The illustration of building site play, and the use of the word *vaguer* being translated as both wandering and wave, straying and tide. The acknowledgement of space created in the wandering action and intra-action; that memory does not exactly retrace the events, nor even keep them from oblivion, without something that 'justifies the act' [of memory, and performance]. Yet without that memory still the quest for chance through wanderings is essential. There is also the importance of 'the wanting' or desire in which the conscious state of being places, hopes; although Deligny also writes there is 'No need to want in order to act'.

What does this do for working with children's wanderings and playings in their housing estates and the playways and byways created as flights into the more biological worlds too? It illuminates children's wanderings, bobbing around on the vague, desiring intensities, which spark movement and generations of singularities from the multiplicity in action. The conscious mind may make nothing of it for this 'quest for chance' (Deligny, 2015) is the thing, the act of acting, playing and being played by the world, with the world, of the world, cues sparking from without, to plug into and fold with, to distract from a journey, but then on the whole the event tumbles into oblivion, or is perhaps maintained in the unconscious embodied form of knowing, knowing how to ride the tumble and protect the knees from grit and flesh intra-actions undesired?

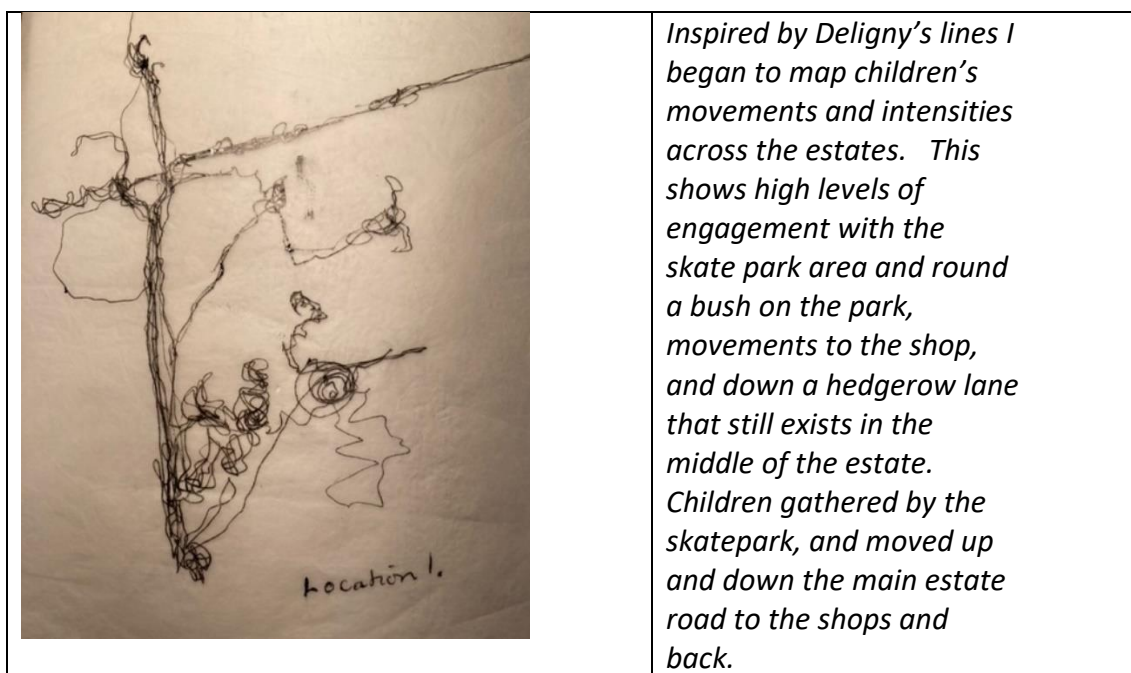


Figure 31: Deligny inspired cartography of motions and intensities of children's play in Location 1

Vague lines (wavy lines) are 'lines of drift' but Deligny offers further lines in his cartography, 'customary lines', which are lines of habituation, lines of common usage, trajectory.

We are told in *A Thousand Plateaus* that children's lines of flight on leaving school are not the same as those of demonstrators being chased by the police and that each species, each individual, each singularity has its own lines of flight. Deleuze and Guattari (1987/2012: 238) continue by telling their readers that the lines are constantly crossing, intersecting or following one another. They indicate that at the point that a line of 'drift'⁷⁴ intersects a 'customary' line⁷⁵ a playing child will do something not belonging to either line, 'he or she finds something he or she lost – what happened? – or jumps and claps his or her hands, a slight and rapid movement' a gesture which in turn emits several lines'.

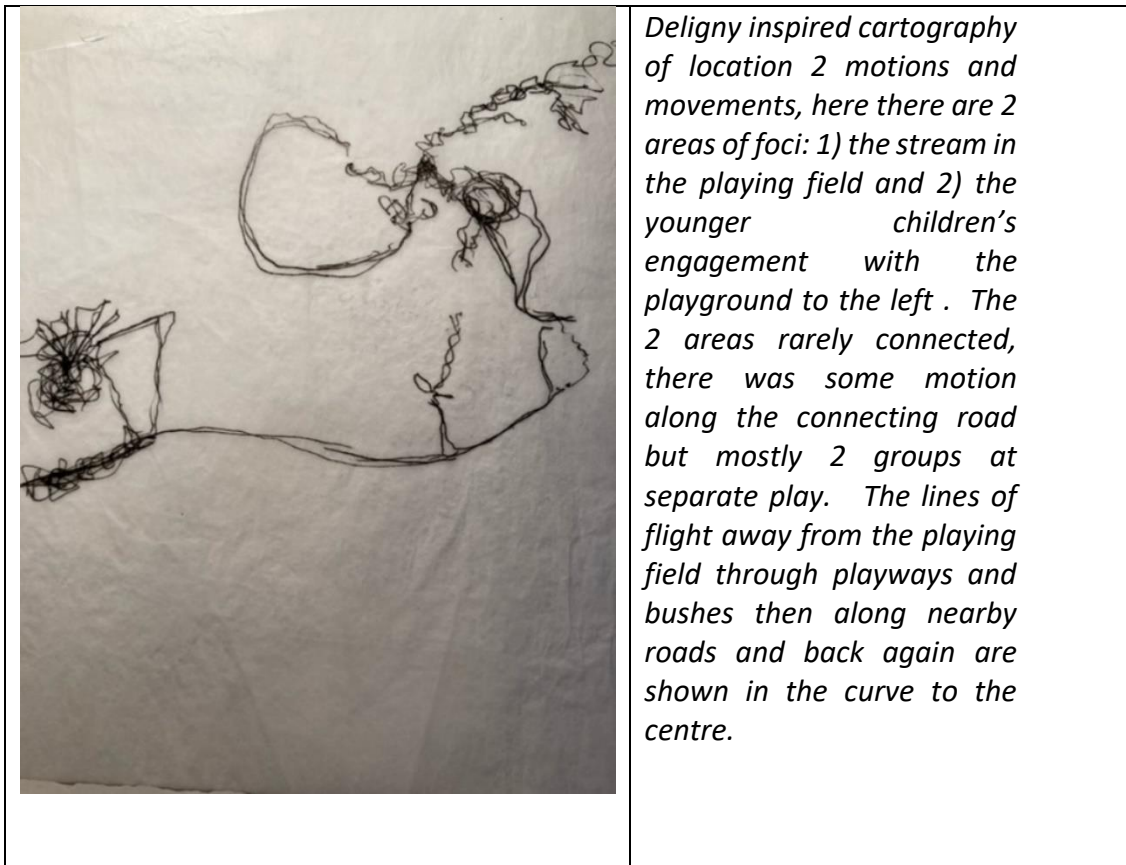


Figure 32: *Deligny inspired cartography of movements, motion and intensity of engagements in Location 2*

⁷⁴ Explain line of drift

⁷⁵ Explain the meaning of a customary line.

The children on all 6 housing areas also illustrated this drift and meandering; children at times following molar pathways of direct connection and at others changing direction many times. There were obvious familiar spots to visit, particular bushes and walls to climb on, and pathways well-trodden but off the social architect's original plan. There were static points of gathering (such as by the concrete skate park in location 1, or football goals in location 3), lines of direct travel (such as from home to the skatepark, football pitch, to the playground early in the morning, to the shop) and then there were the interruptions to these direct lines, or the meandering adjustments, the attraction of water, certain green areas, mounds, stones and things to climb on, areas of curiosity such as the stone walls or with cracks along the alley to a different part of the estate.

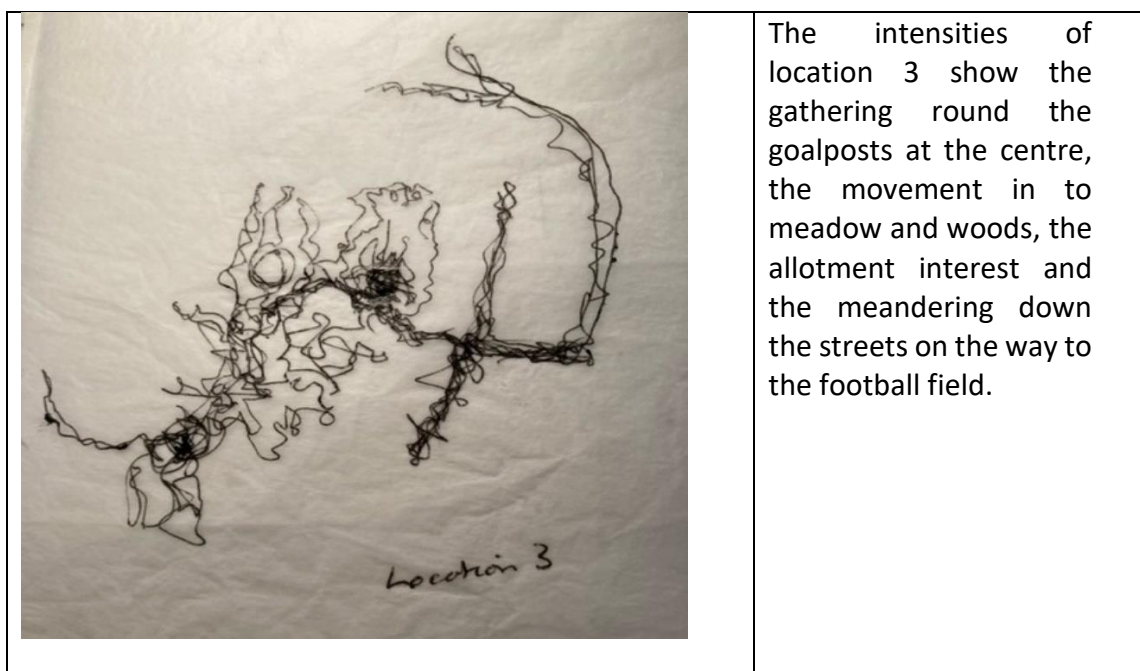


Figure 33: Deligny inspired cartography of movement for Location 3

To map where children go from a scientific ethological/ethnographic perspective would be limiting, mere 'tracings' informing developmental and evolutionary perspectives, not

the potentiality of the cartography Deleuze and Parnet (2002) extol in seeking to think otherwise. A mapping from developmental evolutionary perspectives would be asking 'what is the point of this playing?' and 'How is behaviour adapted?' The posthuman question might be, 'how do things move (or how do they play)?' (Lester 2018:19) and how does this working together work? What does it *do*?

Everything is composed of lines, whether molar fixities and striations, molecular suppleness or segmentation, and lines of flight (Deleuze and Guattari, 2001). Both Deleuze's and Barad's philosophical works acknowledge ongoing motion and movement, and transverse qualities of lines that entangle or diffract generatively. Lines are not metaphors, or dualisms of separate strands pulling things along or dividing things up, they are not lengths and measures, instead they have speeds and intensities, duration and flows, they cut across each other and intersect. Ingold (2015:67) prompts consideration of the lines-between, not the blobs at the end of the lines that are the *things*, the subjects, normally concentrated on in research;

'every line describes a flow of material substance in a space that is topologically fluid.....the organism should be considered not as a bounded entity surrounded by an environment, but as an unbounded entanglement of lines'.



Figure 34 Deligny inspired cartography of location 4 and accompanying images.

Is an estate a body? Whilst we adults, despite being unbounded, might walk (or commute) from A to B in our patterned way of life in straight lines that Deleuze and Guattari call on us to diverge from for the sake of creativity, children, being largely unconstrained by cultural expectations, nor burdened by economic necessity, rarely walk in straight lines (Ingold, 2015; Lester, 2018) but are free to meander seeking creativity and flow as bodies without organs. Ingold describes how children will at one time hurry, will dawdle, skip, plod, change direction in response to any distraction or a

myriad of trifles (Ingold, 2015:130). To call these myriad distractions 'trifles' is missing the point, for children these are the data that glows, not 'trifles' at all, but serious concept building through action that imbricates and interpellates in the ongoing processes of becoming. Children follow lines of multiplicity, or experiment with velocities of escape through lines of flight, lines of risk, lines of luck and misfortune, lines of differentiation. The assemblages of space production producing also intra-actions, engagements and actions, percept, action and affect.

Children were rarely walking in straight lines from place to place. They meandered to places that appealed and attracted. Sometimes powerful things called out to them, such as cracks and dents in pathways, or the structures of the streets such as kerbs, walls, bollards and so on, children finding creative and imaginative ways to use their bodies, labyrinthing, or wayfaring (Ingold, 2015:130) through their home localities, their estates or rural routes. A chance encounter upon a shopping trolley creates increased velocity, inspiring transporting tendency, abrupt movement changes, free-wheeling, crashes when boundaries of flesh and grit are combined, and new assemblages are gathered with sounds combined to a new soundscape of rattling metal, clicking wheels, screams of joyful fear, and cries of anarchy which peel through the aged bungalows nearby creating ripples of discontent in striated lives as the rooks do when they rise from their feeding.

The landscapes were full of distracting sparks: the movement of water in the stream by the playground, the bars that could be balanced on by the shops and supermarkets, the cracks in the paving stones, the lizards on the walls, slow worms in the grassy compost, insects on the plants, friends passing, dead birds, granite boulders that can be jumped from, the tree roots, shiny soil, maize, sticky plant (cleavers) nettle and other plants for

the picking. The landscapes sparked to the child, the soundscapes sparked, the light playfully sparked, other children and adults sparked and the children plugged in. The rhizome running to assemblage making play, vitality, life's wobble of differentiation through play as event, engaged with, returned, flowed with and then released and so the motion continued.

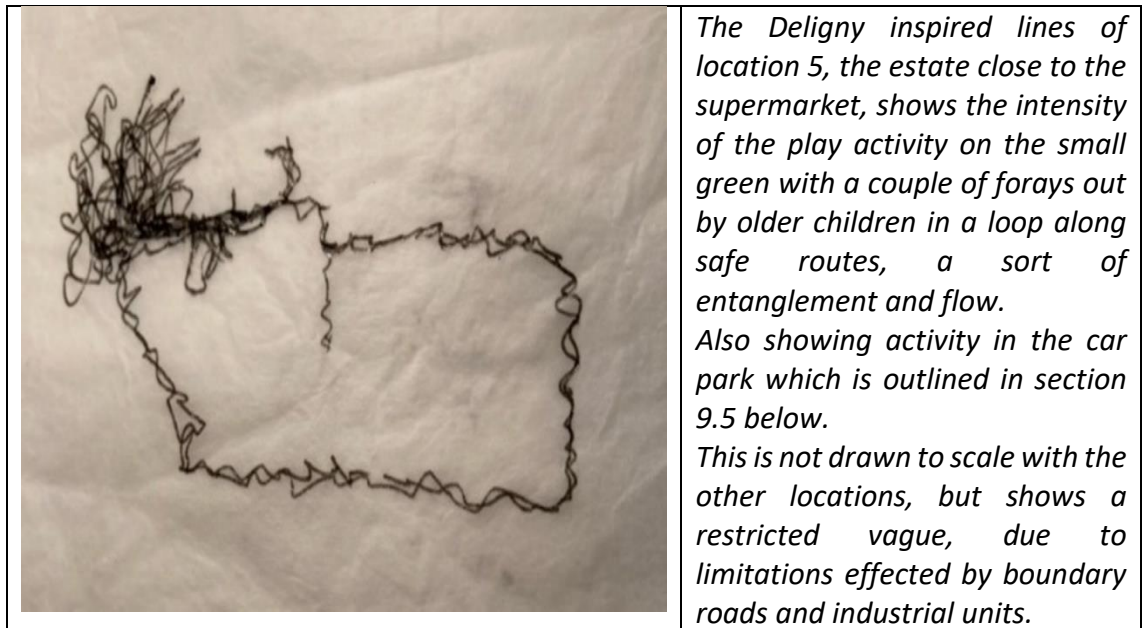


Figure 35: Deligny inspired cartography of location 5.

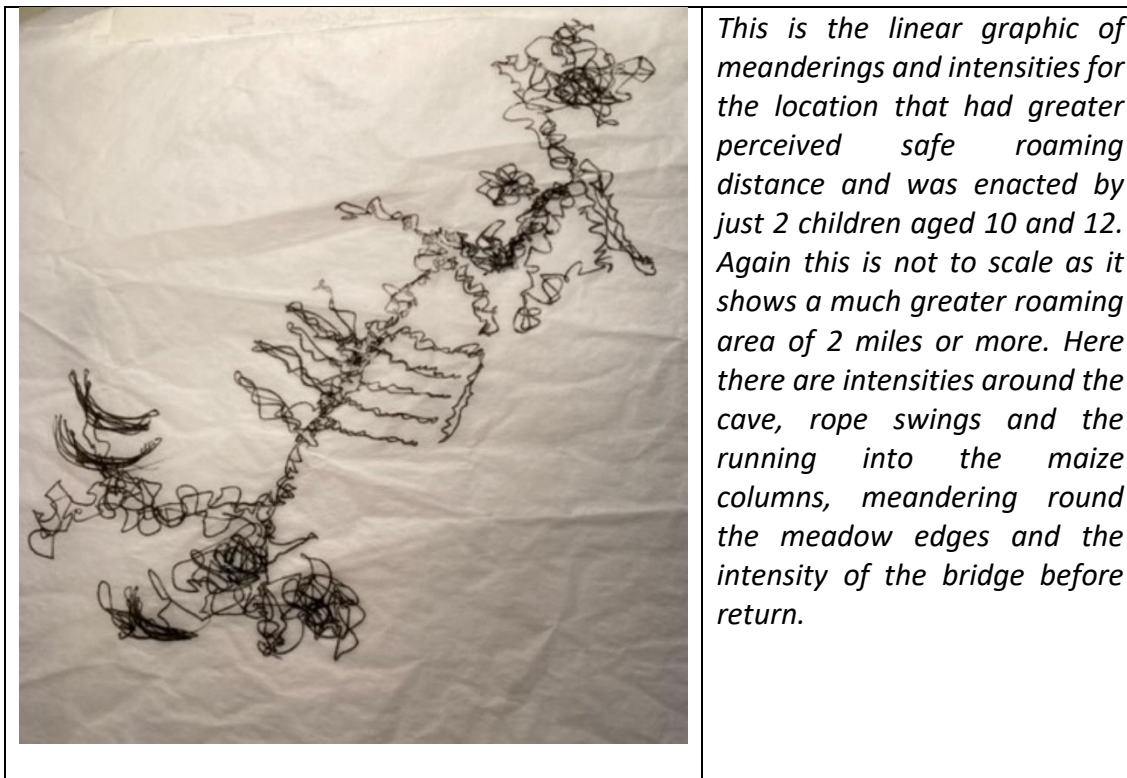


Figure 36: A Deligny inspired linear cartography of Location 6

This undoes the valorisation of mental cognition, interpretation and end product of the play intra-actions. Vague lines are 'lines of drift' but Deligny offers further lines in his cartography, 'customary lines', which are lines of habituation.. In A Thousand Plateaus Deleuze and Guattari give their own interpretation of Deligny's lines as lines of drift or alternatively customary lines. Lines of drift being lines that have a manifold of potentialities, customary lines being more molar striations that constrain to culture and commonality. Practice does not come after the emplacement of these terms, but actively participates in the drawing of the lines. Things happen between the lines or where they intersect (Deleuze and Guattari, 1987/2012:238). and further

'Deligny invokes a common Body upon which these lines are inscribed as so many segments, thresholds, or quanta, territorialities deterritorialization or reterritorializations. The lines are inscribed on a Body without Organs upon which everything is drawn and flees, which is of itself and abstract line with

neither imaginary figures nor symbolic functions: the real of the Body without Organs'

(Deleuze and Guattari, 1987/2012:238).

So, the customary lines are the footpaths and patterns of time, expectations of movement established by planners (conceived lines and structural instrumentalism, or alternatively habits of motion set into pattern by the expectations of others). Children may walk the same path daily to school, or to the park to skate with friends or play football etc. However, at the same time children seek to extricate themselves from the 'tracing' of these expectations and may pursue lines of flight. A line of flight being the potential for a mutation, a disruption, an alternative motion transforming it into something else (Colebrook, 2020:18). Then there is the further, gentle, meandering line of drift, the line which has a lesser intensity, which operates as waves, sparks to plug into, generates variety, or opens up the BwO to the potentiality of alterity.

8.2.2 Fields for play, striated and smooth, conceived and perceived.

I had considered Lefebvre's (1991) 'conceived, perceived and lived' spaces early in the process of this research and so briefly address those understandings here. The playgrounds were largely considered to be 'conceived' spaces, molar spaces, offered to the children by those having power. In some cases this power was reinforced by inappropriate signage of control (see Figure 37). The name of the local authority has been redacted. Here is a new assemblage of disruption and rupture. The assemblage of sign, pole, playground has become sign knife scratched, bent and partially disrupted, having little meaning for the children using the area, particularly as they seem able to

access this area without accompanying adult or necessary safety equipment (and this was not the sign near to the skate park).

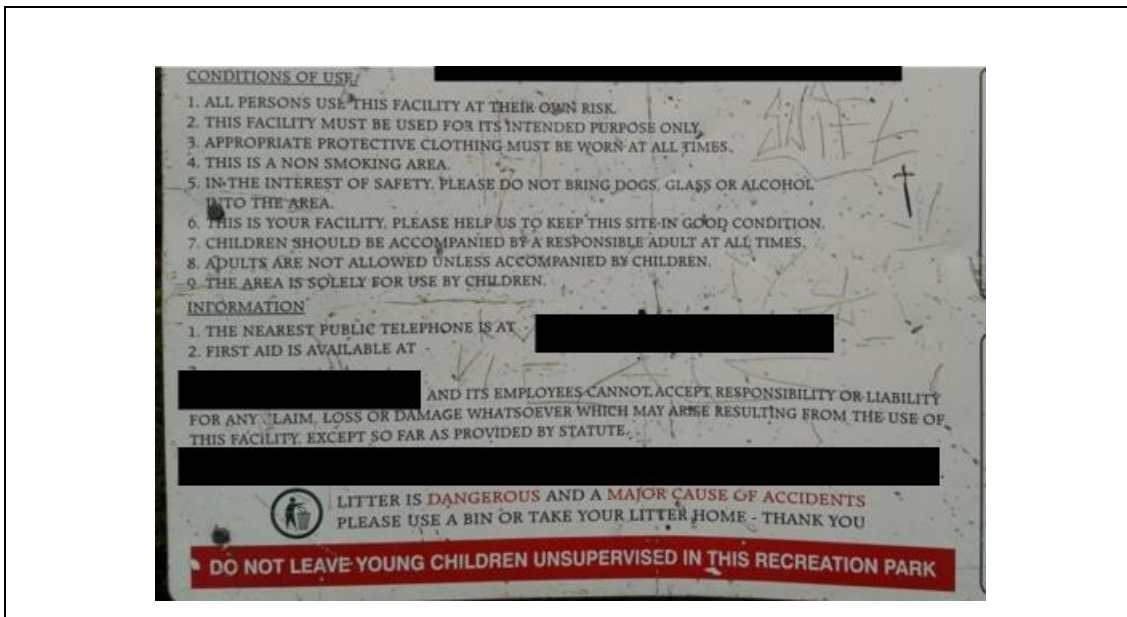


Figure 37: Striated Conceived Playgrounds. An example of common playground signage offered by this particular local authority.



Figure 38: Images of Conceived Spaces as playground.

The spaces were conceived as play areas for children conceived as either vulnerable or as financial risk if injured, with safety surfacing, retaining fencing, the mound to reduce risk of falling and warning signs. In some cases these conceived spaces were ignored. In others they were used for recreational play, or as social meeting places before children took off in lines of flight down alleys, over low walls into meadow areas or across the stream and up the bank into an unowned copse.

8.2.3 Nomadic lines of Flight from the conceived spaces



Figure 39: Routes for lines of flight - escape routes from conceived play areas into liminal spaces

8.2.3 Living in pockets

I also wrote in earlier sections about Lefebvre's 'lived spaces' and of 'pocket spaces' for play. With, or without, lines of flight children were able to play in a range of spaces close to home, from the fenced in play areas in small spaces to the small greens intended just to break up the harshness of the estate, through to use of small corners of untended land, or construction site boundaries. These areas may have been conceived as something very different from that they were perceived to be by the children. The boulders placed to prevent parking that are perceived as invitations to climb and jump for example. Pocket spaces are illustrated in Figure 40. Also illustrated here are 'lived spaces' those spaces that offer opportunity to build new assemblages and territorialise the space: a ladder and an old slide, a fish bucket on a rope, a deckchair taken into the bushes, dens made, and dens occupied, the thrown down scooter and rags to make tents from the railings all move the space from molar to molecular, from given to, to occupied by.



Figure 40: Perceived and Lived opportunities in pockets of land.

9: Assemblages at Play

9.1 Introduction

'Sensing bodies in movement are autogenetic. They are autogenetic because they are always in genesis, in a state of potential becoming. An ontology of the body presupposes a concrete category of Being. Yet bodies in excess of their Being, they become'.

(Manning, 2007:xxi)

Children at play are 'sensing bodies in movement' autogenic and moving in a state of potential becoming on a Deleuzian playground, playing in a Deleuzian playground. The implications of Deleuzian thought combined with Barad's (2007) agential realism results in a shift from a static, pre-constructed understanding of playground to a process in which the playground and its liminal spaces and topographical lines of flight are generated as spaces of encounter and intra-active assemblage. A playground may be a vacant space with fixed entities but it becomes a *play-ground* only when the players perceive it as such. They may choose to intra-act with the playground and structures, the molar being places, but may also choose to disrupt the playground through graffiti and damage, lines of flight and liminal play. A Deleuzian playground is both Deleuzian thought applied to concept of playground and space for playing with philosophical ideas and the becoming with and....and.....and. The molar limitations of striated playgrounds and their structured instrumentalism can result in boredom. Subsequent to this play decay children may be moving out of the playground in one moment whilst in another appropriating other areas for play use as becoming lived play places, informal pocket playgrounds, molecular and smooth. I choose to diffract Lefebvrian understandings of the space as commuted into actuality through being conceived and perceived, with molar structured instrumentalism and lived vitality as differing intensities realised by the taking up of potentialities in the virtuality by the players. The molar limitations of striated playgrounds and their structured instrumentalism can be illuminated by Lefebvre's (1991) conceptualisations of spaces as conceived, perceived and lived.

9.2 The Embodied Experiences

‘When I think of my body and ask what it does to earn that name, two things stand out. It *moves*. It *feels*. In fact, it does both at the same time. It moves as it feels and feels itself moving.....as directly as it conducts itself it beckons a feeling and feelings have a way of folding into each other, resonating together, interfering with each other, mutually intensifying, all in unquantifiable ways apt to unfold again in action, often unpredictably’.

Massumi (2002:1)

In this section I work with some of the connections of the more-than-human molecular moments of play close to home. That there are multispecies and more-than-human companion intensities were brightly illuminated in many of the moments of child play gatherings. Dog companions regularly played children, played football, played scout, provided soundscape, shat on soil (and so directed football limits). Children lay on their stomachs watching ground beetles coming out of terrestrial tunnels through mini volcanoes of earth pushed up, mini mole hills, shiny black emerging, mandibles first then haired legs lifted alternately pushing out and efforting through the grass going who knows where and leaving holes for others, or for seeds to shelter. Some children split the dried cow parsley stems in late summer to reveal light coloured earwigs (deprived of light but then given a fantastic anthropomorphic tale of family life in the stem). A black crow like bird was identified by an 8-year-old on a play walk as a chough, through its sound and red limbs and beak, despite disbelieving adults enculturated into awareness of its rarity⁷⁶ presenting it could not possibly be so (it was a chough). Dead creatures provide fascination as though we are all immediately destined for compost. Worms, slow-worms, spiders, earwigs, snails, ants and bees were all elements of various human: critter assemblages, becoming together with the world. Among the children I

went on play forays there was a nature connection or innate understanding that they too were of the world in its becoming.



Figure 41: Some creatures in play (in life and death).

I could expand on any of these, but here I choose to think diffractively with three different vignettes that glowed, moving from the sentient organic to the non-organic more than human actualised through action: the worm and philosophy, minerals and anthropological archaeology, and the cave and the car.

9.3 Chair, hill, wind, dog, meadows

‘ Climate, wind, season, hour are not of another nature than the things, animals or people that populate them, follow them, sleep and awaken with them’...Spatiotemporal relations, determinations, are not predicates of the thing but dimensions of multiplicities’.

(Deleuze and Guattari 1987/2012:306)

The interpellative example offered as a conceptual snack in 6.4 of ‘Shark in the Trees’ was of a younger child (aged 4) imbricated with image, knowledge, magazine, print, sunlight, willow tree, breeze seed assemblage. What follows is an example of another piece of diary ‘data that glows’ (Maclure,2013). It is one of 3 children a chair and a dog engaging in an affective assemblage of making moment (Figure 42)



Figure 42: Child, wind, chair, dog assemblage

It is later in the afternoon on a summer’s day. The wind is fresh but the sun is still bright. I flick the catch on the playing field gate with a loud click and enter the playing field. The goals are empty today. The field is quiet. Birds are pinging their spring song sounds from the boundary bushes. There are sounds of children somewhere nearby. I climb

through the liminal opening, a secret passage to play opportunity beyond the molar play area into molecular becoming place, a red sandy ridge with wire on floor that was, once, field boundary. I am made to duck down as I move over the old dry wall broken down, as this particular agentic assemblage is both catching at my foot with grounded wire and pressing down low branches as I rise over ridge. At least the rising ridge escape route is dry today.

Once through the dark green, it is light beyond, a threshold to unstriated space I can see the children playing worldlingly. Although they see me and smile knowingly they are busy. I don't join in today, but sit on the ground and am partly obscured by the rushing of the grain like grasses pushed into action by the rising wind, for we are on a knoll, with fields far below, against which the wind rises. I am pleased to be below the gusts now, and am concerned not to adulterate the play.

Two children are carrying an old, winged chair to an area of the hill that catches the wind, between bushes. The chair is of the type you find next to country hotel fireplaces, or perhaps old people's homes. There are wings protect the head, but there is nothing between the 4 wooden legs. A black hairy terrier dog is barking shrilly. The chair has been placed, pressing down the bobbing grasses, the smallest child sits on the chair and laughs as the wind hits their face, they clutch the arms, I can see a buffeted movement in the chair. Two other children run round and round the chair, laughing as the dog barks. There are no rules to this game, this seems to be a pure vitality in motion.

This particular meadow today, with 3 children chair and dog connected with wind, hill grass assemblage to become a haecceity of play; and connected with me in a space time mattering. I used to enjoy riding horses in the wind, there was a vitality and energy in such weather. I felt enlivened too. A moment defended in my mind had rushed to the

present and I had diffracted with the play haecceity observed. I was both outside and inside of the play assemblage entanglement in its broadest unboundedness. The spark of wind rising and loose part of chair brought from old allotment becoming actively played by children placing chair, and dog excitement adding to the cacophony of a spontaneous intra-action, a morphogenetic moment of play. Some may consider this mere surplus energy (Eberle, 2014) but it is more than that, there is something agentic in the wind-hill-chair-child-dog intra-actions that offers potentiality of affect. The children are agentic in claiming this space, moving chair to wind, an understanding now of place lived, not space given, the grass is pressed by the running children, dog kin prompts laughter, laughter prompts bark and so the different experiences are imbricated in the creation of space place experience as vibrant play event in that moment. The place creation was temporary. The chair removed the next time I visited the field. The pressed grass circle remained, a mystic circle in the middle of the meadow on mound, a memory of an imbricated event.

9.4 The football field a molar or molecular experience?



Photograph of location 3: This did surprise me – the importance of flat grass and football goals. A very much socially constructed understanding of the use of space, but of great importance for some children. Children also gathered where other children gathered – so football became a site for social interaction.

This site is under threat – with a planning notice indicating it will shortly be used for social housing. The community is trying to save it but cannot show that it is in regular use as the number of children playing out seems to be decreasing. “We just come here to play football – this is the only free pitch around”

Figure 43: Football field assemblage

There are a group of children by the football field- if you can call it a football field. It is a field, it has been mown, and does have two scaffolding-made goals, one at either end of what seems the equivalent size of a small football pitch. There are no markings on the ground, no nets, and the field slopes away from the most western goal. The field is surrounded on the southern and south eastern sides by the back gardens of houses. It is an ideal playing space according to some authors, surrounded as it is by amicable occasional onlookers (Wilson, 2012) yet sufficiently away from prying eyes. But not all of the boys are local enough to call one of these houses’ ‘home’. “We come here because this is the only free football pitch around” they had told me the last time we met, walking some distance to get here. All 8 boys had then keenly expressed how this was the place to come to meet each other and play football. They are of mixed ages,

the youngest around 6 years. A couple of girls also joined in, coming here 'to meet their friends, to hang out'. It has been reasonably dry and the pitch is not too soggy. This is a dog walking area too, and the ground is checked swiftly by sight before the play begins. I am at first rather distracted by the thought that this is a socially constructed 'game with rules' and therefore should not be considered 'play' at all (an area of some debate). It is certainly not 'free play' but rather directed by the eldest boy referee-player-choreographer-coach calling out at various times "ok kickabout, use this goal", "pass that ball"....."kick it.....kick it...." "Great play" he shouts at varying times orchestrating the kickabout, directing the playing others to help the game to happen to best effect. The small teams of variously aged children spend about an hour playing football on this small pitch. One, the younger of the group narrating under his breath, commentating on his own performance.

"here's Hughes and he's kicked the ball - what a shot and it's just wide.....nobody can keep up with him as he is so fast....oh he's down now he's injured. What a tackle. ... that's not fair.....you're a cheat.....".

This vignette initially hardly glowed (MacLure, 2016) for me as I continued to live with and saturate myself in the data over months, listening and looking, over and over. But it stuck with me, a glimmer through a crack that continued to bother me. There was something about this organised socially constructed, striated even, play that was not just a tracing of rules in molar becoming but was an activity of potentiality and generation. Yes the children were 'acting out' a social game with rules that was now very much commercialised. The field had obvious significations that it was a football pitch (namely the goals spaced appropriately apart) as affording football. The younger

child was mimicking media commentator language in his own inner world in the group activity.

Yet the game was also being played by the field and its undulations in turn playing with the ball. The ball was travelling at different speeds and intensities according to the kicker or the tuft and divet it had most recently come into contact with. Its journey was not predictable. There were some slippery bits of soil to be avoided in case they were “dog poo” and those defending the most western goal clearly had an advantage due to the slope of the pitch. This was not mere mimicry in a social context, it was also material engagement and moments of vitality in commutation between player and player, between ball and grass, between ball, trainer and goal. The play cues were issued by the small football teams, and by the ground with mown grass, lumps and bumps, by the goals and by the ball. Just Merleau Ponty’s (1948/2008) theories understood how memory of phone numbers can be held as embodied knowledge in the fingers, or a musician can hold a tune in the pattern of the motion of playing fingers which move faster than the cognitive memory can keep up with them. The playing children embodied knowledge of balance to kick, judgement of direction, memory of landscape and awareness of mood. They were also operating as ‘mutually developing co-operative units’ (Brown, 1998:258), becomings in commutation with others (Deleuze, 1987/2012). This was an assemblage of play and the material in it was also agentic. I too as observing apparatus (Barad, 2007) was part of the assemblage as looks came my direction from time to time seeking appreciation.

[Bundle ball, divet ground, tackling front of goal, leader like a choreographer at work, spatial awareness, pushing boundaries seeking lines of flight]

Thinking with football pitch. This hill was called 'Mount Misery' and was historically a place that wives would climb to as they watched their sailor partners go out to sea, and return again, or not (hence the misery). It had long been common land of sorts, imbued with local community connection and meaning before football existed. A little map-based research highlighted that this is indeed the only free football pitch around, a consideration which made me aware that child-exclusionary adultist public space policy (Horton and Kraftl, 2018) and neoliberal capitalist planning agendas which were directing children towards paid and coached football provisions, were potentially stifling this form of children's free play. This football pitch was currently available to children resident nearby, or prepared to walk to it, but on my second visit I saw a large yellow planning sign on the gate; this was proposed in the local plan for local housing land. The last free pitch in the town was destined for annihilation at a policy scale. I attended the public meeting and the thinking ran something like this: adults need houses, families need houses, children should be supervised, children can play sport in paid provisions at the new leisure centre, families cannot afford fees, it costs money to maintain the site for just a few children, free play stops, football happens in the back yard instead if there is one, ranging distances are limited, not by safety concerns, but financial ones. The potentialities of intra-active becoming are constrained, a child canalised rather than out on the rushing rapids of undulating ground, football, dog poo, mates and shape of shoe challenging assemblages. Yet still children continue to deterritorialise corners of mown lawn space with jumpers on ground for goals, territorialising it for games with rules until the local authority once again develops a conceived space for such games and with subtle striations directs children to such. Playing football away from the commercial leisure centre in such a scenario is an unknowing act of disruption and defiance, a line

of flight from the accepted common sense. A decommercialization of access to sport spaces.

9.5 Thinking with Worms



Figure 44 Worm in the wet - photograph from field work

“Aaaah, aaaah, aaah it’s a worm, I don’t like worms.....” (Child’s comment during field research August 2017)

“...some ten million worms red and wet like rubber tubes writhing in all directions. It was precisely my idea of the floor of Hell- they made the grass heave and billow – you wouldn’t believe it – wherever the torch lit, there were worms. I shall dream of them

(Virginia Woolf’s, Letter to Vanessa Bell 5th May 1929 in Woolf, 1932/2020: Loc.12660)⁷⁷

Worms....like yeast extract.....hated or loved. In this plateau I think through and with worms and intra-actions with worms.

From my Landscapes of Play Field research notes : July 2017. *There are 2 children by the trees, they are playing with something: poking at a rotten piece of wood, part trunk, damp and crumbly, and full of holes, mites, spiders and lice. They rock it forward....euch... exclamations abound for beneath the rotten trunk are 3 shiny thin worms. The children are fascinated. One worm is picked up and dangles long from the pinching fingers. The child with worm chases another they run around with mock fear, laugh and fall down again by the rotten log. “It smells”, there is a deep musty smell of leaf litter, a not unpleasant smell, not a mushroom smell, but of earth, and rotten leaves. The worm has been on an adventure, but now the ludic cycle is annihilated, dissolved. The worm is returned to beneath the log. A final poke at the soft wood, the spiders running out of the way. A pause occurs before the next cues spark, are plugged into, and the play cycle begins’*

⁷⁷ Virginia Woolf also referred to herself as ‘the worm’ in many of her personal letters, turning and returning ideas and thoughts, and challenging others, and the worm is a motif that occurs several times in her work).

There are many examples in my field research of children playing briefly with worms, being fascinated by worms, fearful of worms. Having acknowledged this more-than-human player and play cue I pause now and think with the worm. What is it to be a worm, in the dark then lifted to chase others, or feed a bird, what does playing with worm do?

Starting with the earth - Worms are found in malleable wet mud. Thinking with Mud.

‘...When people walk on me you can see exactly where they put their feet and when huge heavy things come and stand on me I yield and react and respond and give way and adapt and accept. No explosives are called for. No admiration is called for. I have my own nature and I am true to it just as much as granite or even diamond is, but it is not a hard nature, or upstanding, or gemlike. You can’t chip it. It’s deeply impressionable. Its squashy.....when the people and the huge heavy things walk away they are not changed, except their feet are muddy, but I am changed. I am still here and still mud, but all full of footprints and deep, deep holes and tracks and traces and changes. I have been changed. You change me. Do not take me for granite.’

(Ursula Le Guin, *Being Taken for Granite*, 2004 archived from Smith, Tassi and Bennett, 2018:38).



9.5.1 The importance of the worm.

Darwin (1881:313) acknowledged the value of earthworms as the tillers of the soil, worms having ploughed the earth thousands of years before man. He stated that he doubted whether there was any other animal that had such a beneficial impact on the world.

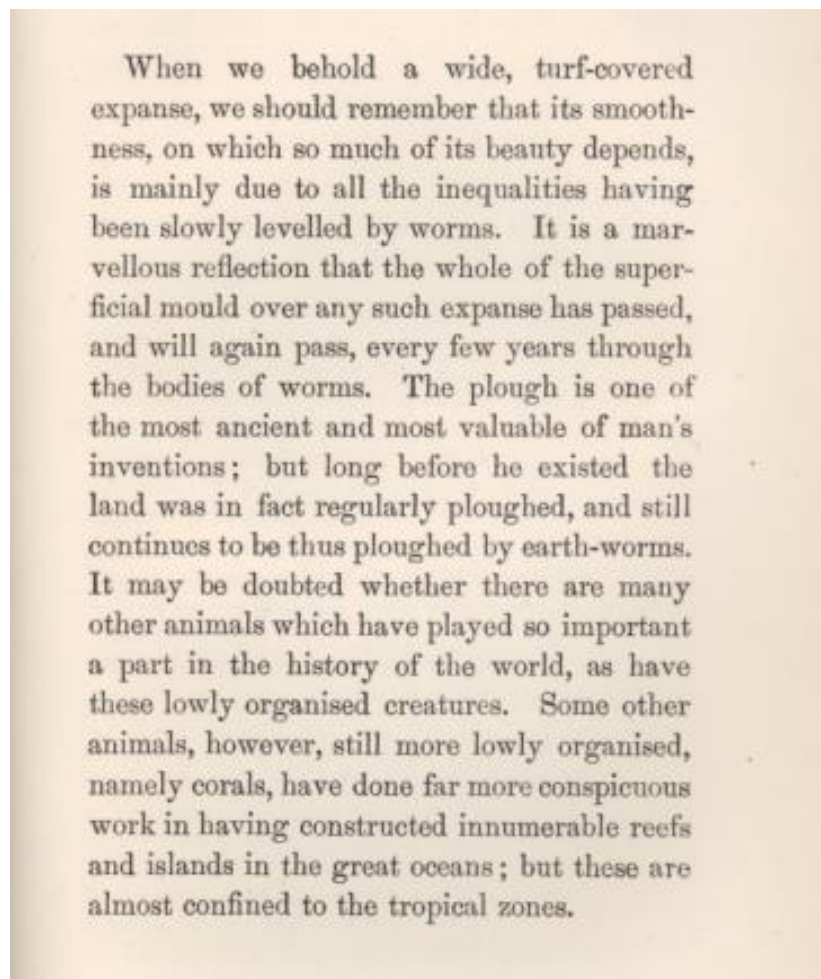


Figure 45: A photograph of the concluding page of Darwin's (1881) *The Formation of Vegetable Mould through the action of worms*.⁷⁸

In One metre square and with favourable soil environment roughly one litre of soil is being processed within an earthworm population's gut a day. Four to ten percent of

⁷⁸ I choose to use a photograph of the page rather than a direct quotation here as to work with this old text and its smell seemed also to be worming through a book.

the total soil can be expected to be consumed by worms annually and over 10 years 50% of the soil will have passed through an earthworm. Ninety percent would have passed through in 40 years (Pass, Morgan, Read, Field, Weightman and Kille, 2015: 1884)

‘Within the UK an estimated 89.5 million litres of soil resides in the earthworm gut at any one time....and therefore their egested material clearly represents the major component of soil..... the global impact exerted by earthworms on the soil environment is vast and integral to its microbial structure and physiochemical properties.’

(Pass, Morgan, Read, Field, Weightman and Kille, 2015: 1884)

Worms have a symbiotic relationship to their environment. Levels of organic carbon are higher in the worm gut due to secretion of intestinal mucus which in turn stimulates an increase in the abundance of ‘methanogenic, fermentative and nitrate-reducing bacteria’ (Pass, Morgan et al, 2015:1884). The microbiota contribute to that particular worm’s phenotype, so ‘forming a two-way street’ which forms the basis of a beneficial mutualism with influential impact on humans, soil, other creatures and the landscapes within which they are entangled, embedded, rhizomatically rooting, aerating the soil as well as reconditioning it. Worms also have agency (Meijer, 2018), ‘small agencies’ Darwin (1881) that Deleuze and Guattari may term minoritarian. Worms carry leaves a certain way into their burrows, they have ‘home’ areas, they respond to their external environment whilst also internalising it. Worms may be conceived as having political agency (Meijer, 2019). Political agency is normally understood as an intentional agency (Rawls, 1971), but Bennett (2010) along with Haraway (2016) argued against the Kantian dichotomy, replacing it with a continuum between persons and things which act and influence one another as bodies that have different degrees of intentionality. Worms also have social agency, forming herds and seemingly making group decisions (Zirbes,

Deneubourg, Brostaux and Haubruge, 2010) they seem to respond to touch with other worms. Thinking with worm consequently overturns arrogant anthropocentrism, it is not only autonomous humans who are agentic, thinking, political, despite lacking a language of communication. Moreover, Meijer's paper draws in work by Bertoni (2013) who critiques Bennetts (2010) emphasis on agency and proposed an alternative focus on practices resulting in concepts of 'bioindicator' and 'bioturbator' (worms transformed by the health of the soil or worms actively transforming the soil). The word bioturbator conjures up in my mind an image of some cartoon worm twirling away 'turbo-aerating' the soil. I consider the poor worm impacted by the health of the soil being given a label of a mere 'indicator' (for higher organisms to assess the health of the soil). Surely in a multispecies monism this worm should be given some other term such as bio casualty or bio responder? The a priori label reduces or valorises the work of the worm accordingly. It is just worm.

Worm and human lives are interconnected in many and varied ways, from soil turning and compost making to cleaning waste spills and being used for fishing bait. Latour found that a worm's ability to change the mineral make up of some soils actually caused trees to move (Latour, 1999; Bennett, 2010).

However, worms too are impacted by the Anthropocene. Anthropocentric contamination of soils impacts on a worm's ability to generate beneficial bacteria they need to ingest appropriately so impacting on their ability to recondition soil which in turn has implications for its biome (Pass, Morgan, Read, Field, Weightman and Kille, 2015)). A focus on the molecular informs worm choice, symbiosis of soil and worm in action, a commutation of soil and chemical giving vitality to worm and to more-than-worm.

A worm is both in the earth and of the earth, and the earth becomes of the worm, turning the outside in and inside out. The soil is eaten by the worms, and the worms are effectively eaten up by the soil, the worm then casts the soil, the dual agencies are material and relational.

Earthworms do also have a philosophical history. They are mentioned in Aristotle's works on animals. In these works they are termed 'ges entera' which means 'earth's guts' or earth's intestines. Aristotle described the motion of worms as accomplished by

'moving the body itself in sections....wriggling and dragging themselves.....they advance with one part leading the way, and then draw up all the rest of their body to it, and in this manner make the change from place to place'.

(Cited in Rota,2011:137)

A worm moves by peristaltic action, extending and compressing, squeezing soil through its body, which is effectively an alimentary canal, to expel it as small casts, often found at the head of the rhizomatic wormholes in the soil that it has made, looking like mini clay sculptures in some soils (worm as turbator cast sculptor creator).

Deleuze, in his consideration of Foucault and the fold, refers to such peristaltic action philosophically:

'... the outside is not a fixed limit but moving matter animated by peristaltic movements, folds and foldings together make up an inside: they are not something other than the outside, but precisely the inside of the outside. if thought comes from outside and remains attached to the outside, how come the outside does not flood into the inside, as the element that thought does not and cannot think of? The unthought is therefore not external to thought but lies at its very heart, as that impossibility of thinking which doubles or hollows out the outside'.

(Deleuze, 1986:80)

The worm then is doubling generously.

The earthworm's skin is porous, it breathes through connection with water. It has a specificity according to context (Pass, Morgan, Read, Field et al. 2015). Colebrook (2020:157) explains Deleuze's conceptualisation of the fold further, outlining that the fold is not about a grounded being, but expresses a becoming through singularity within multiplicities. If we privilege a being which is delineated, then we are limited to a single point of view and line of time through which that thing becomes. Deleuze on the other hand is encouraging us to 'think against this by thinking of a single plane or matter that is known from different curves and folds' (Colebrook, 2020:157). The fold and the nature of the folding determines and materialises the form in its becoming. Folds can be found in rocks, rivers, woods, organisms' souls, thought, the 'plastic arts' but the fold is not universal it is always something singular. The worm is not subject but 'super ject' (Deleuze, 1993)

9.6.2 Playing with worms, a case of mastery or kinship?

Returning to My Field Research notes: May 2017:

She is one of the younger children out at play, wandering down the lane after heavy rain, red wellies sloshing in the grey green puddles. Mastery in overpowering agency at work as leaping in the puddle water leaps out. The affordance offered by light on water, a treetop mirroring in smooth water too attractive to leave alone, it calls to action with its sparkling cues, just as the first foot is called to smooth new laid snow, so a leap must be made into this pure clear tree smooth image. It is not only data that glows (MacLure, 2010) (or perhaps it is for what is data but that we notice and record, and this experience is data to a child noticing, mentally noting, gathering epistemic information).

The tree reflection pool calls. She leaps, the mirrored tree image bursts apart as foot touches water and the water now is deeper than it seemed before whilst actively being displaced. The boot, puddle, cueing image, action assemblage generates broken tension, laughter sounds and then subsides. The release of tension now reveals a pale dead worm which lies beneath the surface, pale pink, long, entirely immobile, both repulsive and attractive. She bends her knees and looks more deeply, thinking with the intensity of all the muscles of her body pulled forward to the worm, as if she can get inside it. Reaching in and poking the "poor dead worm". We continue our way....but at the next puddle she stops again, another worm in the water, this time

normal pink. It has become trapped by the water and appears immobile, perhaps breathing less easily through its skin in deoxygenated stagnant puddle water.

Without knowing the reason, "let's save the worm" she calls out, picking up the earthworm and laying it on the grass "there you go worm". Compassionate kinship now abounds and snails too are rescued from the water, carefully by their shells. "I've got you snailly". Repetitions of the actions of rescue enacted over and over, the cleaners of the world supported without external theoretical justification of the need for this compassion in the doing playing child. The closeness of her observation is inspiring, she notices a worm moving at some speed in the grassy banks, glistening, maintaining momentum, head in hole, a stretch, a compression, a stretch and the tail is finally pulled in; "it's gone". I am now told the worm is safe from birds, has gone home to its family, is tunnelling underground and is personified, the kinship acquaintance made.....

9.6.3 Worm conundrum

In contrast to the worm emergency rescue recorded above Sturrock writes of a playwork poser set by Stephen Rennie at a playwork conference in 1996: 'A child on your playground is chopping up a worm, what do you do about it?'

Sturrock states he responded:

'...for me, it arouses a certain return to experiences of my own; I can for myself reflect similar incidents occasioned both out of my own playwork and out of my own childhood. One of the purposes of worms may be, I somewhat unsympathetically offer, precisely to function as the stuff of protoscientific quest..'

(Sturrock, 1998:13)

He continues to explain:

*'this intent and action can be viewed in terms of the child's developing inner universe, and resulting world view, and could be read as having powerful and resonant symbolism. Out of world myth there is a useful and applicable metaphoric explication,.....which forms the pivotal point of the event-experience compact.....If I might elaborate....The great worm, the *uroboros*....is a mythic image that has universal functionality. It can be seen in religious traditions, practices and rites across the world. It is a universal motif.'The *uroboros* is properly called the 'tail eater' and the symbol of the alimentary canal dominates this whole stagethe *uroboric* self already possesses some sort of self-boundary – it is already begging to break the old oceanic state into two global terms, namely the*

uroboric self versus some sort of 'uroboric other' or 'uroboric environ'. Could it be that our child is in fact arranging their world so that the expression of this inner need, the recognition of internalised states of consciousness, is being externally expressed and must be met? That such material can, in effect, be played out? That the chopping of the worm is,the exploration or celebration of his/her 'self-boundary', the break from the former oceanic state?' (Sturrock 1996:13).

Or perhaps it is a matter of transcendental empirical exploration of the outside world insiding, for to do is to think and to think is to fold, a repetition of the different rather than the emanation of the 'I' placing an immanence on the always other and 'non-self' (Deleuze 1986: 81) instead thinking the unthought through embodied action?

'what exactly is it that binds us so closely to living things? The biologist will tell you that life is the self-replication of giant molecules from lesser chemical fragments, resulting in the assemblage of complex organic structures, the transfer of large amounts of molecular information, ingestion, growth, movement of an outwardly purposeful nature, and the proliferation of closely similar organisms. The poet-in-biologist will add that life is an exceedingly improbable state, metastable, open to other systems, ephemeral and worth any price to keep'

(Wilson, 1984: 85).

Wilson suggests that there is an urge to connect with other forms of life which he calls Biophilia.

Deleuze writes of the continual renewal, the edge of chaos, the outside being insided in the continual folding and becoming. The snake worm tail in mouth becomes more than tale, with vitality in the vortex.

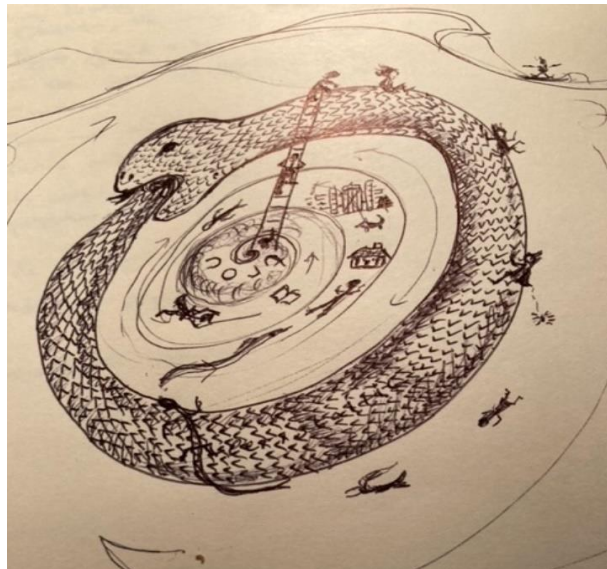


Figure 46 Author's drawing, Sept 2022: a play-full, becoming immanent, ouroboros doodle

Is this time and latent history influence simultaneously also becoming assemblage impacting effectively, affectively aeffectively through children's play and engagement with worms, or is it something else at play, a universal understanding of the outside inside, to return out as we all become, and then return to compost through the magnanimous work of the in-turning worm, a nihilistic renewal? I wonder how it is that children who may have little knowledge of worm history philosophy and biology have a fascination with worms and respond to them. Some have experience of worm destruction and mastery, cutting in half to see what happens, whilst others worm care and kinship in their play. Is it about age, circumstance, influence or as Bennett (2010:54) comments 'Sometimes a life is experienced less as a beatitude and more as terror, less as the plenitude of the virtual and more as a radically meaningless void'? Within intra-active sympoiesis opportunities of the a-subjective current that is life the players 'make choices and it matters what choices are made' (Haraway, 2016: 560).. A choice to care, or a choice to cut?

twist

fold

Stop

And

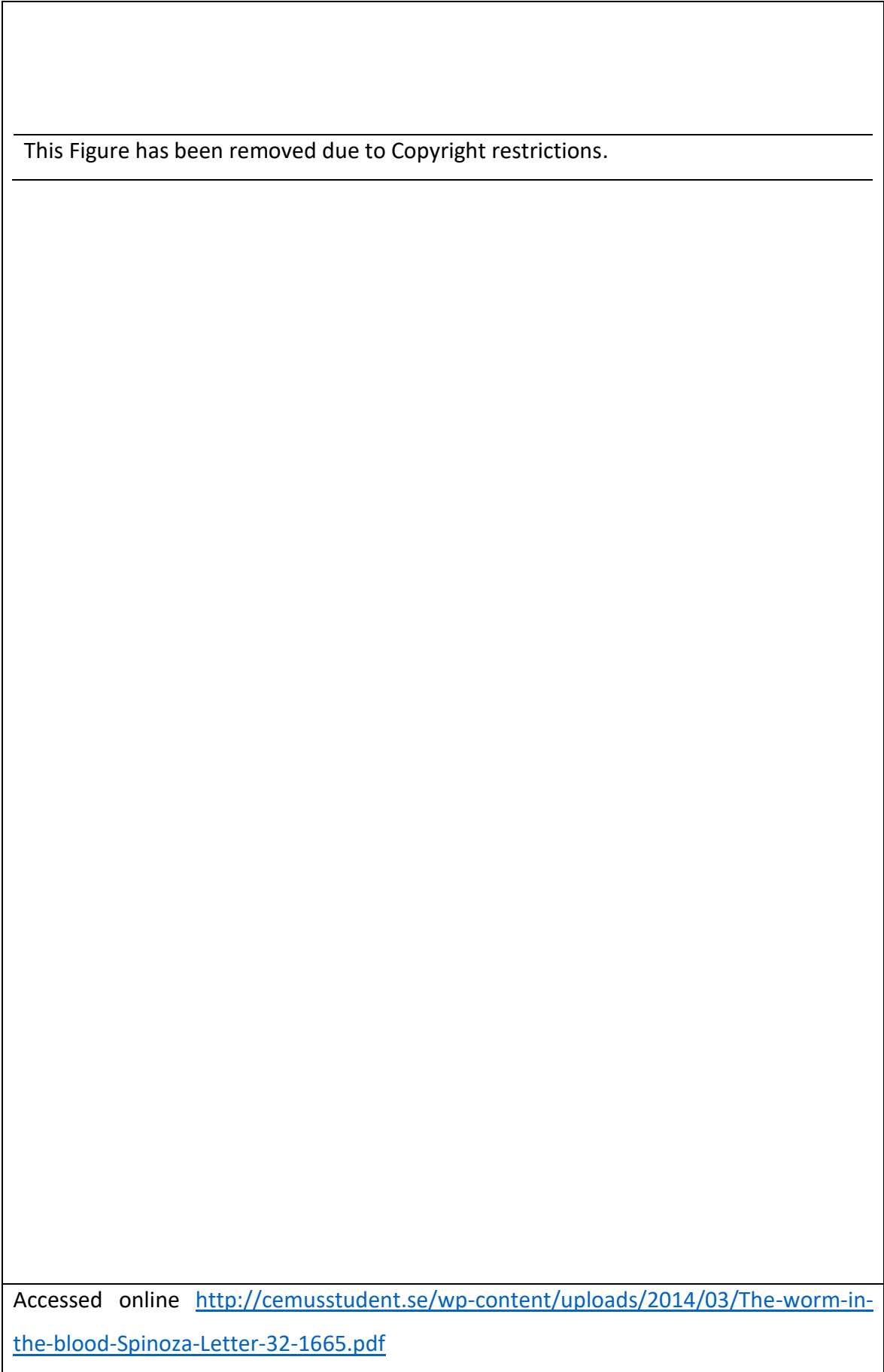
Justifying the

fear.....



Worms are not just found in the soil, and the word 'worm' can refer to a range of creatures. Perhaps a fear and fascination is linked to worms in the blood? The following is a photograph as found collage of Spinoza's key text referring to the worm in the blood and what this means for a conceptualisation of monist immanence. I have chosen to keep the photograph version as it feels a lived text with the underscoring and in other places diffractive comments in the margins. Whilst this is a very different worm to the earthworm, thinking through its location gives philosophical insight, from Spinoza to Deleuze.

A letter from Spinoza:



This Figure has been removed due to Copyright restrictions.

[Figure 47:VIII The Worm in the Blood, a letter from Spinoza \(1665\) illustrated in Curley, 1994: 82-84.](#)

Is this time and latent history influence simultaneously also becoming time space assemblage impacting effectively, affectively through children's play and engagement with worms, or is it something else at play, a universal understanding of the outside inside, to return out as we all become, and then return to compost through the magnanimous work of the turning worm, a nihilistic renewal? The worm in the blood of Spinoza (1665 and see Figure 47) illustrated immanence and monism at a time of wormly pestilence, whilst also acknowledging difference, God in nature, nature variety,

human nature god mattering. The worm is a maker of difference, a tiller of hubris, and a stimulant to a philosophy of monism and multiplicity.

No wonder that children who may have little knowledge of worm history and biology have a fascination with this creature and respond to it. Perhaps it is also in such early play encounters that the ethics of this onto-epistemology comes in to play, a moment of kinship, or bifurcation, of establishment of self and master, or engaging in a flow of vitality in immanence.

Playing with the Worm song

Uroboros you don't bore us
With your digging through the earth
Peristaltic processes internalising
Magnanimously composting.

Uroboros you define me
Demonstrating mastery
Curious cutting
Agentic aparting 'I'
From orchid and the bee⁷⁹.

Uroboros i/you ken 'we'
Insiding outside in
Thinking folding
Life renewing
A doubling not a 'thing'

⁷⁹ The orchid and the wasp are for Deleuze and Guattari (1987 /2012) offered as a rhizome, illustrative of reterritorialization and deterritorialisation as a type of orchid resembles a wasp and emits mock wasp pheromones, but the wasp too benefits from the orchid and transports pollen. Haraway also offers an explanation as the orchid and bee-pollinators are mutually constituted through reciprocal sympoetic relationship from which neither can be disentangled (Haraway 2016: 68)

Children's Rhymes

the worms crawl in
the worms crawl out
in through your belly and out through your mouth
your hair turns gray
your teeth decay
and that is the end of a perfect day!

(a Rhyme from the North West of England, Opie and Opie, 1969:273)

The lives of humans and animals are interconnected in many ways, a sympoiesis, each depending on the other for existence, historically, culturally and geographically. Each side has something to add to the relationship and a responsibility for it (Donaldson and Kymlicka, 2011) but perhaps there is no 'side' for we are all one unenfolded, each body, intra-acting.

9.6 Merz, Mineral, Plastic and Sand

Headline: Bottle caps tossed over hedge near supermarket falls in play area and becomes loose part, sparking intensity and utilised for a new life motion in becoming from the redundant.



Figure 48: Plastic based Merzboards demonstrated in proximity to the supermarket.

The more-than-human agentic matter is not just about what Haraway (2016) terms 'critters' (which includes more than animal living organisms, but for her does not extend to mineral agencies), it also contained the non-organic. The play *Merzboards* across all 6 locations included mineral elements in plastics, metal and sand and stones. As a reminder, the Merz Boards were Schwitters inspired collages generated quickly by the children on boards on which double sided sticky tape had been lain. The children had been prompted to respond to their environments by gathering materials that meant something to them in relation to their play spaces and places and dropping or sticking them onto the Merz boards as collages. In the environments with a greater range of

bushes and plants there were many more leaves, blossom, flowers and seeds stuck onto the boards. In the more urban environments it was possible to identify a greater range of minerals, sand, soil, rust and quite distinctively a greater number of plastic items (bottle tops, bottles, labels and sweet wrappers).

Humans are of the world and the world is within us (Casey, 2001). The children's subjectivity in becoming, commutatively in their play, is concomitant with the environments in which they exist. Children and spaces are contingently brought into being through the commutation of the intra-active event, the play.

I think with the Merzboards and the plastics. I am reminded of the famous image by Justin Hofman (Sewage Surfer , 2017) in which a seahorse is holding on to a plastic cotton bud and not the seagrass that should anchor them in the shadows of the shorelines. Rather than being secure among a food source the small creatures are floating aimlessly, foodlessly as visible bait in the centre of the ocean, tail tightly wrapped round pink plastic. I think with the cotton bud for a while, seeing seahorse child attracted by bright plastics above biology.

'We creatures are adrift. Launched upon the tides of history, we have to cling to things, hoping that the friction of our contact will somehow suffice to countervail the currents that would otherwise sweep us to oblivion'.

(Ingold, writing of human experience 2015:3)

Plastic affordance, or plastic cue, agentic plastic pollution made its way to the Merz boards in some of the housing areas closest to the supermarkets. There are on average 27 cotton buds for every 100 metres of UK beach (Cotton Bud Project, 2023. Online, no page), and positively on 1st October 2020 legislation banned the production of plastic stemmed cotton buds, drink stirrers and straws in the UK. It will take a little while for

existing plastic stocks of these to run out as the sale of them was not banned, and even paper-based cotton buds may be expected to be reaching the seas around the UK at 27 for every 100 metres. A recent report on the news identified that plastic items at least 50 years old were regularly being washed up on our beaches, sweet tube tops and bottle tops seem quite prolific (Lyons, 2018). In another area of the UK, it is plastic microbeads that have come from a container that went under the waves . It is expected that by 2040 29 million tonnes of plastic will enter the oceans globally, the equivalent of a 'trash truck' full of plastic bottles dumping its load into the Atlantic Ocean one a minute for the entire year (Kaza, 2022:384-5). Although the material for cotton buds may change I wonder if the impact on the seahorses will take longer to have some effect or whether there will be cotton bud and other plastic sticks floating around for another 400 years. Meanwhile the plastic industry expands, advising parents and nurseries to buy plastic grass to save mowing the lawn, or dirt patches outside the conservatory.

Plastics are data that glowed to the children in these locations, as affordance (Gibson, 1996) or in the merzboards case as play cue (Sturrock, 1998) or virtualities that come into actuality as they are picked for use, becoming something other than bottle top in their playful attraction. Children offer reasons for their selection: Some collect the bottle tops and use them as play tokens for games, some were attracted by the colours and shapes, others merely indicated that they were used to seeing these plastics in their liminal play areas, bushes and hedges, they were just there and so needed to be on the boards or they had eaten the sweets and so stuck the wrapper on. The materials were merely 'to hand'. They were common elements in the play spaces close to the supermarket, a location also closest to the beach and sand was also present on these more mineral based play area materials Merz boards.

Schwitters said of his Merz;

‘what we want now is spontaneity. Not because it is better or more beautiful than anything else. But because everything that issues freely from ourselves, without the intervention of speculative ideas represents us. We must intensify this quality of life that spends itself in every quarter. Art is not the most precious manifestation of life.....a life is far more interesting (Schwitters, from Merz, 1921 in Chipp, 1968:382-383).

Newell (2014) aligns Deleuze and Guattari’s philosophical thinking with Schwitters approach to Merz highlighting that the collage space is unthinkable of itself as found objects are given life anew after their conceived lives have ended. The meaning of the collages of Schwitters (and also similarly of the children in my fieldwork using the plastic bottle tops) is not in the meaning consciously given, but the meaning that comes into actualisation in the moment of use and in its variety.

Deleuze reminds us that whereas traditional philosophy appeals to

‘a formal synthetic identity ensuring a continuous intelligibility of matter (a priori synthesis) modern philosophy tends to elaborate a material of thought in order to capture forces that are not thinkable in themselves’.

(Deleuze and Guattari, 1987/2012: 377) .

The found agency of the bottle caps dropped on sticky taped boards is without prior synthesis, the moment of becoming expression being agentic in-formation, concept making.

9.7 From Sympoiesis to Metal Caving, from outside in.



Figure 49: The underside of the car

Play observation field notes August 2017:

Two girls, 2 dogs my partner and I walk up a pathway into the woods as part of the play research; we are engaging with the 2 girls' play experiences close to home as they show us how they play. We are performing the landscape as we go, crawling with our heads below a wall as we pass a house in which there is an old man. We walk through a wooded area. To the right is a large dip and to the left a bank, the side of a hill. Parts of the bank have broken away beneath tree roots above, revealing lime green lichen illuminated earth arches beneath spreading under-branches, caves beneath the arboric anchors, flinty on the floor. A cave not yet a rhizome. The dog entered the cave space, the girls

followed, crouching in the hollows "Beware the trolls live here" epistemic becomes fabulatory. There is something both inviting and fearful in that cave space tree root divet. It is not yet a lived space, nor fully conceived as a cave, slightly crumbling and with roots catching the hair. The cave is discussed as being ancient, perhaps an early mining, gravelled and stony under tree.

I follow a rhizome tendril as I write this, a writer cue now thinking the play intra-action through cave lichen (the play continues to be picked up later). In 1877 Albert Frank used the word 'symbiosis' to describe the way that several different organisms come together in collaborative partnership. Fungi, algae and photosynthetic bacteria beneficially working together for different benefits of each, making a symbiotic whole. An organism of community, working in common. Some harvesting light and carbon dioxide, others harvesting and transforming light in dark places for the benefits of beneficial bacteria. Man may be the largest mineral mover on the planet now (Carver,2023 referring to Cop 27) but lichens are capable of deforming mineral statues, softening granite, and dissolving and digesting hard rocks. When lichens die and decompose they give rise to new soils

'Lichens are how the inanimate mineral mass within rocks is able to cross over into the metabolic cycles of the living. A portion of the minerals in your body is likely to have passed through a lichen at some point' 'Lichens are places where an organism unravels into an ecosystem and where an ecosystem congeals into an organism' a process of becoming other together as one, folding together and 'flickering between 'wholes' and 'collections of parts'.

(Sheldrake, 2020, 85)

'Marriage of fungi and algae,
chemists of air,
changers of nitrogen-unusable into nitrogen-usable...

....Rock wools, water fans, earth scale, mouse ears, dust,
ash-of-the-woods.
Transformers unvalued, uncounted.
Cell by cell, word by word, making a world they could live in’.

(Hirshfield, 2011:40)

Lichens are, like earthworms, both destroyers and makers. In their collaborative existence of algae and fungus they challenge the binary evolutionary perspectives of Darwinism, no aggressive survival of the fittest here, but an activity for procreation of all. Sheldrake (2020) highlights that lichens were the prompt for Lynn Margulis’ exploration into ‘the intimacy of strangers’ (cited in Haraway, 2016: 60) and the holobiont symbiotic assemblages. The lichens’ symbiosis is a promotion of collaboration as holobiont, not a ‘mutually beneficial’ approach of individual elements of host and others but a situation in which ‘all the players are symbionts to each other, in diverse kinds of relationalities and with varying degrees of openness to attachments and assemblages’; processes Haraway playfully calls ‘bumptious doings’ (2016:60). Lichens can grow very slowly, some less than 1mm per year (Nature Scot, 2022). These symbionts indicate that life evolves through a long-lasting and continually adaptive becoming of intimate strangers, bounded and unbounded, outside and in adjusting to complexity. Haraway draws on Margulis to consider humans as symbiotic holobionts, sympoetic even⁸⁰ unbounded, leaky, comprised of bacteria and more than human. She then asks;

‘But what happens when a partner involved critically in the life of another disappears from the earth? What happens when holobionts break apart? What happens when entire holobiomes crumble into the rubble of broken symbionts? This kind of question has to be

⁸⁰ Haraway (2016:58) proposes sympoiesis as an adaptation of symbiotic means ‘making with’. Sympoiesis is a word proper to complex, dynamic, responsive, situated and historical systems. ‘It is a word for worlding-with in company. Sympoiesis enfolds autopoiesis and generatively unfurls and extends it’.

asked in the urgencies of the Anthropocene and Capitalocene if we are to nurture arts for living on a damaged planet'

(Haraway, 2016:69)

Such a question is part of Haraway's call to her readers to 'stay with the trouble' to tell the stories of the dead and not yet dead, and to think in a tentacular way of new ways of,

'bringing into mind and heart the new things of earth, not only symbionts ...but also the emerging kinds of being and ways of life of an always evolving ..world' releasing 'the energies of the past, present and future Chthulucene, with its myriad tentacles of opportunistic, dangerous and generative sympoiesis'.

(Haraway 2016:168)

That lichens are important to air quality and are sensitive indicators of air pollution is important, that they provide important habitat is important, that they are attractive to children's play is possibly another point of kinship connection.

Now let us return to the play, the girls run and crouch in the caves, they disturb the soil, smelling the rich earthy smell of organic matter, fungi, lichen, soil. Beware the troll , my colleague calls in playful voice.....adulterating the play, or playing with the players prompts, culture breaks epistemic play, deep human given understandings enculturated prompts, and so the movement out begins and in so moving slightly digs the divet deeper; playing as worldling, shaping the world by being, perhaps even shaping the lichen by breathing on it, stroking and picking it, soil beneath the feet, child beneath the soil, lichen stroked, root stroked, bacteria left, folding in, internalised in time. The girls' becoming belonging here embedded within them perhaps to be found in future Chronos time-past memories or aeons hence by archaeologists analysing bones left behind, they shift to virtual becoming in time to now matterings, cave stories. Each undulation and

motion of the landscape known to them in their childhood explorations remaining with them, in them, a part of them, lichen knowing perhaps.

Caves have been long part of human storytelling history (Ustinova, 2009). Is there perhaps an innate need for the sensorium of the cave with its sound muffling yet amplifying womb like security coupled with fear. Whilst Plato's cave was one of ignorance, with mortals living in the shadows, cut off from the light of knowledge in many other cultures caves are places of intense self-awareness and a different form of knowing to that attained by rational contemplation, folding the inside outwards, a deep contemplation of self. There are experiments which have shown that some states of consciousness, whether induced by sensory deprivation, hallucinogens, or near-death experience is the feeling of passing through darkness and a cave-like experience of a bright light in the centre, an experience sometimes referred to as mental vortex (Ustinova, 2009). At the same time the darkness and isolation of the cave 'provide the ideal environment for those seeking visions, revelations and spiritual enlightenment. The symbolic and the literal, the inner and the outer, thus combine to explain the deep significance attached to caves the world over' (Murray, 2010: 107). Some experiencing such passing through darkness '....feelings of oneness with all humanity, nature and the cosmos. To return to our environmental dance we might understand that subterranean habitats are of especial importance for diversity, hosting a specialised fauna with unusual and bizarre morphological, behavioural and ecological adaptations with dynamics that hold together cave communities (Lunghi and Maneti, 2020: 167). Biology emphasises the uncommon in language of caves: Troglodytes live in caves, Trogloniles are able to reproduce in subterranean habitats and troglonens are occasional visitors to caves. I find caves, close to the surface of the earth, attractive (though am rather uneasy

about going down deep mines). I feel the fear, and claustrophobia, but still that darkness calls, come,.....come..... and I was drawn into a dark adventure. Our child Troglodens appreciated the attractiveness of their demi-cave, drawn into the symposium by the intrigue and darkness, enculturated by Troglodytic Troll tales. Is it a safe space, indicative of returning to the womb, or perhaps the cues of the unusual, the muffled sound, the luminescence of the lichens, an eeriness of the unusual made in the moment. The lichens discussed above are indicative of cave communities, which Lunghi and Maneti (2020:167) say are distinct and differentiated; 'each one characterised by distinct diversity and dynamics with species holding different ecological roles and often with blurred borders'. Child joins community of the unusual, temporarily.

9.7.1 On Metal

'Now the trees have been cut down, the ground levelled, a stream canalized, and the area flooded with asphalt to make an extension to the car park. Should we be surprised if children play around the cars, if cars get damaged, if sometimes (children) are tempted to more serious offences?

(Opie and Opie, 1969:16)

I first meet X in a car. His mother had come across to me asking me to include her son's unique play experiences. He was happy to talk to me and once we had become familiar through play were able to explore and play together. This time we were not walking up a mineral and herb entangled pathway, but along a gravel and waste strewn parking lot, and the angularity of the grit, black oil patch shaded, dust and dirt materiality of mechanisation came into my consciousness. I/we are being interpellated together awkwardly. I think within child car, grit and oil assemblage. He ducked down next to

a deep red car, and rolled under. There was no way I could join his locational play (my body being a little more bulky). I lay down beside the car to engage with this child, metal, rubber, rust and plastic assemblage of play as far as possible aware much more of the dirt in my hair, the grass along the kerb line and mineral dust. I had a discomfort not felt in the 'natural' environment, and was aware of my bounded enculturated separated self, but this too was mineral and dust, darkness, smell, small critters with the additional odour of hot metal and dripping oil, (a richness erupting from my own childhood again as I had long helped my father fix the car). Space-time-mattering mattered again, the warmth of the early moments pulling spark plug covers and that metal smell rushed back momentarily. A moment of affinity. How do I appropriately illuminate without bias this space making experience this child was sharing, an embodied embedded troglomorphic behaviour of darkness and light, smell, taste, and visual in contextually specific makings that many would consider was far from cave. The worldling world was turning, worldling playing child place experiences with historicities, car becoming cave, child troglomen becoming not of lichen symbiosis, but of metal, oil, machinic manifold cues. His worldling of the world may be harking back to eternal stories adapted for modern situated experiences just as the seahorse reaches for plastic rod. I now catch myself; my role is not to explain but merely to illuminate and illustrate children's play space experiences in locality and appreciate also the complex and concrete materiality of this particular space-time-molecular assemblage of mattering and becoming, an 'embedded, embodied, sensorial experience' (Page and Sidebottom, 2022:771); a specific intra-active response to diffractions generated by intensities in specific localities. Here was a space-time-mattering with metal, mineral, light and dark, grit and rust. Posthuman materiality extends to more than the natural world and his agency in this spark from car undersides he has plugged into, has social impact in

prompting a community of drivers to check under their cars before moving off, so presumably enhancing both their flexibility and care for others⁸¹. A pause before motion in time bound Chronos country. Was this the urban child's cave experience? What does it do to play with metal and mined minerals in modified forms?

In posthuman literature mention is often made of the vitality of inert matter to intra-act as agentic assemblages 'inducing effects in the human bodies' (Bennett: 2010:53). Is it possible to push the inclusion of the more than human beyond the animals biosocial, communicative and conceptual life to ask the questions, 'can nonorganic bodies also have a life? Can materiality itself be vital?' (Bennett, 2010:53). If there is only a monistic plane of virtualities which come into being as intensities 'a pure event freedfrom the subjectivity and objectivity of what happens' (Deleuze, 1995/2001: 4) then the nonorganic also has a life that comes into being as a result of intensity and movement co-extensive with the specific assemblage and virtual reality of time.

'It is clear that there is a Whole of duration. But this whole is virtual. It is actualised according to divergent lines; but these lines do not form a whole on their own account and do not resemble what they actualise' (Deleuze, 2011:105).

Deleuze outlines that if we only concentrate on the actuals we will establish relationships between them of gradation or opposition. Deleuze's (1966/1988) reading of Bergson presents the latter as offering matter as an obstacle that the *elan vital* must get around and materiality as the inversion of the movement of life in duration (100). Physics has further firmly established that nonorganic things are not static, fixed and immobile but that there is a continual motion of particles and waves, matter and energy,

⁸¹ I should perhaps add here that the parents were aware of the dangers of their child's play behaviour and the annoyance to neighbours and were working to control his choices.

without assignable position, everything and everywhere in superposition, transformed by scientists measuring it which working with it brings it into an actuality (Barad, 2007).

[the] world is not static. It is an eternally recommenced creation. Its existence, like that of the living cell, depends on a constant infolding, or contraction of an aleatory outside that it can only partially control'.

(Massumi, 1992:53).

Matter is not just an external environment, an obstacle to be passed around, but an expansion and contraction, fashioning a form for itself through actualising in motion, in connection through the virtuality (Deleuze, 1988/2011). Although man-made car is assemblage of metal, plastic, oil, rust, bacteria on rust, road mineral , it now as car, child, cave, grit, neighbours assemblage is also becoming as we are all becoming on the plane of virtualities. It is not just deconstructing through rusting and breaking, the outside is folding in. Molar striations of child expected play are disrupted, a no-go area re-territorialised as minor molecular becoming. The car assemblage is given and gives further life through commutative connectivity with child on floor under car near grass on grits. If I were considering this experience from a humanist perspective I would focus on the child and the 'why?' of the behaviour. The problem that prompts the becoming car cave is unclear, is it child seeking cave experience, or child seeking seclusion, or more sensory than that? Is this an affordance (Gibson, 1996) that calls 'cave' to the child, or more than affordance in the making of child cave car connections? Some would say that such cave seeking behaviour reaches back to long past history evident in the interest in caves in storytelling (Griffin and Tyrrell, 2003).

Regardless of such rationality in seeking the why of cave play the car as cave becomes actualised anew through an event, a doing (the rolling under the car), car spark plugged

into by child. This reading aligns with Bennett's reading of Deleuze's hylomorphic model⁸² in which raw matter is given form by the agency of something other than itself. 'The hylomorphic model is thus a kind of vitalism, positing some nonmaterial supplement with the power to transform mere matter into embodied life' (Bennett, 2010:56).

I am reminded of a chapter I have recently read in which Bennett points out with reference to one of Kafka's metamorphic stories, how the gap between human and animal has narrowed since 1917 as the traits originally thought to be unique to humanity are found to also exist in animals. She asks '.. can nonorganic bodies also have a life? Can materiality itself be vital?' (Bennett, 2010 :53). In a chapter entitled 'A Life of Metal' Bennett explores Deleuze's concept of a life in relation to this inanimate material. She finds in Deleuze that a life is a 'pure a-subjective current' and 'a pure event freed from the subjectivity and objectivity of what happens' (Bennett 2010:53). Bennett sees a Deleuzian 'life' as 'restless activeness' not coinciding with any specific body (54) and therefore can be found also in the intra-actions of an inanimate body.

'In short, what metal and metallurgy bring to light is a life proper to matter, a vital state of matter as such, a material vitalism that doubtless exists everywhere but is ordinarily hidden or covered, rendered unrecognizable, dissociated by the hylomorphic model. Metallurgy is the consciousness or thought of the matter-flow, and metal the correlate of this consciousness....metal is coextensive to the whole of matter.....Not everything is metal, but metal is everywhere. Metal is the conductor of all matterMetal is neither a thing, nor an organism, but a *body without organs*⁸³.....'

(Deleuze, 1987:479)

⁸² Which she notes is a term borrowed from Gilbert Simondon

⁸³ By 'Body without Organs' Deleuze refers to the social conditioning of bodies and writes of how to make a body without organs - or ways to escape such social disciplines. Bodies can overcome such constraining disciplines and respond anew to desires and potentialities with the ability to self-organise in a multitude of ways (Holland, 2013:122). Without prior cultural constraint metal is reformable, a body without organs.

It is not the object that is vital (the noun, the car) but that the metal is also a source of 'flow, mixture and escape' (Deleuze 1987:479). It is the assemblage of the metal *and* child *and* shade *and* dust in an event of commutation that generated the vitality in play. Child escaping playing field constraint, a line of flight, seeing sparking cues, mixing the unusual, creating cave in enacting and performing an event in his environment, this particular local landscape of play, this particular time-space-mattering. I wonder, what did this event *do*? What thought was borne from that metal intra-action? What space defended in the mind may be residual in such experiences? But it is not my place to conclude the child's experiences here. Suffice it to query whether, just as I am drawn to rotting leaves and beechnut smells, so might this child in future re-turn to oil and rust in a remaking, a variation on the eternal return? I am left with a thought - we are not 'all compost' (biological matter) as Haraway (2016) states, but are mineral too, 'mineral and compost'.

I have in this plateau shared some play research vignettes of engagement with the more-than-human and followed rhizomatically where the phylae took me. This plateau has now run out of steam, the vitality drained. Sturrock termed the end of play 'annihilation' or 'adulteration' depending on how it came to an end, whether closed by children or adults. Annihilation generally refers to complete destruction or obliteration and seems a little harsh as a word to end a moment of assemblage conjunction, intra-action and flow generating subjectivities in the events. But this solitary human play, playing with the more-than-human does come to an end without abrupt interjection. I choose to use the softer term dissolution where play is ended by a child as it seems to place the agency with the child, and the more-than-child, it appears the flow is ended as the vitality of the event fades, the tide ebbs. A synonym given for dissolution in my dictionary is

'dissipation' which implies a spreading out and further adventure of the assembled bodies. Child comes out from cave car and returns to solitary play I haul myself up from the dust and oil.

And now as I reach the end of this very rhizomatic plateau I am unsure of how to close. My Cartesian binary self is looking for criticisms and comments, but I have let the words flow, following rhizomatic thoughts prompted by materiality from vignettes of empirical evidence. I struggle to retain the non-focus required to remain posthuman, Deleuzian, thinking without a-priori expectations. I offer an inconclusive conclusion, a vague, sufficient to let the work do the doing.

10: Cycling or Waving – the play return.

I know of a tale of a fantastical playground of the past, with ladders 30 foot high, and structures even higher built by children themselves, free ranging in and out of a given space found in both urban and rural areas, utilising materials scavenged and donated. Here children converted flat land to anarchic lived-in place, a shanty city with challenges and risks they could call their own. Children left home in the morning and did not return until 4p.m. not being deposited in a caring setting but walking to chosen play places. A central ethos of this playwork world was that the children themselves made decisions about what and where they played, and for how long. They had no gates to keep them in, and were free to come and go, and roam the streets and return again when they wanted to. Children were 'freely associating' (Sturrock and Else, 1998-2001:74) with other children, materials and adults (who were merely a resource to be called upon if needed).

This is not a speculative fabulation, but an understanding acquired from old films of London Adventure Play Association at work in the 1950's and 1960's⁸⁴. In countryside play similarly there are tales of long roaming distances, lazy days playing by the river banks, dens in woodlands, sheds and boathouses and adult-free existences with friendly adults as resources where required (Bird, 2007) . Sturrock and Else recount similar idyllic tales of desiring child becoming with others, then adulterate and end the idyll with a harsh meta reflection;

• ⁸⁴ See Lady Allen of Hartwood and the first adventure playgrounds and the extension of those for the 'handicapped' (please ignore the now dated language and focus on the nature of the playgrounds: <https://www.youtube.com/watch?v=1pqMXplA19Y&t=293s>)

'...the natural space for play ...is steadily being eroded, where the playful habitat, or what we describe as the ludic ecology – is being curtailed or contaminated...as a result play sites are coming to serve as 'authorised' grounds for children's play (in which).....the work of the adult is to fulfil a more curative function than had hitherto been acknowledged'

(Sturrock and Else, 1998-2001:74)

The Rousseau-esque free child was now in chains for their own good, the ludic ecology contaminated and adulterated, the free native medicalised and requiring correction or therapy. Hobbesian understandings triumphed, though not always directed at the child, the world was a dangerous place for which instruction was required. I know that there are many who would question the romantic play idyll, and the loss of play sites, as children's mortality rates were higher then than now, but bear with me here for a while. Sturrock and Else (1998/2001:73) outline that from a curious 'hotchpotch of philosophies' and linked to such an idyll there is a profession, a job, widely described as a playworker. It is not so well informed, as the well-researched early years or education sectors, but still driving on. A movement that has continued to assert that play is of great importance to children's lives outside of the structured instrumentalism of the current neoliberal perspective. Due to legislation (The Children's Acts 1998 and 2004) the free play understandings were taken up and borrowed, but made less powerful, by public provision, as were the free play provisions themselves whose gates were closed as they became contained child depositories as care, or understandings of educational content and containment. Before this time, mythical figures such as Lady Allen of Hartwood had told of tales that allowed such risks and freedoms in inner city areas that it is commonly understood that children's playgrounds have been adulterated and constrained if not annihilated and in pockets of land still found in the liminal spaces and borders of this land, remains a band of workers focused on the child's desiring drive to play.

Out of this hotchpotch and gloom of over 20 years ago came a paper and a concept that has continued to have resonance within the playwork field, though now in need of some updating (as more recently acknowledged by Sturrock himself in Sturrock and King, 2020), the Play Cycle. Within that cartographic 'Colorado paper' is the following proposition:

'...before and prior to each act of creativity of the child (in play) lies an imaginal realm or zone that is *playful (ludic)* and symbolically constituted.the practice is not a reductive response to the play acts and settings observed; it is not trying to control the material or action. It (play) does rest in the richness of responses or 'ecstasy of variety' that a play exchange, setting or artefact generates'.

(Sturrock and Else, 1998/2001:76)

This could be read as rather Deleuzian, with the non-reductive response, non-mastery, and 'ecstasy of variety' in response to the richness of a play exchange, setting or artefact. It set in motion a rhizome consideration that perhaps the play cycle should be diffractively read through a Deleuzian and posthuman lens to see what it may now offer. Whilst Sturrock and Else had posited that the play cycle was linked to an anthropocentric and therapeutic approach in deficit compensation for the playing child, it could also be seen as rich in the 'ecstasy of variety' and potentiality. Core understandings contained within the play cycle were of a pre-play moment, a metalude, an ebb and gathering of thoughts before the play cue was issued from the child's inner to the outer world, if there was a response or 'play return'. Subsequently a 'play frame' was formed. Within the 'frame' or imaginal boundary which King calls 'spatial brackets' within which the play event occurred there is then a 'loop and flow'. Flow being that in which 'action follows upon action according to an internal logic that seems to need no conscious intervention by the actor' (King and Sturrock 2020: 71

citing Csikszentmihalyi, 1975). In flow time is lost and warped (Csikszentmihalyi 2002). The loop however is about a different kind of return, in which the external experience is 'processed' back into the internal play space and then maintained, adjusted, or ended. Sturrock (1999/2001: 138) acknowledges that children can change roles, rules and direction of games within seconds. Finally, there is the ending of this process or event, in which the play frame weakens and the play cycle ends. King and Sturrock (2020:71) indicate that the end can be caused by the child or other children or an adult, indicating the subjective social psychology and therapy-based vision of its creators at the time. It is possible to see from a Deleuzian or Bennett inspired lens that the cycle could be ended by agentic matter as much as by people.

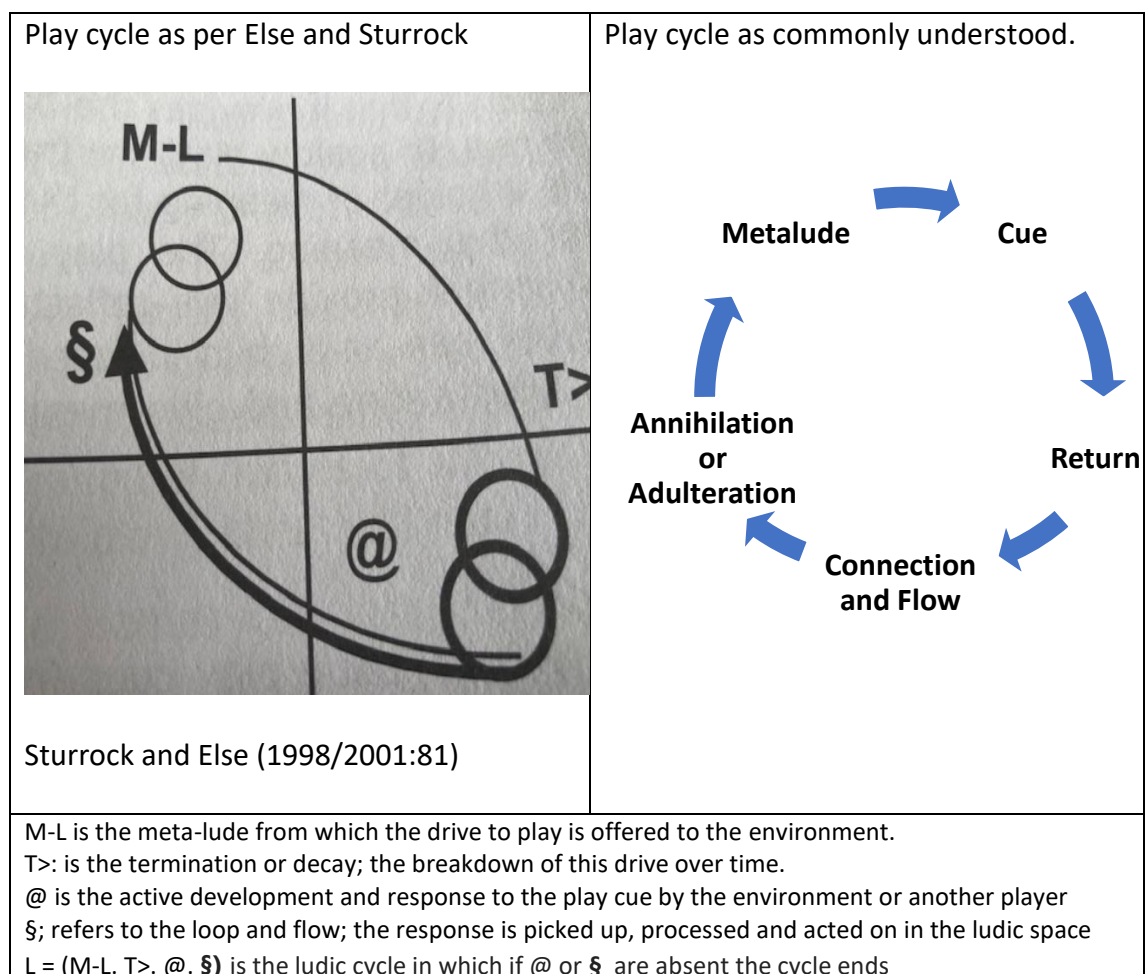


Figure 50: The Play Cycle (Adapted from Else and Sturrock, 1998)

This Plateau offers a diffractive reading and revisiting of Else and Sturrock's (1998-2001) Play Cycle contained within their Colorado Paper (Else and Sturrock, 2005, Sturrock 2020, King and Sturrock, 2020) which reworking illuminated a disruption of the systemic approach to play cues and returns in a containing environment, replacing them with a wave like ebb and flow of intra-active play engagements, with cues disrupted and reconceived as playful myriad sparks from a manifold of agentic offerings. The paper by Perry Else and Gordon Sturrock entitled 'The Playground as Therapeutic Space: Playwork as Healing' (later referred to as 'The Colorado Paper') presented at the International Play Association conference in Colorado, USA in 1998 was highly influential in the playwork sector and has been incorporated into most playwork training since (King and Sturrock, 2020, Stobart, 1998). Key terms from the paper such as 'metalude', 'play cues', 'play return', 'play frame', 'adulteration' and 'annihilation' have become common use within the playwork sector. However, this language has not traversed into other sectors which might consider outdoor play, such as Early Childhood Education and Care.

Whilst King explains the play cycle in very pragmatic terms as a tool to inform playworker engagement in supporting the therapeutics of play I perceived a very different understanding by re-reading the collection of Therapeutic Playwork Papers (Else and Sturrock, 2005) at the same time that I was reading Deleuze's (1987/2012) 'A Thousand Plateaus' and Pete King's (2020) textbook on 'The Play Cycle'. In Chapter 3 of this latter text entitled 'Beyond the Intrinsic' Sturrock highlights that the Colorado papers were an attempt to offer a new approach to playwork practice in the face of growing constraints and imposition of a neoliberal instrumentalism in playwork 'where the child was registered, entered and conscripted into early schooling and more instructionally directed and educational regimes' (Sturrock, 2020: 52). His concern was that concepts

of playwork practice, at odds with a 'medicalised model of child as 'patient' (53) have not been taken up more widely but rather that the concept has been taken over, territorialised and re-situated in a way that underpins concepts of learning through play or care for improving school playtimes as training of controlling supervisors. However, there was something very mobile in his conceptualisation of a shift in focus from the 'psychotherapeutic procedure of a dyadic exchange,to a more inclusive environmental interaction, and to emphasise, to be more acknowledging of a wider, but bounded arena, the play space, where projected material was 'vivified, enacted and prophylactically contained' (54) and he continued to emphasise a postulation of 'unplayed out material' (Sturrock and Else, 1998) as the 'present exfoliates out of the past and the future' (54) making a 'personal wager on transcendence' (55);

'It may show that ideas on the play space, play areas, playgrounds are a ludic ecology. These spaces could be viewed as highly particularised eco-niches for the evolution of adaptive repertoires, explorations of self and identity, the ontological being and becoming and an embrace of the human and non-human biota⁸⁵ which can be accommodated and partially accounted for by the Play Cycle seen as a feedback loop that has the capacity to also mirror the essential cyclic feedback of evolutionary growth and development'.

(Sturrock, 2020:55)

For Sturrock in 2020 a disequilibrium is one of the fundamental drivers of evolution, taking place in a biota of evolutionary change. He considers this fundamentally changes our perception and understanding of the play space which he describes as;

'a ground we have hitherto seen as merely a stage or setting; the place where we position our 'loose parts' (Nicholson, 1971), But it is considerably more than a backdrop. The play space is a highly active and vitally necessary ingredient in the interconnectivity of the human habitat exchange. There is within this bounded dimensionality the essaying of matters, of a particularised learning ...of our biological endowments....' (Sturrock, 2020: 60-61)

⁸⁵ The word 'biota' generally meaning in biology and geography the flora and fauna relating to a particular region or period of time, all living organisms of an area (European Environment Agency, 2023: no page).

He describes not just child to child exchanges but a 'consociation of the attendant adult in the flow of human and habitat interaction as a necessary element..' (Ibid) and raises an understanding of a play space as a potential 'ludic commons' He goes on to highlight how evolutionary development (becoming) is not a steady state process. It has waves, surges, peaks and troughs. Things come alive and they die....these high points [are] 'pulses' : a term that successfully captures the rapidity and flux of change. The activation of the evolutionary drive has been impelled by adaptive change and the adoption and discarding of repertoires of existential being and becoming. By what can only be described as chance, in creating a space that offered a boundedness and that, within that containment a freedom of expression and a liberty to experiment, there began to occur a phenomenon in playwork that I believe to be entirely unique to any children's development' (Sturrock, 2020: 64)

Sturrock draws on Bookchin (2006)'s conceptualisation of 'first nature' and 'second nature', stating;

'First nature is situated in a universe where 'choice', self-directiveness and participation by life forms in their own development is a central thrust. Humankind does not stand apart from nature: we are not 'superior' to it but evolve in an ecocommunity that comprises human and non-human, flora and fauna. That totality we might describe as the biota through which we enter into an ongoing and rich collectivity'.

(Sturrock, 2020:65).

and

'Second nature on the other hand refers to social and cultural development, of friendships, dyads, groups, teams and gangs that move, form and reform in everyday play experiences. The play events such as dens and imagined gravel paths as rivers are considered (drawing on Putnam, 2000) 'bridging and bonding practices that are the foundation stones of potential for communal joining'.

(Sturrock, 2020:66)

For Sturrock the First Nature has been neglected, and there is a need to know of the seasons and the more than human. He writes of knowledge of south facing aspect, of

native birds, foxes, hedgehogs and field mice and the particular localised song of the blackbird.

‘Our continuing evolution is not singular to our species. As we evolve so too does our surrounding environment. There is a constant harmony and interchange of adaption, growth and development, a highly particularised interchange between human and human, and human and habitat. We are required to acknowledge that play spaces are of themselves complex ecosystems made even more by the intense situation of the children’s econiche explorations and experimentations within that space. We are effectively co-evolving.not in some in-vitro perspective as a placid totality, but as demonstration of the idea that increasing complexity leads to increasing diversity’

(Sturrock, 2020: 66).

Sturrock refers to Deleuze and Guattari as he is critical of his overemphasis on Freud (King, 2000: 68) and found that their work was centred on critique of the Oedipal Complex and a process of pre-configuration which effectively limited the range of interpretive responses in a form of directed hermeneutics. Sturrock sees the potential of an opening out as a result of Hughes’ (2012) work on Evolutionary Playwork. He emphasises that what he calls evolution, but which we may consider as ‘becoming’ reveals play as an essential ‘driver’ for crucial aspects of a child’s growth and development exemplified by the ‘being and becoming’ of Deleuze and Guattari (1988) ‘there is only one rhetoric of play: that is to invoke playing, where there are myriad potentials for exploring meaning’ (Sturrock , 2020:69).



Figure 51: An amended play cycle

In the light of Deleuzian process ontology and Barad's commutative intra-action, in both of which we are on a plane of immanence, comprised of and affecting others (whether human or the more than human), and with a disruption of the a-priori subjectified 'I' in Deleuze's work I was prompted to rethink Sturrock and Else's (1998/2001) Play Cycle (above and see amended in Figure 52 below). I was introduced to the play cycle many years ago and it has remained relevant to me as a model indicative of play as a process. With my greater awareness of the work of Deleuze and Guattari and Barad's physics-based understandings it has now become a model that I conceive as aligned to wave theory and the circular motion of energy generating lines of flight or rhizomatic roots for pursuance. In wave theory there is a cycle of energy beneath the surface flow of the waves, an energy that stays in place whilst the motion of the waves between cycles can carry things thousands of miles from one coast to another. The energy is placed, but

the motion is continual, transporting, sometimes calm and at others stormy, running with high intensity, then losing velocity as a shore is reached, energy dissipated, dissolved.

The Play Cycle as a static model of play relationality and engagement was based on the inner child meeting the outer world (Sturrock and Else 1998/2001). The original Play Cycle was focused on one child and indicated the process of their moving from the pause and self collection of the metalude, through the sending out of play cues, to receipt of the play return, play engagement, flow of at least 2 humans in play and then an ending or 'annihilation'. The model had already been refined and extended by Else (2014: 68) to highlight that the play cue could come from the child or 'the other player in the environment' and if the cue was returned 'they' would be involved in the play activity. Else highlights how children invite participation by other children or adults into their play although he does also acknowledge that children may 'simply play with the environment' if the child finds something curious or interesting enough that they are 'inclined to repeat that action to see what happens' (69).

The ontological conception behind the play cycle is not entirely clear but is one of a desire to integrate different philosophical positions and combining the sociocultural with the scientific and rational, the inner and outer self, so potentially has an element of the 'and....and...and..' of Deleuzian philosophy (1987/2012:114). Sturrock and Else (1998/2001) draw on an eclectic range of theories Agamben to Wilbur, with Gadamer and Whitman in between and as with Deleuze and Guattari's work there is a link of the psychological and the philosophical. However, the play cycle model focuses on the importance of the evolving consciousness of a bounded individual and so is about perception. A child gathers their thoughts within a location, then perceives something

to play with, sends out a play cue, receives a response and then child and other player associate in the flow that is play. The play act generates a play frame, a virtual or actual space around the players that effectively bounds the play experience and excludes others for the duration of the play (although others can break the frame or be invited in).

A shift away from the anthropocentric model both decentres the child as subject but also moves from the production of the subject to the production of event. This is a more complex understanding of child, human, and who and where the play cues come from. The position is not one of perceiving an affordance any longer. It becomes an acknowledgement of the agency of the more than human and the capacity to reciprocally change with the environment and to effect and be effected by a relationship of commutation. A body is composed of an infinite number of particles all in motion or rest, speeds and slownesses, and a body affects other bodies or is affected by other bodies. 'It is this capacity for affecting and being affected that also defines a body in its individuality' (Deleuze, 1970/1988:123). Thus, Deleuze adds 'One never commences; one never has a *tabula rasa*; one slips in, enters in the middle, takes up or lays down rhythms' (Ibid).

The conceptual thinking arising from the diffraction of Deleuze through Sturrock and Else has led me to reconceptualise the play cycle in a much more fluid way. A body is defined by relations of motion and rest, speed and slowness, and play becomes a complex relation between differential velocities, deceleration and accelerations, actualising from a plane of immanence. If we think of this plane of immanence as a monist plane of potentialities and virtualities then there may be an ebb, a pause in velocity before a further dynamic engagement arising from the ludido (play desire). Play

cues do not just come from the child (who are in themselves unbounded and leaky until they come into being becoming anew through the act of engagement). The play cues at the top right of the cyclical diagram below do not just arise from the playing child, but meet the child as cues from the environment, sparks to plug into. There is not just one, but there are many, sparking from the virtuality as potentialities to be pursued or not. Bodies now cue respond, plug in, intra-act and entangle, in so doing are becoming assemblage and subject to the interplaying forces of intra-active engagement, of interpellation, percept, affect and concept. The play frame still has a place as a virtual (and leaky) frame, bounded 'intension';

'a multiplicity is defined not by the elements that compose it in extension....by the lines and dimensions it encompasses 'intension'.....thus there is a borderline for each multiplicity; it is in no way a center (sic), but rather the enveloping line or furthest dimension'.

(Deleuze and Guattari, 1987/2012: 286)



Figure 52: The amended play cycle

The point R in the illustration above indicates the point of the acceptance of a spark and the plugging in. The event begins and the interpellations occur, each contingent on the relationships with the other, involved intra-actively in their becoming together-apart.

Sparks plugged into a flow begins. Here I briefly work with Csikszentmihalyi's (2002) conceptualisation of flow as deep engagement in which time is distorted, Bergsonian time lived, not segmented, the frame is reinforced by the exclusion of the parts not yet joined in the assemblage, which is still leaky and may be joined if the specificity of the frame allows. AndI join this flow of affect to exclude with a Deleuzian understanding of flow as movement, momentum. For Deleuze 'flow' is a becoming together, a flow of pure differences (not atoms but miniscule folds.....forever agitating), flows of lines of molecularity connected with others, commutative, a fold within multiplicities of flows territorialised and deterritorialized.

In my drawing the dark line indicates the intensity of the flow, time and duration slows, motion and emotion generating concept ripples. The assemblage now haecceity is open to further engagement but in frame. Speed, intensity and velocity alters, there may be lines of flight, and the assemblage disassembles, the play cycle is not annihilated, but dissolved, dispersed, and the energies flow elsewhere.

In my second drawing below, I visualise the intensity of forces in the plane of consistency as waves and there are many potentialities, sparks to plug in, many assemblages and haecceities play cycles or cycles of engagement, with potential lines and linkages. There may also be movement from one haecceity to another.



10.2 Wave Theory

'Waves are not entities but disturbances extended in space – think of a wave at the beach. Unlike particles waves can be superimposed on one another. For example, when two ocean waves overlap the amplitude of the resultant wave is the combined amplitudes of the component waves: the amplitude of one wave is added to the amplitude of the other wave and the result is a wave with combined amplitude. The resultant wave is said to be a linear combination or a superposition of the component waves.two solutions for any particular situation' (Barad, 2007: 255)

Deligny (2015) also highlighted the importance of the vague (the wave) when thinking with networks. He writes of how the random chances of existence have led him to live 'within a network' as a 'mode of being' rather than otherwise. Living within a network is living within the random chances of existence, an arachnean weaving, a web of which reason and direction may not be known, it taking a shape of its own. When recognising the attraction of a construction site near to his home he thinks of the attraction of the forbidden. But then writes 'It would be better to speak of the attraction of the *vague*' (Deligny 2015:Loc323).

This set me thinking not further about lines as Deligny had (I have explored lines of intensity and velocity in Plateau 8) but now about waves and the energies of waves. In a spark of connections plugged into I had aligned the Play cycle with wave theory. I visualise the play cycle as the cycle of energy found beneath the flow of waves, the energy of the wave, that creates a generation of energy that means a peak of wave can travel 7000 miles from the Antarctic to the Arctic, but the energy continues to cycle in place in situ, static rotation, round and round – another eternal return but in play one that is like Dylan Thomas' park play experience, different every time it is re-encountered and re-turned to. Play is the wobble, the energy for differentiation, the energy of the elan vital.

11 A Speculative Fabulation

Patricia Johanson Urban Playground: Mountain, forest, stream.

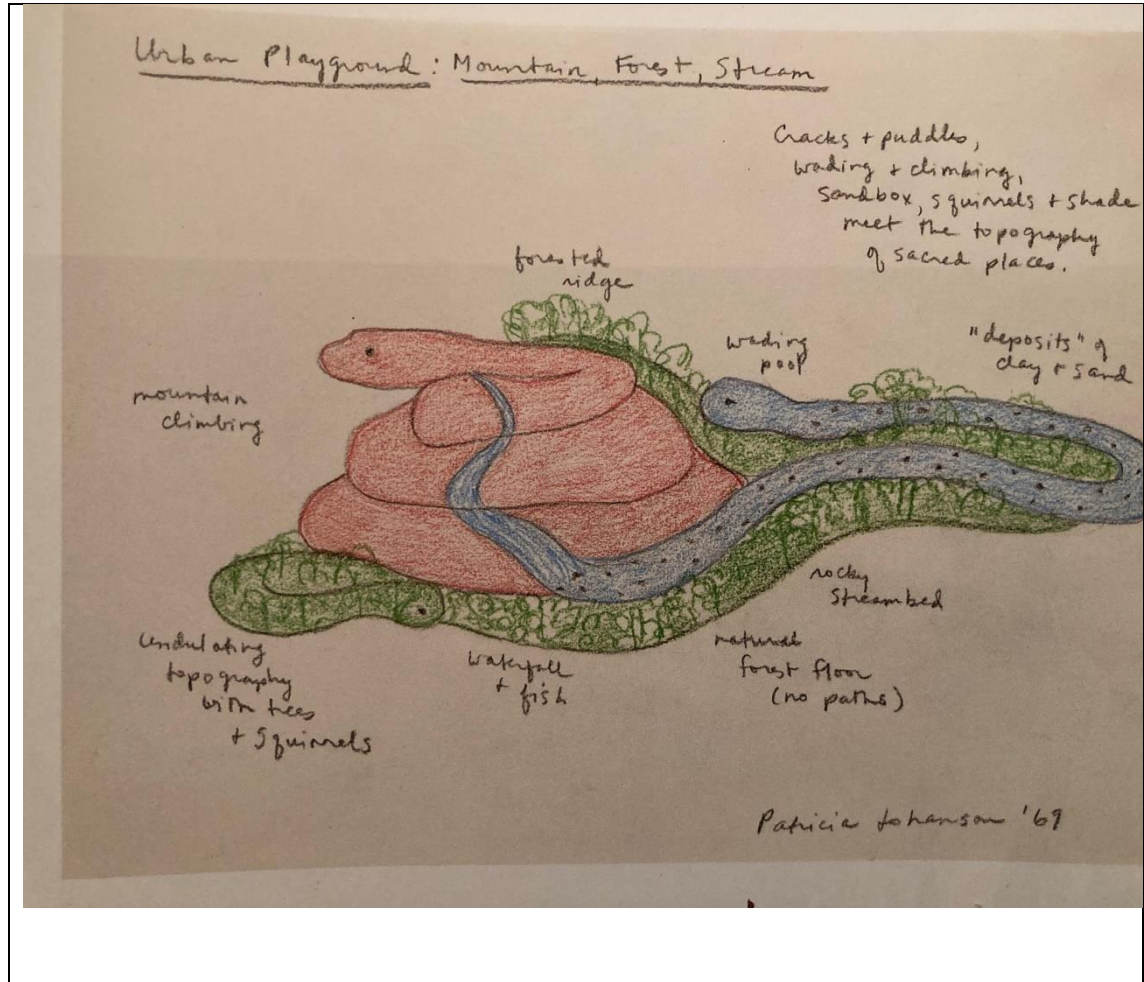


Figure 53: Patricia Johanson's speculative 'Urban Playground' 1969 Illustrated in the Tate's 2018 brochure for Virginia Woolf, an exhibition inspired by her writings. © London: Tate p45

Haraway (2016) asks us to think about how to think-with, live-with and be-with other planetary organisms in a world that is in ecological trouble (at either or both macro and micro level). She asks that we should 'stay with the trouble' yet be creatively thinking in other ways about our human (albeit with leaky bodies and no clear boundary, whilst being a symbiosis of other organisms and bacteria) relations to the earth and the issues. Hers is an approach to the philosophy of posthumanism from a multispecies perspective which prompts her to consider the value of sympoiesis rather than individual self-

making. Haraway both prompts and illustrates how science fiction speculative fabulation can inform future understanding, particularly in her use of the Camille Stories. Deleuze and Guattari also use stories to illustrate concepts (though they would claim they were not doing so) and to imagine different contexts and singularities.

I am reminded of the work of Patricia Johanson, an architect who thinks with the biological and complex and uses that to think otherwise about human issues and develop transformational solutions. I came across her work as part of an exhibition of artists work inspired by the work of Virginia Woolf (Tate St Ives, 10/08/2018 – 29/04/2018). In 'Staying with the Trouble' Haraway (2016) gives examples of crocheting coral to think with the coral, or of string figuring to think through ancestral located stories across the world, and offers the story of Camille as a speculative fabulation, a science fiction story that highlights possible future issues. Johanson works with the immediate, playfully rethinking sewage and water treatment works through a rare and diminishing mouse of that locality (the salt marsh harvest mouse as an example) and designs a creative response that is playful, visually stimulating, and addresses the problem in a transverse way, working with the environment rather than against it. She describes her work as thinking with nature, hoping to discover how beautiful forms combine with efficient multiple functions – the answer came in thinking not just of the object but of the whole environment, as well as the forces that might transform it. She appears to be playing with ideas as she thinks through forms such as potholes that are supporting cretaceans and thinking of runoff through centipedes and transforms these into structures that are artistic, creative and seemingly natural whilst also supporting the natural environment; a design that is sculptural, functional and is supported by and supporting of natural functions. In the playful, speculative, fabulative, work of

Johanson a playground is envisaged as three intertwined snakes; one is the mountain from which another snake runs as a body of water and finally the third snake is a forest (Johanson drawing *Urban Playground: Mountain, Forest, Stream*, 1969). In the margin of the coloured pencil drawing she has written 'cracks and puddles, wading and climbing, sandbox squirrels and shade meet the topography of sacred places' (Ibid). A speculative fabulation takes her from the reality of designing a playground to a fantasy, science fiction even, but then she has put her ideas into practice. 'To think with enlarged mentality means that one trains one's imagination to go visiting' (Arendt,1992:45).

The presentation in this thesis of the vignettes of children's play and the annotations beneath the images of data collected with the children are stories. They tell a tale a certain way to prompt understanding or thinking, or to seek clarity and further probing. In this thesis the Preludes relating my own experiences of play in childhood and of the lives of whiting, skylark, chough, and children are stories. Thinking through worm in Plateau 9 is storying with researched fact. A good story highlights with finicky and disruptive detail that reaches into pasts and sustain thick presents, they make the listener or reader think, and perhaps think differently, about the thing being storied (Haraway, 2016:125). Storytellers should have a zest for facts, telling a story craftily, without undue stress or excitement so that we savour the parts rather than 'swallowing it whole and jumble(ing) the parts together' (Woolf, 1925/20 date: Loc 1064), the storyteller must 'let us stop, give time to think and look about us, yet always be persuading us to move on' (ibid). Spinoza wrote of 'illumination' of a story. Woolf writes of storying with prose as having the ability to 'sting us wide awake and fix us in a trance which is not sleep but rather an intensification of life – a basking, with every faculty

alert...’ (Woolf, 1925/20:Loc 1220). Haraway presents us with the worldly-wise words of Ursula LeGuin and her therolinguistics⁸⁶;

‘and with them, or after them, may not come that even bolder adventurer, the first geolinguist, who, ignoring the delicate, transient lyrics of the lichen, will read beneath it the still less communicative, still more passive, wholly atemporal, cold, volcanic, poetry of the rocks; each one a word spoken, how long ago, by the earth itself, in the immense solitude, the immenser community, of space’

(Haraway 2016:125 citing Ursula Le Guin’s ‘the Acacia Seeds’).

I have thought with lichen in this thesis, and even with mud and granite, with metal and with worm; with the chattering child and atemporal poetry of the earth it has been a rhizome experience.

11.1 A Speculative Play Fabulation

11.1.1 Child 1

The sun is shining, it is early in the morning, the front door beckons,let’s go out.

There is a moment of dazzlement on the front path as light reflects back. The big tile gaps are for jumping today and the ants are on the move. The molar striations of home as school are put aside, the boundaries are undone, though always leaky until the last decade when the electric gate went into the middle of the plastic coated railings nobody could get through. Out of the box, out of the pen. Who else is out? What else is out? What will the doings do today, and more than today, the past meeting the future.

At the corner an old man sits in his chair by a sunny window, the sun on his face, knowing of his playing cricket on the imaginary extended lawn-pitch in front of him as he throws and catches the ball in an eternal return. He is both there and here, thrower, batter, catcher, boy and aged together. The times of squeezing bullets in city gates to make

⁸⁶ Therolinguistics is a word created by Ursula LeGuin referring to the language of animals. Geolinguistics is her word for the language of the earth/ground/land (and all that lives with it).

them pop long gone...but still residing within, defended in his weakening mind....no more embodied understanding of wartime motion acts of swinging on ropes from lamp-poles..but knowing that still here when the mind drifts, who was that boy on manifold materials of rubble running, blitz bombing playground? A spider drops on shiny pate, the ingenuity of the arachnean, threading the pearls of our findings, and once precipitating acting upon them also. 'Whoever said the object simultaneously situates the being conscious of being that distinguishes itself from the object' (Deligny, date: 26). The old guy scratches his head and threads the pearls of what he has noticed, known, and now imagines onto the web, the dry threads upon which acting went back and forth acting unembodied, tracings of the past.

Child sees old man, cue smile, return, connect and wave...a flow...mock bowl, a bat, a catch and on. Once old man did the same, cue smile, mock bowl, catch and on, and on, and on, a cricket refrain. Child as old man future will sit in window, watching, pearling moments on arachnean threads, pearls sparking at child who plugs in. Moment making the child and eternal return making man return to compost, ludicosity emerging anew from oblivion. Future child too will smile, cue, catch the return, connect and wave....mock bowl, bat, catch and so on...and on.. Old man feels played, alive and vital still despite dull greyed eyes.

The child runs on...across grass, across street to where the wall of high-pitched sound calls, unaware of the assemblage through which motion beckons motion waving, vaguely drifting as landscapes are sparkling. Birdsong all around unnoticed but absorbed. A slope to the left cues a full body swing, tilt, full-tilt, head closer to ground and down past the tuft of grass. Rocks now for climbing and the leap into the unknown, body knowing in weightlessness, airblown floundering, now mud bump slipping, foot

sliding, forward leg catching hand flailing down as head nearly meets grass and motion keeps it from doing so, moving head up, back leg forward push, mud making and on. 'Every movement within the assemblage of feet, body, mind, sensations, lines, ground air and everything else redistributes what has already happened with what might come' (Lester, 2018:21). Doing with, because.....Knowing now, BwO, but with oblivion tomorrow when the rocks become something other than they are today, yet still becoming singularity, apart from the motion, a multiplicity immersed in its plane of consistency emerging unique yet from the milieu, of the milieu, in the milieu. As we navigate our way through the world, there are different pulls, constraints and freedoms that move us forward and propel us into life' (Massumi, 2002:210).

Woman walks to shops, weary, molar striated, unplayful, seeing nothing but the tarmac meeting feet. Meets child in motion like a stone in the ripples generating cues but sparkless the return, the neutral between the light: dark contrasts of the peaks and troughs, a nothing but a tracing on a customary line. Grey. No matter. 'That child should not be out alone' the common sense abides. The binary returns, work is not play, I have to work, I cannot play, play has no economic purpose, I have no money, child should work. The IWC becomes banality, lifeless, playless, a drudge, grey sludge.

But the child is Body without Organs, unconstrained, in momentum, vital, there is no stopping the ongoing becoming that is play.. Running now at a wall about 4 foot high. Bag over first. Hands grasp high, a kick, a jump, arms straighten, up, reach down, flip and over. Eyes so close to brick, feet over head, landing on dusty grit of years wind blown to break. Over stone wall, round tree-bush habituated action in motion, affective, all is as it should be. Across the grass-mud delinquent path that nobody laid, smooth now, place made. The pace slows, smooth grey concrete ahead. Skateboard comes out of

rucksack still running, drop, click, wheels engage with tarmac path, flip, jump and trolley rumble sound.

The stream sparkles left, a bubble cues, another child at play on the bank, motion slows, time extends. Now squatting on the bank, gazing together, minnows moving, beetles diving, hands dive in, a ripple ripples minnows shooting away with sparkling speed. A laugh a rise. Jump stream, up bank through trees. The rope is there to swing on, they swing, connections made, noticing birdsong and badger trails, the wind against the skin, the tension of the branch, the curiosity all the stronger for the deviations and wobbles. Being together making each other, swing making air moving rising flies differently, earth smell rising too, aaaah we are of the earth, of the world, worldling matter as sticky plants are thrown at each other, to drop later and seed anew.

New green corridors cross ring road rising over the catastrophic cars, roaming routes extendingto where a fox runs across the field or redwing sit when driven down. Play enabled in all its richness.

11.1.2 Child 2

The sun is shining, it is morning. There is outside a grey corridor of concrete dust, there are ants there sometimes, they rise and fly in the heat. The radio is on, music sounds, walls of sound, and in the near distance cars are heard. Child 2 doesn't go out much. There is a small concrete and rubber play area at the bottom of the block, but nobody plays there any more. What's the point? The rubber was burned last week, the equipment was boring and it is not as if we can roam much, the roads are too busy and the neighbours sharp. We are shouted at if too much noise, but there is too much noise

already. Child sometimes sees fox when looking down from balcony, and parakeet occasionally land in the top of the lone ornamental cherry. Lives are molar, striated.

Child 2 sometimes plays football on the school ground. Artificial pitch for easy cleaning, fenced in from dogs, smooth and divet free. Grasses occasionally grown in the corners, but are soon annihilated. Still assemblage choreography can occur, ball, child, foot, sliding plastic grass, bouncing off net, artificially burned knees raw red, but exhilarating. The grass patches on the way home are dusty ones lurking under telephone connection boxes, or in patches between pathways, dank and doggy. Nobody plays in these pockets; the worms remain unnoticed. The pockets could be playful if people cared to sit with the trouble, and manage those dogs, plant some beds.

Child 2 can skate along the path, scooting with one leg, then on, body balancing, a flip down a step the warm diesel filled air fills nostril, but he/she feels alive. Now back to home. Ropes which were attached to washing line poles as pendulum swings are quickly removed, and the metal swings are tied up around the top bar, because they can be and nobody cares. He/she used to skip up and down the steps, but that is boring now it has been done a thousand times.

Child 2 sometimes goes to the park. He/she has to go with someone, for there are several roads to cross. Because they go rarely they don't really know anyone there. They kickabout in a pair, then feed the ducks (one is nesting on plastic bags piled up in the water on a plastic box). People jog past, unhearing of the city duck keen quacks for bread pieces. There is play of sorts, children ride their bikes, and some have kites. Some children meet friends, but it is a chance encounter. Nobody calls 'come play' from the flat balcony, the park is too far, and friends are rarely there because they don't know he/she will be there. Besides it is too dangerous to go on their own.

Sometimes the children reclaim the yards by the flats, 'reclaim the streets for play' on 8th August they say. The playday is great, lots to do, people meet each other and the community gets together. But the very next day the gangs are back, intimidation preventing assemblage of desire, the affordances are cut down, the grey dust eddies in the corners.

Child 2 goes back inside to play games running on computer, mind free for vaguaries, a skip, a hop, a jump, a treasure reward, the smell of an air freshener 'woodland breeze' running from the socket. Immersed in computer games the mind can still run and wander, disembodied now.

Adults dream of a green corridor connecting child to school, to open spaces and use of fenced in playing fields out of hours, of safety and child opportunities they had before the population doubled.

Child knows no different.

Policy makers say child should be outside for at least an hour a day.

But nobody addresses the real limitations and assemblage opportunity is reduced to a thread.

12 Expressing posthuman researcher after Woolf: a dissolution?

A poem, a drawing, or sight, sound and scent? Thinking in layers together.

I begin to write, worldling, awkwardly, affective engagements. What does posthumanism mean to me?

Let us begin with van der Tuin's claim that all writing in the margin is a diffractive moment. I shuffle through some texts I have saved on my phone..... I write notes that stimulate notes, then flow..... and so my response becomes as a doing..... What does post-humanism mean to me? As a researcher of play?

1/6. **Ripples** that become waves, travelling yet not travelling through a momentum over thousands of miles yet staying en place, the cyclical motion of a flow beneath a surface that has potent agency, affective, effective, aeffective, a motion that stimulates emotion, surfing, knowing, riding on an edge of chaos ...a swirling eddy of ideas.

1 **Equity** – avoiding partition of 'them' and 'us' and of 'us' and 'it', seeking antithesis to accepted human hubris: decentring humanistic tradition, breaking free of expectation...but now, here, expectedly expressing? Oh, the tensions.....and lines of flight, lines of type. Human and more than human, animal and matter.....all becoming, immanent....age indifferent, more than human alone, becoming compost magnanimously.

2 **Creativity** – generation, pro-creativity, worldling, figuring-out, differentiating,.... a diverting vitality rather than striated structured instrumentalism, a doing, knowing, goingwho knows where? Following a latent belief in the spontaneity of nature (but not 'Nature'), an 'Élan Vital', alive, a life (.....and nothing else..... yet of everything), of difference, and of imbrication and diffraction, ...and.....and...

3 **A rhizomatic rabbit hole** – no a whole warren, a warren among warrens tilled to dust by the academic farmers plough, a wandering, wondering, the road less travelled, diverting, diverted as a tree root forces branching, a warren of thought as rhizome of space, the 'not something' of a hole becoming, as whole holes, coming into being through pleasurable accident.

4 **Playful, play-full, 'just playin'** as variance, variety, flow, decentring, spinning off the true, new ways of thinking as the flywheels wobble and the machinistic majesty of man crumbles into immanent sympoiesis. Ludicrous posthumanism acknowledges, illuminates the affordances that glow, the sparks that ignite, in commutative community seeking the full range of 'non-human powers' (Bennett , 2010). Playing-with as worldling and being of, becomingly, not in, or on, the world as critical caretakers or masters (but as the playful mistresses that cuckold the economic direction of becoming mature, playing before death, returning to earth)?

5 **Surface tension, flow and rupture?** Ripples react and swell rises to a fearful storm tide. There is still a A grappling with the challenges of performative contribution, a sharing of what is, but in becoming who knows what, and going who knows where, a fear of the unknown, the commutative chasm to cross? Is it not after all an affective human subject transcendent 'who is articulating this thing, this writing (presented) as vibrant matter?' Yes,..... and no. Diffractive thoughts are articulated in space, time, language, symbol mattering created, juxtaposed, the language creates, the ink creates, the speck of dust on screen plays with letter form and the words are worldling with you through variety of meanings and so, in playing with these things, a new diffraction occurs, or perhaps more

.....and.....and..... shshshsh.....aaaaah.....ssshssh.....aaaaaaah... (the sound of the seas ebbing and flowing)..

6/1. **Ripples that become waves**, travelling yet not travelling through a momentum over thousands of miles yet staying en place, the cyclical motion of a flow beneath a surface that has potent agency, affective, effective, aeffective, a motion that stimulates emotion, vital surfing knowing riding on an edge of chaos (Battram,2002).

Part 2 Who am I/We ?

I am a player and a writer, academicizing?

Working tension: I am posthuman, as we have always been posthuman (Braidotti 2010), yet I am not posthuman..... Yet (no.....and it/we/they.....)..... I am not brave enough to excel in posthumaning. I am not 'a player' now but am playing with play..... I am a posthuman and I am human.... I am swimming in the notion....the motion of the posthuman waves, but reaching for the guide poles, the trunks of the academic arboric canon for the safety of structure. Can I ride on the edge of chaos? I use the 'I/we' and explain my context for synergies of thought as framing moments as I am becoming ludicrously posthuman, playing commutatively, diffractively. Shapeshifter I/we. I remain a separate 'I'generated by context and in part by academic thee. What does this mean for speculatively figuring a contribution to knowledge from such entanglements and tensions? Calm the waves.....begin....

I am a sometime playworker, playworking..... actively seeking differentiation, an aside from the norm, diffractive, anarchic even to education, yet educating players researching players playing... Now I am researching playing as place-making...place as play-making.....a rhizomatic rooting, I can see how the ludic ludicrous mirrors began, but I didn't know their motion - generating Play as offering both freedom from work, yet structure of another kind, working play, in a way that was not playing until it reached a pause a metalude, flow.....now the ebbing tide.....the pace quickens, the pace slows.....now in the researcher backwash ...playing now in flow, free-flow, integral to the players in commutative intra-actions with environs, critters, shiny soil, rusty steel, a bucket and a ropeliving playing places, places vitally playing people and the more than people. Putting posthumanism to work, as ludicrous posthumaning has offered opportunity to re-engage, intra-act, diffract, with old play theory and new players in play spaces and becoming places, exploring, rooting and illuminating ecco ludenshomo ludens.....nay.....mundus ludens.....mundus faber..... playful stimulations and affordances as becoming commutative moments of immanence and interpellation, together, no longer mere interpretation.

Putting posthumanism to work in order to explore play as an academic 'I' now prompts a doing of reflecting deeply on the meaning of words and the work they do. Sometimes

working with concepts of 'work' and 'play' and of working this work in ways that work differently, and playing the play as world-making. Prompting academic acceptance of ludicrous variance for deep waters of knowing, of working through the new 'more-than' posthuman clothes until they become worn in, comfortable, no longer shiny exteriors of mimicry for others to spot the becoming, but a part of me....a part of it all..... a writing writing immanently, reader diffracting creatively, players playing ludicrously, the world as worlding, many talkers twittering, illuminating, differentiating, interpellating, fabulating.

The ripple becomes a wave..... Shshshsh.....aaaaaah....sshshshs aaaaaah.....

The world is in motion, elan vital, a life of doings.....and knowings now anew...

I am we, a sympoiesis , interpellated by flows, fluidity and intensities.

13 Dissolution, figuring something from the strings, knotting the ends.

Becoming researcher through rhizomatic action is not a journey to a fixed end demonstration of new knowledge, rather it involves 'wanderings along a 'moving horizon' (Allen, 2009: 8 citing Deleuze, 2004:xix). I have been pursuing 'creative stammerings' (Deleuze and Guattari, 1987: 98), links to engage with and spaces and schisms where creative thinking might take place (Allen, 2009:8)

I began this doctoral inquiry driven by memories of my own play experiences as a child and acknowledging my past as a playwork professional. I had an intention to illuminate gathered vignettes of play out of doors to exemplify the diversity, relevance and importance of children's unsupervised outdoor play close to home, a less researched area of children's lives (Holloway, 2014). My initial interest was focused on where children choose to play, what happens there and how this feels. This prior research

intention was disrupted as I became entangled with posthumanism and the Bergson influenced process ontologies of Deleuze and Guattari (1987/2012), the agentic realism of Barad (2007) and the vital materiality of Bennett (2010) the more than human manifesto of Haraway, (2016). Entangled with such theories I adjusted my gaze and question to ask not only 'what is this play'? but 'how does this work?', 'what might be entangled'? and 'how might I think this differently'?

13.1 A contribution of new knowledge: of ways to work with children to gather data.

As a part of this process and the journey of decentring and focusing on the material and more-than-human, together with an 'and....and...and' approach (Deleuze, 1987/2012) which allows for unusual juxtaposition of ontological and epistemological ideas Bennett's materiality has met Schwitters 'Merz' collages, Lenz Taguchi's (2010) illustration of working with rather than on clay, and Deleuzian process ontology to generate the approach to data collection that I have called 'Merzplaques' (the materiality of the play places plucked and pressed into clay moulds which then become plaster of Paris plaques) and merzboards (the simplifying of this approach for immediacy to the use of card palettes on which double sided sticky tape allows for the immediate collaging of vibrant matter, be that biological, mineral or the man-made plastic matter found in certain areas).

I have also journeyed through the processes of seeking to support children's expressions of responses to tasks (which led to predicted answers) to a 'flying alongside, not in the cockpit' (Hughes, 2005) lessening the adultist hubris towards a being and playing together, which in turn reduced the number of socially responsive answers directed

towards meeting the adult's needs to facilitate a more dialogic approach, releasing the adultist oppressor to also follow lines of flight, playing alongside, and finding first then articulating with the children what happened.

13.2 Where do children play?

I have been able to consider the restrictive striations of conceived playgrounds, together with acknowledgement of the acts of deterritorialisation and re-terretorialisation of children and other players enacting lines of flight away from molar conceived playgrounds by passing through boundaries, taking play ways and finding liminal spaces. This empirical research identified that the participant children play everywhere they can find. There is a movement towards new lands in play, movements through allotments, waste areas, dens, a fight against the adulteration of ropes and other resources, and the agency of football pitches to generate difference, and connectivity with what lives beneath them. Generations have expressed how they regularly appropriate spaces for play which are then avoided by the next, younger children not playing where their teenage brothers played. I have also felt with the wind, swung on the pendulum ropes, acknowledged the specificity of assembled haecceities to generate events, and thought through metal as agentic matter to a troglodyte child with urban car play assemblage. Children, and not only children, players, play everywhere, and are played by players human and more-than-human, as cues, events assemblages.

13.3 The contribution of the neologism 'Topoludic'.

Play engagements in action, enacted in time, space, geographical matterings has highlighted the relevance of the topography of the areas in stimulating play, whether extensive or constrained spaces. The shape of the vertical challenges, the greens, the

walls the rocks and undulations all prompt response, as do the intensities of connections between places, and the space, time, matterings, the corrugated tin lying on the floor, the warm compost heaps, the flowers in the hedgerow and the beetles emerging from earthbound tunnels. The greater the diversity the greater the potential for play through combinatorial flexibility and manifold sparks for engagement with the more-than-human biota. The lesser the opportunity and diversity the more limited the play. The consideration of topography (the undulations and slopes etc) and the topology, the linking between lines of direction, of flight, the nodes strung on the arachnean threads and the layering of experiences beneath and above the soil then it is not just the undulating landscape that is sparking, but also the layers of time, space, matter, the history of locational context. Topoludic acknowledges both topography and topology and the interpretations of these spatio-temporal influences coming from the outside in. A barren flat landscape offers limited potentiality, perhaps has games with rules and treated or even synthetic grass; the topoludic potential is restricted, perhaps to a single use, or to multiple uses of a similar kind (think of the uses of an all-weather pitch). A landscape with hills, valleys, water, trees (and tree roots), holes, rocks, is topologically connected (whether through liminal byways, the motions of the more-than-human, or possibly a combination of wind and loose parts, has greater potential for flexible interpretations (playful, or ludic, creativity). This is not to say that there is no value in the all-weather pitch, but that the potentiality for creativity, event and lines of flight from the more limited milieu are different and more limited. A space with great topoludic potential may be a very small space that has greater scope for potentialities to emerge from the virtual through undulations, stepped areas, mature trees, granite blocks, connecting pathways (human or non-human made) and even the depth of the soil, history of the place, and layers of connection. There is more to work with now that

this topoludic neologism has been identified, and this work may be further informed by the existing use of concepts of topology in the posthuman technologies. In the meantime, just as 'loose parts' have become a useful way of expressing resources, so it may be that the term 'topoludic' will help people to think about outdoor play spaces as places of potentiality.

13.4 How are spaces and places perceived and enacted?

There is also a disruption in this understanding of territories of play, and a thoughtful refrain throughout was the understanding that we are in the age of the Anthropocene, and that there cannot be a childhood/nature disconnect as the transcendental discourse of humans as 'on the world' or 'in nature' and 'in mastery of nature' would have us understand. Such an understanding relies on a positionality of some arrogance and has been disrupted by the works of Barad (2007), Haraway (2016), Braidotti (2010) and Deleuze (1987/2012). Humans are as much a part of the immanent mix as biological others are and I seek to stay with the trouble (Haraway, 2016) rather than responsabilising the next generation, or looking to fantastical quick fixes.

'Staying with the trouble does not require such a relationship to times called the future. staying with the trouble requires learning to be truly present, not as a vanishing pivot between awful or Edenic pasts and apocalyptic or salvific futures, but as mortal critters entwined in a myriad unfinished configurations of places, times, matters, meanings' (Haraway, 2016:1).

Play is about being present, enacting and event-making in the moment. Bennett's (2010) vibrant matter also brings the non-biological into the mix, highlighting along with scientific papers about worms, that living organisms are not bounded, isolated, skin-fenced, but are leaky, symbiotic, and full of the minerals of the earth area in which we are located. The macro matters, in consideration of what play-spaces are offered, as

much as play grounds, and green corridors may help nomadic play, but the micro also matters whether plastics are in the area, or rusty metals, or other minerals, what handkerchief pockets of land may offer play potential, not tidied and neat barren purchased playframes, structured and striated, but spaces of potentiality, offering creativity, new inhabitations, loose parts converted to lived spaces, of moving parts and kin.

13.5 How might we rethink play as posthuman: The contribution of rethinking the play cycle.

In rethinking play from a posthuman perspective the molar striations and molecular entanglements have been highlighted, the intensities and velocities of motion in spaces, and the generation of places as event. The Play Cycle (Sturrock and Else, 1999/2001) has been rethought through posthumanism, Deleuzian commutative intensities, and Sturrock's more recent writing which led to a creative, speculative redrawing, thinking with waves and the more than human (see images on p 289 and p290). This challenged and extended the Play Cycle to conceive of it as a process of potentiality and response of acknowledging and plugging into sparks, emerging from a situation in which there are many cues as sparks firing from the landscapes rather than out from the child, prompting genesis of emergent bodies in the virtuality, offering many potentialities for choices to be made and intra-active engagements to occur in sympoiesis.

Sturrock's (2002/2020) writing was also read through observations of the molecular moments of work engagement, as a result I sought to think otherwise and I have thought worm through the play cycle and wave theory diffractively with it and arrived at a consideration that there is both a fold, a turning of the inside out, and a number of cycles connecting, becoming, interpellating, generating singularities, dissolving and moving onto regenerate anew. There is more to be done in exploring the fold (Deleuze, 1987)

and the motion of outside in. There is also more to be done to consider play in more urban areas (both greened and barren).

13.6 Illumination of posthuman thesis writing

A secondary consideration was one of how I might write a posthuman thesis. Disengaging Cartesian duality to engage with feminist posthuman and Deleuzian process ontologies, highlighting multispecies relations and exploring vital materiality in this research has challenged the writing of a thesis. Removal of the Cartesian duality removes habits of criticality, replacing it with an 'and...and...and' of multi theory entanglements and appreciations (Honan Bright and Riddle, 2018). Removal of the standard approaches to writing theoretical sections leaves a dilemma regarding how to explain the theory, as there is no 'theoretical framework' applied, nor 'data analysis' rigorously followed, but I have pursued a methodology of non-methodology, seeking to think otherwise to gain insight into children's play activities close to home. Adjusting the anthropocentric gaze required a concentration on de-focusing as explained with the Magic-eye picture on p84. As a result, I have performed play with the players, drawn cartographies of meanderings, vagueries, velocities and intensities, I have thought through conceived, perceived and lived, molar and striated, and thought with the matter of the playgrounds, of interpellations and imbrications, of the meaning of the fold from peristaltic wormery and arrived at speculative fabulations.

I was concerned throughout about how a reader would perceive such a piece. I justify this in terms of seeing the posthuman exuberance as aligned with play and the process being one of collaging, a not entirely eclectic collection that makes a whole. Ingold and Haraway may equally write of various threads knotted and entangled. But how are

choices made? There is the uncertainty. As a result of seeking non-direction the researcher might sit on the crest of the wave, as playworkers do, riding on the edge of chaos, reaching for timbers from scaffolding and signposting at times to prevent collapse into the froth. Chaosmosis is a way of confronting chaos, not as something to be overthrown but as a means of reducing the dominance of discursive forces of representation and classification (Gale 2018:2).

In order to confront chaos and enhance the schizoanalysis which is not only the tension between stupor and solidification and the creativity of freedom, but is also described as a process which 'treats the unconscious as an a-centered system a machinic network of finite automata (a rhizome) and thus arrives at an entirely different state of the unconscious' (Deleuze and Guattari, 1987/2012: 18).

My contribution to new knowledge is the sharing of a 'Merz-collage methodology', of the creation of a series of connected rhizomes through experimentation, and of the application of Deligny's lines to play vagueries and drifts. I have followed glowing sparks of connectivity through this research process and I have experimented with a range of different approaches to thinking differently through stream of consciousness writing, poetry, drawing, and thinking with minor species and matter in order to disrupt 'common sense' understandings of play. A secondary contribution is that working with posthuman gaze has enabled a deeper consideration of the molar conceived play spaces, and the relevance of subsequent lines of flight into liminality, of their intensity and velocity, of molecular place-making, and the intra-actions with the more than human and thinking-with minor agents.

The third contribution is the reconsideration of the accepted play cycle (Sturrock and Else 1998/2001 and Sturrock 2021) and developing a consideration that it is not just the

singular child and singular return but child and children and others in the milieu of a hundred sparks all cueing for engagement which choices are to be made, which sparks plugged into will impact on the world's becoming.

So now the dissolution occurs, just like play this is not the ending, but merely a beginning, for there is much more to explore.

13.7 On Children's Play Out of Doors, Close to Home. New knowledge?

Despite challenging temporality and linearity in Plateau1, 2 and 5 there has been a timeline to this research, and a series of stages that occurred as I moved further towards acknowledging my post-humanness in the rhizomatic rooting. It feels appropriate to summarise here the research actions and understandings emerging from the data.

The first phase of the playdays and community engagement and observations of play areas indicated that children in the areas chosen *are* playing unsupervised out of doors close to home on a regular basis. It is possible that those who do not wish their children to play out of doors possibly did not come to the playdays, and so a bias was built into the research and this would need further exploration. The restriction of opportunity to play, pointing to indoor play alone was explored in brief in the speculative fabulation 2.

The initial observations of the play areas as outsider onlooker, but still engaged with the materiality of spaces, did identify children coming from their close by homes to play in open spaces and the conceived playgrounds and parks. The trails revealed a great deal of engagement out of doors among younger children where houses overlooked the play areas. Older children chose greater seclusion and were more engaged with liminal play spaces and elemental play. There are very many limitations to this study, the sample

was very small (being only 28 children) but does indicate an age correlation with greater roaming distances, and it highlighted roaming distance is also shaped by the nature of the play space and boundaries such as busy roads. There are also limitations in the nature of the study as posthuman, which whilst it prompts thinking differently, does not produce something replicable, but a singular experience contextualised. The fabulations are just that, but may be illuminations.

The children in the borders of the rural area were at the upper end of the age range and roamed further, there was a younger community in the location close to the supermarket and they engaged regularly with the green in front of the houses. Children engaged with elemental play, of water in streams and troughs, of wind on the hill, and small experimental fires in the woods. Where there were no such spaces built for children's play they inhabited the streets, green areas on corners, and rough areas of bush and scrub between housing areas or back gardens, and the children leaked out into the territories beyond the playground. Some children travelled greater distances (usually according to age), but others were restricted to yards away from home as their housing was on an estate largely cut off by busy roads. Where children roamed there were trails and tracks (lines of flight from striated spaces) across streams, through boundaries, navigating children's byways, often to allotments, rough land, and other spaces that could be territorialised and made as lived places (Lefebvre 1991). There were trails of being. During this stage I observed matter that had been mattered to generate lived spaces and places. Chalked names on the playground, fish buckets hung from trees as swings, ladders and slides created over walls, a deckchair and mat in a hollow in the bushes.

The lines of flight were not the easiest paths, but were prompted by topological agentic influences and potentiality for challenge and difference and affording additional intra-action. Plugging into the spark revealed instantaneous switching from reality to fantasy, and tales were built into environments with a doing related to the tale. Streams were crossed, hills climbed, caves entered, secret ways developed over far from straightforward boundaries, the challenge being part of the journey. Rocks put to dissuade parking were agentic in encouraging climbing and jumping, trees and scaffolding afforded climbing and holding spaces, the bush in the liminal space had a well-worn track around it as a place to become obscured, the concrete barriers were covered in chalk graffiti and the footprints showed the well-worn use as parcour base to spring from.

Interestingly children operated in familiar groupings which may be age bounded. They meandered and adapted spaces as places of belonging. There was a time churn, as some clearly chose not to play where their elder siblings did, another form of deterritorialisation by age and time. This would be an appropriate further area for research – a longitudinal study of play areas in a housing estate to acknowledge how the location for play moved. I observed very little gender separation, both boys and girls cutting Barbies' hair by the tree roots for example, and girls playing kick about on the football pitch. Not all groups of children were of mixed gender.

I saw no aggression in children through my intra-actions though all was not harmonious, there were obvious groups and territories as dens were inhabited and subsequently deserted by different groups of children, not broken down, but conquered and made their own by habitation, "we make dens, and we use the dens of others" (Child comment: Location 3) Ropes were an obvious point of conflict with adults. I continue

to wonder who put them up, but the children regularly complained of them being cut down, and in almost every location where there were trees I saw cut off ropes that had been rope swings.

Deligny's lines (Deligny, 2015; Lester, 2015) helped me to think through the wandering, nomadic nature of children's navigations through their landscapes of play in the making. Children do not move in straight lines, but chose to perform their environments, taking detours, playing alleys, leaping over trolley racks, physically engaging and expressing the assemblage. It also highlighted the linking of points such as shop to skatepark, alley to 'dumping green', and over the wall to school ways. The lines are more important than the points (Deligny, 2015; Ingold, 2015) There were resting points too, the wall by the steps outside the skate park, the banks where daisies grow, the warm concrete at the top of the skate park on a sunny day, the special roots under a gathering tree and the goalposts.

The second phase considering the playgrounds and spaces raised the power of conceived molar spaces (as playgrounds) to constrain and subjectify, a narrative raised in many other works. I was affected by how fenced in and prison-like some of the playgrounds were, with signs inappropriate for children. These sent striated messages of control, state concern for safety, propriety and constraint. The spaces were to be used 'properly' or not at all (see Plateau 8). the signs inappropriate for children, not even directed at parents. Many signs were defaced, messages disrupted and deterritorialised.

The third phase was one of making with children and playing with children rather than asking about the play.

Influenced by Lenz Taguchi's (2010) use of clay, and Schwitters' 'Merz' collages participatory activities were offered to encourage children's engagement with and expression of the materiality of the play spaces and places. The limitations of 'participatory activities' in eliciting depth about where children play were evident and questioned the persistence of transcendent thought in research design. The data that glowed on the Merz boards related both to the selection of green biological materials and seeds in most areas, to the influence of plastics, and how prevalent bright plastics were on the Merzboards in some areas for play, particularly nearest to the supermarket. Thinking through plastic and the implications of increased plastic in the environment highlighted the persistence and acceptability of this material, its infiltration in the environment and longevity of existence. Thinking the Merz collages and a photograph of Seahorse and cotton bud diffractively through each other further highlights issues of plastics in the environment.

Becoming with, playing with players playing the world as the world plays them:

As I became more familiar with the children, and they with I, we adopted walking/playing methodologies. This roaming like nomads through children's play territories gave experience and experimentation in the middle of the play potentialities and process coming into being by doing. There was a subjectification exchange in the process of becoming players together, a walking methodology plus play, which highlighted an equalising principle akin to that offered by Goodley, Lawthom and Runswick-Cole (2014). This was an approach of greater honesty to the play process despite my being a researcher with children. Through this process I understood the

many sparks beyond affordance, of the doing to know feeling, of the importance of soundscapes, creatures, stories and prior understandings woven into material agentic responses. Maize cobs there for the peeling reveal ragged hair, then witches finger roots are noted. Maize leaves with hair become fairies then prompt running into the rushing maize in the excitement of wind in great plants, the size of the plants generating sense of scale, fear of being lost, sounds rise above sounds. Just as one piece of qualitative research is like a grain of sand joining a pile in which patterns can be found so there is a need for more close engagement with what this play is outside of formal environments, the sensations, percepts and affects, twisting and turning lines of flight, disruptions and cuts, remaking anew landscapes and kinships, visions of sensing bodies in movement as becomings.

‘Sometimes it is necessary to lie down on the earth like the painter does also, in order to get to the ‘motif’, that is to say, the percept’.

(Deleuze and Guattari, 1994, 171)

13.7.1 *Player as Researcher Acknowledging Posthumanism*

I lay down on the dust with metal car,
I lay down on the earth with bugs under tree,
I lay down like a painter to get the light motif of shiny soil
I squeezed into a cave,
I have lain down my human hubris on the plane of immanence
I have explored the concepts of multispecies
Neighbourhoods and agentic kinships,
I have played with players,
Lines, worms and mineral, delighting in Deligny,
Felt intensity, event velocity, sensing vitality anew.

We have played with words, wording streams of consciousness
Streaming cues of flightful lines
Players, knowing play more than ever known before
Researchers rhizomatic, rooting, disruptive, experimental
Engaging, intra-acting, enacting in action concept making
Illuminating, exemplifying then.....aaaaaaah

Waves collect, overbalance, and fall, collect and fall;
And the whole world seems to be saying 'that is all'*a dissolution falls upon us.*

14 Postlude and the claiming of new knowledge

So where does this leave us/them/I /we now. Through the process of this research I have understood more about operating as a body without organs, getting lost in non-methodology and data (Gale, 2018: 86) schizoid analysis, and stream of consciousness as research flights from striated tracings. Throughout the research and writing up I felt a tension of Deleuzian freedom versus traditional expectations of a research thesis, with some timidity in not taking up fully the madness as methodology.

As a result of this seeking to think otherwise, an eclectic collaging with others and through the more than human, about play the decentring of the anthropocentric has significantly adjusted my understanding such that I am able to claim some contribution to new knowledge. My early submission did not contain this section claiming new knowledge even, for in a posthuman positionality new knowledge is always being created through event, and it is ethically not mine to claim, but arises of the world, from the plane of immanence by the players, as a result of intensities and connections, and from the diffractions described by St Pierre (2016). However, for the purposes of doctoral thesis I make the following claims.

A revisiting and diffracting of Sturrock's additional explanations of the play cycle (especially those of 2021) through empirical research 'data' , and diffraction of these understandings with posthuman and Deleuzian thinking has led, in this thesis, to a reconceptualization of the play cycle as not merely a child sending out a play cue for an affirmative return, but of a process of plugging into sparks of potentiality in the virtuality agentically cueing the child for response. I also conceive of the cycle as a wave like motion which draws in engagement with many cycles working alongside each other.

As part of this awareness I have developed a neologism of 'Topoludic' which initially came from the connection of landscape and play stimulus, from Deleuzian terrain based philosophical metaphor developed through the thesis to the final understanding not only of the agency of landscapes and topographical features to prompt particular play responses (a granite boulder for climbing and jumping, next to a slope prompting a particular embodied way of experiencing the landscape) but also of the topological understandings of the way in which constituent parts are interrelated and connected, with potentiality for intra-action and interpellation. A Topoludic landscape offers that complexity described by Brown in his 'combinatorial flexibility' but takes it further into the further shaping of the players (both human and more-than-human).

Play is a word that is so small for already holding so many understandings. Reading Vilhauer's (2010) understanding of Gadamer's hermeneutics and play through Deleuzian philosophy and Barad's (2007) take on quantum physics and intra-active relationality has prompted me to illuminate the understanding of play as a vital wobble, a lively event that prompts a disruption, a spinning off the expected 'true' that challenges equilibrium and stimulates overturn and thinking otherwise. In such a conceptualisation play as wobble is the stimulant for intra-active engagement, or a moment of disequilibrium that prompts rethinking, new intra-actions and adjustment, or in a different context can set new lines of flight running. Just as Rautio (2013: 404) highlighted that stones (as an example of materiality) have 'intra-agency; stones do things to us and with us' ...so we might acknowledge that play, as a running off the true, a wobble, stimulates new thinking, and difference. Both are political acts of disruption, differentiated from the economics of striated purpose. This promotes a consideration of play not merely as 'playing with' but 'being played with', the flywheel running off the

'true' promoting in turn the differential potential as chaos that keeps children and adults open to these potentialities for differentiation and alterity around them .

There is new knowledge too emerging from the further illumination of the application of Deleuzian and posthuman becoming ontologies to an empirical study (this research) and the tensions and challenges this presents. 'Becoming posthuman' is merely a convention, as I agree with Braidotti's (2018) understanding that we should acknowledge we are always already posthuman. However, this thesis illuminates the struggles of researcher seeking new ways of thinking as Deleuzian informed posthuman, and highlights the growth in, and challenges to, my understanding of what becoming as posthuman means, and how one might write with the immediacy, playful creativity and humility of posthumanity and the seeking of alternative ways of thinking as doing. The duality of a shift away from anthropocentrism, and towards an ethico-onto-epistemology that focuses on immanence and flight challenges a priori understandings, and academic structures that are based on teleological understandings and predictions. There is an affective implication of this shift and an acknowledgement of struggle and the effort needed to stay with the trouble and side-lining the so engrained anthropocentric gaze.

The new ways of thinking and gathering data from and with children, and from thinking otherwise with the more than human have led to new methods to generate data in respectful relationality, with children and with the more than human. The juxtaposition of the thinking of Schwitters Merbau to which I was led by Deleuze and Guattari's writing (1987/2002), and the clay illustration of materiality and conceptualisation of being in, on or of the world by Lens Taguchi (2010) took me to an approach that utilised both found objects *and* the fluid agentic materiality of clay; to mattering with mineral matter

and found objects to express first and think afterwards about the environments in which play occurs. One method was to generate plaster plaques through dropping materials on a clay base in a plaque frame. In turn this led to a more immediate 'merzboard' approach of double-sided sticky tape on palettes of card to which the matter that sparked could be stuck with ease.

My data anarchiving (Somerville, 2020) and analysis thinking was at times engagement in stream of consciousness, creative poetry, drawing with the data and sitting with the senses and at other times thinking with and through the more than human relational and agentic elements, such as worm and metal. These illuminations together became collaged as matter dropped into thesis and flowing into streams of thought prompting further diffractions. The result was both an anarchiving *and* working with immediacy, without organs of constraint (Deleuze and Guattari, 1987/2012) in the form of collage, presented also as waves of connection, intra-action, understanding and consciousness.

There is more to be done to pursue these ideas further and refine them, and to continue to develop alternative methodologies and perspectives. I have felt the fear of writing without scaffold and thank those who have gone before me and to whom I could turn for example, not to follow (tracing) but to adapt and move on from (creative cartography). I consider that I have further exemplified some of the ways of working with research as process in the ongoing becoming of the world.

Deleuze considered that that the free running playing child is, able to flow in all directions, nomadic, transitory, becoming, intra-acting with materiality ..'a pure becoming without measure, a veritable becoming-mad, which never rests. (He/She) moves in both directions at once....' (Deleuze cited by Gale, 2018: 178). Although Deleuze perhaps erroneously stereotyped a child as a body without organs (Deleuze and

Guattari, 1987/2012: 298) (and we know that children's lives are indeed as restricted socially as adult lives, and that child is not a universal construct) I can agree that the activity of play is a process, not a thing, a potentiality for creative differentiation, generative of vital events. I consider it is the main menu, the *raison d'être*, the wobble that prompts Bergson's (Deleuze, 1988) 'elan vital', the movement to differentiation, the prompt to fold, responding to spark, not the binarily defined recreational release from productivity, a release of energy, the mere flight from striation it is often restrictively conceived as being. If we can continue to release play from the binary definitions and highlight the intensities arising from thinking otherwise then it does indeed emerge as a procreative wobble, vital, plugging into the agentic sparks of the potentialities not yet realised.

Bibliography/List of Sources

- Abulhawa, D. (2018) Locating Rhythms: Improvised Play in the Built Environment Chapter 10 in MacLean, M., Russell, W., and Ryall, E. (Eds) (2018) *Philosophical Perspectives on Play*. London: Routledge pp136-151
- Acampora (2004) Oikos and Domus on constructive co-habitation with other creatures. *Philosophy and Geography*. Vol. 7 (2) pp219-235
- Agamben, G. (2007a). *Profanations*. New York: Zone Books.
- Agamben, G. (2007b). *Infancy and History: On the Destruction of Experience*. London: Verso Books.
- Ahmed, S. (1999). Home and away: Narratives of migration and estrangement. *International Journal of Cultural Studies*, 2(3), 329-347. <https://doi.org/10.1177/136787799900200303>
- Allen, J (2009) Provocations: Putting Philosophy to Work on Inclusion; Chapter 1 in Quinlivan, K., Boyask, R. and Kaur, B (Eds) (2009) *Educational Enactments in a Globalised World: Intercultural Conversations*. Rotterdam: Sense publishers.
- Almeida, S. C. (2020) Alternative Worldviews on Early Childhood Education for Sustainability: Reviewing and Re-examining Concepts, Images of Children and Sustainability in Elliott, S., Arlemalm-Hagser, E. and Davis, J. (Eds) (2020) *Researching Early Childhood Education for Sustainability: Challenging Assumptions and Orthodoxies*. London: Routledge. pp38-51
- Andrews, M (2012) *Exploring Play for Early Childhood Studies*. Exeter: Learning Matters.
- Änggård, E. (2015) 'How matter comes to matter in children's nature play: posthumanist approaches and children's geographies'. *Children's Geographies*, 14 (1), pp. 77-90.
- Aries, P (1996) *Centuries of Childhood*. Translated by Robert Baldick. London and New York: Vintage books.
- Arlemalm-Hagser, E. and Elliott, S (2020) Analysis of Historical and contemporary Early Childhood Education Theories in the Anthropocene in Elliott, S., Arlemalm-Hagser, E. and Davis, J. (Eds) (2020) *Researching Early Childhood Education for Sustainability: Challenging Assumptions and Orthodoxies*. London: Routledge. pp3-13.
- Arndt, S., Semeneć, P., Diaz-Diaz, C (2020) Interview with Sonja Arndt in Diaz-Diaz, C and Semeneć, P (Eds) (2020) *Posthumanist and New Materialist Methodologies: Research After the Child*. Singapore: Springer Nature.
- Ashton, E (2015) Troubling Settleness in Early Childhood Curriculum Development, Chapter 4 in Pacini-Ketchabaw, V., & Taylor, A. (Eds.) (2015). *Unsettling the colonial places and spaces of early childhood education*. London: Routledge pp144-174
- Athanasiadou, L (2018) Commutation Ontology in Braidotti, R and Hlavajova, M. (Eds) (2018) *Posthuman Glossary*. London: Bloomsbury.
- Bachelard, G. (1994) *The Poetics of Space: with foreword by John Stilgoe*. Boston, Massachusetts: Beacon Press.

- Barad, K. (2003) Post Humanist Performativity: Towards an Understanding of How Matter Comes to Matter. *Journal of Women in Culture and Society*, 28 (3), pp. 801-831.
- Barad, K. (2007) *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham and London: Duke University Press.
- Bateson, P. and Martin, P. (2013). *Play, Playfulness, Creativity and Innovation*. Cambridge: Cambridge University Press.
- Battram, A (2002) *The Edge of Recalcitrance: Playwork, Order and Chaos* presented at Spirit of Adventure Conference, Cardiff, 2002.
- Bell, J A., and Colebrook, C (eds), (2009) 'Molar Entities and Molecular Populations in Human History', in Jeffrey Bell, and Claire Colebrook (eds), *Deleuze and History* (Edinburgh, 2009; online edn, Edinburgh Scholarship Online, 20 Sept. 2012), <https://doi.org/10.3366/edinburgh/9780748636082.003.0012>
- Bennett, J (2010) *Vibrant Matter: A Political Ecology of Things*. Durham and London: Duke University Press.
- Bennett, J (2015) Systems and Things: on vital materialism and object-oriented philosophy. In Grusin, R (Ed) (2015) *The Nonhuman Turn*. London and Minnesota: Minnesota University Press. pp223-240.
- Bennett, J (2020) *Influx and Efflux: Writing up with Walt Whitman*. London: Duke University Press
- Bennett, L (2016) Thinking Like a Brick: Posthumanism and Building Materials. Ch 4 in Taylor, C and Hughes, C (Eds) (2016) *Posthuman Research Practices in Education*. London: Palgrave Macmillan. pp58-74.
- BERA (2014) *Ethical Guidelines for Educational Research*. London: British Educational Research Association. Available at: <http://content.yudu.com/Library/A2xnp5/Bera/resources/index.htm?referrerUrl=http://free.yudu.com/item/details/2023387/Bera>
- Bertoni, F. (2013) Soil and Worm: on eating as relating. *Science as culture*. 22 (1) 61-85 DOI: 10.1080/09505431.2013.776365
- Betsinger, T.K. and De Witte, S. N. (2021) Toward a bioarchaeology of urbanization: Demography, health, and behaviour in cities in the past. *Yearbook of Physical Anthropology*. 2021; 175(Suppl. 72):79–118. <https://doi.org/10.1002/ajpa.24249>
- Bird, W (2007) *Natural thinking: A Report for the Royal Society for the Protection of Birds, Investigating the links between the Natural Environment, Biodiversity and Mental Health*. London: RSPB
- Blundell, D (2016) *Rethinking Children's Spaces and Places* London: Bloomsbury.
- Bluemink, M (2020) On Virtuality: Deleuze, Bergson, Simondon. *Epoche*. Issue 36, December 2020 online <https://epochemagazine.org/36/on-virtuality-deleuze-bergson-simondon/>
- Bookchin (2005) *What is Social Ecology?* Paolo Alto, US: Cheshire Books.

- Braidotti, R (2009) Feminist Philosophy in Mullarkey, J and Lord, B (2009) *The Continuum Companion to Continental Philosophy*. London: Continuum pp166-187
- Braidotti, R. (2013a) *The Posthuman*. Cambridge: Polity Press.
- Braidotti, R. (2013b) 'Posthuman Humanities: ECER Keynote Cadiz 2012.'. *European Educational Research Journal*, 12 (1), no page
- Braidotti, R (2019) *Posthuman Knowledge*. Cambridge: Polity Press. [apple e-book version]2013)
- Braidotti, R and Bignall, S (Eds) (2019) *Posthuman Ecologies*. London: Rowman and Littlefield.
- Braidotti, R and Hlavajova, M (2018) *Posthuman Glossary*. London and Oxford: Bloomsbury.
- British Sea Fishing (2022) Abel Tasman (FV Margiris) – *Controversial Super-Trawler* Accessed online <https://britishseafishing.co.uk/abel-tasman-australian-super-trawler> Accessed 20/12/2022.
- Bright, D. (2018) Signs to be Developed: Experiments in writing. Chapter 7 in Riddle, S., Bright, D., Honan, E. (Eds) (2018) *Writing with Deleuze in the Academy: Creating Monsters*. London: Springer
- Bronfenbrenner, U. (2005) *Making Human Beings Human: Bioecological Perspectives on Human Development*. London: Sage.
- Brown, F (2003) *Playwork: Theory and Practice*. Buckingham: Open University Press
- Brown, F and Patte, M (2013) *Rethinking Children's Play*. London: Bloomsbury
- Brown, S. (2010) *Play: How it Shapes the Brain, Opens the Imagination and Invigorates the Soul*. London: Penguin/Avery.
- Brown, S (1998) Play as an organizing principle, clinical evidence and personal observations in Bekhoff, M and Byers, J. A. (Eds) *Animal Play: Evolutionary, Comparative, and ecological perspectives*. Cambridge: Cambridge University Press.
- Browne, S., Vickery, J. and Chamberlain, D (2000) Densities and population estimates of breeding Skylarks *Alauda arvensis* in Britain. *Bird Study*. 47. 1. pp52-65. Accessed online <https://doi.org/10.1080/00063650009461160> Accessed December 2022
- Burghardt, G. (2005) *The Genesis of Animal Play: Testing the Limits*. Cambridge MA: MIT Press.
- Caillois, R. (2001) *Man, Play and Games: Translated from the French by Meyer Barash*. Chicago: University of Illinois Press.
- Carroll, L (1865/2016) Alice's Adventures in Wonderland Illustrated by Sir John Tenniel in Carroll, L (2016) *Alice in Wonderland Collection – All Ten Books*. Apple Books e-book. (publisher not stated)
- Carver, D (2023) *Government Insight: What was agreed at Cop 27*. London: UK Parliament House of Commons Library. <https://commonslibrary.parliament.uk/what-was-agreed-at-cop27/>

- Casey (2001) 'Between Geography and Philosophy: What Does It Mean to Be in the Place-World?'. *Annals of the Association of American Geographers*, 91 (4), pp. 683-693.
- Castonguay, G and Jutras, S (2009) Children's appreciation of outdoor places in a poor neighbourhood. *Journal of Environmental Psychology*, Volume 29, Issue 1, Pages 101-109 <https://doi.org/10.1016/j.jenvp.2008.05.002> .
- Chatterjee, S (2018) Children's coping, adaptation and resilience through play in situations of crisis. *Children, Youth and Environments*. 28 (2) 119-145.
- Chipp, H. B (Ed) (1968) *Theories of Modern Art: A Source Book by Artists and Critics*. Los Angeles: University of California Press.
- Clark, A. & Moss, P. (2001) *Listening to Young Children: The Mosaic Approach*. London: NCB.
- Climate Change Committee (2022) *COP27: Key outcomes and next steps for the UK: December 2022*. London: Climate Change Committee.
- Cobb, E (1959) The Ecology of Imagination in Childhood *Daedalus* Vol.88 (3) pp537-548
- Cohen, L., Manion, L. & Morrison, K. (2011) *Research Methods in Education* (7th Edn). London: Routledge.
- Colebrook, C (2020) *Understanding Deleuze*. London: Routledge [read as an apple e-book]
- Cole-Hamilton, I. and Gill, T. (2002) *Making the Case for Play: Building Strategies and Policies for School Aged Children*. London: National Children's Bureau.
- Cole-Hamilton, I, Harrop, A., and Street, C (2002) *Making the Case for Play: Gathering the Evidence*. London Children's Play Council/National Children's Bureau.
- Coleman, R and Ringrose, J. (Eds) (2013) *Deleuze and Research Methodologies*. Edinburgh: Edinburgh University Press
- Coninck-Smith, N. (Eds) *Designing Modern Childhoods: History, Space and the Material Culture of Children: An International Reader*. New Brunswick, USA: Rutgers University Press.
- Connor, S (2005) Playstations. Or. Playing in earnest. *Static 1* (1) 1-11 accessed online <http://www.stevenconnor.com/playstations/playstations.pdf> accessed 20/12/22
- Corsaro, W. (2015) *The Sociology of Childhood* (4th Edn). London: Sage.
- Cotton Bud Project (2018) *Plastic Free Beaches:News*. Website accessed online <https://www.cottonbudproject.org.uk/news.html#:~:text=There%20are%2C%20on%20average%2C%2027,significant%20threat%20to%20marine%20life> accessed 14-10-22.
- Coward, S. (2018) *Home Life: the meaning of home for people who have experienced homelessness*. PhD Thesis: University of Sheffield. <https://etheses.whiterose.ac.uk/21626/1/Home%20life%20%20%20the%20meaning%20of%20home%20for%20people%20who%20have%20experienced%20homelessness.pdf>

- Christensen, P., & Prout, A. (2002). Working with Ethical Symmetry in Social Research with Children. *Childhood*, 9(4), 477–497. <https://doi.org/10.1177/0907568202009004007>
- Crutzen, P. J., and Stoermer E. F. (2000) “The ‘Anthropocene’”, in: *Global Change Newsletter*, 41 (May 2000): 17-18
- Csikszentmihalyi, M (2002) *Flow: The Classic Work on How to Achieve Happiness*. London: Rider
- Csikszentmihalyi, M and Bennett, S (1971) An Exploratory Model of Play. *American Anthropologist*. Vol 17 (No 1) Feb 1971. Pp45-58
- Curley, E (1994) *A Spinoza Reader: The Ethics and other Works translated by Edwin Curley*. Princeton: Princeton University Press. [images of selected pages accessed here <http://cemusstudent.se/wp-content/uploads/2014/03/The-worm-in-the-blood-Spinoza-Letter-32-1665.pdf> Accessed December 2022].
- Cutter-Mackenzie-Knowles, A., Malone, K., Barratt Hacking, E. (Eds.) (2020a) *Research Handbook on Childhoodnature: Assemblages of Childhood and Nature Research. Vol. 1*. Switzerland: Springer
- Cutter-Mackenzie-Knowles, A., Malone, K., Barratt Hacking, E. (Eds.) (2020b) *Research Handbook on Childhoodnature: Assemblages of Childhood and Nature Research. Vol. 2*. Switzerland: Springer
- Dahlberg, G., Moss, P., & Pence, A. (2013). *Beyond Quality in Early Childhood Education and Care: Languages of evaluation* (3rd ed.). Routledge. <https://doi-org.plymouth.idm.oclc.org/10.4324/9780203371114>
- Darwin, C. (1881) *The Formation of Vegetable Mould, through the Action of Worms, with Observations of Their Habits*. London: John Murray.
- De Freitas, E. and Sinclair, N. (2014). *Mathematics and the Body: Material Entanglements in the Classroom* (Learning in Doing: Social, Cognitive and Computational Perspectives). Cambridge and New York, Cambridge University Press
- Deleuze, G (1966/1988) *Bergsonism: Translated by Hugh Tomlinson and Barbara Habberiam*. Brooklyn New York, USA: Zone Books.
- Deleuze, G (1988) *Spinoza: Practical Philosophy*. San Francisco: City Lights.
- Deleuze, G (1986/2019) *Foucault: Translated and Edited by Sean Hand*. London: Bloomsbury.
- Deleuze, G (1990) *Negotiations*. Translated by Martin Joughin. New York: Columbia University Press.
- Deleuze, G (1995/2001) *Pure Immanence: Essays on a Life*. New York: Zone Books.
- Deleuze, G (2007) *Two Regimes of Madness: Texts and Interviews 1975-1995* (Edited by David Lapoujade and Translated by Ames Hodges and Mike Taormina). Massachusetts USA: MIT Press
- Deleuze, G. & Guattari, F. (1987/2012) *A Thousand Plateaus: Capitalism and Schizophrenia Translated by Brian Massumi*. London : Bloomsbury.

Deleuze, G and Guattari, F (1983/2020) *Anti-Oedipus: Translated from the French by Robert Hurley, Mark Seem and Helen Lane. Prefaced by Michel Foucault.* London: Bloomsbury.

Deleuze, G and Guattari, F (1994/2020) *Difference and Repetition Translated by Paul Patton.* London: Bloomsbury.

Deleuze, G. and. Guattari, F (1994) *What is Philosophy. - Translated by Hugh Tomlinson and Graham Burchell.* New York: Columbia University Press e-books.

Deleuze, G and Parnet, C. (1977) *Dialogues II.* New York, USA: Colombia University Press

Deligny, F. (2015) *The Arachnean and Other Texts. Translated by Drew. S. Burk and Catherine Porter.* Minneapolis, USA: Univocal Publishing – Accessed as Kindle e-book.

Department for Transport (2022) *National Travel Survey 2021: Trips by Purpose Age and Sex.* London: Department of Transport UK Government. Accessed online <https://www.gov.uk/government/statistics/national-travel-survey-2021/national-travel-survey-2021-trips-by-purpose-age-and-sex> Accessed August 2022

Diaz-Diaz, C., Semeneć, P. (2020) *Posthumanist and New Materialist Methodologies: Research after the child.* Singapore: Springer Nature

Donaldson, S and Kymlicka, W. (2011) *Zoopolis: A Political Theory of Animal Rights.* Oxford: Oxford University Press

Eberle, S., G. (2014) The Elements of Play: Towards a Philosophy and a Definition of Play. *American Journal of Play.* Vol. 6 (No 2) pp214-233

Eggleton, P., Inward, K., Smith, J., Jones, D. T. (2009) A six-year study of earthworm (Lumbricidae) populations in pasture woodland in southern England shows their responses to soil temperature and soil moisture. *Soil Biology and Biochemistry* Vol. 41, (9) September 2009, Pages 1857-1865 Accessed online <https://doi.org/10.1016/j.soilbio.2009.06.007>

Elliott, S., Arlemalm-Hagser, E. and Davis, J. (Eds) (2020) *Researching Early Childhood Education for Sustainability: Challenging Assumptions and Orthodoxies.* London: Routledge

Else, P. (2009) *The Value of Play.* London: Continuum International Publishing Group.

Else, P (2014) *Making Sense of Play.* Maidenhead: Open University Press

Else, P. & Sturrock, G. (1998/2001) *Therapeutic Playwork Reader One : 1995-2000.* Eastleigh: Common Threads.

England', P. (2010) '*Briefing: Children's Play and the Comprehensive Spending Review*'. London: House of Commons Library

Environment Agency (UK) (Chief Scientist's Group) (2022) *Working with Nature.* London: Environment Agency. Accessed online <https://www.gov.uk/government/publications/working-withnature>

Ergler, C. R. (2016) 'Childhood with Bourdieu'. *Children's Geographies*, 15:1, 129-130, DOI: [10.1080/14733285.2016.1161370](https://doi.org/10.1080/14733285.2016.1161370)

European Environment Agency (2023) EEA Glossary. Copenhagen, EEA/European Union. Accessed online at <https://www.eea.europa.eu/help/glossary/eea-glossary> accessed 17/01/23

Fagen, R. (1981) *Animal Play Behaviour*. Oxford: Oxford University Press.

Fairchild, N. (2017) *Earthworm disturbances: the reimagining of relations in Early Childhood Education and Care*. PhD Thesis Presented to the University of Chichester for the Degree of Doctor of Philosophy. June 2017.

Feezell, R. (2013) 'A Pluralist Conception of Play', in Ryall, E., Russell, W. and MacLean, M. (eds.) *The Philosophy of Play*. London: Routledge, pp. 11-31.

Feldman, D (2019) Children's Play in the Shadow of War. *American Journal of Play*. Vol. 11 (3) pp288-307.

Ferrando, F (2020) *Philosophical Posthumanism*. London: Bloomsbury

Foucault, M (1977) *Discipline and Punish: The Birth of the Prison*. London: Pantheon.

Freire, P. (1995). *The Pedagogy of the Oppressed: Translated by Myra Bergman Ramos*. London, Penguin.

Frost, J (2010) *A History of Children's Play and Play Environments* London: Routledge.

Gadamer, H.-G. (2004) *Truth and Method - translated by Weinshmeir, J. and Marshall, D.G.* (2nd Edn). London: Continuum.

Gale, K (2018) *Madness as Methodology: Bringing Concepts to Life in Contemporary Theorising and Inquiry*. London: Routledge.

Gandini, L., Edwards, C., Forman, G (2011) *The Hundred Languages of Children: the Reggio Emilia Experience in Transformation*. London: Praeger.

Gannon, S (2018) On Being and Becoming the Monstrous Subject of Measurement in Riddle, S., Bright, D., Honan, E. (Eds) (2018) *Writing with Deleuze in the Academy: Creating Monsters*. Singapore: Springer.

Gibson, J. J. (1996) *The Ecological Approach to Visual Perception*. New Jersey:: Lawrence Earlbaum.

Gill, T. (2007). *No Fear: Growing Up in a Risk Averse Society*. London, Calouste Gulbenkian Foundation.

Gill, T. (2011) *Sowing the Seeds – reconnecting London's children with nature*. London: Sustainable Development commission.

Gleave, J. and. Cole-Hamilton. I (2012) *A world without play' - a literature review*. London: Play England.

Goodley, D., Lawthom, R. & Runswick Cole, K. Posthuman disability studies. *Subjectivity* 7, 342–361 (2014). <https://doi.org/10.1057/sub.2014.15>

Gordon, G. and Esbjörn-Hargens, S. (2007). Integral play: an exploration of the playground and the evolution of the player. *AQAL: Journal of Integral Theory and Practice*. Autumn 2007, Vol. 2, No. 3. pp62-104 [online]. Available from:

https://gwengordonplay.com/pdf/Gordon_Play_Final.pdf?cd0aa3&cd0aa3 (Accessed Oct 8, 2018)

Gopnik, A. (2016) *The Gardener and the Carpenter*. London: Penguin.

Gov.uk (2022a) Case Management Guidance: A definition of terms. London Gov.uk accessed online <https://www.gov.uk/guidance/case-management-guidance/definitions>.

Gov.uk (2022b) *Bird flu (avian influenza): latest situation in England*. Accessed online <https://www.gov.uk/government/news/bird-flu-avian-influenza-latest-situation-in-england> Accessed December 2022.

Griffin, J and Tyrrell, I. (2003) *Human Given: A new approach to emotional health and clear thinking*. Chalvington East Sussex: Human Givens Publishing

Guattari, F (1989/2000) *The Three Ecologies: translated by Ian Pindar ad Paul Sutton*. London: Continuum.

Hahn, D (2018) Between Utopia and Arcadia: How the playground epitomises visions of play, childhood and societal longings in Russell, W., Ryall, E. and Maclean, M (2018) *The Philosophy of Play as Life*. London: Routledge pp193-210

Haraway, D (1985) A Manifesto for Cyborgs in Haraway, D (1985) *Manifestly Haraway*. London/Minneapolis: University of Minnesota Press. pp3-90

Haraway, D (2016) *Staying with the Trouble: Making Kin in the Chthulucene*. Durham and London: Duke University Press

Haraway, D and Terranova, F (2017) *Storytelling for Earthly Survival*. A film by Fabrizio Terranova/Atelier Graphoui/Spectre Productions/CBA.

Hart, R. (1979) *Children's Experience of Place*. New York: Irving Publishers/Halsted Press.

Hayhow, D. B., Eaton, M. A., Stanbury A. J., Burns, F., Kirby, W. B., Bailey, N., Beckman, B., Bedford, J., Boersch-Supan, P. H., Coomber, F., Dennis E. B., Dolman, S.J., Dunn, E., Hall, J., Harrower, C., Hatfield, J.H., Hawley, J., Haysom, K., Hughes, J., Johns, D. G., Mathews, F., McQuatters-Gollop, A., Noble, D. G., Outhwaite, C. L., Pearce-Higgins, J.W., Pescott, O.L., Powney, G. D. and Symes, N (2019) *The State of Nature*. London: the State of Nature Partnership. Accessed online <https://nbn.org.uk/wp-content/uploads/2019/09/State-of-Nature-2019-UK-full-report.pdf>

Heidegger, M. (1958) *Being and Time: Translated by John Macquarrie & Edward Robinson*. Oxford: Blackwell

Hendrick, H. (2008) 'The Child as Social Actor in Historical Sources: Problems of Identification and Interpretation', in Christensen, P. and James, A. (eds.) *Research with Children: Perspectives and Practices*. London: Routledge, pp. 40-65.

Henderson, L (2018) Shifting Sands: Writing Across Time. Chapter 10 in Riddle, S., Bright, D., Honan, E. (Eds) (2018) *Writing with Deleuze in the Academy: Creating Monsters*. London: Springer

- Hickey-Moody, A (2013) Affect as Method: Feelings, Aesthetics and Affective Pedagogy in Coleman, R and Ringrose, J. (Eds) (2013) *Deleuze and Research Methodologies*. Edinburgh: Edinburgh University Press pp79-95
- Hinde, R., A. (1982) *Ethology: Its Nature and Relations With Other Sciences*. London: Fontana.
- Hinde, R. A. (1987) *Individuals, Relationships and Culture*. Cambridge: Cambridge University Press.
- Hirshfield, J (2011) *Come Thief*. London and New York: Knopf Doubleday Publishing Group
- Hobbes, T (2016) *Leviathan, Edited by Marshall Missner*. London: Routledge
- Hofman, J (2020) *Sewage Surfer (Photograph)* on Natural History Museum Wildlife Photographer of the Year: The Reality of a Sewage Surfer. Accessed online <https://www.nhm.ac.uk/discover/the-reality-of-a-sewage-surfer.html> accessed 14-01-23.
- Holland, E. W. (2013) *Deleuze and Guattari's 'A Thousand Plateaus': a Readers's Guide*. London: Bloomsbury (Kindle Edition).
- Holloway, S. (2000). *Children's Geographies: Playing, Living, Learning*. Abingdon, Routledge.
- Holloway, S. (2014) Changing children's geographies, *Children's Geographies*, 12:4, 377-392, DOI: [10.1080/14733285.2014.930414](https://doi.org/10.1080/14733285.2014.930414)
- Honan, E., Bright, D and Riddle, S. (2018) Bringing Monsters to life Through Encounters with Writing Chapter 1 in Riddle, S., Bright, D., Honan, E. (Eds) (2018) *Writing with Deleuze in the Academy: Creating Monsters*. London: Springer
- Horton, J and Kraftl, P. (2018) Three playgrounds: Researching the multiple geographies of children's outdoor play. *Environment and Planning A: Economy and Space* 2018, Vol. 50(1) 214–235 DOI: 10.1177/0308518X17735324
- Hughes, B. (2011) *Evolutionary Playwork* (2nd Edn). Abingdon: Routledge.
- Huizinga, J. (1950/2014) *Homo Ludens: A Study of the Play-Element in Culture* New York: Roy Publishers
- Hutt, C (1979) Exploration and Play: Chapter 10 in Sutton-Smith, B (Ed) *Play and Learning: The Johnson and Johnson Pediatric Round Table III*. London & New York: Gardner Press. pp175-195.
- Ingold, T (2013) *Making: Anthropology, archaeology, art and architecture*. London: Routledge
- Ingold, T (2015) *The Life of Lines* London: Routledge
- Ingold, T (2022) On not knowing and paying attention: How to walk in a possible world. *Irish Journal of Sociology* 0 (0) 1-17 accessed online: [<https://journals.sagepub.com/doi/epub/10.1177/07916035221088546>] Accessed 03/12/2022.

- Inhofe, J. M. (2012) *The greatest hoax: How the global warming conspiracy threatens your future*. Washington DC , USA: WND Books.
- Ingold, T (2013) *Making: Anthropology, archaeology, art and architecture*. London: Routledge
- Ingold, T (2015) *The Life of Lines*. London: Routledge
- Ivinson, G and Renold, E (2016). Girls, Camera, (Intra) Action: Mapping Posthuman Possibilities in a Diffractive Analysis of Camera-Girl Assemblages in Research on Gender, Corporeality and Place. Chapter 10 in Taylor, C and Hughes, C (Eds) (2016) *Posthuman Research Practices in Education*. London: Palgrave Macmillan pp168- 185
- Johanson, P. (2011) *Art that heals the earth. Lecture given at Wisconsin Institute for Public Policy and Service, November 17, 2011*. Accessed online <https://www.youtube.com/watch?v=HQij7W97Aju&t=931s> accessed 20/12/2022.
- Kahn, P. K. Jr. (2002) Children's affiliations with nature: Structure, development, and the problem of Environmental Generational Amnesia, Ch 4 in Kahn, P.K. and Kellert, S. R (2002) *Children and Nature: Psychological, Sociocultural and Evolutionary Investigations*. Cambridge Massachusetts and London, England: Massachusetts Institute of Technology (MIT) Press
- Kahn, P.K. and Kellert, S. R (2002) *Children and Nature: Psychological, Sociocultural and Evolutionary Investigations*. Cambridge Massachusetts and London, England: Massachusetts Institute of Technology (MIT) Press
- Kant, I. (1929) *The Critique of Pure Reason, translated by Norman Kemp Smith*. London: MacMillan
- Karsten, L. (2005). "It all used to be better? Different generations on continuity and change in urban children's daily use of space." *Children's Geographies* 3(3): 275-290.
- Kaza, S (2022) Waste around the world in Thunberg, G (Ed) (2022) *The Climate Book*. London: Penguin – Kindle Edition pp379-385
- Kirby, V (2014) *Posthumanism on the Line*. Lecture delivered at ICI Berlin 16/06/2014. Accessed online <https://doi.org/10.25620/e140616> accessed 20/12/2022
- King, P and Sturrock, G (2020) *The Play Cycle: Theory, Research and Application*. London: Routledge
- Koelmans, A., Redondo -Hasselerharm, P., Nor, N., Kooi, M (2020) Solving the Nonalignment of Methods and Approaches Used in Microplastic Research to Consistently Characterize Risk *Environmental Science and Technology*. 2020, 54, (19), 12307–12315 <https://doi.org/10.1021/acs.est.0c02982>
- Koro-Ljungberg, M, Loytonen, T., Tesar, M (Eds) (2017a) *Disrupting Data in Qualitative Inquiry: Entanglements with the Post-Critical and Post-Anthropocentric* . New York and Oxford: Peter Lang.
- Koro-Ljungberg, M, Loytonen, T., Tesar, M (2017b) Introduction: Multiplicities of Data Encounters in Koro-Ljungberg, M, Loytonen, T., Tesar, M (Eds) (2017) *Disrupting Data in Qualitative Inquiry: Entanglements with the Post-Critical and Post-Anthropocentric* . New York and Oxford: Peter Lang Chapter 1.

- Koslovsky, R (2008) Adventure Playgrounds and Postwar Reconstruction Chapter 8 in Gutman, M and Coninck-Smith, N (Eds) (2008) *Designing Modern Childhoods: History, space place and the material culture of children*. New Jersey: Rutgers University Press.
- Kraftl, P., Taylor, A. & Pacini-Ketchabaw, V (2020) Introduction to Symposium: childhood studies in the Anthropocene, *Discourse: Studies in the Cultural Politics of Education*, 41:3, 333-339. [Accessed online <https://www.tandfonline.com/doi/full/10.1080/01596306.2020.1779448> Accessed 20-12-22]
- Kuhn, T. S. (1962/2022) *The Structure of Scientific Revolutions with foreword by Ian Hacking*. Chicago: University of Chicago Press (e-version).
- Lake, A/ UNICEF (2016) *Statement on Universal Children's Day: Protect the rights of every child*. London: UNICEF accessed online <https://www.unicef.org/turkiye/en/press-releases/unicef-executive-director-anthony-lake-statement-universal-childrens-day-protect>
- Latour, B (1999) On Recalling ANT. *Sociological Review*. Vol 47 (1) Suppl. Actor Network Theory and After. pp15-25
- IPPR/Laybourn, L., Throp, H. and Sherman, S (2023) 1.5oC – *Dead or Alive? The risks to transformational change from reaching and breaching the Paris Agreement goal*. London:IPPR/Chatham House.
- Lefebvre, H. (1991) *The Production of Space: Translated by D Nicholson-Smith*. Oxford: Blackwell.
- Lefebvre, H. (2015) *Rhythmanalysis: Space, Time and Everyday Life*. London: Continuum.
- Le Guin, U. (2004) Being taken for Granite. In *The Wave and the Mind: Talks and Essays on the Writer, the Reader, and the imagination*. Boston: Shambhala publishing.
- Le Guin, U. (1974) The Author of the Acacia Seeds and Other Extracts from the Journal of the Association of Therolinguistics. In Carr, T (Ed) (1974) *Fellowship of the Stars*. London and New York: Simon and Schuster.
- Lenz Taguchi, H (2010) *Going Beyond the Theory/Practice Divide in Early Childhood Education: Introducing an Intra-active Pedagogy*. Abingdon: Routledge.
- Lester, S. (2013) 'Playing in a Deleuzian Playground', in Ryall, E., Russell, W. and MacLean, M (Eds.) *The Philosophy of Play*. Abingdon, Oxon: Routledge, pp. 130 - 140.
- Lester, S (2017) Posthuman Nature: Life beyond the natural playground. Chapter 4 in Maclean, M., Russell, W., and Ryall, E (Eds) (2017) *Philosophical Perspectives on Play* pp52-67
- Lester, S. (2018) 'Bringing Play to Life and Life to Play: A Vitalist Line of Enquiry', in Russell, W., Ryall, E. and MacLean, M. (eds.) *The Philosophy of Play as Life*. London: Routledge, pp. 13-26.
- Lincoln, Y. S. & Guba, E. G. (1985) *Naturalistic Inquiry*. Newbury Park, CA: Sage Publications.

Little, S and Derr, V (2020) The Influence of Nature on a Child's Development: Connecting the Outcomes of Human Attachment and Place Attachment, Chapter 8 in Cutter-Mackenzie-Knowles, A., Malone, K., Barratt Hacking, E. (Eds.) (2020) *Research Handbook on Childhoodnature: Assemblages of Childhood and Nature Research. Vol. 1.* Switzerland: Springer

Living Streets (2022) *Number of Primary School Children Walking to School Falls.* Web page; <https://www.livingstreets.org.uk/news-and-blog/press-media/number-of-primary-school-children-in-england-walking-to-school-falls> accessed July 2022.

Loebach, J. & Gilliland, J. (2016a) Neighbourhood play on the endangered list: examining patterns in children's local activity and mobility using GPS monitoring and qualitative GIS. *Children's Geographies* 14:5,573-589, DOI: [10.1080/14733285.2016.1140126](https://doi.org/10.1080/14733285.2016.1140126) pp. 1-17.

Loebach, J, and Gilliland. (2016 b). "Free Range Kids? Using GPS-Derived Activity Spaces to Examine Children's Neighbourhood Activity and Mobility." *Environment and Behaviour* 48 (3): 421–453. doi:10.1177/0013916514543177

Louv, R. (2012) *The Nature Principle: Reconnecting with Life in a virtual age.* North Carolina, USA: Algonquin Books

Lovell, R. (2016) A systematic review of the health and well-being benefits of biodiverse environments. *Journal of Toxicology and Environmental Health* 2014 Vol. 17 Pages 1-20

Lyons, K (2018) *Plastic bottle washes up looking 'almost new' after nearly 50 years at sea.* The Guardian. 09/10/2018

Lundberg, A., Vasques Vital, A., & Das, S. (2021). Tropical Imaginaries and Climate Crisis: Embracing Relational Climate Discourses. eTropic: *Electronic Journal of Studies in the Tropics*, 20(2), 1–31. <https://doi.org/10.25120/etropic.20.2.2021.3803>
(17) (PDF) *Tropical Landscapes and Nature-Culture Entanglements: Reading Tropicality via Avatar.* Available from: https://www.researchgate.net/publication/359654751_Tropical_Landscapes_and_Nature-Culture_Entanglements_Reading_Tropicality_via_Avatar [accessed Mar 13 2023].

Lunghi, E. and Manenti, R (2020) Cave Communities: From the Surface Border to the Deep Darkness. *Diversity*, 2020, 12 167-171.

Mackett, R., Banister, D., Batty, M., Einon, D., Brown, B., Gong, Y., Kitazawa, K., Marshall, S. & Paskins, J. (2007) *Final report on 'Children's Activities, Perceptions and Behaviour in the Local Environment (CAPABLE)'*. London: UCL. Available.

MacLure, M (2010) The offence of theory, *Journal of Education Policy*, 25:2, 277-286, DOI: 10.1080/02680930903462316

MacLure, M (2013a) The wonder of data. *Cultural Studies - Critical Methodologies* 13(4) 228–232

MacLure, M (2013b) Researching without representation? Language and materiality in post-qualitative methodology, *International Journal of Qualitative Studies in Education*, 26:6, 658-667, DOI: 10.1080/09518398.2013.788755

MacLure, M (2017) Foreword to Koro-Ljungberg, M, Loytonen, T., Tesar, M (Eds) (2017) *Disrupting Data in Qualitative Inquiry: Entanglements with the Post-Critical and Post-Anthropocentric*. New York and Oxford: Peter Lang.

MacLure, M (2018) Afterword: Writing Monstrous. Chapter 14 in Riddle, S., Bright, D., Honan, E. (Eds) (2018) *Writing with Deleuze in the Academy: Creating Monsters*. London: Springer

MacLure, M (2013) Researching without representation? Language and materiality in post-qualitative methodology, *International Journal of Qualitative Studies in Education*, 26:6, 658-667, DOI: 10.1080/09518398.2013.788755

Malone, K., Duhn, I., and Tesar, M. (2020) Greedy Bags of Childhoodnature Theories. In Cutter-Mackenzie-Knowles, A., Malone, K., Barratt Hacking, E. (Eds.) (2020) *Research Handbook on Childhoodnature: Assemblages of Childhood and Nature Research. Vol. 1*. Switzerland: Springer pp19-29

Malone, K and Moore, (2019) Sensing Ecologically through Kin and Stones *The International Journal of Early Childhood Environmental Education*, 7(1) 2019 pp 8-25

Malleret, (2023) The Big, Unaddressed Health & Wellness Issue: Surging Air Pollution and Wildfires Global Wellness Institute <https://globalwellnessinstitute.org/global-wellness-institute-blog/2023/06/27/the-big-unaddressed-health-wellness-issue-surging-air-pollution-and-wildfires/> Accessed online March 2023

Malone, K and Moore, S. J. (2019) Sensing Ecologically through Kin and Stones. *The International Journal of Early Childhood Environmental Education*, Vol 7(1), pp. 8-26

Manning, E. (2007) *Politics of Touch, Sense, Movement, Sovereignty*. Minneapolis, University of Minnesota Press.

Manning, E (2015) Artfulness in Grusin, R (Ed) 2015 *The Nonhuman Turn*. London and Minnesota: Minnesota University Press. pp45-80

Manning, E and Massumi, B (2014) *Thought in the Act: Passages in the Ecology of Experience*. Minneapolis USA and London, England: University of Minnesota Press

Marcussen, L. (2008). *The Architecture of Space - The space of Architecture*. Denmark, Danish Architectural Press.

Masny, D. (2013) Rhizoanalytic Pathways in Qualitative Research. *Qualitative Inquiry* 19(5) 339–348

Massumi, B (1992) *A User's Guide to Capitalism and Schizophrenia: Deviations from Deleuze and Guattari*. Cambridge Massachusetts and London: MIT Press.

Massumi, B (2002) *Parables for the Virtual: Movement, Affect, Sensation*. London: Duke University Press.

Massumi, B (2012) Notes on the Translation and Acknowledgements a foreword to Deleuze, G and Guattari, F (1987/2012) *A Thousand Plateaus translated by Brian Massumi*. London: Bloomsbury pp xv-xvii

Massumi, B (2015) The supernormal animal. In Grusin, R (Ed) 2015 *The Nonhuman Turn*. London and Minnesota: Minnesota University Press. pp1-17.

- Mazzei, L. A. (2014). Beyond an Easy Sense: A Diffractive Analysis. *Qualitative Inquiry*, 20(6), 742–746. <https://doi.org/10.1177/1077800414530257>
- May, T (2005) *Gilles Deleuze: An introduction*. Cambridge: Cambridge University Press
- Meijer, E. (2018) Worm Politics. In Cudworth, E., Hobden, S., & Kavalski, E. (Eds.). (2018). *Posthuman Dialogues in International Relations* (1st ed.). Routledge. <https://doi.org/10.4324/9781315613475> (e book edition).
- Merleau-Ponty, M. 1948/2008. *The World of Perception (Causeries) Translated by Oliver Davis.*, London, Routledge.
- Merleau-Ponty, M. (1962). *Phenomenology of Perception*. London, Routledge.
- Movahedi, H (2021) The Other in Deleuze and Husserl. In *Dialogue: Canadian Philosophical Review*. Cambridge University Press 60(1), pp.93–120. Doi: 10.1017/S001221732000041460
- Moore, R (1990) *Childhood's Domain: Play and Place in Child Development*. Berkeley, California: MIG Communications.
- Murray, P (2010) Caves and the Ancient Greek Mind: Descending Underground in the Search for Ultimate Truth. *Hermathena*, Summer 2010, No 188. Pp106-109 Published by: Trinity College Dublin Stable URL: <https://www.jstor.org/stable/42950984>
- Murris, K. (2016) *The Posthuman Child: Educational Transformation Through Philosophy with Picturebooks*. London: Routledge.
- Murris, K. (Ed.) (2021) *Navigating the Postqualitative, New Materialist and Critical Posthumanist Terrain Across Disciplines: An Introductory Guide*. London: Routledge.
- Murris, K. (2021) The 'Missing Peoples' of Critical Posthumanism and New Materialism. Ch 3 in Murris, K. (Ed.) (2021) *Navigating the Postqualitative, New Materialist and Critical Posthumanist Terrain Across Disciplines: An Introductory Guide*. London: Routledge. pp62-84
- Murris, K and Reynolds, R-A. (2023) Posthumanism and Childhood Studies in *Oxford Bibliography of Childhood studies*. Oxford: Oxford University press (no page). [Accessed online <https://www.oxfordbibliographies.com/display/document/obo-9780199791231/obo-9780199791231-0269.xml#obo-9780199791231-0269-bibliem-0010>]
- Nature Scot/Nadar Alba (2022) *Lichens*. Website accessed 28/12/22 <https://www.nature.scot/plants-animals-and-fungi/lichens>
- Nelson, C and Mattes, A. (2017) Lego, Creative Accumulation and the Future of Play in Lynch, S., Pike, D., and A Beckett, C (2017) *Multidisciplinary Perspectives on Play from Birth and Beyond*.
- Newell, P (2014) Merz Merz Merz Merz : Performing the Remains of Mr Kurt Schwitters. *Platform*, Vol. 8. No 1 Performance Legacies, Spring 2014.
- Nicholson, S. (1971) 'The Theory of Loose Parts – How not to cheat children'. *Landscape Architecture Quarterly*, 62 (1), pp30-34

- Nxumalo, F. (2019) *Decolonizing place in early childhood education*. London: Routledge
- Nxumalo, F. (2020). Place-based disruptions of humanism, coloniality and anti-blackness in early childhood education. *Critical Studies in Teaching and Learning*, 8, 34–49. <https://doi.org/10.14426/cristal.v8iSI.269>
- Olsson, L (2009) *Movement and Experimentation in Young Children's Learning*. London: Routledge.
- Olsson, L (2013) Taking Children's Questions Seriously: the need for creative thought. *Global Studies of Childhood* Volume 3 Number 3 2013 pp230-253
- Opie, I and Opie, P. (1969/1984) *Children's Games in Streets and Playground*. Oxford: Oxford University Press.
- Pacini-Ketchabaw, V., & Taylor, A. (Eds.) (2015). *Unsettling the colonial places and spaces of early childhood education*. Routledge.
- Page, D and Sidebottom, K (2022) The Sensorium and Fleshy Schools. *British Educational Research Journal*. 48, 771-784. <https://doi.org/10.1002/berj.3793> accessed May 2022.
- Parr, A (Ed.) (2010), *The Deleuze Dictionary Revised Edition*, Edinburgh University Press, Edinburgh. Available from: ProQuest Ebook Central. [2 January 2024].
- Parr, A (2010) Differentiation/Differentiation in Parr, A (Ed.) (2010), *The Deleuze Dictionary Revised Edition*, Edinburgh University Press, Edinburgh. Available from: ProQuest Ebook Central. [2 January 2024]. pp79--81
- Pass, D. A. , Morgan, A. J., Read, D. S., Field D., Weightman, A. J., and Kille, P. (2015) The effect of anthropogenic arsenic contamination on the earthworm microbiome. *Environmental Microbiology*. 17 (6) 1884-96
- Patton, P. (2010) Difference + Politics in Parr, A (Ed.) (2010), *The Deleuze Dictionary Revised Edition*, Edinburgh University Press, Edinburgh. Available from: ProQuest Ebook Central. [2 January 2024]. pp76-78
- Pindar, I and Sutton, P (2000) Translator's introduction to Guattari, F (1989/2000) *The Three Ecologies: translated by Ian Pindar and Paul Sutton*. London: Continuum. pp1-13
- Preston, C. J. (2003) *Grounding Knowledge: Environmental Philosophy, Epistemology and Place*. Georgia: Georgia University Press.
- Punch, S. (2002) Research with Children: the same or different from research with adults. *Childhood*, Vol. 9 (3), pp. 321-341.
- Rautio, P. (2013) Children who carry stones in their pockets: on autotelic material practices in everyday life, *Children's Geographies*, 11:4, 394-408, DOI: 10.1080/14733285.2013.812278
- Rawls, J (1971) *A Theory of Justice*. Oxford: Oxford University Press
- Reifel, S. (2007) Hermeneutic Text Analysis of Play: Exploring Meaningful Early Childhood Classroom Events, in Amos Hatch, J. (ed.) *Early Childhood Qualitative Research*. London: Routledge, pp. 25-42.

- Reinertsen, A. B., and Thomas, L. (2024) *Posthumanist Research and Writing as Agentic Acts of Inclusion: Knowledge Forced Open*. London: Routledge.
- Relph, E (1976) *Place and Placelessness*. London: Sage.
- Rhedding-Jones (2007) 'Who Chooses What Research Methodology?', in Amos Hatch, J. (ed.) *Early Childhood Qualitative Research*. London: Routledge, pp. 207-221.
- Richardson, L., and St Pierre, E. A. (2008) Writing: a method of inquiry. In Denzin, N and Lincoln, Y. (Eds) (2005) *Collecting and Interpreting Qualitative Materials 3rd Edition*. London: Sage
- Riddle, S., Bright, D., Honan, E. (Eds) (2018) *Writing with Deleuze in the Academy: Creating Monsters*. London: Springer
- Rota, L (2011) Early oligochaete science, from Aristotle to Francesco Redi. *Archives of natural History* 38.1 (2011): 136–163 Edinburgh University Press DOI: 10.3366/anh.2011.0011
- Rolli, M (2016) *Gilles Deleuze's Transcendental Empiricism: From Tradition to Difference* Translated and edited by Peter Hertz-Ohmes. Edinburgh: Edinburgh University Press (e-book version).
- Russell, W. (2013) 'Towards a Spatial Theory of Playwork: What can Lefebvre offer as a response to playwork's inherent contradictions?', in Ryall, E.R., W. and MacLean, M (eds.) *The Philosophy of Play*. Abingdon: Routledge, pp. 164-174.
- Russell, W., Fitzpatrick, J. and Handscomb, B (2021) 'Adventure Playgrounds', 'Nature' and 'Learning': disrupting lofty notions. *Built Environment*. Vol 47 (2) pp206-222 Accessed online <http://dx.doi.org//10.2148/benv.47.2.206>
- Russell, W., Fitzpatrick, J. and Handscomb, B (2020) What if and What More: disturbing habits of thought about playwork 're-search'. *International Journal of Playwork Practice*. Vol 1 (1) Article 1 (no page) <https://doi.org/10.25035/ijpp.01.01.05>
- Russell, W., Ryall, E. and Maclean, M (2018) *The Philosophy of Play as Life*. London: Routledge
- Ryall, E., Russell, W., and MacLean, M. (Eds) (2013) *The Philosophy of Play*. London: Routledge.
- Seath, J and Sturrock, G. (2019) *Symbiotic homeostatic disequilibrium in playworking interaction: a paper derived from and following communications at the PlayEd 2018 conference, University of Cambridge*. Playworkings [online]. Available from www.playworkings.wordpress.com accessed 17/01/23.
- Segal, H (1989) *Introduction to the work of Melanie Klein*. London: Routledge
- Schwitters, K (1921) 'from Merz' in Chipp, H. B (Ed) (1968) *Theories of Modern Art: A Source Book by Artists and Critics*. Los Angeles: University of California Press.
- Shotter, J. (2008). *Conversational realities revisited: life, language, body and world*. Ohio, Taos Institute Publications.

- Shaw, B., Watson, B., Frauendienst, B., Redecker, A., Jones, T. & Hillman, M. (2013) *Children's independent mobility: a comparative study in England and Germany* (1971-2010). London: Policy Studies Institute
- Shaw, D. B. (2018) *Posthuman Urbanism: Mapping Bodies in Contemporary City Space*. London and New York: Rowman and Littlefield
- Sheldrake, M (2020) *Entangled Life: How fungi make our worlds, change our minds and shape our futures*. London: Vintage.
- Sicart, M. (2014) *Play Matters*. Cambridge Massachusetts and London, England: The MIT Press.
- Simondon, G (2009) The problem of the position of ontogenesis. *Parrhesia* Vol 7 pp 4-16
- Singer, P (2015) *Animal Liberation* London: Bodley Head/Random House
- Siviy, S. M. (1998). Neurobiological substrates of play behavior: Glimpses into the structure and function of mammalian playfulness. In M. Bekoff & J. A. Byers (Eds.), *Animal play: Evolutionary, comparative, and ecological perspectives* (pp. 221–242). Cambridge University Press. <https://doi.org/10.1017/CBO9780511608575.012>
- Smith, P. K. (2010) *Children and Play*. Oxford: Wiley and Blackwell
- Sobel, D. (2002) *Children's Special Places: Exploring the Role of Forts, Dens and Bush Houses in Middle Childhood*. Detroit Wayne State University Press.
- Somerville, M. (2017). (Becoming-with) water as data. In M. Koro-Ljungberg, T. Loytonen, & M. Tesar (Eds.), *Disrupting Data in Qualitative Inquiry: Entanglements with the Post-critical and Post-anthropocentric* (pp. 35-48).
- Somerville, M. (2020). Posthuman Theory and Practice in Early Years Learning. In Cutter-Mackenzie, A. Malone, K., & Barrett Hacking, E. (Eds.), *International Research Handbook on childhood/nature: Assemblages of Childhood and Nature Research*. Switzerland: Springer Nature. pp103 - 129
- Smith, L., Tassi, E. and Bennett, E (2018) *Virginia Woolf: An exhibition inspired by her writings (exhibition catalogue)* London: Tate.
- Sparrman, A (2020) Through the Looking Glass: Alice and Child Studies Multiple. *Childhood* Vol 27 (1) pp8-24.
- Stagoll, C (1998) KillingTime: the Strange case of John McTaggart. *Philosophy Now* (20) pp28-30
- Spilsbury, J. C. (2005) We Don't Really Get to Go Out in the Front Yard': Children's home range and neighbourhood violence. *Children's Geographies*, 3 (1), pp. 79-99.
- St. Pierre, E. A. (2016) Rethinking the Empirical in the Posthuman in Taylor, C and Hughes, C (Eds) (2016) *Posthuman Research Practices in Education*. London: Palgrave Macmillan pp25-36
- St Pierre, E. A. (2019) Post Qualitative Inquiry in an Ontology of Immanence. *Qualitative Inquiry*. Vol 25 (1) 3-16.

- Stewart, K (2008) Cultural Poesis: The Generativity of Emergent Things. In Denzin, N and Lincoln, Y (Eds) *Collecting and Interpreting Qualitative Materials* London: Sage pp565-586
- Stobart T. (1998) *Take 10 for Play Playwork Training Course material*. Gloucestershire: University of Gloucestershire
- Sturrock, G and Else, P (1998) 'The Colorado paper' The Playground as Therapeutic Space: Playwork as Healing In Else, P. & Sturrock, G. (1998/2001) *Therapeutic Playwork Reader One : 1995-2000*. Eastleigh: Common Threads. pp73-104
- Sturrock, G (2020) Beyond the Intrinsic: Chapter 3 in King, P and Sturrock, G (2020) *The Play Cycle: Theory, Research and Application*. London: Routledge. pp52-74.
- Sunsdal, E and Øksnes, (Eds) (2021) Play and the pedagogical apparatus in Koubora, A., Urban, P., Russell, W., and Maclean M. (2021) *Play and Democracy: Philosophical Perspectives*. London: Routledge pp 207-220
- Sutton-Smith, B. (1997) *The Ambiguity of Play*. Cambridge MA: Harvard University Press.
- Tatla, H (2009) *Between Deleuze and Gadamer: investigating the notion of time in contemporary architecture in Al-Hamzah, K (2009) Art and Time: Proceedings of the IV Mediterranean Congress of Aesthetics*. Irbid: Yarmouk University. Accessed online <https://eclass.uniwa.gr/modules/document/file.php/DIAK114/HELEN%20TATL> accessed October 2022
- Taylor, C and Hughes, C (Eds) (2016) *Posthuman Research Practices in Education*. London: Palgrave Macmillan.
- Taylor, C. A. (2016) Edu-crafting a Cacophonous Ecology: Posthumanist Research Practices for Education chapter 1 in Taylor, C and Hughes, C (Eds) (2016) *Posthuman Research Practices in Education*. London: Palgrave Macmillan. pp.5-25
- Tesar, M (2015) Te Whariki in Aotearoa New Zealand: Witnessing and Resisting Neo-liberal and Neo-colonial Discourses in Early Childhood Education Chapter 5 in Pacini-Ketchabaw, V., & Taylor, A. (Eds.) (2015). *Unsettling the colonial places and spaces of early childhood education*. Routledge. pp174-200.
- The Housing Group (2020) *What can I do about children playing outside of my home – online webpage*. <https://www.tchg.org.uk/what-can-i-do-about-children-playing-outside-my-home/>
- Thomas, D (1943) *Reminiscences of Childhood*. *BBC Radio 1943* accessed online 01/03/2013 (BBC Radio Archives) <https://www.bbc.co.uk/programmes/b043xqc1> Accessed 22/05/2014 but currently available on ArturoDelta https://www.youtube.com/watch?v=Ce_qzuBPQpc Accessed 24/01/2023
- Thompson, R. C., Olsen, Y., Mitchell, R. P., Davis, A., Rowland, S. J., Anthony, W. G. J., McGonigle, D and Russell, A. E. (2004) Lost at Sea: Where Is All the Plastic? *Science*, 304, 838-838.
- Thunberg, G (Ed) (2022) *The Climate Book*. London: Penguin – Kindle Edition

Tsing, A., Swanson, H., Gan, E., and Bubandt, N. (Eds) (2017) *Arts of Living on A Damaged Planet: Ghosts of the Anthropocene & Monsters of the Anthropocene*. Minneapolis and London: University of Minnesota Press.

Tuck, E., & McKenzie, M. (2015). *Place in research: Theory, methodology and methods*. London: Routledge.

Tuan, Y. F. (1974) *Topophilia A study of environmental perception, attitudes and values*. New York: Columbia University Press.

Tuan, Y. F. (1977) *Space and Place: The Perspective of Experience*. Minneapolis USA and London, England: University of Minnesota Press.

Ulmer, J., B. (2017): Posthumanism as research methodology: inquiry in the Anthropocene, *International Journal of Qualitative Studies in Education*, DOI:10.1080/09518398.2017.1336806

UNICEF (1991) *United Nations Convention on the Rights of the Child*. London: UNICEF. Accessed online <https://www.unicef.org.uk/rights-respecting-schools/wp-content/uploads/sites/4/2017/01/UNCRC-in-full.pdf> Accessed December 2021

UNICEF/UNCRC (United Nations Convention on the Rights of the Child) (2013) *General comment No. 17 (2013) on the right of the child to rest, leisure, play, recreational activities, cultural life and the arts* (art. 31) CRC/C/GC/17. New York: United Nations.

Ustinova, J. (2009) *Caves and the Ancient Greek Mind: Descending Underground in the Search for Ultimate Truth*. Oxford: Oxford University Press.

Van der Tuin, I (2018) *Diffraction*. In Braidotti, R., and Hlavajova, M (Eds) (2018) *Posthuman Glossary* London: Bloomsbury. pp99-101

Van Dooren, T, and Rose, D. B. (2012). "Storied-Places in a Multispecies City". *Humanimalia* 3 (2):1-27. <https://doi.org/10.52537/humanimalia.10046>

Van Rooijen, M., and Newsted, S. (2016) Influencing factors on professional attitudes towards risk-taking in children's play: a narrative review, *Early Child Development and Care*, DOI: 10.1080/03004430.2016.1204607

Vilhauer, M. (2010) *Gadamer's Ethics of Play: Hermeneutics and the Other*. Plymouth: Lexington Books.

Vygotsky, L. (1933/1966) Play and its role in the mental development of the child. *Voprosy Psikhologii*. 1966, No. 6. Translated by Catherine Mulholland and posted on the *Psychology and Marxism Internet Archive*. [Accessed online <https://www.marxists.org/archive/vygotsky/works/1933/play.htm> accessed 15/09/2019

Waite, S., Rogers, S., and Evans, J. (2013) 'Freedom, flow and fairness: exploring how children develop socially at school through outdoor play. *Journal of Adventure Education and Outdoor Learning*, 13 (3), pp. 255-276. DOI: 10.1080/14729679.2013.798590'.

Waller, T (2007) 'The Trampoline Tree and the Swamp Monster with 18 heads': outdoor play in the Foundation Stage and Foundation Phase, *Education 3-13*, 35:4, 393-407, DOI: [10.1080/03004270701602657](https://doi.org/10.1080/03004270701602657)

- Ward, C. (1978) *The Child in the City*. London: Architectural press.
- Watson, M. C. (2014). Derrida, Stengers, Latour, and Subalternist Cosmopolitics. *Theory, Culture & Society*, 31(1), 75–98. <https://doi.org/10.1177/0263276413495283>
- Wicksteed Leisure Limited (2023) *Playground Heritage*. Website accessed <https://www.wicksteed.co.uk/about/playground-heritage> accessed 20/12/22
- Warfield, (2019) Becoming Method(ologist): A feminist posthuman autoethnography of the becoming of a posthuman methodology. *Reconceptualizing Educational Research Methodology* 2019, 2,3(2) Accessed online <https://journals.hioa.no/index.php/rerm/issue/view/397>
- Weir, H (2023) Spaces for children's play and travel close to home: the importance of threshold spaces, *Children's Geographies*, DOI: [10.1080/14733285.2023.2192338](https://doi.org/10.1080/14733285.2023.2192338)
- Weldemariam, K. and Wals, A. (2020) From Autonomous Child to a Child Entangled within an Agentic World: Implications for Early Childhood Education for Sustainability Chapter 2 in Elliott, S., Arlemalm-Hagser, E. and Davis, J. (Eds) (2020) *Researching Early Childhood Education for Sustainability: Challenging Assumptions and Orthodoxies*. London: Routledge pp13-24.
- Whewey, R. (2015) 'Opportunities for Free Play'. *International Journal of Play*, 4 (3), pp. 270-274.
- Wilson, E. O. (1984) *Biophilia: The Human Bond with Other Species*. London, UK and Cambridge Massachusetts: Harvard University Press.
- Wilson, P (2012) Beyond the Gaudy Fence, *International Journal of Play*, 1:1, 30-36, DOI: [10.1080/21594937.2012.659860](https://doi.org/10.1080/21594937.2012.659860)
- Wolfe, C (2010) *What is Posthumanism*. Minneapolis: University of Minnesota Press.
- Woolf, V. (1973) *Mrs Dalloway*. London: Bloomsbury in Woolf, V (2022) *The Complete Collection (e-book)* London: Pandora's Box pp782-906
- Woolf, V (2022) *The Complete Collection (e-book)* London: Pandora's Box
- Woolf, V (1931) *The Waves*. London: Hogarth press
- Woolf, V (1925/2022) *Mrs Dalloway in Woolf, V (2022) The Complete Collection (e-book)* London: Pandora's Box pp782-906.
- Woolley, H. E, and Griffin. E (2014). Decreasing experiences of home range, outdoor spaces, activities and companions: changes across three generations in Sheffield in north England. *Children's Geographies* 13 (6): 677–691. doi:10.1080/14733285.2014.952186.
- Wyatt, J & Gale, K (2018) Writing to it: creative engagements with writing practice in and with the not yet known in today's academy, *International Journal of Qualitative Studies in Education*, 31:2, 119-129, DOI: [10.1080/09518398.2017.1349957](https://doi.org/10.1080/09518398.2017.1349957)
- Xeno-Canto and Naturalis Biodiversity Centre (2022) *Eurasian Skylark (recording of by Shaun Mickelwright, Wyre Forest, UK)* Accessed online <https://xeno-canto.org/species/Alauda-arvensis> August 2022

Yeu, H.-R. (2011) 'Deconstructing the metaphysics of play theories: towards a pedagogy of play aesthetics', in Rogers, S. (ed.) *Rethinking play and pedagogy in early childhood education*. London: Routledge.

Youngblood Jackson, A and Mazzei, L (2016) Thinking with an Agentic Assemblage in Posthuman Inquiry. Chapter 6 in Taylor, C and Hughes, C (Eds) (2016) *Posthuman Research Practices in Education*. London: Palgrave Macmillan pp93-107

Zirbes, L., Deneubourg, J. L., Brostaux, Y. and Haubruge, E (2010) A new case of consensual decision: collective movement in earthworms. *Ethology* 116 (6) June 2010. pp546-553

Zuena, M., Buemi L. P., Nodari, L., Subelyte, G., Stringari, L., Campanella, B., Lorenzetti G., Pallexchi, V., Tomasin P., Legnaioli, S. (2022) Portrait of an artist at work: exploring Max Ernst's surrealist techniques. *Heritage Science* (10) 139 pp5-15. Accessed [<https://link.springer.com/content/pdf/10.1186/s40494-022-00777-4>] Accessed 20/12/22.


Appendices

Appendix 1: A Lefebvrian/Deleuzian influenced conceptual framework for considering childhood space and place.

Empty conceptual space (nothing)	Child merely being, Geographical self.
Space with potential	Nomadic, creative child seeking something.
Agentic space – influences child responses	Post-human child –innate drive within some form of ecological organising system – balancing, running into the wind, picking and swishing grass,
Perceived Space	A consideration of how child understands this space initially - the metalude, emergence of creative child response (or restraint of this response) (Child’s perception of spaces they use – affect? Like and dislike. Meant to use it this way? Etc.) Cultural affordances may be applied
Lived space and place	Asserting self in space (use of ‘found’ objects to make dens, swings etc.) Places ‘owned’ by children, even through pathways and branches closing them off for secrecy. Creation of place
Conceived space	The spaces for play created by planners and government agencies. Multi activity games places, football pitches, skate parks. Even pathways and linking routes. Can be perceived and lived if it matches child need/intentions
Striated spaces	‘Fenced in’ play areas, spaces designed to ‘control’ ,signs, lack of ‘fit’ to person, (keeping kids off the street, roads, old

	people's areas etc. or even 'keeping children safe' (fenced in, no lone adults allowed in this space).
Smooth Space	Child lives and shapes space, space remains affectively with the child. Child creates culture of this space and 'feels fully alive'. (Until challenged by the next generation of course!)
Aligned conceived place	Conceived spaces that are also 'smoothed'. Meet planners and child's needs appropriately. Conceived and lived combined. Are there such places?

Appendix 2: Ethical consent and consent forms

 FACULTY OF ARTS AND HUMANITIES Education Research Ethics Subcommittee APPLICATION FOR ETHICAL APPROVAL OF RESEARCH	(For EdRESC use only) Application No:	
	Chairs action (expedited)	Yes/ No
	Risk level -if high refer to UREC chair immediately Cont. Review Date	High/ low / /
	Outcome (delete as necessary)	Approved / Declined/ Amend/ Withdrawn
ALL PARTS OF THIS FORM MUST BE COMPLETED IN FULL IN ORDER TO GAIN APPROVAL. Please refer to the guidance notes.		
Part A: PROJECT INFORMATION		
1.	Investigator <i>*Note 1</i> <i>Mandy Andrews</i>	If Student, please name your Director of Studies: <i>Ulrike Hohmann</i>
	Contact Address: Tel: 01752 585462	E mail: mandy.andrews@plymouth.ac.uk
2.	Title of research: Landscapes of Play: Children’s Experiences of ‘Place’ when at play in their home locality	
3.	Nature of approval sought (Please tick relevant boxes) <i>*Note 2</i>	
	a) PROJECT: <input checked="" type="checkbox"/>	b) TAUGHT PROGRAMME (max. 3 years): <input type="checkbox"/>
	<i>If a,) please indicate which category:</i>	
	<i>Funded/unfunded Research (staff)</i> <input type="checkbox"/>	<i>Undergraduate</i> <input type="checkbox"/>
	<i>MPhil/PhD, ResM, BClin Sci, EdD</i> <input checked="" type="checkbox"/>	<i>Or Other (please state)</i> <input type="checkbox"/>
	<i>Taught Masters</i> <input type="checkbox"/>	
4.	a) Funding body (if any): b) If funded, please state any ethical implications of the source of funding, including any reputational risks for the university and how they have been addressed. <i>*Note 3</i>	
5.	a) Duration of project/programme: <i>*Note 4</i>	b) Dates:
6.	Has this project received ethical approval from another Ethics Committee?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	a) Committee name:	Yes <input type="checkbox"/> No <input type="checkbox"/>
	b) Are you therefore only applying for Chair’s action now?	
7.	Attachments (if required):	

- | | | |
|--|---|--|
| a) Application/Clearance (if you answered Yes to question 6) | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| b) Information sheets for participants | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| c) Consent forms | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| d) Sample questionnaire(s) | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| e) Sample set(s) of interview questions | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| f) Continuing review approval (if requested) | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| g) Other, please state: | | |

**1. Principal Investigators are responsible for ensuring that all staff employed on projects (including research assistants, technicians and clerical staff) act in accordance with the University's ethical principles, the design of the research described in this proposal and any conditions attached to its approval.*

**2. In most cases, approval should be sought individually for each project. Programme approval is granted for research which comprises an ongoing set of studies or investigations utilising the same methods and methodology and where the precise number and timing of such studies cannot be specified in advance.*

Such approval is normally appropriate only for ongoing, and typically unfunded, scholarly research activity.

**3. If there is a difference in ethical standards between the University's policy and those of the relevant professional body or research sponsor, Committees shall apply whichever is considered the highest standard of ethical practice.*

**4. Approval is granted for the duration of projects or for a maximum of three years in the case of programmes. Further approval is necessary for any extension of programmes.*

8	<p>If you are staff, are there any other researchers involved in your project? Please list who they are, their roles on the project and if/how they are associated with the University. Please include their email addresses. (<i>Please indicate School of each named individual, including collaborators external to the Faculty/University</i>): No others are involved.</p>
	<p>If you are a student, who are your other supervisors? I am staff and PhD Student. My supervisors are Sue Waite and Ulrike Hohmann</p> <p>Have you discussed all ethical aspects of your research with your Director of Studies prior to submitting this application? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
9	<p>Type of application: Initial application <input checked="" type="checkbox"/> Resubmission with amendments <input type="checkbox"/> Version Number: Amendment to approved application * <input type="checkbox"/> Renewal <input type="checkbox"/></p> <p><i>* For full details of the amendments procedure, please see the guidance notes</i></p>
10	<p>Summary of aims, objectives and methods (max 250 words)</p> <p>Although there is a growing body of research into children’s geographies and play experiences, little is still known of why children gravitate to certain localities outdoors and what these places mean/offer to them (Hart 1979; Sobel 2002; UNCRC 2013). This research aims to study children’s spatial engagement and affective place-based experiences during outdoor play in places of children’s choosing outside of adult supervision. The research will take place on a minimum of two social housing estates with a sample of children aged under 10 years of age, playing in social groups. The aim is to explore children’s experiences of affective place (Bachelard 1994) and ‘lived spaces’ (Lefebvre 1991) from different perspectives including the ethological and socio-cultural. This research is qualitative and interpretive. The Deleuzian (1994) concept of ‘Assemblages’ offers the opportunity to gather children’s experiences of place based play that can then be ‘turned in the light’ through a process of crystallisation analysis (Richardson, 1994) to make meaning to themes. After an initial outsider observation by the researcher to identify group locational play; children will be invited to be participants in the research process capturing, revealing and exploring their ‘lived spaces’ through a range of creative methods which may include:</p> <ul style="list-style-type: none"> - Audio recording children’s conversations and tracking where children play - Photographs and narrative discussion - Walking explorations with the children? - Illustration and discussion “what did you do today”? - Collage “what do these things mean to you”? <p>Data will be analysed according to emerging themes not decided in advance.</p>
11.	<p>When do you need/expect to begin the research methods for which ethical approval is sought?</p> <p>July 2016</p>

How long will this research take and/or for how long are you applying for this ethical approval?

The intention is that this research takes place over the summer holiday period July and August 2016.

I should like to request 3 years from approval in case of need for further field research and completion of the thesis.

12	<p>What will be the outcomes of this project?</p> <p>PhD thesis on children, play and place. Academic articles to share findings and extend knowledge.</p>		
13	<p>Is the project subject to an external funding bid? <input type="checkbox"/> Yes (<i>please complete questions 14- 18</i>) <input checked="" type="checkbox"/> No (<i>please go to Part B</i>)</p>		
14	<p>Bid amount:</p>		
15	<p>Bid status: Submission deadline: <input type="checkbox"/> Not yet submitted <input type="checkbox"/> Submitted, decision pending <input type="checkbox"/> Bid granted</p>		
16	<p>University Project Finance Team costing approved with Dean's signature? Yes: <input type="checkbox"/>. No: <input type="checkbox"/> (Please contact the University Project Finance Team as soon as possible)</p>		
17	<p>Has the funding bid undergone peer review? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>		
18	Partners & Institutions:		
	Name (including title)	School:	Institute / Organisation:

Part B: ETHICAL REVIEW STATEMENT

The purpose of this statement is to clarify whether the proposed research requires ethical clearance through an Ethics Protocol. Please read the relevant section of the guidance notes before you complete your statement.

Please indicate all the categories into which your proposed research fits:

	Data collection / analysis involved:	Action required:	
1	This study does not involve data collection from or about human participants.	➤ <i>Complete this Ethical Review Statement and add a brief (one page) description of your research and intended data collection methods. Part C not required.</i>	<input type="checkbox"/>
2	This study involves the analysis or synthesis of data obtained from/about human subjects where such data are in the public domain (i.e. available in public archives and/or previously published)	➤ <i>Complete this Ethical Review Statement and add a brief (one page) description of your research, the nature of the data and intended data collection methods. Part C not required.</i>	<input type="checkbox"/>
3	This study involves the analysis of data obtained from/about human participants where the data has been previously collected but is not in the public domain	➤ <i>Complete this Ethical Review Statement</i> ➤ <i>Please complete Part C – Ethical Protocol</i>	<input type="checkbox"/>
4	This study draws upon data already collected under a previous ethical review but involves utilising the data in ways not cleared with the research participants	➤ <i>Complete this Ethical Review Statement</i> ➤ <i>Please complete Part C – Ethical Protocol</i> ➤ <i>Submit copy of original ethics protocol and additional consent materials (if relevant) attached.</i>	<input type="checkbox"/>
5	This study involves new data collection from/about human participants	➤ <i>Complete this Ethical Review Statement</i> ➤ <i>Please complete Part C – Ethical Protocol</i> ➤ <i>Submit copies of all information for participants AND consent forms in style and format appropriate to the participants together with your research instruments.</i>	<input checked="" type="checkbox"/>

Part C: ETHICS PROTOCOL


Please indicate how you will ensure that this research conforms to Plymouth University’s Research Ethics Policy - *The Integrity of Research involving Human Participants*. Please complete each section with a statement that addresses each of the ethical principles set out below. Please note that you should provide the degree of detail suggested. Each section will expand to accommodate this information.

Please refer to Guidance Notes when completing this section.

1	<p>Informed consent <i>Please attach copies of all draft information / documents, consent forms, questionnaires, interview schedules, etc. intended for the participants, and list below. When it is not possible to submit research instruments (e.g. use of action research methods) the instruments should be listed together with the reason for the non-submission. Please also indicate the attachments in Question A7.</i></p>
	<ol style="list-style-type: none"> 1. As this research involves young children in unsupervised spaces close to home it is important to engage with the community of parents and carers. It is envisaged that this will be initially accomplished through community ‘gatekeepers’ and a subsequent ‘information event’ with fun activities and information display on the nature of the research proposed to take place in their community. An ethics protocol statement outlining this approach is attached as A1. And A1a. 2. Written consent will be sought from parents/carers. Explanation of the research and clear consent request are attached A2 3. Children will be given a range of ways to offer consent including verbal, visual and written methods. It is widely acknowledged now that the way that research is conducted enables children to give or withdraw consent merely through participation (or not) throughout the research period. Children will not be coerced to participate in the research. Any activities will be available to all (research committed participant and those who merely wish to play alongside their peers) but only data will be collected from those agreeing to it. A3 for sample children’s consent documents. I may arrange these as postcards so that children are more inclined to keep the contact details. 4. The activities are broadly outlined in the information sheets. The nature of specific questions will emerge as the research progresses. A sample range of questions is offered at A4.
2	<p>Openness and honesty <i>It is generally accepted that research with human participants would not involve deception. However if this is not the case, deception is permissible only where it can be shown that all three of the following conditions have been met in full.</i></p> <ol style="list-style-type: none"> 1. <i>Deception is completely unavoidable if the purpose of the research is to be achieved.</i> 2. <i>The research objective has strong scientific merit.</i> 3. <i>Any potential harm arising from the proposed deception can be effectively neutralised or reversed by the proposed debriefing procedures.</i> <p><i>If deception is involved, applicants are required to provide a detailed justification and to supply the names of two independent assessors whom the Committee can approach for advice. Please attach relevant documentation and list below.</i></p>

	The research will not involve deception.
3	<p>Right to withdraw <i>Please provide a clear statement regarding what information has been provided to participants regarding their right to withdraw from the research.</i></p>
	See Documents A2 and A3 above. Participants will have the right to withdraw from research activity at any point. Data already achieved may be used after withdrawal in its anonymised state
4	<p>Protection from Harm <i>Indicate here any vulnerability that may be present because of the:</i></p> <ul style="list-style-type: none"> ○ <i>participants e.g. children or vulnerable adults.</i>

	<p>○ <i>nature of the research process.</i> <i>If you tick any box below, please indicate in "further information" how you will ensure protection from harm.</i></p> <p><i>Does this research involve:</i></p> <table border="1" data-bbox="263 356 1161 748"> <tr> <td><i>Children</i></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><i>Vulnerable adults</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td><i>Sensitive topics</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td><i>Permission of a gatekeeper in place of consent from individuals</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td><i>Subjects being academically assessed by the researcher</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td><i>Research that is conducted without full and informed consent</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td><i>Research that could induce psychological stress and anxiety</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td><i>Intrusive intervention (eg, vigorous physical exercise)</i></td> <td><input type="checkbox"/></td> </tr> </table>	<i>Children</i>	<input checked="" type="checkbox"/>	<i>Vulnerable adults</i>	<input type="checkbox"/>	<i>Sensitive topics</i>	<input type="checkbox"/>	<i>Permission of a gatekeeper in place of consent from individuals</i>	<input type="checkbox"/>	<i>Subjects being academically assessed by the researcher</i>	<input type="checkbox"/>	<i>Research that is conducted without full and informed consent</i>	<input type="checkbox"/>	<i>Research that could induce psychological stress and anxiety</i>	<input type="checkbox"/>	<i>Intrusive intervention (eg, vigorous physical exercise)</i>	<input type="checkbox"/>
<i>Children</i>	<input checked="" type="checkbox"/>																
<i>Vulnerable adults</i>	<input type="checkbox"/>																
<i>Sensitive topics</i>	<input type="checkbox"/>																
<i>Permission of a gatekeeper in place of consent from individuals</i>	<input type="checkbox"/>																
<i>Subjects being academically assessed by the researcher</i>	<input type="checkbox"/>																
<i>Research that is conducted without full and informed consent</i>	<input type="checkbox"/>																
<i>Research that could induce psychological stress and anxiety</i>	<input type="checkbox"/>																
<i>Intrusive intervention (eg, vigorous physical exercise)</i>	<input type="checkbox"/>																
	<p>Further information: The research will be conducted with children as participants, from a value base of advocacy for their rights. The researcher recognises that in their play children may choose a range of places that push adult understandings and safety boundaries. The researcher is trained in Junior Youth Work, and Play Work and understands the tension between children's needs and adult perspectives. Situations will be risk assessed throughout the process and appropriate evading action/dialogue and discussion/reporting will be taken as appropriate.</p> <p><i>Do ALL researchers in contact with children and vulnerable adults have current DBS clearance?</i> Yes: <input checked="" type="checkbox"/>. No: <input type="checkbox"/> N/A: <input type="checkbox"/></p> <p><i>If Yes, Please give disclosure number(s)</i></p> <table border="1" data-bbox="210 1173 1287 1323"> <thead> <tr> <th><i>Name</i></th> <th><i>Number</i></th> </tr> </thead> <tbody> <tr> <td><i>Mandy Andrews</i></td> <td><i>001431495050 (14/01/2014)</i></td> </tr> </tbody> </table> <p>If No, please explain:</p>	<i>Name</i>	<i>Number</i>	<i>Mandy Andrews</i>	<i>001431495050 (14/01/2014)</i>												
<i>Name</i>	<i>Number</i>																
<i>Mandy Andrews</i>	<i>001431495050 (14/01/2014)</i>																
5	<p>External Clearance <i>I undertake to obtain written permission from the Head of any external institutions (school, social service, prison, etc) in which research will be conducted. (please check box)</i></p> <p><input type="checkbox"/></p>																
6	<p>Participant/Subject Involvement <i>Has this group of participants/subjects already been the subject of research in the current academic year?</i></p> <p style="text-align: right;">Y</p> <p>es <input type="checkbox"/> No <input checked="" type="checkbox"/></p>																
7	<p>Payment <i>Please provide details of any payments, either financial or in kind, made to participants for participation, compensation for time given, etc.</i></p>																
	<p>No payment or in-kind enhancement will be made to participants for participation. However, a play event may be offered at the beginning of the process as a way of engaging parents/carers and children in the process of full information sharing to ensure</p>																

	understanding, and early stages of consent.			
8	Debriefing <i>When? By whom? How? Please provide a clear statement regarding what information will be provided to participants regarding debriefing.</i>			
	The findings of the research will be discussed with the children as participants and their views will be considered. Parents/carers will be offered a brief summary of the findings.			
9	Dissemination of Research <i>Please provide a clear statement regarding what information has been provided to</i>			
	<i>participants regarding dissemination of this research.</i>			
	The information sheets clearly indicate the nature of the research as PhD thesis with accompanying journal articles. See Documents A2 and A3 However, I am concerned that participants may consider that this is insufficient for the research to be useful and so may disseminate findings in a more public way (perhaps a newspaper article) as acknowledgement of their contribution.			
10	Confidentiality <i>Please provide a clear statement regarding what information has been provided to participants regarding confidentiality issues.</i>			
	See Documents A2 and A3			
11	Ethical principles of professional bodies <i>Where relevant professional bodies have published their own guidelines and principles, these must be followed and the current University principles interpreted and extended as necessary in this context. Please state which (if any) professional bodies' guidelines are being utilised.</i>			
	BERA guidelines have been applied.			
12	Declarations: For all applicants, your signature below indicates that, to the best of your knowledge and belief, this research conforms to the ethical principles laid down by Plymouth University and by the professional body specified in C.11 above. For supervisors of PGR students: As Director of Studies, your signature confirms that you believe this project is methodologically sound and conforms to university ethical procedures.			
		Name(s)	Signature (electronic is acceptable)	Date
	Applicant	Mandy Andrews		04/04/2016
	Other staff investigators:			

	Director of Studies (if applicant is a postgraduate research student):	Ulrike Hohmann		Shared and agreed 05/04/2016
--	--	----------------	--	---------------------------------

Appendix 1: Ethics Protocol together with Information for community and their parents/carers.

A1.: Outline of the consent process/Protocol.

Stage 1: Engagement with the community of parents/carers

It is widely recognised that in order to gain children's consent and involvement in research, one has to go via adult gatekeepers who are able to limit researchers' access to the children (Punch, 2002). As this study is about play on local housing estates there are two layers of 'gatekeeper'.

Exploratory approaches have already been made to community organisations operating in two housing estates that bridge urban/rural opportunities for outdoor play (street and park play and open countryside) and in which it is known children play outside of continuous adult supervision. The social gatekeepers have indicated an openness to, and interest in, research into children's free play on their estates.

Community leaders have advised that a good way to reach parents is to engage with parent groups/offer engagement activities for children at which parents are encouraged to be present and information can be readily available about the research project. It is therefore envisaged that I will offer fun activities as a community engagement method. This is a tried and tested approach that has been used before to engage the communities with such as Children's Centre development, neighbourhood renewal and other community based projects in this area. Such an approach offers no bribe nor intention to seek further business opportunity and engagement beyond the research project in this approach. The fun activities (perhaps face painting, crafts, or the bouncy castle) are merely there to attract children and parents to a focal point to offer information to the adults and children as potential participants. It also offers opportunity for potential participants and their gatekeepers to talk to each other and develop questions, thus equalising any potential researcher power relationship.

Stage 2: Consent

Simple information and consent forms for parents/carers will be available alongside the research tools and materials. The researcher will be present and available to answer questions and queries and work to build the relationship of trust. There will be a box to return signed forms on the day, but also in awareness that people may need time to reflect and consider the research request opportunities will be sought for easy return via community facilities (such as the Children's Centre) and e-mail.

Issues that may be raised by parents/carers are likely to be ones of my credibility and appropriateness as a researcher; safeguarding concerns; fear that children may be playing in unsafe areas, and whether I will report such things to parents/carers, or to other agencies; issues of older children looking after younger children in the absence of an adult. There are many moral areas to be grappled with here and the trust of the parents /carers (and children) is important to balance with the safety of the children so that we can maintain a dialogue in relation to any issues that arise. Else (2009) argues that children's free play is at

danger of being 'adulterated' by adult engagement and concern for safety; it is therefore important if I wish to really see what places children play in and why they are important to them, that adult intervention is kept to a minimum.

Stage 3: Consent from children.

I have chosen to seek consent from children after consent from parents/carers so that children's decisions to participate are not hampered by concern for their parent/carer's views and permissions. Where parents/carers have not given consent children will have explained to them that they will not be 'researchers' but can still take part in the creative play activities. (Their movements and activities will be generally ignored by the researcher). The research aims, methods and tools will be clearly explained to children using visual aids (drawings and demonstrations and photographs at the information event). Children will be asked to give their consent to participation on an audio recording (spoken voice being clearer than writing for young children), it is also hoped that parents will give consent to photographic records of the children as an indication of consent by the children (thus enabling me as the researcher to have prompts about the children that may be engaged in the research activity – and by elimination, those that may not).

Stage 4: Outsider observation of play.

The purpose of this stage is not to observe what specifically and particularly children do, but to gain a general overview of where children play on the estate, at what times etc. so that I can capture some unadulterated context, and also identify a good starting point (place and time) for children's engagement with the research process. Although this could be considered as covert, as children will not be reminded at this point that I am there, it is important to gain a 'sense' of what is going on and where. My initial stimulation for this research came from merely seeing children at play from a high vantage point, and then walking past and gaining understanding of street, park and hedgerow play as a result of overhearing children's play activities. It is recognised that we cannot ethnographically study children as we cannot re-enter childhood so an ethological observation post-consent may be the closest we can come to unadulterated play. As soon as the researcher engages children in the play the activity is likely to change.

Stage 5: Engagement of the children as researcher participants. This qualitative research is based on the concept of 'assemblages' (

- a) Drawing on research by Waite, Rogers and Evans (2013) one method will be the use of voice recorders and 'trackers' on participant children to 'capture' discussions about place and meaning in relation to play, and the places children gravitate to. The activity will be clearly explained to the children verbally prior to release of the recorders and trackers to them - and this explanation and consent to participate in the research will be recorded in case of need to audit the research approach. The recorders and trackers will be in red 'backpacks' worn on the front so that all who see these children are reminded of the research tools and can choose not to be recorded by moving away. One of the difficulties of research with young children is recognising their competencies, however, there is much research that indicates that children even as young as 3 years of age can understand explanations of equipment and consequences. This research

therefore adopts a standpoint of recognising children's competencies, what they can understand rather than what they cannot do. The researcher also recognises that the recorders may capture conversations that are inappropriate. If this happens the nature of the issue will be considered and dealt with at the time. If children are heard bullying others that will be addressed directly with the children, if there is concern at a level of abuse that requires further engagement the researcher is trained in child protection and will take appropriate steps. Key principles will be advocacy for the child and their right to play: a stance of open honesty with the parents/carers; and reporting on if necessary for safety, in that order.

- b) Drawing on research by Punch (2002) A second methodology that may be used is of photographs with narrative discussion. Children will be shown how to use cameras and encouraged to photograph play places and areas relevant to them in their close to home location. Ethical issues may be loss of cameras with data, but the data should be images all in the public domain anyway. The participants will be given information on the importance of the cameras and of returning them intact. Once the photographs are downloaded discussions will be held with children about the images they have taken. There will not be a 'schedule' for semi structured discussion but general questions will identify the location and why the place is important, what do children do there?
- c) Walking explorations with the children will help to offer physicality and embodiment of the experiences. Children will lead the researcher to their play places and be encouraged to explain what play occurs there. Ethical dilemmas may occur if children take the researcher to areas considered unsafe for children to play in (such as derelict houses, mine workings and building sites for example). As the intention is to truly record where children play then it is important that this occurs. However, it is also important that children's life is maintained. In such danger the researcher will firstly discuss with the children their safety concerns, and request that they inform the parents/carers of where they have been playing and that they now know it is dangerous. Again, the researcher's position is one of respect for children's competence and acknowledgement of the need for a level of risk in the

development of life skills. Another ethical dilemma of this walking exploration approach may be the researcher being on their own with children and the lack of witness colleague in case of accident, accusation or other issue. Depending on the location and nature of the activity (whether overlooked etc.) the researcher may choose to take a colleague or other adult with a clear DBS with them on the walking explorations. This may further 'adulterate' the play (Else 2009) and it may be preferable for there to be consistency in the person accompanying the researcher to reduce the impact of 'another stranger'.

- d) Use of illustration and discussion. Children drawing their experiences and discussing them as they draw is another useful tool for participative research with children. Again the activity will be clearly explained to children who will be asked to draw places on the estate and countryside nearby where they like to play. A recorder on the table captures children's stories and narrations as they do their drawings. Punch (2002) highlights ethical dilemmas of such participative research techniques as adult expectations influencing the drawing and the nature of what is drawn; children's perceptions of ability limiting what they draw; and issues of overloading children with techniques perceived by adults as 'fun and participatory'. A judgement will be made about what activity is appropriate to use and to leave out if children appear to be overwhelmed by the research methods. Children may draw things that are unexpected, and the recorded narrative and discussion will be used to make sense of these drawings (a recent case in the newspapers, for example, highlighted the case of a child who drew someone with a knife cutting a cucumber which was misinterpreted as a kettle bomb by teachers trained to identify children being radicalised). The drawings will be discussed with children and again if there are any issues of concern these will be first raised with children, then parents/carers before any further action is taken.

- e) Collage. Deleuze and Guattari (1994) were influenced by the Dada Artist Kurt Schwitters in developing their ideas of 'assemblages' and it is appropriate for this research to offer the opportunity of the use of 'found objects' to explore place based meanings in relation to play and play locations. Children will be encouraged to bring back things with meaning and to generate collage from these. Again discussion of the found objects and the meaning of their placement in the collage is expected to offer understandings of place. Ethical issues would be those already outlined.

Ethics References

Deleuze, G. and. Guattari , F. (1994) - *What is Philosophy*. Translated by Hugh Tomlinson and Graham Burchell New York: Columbia University Press (e-book).

Punch, S. (2002) 'Research with Children: the same or different from research

with adults'. *Childhood*, Vol. 9 (3). pp 321-341.

Waite, S., Rogers, S., and Evans, J. (2013) 'Freedom, flow and fairness: exploring how children develop socially at school through outdoor play. *Journal of Adventure Education and Outdoor Learning*, 13 (3). pp 255-276. DOI: 10.1080/14729679.2013.798590

A1a Example Community Information and agreement to support the research in principle

EXPLORE WITH PLYMOUTH UNIVERSITY

[insert date]

Dear [Community representative/Gatekeeper]

Landscapes of Play: Researching Children's Experiences of Place When Engaged in Play in their Close to Home Locality

Over the school summer holiday period (July-August 2016) I should like to engage in research with children in *[this community]* to identify where young children (aged under 10) go when they are allowed to engage in unsupervised play close to home and to explore with them what meanings are attached to these places. It is hoped that this research may offer insight into children's worlds and perhaps to the design of future places for young children's play. I here seek both your support for the research and the opportunity to engage with parents/carers and children in this community, to inform them of the intended research aims and seek their support and consent. *[insert details/negotiate details of information event here]*

a) The Research:

We now recognise that children often engage in unsupervised play in mixed age groups close to home as there is a growing body of research into children's geographies and play experiences. However, although adults often reminisce about their adult free play experiences, little is still known of why children are attracted to certain localities outdoors and what these places mean or offer to them emotionally (Hart 1979; Sobel 2002; UNCRC 2013).

After an initial outsider observation to identify where children are playing out of doors in groups; children will be invited to work with the researcher to 'capture' and share through photographs, recordings, tracking motion and creative activities their use of, and the importance of, places chosen for play. Research methods used may include:

- Audio recording children's conversations and tracking where children play (Mapping play)
- Photographs and narrative discussion (visualising their play and revealing play places)
- Walking explorations with the children? (physically exploring the special play places)
- Illustration and discussion "what did you do today"? (Exploring how the children play without adults)
- Creative Collage using found items from the play places "what do these things mean to you"?

Plymouth Institute of Education
Nancy Astor Building, room 212
Plymouth University
Drake Circus
Devon PL4 8AA United Kingdom

Mandy Andrews
Lecturer in Early Childhood Studies
T +44 (0) 01752 585462
E mandy.andrews@plymouth.ac.uk

b) Ethical Considerations

I, as the researcher, have a clear and current DBS (police check), and have experience of working with children. The research adheres to the BERA guidelines with a core ethical purpose to 'do no harm'. I will work as a matter of principle from a position of respect for parents/carers views and as an advocate for children's rights, including the right to play. It is not expected that there will be any issues arising as a result of this research, but should an indication of bullying or abuse arise I will draw on current health and safety and/or safeguarding guidance to deal with it appropriately.

c) Anonymity and Identity

The intention at the outset of this research is to anonymise the data to protect the children's identity. However, as some of the activities are creative, and may be very positive in what they reveal we may find that it offers greater respect to children to allow them to reveal their names on their work. I will be led by them in this respect and negotiate with parents/carers.

d) Sharing Findings.

This research is a PhD project and will result in an unpublished academic thesis. It is also intended that findings will be published in some academic journals with the intention to explore and discuss the nature of children's play activities and the importance of their play places. An overview of the findings will be shared with the children and their community once it is completed.

e) Storage of data:

This research is bounded by the University's Research Ethics Policy. That policy states that data should be securely held for a minimum of ten years after the completion of the research project. Electronic data will only be stored on password protected computers or laptops and individual files and/or discs must be encrypted. Hard copies of data will be stored in locked filing cabinets and disposed of securely when no longer required"

f) Informed consent.

Parents and carers will be asked for written/verbal recorded consent to the research on their children's play activities. Children will also be asked to give consent in a range of ways and it will be made clear that they can withdraw from the research project at any time. However, data already collected at the point of withdrawal may still be used in anonymised form as it is often difficult to extract specific information once it has been amalgamated.

I hope that you are able to support this research. Please feel free to contact me if you have any questions or concerns on 01752 585462 or at mandy.andrews@plymouth.ac.uk.

Yours faithfully,

Lecturer in Early Childhood Studies

Plymouth Institute of Education
Nancy Astor Building, room 212
Plymouth University
Drake Circus
Devon PL4 8AA United Kingdom

Mandy Andrews
Lecturer in Early Childhood Studies
T +44 (0) 01752 585462
E mandy.andrews@plymouth.ac.uk



[insert date]

Dear Parent/Carer

Landscapes of Play: Research into Children's Experiences of Place When Playing Close to Home .

Although adults often have strong memories of their early play experiences and places, little is still known of why children are attracted to certain places outdoors and what these places mean or offer to them emotionally.

Over the school summer holiday period (July-August 2016) I should like to do some research in [*this community*] looking at where young children (aged under 10) go when they are allowed to play without adult supervision close to their home. I should like to explore with children what places they think are important and why.

The research will involve the following activities:

- Initial fun activities planned to enable me to meet groups of children and explain the research, asking children if they want to take part, and to gain their consent. (Children will be asked if they want to be mini researchers – to show me where they play and what is important to them).
- Some children will have microphones and tracking devices for periods of time whilst they play, so that they can 'map' where they go and what they talked about.
- Children will be asked to get involved with creative activities: taking photographs, drawing pictures and creating collages. These will show which play places are important, and what they offer children socially and emotionally.

How am I qualified to do this research? Although I will be wandering around the estate or doing creative activities with your children, I should like to reassure you that I am a trainer of Early Years Teachers, and a former play officer, used to working regularly with young children. I have also been a community worker, a youth worker and Children's Centre leader. I am happy to talk to you about any aspect of the research. I am 'police checked' (have a clean DBS) for work with children. It is not expected that there will be any issues arising as a result of this research, but should things like bullying or abuse issues arise I will keep you informed and draw on current health and safety and/or safeguarding guidance to deal with things appropriately and professionally.

Plymouth Institute of Education
Nancy Astor Building, room 212
Plymouth University
Drake Circus
Devon PL4 8AA United Kingdom

Mandy Andrews
Lecturer in Early Childhood Studies
T +44 (0) 01752 585462
E mandy.andrews@plymouth.ac.uk

Confidentiality

The research 'data' will be generally anonymised to protect the children's identity. Photographs of children will be taken to ensure clear identity of those who give consent. All photographs will be kept securely and not publicly released unless further consent is given. As some of the activities are creative, it may show greater respect to children to allow them to reveal their ownership of the work. I will be led by them in this respect and then also renegotiate with you as parents/carers at any point of sharing.

Storage of data

This research is bounded by the University's Research Ethics Policy. That policy states that "data should be securely held for a minimum of ten years after the completion of the research project. Electronic data will only be stored on password protected computers or laptops and individual files and/or discs must be encrypted. Hard copies of any data will be stored in locked filing cabinets and disposed of securely when no longer required".

Sharing Findings.

This research is a PhD project and will result in an unpublished academic document or 'thesis'. It is also intended that findings will be published in some academic journals and magazines so that they have some impact. An overview of the findings will be shared with the children and you, their parents/carers once the research is completed.

Understanding and Consent

It is important that you understand the research and that I am asking for your consent or agreement so that I may approach your child/children and ask them too if they want to take part in my play research this summer (July-August 2016). My contact details are below and I am happy to answer any queries, or talk about their play experiences and your concerns. If you are happy that you do understand the research and would like to give your consent please complete the form below and return it to me via *[insert location of collection point here]* or e-mail it to me at mandy.andrews@plymouth.ac.uk.

I hope that you are able to support this research. Please feel free to contact me if you have any questions or concerns on 01752 585462

Yours faithfully

*Mandy Andrews
Lecturer and PhD student.*

[please retain a copy of this letter so that you have my contact details]



Plymouth Institute of Education
Nancy Astor Building, room 212
Plymouth University
Drake Circus
Devon PL4 8AA United Kingdom

Mandy Andrews
Lecturer in Early Childhood Studies
T +44 (0) 01752 585462
E mandy.andrews@plymouth.ac.uk

Parent/Carer Consent Form.

I [insert full name].....

Of [insert address]

Give consent that you may approach my children

[insert children's names and ages]

.....

.....

To take part in the research into 'Landscapes of play' and that, if they agree, they may participate in the research.

I understand that they can withdraw at any point

I would or would not like to receive a brief overview of the findings.

I also understand that you will ask them if you can take a photograph of them as a memory prompt for your records and I am in agreement with or I am not in agreement with this action.

Signed

Mobile number*

e-mail address**:

* Your Mobile Number is being requested as this is usually the preferred means of contact for parents in case of emergency or other incident when you need to be informed.

**Your e-mail address is requested as an easy method of communication so that you can receive project updates and the final summary.

Plymouth Institute of Education
Nancy Astor Building, room 212
Plymouth University
Drake Circus
Devon PL4 8AA United Kingdom

Mandy Andrews
Lecturer in Early Childhood Studies
T +44 (0) 01752 585462
E mandy.andrews@plymouth.ac.uk



Mandy Andrews

**EXPLORE
WITH
PLYMOUTH
UNIVERSITY**

Researching Your Play Close to Home – Information for Children

Hello. Adults don't know enough about children's play so, over the school summer holiday period (July–August 2016), I should like to do some research about where you go when you are allowed to play outside close to your home. I want to know what places are important to children, and why. This is so I can write a big report, and perhaps share some of this knowledge about play with other people so that they can think about what children want in future.

There will be some fun activities to help you to look at play places in different ways, including making pictures, taking photographs of your favourite places, and recording children playing. The activities will be carefully explained to you when they happen.

Your parents have agreed that I can approach you to ask if you want to become a researcher helper. Would you like to share your play with me, and perhaps record what other children have to say? If so then please let me know by ticking the 'Yes' box below. I will keep photos and other research information very safe so that other people cannot look at it.

You do not have to take part if you don't want to, and can stop helping me at any time. This will not stop you from doing the fun activities if you want to join in, but will mean that I will not keep asking you about your play.

If you agree to be a part of the research I should like to take your photo so that I can remember who you are. My photo is at the top of this information sheet. I hope that you would like to help me with my research.

Mandy Andrews

Plymouth Institute of Education
Nancy Astor Building, room 212
Plymouth University
Drake Circus
Devon PL4 8AA United Kingdom

Mandy Andrews
Lecturer in Early Childhood Studies
T +44 (0) 01752 585462
E mandy.andrews@plymouth.ac.uk

Researching Play Children’s Consent Form.

Your name

Date

Yes I agree to be part of this research

I understand I may drop out of the research at any time

OR

NO I don’t agree to be part of this research and don’t want to talk about where I play

Space for a drawing if you cannot write but want to show you agree to be a research helper.

[Parents please complete the information above and tick here to show you have explained to your child/children the nature of this research and that they agree to be part of it, knowing they can withdraw at any point]

Plymouth Institute of Education
Nancy Astor Building, room 212
Plymouth University
Drake Circus
Devon PL4 8AA United Kingdom

Mandy Andrews
Lecturer in Early Childhood Studies
T +44 (0) 01752 585462
E mandy.andrews@plymouth.ac.uk

A4: Types of Question That Will Be Asked of Children During Activities

1. Where do you like to play when you are playing out with your friends?
2. Where are your favourite places for play around here?
3. What is it about this place that is so good?
4. What sorts of games do you play here?
5. Who do you play with in this place?
6. How important is it that there are things to climb and balance on?
7. Is it important that there are plants and trees around here?
8. What are your favourite games outside? Where do you play those games?
9. If you were to close your eyes and think of your favourite play place can you describe it to me?
10. Is it important that there are things to move around and to build with or balance on?
11. Can you talk to me about what you are drawing/creating there?