3

INVISIBLE OTHERS

Land, Animals, Machines and Things

This chapter works with future mutabilities to discuss the ways in which the more-than-human world plays an important role in invisible education. This will begin by exploring everyday engagement in landscapes amongst marginalised young people. It will then discuss how animals play their part in invisible education, for young people, very old people living with dementia and postverbal people. The normalised centrality of machines to invisible education will be explored across the studies. The chapter will consider the importance of the thing to invisible education, and explore this with reference to research with women and children using music to transition from domestic abuse. Drawing on research with older people living in care homes, the chapter will consider the significance of the 'immaterial thing', such as the song. The notion of the thing will also be extended to 'uncanny things' and those who are able to tap into them, such as people living with dementia. Finally, it will draw on research with activists involved in Occupy to discuss how symbolic things play their part in everyday action and learning.

Introduction

Invisible education is a constitutive element of the world, and so this chapter will explore the multiple relations in which it is entangled.

> *Come to me*, said the world. I was standing
> In my wool coat at a kind of bright portal—
> *(Louise Gluck, 2006, from 'October')*

The writer Dorthe Nors, travelling along the North Sea coast in Denmark, commands the spirit in which to take this journey into the world:

> Let the day turn, let the car sail. Feel your freedom, if you have it. Raise yourself above the unsolved riddles and sink into your seat …. If you have a voice, sing now. You are alone. Sing! Let the darkness recede, the space atomize. You are with all the wildfowl that stand still. You're in Thy now so sail in it.
>
> *(2022, p. 170)*

At one with machines, voices, space, atoms, animals, future mutabilities explore relations across the human and the more than human. This terrain is where postqualitative researchers and critical posthumanists have made important moves. However, as Todd (2016) and TallBear (2017) argue in doing so they have mostly neglected indigenous forms of knowledge:

> we should remember that not everyone needs to summon a new analytical framework or needs to renew a commitment to 'the vitality of [so-called] things.' Indigenous standpoints that never constructed hierarchies in quite the same way can and should be at the forefront of this new ethnographic and theoretical work.
>
> *(TallBear, 2017, p. 193)*

'Indigenous peoples consider identity to be the product of a co-constitution of human and nonhuman communities' (TallBear, 2017, p. 185). Moreover, this identity is not amorphous but situated in ways that are familiar to critical posthumanists:

> their emergence as particular cultural and language groups in social and cultural relation with nonhumans of all kinds—land formations, nonhuman animals, plants, and the elements in very particular places.
>
> *(TallBear, 2017, p. 186)*

The climate crisis and the pandemic have forced everyone to engage with the relationality of human and more than human, not just academic theorists, as the interdependence of multiple forms of matter plays out in deadly ways. As Todd (2016) argues it is indigenous activists who have led the global debate but:

> it is easier for Euro-Western people to tangle with a symbolic polar bear on a Greenpeace website or in a tweet than it is to acknowledge arctic Indigenous peoples and their knowledge systems and legal–political realities.
>
> *(2016, p. 6)*

One of the key points in studying the relationality of human and more than human is that the sense of Nature as a separate realm of transcendent experiences, but also of dirt to be avoided, is an artificial construct and one that helps prop up humanist ideas about human exceptionalism. Nature/culture is one of the key binaries set up by humanism and is profoundly gendered, so much so that in 1983 feminist artist Barbara Kruger sent out the message on behalf of women: 'We Won't Play Nature to Your Culture'. Greater awareness of non-binary and transgender lives complicates this message still further now. Although the term 'natures' still has utility in describing globally diverse phenomena such as fields, rivers, trees, 'Nature' as a construct is not helpful. Thinkers such as Haraway stress kinship between species not difference, and research which locates humans as part of a multi-species continuum is making important strides, for example in the field of dementia studies (see Jenkins et al., 2021). Artists revel in this connected community. For example, in 'We Live Here' performance artists Ann McKay and James King celebrate multi-species vitality, numerating and channelling all the creatures living in, below, above and around Derry, Northern Ireland.

It is interesting to place the concept of future mutabilities beside the term sustainability. Mutation is hardly desirable when it comes to a virus, but pretending things will not change is not an option. Sustainability, on the other hand, seems to suggest how can we keep going, how can we preserve what we have? Sustainability is a feel-good buzz word which cloaks the drama of the climate crisis. Institutions including universities vie for the title of most 'green' without radically changing their ethos or values. They engage in what Alaimo (2016) calls 'sustainable this, sustainable that', without challenging the ontological primacy of the human. Paradoxically, the most disposable item in the sustainable university is the human; liable to be made redundant at any point. The competitive field of education, martialled by ranking systems that are ever more arcane, consumes human energy much faster than it cuts electricity consumption.

Everyday learning in nature

The world writes stories and lessons. 'Again and again I held the negative up to the light, reading the white thin scrawl of this row of trees in England … this winter script' (Kinsky, 2020, p. 267). Different sets of relations and different ways of understanding them need to develop. The posthuman new materialist field provides many rich and powerful tools for this rethinking and, given the admonishments outlined earlier, is now working to:

> credit Indigenous thinkers for their millennia of engagement with sentient environments, with cosmologies that enmesh people into complex relationships between themselves and all relations, and with climates and atmospheres as important points of organization.
>
> *(Todd, 2016, p. 7)*

Bennett (2010), for example, explores how all forms of matter share the same vibrant force which means that everything has meaning and must be respected and considered. Alaimo (2010) sees the world in terms of transcorporeality, so that, for example, the human body and the sea are not distinct entities but share, mingle and exchange life. Springay (2022) develops new understandings of human/material encounters through her walks with stones. Tuck (2019) senses her ancestors as living beings when standing on the cliffs of her homeland so that past, present and future collapse. Manning (2023) works with theories of blackness to explore what forest clearings in Canada have expressed and erased. Learning to think in this way seems to emerge from daily and informal engagement with nature: Bennett and Springay's walks, Alamo's swims, Tuck's wanderings and Manning's labours. It is a process of immersion. There have long been records such as the journals of Dorothy Wordsworth (2008) that show such daily immersion in nature and the lessons learnt. These journals in turn have provided inspiration for creative writing in urban grassroots groups in Liverpool as they commune with Dorothy Wordsworth:

> Wild-eyed walker
> student of botany,
> and poverty;
> collector of moss,
> planter of peas…
> > *(Shirley Jones,*
> > *2015, from*
> > *'Writer, Sister,*
> > *Friend…')*

Feminists have learned to value Dorothy's everyday encounters and to challenge the assumption that they are inferior to her brother William's search for the romantic sublime. However, it is also instructive to reflect that Dorothy was deprived of the formal educational opportunities experienced by her brother and felt the loss keenly. She, like Alice James, the sister of Henry James, took to her bed in passive resistance to these exclusionary norms of femininity. It is vital that invisible education is recognised, without suggesting that it supersedes access to formal education altogether. Otherwise, we will find invisible education declared enough for some, but not for others, thus perpetuating a hierarchy that it should break.

Invisible education with the land

> The fact that trees have been giving us the Ol' Silent Treatment for two million years, but maybe there's more going on in them than we thought … the fact that trees do go into a dormant state at night, the fact that if trees sleep. Perchance they dream, and I wonder what their dreams are about.
> > *(Lucy Ellmann, 2019, Ducks, Newburyport, p. 715)*

Despite all the important work of posthuman thinkers, in educational contexts there is still a tendency to perpetuate views of Nature as a discrete category. Outdoor education exists as a distinct field which stresses the utility of nature for wellbeing and respite, or as a tool for cognitive tasks, and which focuses on formal or semi-organised activities. Leisure and adventure activities outdoors are being employed as pedagogical sites, for example providing sailing for people with special needs, but again this is organised and structured. Invisible everyday education in a more-than-human sphere is rarely explored. This chapter will explore invisible education in nature amongst those widely considered to be 'uneducated'. It will specifically draw on three studies involving marginalised young people in southwest England, their engagement with invisible education, how this acts as counter-memory for these young people and how these studies reveal future mutabilities as both potentially open and materially boundaried. In Barad's (2007) terms, discursively constituted young people are not negotiating with a socially and culturally constructed representation of nature; neither is an eternal nature suffering the imprints of the fixed bodies of humans. Rather the intra-activity of young people and water, trees and birds produces new phenomena: new worlds and new bodies.

The first of these projects (Quinn, Lawy and Diment, 2008), funded by the European Social Fund, was a study of young people in low-waged, low-status jobs. The project was conducted in collaboration with the career advisory service Connexions. One hundred and fourteen young people were interviewed once, and then 68 interviewed again over the space of 1 year by Connexions staff trained by the research team: 27 interviews were conducted in person by the project researcher, with some young people interviewed twice over a year, plus a focus group with young people. All the participants were white and mostly, but not all, from working-class families. All the young people chose their own pseudonyms which will be used here. Although there were concerns that the young people might be inhibited in engagement with the Connexions staff, in practice they were just as critical of their experience of schooling as they were with the project researcher. The significance of their engagement with nature was not anticipated but proved to be an important aspect of the project and led to posthuman thinking and writing (see Quinn, 2013a, 2013b). The second project (Merchant, Waite and Quinn, 2013; Quinn, 2018), funded by Exmoor National Park, built on the first by exploring how young people living in an area with the official status 'of outstanding natural beauty' engaged with nature in their everyday lives, using a series of focus groups and visual activities. Again, all participants were white. The third of these research studies (Quinn, 2018; Waite, Waite, Quinn, Blandon, and Goodenough, 2016), funded by the Campaign for National Parks, focused on those young people who were deemed not to be engaging on national parks and so were specifically targeted for activities as part of a national project entitled *Mosaic*. The research involved national surveys and focus groups, but here the chapter will use local research with a small number of young people who were BAME, refugees or

unemployed. They took part in a workshop on using photographs in research, took photos of their activities in the park and made commentaries on them followed by interviews. This was substantially different from the first two studies, as it focused on formalised activities, rather than exploring everyday engagement with nature, yet responses to learning in nature were similar across the three studies.

There were a group of young people in the second research study who belonged to the 'Young Farmer's' organisation, a conservative social group who saw their livelihood and family as inextricably linked to the land. Apart from this group, the young people in our studies were unlikely 'nature-lovers' and yet intra-activity with woods, seas and animals sometimes played a vital role in their lives. It was striking, for example, how often the young people in low-waged jobs, who had all done badly in formal education, found opportunities for skill, freedom and autonomy outside. The young people in this study were those considered by themselves and others as the 'thick bunch'. Mostly from working-class families, they were those who did not see any potential for social mobility, who had frustrated their teachers by rejecting formal learning and gaining their satisfactions elsewhere. For Jane, school was a smothering and restricting experience which she bodily rebelled against. She wanted to be outside:

> I don't know they (school) kept on and on and harping at me. I didn't want to be at school. I wanted to be at home at the farm outside.

Outdoors was a zone of freedom from formal education but also of expertise where she had many skills that her teachers would not know about. It showed that there were other possibilities beyond being an obedient schoolgirl. One was to be a beater: scaring birds into flight in advance of a shooting party. Whatever one might think about this activity, there was pride in doing it as a job usually reserved for men. In fact, flouting the judgement of the urban and liberal may give Jane an added sense of power. In comparing herself with someone from the city who had to be taught how to beat, Jane seems to emphasise that for her as a rural young woman such skills were everyday and accessible from a young age:

> There can't be many other female beaters?
> No, there's not. There's a girl that comes down from London, someone's girlfriend, and I thought: 'Oh my God is that her going to beat?'
> So, she knew what to do?
> Not really no. But she learned …
> How old were you when you first went beating?
> Fourteen, I suppose … but it's different, isn't it?
>
> *(Jane, face-to-face interview)*

There are multiple femininities which are in turn classed and raced. Which ones have legitimacy depends on context but only some will reap material rewards or

social respectability. What can Jane do with being a strong rural young woman whose labour is mostly at the services of a class denoted as middle or upper? Where will it get her in terms of formal progression in society? Nevertheless, this invisible education influences and affects her perception of what is possible and gives her bodily satisfaction and pleasure in her own efficacy. These things are not nothing, indeed they mean more to her than GCSEs would. Invisible education fosters a different set of values.

In discussing this research in various contexts, it was interesting to note that people working in schools often found it difficult to acknowledge such engagement with nature existed at all. One head teacher roundly declared that none of the children in his school spent time in nature, otherwise he would know about it. Others pointed out to him that the secret and private nature of this invisible education was precisely the point. These engagements were often fragmentary, snatched between more regimented times and slipping below the radar. I think of my own daughters too, diverging through woods and fields with friends on the way home from school, taking moments out. Only recently have I realised how significant these detours were in the well-mapped day. One of the insights of posthuman writing has been a reworking of linear time so that value and validity of experience is not tied to length or logical sequence. This is a point I will circle back to when discussing people living with dementia.

The young people in these studies were enmeshed in mutabilities and movement when they were in nature, whilst at the same time stuck in states of entropy in the job market or schooling system. Sometimes the contrast was a learning experience. For Stevi, it highlighted the barriers faced when you are young and unemployed and produced a clear-eyed picture of how society was functioning. His words seem even more prophetic 7 years on:

> It's freedom, isn't it? You're on a lake. You're surrounded by people, everywhere you go, like from school, from like, like when you're young, from when you're a young child to, even now it's the same thing where you've got people dictating what you do, where you go, how you act, what you say, but like on that lake … Like, it felt like, it felt like there would be no-one to tell you off for standing up on the boat.
>
> I'd like to go into the middle of Exmoor, I'd like to just go somewhere. But you try convincing your mates to go … they've no way of getting there, no money or any time, because they're working three jobs, so … And it's going to get fewer and fewer because more people are going to have to work more jobs and more hours to get less.
>
> *(Stevi, interview)*

Stevi constructs nature as a space of freedom and openness, but the freedom he feels is partly determinant on his whiteness. As Ayamba (2022) argues in 'We walked England before the English' the historical presence of black people in the

English countryside, for example as occupying soldiers in the Roman army in the first century:

> … remains a neglected and unwritten history …, rural Britain is often popularly perceived as a 'white landscape', predominantly inhabited by white people. The supposed purity of rural areas juxtaposed with the urban is aligned with racial degeneration and segregation, resulting in a contested sense of ownership and belonging.
>
> *(2022, p. 40)*

In line with this contestation of ownership, the colonial history of the countryside has become a lightning rod for culture wars in the UK. An important report commissioned by the National Trust (see Fowler, 2020) exploring and exposing the colonial histories of its country estate properties became the target of press abuse and resistance from some trust volunteers and members. Who belongs and who has rights is a perpetual source of conflict, even, and especially, in spaces seen as pure and unspoilt. Although nature was not white, young black people in the third study knew that nature was:

> I think it depends, I mean, some people can judge you, obviously being a person of colour, on Exmoor it's a little bit strange, um [pause] and some people, I think once you get talking to someone then they're, then they're sort of, they're not as closed, um, but I think that people, honestly, are thinking 'erm, what are you doing here?', sort of, which isn't very nice, but I kind of just like look past that and just realise that 'I have as much right to be here, just as you do' really.
>
> *(Hephzi, interview)*

Thinkers working with posthumanism are trying to disentangle and retangle the colonial histories of land and learn how to see it differently. In *Out of the Clear*, Erin Manning (2023) seeks to recover what has been erased by colonial clearing in Canada. Higgins and Madden (2020, p. 294) stress that working with indigenous ways of knowing can help educators recognise 'the ways in which land is alive, agentic, and relating through a plurality of "voices"'. Thinking with the more than human and through the medium of the photograph, young people in the third study such as Stevi (Figure 2) brought the invisible histories of place into view, but a history that was imagined as much as real and always moving on:

> So, it was more kind of like a look back on history, it was a weird thing. Like, like you could imagine because there was a radar station there as well, so you could imagine the people there, looking out, in their binoculars, looking out for crafts going out across the sea, or aircraft, or whatever and then looking back now and, same place, still remnants of history, but it's moved on

FIGURE 2 Stevi's photograph.

A secondary meaning is like, we're stood here, we're chopping trees, out there is a vastness of like, everything … But that there [referring to photo] is kind of like, space to me kind of, like there's really like, how insignificant although we kind of perceive how these trees will help the eco-system—But how will the eco-system survive if we keep on polluting and then we have global warming and other things, set of an ice-age, you know all those kind of things, or a massive tidal wave. How insignificant this is to the bigger picture?

Stevi thinks both backwards and forwards and out into space. A sense of future mutabilities infuses his intra-activity with place. Having already unpicked the social mobility narrative from the perspective of working-class precarity, he understands land as unstable and part of an ever-changing cosmos. Land gave young people opportunities for freedom and escape, skills generation and expertise; but this did not mean that the new learning worlds they inhabited produced an unthinking sense of wellbeing. Land was paradoxical, entwined with the social and discursive and materially produced by inequalities and dangers. It made them think about the world they lived in, as well as giving them pleasure, and both were part of their invisible education.

Invisible education with more-than-human animals

Think of a honeybee, for instance, flying into the folds of a poppy: it sees a gaping violet mouth, where we see an orange flower and assume that it's orange, that we're normal.

(*Maggie Nelson, 2009, Bluets*, p. 15)

It is well known that during the pandemic many people turned to animals: acquiring dogs as pets, watching animals on daily walks or on social media, seeking comfort, play and status. Dogs were ubiquitous:

> I kept joking about my standing in front of a luxury salon that specialized in grooming pure-bred dogs … 'The city's fucking doomed' I repeated. 'We're suffocating it with rich puppies'.
>
> *(Veasna So, 2021, Afterparties*, p. 203)

The pandemic also heightened awareness of the mutuality of human and animals where the killing and eating of wild species was posited as a cause of Covid-19. Cutting and Passy's (2022) collection is important in considering the pedagogical role of animals, bringing animals into education as a deliberative act. However, in the context of this book the focus is rather on animals in everyday life and how they are an important aspect of invisible education. Animals have always provoked philosophical questions such as 'do dogs have habitus?' once posed to me by a student. Thinking with animals potentially disturbs humanist epistemological hierarchies:

> The animacy hierarchy … refers to the greater and lesser aliveness attributed to some humans over others, and to humans over nonhumans. Indigenous standpoints confound the Western animacy hierarchy.
>
> *(TallBear, p. 180)*

Posthumanism also challenges a hierarchical view of the world where humans are placed at the top and everything else exists to be at human disposal. Animals interest posthuman thinkers profoundly, Haraway (2016, p. 1), for example, exhorts us to understand and treat animals as our kin: 'the task is to make kin in lines of inventive connection as a practice of learning to live and die with each other in a thick present'. Transdisciplinary networks such as the multi-species dementia network make this a vital field of intellectual enquiry. In terms of doing educational research, Pederson (2010, p. 3) asks 'what happens to education and learning when the human subject is decentred and nonhuman animals are allowed to emerge as subjects, rather than objects, tropes or species representatives?'. Following on from this, what part do animals play in invisible education?

> What does it mean to learn *with* and *from* rather than *about* nonhuman animals. What kind of learning experience do they set in motion? 'Learning' in this context may be perceived as essentially a convergence of energies.
>
> *(Pederson, 2010, p. 7)*

For Barad the energies would not just converge but create new worlds. So how can we understand these new learning worlds that the intra-activity of human and non-human animal produce? In terms of affect, Ringrose and Renold (2016,

p. 225) argue: 'Affect is a way of thinking about how subjective experience leaks between one person and another … and it is also more than human'. This leaking can thus also happen between human and animal and the question here is what learning is emerging from it?

The studies with young people give some opportunity to explore how animals and humans are woven together; although it is important to stress that animals are always present in the lives and constitution of humans, even if not visible. For young people in low-waged jobs, animals were sometimes key in the everyday learning activities assisting in the acquisition of skills:

> I've got two dogs now. One is a spaniel, and well I was completely barmy, I got this sheep dog.
> A collie?
> Yeah, it's got a long coat actually and she's eating absolutely everything
> Will you keep her as a working dog?
> Yes, she's quite good actually. I am trying to train her and she's not too bad. I've seen her (another farmer's) dogs, and ours is nearly as good as most of hers. At least she comes to us, that's the main thing, isn't it? That's what you want. Most of hers just clear off.
>
> *(Jane, interview)*

If we diffract this through the eye of the sheepdog, there is a sense of the power of the animal, the irresistibility of the collie which compels Jane to get her, its vitality and hunger but also its submission and obedience. Jane responds, is drawn into the zone of the dog and its affect, but is apart enough, enmeshed enough in the social world, to use the dog as a marker of pride and distinction. Reading with critical posthumanism we cannot diffract into an idealised pre-social view of animal/human. Humanism has created a world where animals are made use of and the ways in which this happens must be understood as well as resisted.

Mariam Motamedi-Fraser (forthcoming) argues that dogs are treated differently than other animals, they have become positioned as close to human and are given the characteristics of an ideal human. This seems an acute observation but also culturally specific; having observed the packs of street dogs in Sarajevo for example, which are certainly not given this status. For John, who felt uncomfortable with people and pushed to the margins by his family's poverty, his dog was more kin than any human, his companion in escape to the woods. The animal was both his choice of companion, and not his choice, as human structures, his family poverty, his positioning by others as semi-criminal, had precluded any successful human interactions for him:

> No, I can't work inside really because I think I can't get on with it … I hate it. I can't do it. I kept myself to myself … I had to walk away from trouble because I've got a shotgun license and I don't want to lose it.

Do you fancy going off to Manchester or Birmingham?
No, I wouldn't fancy that … too big … It would be too big a place for me. I wouldn't enjoy it because I feel I would want to be able to get out.
Because you still like the countryside?
Yes, I like doing that all the time … Dogs, doing the shooting side, and all.

(John, interview)

The intra-activity of John/animals/wood created a precious new learning world for him, an everyday sphere of mastery and comfort, his retreat.

Young people living in the 'area of natural beauty' in the second study had insider knowledge of animals generated through their everyday life. This was knowledge of the animal and of the place of the animal in the world around them 'on your doorstep':

Joe: And what you see as well, like I saw an adder in the summer, and see deer at least 2 or 3 times a month. It's just, that wildlife is just brilliant, you know, you don't know, wherever I've been it's just there, on your doorstep, just keep seeing it. Oh, and lizards.

Laura: I think, living here, when I did my Countryside Management degree, I did get frustrated with some people on my course who were very much about loving all the cute and fluffy animals, and it's just like, it's not like that in life.

Laura: It's about knowing

(Focus group)

Meaningful knowledge came from everyday 'life' not from formal education. They see animals randomly and it always gives a jolt of pleasure. Animals are 'in life' not on a screen or a page. It is about 'seeing' but also 'knowing' how they are. Animals are not just an amorphous cuddly mass, there are distinctions and histories that shape the interdependence of animals/humans.

Learning about animals came from everyday invisible education, and similarly the lessons animals taught about human life were ongoing. In her work on learning affect, Stewart (2007, p. 40) talks about 'expressions of ideas or problems performed as a kind of involuntary and powerful learning and participation'. For these young people these were everyday problems like: where should the animals be, how should wild animals and livestock be protected, when is it right to kill? This was how their invisible education with and through animals progressed:

Joe: You understand that an animal can be good or bad and not just 'Oh there's a little rabbit!'

Andy: I don't mind the ponies up there, the ponies are fine, they're part of the landscape, they've been here for millennia. Cows, no. Keep them in the fields.

Tom: But there's also preservation of the healthy animals. Nobody wants to see all the badgers wiped—of course you want to see badgers, you want to see the healthy ones and then you will have healthy livestock and healthy cattle herds, but it's really, really heart-breaking for a farmer to lose, to cull from his herd, just for the sake of some infected badgers.

(Focus group)

Animals teach difficult lessons about food and death which put the young people into a different space from those who live lives only aware of humans. They are faced with ethical questions which people living in environments considered to be human preserves prefer to avoid. All humans have intimate connections with animals, many of them invisible. For these young people the invisible always comes into sight, taught by animals themselves:

Tina: We know where milk comes from! Like, a lot of people wouldn't know how to turn a sheep up.
Lucy: Yes, whereas other people just take it for granted 'cause they don't understand, they just buy it from the supermarket.
Joe: I think, coming from here you sort of think, it's not so, you know, black and white, you can't save every little creature in the world, it's a bit more—I don't know—it's just not so clear-cut …
Laura: Like hitting a bird on the road, they're going 'oh, let's pet it better' it's like, no, let's wring its neck and get on with it.

(Focus group)

Animals also figured in the *Beyond Words* study (Quinn, Blandon and Batson, 2017) funded by Arts Council England. This study was a mixed-method longitudinal study of 16 months of music making with 25 people who had dementia, acquired brain injury, autism or learning difficulties or were the survivors of strokes. The unifying factor was that they were all deemed to be 'non-verbal'. The research explored their experience of music sessions run by community music organisation Plymouth Music Zone (PMZ) that were held in residential care homes, centres for learning difficulties and PMZ base. The research methods included daily ethnographic observations of the music sessions experienced by the core participants and 44 in-depth interviews with family members and care workers. Four focus groups were organised with music leaders and volunteers. Finally, 30 arts workshops were held with participants so that they might actively engage in the study and express their responses to music through postverbal means. The study was explicitly designed as posthuman and developed approaches such as a posthuman observation framework with a series of prompts. All involved in the study have been given pseudonyms.

   In Quinn and Blandon (2017, 2020), we focused specifically on people living with dementia who had participated in the research. We argued that they were not

beyond learning (as is often assumed) and considered the diverse ways in which they were learning every day. People living with dementia had entered in a new form of relationality with the world. Peter observed of his wife Stella:

> She is living in a different world to that which she was, therefore, it is all new to her so therefore what I think are her likes and dislikes no longer apply. I have learned an awful lot because of those sorts of things.

Previously Stella had feared and hated all forms of rodents, now when 'the guinea pig lady' brought the animals to the home Stella enjoyed letting them crawl all over her. She had entered in a form of kinship and learned to see them differently, this was a learning experience for Peter too.

> So, you know you look at people that have got dementia and you think you know: 'they're gone'. But you know we don't know, not even the best experts don't know exactly what they do know, what they can understand … no one can be in their head can they?

In thinking and talking about people living with dementia and what they know the figure of the octopus came into view (see https://adventuresinposthum. wordpress.com/, Quinn and Blandon, 2021), probably inspired by its emergence in posthuman texts as well as more popular books and programmes. The octopus is mysterious, but we now know more about them and have a renewed respect: we know that they cultivate gardens and sometimes they will take a diver by the hand and lead them there. By following the lead of the people living with dementia, we not only learn about them but gain new perspectives on the more-than-human world around us.

Other participants in the *Beyond Words* study also led us to the more-than-human animal. One of the people with learning difficulties, Tim, was 40 years old, could speak very few words and mainly communicated through signs:

> I mean I suppose we are used to him being like this and that is how he is. You know I sometimes, I sometimes wonder if he could talk what would he tell us?
> He is more keen on the dog really than anyone. He loves animals and he loves dogs most of all.
> JQ: Does he talk to the dog?
> He does, he does, but what he is saying I don't know we don't know, but he does he gets down and puts his head against the dog's head and he is you know murmuring something to the dog, but I have no idea what it is, but he does.
> *(Barbara, Tim's mother, interview)*

This intimate mind-melding of Tim and dog speaks to the potency of human/animal intra-action and reveals the channel for communication that humans could

not provide Tim, however much they wanted to. In our study we decided that the term non-verbal was pejorative, implying a lack and deficit. Instead, we coined the term 'postverbal' to try to express that communication was happening in different ways. It seems that sometimes animals were a conduit for this alternative communication. The invisible education happening for Tim here was perhaps understanding the commonality of human animal and non-human animal, in ways that exceed the capacities of most speakers. The refrain of not knowing and the impossibility of knowing, but also the acceptance of the mystery, runs through *Beyond Words*. It seems like an important part of invisible education to accept uncertainty: the epistemology of the ineffable mentioned in Chapter 1.

Invisible education with machines

Since Haraway's Cyborg Manifesto (1991), it is common to understand the posthuman as a machinic assemblage. The everyday body has become part metal, part plastic, part digital, in the form of implants and as extensions. Everyday invisible education incorporates the machine in multiple ways. In fact, machines are so closely woven into the world that they no longer register. For a long time, I believed that my research had not touched on technology at all, had avoided it perhaps, when in fact it was there all the time. Some things can be so visible they become invisible.

In the *Beyond Words* study the vibrant power of machines to make things happen ran through the observations. The touch of a finger on a tablet brought life, like God's finger touching Adam in the Sistine chapel. Although Robert was in the late painful stages of dementia, when he touched a tablet and made music his expression said, 'How wonderful' and transported everyone else in the room. The intra-activity of finger and machine also created the following new learning world for Tim:

> He held the tablet on his lap and turned it gently round. He got his hand close with a long finger, like daring to touch something hot … It was wonderful to observe the tension in his body, in his hands, how much he wanted his fingers to touch the screen. It was powerful to see his leap too. He just … went for it and he could not go back afterwards, he continued touching the screen and exploring the sounds it made.
>
> *(Tim, music sessions fieldnotes)*

As previously discussed, Tim did not speak to humans. He preferred to stay in his room watching Dr Who, listening to music and sorting postcards, all done simultaneously: not that different from other male geeks and nerds perhaps. The research enabled a witnessing of his body–object relationality where the machine spoke much louder than a human voice. The machine made a sound, and this drew him back to it almost against his will.

There are numerous other examples of everyday intra-activity with machines that form the substance of invisible education. Young people who could not learn in school restored classic cars and replaced books with engines. Activists combined pavement protests with social media ones. Young people with autism found resources for music making on YouTube, older people in care homes connected to their past through songs on the radio but also displaying their vitality in the here and now in intra-action with machines: 'One lady was playing drums on IPAD and teaching others how to do it'. For participants in all the studies the machine was not separate but intrinsic to their world and to the invisible education of their daily lives.

Invisible education with things

> The experience of being hailed by 'inanimate' matter—by objects beautiful or odd, by a refrain, by a piece of cake or a buzz from your phone—is widespread. Everyone is in a complicated relationship with things.
>
> *(Bennett, 2020, p. 78)*

The enactment of relations with things may hold deep, hidden social and political meanings as Stepanova realises in her memories of *sekretiki*:

> Anyone who lived in 1970s Russia will recognize … the game of *sekretiki* or 'little secrets'—the passion of my childhood … the 'little secrets' were kept under the ground like treasure or dead bodies … to make a little secret you had to drop down and press yourself against the earth. Choose a place, dig a little hole, look around and check no one is watching, put in the precious object, cover it with a piece of scrubbed clean glass and then put the earth back over … it mow feels to me as if the little secrets filled with the 'outlandish'; a concentration of the burlesque, forbidden beauty, crystal beads, cut out paper roses, became political refuges, crossing both state and other boundaries.
>
> *(Stepanova, 2017, pp. 343–5)*

It is not that the thing represents something abstract, but that its materiality, its excess of sparkliness, feel and colour, constitutes a forbidden new world. Indigenous and posthuman thinkers have alerted us to the significance of things and the salience of relations with objects in our everyday life. According to Bennett (2010), all forms of matter share vitality and vibrate with it, they all have 'thing power'. There is nothing that does not speak or be affective. In her autofiction, Kinsky evokes objects as forms of communication, passing messages to us in our everyday movements. 'The uneven cobblestones seemed eager to imprint on the soles of my feet like tactile writing' (2020, p. 200). Affects are flows of influence not just between people but amongst human and more-than-human objects and these affects are learning affects.

Insights from memoir illuminate the ways in which objects are woven into everyday life and into our invisible education. Annie Ernaux's (2018) collective autobiography *The Years* tells a communal story of women's lives in France, about class, sexuality, marriage, motherhood, employment, politics, music and food. As such, it runs counter to an individualised humanist view of the self as bounded, autonomous, essentially different from all others and positioned above other forms of matter. Moments and objects comprise the fabric of this mosaic and generate powerful shared learning experiences of living through history. In *Having and Being Had*, Eula Bliss (2020) shows how she has learned about class, money, property, social stratification and inequality. This is not by formal education into grand narratives, but by situated acts like buying a washing machine or cutting a hedge. The lessons are primarily embodied not abstracted ones and objects play a key role. Dragging a duvet too heavy to wash at home around launderettes, getting it dirty on the ground, getting coins back from broken machines, provokes a lesson in time, money and precarity:

> I think of all the time I spent in my twenties not having money, Not having money is time-consuming. There are hours spent at laundromats, hours at bus stops, hours at free clinic, hours at thrift stores, hours on the phone with the bank or the credit card company … My adult life, I decide can be divided into two distinct parts—the time before I owned a washing machine and the time after.
>
> *(p. 42)*

The role of the thing within formal education is increasingly explored, and attention is paid to how spaces and objects determine the educational experience. For example, within her research on higher education, Taylor (2021) focuses on kitchens, and the play of objects within them, as helping to produce values, norms and belonging in the institution. In methodological terms, posthuman researchers such as Renold (2019) work with participants to create totemic things such as the 'ruler skirt' which convey messages far more effectively than words can: in this case experience of, and resistance to, sexual harassment in schools. What role do things play in invisible education? One obvious example is the hobbyist or collector who may have no degree but advanced knowledge of their specialist subject. The knowledge comes from immersion in and love of the thing it is not an abstraction. Our local historian in the small harbour village where I live, who collects maps, photos, tools, ropes and maritime relics and lives surrounded and enfolded by them embodies this thinginess. In all my research studies the potency of the thing spoke out.

Community-based arts projects still happen even though funding is so difficult to find to sustain them. Seen in the light of invisible education, they form a web of learning opportunities that exist beyond the educational establishment, and they are often working with the most marginalised of people. They are not

understood as education but much learning happens. They are a bridge to invisible education, to beyond the beyond of formal education, and simultaneously draw on the invisible education of their participants. In *Feeling their Way*, Quinn and Blandon (2014b), funded by Youth Music, conducted research with women and children using community music in transition from domestic abuse. Here, the thing vibrated and its affective role in such invisible education is clear. This research worked with women who had fled abusive partners and were living in a refuge. The refuge priorities those who are at high risk of extreme violence and its occupants have been referred by other agencies. Women may come from other cities and parts of the country to be safe. The refuge itself is seen as a space for transition. It is where families stay whilst they are waiting for other issues such as housing to be sorted out. The research explored the work of PMZ in bringing music sessions to them. It included 6 music sessions involving a total of 6 mothers and 10 children aged from under 1 to 9 years old and interviews with a small number of mothers and children, plus 4 refuge workers, the music leader and a professional filmmaker who had been hired by PMZ to produce a film about the project for fund-raising purposes. Most of the research participants were white but the refuge did often house black, and minority ethnic women and one was involved in the study:

> she told me how she felt as a foreigner in the refuge and in Plymouth. She explained that she felt judged or criticized by some residents in the shelter. She told me people treated her and spoke to her differently (some would speak loudly and more slowly to her) and that made her feel uncomfortable and angry.
>
> *(Observation fieldnotes)*

The women living in the refuge are often called 'pyjama mums' by the staff. Many spend their days dressed in nightclothes apparently doing very little and without the energy or will to engage. The reasons why they have difficulty participating in any activity and are apparently stuck in this moment of stasis are not difficult to understand. Research suggests that they will be experiencing the after-effects of a long process of attrition, where they have been worn down by constant criticism, control, violence and even the threat of death. Dynamics between the mother and children can be very dysfunctional with the child blaming the mother for their past experiences. Fear of judgement bedevils all their actions. Even within the refuge they are still subject to observation by multiple authorities such as social work and the police, which is why an activity such as music can provide release from regulation:

> When you've gone through a life where you're always in the wrong and always being told what you are doing is wrong, to be able to do something (the music sessions) and not have anybody dictating or putting you down and what you've done, that's nice, that's a nice feeling.
>
> *(Kate, resident, interview)*

Music may have been sadly lacking in the lives of women and children living in the refuge: in abusive homes they have been deprived of their right to hope and dream. The project worked with them in an effective way, tuning in to the atmosphere of loss and reworking it. It was subtle and every day, working indirectly to conjure up the possibility of a new world.

The families living in the refuge often had to run away from violence without planning ahead:

> Generally speaking, they've had to leave a lot behind and children and particular if you get a chance to talk to them will tell you about things they've had to leave behind that they're sad about.
>
> *(Refuge worker interview)*

For these reasons, PMZ not only organises music sessions, but produces tangible objects such as small musical instruments and a CD of the children's own songs. Our interviews suggested that these objects are valued and seen as precious. In this respect and many others, the project was highly sensitive to the needs of the families it seeks to help. One of the most expressive moments witnessed during observation was participants making their own beautiful musical instruments:

> The Music Leader (ML) started the session with making music instruments. ML had brought wooden spoons in different sizes that had two holes in their bowls. Afterwards, ML laid markers on the table for children to draw on the spoons as they pleased. With some supervision and help—when requested—children drew what they wanted and used as many colours as they wanted …
>
> After the children were satisfied with the colouring of their spoons, ML offered them shiny stickers to put on the spoons if they wanted to, ML had brought in several sheets and instructed children to use as many stickers as they wanted as long as they did not cover the holes in the spoon's bowl, because they need the holes accessible for the next step. Most children used stickers and with some help were able to follow the instructions. Suddenly, one of the children, a boy who had been very engaged in the activity, started singing 'Twinkle Twinkle Little Star' when he saw the sparkling stickers, the other children joined in …
>
> After the children finished with the stickers, ML gave them a piece of string, again asking children if they like a specific colour. ML instructed children to thread the string through the holes in the spoon. Next, children were instructed to choose different beads and insert them into the string along with some small bells at the end of the string. Once children were content with the number and colour of beads and bells, adults helped them secure them by knotting the ends of the strings. The same child who started singing before stared singing 'Jingle Bells'.
>
> *(Observation)*

In this observation the object provokes responses for the children; frees them up to sing. It creates waves which spread around the room. The careful attention of the music leader and her respectful way of allowing their choices also created a condition very different from the oppressive environments they were accustomed to. These were children who were subdued, used to being told what to do and effacing themselves. Singing and making musical noise were not freely available to them. The object provided a release. These delicate but powerful creative objects helped them to recapture how they felt during sessions and carry this through to their future lives. It was poetic that these were humble domestic objects, simple wooden spoons, that the children could transfigure themselves, suggesting a possibly new and open domesticity:

> She's made the little shakers so she's got five or six of them at home and we do (makes shaker noise) because we have a little bit of a samba dance in the lounge … we play with the saucepans, just messing around, things we would never have been allowed to do and it does give you a real buzz like we laugh so much when we're doing it …
>
> *(Lucy, resident, interview)*

The thing produces waves of affect. The lost object calls the child back, but the new spoon offers some hope that there is a creative way forward.

> Spoon of the empty belly,
> Spoon of the full one. Spoon of no-one
> Hungry. Spoon for everyone.
> *(from 'Spoon Ode', by Sharon*
> *Olds, 2016)*

One can easily imagine the argument that what these women need is skills training, what the children need is to be in school with their peers. They need to start to climb the ladder of social mobility. This neglects the trauma they have experienced and the sense of helplessness it has engendered, as well as the sytematisation of gender abuse that also exists in the formal educational sphere. To change the conditions of their life they must be able to imagine that they are worthy and capable of a better one. In making this change material resources, such as housing and employment, are fundamentally important but so too are less tangible resources for survival, accessed through everyday invisible education. Audre Lorde (1984, p. 37) uses the word 'poetry' to express the power and the necessity of all art forms, including music:

> Poetry is not a luxury. It is a vital necessity of our existence. It forms the quality of the light within which we predicate our hopes and dreams toward survival and change, first made into language, then into idea, then into more

tangible action. Poetry is the way we help give name to the nameless so it can be thought.

The tangible and the intangible are held in the hand through the power of the created talismanic, yet everyday, objects. Through the thing power of the spoon new learning worlds emerge.

The immaterial thing

> The book did not close on the story, and the story remained present in the room while I was reading the book and for many days after, as if it were loose in the room, had floated up from the pages, and hung there under the raftered ceiling—the woman's sullen illness, the thrashing of the wild palms and the prison where the man sits, the high wind, the wide river the man can see out the cell window, the frail cigarette that he can't roll tightly because his hands tremble so badly.
>
> *(Lydia Davies, 2015, The End of the Story, pp. 100–1)*

What constitutes a thing? There are many entities that cannot be touched but they can still be counted as things, not human, not animal, not matter, but they too have a power and play a role in invisible education. One such thing is the story; another is the song. Another research project co-conducted with PMZ was entitled *The Power of Songs* (Quinn and Blandon, 2014a). This used posthuman ideas to explore how older people living in care homes responded to taking part in singing groups, and to the making of 'keepsakes' in the form of recordings of their singing. We were interested to see what songs made happen for the older people in our study. This small study involved 10 participative observations and 19 in-depth interviews with participants, care workers and music leaders. Becoming absorbed in the world of the song began to have a pervasive effect on the co-researcher Claudia Blandon. It was not touchable, but it had palpable 'thing power':

> After attending and observing these sessions for over one month, I have noticed that days later after sessions, I suddenly remember a song and its melody; which I find surprising because I have never been musically trained nor have I ever considered myself good at singing. More extraordinarily, I started to dream about singing and composing songs.
>
> *(Reflective diary)*

What were 'a few of their favourite things'? As part of the project we noted from interviews and observations the songs that the older people loved and enjoyed. These were some of the examples:

• *Hello Dolly*. One resident in this home shared the story that her late husband used to call her dolly because of her petite frame, and they both enjoyed the

song. Every time this song was played the above-mentioned woman, moved her hands vigorously and rhythmically throughout the song. This song triggered many discussions in different sessions about stories attached to that name in relation to residents' family members and friends.

• *Obladi Oblada.* This song triggered many comments and was engaging. People who are usually quiet or unengaged like to sing it or make comments after the song finished. In one session, it triggered a conversation about *Dad's Army* and people reminisced about how much they enjoyed that television show. Even a lady with a stroke who cannot speak made an inaudible attempt to say something.

(Observation, fieldnotes)

Songs seem to offer participants a chance to celebrate their own survival, often against the odds, as in the interviews they described accidents that had happened when they were young or more recent troubles such as leg amputation. Looking at their favourite songs supports this idea of resilience. For example, *Ob-la-di Ob-la-da*, an up tempo, slightly risqué and probably racist Beatles song has the chorus 'la la la la life goes on', and *Hello Dolly* has the refrain 'you're still growing, you're still going strong'. This celebration of still being alive was powered by the song and the celebration could even continue past death. The woman whose favourite song was *Hello Dolly* died during the research, but the residents remembered her favourite song, requested it and sang it to bring them from their sombre mood, so they could talk about her, her life and what she liked. It was a link across domains, a thing that could be manipulated and used.

Some songs were almost too powerful to bear:

The song '*Always on my mind*' seems to move some residents as manifested by their active shaking of their tambourines, that otherwise, would be used very softly. Some residents seemed to stare differently for a couple of seconds, while that song is being played and sung.

(Participant observation)

Music is such an emotional thing that it's OK to realize that sometimes words will trigger something. The song '*Always on my Mind*', sometimes, I can't sing that because it overwhelms me, because I've seen other people break down at it or just suddenly remember, or I've actually seen someone shaking their tambourine quite strongly at the end of that song almost every time. 'Yeah', I thought 'I bet he's thinking of someone and he's saying hello to them at the end'.

(Music leader, interview)

In projects like this it is the arts workers and researchers who do most of the learning and they learn that everyday invisible education has been happening all along:

>These are all people with families and stories it makes you think about your own family … it humbled me a bit in my attitude to getting old and people wanting to keep their youth.
>
>*(Music leaders focus group)*

We very quickly realised that it was not a question of the music group bringing songs to older people, but rather that songs had always played a key role in their everyday learning lives. 'We've got a lot of history behind us in age and music'. Some of the residents interviewed had been active in music and performance throughout their life, for example one had sung with the British Legion, one had been classically trained and sang with the Salvation Army in the Albert Hall and Fairfield Hall, one had been a Go-Go dancer and one, who was blind, could still play the piano and keyboard very well. Their tastes were wide and ranged from country music, classical, pipe and drums, African choirs, barbershop and popular crooners. It is a mistake to assume that for those involved music is a new experience. Even those who saw themselves initially as non-singers without confidence in their voice had a rich heritage of love of music and knew songs unfamiliar to the music leaders. They also had things to teach the researchers such as the history of the barbershop quartet. Through their leisure activities and daily pleasures a rich seam of knowledge had developed.

A posthuman perspective alerts us to the bodily experience of knowing something like a song. The following interview shows how the song transports the person across time. It is a sensory celebration of a lost personal, cultural and historical moment, made immediately accessible through the song:

>Another good favourite of mine is *My Way* by Frank Sinatra—it just sort of hits you and when you hear it (gasp) you feel your insides jump and the back of your neck, the hairs on the back of your neck, do you know?
>Does it bring back specific memories that trigger that?
>Nothing specific. It was played an awful lot when I had a partner … he was in the Royal Navy and he was sent to Iran, he was on board the ship keeping watch from the sea, you know and we used to send each other tapes while we were apart and that was one of our favourite ones. You know you put it on in the evening and got candles around you, you've had a nice dinner, you sit down and perhaps have coffee and a little brandy, you put some mellow music on and that would always be one of them. So that reminds me of that period of time which was at the time lovely, but unfortunately for a number of reasons it had to fizzle out.
>
>*(Resident, interview)*

As Deleuze and Guattari (1987, p. 166) suggest, the song reconfigures time: 'even if the material only lasts for a few seconds it will give sensation the power to exist

and be preserved in itself in the eternity that exists for that short duration'. The immaterial thing is invisible but it 'exists for eternity' and although unseen is part of the complex web of invisible education. As suggested in Chapter 1, the singer can be an important companion in the learning journey through life.

The example of the song of course provokes reflection on the role of popular culture in invisible education. Songs, films, TV programmes, memes, music videos, podcasts, graffiti, sporting events, all shape understanding of the world, pervasively influencing ways of thinking. Tett and Hamilton (2021) have opened debates on lifelong learning and popular culture in productive ways, by arguing for the positive signs offered by online learning breaking spatial and temporal boundaries, movements like Black Lives Matter foregrounding new perspectives and histories, and new social justice partners such as footballers breaking down ossified notions of rank and expertise. Researchers such as Mendick, Allen and Harvey (2015) in their work on celebrity culture have shown the formative educational aspects of the popular sphere. Franklin-Phipps and Smithers (2021) show how resources such as films can provide ready access to the cultural richness of blackness, and be deployed in anti-racist pedagogy. The digital realm has radically changed consumption of such immaterial objects so that they are accessible constantly. YouTube or TikTok also provide endless resources for self-directed learning creating multiple communities of learners and teachers. Sadly, such invisible education is also the realm of what Mackenzie, Rose and Bhatt (2021) call 'dupery by design' where misinformation and miseducation is rampant and the media have become fragmented into outputs with narrow self-justifying viewpoints and concerns. This flow of information constantly available night and day becomes a saturating force which is very difficult to counter through the confines of the formal education system. Bad lessons are only too readily available. For example, right-wing podcasts disseminate post-truth, racist fictions to ever larger audiences or self-declared 'incels' spread misogynistic conspiracy theories against women (see Ging and Siapera, 2019). Invisible education is both a space of social justice and of dictatorial repression; but the same might be said of formal education too.

Uncanny things

When you lean over the edge of the rock and see something lovely and brilliant flashing at the bottom of the sea it is only the clear trembling water that dances–but–can you be quite sure?

No, not quite sure, and that little Chinese group on the writing table may or may not have shaken itself awake for just one hundredth of a second out of years of sleep.

> —in the white bookcases the books fly up and down in scales of colour, with pink and lilac notes recurring, until nothing remains but them, sounding over and over.
>
> *(Katherine Mansfield, 2017, Journal, pp. 78–9)*

Sometimes objects have an uncanny power, they are there but not there in a potentially disturbing way. There can be an uncanny dimension to everyday life and so to invisible education. The idea of invisible education overall implies something that is there but not there, something hard to grasp. As Bennett (2020, pp. 78–81) suggests in her work on hoarding, the object can have an uncanny power which exceeds any rational conception of its utility, and hoarders are attune to this wavelength. Leone Hampton's (2011) photographic memoir of her mother, Bron, *In the Shadow of Things*, evokes a beauty in the hoarder and her hoarding which is almost otherworldly, as well as familiar and every day. In her novel, *The Book of Form and Emptiness*, Ruth Ozeki explores the disturbance of things in the life of a grieving woman who is hoarding and her son who is receptive to the uncanny voices and affects of objects:

> Things speak all the time, but if your ears aren't attuned you have to learn to listen …
>   Sometimes it's more than one voice. Sometimes it's a whole chorus of voices rising from a single thing, especially if it's a Made thing with lots of different makers … Sometimes it's not so much a thought as a feeling. A nice warm feeling, like love for example. Sunny and warm. But when it's a sad feeling or an angry one that that's laced into your shoe, then you'd better watch out.
>
> *(2021, p. 4)*

The object is uncanny, but it may also lead us to a broader social understanding. Its affect is a learning affect, provoking questions and problems: where did the shoe come from, why does it create this sense of anxiety?

The participants living with dementia in the *Beyond Words* study were alert to the uncanny realm:

> Robert often extends his hands in front of him, as if he were trying to reach something, to pick up something. He always looks down trying to collect that 'thing', beyond his reach. I see that in other residents too.
>
> *(Observation fieldnotes)*

Thinking about the effects of music and the new worlds it creates suggests that it connects to that uncanny realm. As a music leader says in an interview: 'I think music haunts people, doesn't it'. Some posthuman researchers try to respond to the call of the uncanny thing: MacLure (2019) configures the feminist posthuman researcher as a witch and Renold's (2019) ruler skirt as a magical object. Indigenous

people pay close attention to what exists at the corner of the eye: without a boundary between what is real and not real, dead and alive. Eve Tuck (2019), for example, senses the spirit of her ancestors as she walks their cliffs. TallBear states 'as an indigenous person, I am comfortable enfolding spirits or souls into descriptions of the beingness of nonhumans' (p. 191). Consequently, she stresses the importance of 'being receptive to or seeking knowledge about the nonhuman world brought to us by spirits—relations that science may never see or measure' (p. 194). She specifically mentions dreams and rituals as structures indigenous peoples have to support this process, but it's clear these cannot be appropriated by other cultures:

> There is a very real risk to Indigenous thinking being used by non-Indigenous scholars who apply it to Actor Network Theory, cosmopolitics, ontological and posthumanist threads without contending with the embodied expressions of stories, laws, and songs as bound with Indigenous-Place Thought.
>
> *(Todd, 2016, p. 9)*

Harney and Moten (2013, p. 43) have no alternative strategies to propose, but conclude that 'the uncanny feeling we are left with is that something else is there in the undercommons', and this is multi-dimensional:

> The uncanny that one can sense in prophecy, the strangely known moment, the gathering content, of a cadence, and the uncanny that one can sense in co-operation, the secret once called solidarity.
>
> *(p. 42)*

My research suggests the everyday world has signals coming from multiple directions some unseen, so exploring invisible education must thus be cognizant of this dimension. 'There is no place that is not haunted by many different spirits hidden there in silence, spirits one can 'invoke' or not' (de Certeau, 1984, p. 108). People living with dementia are sometimes already in touch with the unseen and working with them can help to sensitise researchers to these uncanny things. Finding a way to value, explore and work with this is an important challenge.

Symbolic things

The making of objects, for example through crafts such as knitting, has surged in popularity and has been explored as a field of meaning making in the everyday (see Jones, 2022). Object making has also become a part of a posthuman methodology. An early example was the *Creating our Place: Young People in Plymouth* (Quinn, 2012). This brought together young people, academics, artists from theatre and visual arts, community organisations, and local authority and support services. Here the aim of the day was to explore what sort of city young people would like to envisage and live in. This was done through the making of objects and of an animated film

and these arts activities were what really animated the day and made it worthwhile. Posthuman researchers have paid attention to craft and textiles as important forms of matter that help form the fabric of our lives, following the work of Haraway, itself using indigenous methodologies. They use activities in research such as string figuring in order to materialise ideas (see Taylor and Hughes, 2016). The significance of textile and weaving in the lives of indigenous women, as legitimate forms of knowledge production, also inspires posthuman thinkers.

Material objects can exist as the embodiment of political ideas and engagement with them is also a part of invisible education, for example in activism. This is exemplified in my research project *The Significance and Survival of Tent City University*, funded by British Academy/Leverhulme, which was research with activists who had been involved in the Occupy movement in London. Inspired by the protests in Tahir Square, Egypt, Occupy Wall Street began in 2011, followed by other protest camps, including Occupy London. This was established by St Paul's Cathedral on the edge of the financial district and included the informal learning space Tent City University (Figure 3) and the associated building the Bank of Ideas. I conducted a series of in-depth interviews over 2 years with six men and two women who had been involved in Occupy London, plus a range of other research activities. In particular I was interested in their engagement with Tent City University and how this related to their learning lives. The research will be discussed in detail in the next chapter, but at this point I want to focus on Tent City University as a material object. The research highlighted how materials exist as a substance and as an idea: they are onto-epistemological.
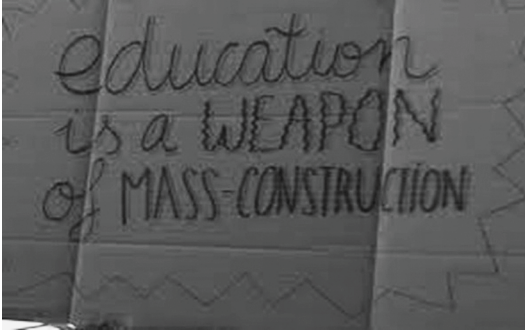

FIGURE 3   Tent City University.

FIGURE 4 Occupy placard.

The tent of Tent City University, emblazoned with words, had a great symbolic and material significance, existing as a different kind of space deliberately designated for a different kind of learning. Once taken down, according to one participant it was hidden in a secret lockup and few people knew where. As part of their activist activity people fashioned communicative objects. Scraps of waste material such as cardboard were freighted with meaning (Figure 4).

This is not new in the history of activism, for example at Greenham Common Women's peace camp (a 1980's protest led by women against the annexing of common land by US nuclear weapons), all available materials were used and living, protesting and crafting were intertwined in everyday life. The metaphor of the spider's web was important suggesting relationality and connectivity with the more-than-human world. Some of the women wove giant woollen webs and enmeshed themselves in the fence around the military base, making arrests more difficult. I was only a visitor holding hands around the perimeter fence but knew other women who lived for weeks at the camp in the polythene tunnels called benders. The recent exhibition *Radical Landscapes* held in Tate Liverpool showed how Greenham Common is part of a wide range of encounters with landscape which both enact and produce everyday radical art:

> At Greenham Common Women's Peace Camp creativity was at the centre of communication and action. Protesters used potent banners, posters, sculpture, performance, songs, poetry and zines to convey their message … They together with other examples of frontline art, have inhabited an ambiguous place in the history of art. As a greater plurality of voices and media is welcomed into the canon, the role and importance of this creativity is starting to find recognition.
>
> *(Dew, 2022, p. 78)*

In the language of my research participants creativity was a key element of their everyday living as Occupy activists. The modest and communal nature of this

creativity was very important: 'You felt you could do a small creative thing as part of something'. At the same time the activism brought together sense and thoughts: 'I could smell something in the air that was very exciting'.
Material or crafted objects were used as metaphors to summon up political ideas

> There was a piercing of the ideological canvas.
> JQ: What do you mean by that? Why do you use that particular image?
> If ideology is this sort of flattening canvas that limits what can and can't be done, what can and can't be said, it's also something that kind of shuts the lights out, if you like … If what's behind that ideological canvas is some kind of light then Occupy was a rupture … of the flatness and blandness … when the unsayable becomes sayable.
>
> *(Noel, interview)*

As Barad (2007) suggests in her theory of intra-activity the human and the material are constantly being remade everyday with every move. Tent City University and the benders of Greenham are simply more visible enactments of the new learning worlds happening all the time. In the following chapter I will explore the kinds of invisible knowledges such activities engender.

Conclusion

Invisible education emerges from intra-activity with the more-than-human world. Land, animals, machines and things of all kinds are integral to everyday learning and intra-activity with them constitutes new learning worlds. Recognising that this invisible education exists for those who have been failed by formal education, or positioned apart from it, repositions them as active learning subjects. This radically changes how education is understood and suggests new ways in which it can be explored. Whilst such invisible education does not float free from structures of inequality, it can provide valuable sources of resistance, pleasure and power. It can be more formative in shaping ongoing relations than any classroom.

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