Dirt Jumps are Matter Carefully Placed, Maintained, *and* Governed

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ABSTRACT

This article draws on research produced with DIY bike trail and dirt jump builders to unpack the forms of repair and care that they employ in maintaining their spaces. I begin by describing the mundane practices involved in keeping bike trails running, such as shoveling, watering, and compacting, and conceptualize these activities as repairing the 'ruins' of the often squatted spaces that they occupy. Second, I draw from literature in feminist science and technology studies (STS) and commons to argue for a thickening of care, finding that these spaces alert me to the ways that 'neglect', and exclusion from participation-in, and research-on, are often a requirement of their subsistence. In conclusion, I find that in these spaces forms of repair and maintenance are multiple and layered—from mundane practices to their forms of governance—and in recent years, have involved practices to 'repair' the pervasive and dominating *macho*, heteronormative cultures of these social worlds.

Keywords

DIY design

bike trail building

care

repair

commons

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INTRODUCTION: DIRT, NOT SOIL

Dirt is a term that arises frequently in the worlds of DIY trail builders: a short film I later analyze is called *Dirt Rules!*; a mountain bike publication has adopted *Dirt* as their namesake; another magazine, *Dig*, the practice of building in dirt; others focus on specific kinds of dirt such as *Clay Division* and *The Loam Wolf*. In these worlds, dirt is celebrated, sought out, and categorized (Cherrington & Black, 2020a). 'Good dirt' (such as clay) is used as a final finish on a trail, whereas 'bad dirt' (such as rocky spoil, landfill, or soil with organic matter) is used as fill, hidden under the top surface. Much like a gardener forms an intimate relationship with the ground in which they grow flowers or vegetables, trail builders have a highly attuned and embodied knowledge of the kinds of dirt that they work with, though seeking out very different properties. Without meaning to misrepresent Mary Douglas's (2002) classic and oft-cited quote, I contend that dirt in these worlds is matter very carefully placed, shaped, and packed into its final (often sculptural) form; closely attended to, maintained, and repaired with care; and highly governed in terms of who gains access to it.

In the last thirty or so years, a burgeoning scholarship has emerged to examine the social worlds of extreme sports, such as skateboarding, climbing, surfing, and BMXing (some of the earliest studies include Midol, 1993; Midol & Broyer, 1995), as well as the architectures, designs, and practices that surround them. For example, Ian Borden's work on skateboarding's relationship to architecture and the production of space (2001, 2019), and Holly Thorpe's work exploring snowboarding and product design (2012). However, I have found that there are two key differences here to the social worlds of bike trail builders. First, that often the equipment and landscapes described are relatively stable—skateboarding is most typically associated with concrete infrastructures (O'Connor et al., 2023) which, despite sharing a DIY ethos with trail building, do not require the same ongoing maintenance as structures built in dirt.[1] Second, scholarship in these areas rarely considers the ongoing and uneventful repair practices that enable them to continue, often focusing on the creative processes and consumption of objects (Wheaton, 2013) that enable these sports. For example, the mate-

[1] Jim Cherrington and Jack Black (2020b) have conceptualised this process undertaken by trail builders as 'battling' what they call the 'spectres of nature'—in their case by managing water that would damage the trails.

riality of polyurethane wheels is often credited as giving rise to skateboarding's practices, possibilities, and therefore its popularity.

In this article, I choose instead to focus on the often unseen communities and practices that care for, maintain, and repair DIY-designed bike trails and jumps (what I refer to by following vernacular language as 'spots') that are made of mud and dirt, and are typically designed, hand-built, shaped, and maintained by small communities on 'edgelands' (Shoard, 2000) using shovels and wheelbarrows, that are often squatted or appropriated without permission. These spots exist all over the world and are often connected by way of tight-knit social networks of (typically male) builders, maintained by traveling to visit one another, social media platforms, and printed and online magazines and zines. Though I branch out into a wider network of trail building, including some commercial operations, most of the spots I discuss in the article were originally built in secret, often on private land without prior permission from landowners, meaning they can be precarious, fragile, and are regularly evicted and the trails removed or bulldozed.

A Note on Method

It is a little difficult to set out a typical 'rigorous', or reproducible methodology for this research because I consider myself something of an 'insider', having moved in and out of different aspects of the research context for more than twenty years, since I started building bike trails in a small wood near to where I grew up in the late nineties. Of course, when I was 12 years old, I had not completed research methods training, nor developed a sense of sociological registers to help make sense of what I, or the people around me, were doing. I hesitate to describe my involvement at this point, but mention it here because it has provided me with a long-term and embodied understanding of the shifting and irregular nature of these practices and their multiple sites, allowing me to reflect on my involvement over the course of more than two decades. Clearly, then, this research was not 'designed' or set out in advance, but has been an ongoing, messy process of "following the actors" (Latour, 2005, p. 12) into multiple sites and interests.

Sociologist John Law has convincingly argued that standard methods are "badly adapted to the study of the ephemeral, the indefinite and the irregular" (Law, 2004, p. 4), and argues that social scientists should go beyond convention and assemble a variety of methodological practices that are configured towards the research at hand. Law argues that we may need to "rethink our ideas about clarity and rigor, and find ways of knowing the indistinct and the slippery without trying to grasp and hold them tight" (2004, p. 3). Enacting this approach to the research with George Marcus's notion of multi-sited ethnography, I have followed the "chains, paths, threads, conjunctions, or juxtapositions of

locations" (1998, p. 90) that are tied up with trail building's multiple practices, and in recent years have seen my involvement as not only participating, but as a researcher attuned to the relations that make up these worlds. In the intervening time between building the first set of trails in the woods, I have become engaged in design research and science and technology studies (STS), and have come to understand my approach as a method assemblage (Law, 2004) from where to deal with the messiness of my entanglement with these settings. I have combined participation alongside observation, methods such as semi-structured interviews and walk-alongs, photo and video methods, as well as following networks into their online and digital worlds.

This paper also builds on some previous work, where I have studied what I called the emergent forms of participation (Healy & Krogh, 2022) in these sites, in order to draw out what participatory designers, architects, and urban planners, might learn from punk, DIY approach to participation and non-participation. I have also written on the maintenance and care of mountain bike trails for a sociology of sport and leisure studies audience (Healy, in press), which I build on here to bring the ideas discussed into a design research context. Methodologically, I see this ongoing relation as a kind of care practice that centers and takes seriously what these communities of practice do for different audiences, as well as what different scholarly attention and analysis might contribute to these worlds: a point that I will revisit in my concluding remarks.

In utilizing these methods, I have been inspired by feminist STS scholars' suggestion that we (which I take to mean designers and researchers) should tune into neglected practices and things (Lindström et al., 2019; Puig de la Bellacasa, 2011), including practices of care and repair. Accordingly, I start from a position of making a shift from studying forms of 'action' (Gomart & Hennion, 1999) towards maintenance (Denis & Pontille, 2014, 2019) and 'care in practice' (Mol et al., 2015), and in doing so find that trails spots thicken conceptions of care in spaces typically conceptualized in terms of performance, as well as the affective experiences and thrills of bike riding itself (Hagen & Boyes, 2016), as opposed to the less visible and often mundane practices that keep them functioning, which make these experiences possible. In the article, I will provide a series of stories based on my observations and experiences, refer to digital resources, describe a film I edited as part of the research, and quote from portions of semi-structured interviews conducted with trail builders.

The article is structured along three forms of repair that I encountered in the field. First, I give an account of the DIY practices involved in building and maintaining trails, which I argue are neglected because they rarely feature in mainstream accounts or understandings of the sport, or the spaces they take place in (though I find are often prominent in vernacular forms of media and documen-

tation). In tuning into these care-ful practices, I conceptualize the spaces that bike trails are built on by following Anna Tsing's notion of 'post-capitalist ruins' (2015), finding that they are often built on former spaces of capitalist exploitation such as mines and quarries, spaces between major roads, and landfills. I argue that the practices that trail builders undertake can be understood as a kind of 'repair work' of these spaces, whereby new forms, practices, and experiences emerge from these ruins.

      Second, I problematize the ongoing temporal concern of caring for the trails themselves so that they can remain functional. Referring to Maria Puig de la Bellacasa's (2011) call to tune into 'neglected things', I argue that care practices are not only unseen but intentionally and often necessarily kept secret because spots often exist illegally. This brings about two important problems, which I argue thicken and problematize calls for 'paying attention' as an act of care. (1) The forms of attention they are given must be done carefully, and I reflect on when researchers should consider 'looking away' from what might appear to be something neglected, so that practices and spaces may be kept safe by way of them being secret or hidden. (2) A highly contentious issue among trail-building communities, where exclusion of those outside the core community is often enacted and described as a maintenance practice.

      The final form of repair I describe relates to repairing practices of exclusion by way of new opportunities for participation from those who have typically been outsiders to the core community. I argue that these 'reparations' have two key features: (1) That there are structured and enforced forms of governance and rules required for these places to continue to exist in the margins; (2) several spots have recently started to 'repair' these forms of exclusion by developing new practices to ensure a spot's future. These include re-designing the architecture of spaces to invite a broader community, and 'exclude to include' initiatives designed to bring in new participants. In conclusion, I argue that these sites re-emphasize that repair and care are not innocent, and that feminist approaches to the politics of care highlight who, or what, is excluded, thereby thickening care in terms of drawing out the multiple, overlaid, and often contradictory repair practices.

FROM ACTION TO MAINTENANCE

I often have a difficult time describing what I am doing in my research to interlocutors, friends, and fellow trail builders. It seems there is something of a void between these often *macho* worlds, and the slightly unlikely analytic lens of feminist conceptions of care, maintenance, and the commons. Clearly, the more visible or obvious aspects of these spaces are associated with action and expression, the affective experience of bike riding (Hagen & Boyes, 2016), and performing jumps and tricks. Equally, care is more typically employed as a lens in STS (Lindén & Ly-

Figure 4: A pizza oven built into one of the jumps at a spot near London. Photograph by the author.

dahl, 2021) to examine practices like nursing (Latimer, 2000), the management of disease (Mol, 2008), soil (Puig de la Bellacasa, 2015), and more recently has been taken up in various corners of design scholarship (Lindström et al., 2019; Pennington, 2022; Rodgers et al., 2018). The reason I have adopted this position is that feminist scholars (Fisher & Tronto, 1990) have convincingly (and for some time) argued that attention is asymmetrically paid to the grand gestures of action, over the continual, every day, and mundane processes—that Puig de la Bellacasa has referred to as 'doings' (2017, p. 69)—of looking after people and things (Tronto, 1993, p. 120). In doing so, I find that the theory helps to understand and problematize the multiple and layered forms of repair and maintenance in these places, as well as providing a novel opportunity to reflect on the ways care is understood and might be thickened, and also how some of the practices in these spaces might be re-thought or re-designed in dialogue with theory.

Neglected Practices

DIY trails spots are not only to do with riding bikes and performing tricks, but involve many other practices and support networks, including the production and repair of the space itself, collecting rubbish, planting trees (Figure 2), preparing food (Figure 1), gardening, and cleaning (Figure 3), as well as providing general support (e.g., for mental health) within the community. These practices are rarely centered in either mainstream or scholarly accounts of action sports. In an attempt to explore them through other outlets in biking culture, Figure 6 shows a set of screenshots from a short video, *Dirt Rules!*, made by the American BMX bike company S&M Bikes. I have re-edited this 42-minute video by following a set of

Figure 2: A tree that has been newly planted at Bolehills BMX track by volunteers inside a social space built from rubble filtered out of the dirt that is used to construct the track. Photograph by the author.

2   A 'jam' is a non-competitive event bringing together different communities of riders and builders. They are often employed by communities to raise money to sustain a spot, for example to pay for insurance on the land, materials, or tools.

rules—a method that I have called a 'dogma', following film directors Von Trier and Vinterberg (2005)—so that all 'action' (jumping, crashing, performing tricks) is removed, with only maintenance or care practices left in the video. What is left is three minutes of stacking (making piles of dirt); shaping (sculpting the piles into the desired forms); packing and compacting the features; sweeping, watering, planting, pruning, and covering jumps with tarpaulins when not in use. From the original video, I was surprised at how much of the film remained showing only the mundane practices of repair. This attests that there is a certain sense of pride in these maintenance practices, and while they are largely unseen outside the community, they are rather explicit and focused within it. This was further confirmed when, at a recent fund-raising event (a 'jam') for a local dirt-jump spot, users were invited to take part in a video competition (Figure 4), in which they could submit a video up to three minutes long, which would receive bonus points from the judges if it contained evidence of digging or maintenance of jumps.[2]
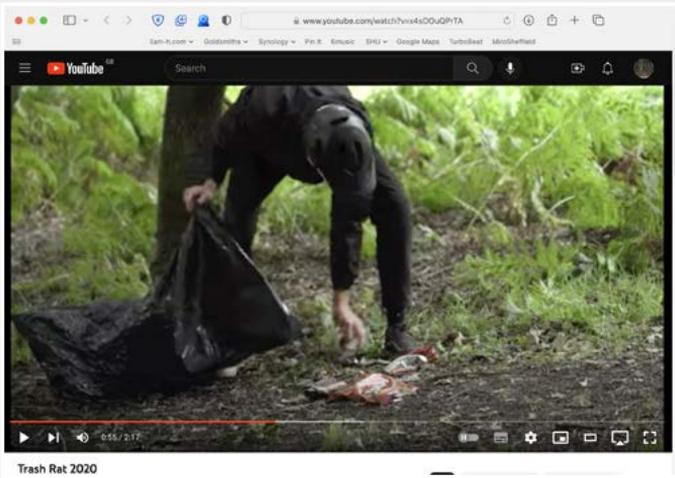
↑ **Figure 3**: 'Trash Rat 2020',
screenshot of a video of former
World Cup downhill champion
(now social media influencer)
Josh Bryceland cleaning his
local trails.

↗ **Figure 4**: Screenshot
showing trail maintenance
from a video entry to the
Bolehills Halloween Jam video
competition.

→ **Figure 5**: A small jump spot
occupying meanwhile space
in Brooklyn, USA, while a new
housing development was
being constructed. Photograph
by the author.
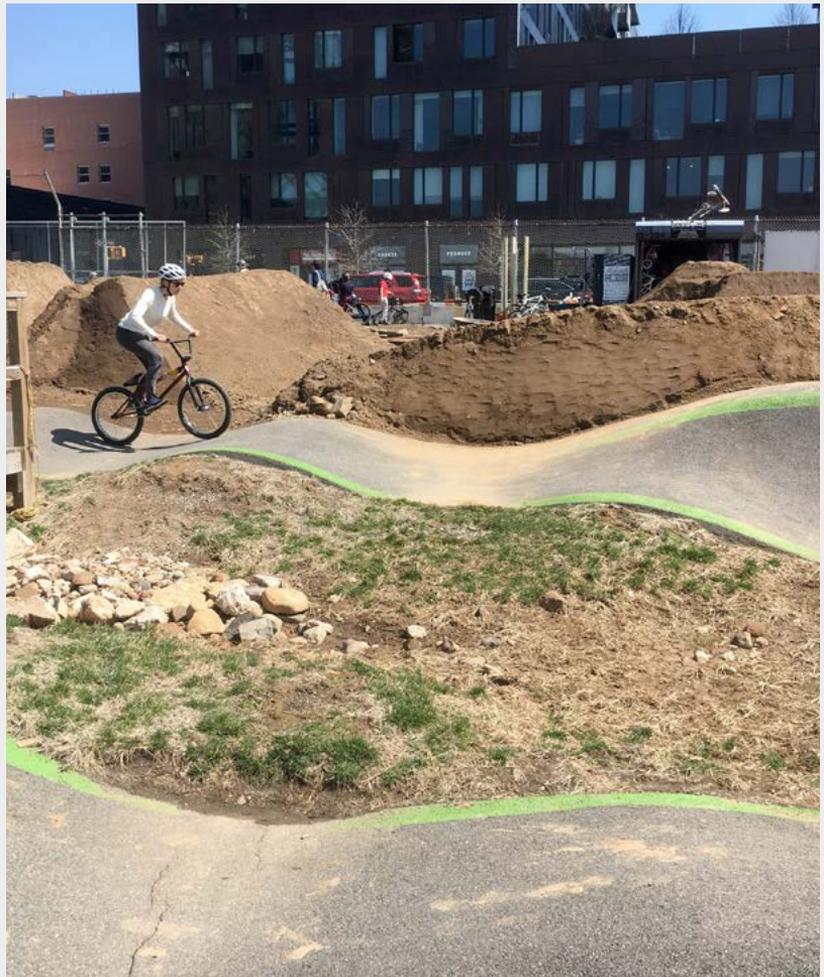
However, maintenance practices are not only the physical actions of repairing the space or building new features. I refer to the images in the article to provide three examples: Figure 1 is taken at a trail spot in the UK which is on squatted (though tolerated) land, where an annual jam is used to raise money to pay for insurance the community has taken out on the land, by selling pizzas made from an oven built into one of the jumps. Figure 5 shows a spot in a meanwhile space in Brooklyn which was supported by several local housing developments, and became a space to bring new riders into the sport. I highlight this example because it begins to reveal practices that are unpaid and more or less unseen in the other places that I have observed. Here, three people were employed to maintain the space, collect trash, and empty bins; ensure it was safe; and show newer or younger riders how to use it—all practices that are done voluntarily in the other spots analyzed here. In recent years, there has also been a more visible maintenance presence among the community, where well-known riders and 'influencers' (Figure 3) have begun to produce social media content to persuade their followers to clean and look after their spots. The non-profit organization Trash Free Trails has also had a relatively wide reach in encouraging riders and builders to look after the 'natural' spaces where trails exist. For example, they have organized litter picking at biking events, run workshops with young people to clean up their local trails, and developed a citizen science initiative to measure types and quantities of pollution (Trash Free Trails, 2020, 2021).

Figure 6, this and the next page: Screenshots from the video *Dirt Rules!* by S&M Bikes/ Stew Johnson.

Puig de la Bellacasa has conceived of the notion of 'doings', as a "focus on everydayness, on the uneventful, as a way of noticing care's ordinary doings, the domestic unimpressive ways in which we get through the day, without which no event would be possible" (Puig de la Bellacasa, 2017, p. 117). The notion of doings is at odds with the grand event, 'moment of ecstasy' (Midol, 1993), or grandiose performance of a difficult jump or trick, and instead draws attention to the uneventful and 'ordinary'. The concept suggests slower kinds of practice that are without end—an attuning towards constant ongoing practices of maintenance and care. I found Bellacasa's notion of doings was echoed in the fieldwork. For example, an interviewee, Brian, from Posh Woods in Pennsylvania, USA, told me:

> [At Posh] there isn't a lot of creative input necessary, I'm like the Caretaker
> (…) in the grand scheme of things, it's probably like 70 percent caretaking
> and 30 percent riding.

Describing himself as a caretaker over the spot, Brian went on to explain that very little of his time is spent riding or using the trails, and that for him, maintenance is the dominant practice when he attends the trails. He explained that this is in part because this particular spot has been here for around 27 years, meaning it is no longer necessary, or indeed possible owing to lack of space, to make new trails or features. Instead, now that these trails have achieved a certain amount of permanence, the larger proportion of practices center on keeping the jumps running and in good shape. Brian also gives a highly asymmetric ratio of riding (which for most of those I have talked with, is the end goal of doing this work) to maintenance work, showing that far from an aside, these practices are a central, dominant, and important aspect of the culture for the community.

Caring for Ruins

Figure 7: Map of a trails spot in the UK showing how it is contained by major roads and an industrial estate. The map has been blurred to ensure the spot's secrecy.
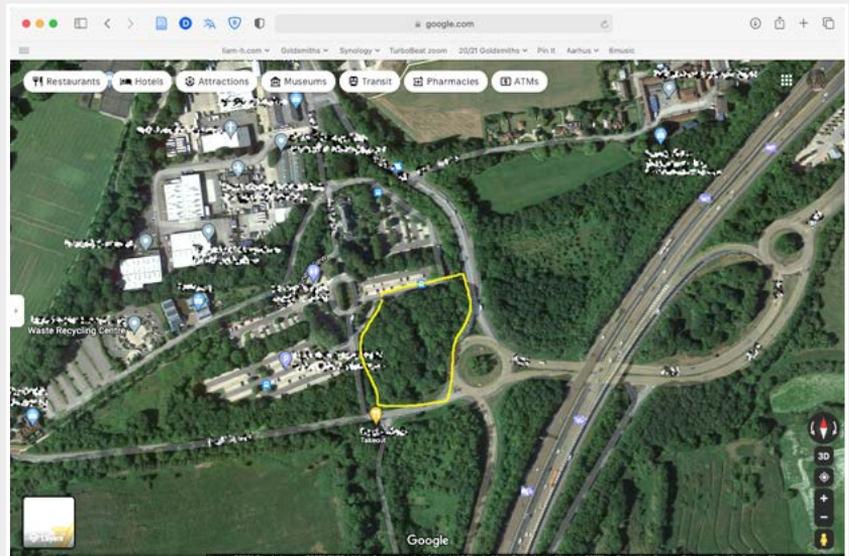
Many spots are built on squatted land, without permission (at least initially). My interlocutors tend to tell similar stories of the genesis of their spot: they usually begin at a small DIY scale, with a group of (normally) young people looking for somewhere to ride their bikes, building new features and jumps that gradually grow in size. Many of these spaces can also be characterized as edgelands that exist somewhere between the urban and rural; typically they are unplanned, or 'spaces left-over after planning' (SLOAP), and what I have come to think of as post-capitalist ruins (Tsing, 2015), with the builders re-appropriating them for their own needs. For example, they are often sandwiched between major roads (Figure 7), taking up the spoil spaces that are left over after roads are built, or in the case of Brian's spot, Posh Woods, in the between space of a disused quarry, suburban housing, and a shopping mall car park. Importantly, it is precisely this sense of 'ruin' that allows them to function and remain—they do not take up prime locations, meaning others often do not make claims over the space. Outside the trail community, people do not seem to care very much about the land, giving an underground community an opportunity to (often temporarily) occupy it.

I have also found that spots are often built on land that has previously been exploited, for example from mining. They are always already nature-cultures (Latour, 1993)—they of course don't exist in pristine untouched nature, but among existing human transformations. This is where I take the notion of ruins from Anna Tsing (2013) to refer to the spaces of post-capitalist exploitation where new practices and kinds of life begin to emerge. Importantly, it isn't my intention here to romanticize these practices or their human privileging—

one could argue that many of these maintenance practices are damaging in themselves, and perhaps the land on which we find trails was doing just fine at repairing itself before the trail builders arrived. Instead, my argument is that from these neglected places, comes a set of playful practices that (though privileging potential human experiences) can also be seen as a space of co-becoming between humans and non-humans that fosters new affective experiences and relationships.

In recent years, there has been a renewed interest in compost (e.g., Hamilton & Neimanis, 2018), and soil (e.g., Puig de la Bellacasa, 2015) among STS circles and fellow travelers. Donna Haraway (2019) has adopted the metaphor of compost to describe storytelling and processes of writing-with. It seems soil and compost invoke a different reaction to 'dirt'—they are lively, rich, teeming with possibility, and perhaps pleasant, whereas dirt remains… dirty. Often on the sites that I have explored, there are things and materials that refuse to compost down: the rubble that is left over after mining or quarrying, half-buried fly-tipped trash, and the dirt spoil that is left over after road building. Thinking with Tsing and her colleagues' work, I find that in these spaces we can find 'life built among capitalist ruins', whereby their former functions are re-purposed. But rather than an eerie sense of 'haunted landscape', these traces left after their previous life give shape to the space enabling new performative, often joyous, and affective possibilities for a community. To co-opt (or compost?) a Harawayan phrase from Katie King (2019), in these spaces there is perhaps *dirt for making kin*.

To thicken this further, in what has in recent years been run as a commercial mountain bike park built in a former quarry turned commercial timber plantation in North Wales, UK, the notion of ruins is ongoing. Here the earthworks to the terrain that was left after quarrying and subsequent tree plantation produces conditions that are well suited to building mountain bike trails: the trees are planted consistently, protecting the trails from water, and the holes left from quarrying become features like drops and jumps. However, this site has recently been closed down due to an outbreak of *Phytophthora ramorum* (Forest Research, n.d.), a tree disease affecting the Larch in the plantation forest, meaning the center has been closed so that the affected trees can be felled and removed (*Revolution Bike Park Announcement*, 2022). This causes the trails to be no longer useable because the shelter provided by the trees was necessary for them to function, adding another layer of ruin—the trails built in the ruins of the quarry-become-bike-park are themselves becoming a ruin.

My point here is that far from a pristine nature, when these spaces are explored through the lens of repair and maintenance, they reveal themselves as highly complex, involving global networks of actors (e.g., tree diseases, resource extraction, and capitalist exploitation), which are ongoing, and involve heterogeneous and often competing practices. And of course, once again echoing feminist

STS scholars' arguments: they are not neutral and the practices—and ontological politics (Mol, 1999)—involved in them will often be at the expense of 'others'.

To provide one final example to interrogate this concept, Holmen Dirt (Figure 8) is a spot that emerged from the Anarchist commune Freetown Christiania in Denmark in the late 1990s. Here the piles of dirt that make up the jumps and features were once Viking age fortifications (a ruin in a far more traditional, archaeological sense perhaps), and are therefore a site of historical importance that the municipality has recently decided to make an effort to restore and protect, trying to evict the trail builders from the site. Here the site has become haunted by its former life as a ruin, which the municipality wants to preserve.

Figure 8: Holmen Dirt in Copenhagen, Denmark. Photographer unknown.

NEGLECTED THINGS, AND CARING FOR COMMONS

I am aware that until now I could be accused of taking a somewhat normative position towards trails spots by uncritically listing all of the wonderful caring practices that take place here. There is of course more trouble. For example, my interlocutors have discussed with me a practice of exclusion that can be seen as an act of maintenance, or even care. This is based on the finding in my fieldwork that often trails spots are not neglected as an 'uncaring' act, but are actively kept secret in order to protect them. Or put another way, that the local builders might want us to neglect

them. This suggests two problems for me as a scholar interested in conducting research on these places. The first is to problematize when I might need to look away from something or someplace in order to protect it. The second is, to suspend a prevailing feeling, or perhaps normative understanding, that exclusion must be 'bad'. I propose here to stay with the trouble of the ways exclusion has been described to me by my interlocutors.

When to Look Away

I am currently working on a research project with Forestry England exploring the ways in which the organization provides access to their woodlands, and how this might be done and designed differently. One aspect of the study is to look at how mountain bike riders use their forestry sites. Rather fortunately, a short distance from where I live is a key hub of mountain biking in the UK built on Forestry England-managed land. This site could potentially provide a rich case study owing to the large network of trails, as well as several active and motivated communities involved in their design, building, and maintenance to conduct research with. However, there is a problem—trails in this woodland are 'wild', and while they are somewhat tolerated, they are not 'legal' or built with permission. Hence, the network of trails is kept secret, with entrances to them often obscured and hidden, and being shown to them (and therefore gaining the privilege to ride them) comes with a set of rules and principles concerning sharing their locations. For example, the social media and fitness tracking app Strava (a divisive topic among the mountain bike community) should not be used on these trails because it can help 'other' unwelcome users to discover secret trails, and it is not uncommon to see signs in the area discouraging the use of these and other social media platforms.

It is very tempting to begin a study of this area of woodlands and its trail network—the research could certainly provide interesting findings, and could potentially foster beneficial practices and partnerships between the trail-building community and Forestry England. But because of the status of these trails, it is also extremely risky, and I am acutely aware that bringing attention to them through the project could jeopardize their future. Therefore, I have found that a practice or methodology I may need to foster as a researcher is knowing when to 'look away', or when to neglect something that is enticing as an interesting research subject. These spots then begin to problematize when and why scholars start to look for 'neglected things' (Puig de la Bellacasa, 2011), and suggest that there will be times when those neglected things should perhaps remain neglected.

Exclusion as a Maintenance Practice

This brings me to another important problem in these places: that trails and their related practices are not just overlooked by accident, but people are actively exclud-

ed from them. This in turn becomes a condition of the place, and one which (some locals would argue) allows them to sustain. For example, when we discussed who was involved in Posh Woods historically, Brian told me:

> You didn't go down there unless you knew somebody, or you got the OK from somebody.

Another interlocutor, Carley, was one of those who seemingly did not get the ok from somebody:

> I went [to Posh] with my brother… I had no intentions of riding, but I brought my bike because we were on a trip and [the locals] all looked at me like, "Why is she here?" I was like, "Whoa, Oh. Where do you want me to go? You want me to go sit in the car?!"

The locals from Posh Woods have in the past sought to exclude users from outside the core local group. From an outsider's perspective, they seem like the usual arguments used to keep out people who do not fit with a 'core' local scene (Abulhawa, 2020; McCormack, 2017). However, if we take a different view, and this is lensed through a sense of care or maintenance, these practices appear different. For example, Carley, who is from my understanding deeply embedded in the scene (yet was still previously excluded by these practices as we saw above), offered an internal perspective that centers around protection, and maintaining the trails:

> when trails get plowed, people's lives stop for a long time. Something died, [they] lost something that [they] invested so much into. People don't get that unless you have a spot plowed. You have no idea what that feels like. (…) when people are so protective of trails and people coming in, it's because of that experience of loss.

The problem that Carley describes is that too much of an open spot could bring unwanted attention and jeopardize its future. This argument appears to sit along the lines of those made for enclosure and exclusion, echoing Garrett Hardin's famous notion of the 'Tragedy of the Commons' (1968), where he would assert that the protection of private property is in the best interests of the 'population', arguing for the merits of exclusive access to land by a select few (typically land owners).

Clearly, this practice of exclusion is highly problematic, especially where it falls along pre-existing intersections of injustice and exclusion in sports, such as by gender (Beal, 1996; Massey, 1994; McCormack, 2017; Rinehart, 2005; Robinson, 2008), race (Harrison, 2013), sexuality, or age. Having said this, however, when maintenance is described as a practice of exclusion, it highlights when certain kinds of participation can be damaging and means confronting restriction as a repair practice. Of course, there are several examples of this in

other spaces, for example, in order to protect sacred or natural spaces, to re-wild damaged land, or to prevent damaging practices related to access (which might also include building illegal trails).

COMMONING AND REPAIRING

I have found in recent years there has been a move towards initiatives that see to exclude to include, for example, women's and gender non-binary events (e.g., Figures 9 and 10) have become more common in the field (certainly since my early involvement), where the typical white, male, hetero users of the space are excluded in order to invite more diverse participants. The above then suggests some notions of governance and rules, which are central to forms of repair both physically, and in the ways of undoing the various kinds of historical and ongoing discrimination.

↑ **Figure 9**: A social media post advertising Bole Hills BMX track's Women's Jam. Author unknown.
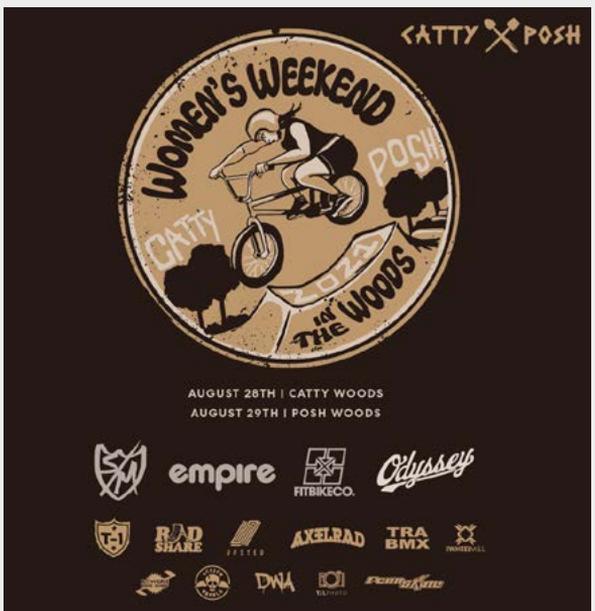
→ ↗ **Figure 10**: Poster advertising the Catty and Posh Woods 'Women's Weekend' event in 2021. Illustrated by Tasha Lindemann.

The Commons Have Always Required Governance

Several scholars (e.g., Linebaugh, 2010; Ostrom, 1990) have argued that Hardin's arguments for enclosure fail to acknowledge that the commons were in fact always governed (for example, fines would be issued for grazing too many animals on a given plot). Though the commons are technically open, there are always certain rules to adhere to so that the land is not overwhelmed. This is also true of DIY trails spots, which are normally accompanied by written and unwritten rules. For example, 'no dig, no ride' is a common phrase, and perhaps the first 'rule' of most spots, meaning that there should be a relatively even contribution to a spot's production,

maintenance, and care in order for a user to gain access to it. Spots also tend to have basic rules to keep them functioning, such as not climbing on the jumps to prevent damage, and more typical safety rules (e.g., to only go in one direction and wear a helmet, see Figure 11). Therefore, in order to maintain the spaces as commons, certain rules must be adhered to.
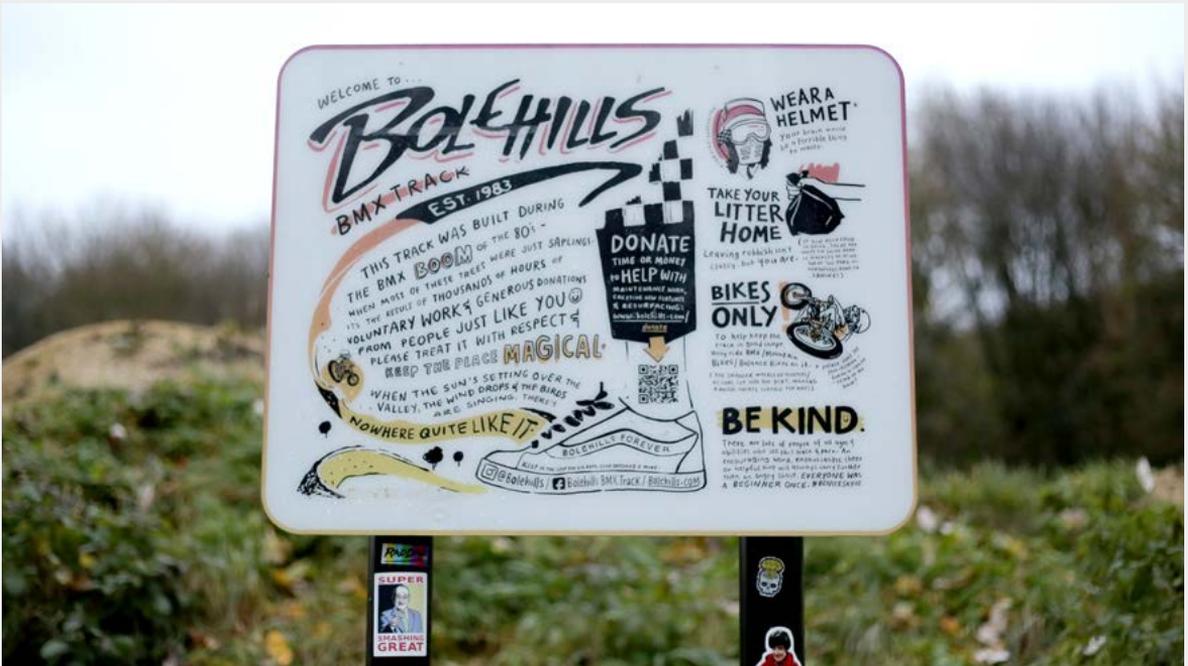
Figure 11: A sign at Bolehills BMX track describing the 'rules' of the spot. Photograph by the author, sign illustrated by Beth Breeden.

In their introduction to the *Aesthetics of the Commons*, Cornelia Sollfrank et al. (2021) describe the structure of commons as 'relations of care rather than ownership'. I find this a useful way of understanding these spaces in two key ways. First, there are the more obvious and visible relations of care consisting of shoveling, raking, and watering, done to produce the space. Second, there are the rules and forms of DIY governance which arguably come to matter just as importantly in holding the space together. This is because these spaces are very rarely 'owned' by the community—they are squatted and held together in a fragile network of being *just* hidden enough, *just* safe enough, *just* about standing—they are fragile all the way down, requiring relations that carefully cobble and hold them together.

Governance, seen in this way is a series of care relations that enable the commons to function, for example: the different relations between both humans and non-humans are required for the space to be safe, and to continue to function. Peter Linebaugh (2008, p. 298) provides the notion of *commoning* (importantly, as a verb), explaining:

> to speak of the commons as if it were a natural resource is misleading at best and dangerous at worst—the commons is an activity and, if anything, it expresses relationships in society that are inseparable from relations to nature. It might be better to keep the word as a verb, an activity, rather than as a noun, a substantive. (Linebaugh, 2008, p. 279)

This helps to understand these places through a lens of care, whereby, they are not set out around collective sets of 'resources', or forms of exchange, but through an entanglement of human communities, and the non-human soil, dirt, water, trees, shovels, bikes, animals, and tarpaulins.
Understanding their fragility, many spots I have researched have begun to change their practices of exclusion toward actively inviting new communities into them. Importantly, this comes about for two key and overlapping reasons. The first is that for spots to become more open, they need to have achieved a certain amount of permanence, often having been granted permission to use the land. And second, that the communities involved in their upkeep have become smaller, meaning more people need to be recruited to take on the maintenance practices. Arguably then, participation can be said to be in a state of repair, and is starting to be cared for and invited.

Material Invitations
In the interviews, I have found that these spots are slowly shifting from what in the past have been hyper-masculine, closed-off, and exclusive spaces, and are carefully developing ways to be inclusive to a broader range of users. Carley told me this is because,

> There's this fear that there's going to be a disconnect that when this group of legendary trail builders are all done (…) who's going to come up and take over the trails?!

So, the recruitment of new builders also relates to the maintenance of the spot and the sport in general. Core locals are getting older, are perhaps retiring from the sport, or are injured, and need help to keep things running. Brian also echoed this and has been working to actively re-design their spot so that they might become more open to new users.

> I think you've got to put the beacon out there, and we've been trying to do that and been making it more accessible and more inviting to younger people, to women, to girls.

Many of the locals have found that they need to involve more members from different communities so that their trails can be made sustainable. This is illustrated by

new specific architectural features designed to invite a broader community into the space. For example, Holmen Dirt built a pump track deliberately positioned so it is visible from a path running alongside the trails (Figure 12), in the hope that young people, parents, and so on, will see the more accessible track and be attracted to join in with the local scene. Behroz, the main digger at Holmen Dirt, explained to me that there has been a shift in attitudes among the locals and that he wanted to expand the community as much as possible:

> From the start, we didn't want to get picked up by the commune too much…
> But then, you know, if we do it like that, you don't get to grow, you don't get
> to get really good facilities.

Anthropologist Jean Lave and educational theorist Etienne Wenger (1991) have developed the concept of 'legitimate peripheral participation' to describe the ways newcomers interact with old-timers and become part of what they describe as "a community of practice" (1991, p. 29). The authors focus on a broad understanding of 'apprenticeships' as processes of situated learning that are not only limited to workplaces (their aim, they argue, is to 'rescue' apprenticeships). With this concept in mind, in the case of Holmen, there is a situated process of learning that first and foremost involves a bodily engagement of learning to ride a bike skillfully on a given feature, as a 'user' of the space. As in Lave and Wenger's examples, here a person's intentions to learn are configured through the process of becoming a full partici-

Figure 12: Building the pump track at Holmen Dirt. Photographer unknown.

pant in a given spot's sociocultural practice. To shift from a user to a fully-fledged member involves that 'user' becoming engaged in repair and maintenance practices that they shadow and learn from the old-timers. These typically begin with basic tasks such as filling wheel-barrows with dirt, or raking leaves, eventually graduating to a 'shaper'—someone who is responsible for the design of a trail and final shaping of features like jumps and berms. These processes are—as we might expect—informal, DIY, negotiated, debated (often fought over), and highly situated to a given spot and its social, cultural, and material conditions.

The large drive to recruit new people into the spot at Holmen involved forming a union (similar to a charity or non-profit company), which meant that they could rapidly grow and make new resources available (like rental bikes, tools, and materials) by applying for resources from the municipality. Here, the 'locals', or core community, begin to develop material interventions in the space that are designed and built to bring outsiders, or those on the periphery, into the community. However, this drive to open up the spot through these methods was not universally accepted among the community, and Behroz described how these new practices produced tensions in the original group, meaning that some of the original members left because they felt that the punk and DIY roots had become replaced with a practice of administration and organization more typical of mainstream politics. This engagement with traditional forms of politics became very clear when I visited Holmen in 2022. In their response to the municipality's plans to remove the trails (because of the aforementioned planned eviction to restore the Viking age fortifications), the locals organized a live-streamed political debate with five potential candidates for local councilors shortly before a local election (Figure 13). This allowed them to set the terms of a political debate on the future

Figure 13: Photograph of a political debate organized by the Holmen Dirt locals to discuss the future of their spot. Photograph by the author.

of their spot, and its relationship to active travel in front of various local groups in a nearby sports ground. Here, the invitation to others outside the core users (politicians, and other non-users) into the practices of maintaining the trails was very savvy, and eventually led them to secure pledges from all of the candidates to stand on a platform that would support them.

CONCLUSION

In this article I set out to explore the world of DIY-designed bike trails through a lens of maintenance, by drawing on theories related to care and repair. By choosing to focus on the everyday doings in these places, I found that trails suggest small but important enclaves for observing how communities might build new experiences and possibilities in the dirt among the ruins of post-capitalist extraction. I went on to argue that it's important to approach these spaces and communities critically and carefully, to consider when to look away from neglected or 'secret' things, and to pay attention to their exclusive politics. I found that caring for these places also involves exclusion practices, whereby secrecy is described as being paramount to some spots' continuation. I proposed to stay with the trouble of this exclusion, and to consider what this might mean in the context of repairing, or care-ful practice. And finally, I sought to attune to the ways rules and governance participate in commons, and how these might be re-made, re-designed, and participated with otherwise.

      The sites and communities I explored re-emphasize that repair and care are not innocent, and following feminist approaches highlighted who or what does the repair work, and who is excluded by way of care relations. The practices in these spots thicken theoretical descriptions of care and become a novel site to conceptualize the relationships between the multiple ongoing repair and maintenance practices enacted. What I have shown through the empirical work is by centering the 'mundane' and approaching with a different focus to that of 'action', that multiple, overlapping, often contradictory forms of DIY repair and maintenance of trails are revealed, that we as designers and researchers can learn from and become attuned to.

      This is important for three key reasons. The first is that as alternative sports become more mainstream and popular, a focus on them through theoretical lenses such as care and repair provides ways to understand, and potentially intervene in or re-make some of their (arguably more problematic) practices. Once again, I look to skateboarding as an example, whereby the proliferation of scholarship in this field has provided communities with the tools to critically consider, as well as legitimize their practices in the face of (often hostile) urban planning (Borden, 2015), and by providing more open and inclusive spaces and opportunities for those deemed as being outside their 'core' (Abulhawa, 2017). The second

is that as large amounts of scientific work are beginning to show, access to green and 'natural' spaces provides several human health, well-being, and even creative benefits (see, for example, Atchley et al., 2012; Bratman et al., 2015; Grahn et al., 2021; Olafsdottir et al., 2018). If trail building, access to natural places, and human health can be bound together in processes of mutual care and repair, there are opportunities to foster beneficial relations between human and planetary well-being (and as we have seen, the actors who already do a large amount of care-work and labor in these places), towards stewarding the ruins, and more-or-less natural places where they practice.

In terms of future research directions, my ongoing research into forests is allowing me to further explore the findings that I have outlined above, and to branch out into new empirical sites, with different communities and collaborators. By doing this I am looking for ways to symmetrize, and bring the theories around repair, care relations, and the commons discussed in the article to empirical sites, as a way of informing a kind of action-research. It can sometimes feel strange or even uncomfortable to bring up feminist STS, or theories around more-than-human care while I'm stacking up a new landing or cutting in a berm. But, in my view, it is important to start stitching these worlds together to explore their future possibilities and co-becomings. As this work continues to unfold, I am looking to develop the ways in which the communities I engage with might begin to understand their practices through scholarly attention and analysis, and to explore speculative questions around what the benefits and pitfalls of this might be. **D**

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