Design Fieldwork: Reclaiming Affect and Experience as a Primary Locus of Design Knowledge and Expertise

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This paper presents a series of design experiments that are used to introduce and prototype a form of research I call *design fieldwork*. Design fieldwork is a hybrid practice of fieldwork and design intervention in which each informs and is embedded in the other. This method builds knowledge and understanding of landscapes through immersive encounters, actively intervening in the landscape and observing the events and novelty that unfold. In each of the experiments, the designer's own sensing and affective physical body is foregrounded as a primary medium for exploratory research, either as prelude to design or as the design itself. Two claims are made based on this research. First, the aesthetic and performative experiences of the designer/researcher should be a primary concern in any design research method, as they are pivotal to how sites and landscapes are perceived and constructed, which in turn lead to qualitatively different research outcomes. Second, design fieldwork is positioned as an iterative technique of engaging landscapes that provides unique access to indeterminate formative processes, novelty and serendipity. This embodied exposure to landscapes' elastic range of becoming can serve as a productive counterpoint to highly conceptual, abstracted and overly determinate design methods in research, teaching and practice.

A remarkable contemporary convention in landscape architectural design is that it is mostly performed within the interior of buildings, away from the medium it seeks to remake and manipulate. Design, research and teaching predominantly happen at desks, computer stations and studios. These activities are, as other critics have remarked, increasingly characterised by a paradoxical 'indoor aesthetic' (Dee, 2010). Other than a requisite 'site visit' or two, most site interpretation and design work occurs outside of the actual landscapes considered. In this manner, design research is literally action at a distance; action based on what is remotely, abstractly and conceptually perceived and acted on.

Another remarkable convention of landscape architecture is the manner in which we, as designers, conceptualise and project physical realities for *other* people and citizenry as routine design practice, yet largely fail to use and engage our own bodies as an affective and effective medium for design research.

This paper explores a counterpoint to highly conceptual and abstracted modes of design research. It provides a contrast to methods that rely on remote or sparse direct contact with actual landscapes. The work here focuses on the potential of a new term I am introducing and calling design fieldwork. Like it sounds, design fieldwork is a merger of fieldwork and design investigation, wherein each informs and is enmeshed with the other. It is fundamentally distinct from fieldwork or site analysis that seeks to passively or objectively construct geographic description of 'existing conditions'. Such avowedly unbiased or complete readings of landscapes

are untenable, as description itself selectively constructs sites (Burns and Kahn, 2005). As a distinct method of research, design fieldwork embraces this active construction of sites and takes it further. It attempts to build experiential knowledge of landscapes through targeted interventions and engaging in the transformations that emerge.

I have come to define design fieldwork through a set of experimental trials that I detail here. However, these experiments were based on a set of theoretical concepts, as well as my own dissatisfaction with other modes of design research. Thus it would be incorrect and too linear to claim that the experiments have defined design fieldwork. Rather, the development of the approach has been recursive, with the experimental trials iteratively informing and evolving the methodology, and vice versa. In the following paragraphs, I lay out my definition of design fieldwork, supported by a body of existing scholarship. This definition is then illustrated and tested through a series of landscape experiments.

Design fieldwork, as I am defining it here, is a method of experiential learning in which affect – the relational capacity to act and to be acted on – provides informative encounters with a landscape's dynamic assembly. Encompassing the *forces and intensity of encounters* (Seigworth and Gregg, 2010), affect eludes clear distinctions between subjects and objects, because all participants in an encounter are influenced by one another's qualities and actions. Affect implicates an interrelationship among things; a mutuality of feedback within multiple-authored spatial milieus. In design fieldwork, this affectivity occurs between a designer and a landscape, with each influencing the other. How and what we are able to sense and perceive in these exchanges is the concern of aesthetics.

Through bodily immersion in a landscape, design fieldwork is an experiment in *affect-driven* aesthetics, or *affect trials* (Highmore, 2010). Affect and aesthetics are entwined terms, particularly if we reclaim the origins of aesthetics as the 'entire field of sensate perception', rather than its more limited contemporary association with fine art, stylistic concerns and moral betterment (ibid, p 121). Aesthetics encompasses the entire distribution of what is or is not made sensible – spatially, socially and politically (Rancière, 2004). It is 'concerned with material experiences, with the way the sensual world meets the sensate body, and with the affective forces generated in such meetings' (Highmore, 2010, p 121). As the entire range of what is sensible, aesthetics delimits, mediates and generates affect.

Recent scholarship in landscape architecture has attempted to reclaim a broader definition of aesthetics for what it can offer design and the study of landscapes specifically (Dee, 2010; Meyer, 2015; Moore, 2010; Reimer, 2010; Roncken et al, 2011). As theorist Beth Meyer states:

> Aesthetic experience occurs within an affective world that implicates bodies, objects, spaces, values, experiences and networks. A theory and practice of landscape affects and effects would recognize that encounters between people and places are exchanges of emotion, agency and energies. (Meyer, 2015, p 35)

For a theory of landscape affects, attributing agency is tricky. As a dynamic and mobile assembly of diverse materials and actors (Milligan, 2015a), agency within the landscape medium is confederate and distributed (Bennett, 2009). Within such assemblages, nothing truly acts alone. Co-creative and co-evolutionary

processes are the emergent basis for all landscapes (Milligan, 2015a). Even human bodies are not singular, controllable things. They too are multi-authored; dependent on colonies of bacteria to survive and on steady sustenance to think and moderate our moods (Bennett, 2009). What a human body is capable of changes in relationship to changing contexts. In Baruch Spinoza's often-quoted words, 'No one has yet determined what the body can do' (cited in Seigworth and Gregg, 2010, p 3). Given the magnitude of technological and environmental change since Spinoza's time, his statement is perhaps all the more poignant today.

With design fieldwork, I aim to reclaim aesthetics and experience as a primary locus of design knowledge and expertise. I take the absent, overlooked body of the designer and foreground it as a requisite intermediary in design research. As I position it, this research technique provides unique access to landscapes' elastic and affective range of becoming (Barnett, 2013) via embodied exposure to chance, co-creation, serendipity and emergence. In the text and images that follow, I present a collection of design experiments that prototyped and gave form to design fieldwork. In each of these trial grounds, I test how a designer's own sensing and affective physical body might be foregrounded as a tool for exploratory research and site-specific knowledge building, either as a more grounded prelude to design or as the design itself. Each experiment was driven by a research question that I sought to test and answer through direct and immersive encounters with actual landscapes.

My intent in presenting these experiments is to demonstrate the particular aesthetic knowledge and articulations of landscape that this mode of design investigation generates, so that they can be compared with design results produced by other research means. Broadly, my overarching research questions concern the following: How can design research operate outside the pervasive conventions and landscape abstractions of studio culture and its indoor aesthetics? What unique capacities can design fieldwork offer in terms of spatio-temporal experimentation and the 'relational construction of sites' (Burns and Kahn, 2005)? As an immersive and proactive approach to landscape, what unique experiences can design fieldwork provide in understanding, making and imagining processes of emergence, feedbacks, contingency and trajectories of development?

Inhabiting vacant lots

The sites for each design experiment are 'vacant lots' within the United States city of Portland, Oregon. These landscapes are just one example of numerous other landscape types that could be examined through design fieldwork, with each type affording different possibilities and experiences. The term 'vacant lot' is a misnomer in that vacant means empty; without content or occupants, or not in use. Such vacancy is an unachievable state within the open porosity of urban landscapes. In common parlance, 'vacant' refers more to a break in a site's officially designated use by its legal owner and operator. But it implies little about the unique spatial conditions such vacancy gives rise to. During the interim period while these landscapes are re-purposed or change ownership, their terrains absorb, diffuse and reflect the forces emanating from the more regimented and *productive* spaces surrounding them. Vacant lots are vague terrain (Doron, 2000, 2007; Solà-Morales, 1994). The moment they emerge as deprogrammed environments, they

are appropriated by vegetative, human and other actors seeking to colonise them. Exhibiting dynamic urban and sociopolitical ecologies, their functional ambiguity sets them apart from the otherwise orderly urban fabric.

The field experiments described below were designed to engage with these lots in order to better understand how they work as ambiguously programmed space. Their intent was to test and affect processes of landscape emergence by introducing new conditions. I embedded myself as one actor among many participating in their co-creation. The four experiments presented here proceed from the simple and small to those that were more ambitious and required sustained engagement, reflecting what was experientially and iteratively learnt (rather than a priori known) through successive trials.

Massaging normative protocols

Graffiti tags and their in-tandem paint cover-ups often blanket the walls of industrial districts; a territorial language expressed in paint. Painting over graffiti with a hand roller often leaves behind its own peculiar inscription (figure 1). It echoes the tag, but supplants it with something reminiscent of an abstract expressionist or Russian suprematist artwork.[1] At the same time, it is a clear indication of territorial suppression of the tagging; a no-tolerance protocol. My impression, from observing the pace and extent of this activity over several months, was that neither side was giving ground. The tagging and painting of walls were escalating. What were the boundaries and the rule set in which these activities were operating? My first intervention pursued this research question.

Echoing the painted patterns of the graffiti cover-up, I seeded symbols of 'turf' on the vacant lot adjacent to the walls where this was occurring, extending the territorial exchange to the ground plane in a palette of different materials (figure 2). I made cardboard stencils to quickly spread a coating of seeds in the abstract shapes of the cover-ups. This action was legally ambiguous. The lot had neither *no trespassing* signs or any fences around it and, as far as I could tell, dispersing grass seed was not and is not illegal. I timed the seeding to expected rainfall, sun exposure and favourable temperatures to try to optimise seed germination. Temporally, the tag itself wouldn't emerge while I was there or under my control. It had a time delay and depended on the work of the seeds to manifest.

The vegetated graffiti was intended as a spatial joke; a bending and transposing of protocols to call attention to the absurdity of the tagging skirmishes. And, as with any joke first performed, the audience's potential reaction to it was fully unknown; the audience being both the landscape and the people involved in the tagging. Would the grassy tag actually manifest, based on its biophysical interaction with that environment? If it did, how would other taggers, cover-up personnel and the land owner react?

Figure 1: Shapes and colour fields created by graffiti paint cover-ups, Portland, Oregon. (Photos: Author's own.)

Over several weeks the grass seed took hold and turned into patches of *reclaimed* or *borrowed turf.* Other than occasionally being run over by vehicles, the installation was left intact throughout the autumn and winter, seemingly ignored or respected, while the wall behind it was tagged and repainted over and over again. The grass tags were clearly outside of the turf war protocols, as it would have been easy to eradicate them.

The fact that the tag was not deliberately destroyed or responded to fostered a new set of questions that I chose not to actively pursue, as I became more interested in the behaviour of the ground tag itself. Of particular interest was how the patch of ryegrass became a register of other activity on the site, as revealed in the wear patterns of tyre tracks, footprints and things left behind (figure 3). This marking was being tagged and interacted with, just not deliberately or in code. This experience led me to a new research question: could vegetation be used as an in-situ mapping instrument; a survey of site activity more broadly? This question became the focus of the next experiment.

Figure 2: Seeding, sprouting and development of graffiti grass, shaped to mimic cover-ups. (Photos: Author's own.)

Figure 3: Fully developed grass tag with tyre tread marks. (Photo: Author's own.)

The map is the territory

To test the question for the second experiment, an evenly spaced grid of annual ryegrass was seeded on the gravelly surface of another vacant lot in a highly trafficked downtown area. The lines of this survey grid were laid out using bodily measurements, such as distances measured in paces and literal 'feet'. Like the previous test, this was also a drawing in and on the landscape itself. As a cartographic method, the living grid was grafted on to the site to reveal activity and forces via its presence, its effects and its erasure. It was there to record and participate in the creative and political 'practices of everyday life' (de Certeau, 1984). In this manner, the embedded map operated inversely from survey grids deployed in archaeological and scientific cartography (Crampton and Krygier, 2005), which spatially record what inhabited the past. In contrast, this vegetative grid sought to record and intervene in the emerging present and future of the landscape by operating performatively (Crampton, 2009). Rather than privileging a documentation of what things definitively are (ontology), the map engaged with how things become (ontogenesis) (Kitchin and Dodge, 2007) and how those becomings are mapped and messily known (Turnbull, 2003).

From the moment it was seeded, the grid emerged in direct relationship with the landscape (figure 4). For example, some of the grass seed became a source of food for local pigeons, which were observed in flocks pecking along the lines of the grid. Like the previous experiment, the grid was also dependent on rainfall to germinate and the material composition of the ground to grow and persist. As the grass sprouted, gaps in the grid lines revealed where the seedlings could not establish due to variations in the demolition rubble or other factors, such as compaction, trampling by pedestrian and vehicular traffic, excavation and other on-site activity.

The grid took three weeks to fully establish, after which it could be used to record the distribution of activities happening on the lot. This included placement of various personal artefacts that were left behind, such as sunglasses, clothing, magazines and handmade signs (most of which likely belonged to people living on the streets in the surrounding area). Spray paint markings were also imposed, designating forthcoming construction and excavation, and the destruction of the grid due to vehicular traffic. Like the tattered, 1:1 scale map of the territory described in Borges's (1998) 'On Exactitude in Science', the grid wore away in areas of heavier use (figure 5). Segments disappeared altogether as a result

Figure 4: Seeding and emergence of the 1:1 survey grid composed of ryegrass. (Photos: Author's own.)

of interaction with a multitude of things pressing on them. The democratic, even distribution of the grid gave way to a remnant hierarchy based on what was happening on the surface of the terrain. Where the drawn lines were not, something was going on.

This installation operated like a variant on William Whyte's (1980) *The Social Life of Small Urban Spaces* in its detailed and sustained observation of dynamic urban phenomena as a way to understand and interpret specific sites. It differed from Whyte's work in that: (1) it focused on a marginal, derelict space rather than one specifically programmed for public gathering; (2) it expanded *social* phenomena to encompass a larger affective assemblage than the human (Latour, 2005), which included pigeons, rain, concrete rubble and ryegrass; and (3) the work went beyond detached observation, directly affecting the terrain as a way to access and engage it.

The 1:1 vegetated grid probed the composition of the ground medium by observing if the grass would grow on it and testing how long it would persist under varied surface conditions. If well timed, it became clear that it is feasible to get grass seeds to germinate on the challenging ground of vacant lots. But keeping the seedlings alive in an often sterile and compacted medium is another matter. In the experiment described above, nearly all of the grass died within one to three months. But were there ways to extend and diversify the kinds of vegetation that could exist in these conditions? Could a successional scheme be developed for vacant lots that improved soil conditions? Could a planting scheme be designed in a manner that might add ecological and aesthetic diversity to the landscape? These were the questions driving the third intervention.

Crop circles

These planting and soil-conditioning concepts were tested at another lot. Two different growing mediums were available for experimentation: one area where buildings had been demolished several years earlier and a feral meadow had begun to develop in their place; and an adjacent area where asphalt had just been removed, exposing a fresh surface for colonisation (figure 6). This entire site was intended to become a public park but, due to a regional economic downturn, construction was indefinitely postponed.

As another unsolicited work (Bouman, 2008), multiple circular shapes seeded with different perennial grasses and forbs were implanted into these surfaces

(figure 7). The 'crop circles' were intended as an interim use of the site; emerging as whimsical garden tropes while also functioning as ecological test plots (islands) that would interact with the open field of weeds and people spontaneously colonising the newly available ground.

In the more established meadow plot (where the removal of buildings had occurred several years earlier), the demolition medium was disturbed and tilled in circular shapes before being seeded with different plant species. Half of the circles were seeded with a horticultural cultivar of perennial ryegrass, which turned richly green. The other circles were seeded with 'native' meadow mixes of forbs and grasses that appeared tan to magenta as they emerged. The native meadow test plots withered soon after germination in the *foreign* medium. Circles of sunflowers were also tested, but were subject to predation by squirrels and birds and never established. The horticultural ryegrass proved far more adaptable to the urban rubble, and the weeds that introduced themselves via wind and other vectors proved to be the most resilient of all.

In the area of the lot where the asphalt had just been removed, a phased, successional seeding strategy was tested. Here all crop circles were heavily seeded with the same perennial ryegrass cultivar used in the other crop circles, but without tilling. Strategically timed to rainfall, temperature and adequate sun exposure, these formed a mosaic of thick, geometric turf carpets. These crop circles got a head start on the endemic 'weeds' that were just beginning to colonise the exposed ground. Inexpensive and readily available, the ryegrass was selected and deployed as a 'cover' crop to accelerate the production of soil, while also introducing

culturally framed yet ambiguous garden figures to the scene. This introduced vegetation had to contend with the challenging growing medium as well as routine maintenance regimes that included mowing and herbicide spraying.

The ryegrass was able to quickly grow, persist for a season on the challenging terrain and then decompose, thus adding photosynthetically derived organic content both above and below ground. As the crops expired, they were easily reseeded again and again, depending on weather conditions, thus accelerating the soil development of the field through minimal means. This successional trial was occurring while the native ruderal plants were colonising the interstitial spaces as well as the crop circles, forming an interactive and competitive space between the 'introduced' species and the 'indigenous' weeds.

The circles alternated from green to brown to green again as seasons changed, as they were sprayed with herbicide or as they were reseeded again (figure 8). After this alternating pattern occurred multiple times, a new seeding regime in the form of rectangular shapes was implemented. These intersected with the crop circles, forming seeding palimpsests, or explicit successional Venn diagrams across the terrain. The crop rectangles were seeded with a custom blend of naturalised and horticultural meadow-like plants that were drought tolerant and known to have habitat value for birds and insect pollinators. Where the rectangular plots overlapped with the circles, organic content was greater and thus the seeds would encounter potentially better growing conditions (such as higher moisture retention and more compost and nutrient matter). These ground conditions could be compared with the non pre-treated areas through the geometrically overlapping shapes, allowing one to aesthetically engage and *read* the ecological processes occurring on the ground plane (Simus, 2008).

The crop circles operated as an urban socioecological design experiment (Felson et al, 2013). The horticultural strategy paralleled the approach of botanist Peter Del Tredici. In discussing the ecology and selection of urban vegetation, he states that:

Figure 8: Development, change and interactions of the crop circles on the newly exposed ground where asphalt had been removed. (Photos: Author's own.)

... the basic idea behind the cosmopolitan urban meadow is to select an assemblage of plants that will grow well on typical urban soil, create an aesthetically pleasing urban meadow on vacant land, and remain in place until a more permanent use for the land is developed. (Del Tredici, 2010, p 25)

The difference here is that I was attempting to rapidly alter the urban soil condition through the urban plants themselves. But the overall intent was the same: to engage aesthetics, function and novel ecologies on liminal surfaces found throughout cities.

I made one preliminary design drawing of this project (figure 9), which turned out to be the only drawing I made for any of these experiments. It was a phased, diagrammatic plan for future action, as well as a guess of what I thought might happen. It was purely conceptual and formalised a set of ideas and general forms that would be used. However, after drawing it, I made little use of it and did not precisely execute its specifications. From the time I physically marked and planted the actual circles, I was more interested in immersing myself in an unfolding of actions, indeterminate process and *taking-forms* (Massumi, 1998) in the landscape, which I approached through an iterative, exploratory process of doing, observing and recording. It was a pursuit of how 'gaining knowledge of how the stuff of landscape behaves physically' might lead to a 'more fluent aesthetic practice' (Dee, 2010, p 29). Similarly, in speaking about his work in experimental forestry, Roland Gustavsson (2009) remarked, 'One of the most effective ways to move from the pure collection of facts to an understanding of environment is to embody knowledge by studying living processes in the field' (p 32).

In all of the design fieldwork experiments described here, I found digital photography to be the most effective medium for documenting and recording the changing landscape. It was the only medium that could keep pace with the work and proved highly useful in indexing conditions and events across time. It is often implied, if not a standard mandate in contemporary landscape architecture, that 'designing means making drawings'.[2] This is largely taken for granted in the discipline, yet the experiment here suggests that perhaps it should not always be. Or, alternatively, a more expansive notion of *drawing the landscape* is needed.

Figure 9: Seeding trials over time (left to right). Left: Initial seeding of crop circles on the vacant surface. Middle: Experimental plots expand or die back in response to the site. Disposable cover crops and failed seed mixes are reseeded while spontaneous ruderal species continue to expand across the field. Right: Crop rectangles were seeded with a custom blend of naturalised and horticultural meadow-like plants that were drought tolerant and known to have habitat value for birds and insect pollinators. These plots were placed to intersect with the circles and unmanipulated ground to test for differences in plant growth. (Image: Author's own.)
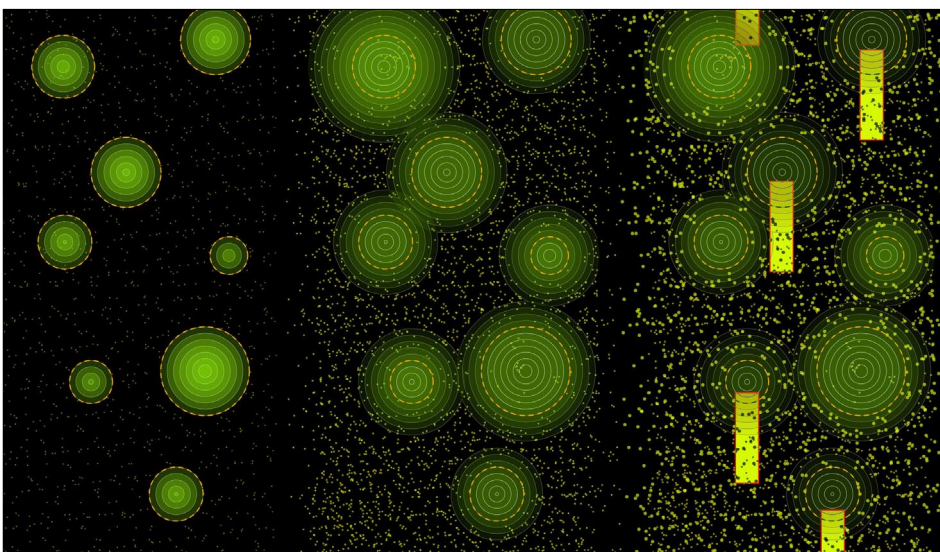
Clearly, digital and hand drawing, as commonly practised and taught, is integral to most design research and can effectively operate in a variety of ways. But it can also obscure, mislead or get in the way of other forms of design experience that it suppresses through its privileged status. The crop circles in this installation offer up a very different type of drawing; drawing not as primarily representation or conceptual projection, but as a transformative etching into the actual landscape medium; a marking that physically and materially changes things in direct response to the act.

The crop circles were akin to a *living machine* that was 'made of landscape features and driven by landscape processes'; co-evolving through 'interaction with physical, chemical and ecological processes' (Roncken et al, 2011, p 72) as well as social intervention. Unlike the previous two experiments, this one required ongoing inputs and stewardship to develop over a longer period, which might then self-sustain. It needed to be *gardened* (stealthily) in a manner that responded to emergent and unexpected phenomena. When I planted the seeds, I did not know how difficult it would be to hand-till the gravelly matrix. I did not know how different species would fare or how long the ryegrass would last before needing to be reseeded. I did not know or anticipate that maintenance crews would spray the circles with herbicides, ironically accelerating the succession process. I did not know how the local community would respond to the garden tropes, or that they would think local dog owners created the circles for the benefit of their pets. These behaviours and unfolding of events could not be effectively diagrammed, conceived or designed a priori. They had to be learnt in the process of doing and engaging.

Staring at goats

The three experiments described above all had a 'guerrilla' and legally ambiguous quality to them. They were unsolicited works; done without formally asking, similar to the actions of other colonisers of those sites. This last experiment instead sought to test a sanctioned and official approach to intervention – an approach that, however, it did not maintain.

This test was concerned primarily with how vacant lots are managed, particularly with regard to vegetation that spontaneously grows on them and the relationship these landscapes foster with the public. In this instance, the site was a 2-acre (0.8-hectare) vacant lot (covering two contiguous blocks) where years earlier its buildings had burnt down and the site had not been redeveloped (figure 10). It was enclosed by a chain-link fence that deterred trespassing.

From the fenced perimeter I could observe how plants and other species made effective use of lands like these. I photographed this dynamic meadow over several years and noticed that the only sign of sanctioned human activity occurred when it was periodically mowed to prevent it from looking unkempt or feral. However, to me the site always looked more unsightly – uglier – after it was clear cut, and the process of having the industrial-scaled mowers out there to trim it was loud, dusty, energy intensive and undesirable. Could this landscape be maintained differently? Could management activity of sites like this take on entirely different aesthetic qualities? Could it operate regeneratively, rather than deplete? Could it be pleasurable, an amenity rather than just a chore? If so, could the practice be memed, creating effects beyond the site?

Figure 10: The two-acre lot at Belmont Avenue. Former buildings on the site were destroyed by a fire. During the multi-year period before the site was redeveloped, a field of vegetation colonised the terrain. (Photos: Author's own.)

As a start, I determined who owned the parcel – a development corporation – and cold-called them. I asked if the owners had considered using goats to maintain their lot. One can imagine their first reaction, but I explained that goats and sheep had been successfully used in other urban areas (though under different conditions) and mentioned that the city's code allowed for the temporary use or presence of these animals without the need for special permits.[3] I also mentioned a suite of potential 'green' benefits the owners might reap from the practice, including reduced carbon emissions, decreased weed regeneration, soil amending, and their potential amenity value for the neighbourhood (Milligan, 2015b). Sceptical at first, the property owners generously agreed to a test trial on condition that I would shepherd the rented goats on site during the event. As researcher, this was precisely where I wanted to be in order to perform and oversee the experiment.

In the first trial, the herd of goats performed wonderfully in their self-directed work of eating the landscape (figure 11).[4] However, the maintenance function of the herd was eclipsed by its social aesthetics. The presence of the goats on the 2-acre urban savanna created a vibrant hub of activity far beyond expectations. It became a type of roadside attraction in which hundreds of people were observed getting out of their vehicles or stopping to watch, ask questions and just hang out; either on their own or socialising with other people (Milligan, 2015b).

Based on the success of the initial trial, the experiment was repeated several times, and with each trial the community it engaged seemed to deepen and expand. People around the city were coming to the lot as a social and recreational destination. The neighbourhood community took on increasing ownership of and investment in the herd, eventually introducing their own goats, play structures, basalt stone benches and supervised public entry to the lot through a gate they installed on their own volition (figure 12). Over successive stays by the goats, the basis of the experiment – the 'work' of cutting down weeds – affectively morphed into the vagaries of urban pleasure, recreation and sociability (ibid).

During the many hours I spent in that field, I had conversations with probably more than 1,000 different people. From those discussions, I learnt far more about that particular landscape and its surrounding context than perhaps any *site analysis* I had performed in a commercial practice or academic capacity. It was only through accessing that landscape and initiating changes to it that those aggregated interactions could have happened. Similarly, one of the most memorable comments I heard several times from visitors and passersby was that before the goats had been brought on site, they literally didn't *see* or notice this 2-acre field, which was remarkable given that the lot was bounded by arterial streets and fully surrounded by occupied buildings. 'I drove by this site all the time and never noticed it.' For many, it was a conceptual and aesthetic void; an inaccessible space that didn't experientially register for them.

Introducing changes in activity and materiality to the terrain changed the 'distribution of the sensible' (Rancière, 2004); it changed what could be experienced and by whom. As read through Rancière, these *aesthetic practices* can be 'ways of doing and making' that change what can be experienced by a human urbanite or a *Capra aegagrus hircus,* the domestic goat with which we have co-evolved. This distribution defines the political dimension of aesthetics and affect as 'the sensible delimitation of what is common to the community, the forms of its visibility and of its organization' (ibid, p 18).

If we speak of access to aesthetic experience, then we are also implicating the presence or absence of relationships and exchanges engendering those experiences – what theorist Nicolas Bourriaud (2002) calls *relational aesthetics*. According to Bourriaud, relational aesthetics (and the participatory artworks he uses to define them) operate at *social interstices*, opening up new avenues of exchange that exceed or break the confines of normative habits and cultural restrictions. 'They actively produce a bundle of relations with the world, giving rise to other relations, and so on and so forth, ad infinitum' (ibid, p 22). In applying Bourriaud's theory to landscape architecture, Maria Hellström Reimer states that relational aesthetics are inherently *performative*. A *performative aesthetics*:

> focuses on the establishment and exploration, through action, of a distributed field of reference … which activates the specific power dynamics and configurations of subjectivities that a certain situation presents … it works over time, through reiterations or contestations, repeatedly actualizing the relations, the tensions, or the field conditions of a historical or local setting. (Reimer, 2010, p 32)

For Reimer, the performative shifts aesthetic attention from objects to interactions, and from transcendent existence to immanent life (Reimer, 2010). Performativity foregrounds action, affect and agency.

Relational and performative aesthetics are easily applied to the unfolding of this particular project, which continues seven years after it began. In the first years of the project, the lot came to colloquially be called the 'Belmont goat field' by the networked communities that laid claim to it (with Belmont referring to an arterial street bordering it). The project has been written about, documented and televised over 40 times, including through numerous newspaper feature stories, appearances on news broadcasts, radio interviews, film documentaries and an appearance on the city's national television mockumentary series *Portlandia*. These narratives and meta-performances have carried the project beyond its immediate context, creating memes that have *aesthetically distributed* it into other regions and cities. Locally, as the project reached a critical mass of community engagement, I stepped aside and a group calling themselves 'the Belmont Goats' took over management and ownership of the goats and the project. They currently have over 2,600 Twitter followers.

Recall that the goats were only legally permitted to be on the landscape temporarily, which technically was a month or less. Over several years, our 'use' of the site became closer to permanent, with a herd of goats remaining on site year round. The city never made any mention of the legal issues. In fact, four years after the event started, when the land owners gave notice that they were going to redevelop the lot and thus the goats needed to move on, the Portland Development Commission, the city's urban renewal and economic development

agency, invited the Belmont goats to migrate to a lot on the outskirts of the city (Milligan, 2015b). Given the lot was in one of its zones that was struggling to manifest urban redevelopment, the commission hoped to use the aesthetic effects of this assemblage as a long-term catalyst in its urbanising strategy. A motley herd of goats was affecting official city planning.

Discussion

The four design fieldwork trials presented above were all sited on 'vacant' lands within a city. Each of them experimented with inserting new materials, forms, activities and protocols into an actual landscape, and then engaging with the empirical changes and novelty that emerged. All sites were affected in these trials, but in different ways, at different levels of engagement and for different durations.

Each experiment was driven by one or more research questions based on direct observations of site phenomena. Through the interventions, detailed information and processual data were acquired that answered all of these research questions and could lead to further testing and refinement of the inquiry. But more significantly, in all four experiments the emergent feedback generated by the interventions consistently and productively exceeded the bounds of the question on which it was based. This feedback revealed the narrow scope of the question when moving from conceptual space into the flexible multiplicity of real landscapes; consequently each intervention actually tested and engaged a multitude of things and relations beyond what had been conceived originally. Complex and malleable assemblies were brought into play that could not have been fully known, revealed or mobilised *until* the affective action was taken, which selectively brought that ensemble into being. For example, in the 1:1 vegetated survey grid, the changes in the intervention revealed existing material potentials and patterns as they unfolded through time. In other trials – the crop circles and the Belmont goats – a priori knowledge of what was there and what was going to be there was impossible, as the virtual assembly was not yet manifest and its potential to be was indeterminate.

In each of the four experiments, the imagining of the landscape's behavioural potential broadened as a result of direct physical intervention and sensing, rather than through distanced and highly mediated modes of conceptualisation, which characterise a great deal of contemporary landscape design research. These co-creative feedback loops are a distinguishing feature of design fieldwork that points to a two-fold generative capacity of the approach: the ability to reveal existing dynamic landscape assemblages (more than what a detached 'snapshot' observation typically reveals), as well as the ability to create new assemblages from within those same milieus. In this way, the method can be seen as exploratory and expansive rather than delimiting. The experiments facilitated a broader imagining of the landscape. Each coupling of intervention and fieldwork produced a plethora of new phenomena and posed more questions than it answered, which I contend is a result of accessing the generative plasticity of landscapes.

Given the exploratory nature of design fieldwork, it is most effective as an iterative approach, in which successive trials lead to a broader understanding of landscape's elastic range of potential and becoming. The four trials presented here are best reflected on as a single, comprehensive research project on vacant

urban lots. Through the succession of all four trials, I gained a much stronger sense of the qualities of these lands, how they vary from one context to another and the wide possibilities latent in their loose and feral programming. These sites were encountered as contingent and malleable, while also exhibiting clear propensities. As I progressed through these interventions, I became better at reading these places and more aesthetically attuned to possibilities to affect them. Over time, this iterative exploration and learning led to more sophisticated, affective and sustained interventions.

From a sociopolitical perspective, all of these field interventions tested non-normative thresholds. They explored the edge of legality and the blurry zone between sanctioned and unsanctioned behaviour. This is also atypical of much landscape architectural practice and research, which, as mentioned earlier, tends to project physical realities for *other* people through highly prescribed behavioural and programmatic conventions. The first three interventions described above were unsolicited works that were just within legal bounds. Only the Belmont goats project was conducted through official and solicited means. Yet that was also the only project to infringe on legal boundaries and planning codes – an unsanctioned model that was, paradoxically, then adopted by the city's official planning and development commission. Similarly, based on the crop circles project, I had conversations with the city's lead park ranger and other city personnel about developing a design framework to use excess construction fill from around the city to amend soil on select vacant lots; seeding that amended soil with customised annual and perennial seed mixes to create an ecological network of interim urban meadows. Happenings and coalitions such as these point to the transformative and activist potential of design fieldwork.

The experimental work presented in this paper has clear edges and limitations. Notably, (1) the method was only trialled in urban vacant lots and (2) the trials deployed a modest range of in-situ technology, which included horticultural techniques, animal husbandry, digital photography (as the main form of documentation), landscape ethnography and social media. Both of these factors suggest a variety of opportunities for further experimentation and refinement of design fieldwork methods. Any number of other landscape types and conditions could be trialled – like rising shorelines, disused public space and freeway rest stops – each revealing different potentials and limits. In addition, challenges and questions are posed in terms of scale jumping in these works – such as tactical adaptation to much larger sites or networks of sites. The Belmont goats project demonstrated the potential of operating in this way; as a networked meme performing far beyond the site. Even though design fieldwork operates at an intimate, humanised scale, it can simultaneously act more broadly, through tactical thinking about where to observe and intervene and how. Lastly, much opportunity remains to incorporate a wider range of sensing technology for on-site observations and intervention. Technologies such as environmental sensors could explore a more hybrid-like, cyborg version of design fieldwork that expands on what can be aesthetically sensed, monitored and affected within the landscape medium.

Conclusions

In presenting these design fieldwork experiments, my intent has been to demonstrate the unique capacities the approach can offer, so that it might be further pursued and contrasted with other modes of landscape design research. Different modes of research engage landscapes in qualitatively different ways, which produce markedly different perceptions and imaginings of the landscape medium itself. Given the ongoing expansion of methods used for design research due to new technologies and the expanding scope of the discipline, more methods are available to choose from now than in the past. Unfortunately, in the discipline of landscape architecture, this expansion of options seems to have brought about as much confusion as it has methodological advancement (Walliss and Rahmann, 2016). Thus a turn towards method can help to dispel such confusion and bring clarity to a diversifying discipline.

In closing, I wish to address the design capacities that design fieldwork potentially offers, as a way to address method more generally.

The findings of this research suggest that the qualitative relationship between designer and landscape should be foregrounded as a defining parameter of any design research approach. Often unconsidered, the nature of this relationship is foundational to how sites are perceived, engaged and constructed. In all variants of research, this is an experiential and affective relationship that can be qualitatively assessed, based on the clear differences of those experiences and what is derived from them.

Design fieldwork, as developed through the four documented experiments, emphasises direct, bodily immersion in the physical landscape medium, coupled with active manipulation of that medium to experience and understand its malleable qualities. This combination of being in the field while manipulating it provides distinctive access to emergent processes and phenomena within actual material, social, ecological and political milieus. Unlike laboratory settings, design fieldwork has no scaling, similitude and fidelity issues to contend with. The method reduces distancing – both geographical and technological – in favour of a less mediated and more interactive relationship with the terrain. This more direct relationship provides exposure to aggregate landscape feedback, forcing the designer to encounter novelty and the complex unfolding of events, based on actions taken. Working in the 1:1 open terrain in this manner, critical research questions centre on: (1) what is perceived and apprehended from complex embodied interactions with environments; (2) what phenomena are selectively acted on from those perceptions; (3) what the reasons and motivations are behind a researcher's choice to act in a particular way, and (4) to what effect; and, lastly, (5) if the method is iteratively practised (recommended), what kind of learning feedbacks are created – that is, how does one shift observational focus and tactical interventions based on what was observed? All of these research questions can be qualitatively explored, recorded and evaluated.

In this way, the techniques of design fieldwork distinctly cleave away from tendencies to overconceptualise landscapes through broad generalisations and abstractions. Instead, it presents affective situations to explore serendipity, happenstance, productive failures and processes of contingent co-creation.

Actual landscapes cannot be entirely scripted or predicted across time. In each of the experiments presented, what I could script were my own actions: seeding lines of grass, churning up circles of rubble and herding goats. What I could not script were the effects of these actions within an open medium. The more I worked in these urban lots, the more skill I acquired in stewarding trajectories of development and change within them. But I was not and never could be in full control of the experiments. Rather I was co-authoring them with a multitude, which broadened my sense and imagination of what the landscapes were capable of as dynamic assemblages. What the design fieldwork method lacks in terms of controlled experimentation, it gains in aggregate traction with temporal and messy reality.

Based on the trials presented, design fieldwork is claimed as an iterative method for understanding and affecting landscapes, in which the goal of the iteration is not necessarily to arrive at a singular or best solution. Rather the goal is to explore, affect and aesthetically sense landscape in its astonishing elasticity; to develop a sense of place, specificity and groundedness within a dynamic and contingent medium. This approach is radically different from how many students are taught to understand landscapes in remote relationship to design, and thus is a useful addition or counterpoint to highly conceptual 'indoor aesthetics' that are currently dominant. Akin to gardening, the more one physically engages in the experimentation and stewarding of in-situ design and management schemes – both failures and successes – the more one becomes confident of what is possible within a wide range of potential. The learning that occurs in design fieldwork jettisons the notion of landscape as passive object to move towards landscape as affective and co-creative milieu.

Acknowledgement

NOTES

1   This unintentional patterning of the city is documented in Matt McCormick's short film *The Subconscious Art of Graffiti Removal* (2002). The film compares the unintended artistic results to postmodern minimalist art and Russian supremacism.

2   I am indebted to a colleague for saying these exact words while I was writing this manuscript.

3   Categorised as livestock under Portland's codes, goats are exempt from special provisions or permits, as long as their use or occupation of an urban site is temporary.

4   I recorded my findings as they were happening in a series of blog posts (Free Association Design: https://freeassociationdesign.wordpress.com/?s=staring+at+goats&submit=Search).

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