

The Spatial Ecology of Urban Cycling: Counter-mapping Inner City Imaginaries in Brisbane, Australia

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Abstract: *Present cycling scholarship tends to research the factors that lead to cycling, rather than the practice itself, and when practice does form the focus, the cyclist is often considered independently of their material context. In either case, the salience of movement goes missing. The present article investigates “the complete chain along which competences and actions are distributed” (Latour 1992:165), keeping movement central while examining practice as an event produced at the interface between a particularly equipped body and a particularly affective site. Emphasising materiality, I demonstrate that the cyclist’s capacities to appropriate infrastructure and adapt to hostile road environments not only makes their rides more pleasant, it helps to construct a qualitatively distinct urban imaginary. By forging unique connections between sites, cyclists are able to construct a conception of the city that only exists for them.*

Keywords: Cycling, counter-mapping, urbanity, place, movement, practice, phenomenology

While riding my bike on an autumn afternoon in 2015, I was swallowed by a pack of 30 or 40 cyclists, all of whom wearing formal clothing – dresses, suits, heels, ties and dress shoes. The cyclists were moving slowly down Boundary Street, the main thoroughfare between Brisbane’s business district and the bohemian, inner-city suburb of West End. Hooting, hollering and ringing their bells, the faster cyclists raced ahead to spread the pack through intersections and prevent motorists from taking to the road, while others held behind, waving genially to those amused or inconvenienced. The remainder of the group meandered lazily across lanes that they would normally seek to occupy only the farthest left margins. The event’s organisers hope that riding in formal or profes-

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sional clothing can demonstrate that cycling is a mode of transport conformant with inner city life (Brisbane Style Over Speed, 2015); however, my interests lie in the subtle work by which these people fit their inner city environments to their chosen modality.

At a certain point in their trip, the group demonstrates one of the subtle ways that cyclists can mould the city to their ends; as the pack reached a set of traffic lights that would take them over the Brisbane River into the CBD, the cyclists mounted the footpath, avoided the lights, and rode the wrong direction down a one-way street to a pedestrian walkway along the Brisbane River's edge. In doing this, they made a difficult intersection amenable to their ends. Maybe this is just an insignificant occurrence, at best a minor annoyance for a pedestrian. However, these are productive cultural grounds; as Jackson (1996) has noted, the tacit skills required to do this, and the somatic apprehensions and emplaced knowledges these skills index, generate unique forms of life. And it is in the way that cyclists appropriate infrastructure, in this work they undertake that makes their city cyclable, that a particular urbanity is constructed.

In this article, I argue that cycling in a city like Brisbane, Australia – where it is uncommon – is to ride in the gaps both between cars and between the infrastructural systems built to support car use. The relation between these two zones is highly productive for cyclists; in these interstices between cars and infrastructure, cyclists create Brisbane's cycling culture, through shared behaviours, experiences, symbols and meanings. Analysing the action of cyclists as "spatial practices" (de Certeau, 1984) that appropriate the affordances of urban infrastructure, I argue that, in response to road environments that can be somewhat unsympathetic, cyclists counter-map the city against its infrastructural deficiencies and their own personal histories of hostile interaction with motorists. Cyclists use their interstitial position – being not just a person but not quite a vehicle – to concatenate discrete terrains, constructing routes that forge connections only available to those on bicycles. In doing this, the mundane practice of commuting by bicycle is generative both of an emplaced cycling culture and a qualitatively distinct urban imaginary.

Movement and the ecology of possibility

During the 1990s, the social sciences – particularly sociology and human geography – underwent a "mobility turn" (Cresswell, 2006, pp. 21-56), which shifted investigative foci from the endogenous structures of society to the flows and movement by which societies operate (Urry, 2000). Prior to this time, the social sciences relied on what Malkki (1992) called a "sedentary metaphysic", which held movement to be a temporary loosening of the individual from the obdurate facts – home, work, place, family and country – that gave meaning to life (Cresswell, 2006). From this metaphysic it followed that cultures were emplaced

essences; location, culture and people being isomorphic rendered movement – temporary or otherwise – a disruption of this essential connection (Gupta and Ferguson, 1992). These perspectives hold culture to be something someone *has* by virtue of their geo-social position, rather than something that people *do*; Clifford (1988, p. 275) notes this when he asks, “What processes rather than essences are involved in present experiences of cultural identity?” Privileging the “roots” of cultural formations “routes” along and by which they take place (Clifford 1988, 1997) suggests that practice and performance articulate some hidden cultural essence; for the present study, my intention is to permit movement to stand as inherently cultural, as something that does not separate the person from their place, but rather binds them to it.

While the “new mobilities paradigm” (Sheller and Urry, 2006) sought to investigate the centrality of exogenous flows and movements to people’s lives, little of this work engaged with the act and experience of moving (Cresswell, 2010). Focusing on the structures that permit or inhibit movement and their implications (cf. Urry, 2000) sees the actual movement “black-boxed” (Latour, 1996, p. 244). The same holds for the cycling literature; investigation into the effects of infrastructure (Dill and Carr, 2003; Krizek, Handy and Forsyth, 2009; Lugo, 2012; Passafaro, Rimano, Piccini, Metastasio, Gambardella, Gillace and Lettieri, 2014; Zhao, 2014) or policy (Pucher, Dill and Handy, 2010; Rietveld and Daniel, 2004) on cycling rates are arguably focused as much on those that do not ride as those that do. Similarly, qualitative research into the factors that encourage cycling (Handy, Xing and Buehler, 2010; Heesch and Sahlqvist, 2013; Heesch, Sahlqvist and Garrard, 2012; Heesch and Turrell, 2014; Piatowski and Marshall, 2015; Pucher, Garrard and Greaves, 2011) focuses more on the factors leading to cycling, rather than the practices itself. This means that the way that hostile road environments dissuade would-be cyclists is examined (Chataway, Nielsen, Kaplan and Giacomo Prato, 2013; Fishman, Washington and Haworth, 2012; Garrard, Greaves and Ellison, 2010; Heesch, Giles-Corti and Turrell, 2014; Hunt and Abraham, 2007; Jacobsen, Racioppi and Rutter, 2009), but the adaptive strategies of those that continue to cycle are not. Interestingly, investigations into way-finding and road preferences sometimes use computer simulated road environments and Global Positioning Systems to examine cyclist’s practical engagement with roads (Aultman-Hall, Hall and Baetz 1997; Parkin, Wardman and Page, 2007; Rybarczyk, 2014; Wang, Akar and Guldman, 2015; Yeboah, Alvanides and Thomsson, 2014). Ironically, as Cresswell (2010, p. 161) suggests, “real bodies moving have never been at the top of the agenda”; there is the surprising situation that, in the study of mobility, the movement itself is often missing.

Spinney’s (2006, 2007, 2009) work, with its focus on the phenomenology and kinesiology of cycling, comes closest to where the present study lies, though his diverges, firstly, in its focus on the construction of landscape, and secondly,

in researching with fitness or sport cyclists in Mont Ventoux. His research attends to the way that landscape is constructed phenomenologically, and comes into being as landscape as the perceiver comes to perceive it; however, the focus is still truly anthropocentric – its emphasis on the perception of the subject, their senses and how this causes the landscape to come into view, creates an asymmetry of analysis, despite having the intention of recognising place and material. The present study builds from Spinney's work, but limits anthropocentricity through use of Gibson's (1977) concept of the "affordance". The affordance emphasises that any 'what' is only that specific 'what' for a particular 'whom'; the opportunities presented by material are contingent on the capacities of the apprehending individual. Though little work on urban cycling has proceeded in this vein, studies of urban *parkour* are instructive here. Brunner (2011) and Kidder (2013) submit that a wall of a particular angle or surface will present itself as an ideal point to launch a manoeuvre or make a landing. Similarly, for cyclists in Brisbane, lips in gutters, pedestrian islands, delivery alleys and roadside gardens present themselves to cyclists as ideals means to circumvent an occasionally hostile road environment. The present study focuses on *work*: how cyclists engage with material, the creativity they exercise, how they resist certain flows or rhythms of movement, and what role their movement has in the construction of lived, rather than visited, place.

In recognition of the world-building qualities of movement (Ingold, 2011, p. 148), I will investigate the cultural properties and generative capacity of quotidian movement. As Mauss (1934[1973]) famously argued, there is no 'natural' version of even actions so banal as walking; these actions can never be independent of the context and environment in which they take place (Ingold, 2008). Countenancing environment, I engage "the full chain along which competencies and actions are distributed" (Latour, 1992, p. 165), investigating embodied practice while recognising "the performing body as part of an ecology of things in progress (Pink, 2011, p. 346). Rather than 'having' an environment, people are "caught up in [its] fabric" (Merleau-Ponty, 1962, p. 256); materiality and its qualities are actors in practice, rather than stages for performance, so the prescriptions for practice lie not in the mind of the person, but emerge between the individual and their context (Ingold, 2008; Merleau-Ponty, 1962; Ryle, 1949[2009]). I avoid the anthropocentrism of other studies of cycling by examining the "relational and emergent imperatives of material force" (Whatmore, 2006, p. 603) through which humans and things are co-constituted. Routines, practical skills and dispositions are emergent events produced through a cyclist's apprehension of, responses to and attunements with the affective particularities – texture, spatiality, velocity and rhythm – present in a site (Ingold, 2008; Pink, 2008; Ryle, 1949[2009]; Tilley, 1994; Whatmore, 2006).

Framing, after de Certeau (1984), cyclists' appropriation of infrastructure as "spatial practices", I demonstrate both their embeddedness and the world-

making qualities. de Certeau (1984, pp. 94-110) held that urban walkers, blind to a city's regime of spatial ordering, are engaged in a constant process of subverting the intended uses of urban environments, appropriating them and recreating them in practice. The citizens' "bodies follow the cursives and strokes of an urban 'text' they write without reading", in which their "intertwined paths give their shape to spaces" (de Certeau, 1984, p. 101, 97). Their particular use of infrastructure and architecture constitutes "spatial stories" (de Certeau, 1984, p. 115), exercising their resistance against spatial violence and creating the character of the city. While expedient, de Certeau's conception suffers for the way in which it presents movement as an articulation of will; for him, "the act of walking is to the urban system what the speech act is to language" (1984, p. 97). Holding an individual's patterns of movement as enunciative of only their desire to move short-changes the capacity of materiality and affect to incentivise certain routes and practices and, in this case, overlooks the affordances of a road environment made available to a person on a bicycle. Brisbane, a city in which movement by car is expected and highly accommodated, sees a "relational politics of (im)mobilities" (Adey, 2006) whereby the privileging of movement by car leads to the fixity of other, less-equipped peoples (Scott, 2013). To this end, a cyclist's spatial practices do not so much articulate only their desire to move as they detail a dialogue between the cyclist's agency, the affectivities of the road environment, the disposition of other road users, and the particular opportunities presented by infrastructure.

Framing the bicycle as an "alternative mobility" (Vannini, 2009), I attempt to thread a line from practice to place, maintaining a focus on the emergence of practice with an eye turned toward its cultural possibilities. Alternative mobilities research recognises that all forms of movement – and particularly subordinated forms – are contexts for unique performances, embodiments, interactions and meanings (Vannini, 2009, p. 11) and that worlds built on movement by foot, by boat, and by bicycle will be constructed differently to one another. Feld and Basso (1996, p. 91) hold that, "as place is sensed, senses are placed; as places make sense, senses make place"; in the work required between the emergence of practice and routes, a unique conception of the city takes place, one only available to those on bicycles. Having discussed the literature and theoretical framework of the later ethnographic discussion, the paper now details the methodology and the "go-along" (Kusenbuch, 2003) method employed during research. I will then turn to the interview data with a discussion of the phenomenology of cycling and the role of affects of cyclist's routes. Finally, I will move to practice, and the active, processual creation of routes to limit negative affects, amplify positive ones and counter-map a more cycling friendly city. In doing so, I hope to draw clearly the connection between material, practice and place.

Method

The primary data for this research was obtained ethnographically, with six months participant observation cycling around Brisbane and joining cycling activists at meetings and group rides, and 12 unstructured interviews of between one and two hours long. Interviewees were obtained by contacting local cycling advocacy groups, who participated in interviews and recommended further people with whom I could research. In order to permit as much content to enter the interview as possible, I tried to ensure the interview play out as a conversation about a mutually interesting topic. However, I did corral these loose conversations past several core topics: the creation of routes, the tactics of everyday cycling, Brisbane's cycling infrastructure and motorist-cyclist interactions. I paid close attention to discussion of routes, particularly on the historical construction of routes: the events that contributed to the standardisation of a route; how their route deviates from those offered on Google Maps or the Brisbane City Council's bicycle network; and the values the chosen route has over other options. In order to explore the information provided in these interviews, I supported these interview data with six months of participant observation. During this time, I focused primarily on cyclists' negotiations with the materiality of the road and the roadside, their use of infrastructure and their interactions with motorists. I also took opportunities to briefly discuss with cyclists the immediate occurrences – the day's conditions, an event that we had both witnessed, or the particular piece of infrastructure we were using – and had between 50 and 60 brief, informal conversations with them.

I recognised the trajectory that my research was to take early in the project when discussing routes with cyclists. During the interviews, I would ask informants to plot their most frequently cycled routes on Google Maps, and discuss with me the choices that led to this particular path. However, most had difficulty recalling their routes or plotting the path while only looking at the map. Henri Bergson (1991, p. 190) might have castigated me: "You substitute the path for the journey, and because the journey is subtended by the path you think the two coincide". I required a method that could illustrate cyclist's tacit skills, and, more specifically, how particular forms of moving yield knowledge that cannot be readily articulated. To this end, I needed to investigate movement as it occurred within anthropological space, rather than geometric space (Merleau Ponty, 1962, p. 284). This was to assist in overcoming the issues my interviews presented, but could also attend to the tendency for the social sciences of mobility to elide actual movement.

To engage with cyclists in practice, the present study adapts Kusenbach's (2003) method of the "go-along" in order to bring phenomenological sensitivity to the data. The go-along seeks to explore subjects' "stream of experiences" (Kusenbach, 2003, p. 463) with them, permitting exploration of the connection

between places, rather than the significance of the places themselves. Here, movement practices, and the material over which one moves, can be observed directly, while also discussing the experiences, histories and interpretations of the particular practice or area (Kusenbach, 2003). This type of embodied ethnographic research has been conducted in studies of urban practice and pedestrianism (Leder-Mackley and Pink, 2013; Lee and Ingold, 2006; Olwig, 2008; Pink, 2008; Vergunst, 2008), or the various modalities required to navigate urban settings (Scheldeman, 2011; Toiskallio, 2002). However, it has only been used to a limited extent in urban cycling, focusing on phenomenology (Jones, 2012; Spinney, 2006, 2007, 2009), and the construction of neighbourhoods (Duppen and Spierings, 2013). This builds upon phenomenology-focused studies, such as Jones (2012) Spinney (2006), to examine the relation between practice and place.

Engaging cyclists in practice, I was taking seriously the tactics of the everyday, to borrow from de Certeau, recognising local knowledge, attunement to daily rhythms and dispositions as processes of enskilment that open up new forms of life. This meant that the mere act of riding a bicycle across a garden, for example, was not simply selfish and reckless riding, or a simple articulation of the desire to move. Instead, this type of riding reflects a complex illustration of the pressures of bicycle commuting and the possibilities provided by the material world, and indicates the cyclist's tacit understanding of the broader issues of mobility and transport safety in Brisbane city. My attention to the practiced space also meant that my rapid pulse while riding in a region that my informants avoided for its lack of infrastructure, or my shortness of breath as I ascended a hill an informant climbed to avoid a busy intersection, were all part of the field notes that I acquired during research. I would note the exertion when, for example, travelling a convoluted route, or climbing a steep hill, and discussing with my informants why taking this hill is superior to the flat route, why a dimly lit back road is safer than a well-lit street, or why riding slowly through the Botanical Gardens is more efficient than taking a direct route. By experiencing these features, I was able to better understand the competing valences at play in commuting by bicycle.

I should note that, because I spoke only with cycling advocates, the interview data I gleaned could be understood as somewhat limited; the informants were people who only rode bicycles and, furthermore, positioned themselves in varying degrees against the car. Though my research was not looking at the nature of inter-vehicle interaction itself, the perspective of motorists held by the interview subjects may be more pointed than that of other cyclists. However, because I intended to speak with people who only travelled by bicycle, this issue was almost inevitable.

Embodied on the road

"I know all about that hill"

- 'Khaled', cycling commuter, 20s

Underpinning the particular movements of cyclists is material and the affects presented by road environments, which work to incentivise certain routes while discouraging others. The road environment for the cyclist is markedly different to that of the motorist. Merleau-Ponty (1962, p. 165) writes that in the processes of engaging with the world, a blind individual's stick is incorporated into their act of knowing. The cyclist, like the motorist, knows the road environment through their vehicle. However, the car mediates between the individual and the environment to a greater extent than the bicycle. Indeed, this mediation – suspension, air-conditioning, tinted windows and proximity detectors – exemplifies the car's sophistication and is central to its appeal (Bijsterveld, 2010). While other senses are important (Sheller, 2004), central to driving is what Gibson (1979, p.120) referred to as the "field of safe travel" that drivers view through the windscreen. For cyclists, however, there exist manifold competing valences (Jones, 2012; Spinney, 2007).

Interviews revealed the numerous affective registers present to the cyclist that contributed to their cycling practices. Cyclists speak of listening intently while they ride for cars driving behind them, attempting to estimate by sound their proximity and intentions. This intent listening, and the absence of an insulating vehicle, means that horns and yells can be particularly shocking. Because they are so vulnerable to debris, cyclists remark on constantly scanning the road's surface for cracks, glass, loose objects and potholes as they ride, and they minimise vibrations by threading a careful line across the road's surface. Cyclists complain of being engulfed in a bus' exhaust, but delight in smelling restaurants as they ride through Southbank's culinary precinct. They relish the kinaesthetic pleasure of coasting while using a car as a windbreak, but fear being pushed by the displaced air of a quickly passing motorist. They speak with joy of the sensation of wind on their face, disgust at an inhaled insect, and fear of a swooping magpie. These affects incentivise certain practices while discouraging others.

Rather than being, as one informant put it, "in a bubble of air-conditioning and music" looking into a field, cyclists are – for better or worse – immersed within it. Moreover, the cyclist's relationship with the act of moving it is less mediated than the motorist. A cyclist who turns their handlebars 45 degrees will effect a 45 degree shift in their front wheel. Similarly, their effort pedalling is proportionate to their degree of displacement or the road's gradient. This was particularly salient: cyclists will exalt the moment in their route where "the ground just gives way" and they no longer have to pedal, or denounce that they have "to go up that big shitty hill". After travelling with an informant up a large

hill that forms part of his everyday route, I wheezed out an expletive-riddled condemnation of the idea of climbing it everyday, and he laughed, “Yeah, I know *all about* that hill”. Though he was being facetious, this colloquialism is telling; by being immersed in an environment, at the throes of numerous affects and *qualia*, cyclists *know* – perceptually and somatically – more of a road environment than other road users.

As Spinney (2006) notes of Mont Ventoux, these sense phenomena help to construct the world, permitting the landscape to come into being as the perceiver comes to perceive and experience it. However, his analysis tends toward anthropocentricity by its focus on only his experiences of kinaesthesia and pain, and because the analysis largely takes place at the level of an individual ascending a mountain alone. In an urban context, this distanced apprehension of landscape is not possible; that the gradual accumulation of lactic acid helps to construct the mountain one is climbing is one thing, but ducking and weaving between multiple competing mobile actors, all with their own trajectories, across an uneven and sometimes unreliable surface, establishes unique vectors that dictate to the rider how they experience the city. What follows is a discussion about spatiality; however, rather than focusing on the remote construction of an environment in apprehension, I focus on cyclists’ work to navigate a city by its interstices, and speak to the capacity for this practice to produce a unique conception of place.

Cycling in Brisbane

“Cycling in Brisbane is a contact sport”

- Caleb, commuter cyclist, 30s

Brisbane is a city where travel by car is expected. In Brisbane, only 1.4% of residents over 18 travel by bicycle to their place of study or work, while 83.6% travel in private cars (Australian Bureau of Statistics, 2012). According to my informants, cars, both in rates of use and perceived right to use, dominate Brisbane’s roads. Cyclists commonly reported motorists’ aggression toward cyclists as their chief worry on the road, that motorists were actively hostile and unaccommodating, rather than simply ignorant of cyclists on the road. One cyclist stated succinctly: “All motorists are dickheads”. These attitudes, and that they dissuade people from commuting by bicycle, is commonly noted in the literature (Fruhen and Flin, 2015; Heesch and Sahlqvist, 2013). To attend to this, and in recognition of the health and environmental benefits of a population that commutes by bicycle, local councils and cities around the world are attempting to encourage cycling as a mode of transport.

As the issues of car transport become apparent, the Brisbane City Council [BCC] has increased efforts to encourage people to replace their car trips with

active transport. BCC has “a ‘two-feet-and-a-heartbeat’ philosophy to get[ting] around in Brisbane” (BCC, 2014b, p.4), and aims for the majority of peak hour trips by 2031 to be conducted by public or active transport (BCC, 2011, p.22). The BCC intends to “nurture an emerging culture among young people that expects their city to be planned and built around efficient, friendly, and safe public and active transport networks” (BCC, 2014b, p. 4) in order to increase cycling from its 2011 rate of 1.6% of total journeys to 5% by 2026 (BCC, 2012, p. 2). When elected in 2012, present Lord Mayor Graham Quirk pledged \$120 million over four years to improve cycling infrastructure (Feeney, 2013). This built upon the \$100 million the council contributed from 2008 to 2012, and sought to “complete missing links in the bikeway network” to create 1100km of bikeways in Brisbane (BCC, 2012 p. 4). While the BCC regularly advertise their 1100km bicycle network (BCC, 2008, 2012, 2014b), they seldom explain what infrastructure constitutes the bicycle network.

Though the BCC recognises that cycling participation will be encouraged by infrastructure (supported in the literature; see Dill and Car, 2003), they build little off-road infrastructure. Roads identified as Primary Bicycle Routes – catering to over 1000 bicycle trips per day – require off road facilities, but “neighbourhood roads” and “local roads”, catering to fewer trips, do not require separate infrastructure (BCC, 2014a). However, those routes identified as Primary Bicycle Routes are already cyclist-only facilities, such as the Bicentennial Bikeway along the Brisbane River (BCC, 2014a). Cyclists’ access to these off-road paths and their local travel are all conducted on neighbourhood or local roads. Though used in lesser densities, all cyclists use these roads, but their infrastructure consists of Bicycle Awareness Zones (BAZ) and bicycle lanes. Both are shared-road infrastructure: BAZ are roads that have a yellow bicycle painted periodically in the left of a lane (Figure 1), while bicycle lanes are green strips painted between the parking lane or curb and the lane of traffic (Figure 2).



Fig. 1: BAZ



Fig. 2: Bicycle lane

BAZ and on-road lanes constitute the majority of Brisbane's 1100km bicycle network (BCC, 2014a). This means that Brisbane's cycling network is comprised of separated paths through idyllic areas (Figure 3) or shared lanes on busier roads (Figure 4):



Fig. 3: Bicentennial Bikeway



Fig. 4: BAZ in CBD

Brisbane cyclists often noted that the 1100km bicycle network spruiked by the BCC was misleading. Because most lanes were between parked cars and moving traffic, the lanes are unreliable and problematic. One man said: "You'll be riding along and everything's fine and then the lane will suddenly pinch and you're headed straight into the gutter, or you're spat out in the middle of the traffic". Though cyclists preferred lanes to BAZ, they felt safe in neither of them. As one participant asked, "How do they expect a bit of green paint to protect me?" And another held that the scarcity of separated paths ensured that "cycling in Brisbane is a contact sport". Using on-road infrastructure, cyclists describe motorists "riding my arse" or of being "pinched" between the moving cars and parked traffic. While these somatic metaphors may be rhetorical flourishes, they index the cyclist's immersed and embodied position on the road.

Routes and spatial practices

"I always take the longer route, if it's more chilled"
 - 'Poppy', urban commuter cyclist, 20s

Roads are surfaces created to facilitate smooth movement; however, these spaces are also environments that cyclists move within. Ingold (2007, p. 75; 2011, p. 59) distinguishes the movement of the wayfarer, who experiences a direct connection between the act of moving and the perceptual apprehension of the environment through which they move, from that of the transporter, who moves more

remotely. The difference between these two modes is apparent in the cyclist's route construction. As discussed above, early in my research, I would ask cyclists to plot their regularly travelled routes on Google Maps, with a view to ranking the patronage densities of certain pieces of infrastructure, but all informants had difficulty recognising their routes. Maps do not aggregate a "multiplicity of partial views" (Gell, 1985, p. 278); rather, "the placing of maps within their cultural context is paralleled by the displacing of culture from its context in the lifeworld" (Ingold, 2000, p. 226). BCC's cycling network, available on Google Maps (Feeney, 2012), on the council's website, or in hardcopy from BCC libraries, represents the city from the distance of the transporter, rather than the immersion of the wayfarer. A map's displacement of information is of little import to an insulated motorist, but for the cyclist, who cannot read on maps the surface of the road, the speeds being travelled, infrastructural quality, or the dispositions of motorists, critical information is overlooked. For this reason, they cannot safely rely on mapping applications or GPS directions; instead they use these maps to construct a skeleton that they flesh out in practice. As I travelled with these cyclists, and they elaborated on the histories by which their routes came to be, it became apparent that their paths were constructed according to the affective factors elided by the map, rather than a desire for speed or convenience.

Cyclists' routes were constructed according to their abilities, confidence and the vagaries of the road environment. While infrastructure did contribute to the construction of routes, because much of Brisbane's infrastructure is considered to be deficient or unsafe, cyclists work to create routes that ameliorate the road's affects. The most salient contributor to a route's construction was the perceived attitudes of motorists. Should a cyclist have a negative interaction in a particular region or intersection, they will endeavour to avoid it by taking another road, or by using separate infrastructure. An example is plotted in Figure 5.

While the direct route marked in black can be cycled, and parts of the road are painted with green cycling lanes, the street is highly trafficked. When my informant began working in the city, she rode to work along this route. However, these on-road lanes forced her to interact with motorists, and she felt that motorists were regularly victimising her by passing her closely, revving their engines behind her at traffic lights and driving in the on-road cycling lane. After several weeks of these interactions, she began exploring backstreets, alleys and footpaths to bypass the regions in which she felt vulnerable. Her new route, mapped in yellow, moves through the industrial region of South Brisbane, the bikeway along the Brisbane River, the pedestrian path through the Botanic Gardens, and a footpath in the city to her workplace.

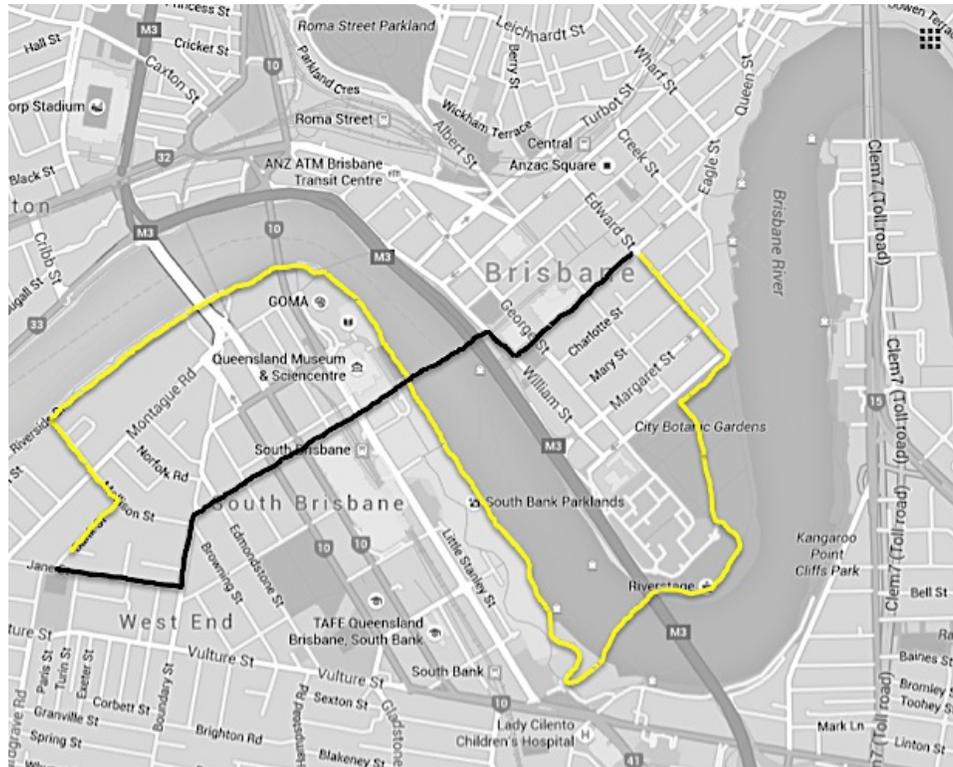


Fig. 5: Direct route taken by cars, initially taken by informant (black) vs cyclist's adapted route (yellow) (specific origin and destination points not shown) [Google Maps 2016]

The routes constructed by cyclists often seem meandering, as illustrated in Figure 8. Cyclists regularly noted a trade-off between efficiency and safety. One informant noted: "I always take the longer route, if it's more chilled", because:

the last thing I feel like is cars riding my arse, abusing me. I'm on bikeways [off-road lanes] or really quiet streets the whole way... and it's a lot more of a pleasant experience, and there are no hills. So an extra k or two is okay.

By travelling the longer routes, connecting separated bicycle lanes to quiet streets rather than taking the signed, on-road cycling infrastructure, cyclists ensure that their ride is more agreeable. As well as being circuitous, travelling the "chilled" route can be convoluted. One woman noted:

If I ride on the bikepath, I have to go on the road through... where it's really industrial? There's always heaps of bogans down there ... they perve on me or

whistle and shit... there's [also] like commodores and just people who don't like cyclists. So I kind of zig-zag between the street and the signed bike path.

The cyclists will ride the separated infrastructure if they can reach it, protracting their routes, or they will weave in and out of local streets finding the path of least resistance.

The bicycle's size, manoeuvrability, and classification as a vehicle presents cyclists with unique opportunities to make their routes more expedient and safe. Cyclists in Queensland, as opposed to those in New South Wales, Victoria, South Australia and Western Australia, are legally permitted to ride on footpaths (Department of Infrastructure and Transport, 2013, p. 28). Brisbane cyclists are betwixt and between motor vehicles and pedestrians; they are not just people, but not quite vehicles. Cyclists can be observed exploiting this, vacillating between the road and the footpath to circumvent pieces of road with dangerous surfaces, or to ride around congested traffic. They can be seen dropping into roadside drainways, cutting across parks to avoid intersections, or fashioning shortcuts through roadside gardens. Some cyclists will also ride in the gutter against the flow of traffic on a one-way street, a process called 'salmoning' (i.e., swimming upstream). While riding with a cyclist on his everyday route, we cut across a lane of traffic, mounted a gutter to reach a park at the centre of three streams of traffic, and exited on the opposite side, avoiding a set of traffic lights. He said of this tactic: "I just saw a guy do it once, and I thought 'that makes sense'".

In exploiting their capacity to transcend the road, cyclists manoeuvre around difficult or hostile road environments. The path of least resistance that makes itself apparent is largely limited to those riding a bicycle, and includes footpaths, drain-ways, courtyards, roadside gardens, as well as one-way streets and bus-lanes. Brunner (2011) suggests that for urban *parkour* practitioners, certain forms of infrastructure materialise the possibility for practice. Similarly, as the vagaries of the road environment conspire to inhibit easy riding, infrastructure and roadside environments materialise the possibility for routes otherwise. The below figure illustrates the way in which cyclists can concatenate discrete topographies in their creation of a safe route:



Fig. 6: A cyclist's concatenated route (Google Maps 2015)

Figure 6, particularly the latter third of the depicted portion, makes apparent why my informants had difficulty plotting their routes onto maps. I later documented the various topographies connected by the cyclist in Figures 7a-7l:



Fig. 7a: Crosses as pedestrian



Fig. 7b: Rides up footpath



Fig. 7c: Crosses one-way street



Fig. 7d: 'Salmons' up lane



Fig. 7e: Crosses intersecting street



Fig. 7f: Travels delivery alley



Fig. 7g: Returns to road

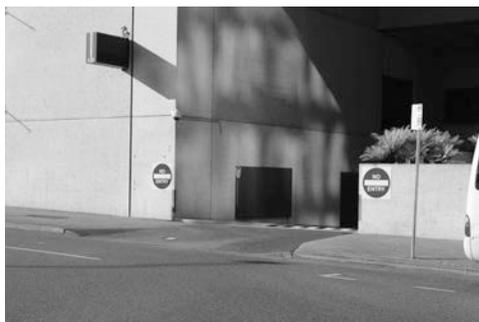


Fig. 7h: Leaves road via exit ramp

**Fig. 7i:** Travels up footpath**Fig. 7j:** Rides library forecourt**Fig. 7k:** Descends grassy hill**Fig. 7l:** Joins bikeway

The cyclist concatenates several discrete topographies in order to navigate this busy area. There are multiple traffic lights, several three-lane, one-way, high-speed thoroughfares and a bus interchange in the region. By fashioning this route, the cyclist is able to avoid rapid automobile traffic. Exploiting their size, the cyclist exits the road, rides up the footpath, weaves between the traffic in one of the busy one-way streets, ‘salmons’ up a one-way delivery alley, returning to the road briefly before taking advantage of an affordance of a lip in the gutter, which permits him to leave the street again and use the library forecourt and park to access the off-road bikeway. Though this route only deviates slightly from those taken by motorists and pedestrians, it exploits the bicycle’s interstitial position to construct a route that is only available to the cyclist. The possibility for this route emerges from the roadside infrastructures, in that the possibility for practice is realised in material, while the impetus to exploit this possibility is generated by the vagaries of Brisbane traffic.

Making place in the gaps

“...I’m going where I want. I’m not waiting on [traffic] lights, clogging it [the road] up, stewing in the congestion – on my ride home, I’m literally smelling flowers.”

- ‘Santiago’, urban commuting cyclist, 30s

Cyclists spoke negatively of motorists for their inability or unwillingness to accommodate road users that are not moving by car. This was frequently used as justification for the semi-legal routes that cyclists construct. However, these routes were also often discussed in distinctly positive ways for their capacity to not simply ameliorate a hostile road environment, but to generate positive experiences of the city. One woman lengthened her route by a kilometre because she loved the rhythmic bumps of riding over a wooden footbridge, and sought to ride it every day. Another rode specifically past a park where people exercised because, by riding near those exercising, she was able to briefly be among people who “were outdoors, enjoying Brisbane” – citizens to whom she felt an affinity. The cyclist shown in Figure 5 initially changed her route to simply avoid the portions where motorists were hostile to her, and her route largely consisted of roads. However, after realising the value of moving through an aesthetically pleasant area, she incorporated more of the Botanical Gardens – both the grassed areas and the pedestrian footpaths – into her route. This permitted her travel to gain a value that exceeded simply avoiding the pressures of commuting by bicycle:

I have really, stressful, stressful days, and it’s like, all I’ve got to do is make it to the end of the day, and then I’m on my bike for the next 45 minutes and it’s nothing but birds and river and kids laughing. It’s just *so* much better.

Her effort to avoid hostility on the road sees her trip home become a relief and a high point of her day – travel becomes personal time, rather than simply labour, or dead time (Fine, 2016). In this way, her travel begins to open up a unique urban imaginary.

Similarly, the pressures of commuting by bicycle open up positive valences in less conspicuously pleasant places, as shown in Figure 8. This path runs between a train line and a creek outside Albion in Brisbane’s north. The path is narrow, bumpy, and overgrown, has no lighting, and is poorly maintained. The cyclist that uses this route returns from work at night, and describes this part of his journey as “a bit spooky” and rides as quickly as possible to pass through it. However, because his only other option is Gympie Road – a fast, highly trafficked, multi-lane road – he maintains this path as part of his route. By riding a bicycle, this “spooky” place acquires another value, one that it may not have for people who move by other means.



Fig. 8: A “spooky” but useful route.

Brisbane’s cycling infrastructure is plotted throughout the city according to view of a transporter, rather than the wayfarer: the on-road lanes tend not to countenance the affects that assault cyclists as the ride. These affects impel cyclists to forge connections between discrete topographies and infrastructures to circumvent problematic areas and interpolate pleasant ones. In so doing, they begin to craft a unique perspective of the city. As noted above, cyclists, despite their effort in constructing routes around the city, were seldom able to plot their routes on maps; I hold that this is due to their routes being constructed in practice, according to the vagaries that emerge when one rides a bicycle on the road, and cannot enjoy the dispassionate distance afforded by an insulating vehicle. These routes were constructed in response to these vagaries and exploited material and roadside phenomena that presented themselves as options to cyclists, and these items are not noted on car-centric maps. The routes they create were created for reasons specific to cycling, and are routes that are available only to cyclists; in this way, cyclists come to know the city from their bicycle seat (see also Duppen and Spierings, 2013, p. 239-242).

Creative appropriation and city-building

“Dwelling is accomplished not by residing but by wandering.”
 – Edward Casey (1993:114)

Cyclists noted that they only occasionally shared details with one another about safe ways to avoid regions of hostility, and this may be largely due to the personal nature of these routes, contingent as they are on histories of practice. However, what is striking is that each cyclist I spoke with rode a route that required them to eke it out through trial and error, finding the path that feels right, and there was some consistency between their choices. Speaking of a particular quiet street that is only accessible to pedestrians and bicycles, one woman smiled:

No-one knows about it – cars can’t get through here, so it’s so quiet; it’s like a little bicycle highway and all the people riding smile and nod at each other ‘cos we’re like ‘yeah, this is good.’

Kidder (2013, p. 232) writes of the way that urban *parkour* practitioners – *traceurs* – conceptualise the urban environment in unique ways, where “quotidian physical structures of the city are turned into ‘challenges’”; a feature that can pass unconsidered for people who do not practice *parkour* presents itself as meaningful for those that do. The skillset required to practice *parkour*, as to cycle in cities without minimal infrastructure, creates a unique perspective on infrastructure, seeing opportunities and issues where those without the skillset will not. The uniquely equipped cyclist – not in the sense of their use of the bicycle, but the skillset they have to dismantle and reappropriate urban infrastructure to find safe conduits about the city – sees busy roads and dark backalleys in unique ways. They also forge unique connections, such that narrow delivery alleys, unused footpaths, and worn paths through gardens permit unrelated places to become proximate. Cyclists have distinctive exposures on their bicycles, which encourage the development of a particular urban toolkit that sees the urban environment in a distinctly cyclic way. In turn, cycling affords unique experiences of and routes through the city, colouring an urban imaginary that is qualitatively distinct from that of those who travel by other means.

Anthropologists suggest that movement is central to an individual’s understanding of ‘place’ (Ingold, 2000, 2007, 2011; Tilley, 1994). Life is lived during journeys that go to, from, around and through places, making places a “knot” of pathways, rather than some spatially delineated region (Ingold, 2007, p. 103). Dwelling is not the static occupation of an area; emplacement occurs through the processes of habitation and engaged practices that activate a landscape (Ingold 2000, p. 229; 2007, p. 103; 2011, p. 149). By moving, “landscapes are woven into life and lives are woven into the landscape” (Ingold 2011, p. 47), and

terrain, topography, gradient, contour, seasonal variations and daily rhythms are incorporated into the practices developed to attend to them (Ingold 2004, p. 333; Tilley 1994, p. 29-30). The emplacedness of cyclists' routes is evident in the way they talk about them or describe proximity. When referring to a region, cyclists will often describe the area using information that is salient to cyclists. To this end, they will leave the road at "that nightmare of a round-a-bout", take the "windy bridge over the river", ride through "the packed part where all the tourists are", coast along "that flat kinda part", haul themselves up "that big, shitty hill", or relish the "part where it all opens up". The characteristics noteworthy for description index their emplaced experiences there and the particular affects these regions generate.

As cyclists practice, they weave their unique view of the world into the city. Opportunities are presented, vagaries proscribe, and histories of practice colour the city. Moreover, the conduits constructed between regions are shared by cyclists, and available only to them. One cyclist noted, "They [bicycle lanes] don't make much sense. They stop and start; they're in the door zone. It's safer for me... you know, I've been riding here for years: I know the best ways to go". As cyclists learn the "ways to go", particular streets become regions of hostility, areas such as unlit paths acquire positive values, and unique connections between places are forged through the concatenation of discrete topographies and infrastructures. An informant noted to me: "cycling really makes you realise it's more than getting from A to B". For the wayfaring cyclist, the path between A and B is dense with *qualia*, so in their efforts to minimise interactions with the car-centric transport systems, they generate and share a unique conception of place.

Road environments that are busy or lack infrastructure are commonly understood to be deleterious to "cycling culture". The principal focus of cycling research is how road environments lower cycling rates and dissuade people from cycling. However, these deficiencies are resources that can be creatively drawn upon by cyclists, and attention to the factors that disincentivise cycling reveals the role they play in the production of practices, routes and experiences. In the tensions between the factors that make cycling difficult, the practices required to make the roads safer and the materiality that can be exploited in order to make it possible, Brisbane's cycling culture emerges. The contingency of Brisbane's cycling culture demonstrates that rather than only being deleterious, hostile road environments are productive of unique cycling cultures. Moreover, these practices that counter-map the city against the architectural inertia that makes it easier to drive than ride can be understood as forms of alternative knowledge.

The cycled city is a city distinct from the one walked or driven. Moreover, the vagaries that subtend the cycled city will be unique to the modality, and the routes that respond to these impulses contingent on the rider's confidence, particular tastes, aspirations for their use of travel time and personal histories of motorist interaction. These factors intersect with the possibilities afforded by the

infrastructure of the region, and sees the way a cyclist moves through the city as a social fact not reducible to either the desires of the moving person or the material possibilities of the area. Cyclists access unique parts of the city to circumvent portions with problematic infrastructure, their immersion reveals valences – both positive and negative – of particular regions that could go overlooked by those that travel by other means, and they connect these in routes that seek to emphasise the good and ameliorate the bad. Being so contingent on practice, place becomes an event at the interface between history and materiality; rather than making routes that safely move through the city, cyclists construct a city that is safe to ride. Allowing materiality and affect to play a role in practice distributes agency in a fashion that overcomes anthropocentricity (Brunner, 2011), politicises immobility (Adey, 2006) and reveals the creativity of those that seek to cycle. In the brief, semi-legal work they undertake to make their city cyclable, urban cyclists are quietly articulating possible spatial futures.

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