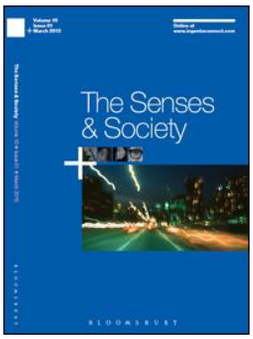

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Gravel cycling craft and the senses: scenes, sounds, vibrations, fatigue and typifications on off-road tracks

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ABSTRACT

Although cycling has been researched at the interactional level, there is scant literature regarding embodiment, and the somatic experiences from rider-bike-ground interactions. Via an ethnographic approach using video obtained from participant observation as a "graveller" sensory practices are examined. Firstly, the research is positioned with the literature on craft studies. Secondly the domains of action namely space, place and the body are theorized and conceptualized. Thirdly, the sensory perceptions generated by gravel riders are depicted. Fourthly, these combined perceptions in turn foster the establishment of subcultural typifications of gravel tracks which are portrayed and form part of the craft knowledge of the above group. The paper concludes by pointing out the link between the sensory and the development of a particular consciousness, and also sport as a fertile ground for investigating craft practices.

KEYWORDS

Cycling; gravel cycling; craft; senses; typifications; ethnography

Introduction

What social studies research there is on "cycling cultures" (Cox 2015) or what Shilling (2022) has termed "Velo worlds," ranges over urban road riding (Falcous 2017), road cycling at night (Cook and Edensor 2017), commuter cycling (Jones 2012), urban bicycle messengers (Kidder 2006, 2009; Fincham 2007, 2008, Cronin et al. 2014), rural cycling (Glackin and Beale 2018), mountain biking (Dodson 1996; Bunning, Cole, and Lamont 2019; Huybers-Withers and Livingston 2010) and velodrome cycling (Themen and Popan 2021),

These different cycling types are focused upon: competition, employment, health, fitness and environmental issues (Horton 2006) and their practice produces particular identities with particular concerns the latter summarized by Shilling (2021, 8):

> 'Green riders' undertake an *ecologically epistemic* re-evaluation of cycling that reshapes their experience of this activity. Cycle messengers engage in a *radicalised reformation* of exchanges through an approach to cycling as 'edgework' and 'flow'. Serious leisure riders' effect a *protracted engagement* with cycling. Finally, mountain bikers facilitate a *reconstructive relocation* that embraces the heightened sensory experiences associated with cycling within off-road contexts.

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Gravel cyclists or "gravellers" evidence both a protracted engagement with their sport and a reconstructive relocation. The former in terms of the times and distances they habitually complete, the latter in terms of the off-road locations they routinely traverse. These concerns building an individual and collective identity focused upon endurance cycling close to the natural world. Hence, there are similarities with mountain biking and cyclo-cross, albeit distances/times cycled in those are typically much shorter. A gravel cyclist is focused on *all day riding* usually with peers, exploring nature and the landscape using routes that follows UK greenlanes, ancient roads, bridleways and byways. Gravel rides in the study were usually one day long and were typically within a range of 80 km – 200 km, averaging between 3–5 h per day of riding but often lasting from morning until sunset. This is exemplified, below, by a rider explaining to others in the group the plan for the day ride:

> Henge, about **130**(km) … road to Ciren, **railway** Cricklade, 'round Swindon on the **cycle-paths, Ridgeway**, Salisbury Plain **gravel . . .** then the stones. Home . . . 9(pm)ish. (Extract from Fieldnotes, 2021).

A gravel bike blends features of a mountain bike with features of a road bike enabling a rider to cycle all types of terrain for long periods. They have a frame able to withstand stones and rocky surfaces but road bike style "drop" handlebars for all day comfort and positioning. Wheels are mountain bikes size with "fat" tires and are tubeless with both smooth and treaded sections – thus able to travel quickly and easily over both smooth and slippery surfaces. "Gearing" provides benefits of both road and mountain bike – very "low" for riding up steep tracks and "high" for speed downhill or flat along gravel tracks, cycle paths or road when ridden. Gravellers can therefore encounter a myriad of surface types in a single often all-day ride and are thus exposed to an array of bodily and sensory experiences.

Following the emergence of the field of "sensory studies" during the last two decades encompassing numerous academic disciplines (cf. Howes 2018) a developing literature on the sporting sensory has been established (for a recent review see Hockey 2021). There is a small amount of research on sensory interactions between sporting bodies and surfaces that examines road running (Smith 2019), off-road running (Allen-Collinson and Jackman 2021), open water swimming (Merchant 2017), parkour (Larsen 2016) and rock climbing (Jenkings 2017). Recent work on cycling surfaces (Silveira and Rama 2020) has not been concerned with sensory experiences emanating from surfaces cyclists ride on and currently there are only a few examples of the particularities of the cycling sensorium being examined (Spinney 2007; Larsen 2010; Jones 2012; Cook and Edensor 2017). This paper aims to remedy this relative lacuna by providing an "embodied" phenomenological perspective (Hockey & Allen-Collinson, 2007) on the sensory off-road sporting body and initially examines analytically the features of craft, space, place and the body.

The craft of "Gravelling"

Interaction between rider, bike and tracks, and collective perceptions which are constructed from such sensory engagement form part of the *craft knowledge* of gravel cyclists. As Atkinson (2013, 56) noted "there is a growing literature in the general area" much of it inspired by Sennett's (2008) original work on craftsmen. Sennett's (2008) analysis of craft activity embraces intrinsic motivation, an intense focus upon the tasks at hand which occur in particular contexts on occasion with particular groups of peers, plus the development of

particular forms of thinking and embodied skills, much of it transmitted and learnt informally over considerable periods of time. To become skilled, Sennett asserts, demands a habituated process of practice, and a constant "rhythm of routine" (2008, 268) until the point is reached when "the practice beds in: making the skill one's own" (2008, 295).

Surveying the general field of sociological work on "craftmanship in a particular social setting," Thorlindsson, Halldorsson and Sigfusdottir (2018, 131) note: "These studies vary in their content and in their emphasis on different aspects of the craftsmanship approach, but they all focus on how the culture of craftsmanship plays out in each particular case."

The field now covers diverse activities (e.g. O'Connor 2017; Carmel 2013; Hockey 1997; Holmes 2015) some of which are in physical culture and sport (e.g. Larsen 2016; O'Brien, Rynee, and Mallett 2022; Thorlindsson, Halldorsson, and Sigfusdottir 2018). There are numerous definitions of craft (e.g. Mills 2002/1951, 220; Thorlinson et al., 2018, 117). In this paper, we utilize a succinct definition provided by Carmel (2013, 734–5):

> craft is an appropriate term for work which encompasses manual skills (interaction in the material world) and insightful judgements (the application of knowledge).

For *gravellers* who are engaged in "serious leisure" (Stebbins 1992) these dimensions of craft fuse together and, "insightfully applied knowledge is combined with dextrous manual skills" (Carmel 2013, 734). Riding encompasses craft underpinned by the sensory perceptions of hearing, seeing and feeling. This builds a particular sensory knowledge of the terrain being passed over, and simultaneously individual and collective judgments. Hence, at this juncture, what is ridden over and with what – the body/bicycle – is given some attention.

Theorizing and conceptualizing: space, place and body

Riding occurs in particular kinds of "social space" (Lefebvre 1991) produced by solo and collective movement of this "kinaesthetic culture" (Samudra 2008, 666) as routes are constructed so riders engage with landscape as space and place. Lefebvre (1991) identifies three distinct analytic ways of engaging with such spaces. Firstly, "socially specific spatial practices" (Stewart 1995, 611) involving the physicality of pedaling through off-road terrain which simultaneously constructs the specific social space defined as "the route." Secondly, engagement which Lefebvre terms *representations of space* which are *conceived* by participants via their somatic experiences of pedaling. This particular corporeality leads to riders' imaginatively and interactionally assembling narratives, meanings and memories, as particular kinds of spaces and places. However, as Spinney (2006, 712) concludes, the foundation of that cognitive activity is sensorial:

> A dialectical relationship emerges where extra-somatic representations are superseded and the immediacy of the senses in the context of achieving a cultural goal comes to the fore to create the meaning of a place.

Thirdly, the assemblage of both forms of engagement create what Lefebvre (1991) defines as spaces of representation or *lived space*. This in turn creates particular kinds of somatic and cognitive understanding, which result from such spatial practices. These are socially specific in terms of being produced via particular kinds of movement through particular kinds of terrain, and have their own historical pedigree (Stewart 1995) rooted in the

subculture of "gravel riders." This tripartite process results in material space becoming for cyclists particular kinds of place filled with objects, happenings and vitally meanings as Gieryn (2000) has observed. In addition, Gieryn (2000, 472) notes of places,

> Foremost perhaps is pragmatic utility: people identify as places those spots they go to for some particular purpose or function.

The movement of riders along routes through spaces and places produces a "real-time" narrative, internally constituted by the rider as he (sic) experiences the route in-transit /through time. Sensory data *emitted* by the route/bike and riders generate "on-the-fly" interpretations as Spinney (2006, 713) has identified,

> People rarely experience places from a static point of view, and hence the meanings generated are not those of one viewpoint or sensation.

As Gieryn (2000) has also observed, changing space into place is essentially an interactional and thus social activity, as riders intersubjectively construct the latter as they cover ground together. Habitual cycling practices produce specific forms of knowledge which means cyclists inhabit their routes via constant "active, practical and perceptual engagement" in a solo capacity and together (Ingold 2000a, 42). Particular sections of space-place then become identified with and "owned" by riders who are collectively "emplaced" (Pink 2011). As Crabtree (2000, 2) notes "spaces and places consist of intelligible or material arrangements which are tied to the performance of particular activities" in this case riding across routes which change and are changed. Moreover, there is a fundamental somatic dimension to routes, as Grasseni (2009, 8) has observed they "must be considered not only as a mental or social construct but as the sensuous experience of being in space and time." This phenomenological owning of place not just via symbolic or discursive means has also been identified in distance running (Hockey 2021, 139–143).

In general terms, gravellers have a collective concern to ride through space and place under optimal conditions and this demands attention to another salient feature namely weather. Until recently sociological analysis of the impact of weather upon culture generally let alone sport has been surprisingly limited, but this has recently started to change (e.g. Allen-Collinson and Jackman 2021; Simpson 2019). In the case of gravelling, the variety of ground conditions and the immediate environment encapsulating the latter is perpetually exposed to the vagaries of UK weather. This exposure changes ground conditions to be pedaled over and the resulting gamut of sensory experience as well as understanding and evaluating what is being traversed and how it is to be done. That said the subculture is pragmatic about conditions and generally limits its riding to the better weather months as the following fieldnote (more on data collection later) indicates:

> We ride in the summer cos it's impossible in the winter. Rain spoils the tracks. Mud jams wheels and gears. Stops bikes. Sticks to shoes, it means everything we love is absent. And as they say often, too fricking cold and grey. Winters drag for months. It's hibernation time. Summer comes and I am amazed at how tracks are transformed into a fast, dusty gravel topped surface. (Extract from fieldnotes, 2021).

Space-places perceived and conceptualized as ground to be ridden, manifest complexity and that is now examined.

Routes, lines and affordances

Gravel riders interactions with the space-place of ground has three central components. Firstly, the route itself of which there is greater or lesser prior knowledge, depending how often the latter is traversed and contains in the case of all-day gravel riding numerous places.

Individual "sections" or "sectors," specific byways or bridleways for example, were talked about to form *the* route for all in the group. These individual tracks had often been given nicknames by the group and were referenced by them, for example, "deadfox bridge," "fossil track," and "syreford up". These tracks had meaning and were understood as having individual characteristics, surfaces, slopes and places. Routes constitute the fundamental direction of movement for gravel cyclists for as Todes (2001, 49) articulates,

> through movement we do not merely notice but produce the spatiotemporal field around us, our circumstantial field, the field in which things appear to us.

Secondly, within the route there is a more precise direction of travel, which is known by the "members concept" (Hammersley and Atkinson 1983, 50) of a *line* (walkers also use this concept, see Brown 2017, 310; Ingold 2015, for its use at a more theoretical level in anthropology). Lines constitute the immediate trajectory of action chosen from the various possibilities of forward movement available within the route and the places passed through on the former. Thirdly, and importantly for this paper, choices of line are sometimes based upon what prior ground knowledge riders have accrued or not about the routes and places engaged with. Finally, a central feature of such knowledge is the riders ability to read ground and select lines and possibilities for action that parts of each line are perceived to contain. For example, as was often observed during rides, when riding at speed in a line downhill the first rider would switch "lines," using jumps to avoid a rock, gulley or re-position, an action which cascaded to following riders as they observed the front rider and/or saw the need to change themselves using the same action. The ground and lines thus having *meanings* to individuals and the collective group. This interpretation constitutes what Gibson (1979, 27) has conceptualized as affordances,

> The *affordances* of the environment are what if *offers* the animal what it provides or *furnishes*, either for good or ill.

Elaborating on Gibson's position, Heft (1989, 19) notes the emphasis on actors' perceptions, intentionality, relationality (between the individual and the environment) and subsequent learning of "particular situated, *intentional acts in social contexts*." This aligns with the work of Merleau-Ponty (1945/1963) who has also examined them in his work on embodiment (see Heft 1989, 11, on this congruence).

Having examined what is ridden over, the focus now turns to arguably the core of craft activity namely how he gravelling body operate as it passes over terrain.

Bodies and techniques

Leder (1990, 31) perceptively notes in relation to learning skills:

> A skill is finally learned when something that was extrinsic, grasped only through explicit rules or examples, now becomes to pervade my own corporeality.

Particular postures on the bicycle and expert movement of its "tools" (Sennett 2008, 194–213) of brakes and gears, produces a "knowing which act should be done with which thing" (Sennett 2008, 195). This results in a particular set of feelings emanating from organs, ligaments, tendons and muscles, a specific assemblage of "immediately lived sensations" (Leder 1990, 23). This "somatic mode of attention" (Csordas 1993, 138) provides the rider with information and feedback about posture, balance and movement. It becomes possible to interpret and consider a rider's relationship with place and space as being a "bike-ground-rider" ensemble of interactions consisting of mediated sensations: movement in a place, movements of rider/riders as they adjust posture and functional operational activities and skills. For the time of a ride, rider and bike, as they travel through place and over ground, are therefore engaged in *contiguous sensory attentions* that generate *meanings* for the rider.

Of considerable utility here is Crossley's (2004) concept of "reflexive body techniques," developed building on the work of Mauss and Merleau-Ponty and which orientate to pre-reflective principals. Thus, to gravel ride is not merely to learn to perform a fixed set of movements (e.g. adjusting posture, pedaling, swerving) but rather to grasp, in a practical and pre-reflective way how the bike moves over particular kinds of terrain. Moreover, gravel cycling embodies a purpose and thus a particular spectrum of meanings, as Crossley (1995, 47) stresses, the mind is inseparable from the body, as they remain "reversible aspects of a single fabric."

Furthermore, as Crossley (2004) indicates embodied competencies and their meanings which are specific to particular physical activities become shared and thus are not just individual but social. They help construct and maintain in Bourdieu's (1977) terms a particular *habitus* containing a degree of embodied commonality which is simultaneously both collective and individual, the one flowing into the other. Each reflexive body technique consists of a group of corporeal competencies, which are done together to complete a common objective (Crossley 2005, 10). Together they constitute the phenomenological ground-work required to accomplish effective sporting/leisure activity. This habituated and skilled performance is never completely similar for gravel cyclists as the ground they traverse is subject to frequent change, demanding an improvisational capacity on the part of enthusiasts who are continually accomplishing a sensory monitoring of the conditions which surround them (c.f. Ingold 2000a, 353). An awareness that encompasses interrogating both ground, the somatic self and peers for important intelligence pertaining to both enjoyment and safety. Therefore, the "feel for the game" practitioners manifest is, as Bourdieu (1990) indicated, truly a "practical sense" (p.62–63). The skilled performance of these combined sensory practices constitutes the end product of what Shilling (2007, 13) has called "body pedagogics." Formal and informal instruction into embodied learning processes, which constitute the socialization of novices within the sport, or outside of the latter, for example in work (Hockey & Allen-Collinson, 2009). Novices learn the embodied sensory practices of doing gravel cycling through completing those practices and in turn reproduce the very structure of the sport itself, or as Crossley (2004, 52), following Bourdieu, has put it, "Habitus structures practice, practice structures habitus." Having analytically portrayed the "context" (Sennett 2008) of the gravelling craft via space and place and then the body which accomplishes that craft, via the "grip" (Sennett 2008, 151–152) of hands and feet upon the bicycle, the next step is to depict how data was collected about that relationship.

Methods of data collection

This paper uses video data, photographs and fieldnotes collected from a mobile video ethnography carried out between March 2019 and June 2021. Participant observation was chosen to collect "rich detailed data based on observations in natural settings" (Burgess 1990, 79). The first author was a member of a "kinaesthetic culture" (Samudra 2008, 666), a small group of UK male gravel riders. Through an approach of thick participation (Samudra 2008) in rides with up to 6 other riders between March to September each year, data was collected using a hand-held GoPro™ camera to capture a digital depiction of a moving social world (Evers 2016). Four hundred and eighty-two gigabytes of digital data were recorded during 302 rides totaling 864 hours. Interrogation of the video, photographs and fieldnotes produced analytic themes via the constant comparative method (Charmaz 2006). Amongst these, were direct sensory perceptions of seeing and hearing, indirect haptic ones (mediated by the bicycle) and gross feelings of fatigue. These central features of the gravelling craft (Sennett 2008) are now portrayed.

The sensory riding body

The sensory interaction by riders with ground provided an informal group learning of what was good to ride over and what was not. As Dant (1999, 123) notes:

> It is through experiencing the inside of a thing, through sensing and responding to its 'pushiness', that we are able to collaborate with material objects . . . This is what is involved in the process of learning to play with an object . . . its responses under a variety of conditions have to be learnt and incorporated into current action . . .

The gravelling body is then riding in summer conditions and something of its sensorial complexity is now depicted using data gathered from the previously explained participant observation.

Listening and hearing

Riders were not limited just to haptic sensations, but also auditory experiences. Riders were attentive to particular features of their "soundscape" (Rodaway 1994). As Rodaway (1994, 95) has further observed "sound is not just sensation: it is also information. We do not merely hear, we also listen." Furthermore as Sennett notes (2008, 157,159) the ears of craft practitioners become *attuned* to their environment. Thus, sound acted as a way for the riders to become "emplaced" (Pink 2011) by rooting riders within *the soundscape* of the ride as they listened to sounds of crunching, rattling or hissing.

> When riding the wind passed over and around ears, resulting in a deafening tearing noise. When moving to a track, the quiet hum of tarmac is replaced by a higher pitched crunching - a spitty krrrrrrrrrrkkkrrrrrrrrrkkkk noise, similar to bacon frying in a pan. A consistent and constant electrostatic, crispy, clicking, spitting, fizzing rhythmic noise, louder in volume than the constructed road. This jump in volume instantly draws a rider's attention. (Extract from fieldnotes, 2021).

An array of different sounds and noises could be heard, a soundscape that could be *read*:

> There are the noises of 'thub', 'duddd', 'tott' and 'clat' that meld together to form a thick rattling soundscape. Occasionally a metallic resonating 'dannng' or 'dinnnng' as a stone hit aluminium or a sharper clanggg noise as a stone hit the frame. (Extract from fieldnotes, 2021).

> The snap of pedals and clunk of gears and gravel crunching under tyre as bikes move forwards. (Extract from fieldnotes, 2021).

The sounds during bike-rider-ground interactions formed a sensory soundscape which collectively produced a readable story, composed of *narrative meanings*. Sound allowed riders to form interpretations of surfaces and make value judgments to gauge the meaning of the track to them in terms of quality of ride.

> "That noise [of crunching gravel under tyres] … just … premium, top quality gravel … it IS summer, the sound of summer, free, riding, gravelling" (IP, Stonehenge, 5th July, 2020

In other words, what tracks *afforded* (Gibson 1979). Sounds emitted from the surface as the bike traveled over it created judgments about safety. For "spitty" noises riders showed caution and thought about sliding or "losing the front wheel." A metallic clang, because of its unusualness, alerted the rider to possible peril as a component might have broken or failed.

> "[RC] What was that? … (IP Looking down at his back wheel as he rides), "IP] Dunno, spokes look good, [RC] sounded like a stone perhaps?" (IP and RC, 5th July, Stonehenge)

Feeling vibration

Rodaway (1994, 48) defines the haptic experience as "a combination of tactile and locomotive properties [that] provides information about the character of objects, surfaces and whole environments as well as our own bodies." Thus, in Sennett's (2008, 149–178) work on craft the haptic is central to craft practice and he devotes whole chapter to examining its complexity. This complexity is also evident in gravelling. Hence as terrain is traversed riders feel vibrations which Trower (2008, 135) notes "crosses sensory thresholds in so far as it can be simultaneously palpable and audible, visible and audible." Tracks, if frozen in winter or if baked hard in summer, formed corrugated ridges called "waffle-boards" by riders (see Figure 1, below).

Waffle-boards caused the bike and rider to vibrate, rattle and bounce over them.

> I hold the handlebars, glance down and see hands and fingers shaking furiously. I'm not holding tightly, or the rattle from the stones and rocks travels up my arms, neck to end in my head. (Extract from fieldnotes, 2021).

Tracks had holes where large stones had been removed or where puddles of rain had eroded the surface. Holes forced back against momentum of a wheel, slowed the rider and were uncomfortable and jarring against hands, neck and backside. Vibrations *meant* a rough surface but were not considered a negative feature of a track, instead, in the moment were just uncomfortable. However, on routine rides of 6–8 hours or distances over 100 km such prolonged vibratory exposure became a process of attrition.

Figure 1. A tractor route across a field: waffle-boards, sunken line with outer ridges.

Feeling fatigue

Gravel riding is overwhelmingly an activity in which dealing with physical and psychological discomfort for long periods of time becomes normal. It can thus be categorized as an *endurance* sport, along with others (e.g. Bluhm and Ravn 2021). Feeling the track entails absorbing vibration from the surface through the saddle, pedals and handlebars. These "contact points" can become fatigued, sore or numb, meaning that all tracks were interpreted as fatiguing once riders had entered that state of being:

> The soles of my feet are hot and I can feel that they are battered. They feel slightly disconnected from me. They feel numb. My heel is particularly numb and the bridge of each foot feels similarly odd, the result of constant applied pressure on the pedals. (Extract from fieldnotes, 2021).

The gravel tracks were always rough, natural and not artificially surfaced, see Figure 2, below, for an example of a typical track surface.

Figure 2. Gravel track natural surface: hardpacked and some loose stones.

The bike became the way to touch the track. People touch as Hetherington (2003, 7) identifies, "to confirm it: that it is there, that it feels like this . . . Touch is a way of removing doubt – of confirming."

Vibrations from surface stones, rocks or waffle-boards touch the rider and become confirmation and allowed the rider to determine that *what appeared to be, is what it actually is*. The constant touching of the track was attritional and took a toll as the whole body vibrated. Hands, fingers, arms and head, shaken and vibrated and over time became fatigued. Hence, in response riders held their bars loosely, sat out of their saddles and adapted their position on the bike to mediate the vibrations' negative effects upon their bodies, a clear case of Becker's (1970, 279–284) classic concept "situational adjustment."

When riding, an internal and on occasion interactional dialogue occurred as information was interpreted by the senses. The dialogue oriented around appraisals of the distance, level of fitness, fatigue level, confidence, and track types. The latter impacting upon fatigue levels either positively or negatively, and evident in the reflections of riders.

> Now every part of me is under duress, aching, hurting, stiff, numb, hot, cold, thirsty. (Extract from fieldnotes, 2021).

> The heels of my palms are humming and buzzing. I look at them and they are an angry red, they have black discolouration from the grime from the handlebar tape that sweat and dust have formed. The palms feel numb, I press one and I can feel less than I normally can. There is a patch of skin where, when touching it with a fingernail, it seems to have no feeling. (Extract from fieldnotes, 2021).

Fatigue became a part of the story of the ride and was observable (see Figure 3, below). Various parts of the body emitted sensory information that was interpreted. Numbness, stiffness, aching, becoming too hot or feeling energy loss were all interpreted as fatigue, which in turn produced feelings of anxiety.

In addition to auditory and haptic dimensions when riding also evident was a visual preoccupation. As Sennett (2008, 173) notes in craft, interaction between the visual and the haptic "can organize the process in sustainable ways." The latter in the case of gravelling constitutes sustaining forward momentum effectively.

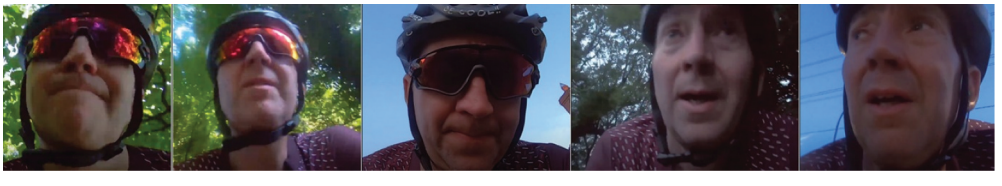

Figure 3. The First author: "Becoming fatigued." Left to right: 90 miles, 100 miles, 125 miles, 140 miles 145 miles. (Video log, June 29 2020, "Salisbury plain // 200 km gravel route," https://youtu.be/tzPb0lcF4ew?t=636).

Scenes: seeing the line

Within the route, the way through a section of track was determined by interpreting the track as form, direction, texture and features. *Contiguous attentions*, to space and place, and also to his (sic) movements enabled the rider to *read the line*.

> Look constantly for the path of least resistance, a line, the way to get to the top. Instant decisions. Left now, I have that rut, then loose stones. Right, the groove - in that I cannot get out. Left, I must miss that loose gravel. Now a ridge. (Extract from fieldnotes, 2021).

Moving, reading, sensing, are all actions that are processed during riding or as Ingold (2000a, 226) has posited, "people see as they move" and explains that "our knowledge of the environment undergoes continuous transformation in the very course of [our] moving through it" (Ingold 2000a, 230).

Features of the track and the direction of travel that were seen during a ride became information that was used to construct *narrative meanings*. What was seen also extended to other riders in the group.

> I watched my co-rider's movements as he rode at high speed down the track bobbing, dodging left to right, leaning and swerving as dust swirled from his front and rear tyres. (Extract from fieldnotes, 2021).

In this fashion, as Emmison and Smith (2000, 185) note:

> 'environments are not simply places where we see things in a passive way. They are also locations where we must look in active ways'.

Riders were often looking about and around, staring left, right or looking away from the track at something. Small features, details or oddities were noticed and contributed to the formation of a *sensory tapestry*:

> The trail is bone dry. Dust and stones. Dust sits in the depressions made by vehicles when it was wet. Stones vary in size. Pea gravel to the size of conkers. Some the size of an apple. (Extract from fieldnotes, 2020).

> Staring at the sun flickering in the treetops, hold my hand up and look through my fingers which move and cause a strobing effect. Feel good. (Extracts from fieldnotes, 2020).

The gravel riders thought of the tracks as having value because of how they sounded, felt, and looked. A dusty white chalk ridgeway or baked-dry yellow limestone gravel track, not only looked tantalizing but meant a fast, exhilarating ride and sound and feel *high value*. Conversely, a long-grass field of sheep or asphalt cycle path was *low value* and ridden because no better option was known or because it linked high value sections. Value judgments of tracks were formed from the composite sensory experiences of hearing, seeing and feeling, plus the understanding of affordances, and meanings that riders made of them.[1] Experienced riders then developed in Schutz's (1967) terms "typification's," shared common-sense constructs that ordered riding in terms of its local organization on a moment-by-moment basis (cf. Benson and Hughes 1983, 52–3).

Riding in space and place

Gravelling took place on tracks and a typology of tracks is depicted below, in Figure 4.

Riders developed perceptions of the tracks through *value* judgments derived from features embedded within them. They like craft practitioners generally made judgments about the *quality* (see Sennett 2008, 241–267) of their activity and the materials they were engaged with, in their case tracks. Features impacted upon riding bodies negatively or positively in a sensorial fashion, hence the value judgments. Tracks from the typology

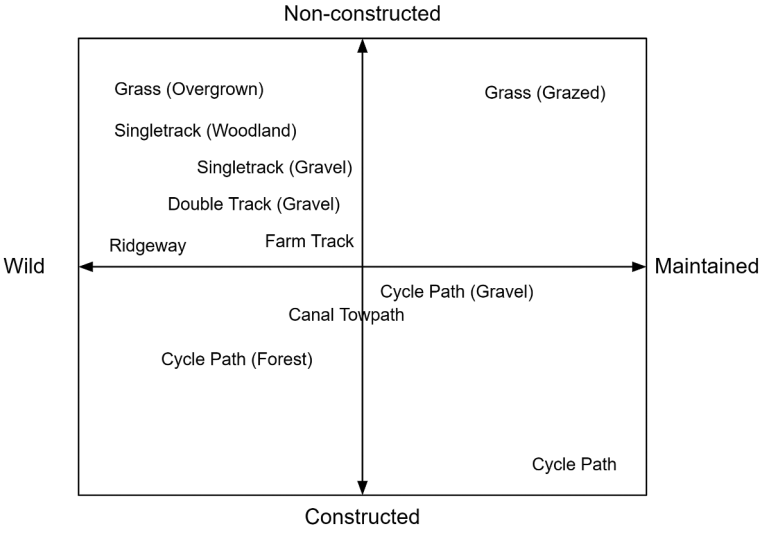

Figure 4. Typology of tracks.

(Figure 4, above) can be depicted on a value *spectrum* of riders' perceptions of quality (below, in Figure 5).

Tracks

Tilley (1994, 31) observes that tracks inscribed into a surface and that the more people who have shared in the purpose of a path, the more important it becomes. The quality of a track was based on the value derived from its texture and surface as it was ridden over, or in Gibson's (1979, 27) terms its *affordance*. Riders talked about the tracks positively and often negatively asking rhetorical questions such as "how long," or to each other asking "when do we turn?," "where's this go?" or "what's next?." Questions often indicated frustration or dislike of the surface or texture and its potential to fatigue. Thus, it was possible to determine how certain tracks were interpreted and perceived by riders based on surface and texture.

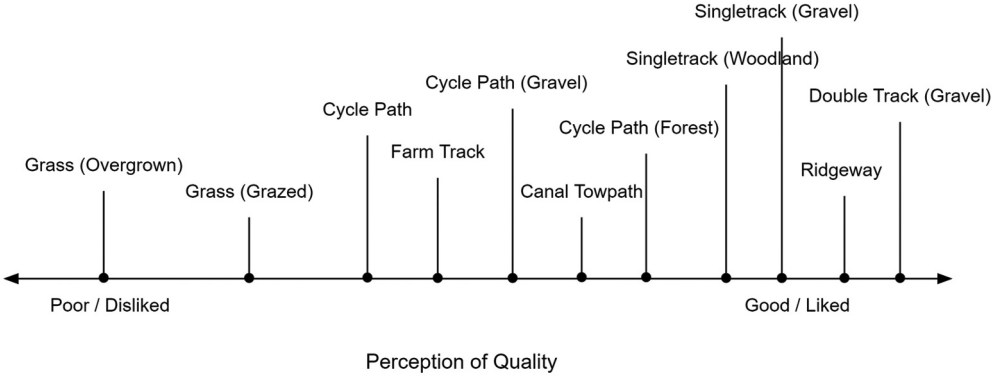

Figure 5. Perceptions of track quality by gravel riders.

Figure 6. Sheep-grazed grass track going uphill.

The gravel tracks that were highly valued by riders were prized for their textural qualities. The hard-packed, double-track, loose gravel track meant that bike and rider would move over it with speed. Small stones, chippings, sand and dust added a textural quality that caused the riders to study and think about where the bike should go, the grip they had and feel feedback from moving rapidly over an unstable surface. Grass (Figure 6, above), the least favored track, caused tyres to "drag" causing bike and rider to move slowly and the predictable feel of grass required little thought or interpretation.

Topography of track sections

Humps and dips were a common track feature with an affordance of *turbulence* (Gibson 1979, 27), a rhythmic swell of up and down that dictated when to pedal and when to "freewheel." This light-then-heavy feeling repeated in a rhythm creating a swell, the similar feeling that one might experience if on a boat at sea with light waves, a gentle rhythmic up-lighter/down-heavier rhythm.

Stones and dust that had been compacted down by frosts, snow, ice and rain and sunshine formed a solid concrete-like texture that felt impenetrable. Although bumpy and jarring, when riding over it, it felt "man-made" and had a constructed road-like surface. The result was that more speed was able to be maintained.

When observing riders approaching holes (See Figure 7, below), they can be seen swerving, dodging and "diving" to make sure the hole is avoided. Mostly, riders rode around them but occasionally a rider was seen "bunny-hopping" over the hole (Video dated June 16 2021) given it constituted danger and potential damage to rider, bike and components.

Gravelling on tracks and dealing with holes, grass or low value sections developed and required craft knowledge (Carmel 2013) which produced a sensory narrative for the riders. Riders used typifications (Schutz 1967) and interpreted the tracks they rode on and placed value on the tracks by sensing the bike and track. Gravelling thus became an embodied sporting activity and experience.

Figure 7. Obstacles: mud, puddles, grass central ridge and grass outer ridges.

Concluding thoughts

Utilizing ethnographic data, what has been portrayed is something of the complexity of rider-bike-ground interactional practices. This depiction is the outcome of a focus upon the sensory dimensions of cycling, which in the case of off-road cycling, apart from the odd exception (e.g. Themen and Popan 2021) has had little research attention so far. Riders moved through a changing landscape producing a particular sensory experience resulting in the development of a sensory phenomenology (Hockey and Allen Collinson 2007), wherein the senses combine, operating in an "intersensorial" manner (Hammer 2015). This combination in turn generating "typification's" (Schutz 1967) of particular kinds of ground to which value is assigned positively or negatively, high or low. There is a firm but ever-changing relationship between knowledge of terrain and the sensory embodiment of how one is riding over it. This produces something similar to what Larsen (2016, 304), when examining *parkour*, has termed "a unique *material consciousness*." Therefore, the sensory perceptions of listening and hearing, feeling and seeing as bicycle, body and ground interact, together with their evaluation for fostering riding momentum or not, constitute the major *craft practices* and *craft knowledge* (Atkinson 2013; Sennett 2008; Larsen 2016) of gravelling. At the general level, this group of practices and knowledge is learnt primarily via informal "body pedagogics" (Shilling 2007) between peers and via direct individual experience. The collective endeavor of long group rides, producing what Vannani et al. (2012) have termed a *sensory community*.

Traditionally craft practices produce objects, artifacts or structures (Sennet, 2008; O'Connor 2017), which are stable and exist for considerable duration. Yet as Holmes (2015, 484) has indicated (in the case of hairdressing) there are kinds of craft which "exist as practices alone." Sporting activity would seem to be an example of this par excellence, transient and temporary, created by craft practices and then disappearing at the final whistle or end of the final mile. In a particular sense then *gravellers* are always "coming into being" (Ingold 2000b, 57) and then vanishing. There are lots of opportunities for the craft of sociological ethnography to be applied to such ephemeral, transitory, and sensory sporting processes.

Note

1. Interestingly analysis of the data revealed little concern with olfactory matters, in contrast to other kinds of physical activity where "smelling" has more significance (see Atkinson 2017, on Yoga practitioners).

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