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Pretzel Logic: An Embodied Ethnography of a Rock Climb

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Abstract

Rock climbing entails far more than simply climbing rocks. Modern sport climbing is, rather, rooted in the myriad ways in which climbers engage with rock climbs, the specific human-made spaces mapped onto the cliff faces that athletes seek to ascend. This interaction includes forms of learning to read and create visual representations of climbs, physically training to prepare their bodies and hone their techniques, learning how to haptically and kinaesthetically engage with and learn from the rock, and overall developing a climbing-specific habitus. By exploring the relationship between a number of climbers and a climb in Rumney, New Hampshire, called Pretzel Logic, this article argues that the climb and climber are mutually constituted through a highly fluid actor–object engagement rooted in ongoing learning and adaptation. By extension, this article argues that interaction with objects—and not solely other humans—can be central to the formation of habitus and bodily practice.

Keywords

rock climbing, objects, habitus, bodies, carnal sociology

Introduction: Thinking the Rock Climb

To explain the ascent of a rock climb is to engage in a highly adjectival process of describing not only the accomplishment of arriving at the top of a rock face but also mapping which holds were used, as well as recalling how the rock felt, how one's body moved, and how enjoyable or strenuous the entire event was. It is a story about the rock, about the social conventions of the climbing community, and about very personal tactile experience; all passing through the physical relationship of the climber with the sequence of tenuous holds the rock face has provided. There is a word in the climbing lexicon for such a description: beta.[1] But, as a truism often spoken among climbers goes, no two climbers' beta is the same.

To participate in their highly demanding sport, climbers develop a climbing habitus. First and foremost, they train their bodies and their technical skills, but they also learn myriad climbing-specific capacities of perception and representation that allow them to engage in their pursuit. To be a modern sport climber is to seek out and attempt to scale rock climbs, namely specific, difficult routes mapped onto rock faces and circulated through the climbing community. There is, in other words, more to rock climbing than simply climbing on rocks. A study of this syncretic

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pursuit must focus on the numerous, intersecting ways in which climbers relate to the multivalent object that is the rock climb.

This article seeks to critically explore how we might think about the concept of the rock climb and how this, in turn, can help us think about the bodily, reflexive, and representational practices of rock climbers. A rich and growing multidisciplinary literature has attempted to situate objects as either foci of analysis in and of themselves (Appadurai, 1986; Ingold, 2004; Jullien, 1995; Law, 2002) or, as gateways into understanding of social and economic practices (Ingold, 2000; Kopytoff, 1986; Mitchell, 2005). Some of this work has suggested that nonliving matter can be an actant in complex networks of interaction that involve humans and nonhumans (Latour, 1999) or, that it is "vibrant" and may posses agency (Bennett, 2010). The rock climb, however, is not so much tangible matter as it is a complex construct. This article, therefore, follows the approach suggested by Annemarie Mol (2002) in examining the practices that constitute how an object is "done" in different ways by different actors. Exploring the climber–climb relationship, in turn, engages with the growing literatures on the sociology and anthropology of climbing (Hennion, 2007; Kiewa, 2001; Lorimer & Lund, 2003; Ness, 2011), the sporting body (Lewis, 2000; Spencer, 2009), athletes' habitus (Crossley, 2004; Wacquant, 2011), and haptic ethnography (Hetherington, 2003; Obrador-Pons, 2007; Paterson, 2009). Based on a carnal ethnographic approach, this article explores the relationship between a number of rock climbers, including the author, and a rock climb in Rumney, New Hampshire, called Pretzel Logic.

The article draws two main conclusions. The first is that the rock climb as an object cannot be thought of in static terms, but rather that it exists in the plurality of individual ways in which climbers engage with and experience it; and, therefore, that the study of bodies and habitus, rather than being centered on human actors themselves, should look at how humans engage with and are shaped by the objects with which they interact. The second is that engagement with and representation of rock climbs is rooted in a particular climbing habitus based in actor–object engagement, and that this habitus, rather than being nonreflexive or fully embodied is instead a highly fluid one rooted in ongoing haptic, kinaesthetic, and perceptual learning and adaptation. This, in turn, opens up possibilities of new forms of representing and enacting both objects and bodily experience.

Climbers, Rocks, and Rock Climbs

The limited academic literature on rock climbing (see Hennion, 2007; Kiewa, 2001 ; Lewis, 2000; Ness, 2011) points tantalizingly at various methods of studying the relationship between the rock climber and the rock, while the literature on exploring things (broadly stated) gives us a number of approaches to determine what sort of thing a rock climb might be (see, among others, Ingold, 2000; Jullien, 1995; Law, 2002; Mitchell, 2005; Mol, 2002). But the rock climb presents an interesting challenge to both sets of approaches.

When examining the idea of a rock climb through the various perspectives contained in the literature on objects and things, it is difficult to get a proverbial grip on how we might approach it. A rock climb is both separate from and inextricably enmeshed with the rock. It is certainly specific to certain sites and spaces and is legible only to a select group of actors, but it lacks any intrinsic function or tangible materiality.

The literature on rock climbing and mountaineering surprisingly avoids this issue, tending to focus on rock climbers and the act of climbing. Kiewa (2001) for instance, examines climbers' ability to deal with the affective aspects of the activity, including the "gut-wrenching fear" it may induce (p. 372). For Ness (2011), the rock and the rock climb are conflated when she describes a boulder as the location on which "the climb . . . ran its course" (p. 75). Lorimer and Lund (2003) make a similar move in seeking to focus on the embodied experience of mountain walking in Scotland, they set the mountain—and the route being navigated up the mountain—as a "stage for action" (p. 132).

Hennion (2007) takes a slightly different tack; his stated aim is to explore the relationship whereby the climber and the rock being ascended are engaged in "mutual definition" (p. 100). For him, as for Ness, the climb is not differentiated from the rock. But his approach opens the door to the potential to approach the rock climb, and the practices that constitute it as the object of study. If we expand this idea beyond simply the moment of climbing, to the range of ways in which climbers train their bodies and perceive and interact with rock climbs, we can move toward a more comprehensive understating of how rock climbs and climbers engage in what might best be called mutual constitution.

Annemarie Mol (2002) in her iconic analysis of atherosclerosis, has argued that rather than materially *being*, diseases can be "enacted" in specific ways and that the role of an ethnographer is to "tak[e] notice of the techniques that make things visible, audible, tangible, knowable" (pp. 32-33). A rock climb is not, of course, analogous with a disease. But, following Mol's praxiographic conceptualization, we can argue that a rock climb can be enacted in different ways within different circulations; it can be a topic of discussion, an entry in a topographical guide, a benchmark for personal achievement, a physical challenge, and so on. In each of these relations with a climber, the idea of a rock climb takes on a different character and is perceived differently.

Tim Ingold (2010) argues persuasively that matter is not just that "which is imposed upon" but rather that objects afford action and are therefore agents in their own creation (p. 3). But a climb is not a chair to be sat upon or a pen to be written with. It is not so much an object to be manipulated as an object-construct that affords the possibility of climbing being performed. In this setup, the rock itself is less an implement than part of a network and history (geology, climber interaction, location, etc.) which has allowed it to take the role of a canvas on which a rock climb can be inscribed. But even this reformulation along Ingold's (2010) lines can only help us insofar as we recognize the agency of the rock in the emergence of the climb. But this tells us little about the climb itself. A second line of Ingold's argument, however, can be more generative: He writes that a "thing" is a place where different goings on "become entwined" along lines of growth and movement in what he terms a "meshwork" (p. 4). In such a conceptualization, the "thing" is active, allowing a space for performance in which it might also participate by, for instance, pointing the way up a rocky cliff.

Methodology: Doing the Rock Climb

Following Spinney's (2006) account of a cycling ascent of Mount Ventoux—and influenced by the work of Crossley (2004) on circuit training, Wacquant (2011) on boxing, and Spencer (2009) on mixed martial arts fighting—essential to this project was the narration of and critical reflection on the "central skills, understanding, and experiences" (Spinney 2006, p. 716) of the activity being studied. Moreover, after Wacquant (2011), the perspective here is not based on mere observation but rather on embedded "observant participation" (p. 87).

Recent work in the sociology of sport has moved back to a strong engagement with a phenomenological approach to studying bodies and bodily experience. Drawing on the work of, among others, Merleau-Ponty, Husserl, Mauss, and Bourdieu, this (re)new(ed) direction seeks to study the body as the site of training and development of habitus, capacities, and skills (Burkitt, 2002, p. 221; see also Mauss, 1992). Habitus, Crossley (2001) argues, involves an expansion of what he terms "corporeal schema," which allow "new ways of acting and understanding" (p. 104). This means, as noted by Spencer (2009), that sporting bodies should not be seen as fixed or constituted by a single factor, but rather as actively constructed and physically marked by everything from new skills to forms of seeing to injuries.

Given that the rock climb and the rock climbing habitus emerge from the practice of rock climbing and the various representational practices exclusive to the rock climbing community, preparing for this project revolved around physically training for rock climbing and interacting with climbers. This included taking the various senses—and "sensory ethnography" as an

approach (see Pink, 2009)—seriously as sources of insight into how context-specific knowledge and practice are produced. Specifically, as noted by Hetherington, touch needs to be treated seriously as a method of gaining proximal—that is, "embodied, sensory, and *unsightly*"—knowledge (2003, p. 1935). For ethnographers, this means engaging in what Paterson (2009), in his review of haptic research, terms "sensuous scholarship." This implies treating the physicality of encounter as central to thinking about experience, leading us to consider, after Obrador-Pons (2007), the "preeminence of touch" in experiencing and knowing specific places.

In the absence of a large, cohesive climbing club or team to enlist—or join—for research purposes (as per Spinney, 2006 or Wacquant, 2011) and wanting to avoid an analysis based on the observation of a single individual's climbing performance (as per Ness, 2011), or the description of climbers-in-general (as per Hennion, 2007 or Lewis, 2000), I opted to recruit a group of recreational climbers from the Brooklyn Boulders rock climbing gym in Brooklyn, New York, for a climbing trip to undertake this project. The group that traveled to Rumney consisted of eight climbers including myself, among them six males and two females, aged between 25 and 34 years.[2] The least experienced of us had been climbing for just under 2 years, while the most experienced had been climbing actively for approximately 9 years; the least skilled member of the group climbed at a 5.11+/V4 level of difficulty while the most accomplished had achieved the 5.13/V10 grades, placing the group's skill somewhere on a range of high-level intermediate to mid-level expert climbing skill.[3] I have been climbing on and off for approximately 8 years and have climbed 5.12c and V8.

In the 3-month run-up to the planned field excursion, I trained 2 or 3 days per week at Brooklyn Boulders, focusing on sport-climbing-specific endurance and finger-strength training alongside my potential research trip group members. This was bolstered by occasional outdoor bouldering excursions to the Shawangunks in upstate New York. My training regime was not only aimed at preparing me physically for the trip but also allowed me to develop a research plan based on asking questions and developing observation methods suited to studying an activity as fast-paced and detail-centered as rock climbing. Ergo, as noted by Spinney (2006), "physical training was equally important to the research and methodology, as both a means and object of insight" (p. 716).

Lewis (2000) makes the key observations that participation is central to the climbing experience and that climbing speaks to an "embodied agency," which cannot be appreciated (or understood) passively. He observes that in the act of climbing, the "direct experience . . . usurps the pre-eminence of cognitive apprehension as the key to acquiring knowledge" (p. 71). Knowing climbs is, for Lewis, corporeal and rooted in kinaesthetic awareness, including the activity physically mapping itself on the climber's body in musculature and scar tissue. This is borne out not only by the sports science literature regarding climbing training and injuries but also by the qualitative bodily experiences of climbers. Jennifer, one of the climbers who participated in the research, explains that

> My toes are getting a little gnarly from being crammed into climbing shoes and the polish on my nails chips as soon as I climb. My hands are calloused and sometimes have open sores. It's kind of gross now that I'm thinking of all this, but I love climbing. I think it's a particular kind of person who enjoys destroying themselves [. . .] just so they can get to the top of a rock and come back down the easy way.

Getting to the Rock

Given the goal of discovering and exploring a climb with a group of other climbers, I decided to structure the field work around a single trip to an area and a route new to all those involved. Based on information in guidebooks and online climbing forums, the climb I chose as the basis for the field work was "Pretzel Logic," a sport climb graded 5.12a at the "Bonsai" crag in Rumney. Climbs of a similar difficulty rating had been climbed by seven of the eight climbers on

the trip and the route was generally described as presenting an interesting and challenging experience. But before we set off to lay our hands on our project, let us pause to examine how Pretzel Logic came to be. For this rock climb has its own history, its own biography of becoming.

Pretzel Logic: The Making of a Rock Climb

Rocks, mountains, heights, as evidenced by a long history of alpinism—and fully embracing the cliché of the following statement—all call out to some of us, seemingly begging to be climbed. But modern sport climbs[4] cannot simply be climbed. Not only is there a necessary level of proficiency necessary for a climber to be able to ascend a route, but so too must the rock be physically prepared. A given "line" up a rock face must be identified. The rock itself must be "cleaned," its loose pieces removed, and plant life and dust brushed off. Finally, the bolts into which climbers will clip protective gear must be drilled at regular intervals into the rock face.[5]

Pretzel Logic was first "established" in 1989 by New Hampshire climber Paul Wonsavage. In an interview, he told me that he seeks out "lines that [are] aesthetic, flowing and consistent," a subjective judgment that can only be chalked up to one's own climbing experience and style. "You know it when you see it," he mused. Establishing a climb, he explains, "is hard and pricey work… It is a discovery process." While he does not precisely recall his first ascent, Wonsavage explains that he found a "contorted move" that allowed him to complete the climb. In honor of this one kinaesthetic experience, he chose to name the route "Pretzel Logic," a description borrowed from a Steely Dan song, and give it a difficulty grade (5.12a), placing it within the general taxonomy of the climbing community.

Once a climb has been established, for climbers to engage with it they must know it exists. This means, in most cases, being entered into circulation via inclusion in a topographic guidebook, like Ward Smith's *Rumney* (or, increasingly, via Internet forums like the open-source "guide" MountainProject.com) in the form of visual and verbal descriptions. In a personal communication, Smith told me he has a small set of purposes in mind when putting together a guide: "to tell you which climbs are the good ones, and which ones are safe or dangerous. Next, to get you to the route. Finally, a bit of historical information or trivia is always interesting." In the case of Pretzel Logic, Smith's (2009) description hints at danger, urging climbers to "stick-clip" the first piece of protective gear from the ground to avoid a potential fall from the first section, and offers only a nod to the climbing itself, daring potential climbers to "tackle the tricky arête" (p. 113).

Given the above, we can follow Mitchell (2005) in suggesting that the rock climb meets the criteria for objecthood in that it has "a name, an identity . . . a description, a use or function, a history . . ." (p. 176). So not only is it an object identifiable only by an in group that has the capacity to understand the legend and symbols on a topographical map, but members of that group must be able to both visualize how they might ascend the climb and actually be able to attempt it.

Doing the Rock Climb

The fieldwork for this project took place on April 20 and 21, 2012. Both days were slightly overcast, the temperature hovering in the mid-70s (Fahrenheit), and with a touch of humidity in the air—not ideal conditions for hard climbing, but perfectly acceptable. There was a palpable excitement among the group as we ascended the packed dirt trail up steep, narrow switchbacks through dense woods from the parking lot toward Bonsai crag. Almost all of us engaged in the informal preclimbing ritual of touching small boulders beside the path as we passed them to answer the ubiquitous question: How does the rock feel? This inquiry is continued on warm-up climbs where a climber can take his or her time and literally feel the qualities of the rock and the climbing style to which it lends itself.

The piece of rock onto which Pretzel Logic is mapped is a relatively short (50 foot) corner of brownish-green schist, marked by a small horizontal roof approximately 15 feet off the ground

and a prominent arête that begins at about half-height and peters out in a flat ledge at 40 feet. Atop the ledge sits a large vertical flake of rock, above which is the top of the cliff face. As the site of a rock climb, with its many odd angles and general dearth of clearly defined holds, it proved appealing to the group. Grant explained afterward that "[a] very aesthetic piece of rock can be uninteresting in terms of climbing, but climbing also adds to the aesthetics [of the rock face]." As such, it seems fair to claim that the aesthetics of a climb are rooted in it being perceived as the site of a pleasurable climbing experience; one might dub this a sense of (kin)aesthetics.

Standing beneath the face, the group engaged in a discussion of strategy, considering options for holds, different movements those holds would allow, and strategizing safe places from which to clip the rope into protective "quickdraws." In many ways mirroring the preclimbing interaction described by Ness (2011), the climbers' discussion led them to "translate their combined expertise into local conditions" (p. 76).

Beta, Description, and Reenactment: A Haptic Vocabulary

Throughout the trip, the group would discuss aspects of the climbs they were attempting, focusing on the use of holds. But words do not exist to adequately describe the sensation of gripping and moving off a particular piece of rock. Holds, therefore, have to be classified into categories. The first is their form: jugs (large holds that allow fingers to curve onto and over them), crimps (small edges which will accept only the fingertips), pockets (holes that will only accept a certain number of fingers), slopers (flat or convex holds which must be held with an open hand) or pinches (outcrops which can be held between the fingers and thumb).

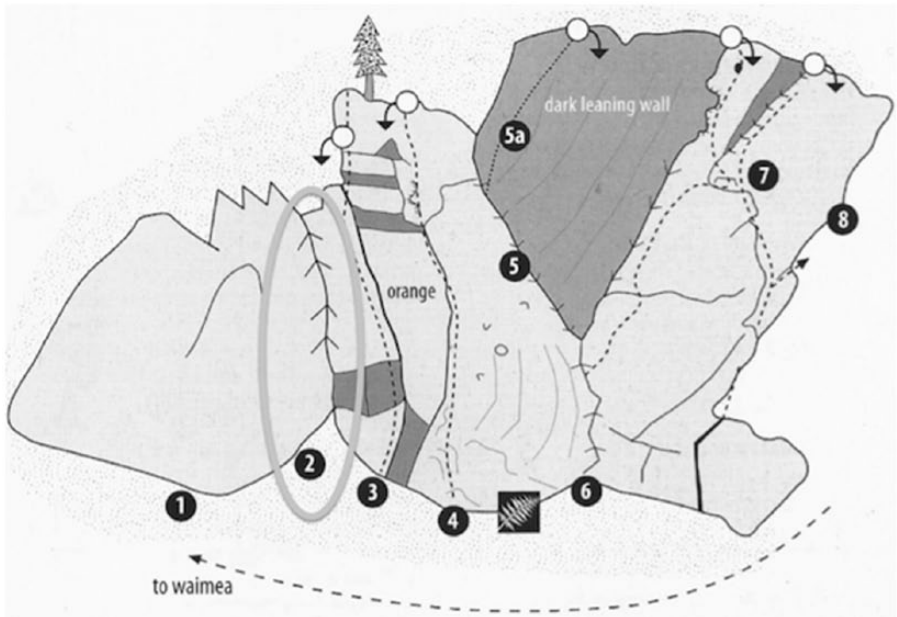
Then there is the question of the size of the holds, which is described in terms of the parts of the hand or fingers that will be able to get purchase on it. For instance, there might be a "half-pad, three-finger crimp" or a hold might simply be described as being big or small, with the understood corollary that as hold size decreases, climb difficulty increases. To top it off, there is a host of subjective descriptors of holds, describing their orientation, grittiness, sharpness, and so on.

All of the above are related to a whole other vocabulary related to the movements and techniques required to optimize the use of the holds. For instance, progress between holds can be described as being static (arriving at a hold after a precise, slow movement) or dynamic (including the "dyno," which implies a jump move with both feet leaving the rock).

Moreover, descriptions of routes will often involve a haptic vocabulary of physical reenactments in the sort of gestural–linguistic forms of representation observed by Ness. For this reason, climbers' descriptions can, to the uninitiated, appear as linguistically incomprehensible interpretive dances. As noted by Crossley (2004) in his ethnography of circuit training workouts, embodied understanding is often necessary to even make sense of the language used to describe specific activities. Indeed, building upon Lorimer and Lund's assertion that understanding cartography and meaning in the mountains requires a literacy rooted in previous performance, so understanding climbing's various representations of rock, rock climbs, and maneuvers requires an experiential, lived literacy rooted in kinaesthetic experience of rock climbing performances.

Knowledge, Habitus, and Climbing

In the act of climbing, knowledge, both descriptive and instrumental, is gained in large part through the body, and specifically through the fingertips. But this is mapped onto a set of other considerations and preparations rooted in visualization that a climber will undertake before embarking on an attempt at a route. This process, described in similar terms by all the climbers who participated in the excursion, revolves around "reading" the rock, relating it to one's own skills and experiences, and planning a sequence of movements that will hopefully see one successfully and safely through to the top.



bonsai

One of the most popular crags at Rumney, and for good reason. Unlike other Rumney crags, many routes are straightforward jug hauls, and there are a number of high quality climbs in the 5.10 range. As a bonus, the setting among pine trees and boulders is idyllic. Please avoid disturbing any of the vegetation on routes left of ***Noodle***, as the left-hand side of the cliff harbors the rare fragrant fern.

Aspect and Season: This steeply overhanging crag faces southwest, and the base is elevated, making it often quite breezy. The left side is much windier and cooler, while the right side receives plenty of sun from mid-day on. Some of the routes suffer from a seepage problem, especially to the right. Generally a three-season crag, and very popular in the summer.

Approach: Leave the road about 70 feet past telephone pole no. 30, and then follow the Shortcut Trail above the **5.8 Crag**. Head right steeply uphill to **Bonsai**. You can also angle up and left to **Darth Vadar** junction, then move back right to the crag. The old approach by telephone pole 37 is slightly longer and is being discouraged by the Forest Service.

1. The Flake (5.5)
Trad gear to top. Climbs a crack on the left side of the jutting flake at the extreme left-hand end of the cliff.

2. Pretzel Logic (5.12a) ★
5 bolts to LO. The left most bolt line at ***Bonsai***. Stick-clip to protect the steep start, then tackle a tricky arête. *FA: Paul Wonsavage, 8/97*

3. India (5.12b/c) ★
1 bolt, pin, trad gear, anchor. Often toproped after leading ***Pretzel Logic***, as it uses the same anchors. Start on the right, then move up to a hard sequence gaining the widening crack in a left-facing corner, the right wall of which sort of looks like India. Small strong fingers helpful. *FA: Ted Hammond, 5/89*

Figure 1. Ward Smith. Bonsai crag and Pretzel Logic route map and descriptions from Rumney rock climbing guide book (Pretzel Logic route and description highlighted by author), 2009, scan from guidebook.
Source. Image courtesy of Ward Smith.

As Tim Ingold has noted, "wayfinding" does not consist merely in rote, stop-and-go navigation between fixed points. This is especially salient to rock climbing where at any point of contact (or movement between these points) a climber can fail—and fall—on an attempt. While, as noted

Figure 2. The site of Pretzel Logic. 2012, digital photograph.
Source. Author.

by Ingold (2000), movement is preceded by visualization and calculation, movement itself in the sense of "finding one's way" and thereby gaining experiential knowledge is embodied. In his words, "we know *as* we go, not *before* we go" (p. 239). Of course, seeing a hold can help visualize how it will be used, a hold cannot be known until it is used for its purpose, and even then it may not work for every climber, depending on their ability, strength, size, or preference.[6]

The group's consensus after an inspection of Pretzel Logic was that the bottom quarter and the top quarter of the route would be relatively easy. The second quarter of the climb—revolving around using any number uniformly small holds to surmount the roof—appeared to be the crux (most difficult) section. From there, the mostly vertical third section seemed to suggest myriad possibilities centered around properly positioning one's bodyweight in such a way as to allow a long move to the obvious ledge.

The group had a brief discussion to choose who would make the first attempt and I was given the dubious honor. As per the guidebook's advice, I used a stick-clip device to clip my rope into the first piece of safety gear and set off. I established on the large, smooth first holds, pulled off

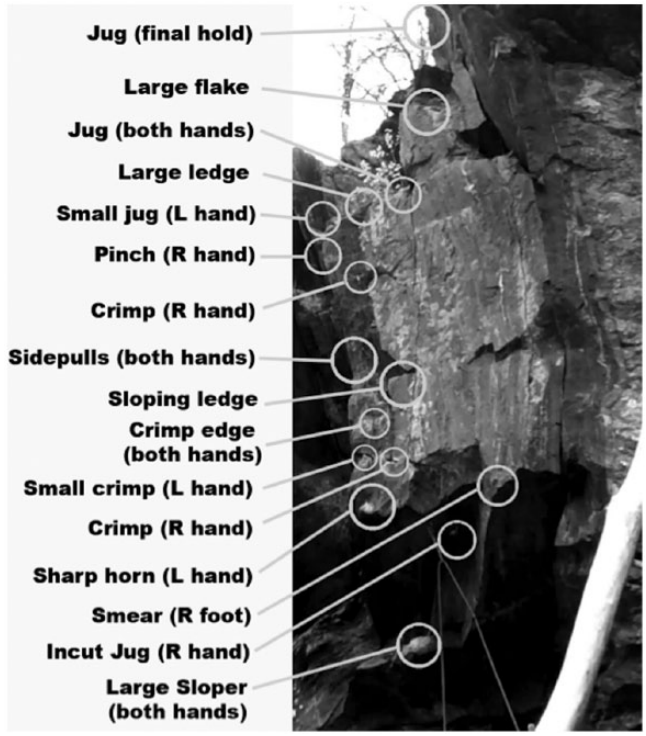


Figure 3. Pretzel Logic mapped as a series of potential holds, 2012, digital photograph and Photoshop. *Source.* Author.

the ground, swung my right heel onto a square cut ledge, and rocked my bodyweight over my right foot to reach a large sloper. In the video footage I had watched of the climb, successful climbers simply matched their hands side by side and made a long diagonal move to the next hold, a large flake. Bringing my hands together, however, I was struck by the greasy texture of the rock and by how tenuous my purchase on the hold was despite its size. My attempts at readjusting my hands and body were in vain and I forced myself to make a desperate lunge for the flake. I came up short and fell, swinging away from the wall and pulling the rope taut in my belayer's hands. I had been wholly unprepared for the texture I encountered and my attempt came to an end a mere twenty seconds after I had set off. Moreover, had I not stick-clipped the rope, I would have fallen onto a bed of boulders and potentially onto my belayer.

This experience of thinking of the climb visually and being stymied by unexpected textures bears out Crossley's (2001) suggestion—after Husserl—that our sense of our environment is shaped by our habits, leading us to be especially shocked when our "perceptual expectations are confounded" (p. 107). I had thought I understood the climb based on how I had translated what I had seen into haptic and habituated expectation and had been completely confounded by the feel of the rock not bearing out what my sight had suggested.

It was not until my seventh attempt, my second on the second day of the trip, that I succeeded in completing the route. My ordeal on Pretzel Logic, especially given my ability to climb beyond this difficulty grade, was immensely frustrating. Moreover, even as I learned the climb on consecutive attempts and the moves felt progressively easier, the crux section's small holds began to wear away the skin on my fingertips and exacerbate an existing finger injury. In other words, as the climb became easier and more familiar, it also became more painful and less pleasant. And,

even as I performed almost identical movements on the same terrain, each attempt felt physically and emotionally different.

Watching the other climbers in the group attempt the route was highly instructive, as each one used a slightly different sequence of moves up the climb. Jason, at 5 foot 4 inches and 140 pounds, was the lightest male in our group, allowing him to take a unique approach to the crux section, whereby he gripped the upper set of crimps and, letting his legs hang free, performed a pull-up that allowed him to set his left foot on a good foothold, completing the section without much difficulty. As he would later explain, "Every climb is different for different sized people or different styles, so you just have to start almost adapting the rock to what you want it to do." Following an actor-network theory approach, one might suggest here that a given bit of rocky terrain forces specific actions in such a way that the rock and climber coproduce the body techniques necessary for a given individual to ascend a climb.[7]

Grant, the third climber to attempt the route, despite not reading the climb perfectly while climbing, remained calm, made numerous small adjustments, and got to the top on his first attempt.[8] After his ascent, he specifically focused on the interplay and difference between visual and haptic perception of the climb, stating that

> I think having seen other people do it first [in person and on video] made a big difference [but] . . . then the crux section where you pull over the roof had little divots that seemed to be better when other people were grabbing them than when I actually did.

He also stresses the importance of being guided by the rock. He says that

> I think the biggest part is once you're on the holds to feel in which direction they sort of want you to go and where the feet are, to sort of remember what you thought it was going to do, but also to ignore it and feel what you're on right now.

It is implied that one must already have the necessary skills to be "guided," including being able to adjust and react in the moment of one's first experience with a given set of holds.

The kinaesthetic experience of climbing can also involve bodily harm. The fourth climber to attempt the route was Hunter. Despite climbing with an injured and heavily taped right middle finger, he dispatched the bottom section and crux with relative ease, but as he attempted to establish on the top section of the route, his feet slipped and he fell. He swung violently back into the wall and smashed his right leg into the corner of the small roof, opening a 3-inch gash in his shin and immediately raising a large, bruised lump over the point of impact. He required minor first aid and, while he did climb some moderate routes for the remainder of the trip, he did not attempt Pretzel Logic again.

Steven, the fifth climber to attempt the route, found himself stymied by the awkward crux section. Having witnessed Hunter's fall, he hesitated to committing to the full-extension movements the section called for and explained that "It's almost as if my brain won't allow me to do certain moves . . ." An inability to feel comfortable in the moment, then, presents a unique set of difficulties. Rather than being simply a shortcoming in physical training or a specific difficulty created by the nature of a given rock face, the problem here is one of perception; in the sense of both not being able to "read" or be "guided" by the rock, and also being conscious of external factors and potential consequences of mistakes. An experienced climber can, to the detriment of their climbing performance, be cognizant of both the risks of their actions and of their failure to properly feel and respond to the rock.

All the climbers who attempted Pretzel Logic[9] noted that they learned more about the climb with each consecutive attempt (Grant, who finished the climb on his first attempt, also noted that

he made microadjustments as he went based on what he learned about the rock as he touched holds for the first time).

Hennion (2007) argues that the climb and the climber become engaged in a "mutual definition" at "the precise point where contact between the hand that grasps and the fold in the rock face defines the fact of climbing" (p. 99). But as this article has shown, knowing a climb goes beyond simply grabbing individual holds. A climber must learn the climb through sight, speech, touch, and movement to successfully navigate it. It is, then, both experience and "cognitive apprehension" that allow the climber to gain knowledge of both rocks and climbs (Lewis, 2000, p. 71).[10]

In his work on habitus and what he terms "reflexive body techniques," Crossley (2001) argues that habit creates not trained mechanical responses but rather "a form of embodied and practical understanding" that allows "competent and purposive action" (p. 106). This contribution moves away from conceptions of habitus as nonreflexive, like Wacquant's (2011) suggestion "that practical mastery operates beneath the level of consciousness and discourse" (p. 86). Wacquant's point is that "mental understanding" cannot stand in for understanding given activity-specific techniques with one's body. But I would argue, based on this study, and pushing Crossley's point to its logical conclusion, that habitus involves not only learning given actions but also learning to learn as we do them, and learning to represent them. By the latter I mean the ability to comprehend, create, and participate in activity-specific forms of representation based on one's bodily experience. Spinney (2006) notes that "Merleau-Ponty wants us to understand . . . that practice frees us from representation" (p. 714). But practice also opens up new realms of representations. The experience of climbing combines trained bodily capacity with specific skills of both haptic and visual perception of rock, which are engaged and interact throughout an ascent, and lead to the ability to speak and reflect in particular ways on the climbing experience. As Jennifer explains, when she is making an attempt on a climb,

> I'm paying attention to what's right in front of me. I'm trying to remember to breathe, I'm feeling the rock, making sure I hit where I want to hit on a hold, I'm looking to see what's next, I'm paying attention to my body position [. . .] There's a lot happening at once.

Importantly, the interaction with rock is rooted in what is perceived as the rock's relative intransigence. Training, learning, and climbing are done with the purpose of climbing on rock, but only if a climber can develop the skills to work with and on the rock, bodily and perceptually. As Jason explains, "I have to figure out how I can work with the rock. Cause the rock is not going to change. Only I can change."

This, in turn, brings us back to Hennion's notion of what actually constitutes what he dubs "mutual definition." This now seems static in that is reifies a single moment (or series of moments) of physical interaction, thereby looking past both the physical training that has prepared the climber to engage physically with a specific rock formation and the nonphysical forms of interactions a climber may have had with a given rock climb (i.e., in guide books, videos, in descriptions recounted by other climbers, etc.).

Conclusion: Experiencing the Rock Climb

When the climbers who attempted Pretzel Logic were asked to describe the climb after the trip, the statement of the "fact" that it is a 5.12a at Rumney was almost a throwaway nod to the tradition within climbing culture of identifying a climb's difficulty and situating it within climbing's geography. None of the climbers dwelled on this arbitrary difficulty grade; nor did they call upon any of the guidebook descriptions or video footage that they had studied in detail in preparing for

the climb. They did not note the rock type or describe the climb's physical location. Instead, they spoke of their personal, physical experience on the climb. The climb as a static object with a fixed classification or representation is replaced by a highly personal account revolving around recollections of the climber's interaction with the rock. Having physically done the rock climb seems to take precedence over other forms of "doing" the climb. To suggest that every climber who has climbed on Pretzel Logic has done the same climb is only true in the most superficial sense, namely that they have all followed the same vague "line" up a given rock face. This is especially true given the number of iterations in which that climber may have previously encountered the climb—in photos, videos, guidebooks, and so on. Each ascentionist has climbed differently and experienced the climb (or even each attempt on the "same" climb) as a unique haptic–kinaesthetic event. Each of these experiences, in turn, is a reflection of how the climber's habitus, defined by their previous experience, physical traits, and strengths map onto the potentialities presented by the rock itself.

In the instant when Pretzel Logic is being climbed, it is also entirely absent as a single definable thing. It would appear, then, that one cannot—as per Mol's work—separate the rock climb from the practices that enact it. When the climb is being engaged with in its various iterations, it is being performed in a specific way. These performances involve representing and communicating about the climb and the rock in various ways (as Hennion, 2007, p. 100, argues, the "rock is not just the inert geological mass [but] a reservoir of differences, which only the climb reveals and makes emerge"). This, however, poses a challenge to the work on habitus, which is almost intractably human-centric; it helps us think through how humans shape themselves, but does not help us account for the non-human sites and spaces within which—and because of which—habitus and bodies are formed in specific ways.

The rock climb exists somewhere between brute, rocky tangibility and social product. It is constituted and performed in both its relations with climbers and the relationships it allows between groups of climbers, and between climbers and rocks. The more concrete the climbing experience, the wider the range of experiences and interpretations it offers. To have done a rock climb is to know one's own experience of moving up tiny edges of rock . . . only to then anticlimactically "come back down the easy way."

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Notes

1. This term supposedly derives from climbers watching Betamax videos of difficult climbs to learn correct ascension techniques, but the details of its emergence into the vernacular, as well as this entire etymological description, are contested.
2. All of the climbers have been given pseudonyms. One of the two female climbers who participated in the climbing excursion and training agreed to have her involvement narrated, but she did not agree to be interviewed for the project.

3. See www.rockclimbing.com/articles/introduction_to_climbing/difficulty_grades_and_conversions_529.html for a comprehensive climbing difficulty grade chart.
4. Climbs ascended by climbers using only their hands and feet, using ropes and gear only for safety reasons and not to facilitate the ascent itself. Most, but not all, sport climbs are also characterized by being a single "pitch" long, meaning they can be ascended and descended using one full rope length; this places their maximum height at —with a few exceptions—approximately 40 meters.
5. There is a rising consensus in the climbing community's "ethics" that this process should unearth the rock "as it is" rather than create holds that would facilitate an ascent. University of Nevada, Las Vegas, philosophy professor and climber Bill Ramsey has written that hold creation, dubbed "chipping," is increasingly derided as being "environmentally unsound because it alters and 'disrespects' the rock." See Ramsey (2011). Moreover, it bears noting, as guidebook author Ward Smith stressed in a personal communication, that while preparing a route has an undeniable physical impact on the rock and surrounding environment, minimizing impact should be central, especially as concerns not disturbing rare or endangered plant species, such as those found at Bonsai crag.
6. The challenge presented by a lack of knowledge inherent in attempting a new route is embodied in the emphasis many climbers place on attempting to climb a route "on sight," without any prior knowledge of the climb other than personal inspection and perhaps a brief guidebook description.
7. I am grateful to Dale Spencer for this insight.
8. Video footage of Grant's ascent is available at vimeo.com/41952841
9. The remaining three climbers chose, despite their previous enthusiasm, not to attempt the route due to the perceived level of difficulty after having seen the climb in person, and all voiced safety concerns after witnessing Hunter's fall and resulting leg injury.
10. Lewis is right to emphasize the role of the hands in the performance of rock climbing and the capacity of touch to allow "unmediated acquisition of embodied knowledge." Following Foster (2007), this should be extended to the feet, even when they are ensconced in rubber climbing shoes.

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