CONTENTS

Sovereignty

1 Warren 39
Subterranean Structures at a Sea Border of Ukraine
CAROLINE HUMPHREY

2 Tunnel 52
Striating and Militarizing Subterranean Space in the Republic of Georgia
ELIZABETH CULLEN DUNN

3 Spoofing 64
The Geophysics of Not Being Governed
WAYNE CHAMBLISS

4 Lag 78
Four-Dimensional Bordering in the Himalayas
TINA HARRIS

5 Traffic 91
Authorizing Airspace, Appifying Governance
MARCEL LAFLAMME

Acknowledgments ix

Voluminous 1
An Introduction
FRANCK BILLE
Time and the Vertical

In 2006, a former Indian army officer told me harrowing stories of nearly being killed—twice—on the Siachen Glacier near the Line of Control (LoC) between India and Pakistan. This is one of the highest military outposts in the world, where people die due to the complications of altitude-related illnesses or sudden avalanches. It was a “horrible, horrible place,” he said. And yet, the ex-officer was only stationed there for a mere few weeks of his entire career, precisely because the area is so physically inhospitable for humans. His narratives of manning the border were less about potential battles and tactics, and more about the sheer physicality of enduring the elements; the difficulties of frostbite, blizzards, and minus-sixty-degree-Celsius weather at twenty-thousand feet. The ebbs and flows of snow, rains, and seasonal changes determine when, where, and how such borders can be approached, produced, and maintained. It is here that the temporality and inconstancy of vertical border safeguarding is brought to the fore.

Frozen-over mountain passes and landslides can make a high-altitude border inaccessible. So how do the limitations of human activity intersect with state attempts to control this combination of height and time; in Stuart Elden's
words, attempts to “secure the volume”? Much of the existing border studies literature still deals with crossborder mobility happening along some sort of linear, two-dimensional plane. I want to draw attention to other volumes and dimensions—particularly the combination of verticality (mountains) with temporality in two ways: seasonal bordering in the form of “skirmish seasons,” and teleological bordering; the future-oriented growth of the border into its intended nation-state shape. My argument is that there is always a lag: an attempt by states to access a border without ever quite reaching it. This is bordering in a four-dimensional perspective: the border cannot physically be reached, but is continually aspired to. There is a need to keep up the pace.

So how do you catch up with an elusive border?

The disputed western Himalayan border area between Pakistan, India, and China is currently facing the consequences of climate change, such as increased landslides that affect existing infrastructure and diminished grazing land for cattle and yak, drawing both human and nonhuman actors further into the production of geopolitical tensions in the borderlands. Seasonal changes, such as the freezing over of mountain passes, are processes that contribute to both human and state inaccessibility, particularly in mountainous—vertical—regions of the world. The oscillation between seasons; the material remains left on the ground by different political and nonpolitical actors; the movements of animals along established routes as well as across borders—all of these are particular to the passage of time in a vertical dimension. In this chapter, I look at several examples of how temporality intersects with vertical bordering in this region. A deeper exploration into the attempt of states to access such a border—and yet never quite reaching it—is crucial for a broader, comparative understanding of bordering in general.

**Bordering at Twenty Thousand Feet**

What do bordering practices look like in mountainous regions where altitude and the threat of landslides are obstacles to long-term human inhabitation? In tandem with anthropological work on deterritorialization and globalization that emerged in the late 1990s and beyond, border studies has brought forth a sizable amount of literature that traverses the border-as-line metaphor. Working beyond nation-state boundaries, scholars have discussed alternative border regions that decenter area studies, such as Willem van Schendel’s proposal to imagine the possibility of “Zomia,” a coherent area crossing Southeast Asia, South Asia, East Asia, and Central Asia. Others have looked beyond nation-state–led battles over territory to focus on bottom-up studies of how various
stakeholders perform border control in areas such as the US-Mexico and Central Asian borders and along the riverine boundaries of the Mekong. More recently, human geographers have critically discussed the notion of fuzzy or flexible borders, borders-as-seams, and fragmented borders in the form of enclaves. Keeping in line with this critical trajectory of work, I too am interested in focusing on diverse experiences of bordering rather than on an entity like "the border"; reflecting how human negotiations over state borderlines necessarily involve the landscape, seasons, and all of their contingencies. In the Himalayas for instance, yaks follow a seasonal delimitation of grazing area, bringing them both closer to and farther from borderlines depending on the time of year.

A volumetric perspective on bordering practices should therefore also include an extra dimension—temporality. Although the temporality of bordering has been examined in studies of migration across borders—such as waiting for visas, for decisions on deportation, and the migrant experience of interminable waiting, as well as some discussion on the necessary future orientation of bordering, as it "anticipat[es] potential violence"—time as a dimension in bordering practices is less understood, save for Helga Tawil-Souri's powerful essay on the temporality of Palestinian checkpoints. Sarah Green has proposed using the metaphor of a tidemark left by waves on a beach to give a better sense of the historical contingency of the border—"what is left after some kind of past activity has occurred, and often implies more activity to come." The tidemark is a way to work with both space and historical time, with the understanding of "both space and time as being lively and contingent." In this sense, then, Chinese officials who establish a trade mart when the snows have melted, British colonial officers who plot a line on a map, Indian soldiers who dig an irrigation canal, and even yak that graze in borderland pastures are unequal but active agents in bordering processes, leaving material remains that can very well determine the size, space, and duration of the border.

Bordering processes are subject to events that are only partly determined by human interactions. They therefore force us to look beyond the landscape as a neutral or static backdrop to activities that happen on or with it. In the Himalayas, for instance, most forward border outposts (BOPs) range between nine thousand and twenty thousand feet, where the higher altitudes are at levels beyond long-term human inhabitability. For army members not used to such high altitudes, their short-term residency in places like the Siachen Glacier at twenty-thousand feet involves significant preparation. This involves at least two days at progressively higher altitudes with lengthy moments of rest in between, goggles to prevent snow blindness, insulated boots to prevent
The infrastructure around the outposts is often cut off by snowstorms in the winter, so the shape of the border always depends on which BOPs are even accessible during any given time period. The border expands or contracts depending on how low the snows accumulate and how accessible the bridges and outposts are. For instance, if a trader brings medicinal herbs across a Himalayan checkpoint, the trader may be delayed for indefinite periods of time due to landslides and random body searches, or they may have to go through a different entry point depending on which season the trip occurs in, for the mountain passes may be completely washed out or covered in snow.

These experiences of mountain bordering chime with what James Scott has called the friction of terrain or the friction of distance, where inhabiting or travelling across a particular terrain—whether mountain, jungle, desert, or ocean—is part of the lived experience of the landscape, not easily represented on any map. For instance, if someone asks how far it is from one mountain village to another, the answer is usually given in terms of time rather than units of distance: “It will take five hours,” or, “It will take two days.” This is because landslides, monsoons, potholed roads, strikes, border checks, blizzards, and snow all modify the answer to how far it is and when one can cross. The answer also depends on the vertical dimension of the journey; if you are in a small mountain village but need to travel to a town in the valley, it will take you less time to walk down the mountain than it would for you to climb up it. Thus, the combination of the spatiality and temporality of lived experiences in mountainous areas produces a lag between the representation of the landscape (such as a dot or a line on a map, or as described by nonlocal state officials) and the physical experience of traveling through the actual terrain. Even a map with topographical markers does not prepare anyone for the underbrush that needs clearing or the landslide that bars the way. But the fact that gaps exist between experiences and representations of terrain is hardly groundbreaking, as there is always a disjuncture between representation of space and lived reality. What is more curious, however, is what happens when high-altitude features come into play against temporality (for example, the time the accessible bridge takes to appear after the snow melts down the mountain face). It is the futility, the inaccessibility, the impossibility or possibility of border crossing that is then brought to the fore. And this has profound implications for the balance of power in border areas.

In an essay that explains this kind of friction in relation to the state, San-karan Krishna looks at the ongoing process of nation building in India through cartography, stating that the creation of the shape of a nation is more than just
the technical mapping of a place; it is also used to describe practices of inscribing “something called India” in the media, in rhetoric, in politics. Stemming from what he calls the “creation-by-amputation” of the Indian nation, there remains a sense that its contested borders—especially with China, Pakistan, and Bangladesh—are not yet complete and in a perpetual state of suspension. According to Krishna, anxieties toward such representations of national identity are acute, and it is in encounters between the state and people at borderlines that these “cartographic anxieties” are most telling and often violent. In the Himalayan borderlands, some of these frictions and gaps—and their subsequent anxieties—only become visible or obvious when both vertical and temporal dimensions are considered. For instance, a military breach across a border can only happen when one party can actually physically approach that border area. As a result, there is a period of time called skirmish season; several months during the spring thaw and summer in the Himalayas where some borders become more contentious than others, and when cartographic anxieties are at their peak.

Securing the Volume on Himalayan Borders

The historical and imperial geopolitics of drawing border lines and the establishment of military outposts across the Himalayan range have generated multiple cases of cartographic anxiety, where the shape of the nation-state is always being made and yet never complete. Both the Line of Control (LoC) on the western borders of the Himalayas (the line between India-controlled Jammu and Kashmir, and Pakistan-controlled Kashmir and Gilgit-Baltistan) and the Line of Actual Control (LAC) between India and China (the de facto boundary between India and China in general, marked by considerably more “empty” areas) are based on indeterminate demarcations. Parts of the LAC were never even laid down on a map and simply left open to modification, resulting in giant swathes of no-man’s lands. Much has been written about the history and contestation of the various disputed areas along this range. But beyond the obvious tensions between Pakistan, India, and China over national sovereignty and territoriality, the fact that these disputes are both affected and produced by the gaps between maps and vertical lived experience actually necessitates that we pay attention to other dimensions of bordering. In many areas along the LoC and LAC, people simply cannot physically dwell in the high-altitude, craggy, mountainous, or forested terrain, so border outposts must be built elsewhere, often thirty kilometers before or after the official
border as represented on a map. The very lack of any line beyond NJ9842—the northernmost “dead end” of the LoC—“has led to the existence of a contested space in an area where no humans have ever lived, or would wish to live, or could live for protracted periods of time even if they wanted to.” These are the experiences of bordering from a four-dimensional perspective: the border cannot ever physically be reached, but is continually aspired to. As a case in point, the 114 Helicopter Unit of the Siachen Glacier has a motto: “We do the difficult as routine; the impossible may take a bit longer.”

Even in the case of several Himalayan border areas where the altitude is too high for long-term human inhabitation or where the densely forested no-man’s lands are too wide to be fully securitized, the militarized border still remains maintained by human (or, increasingly, human plus computer or drone) capabilities. Technology assists temporal reach by allowing the state to linger a bit longer than it is physically able to do. At least 25 percent of the BOPs along the Indian borders—such as Tripura-Bangladesh and many points in Ladakh—are air-maintained by helicopters; in other words, personnel and/or supplies are dropped down and picked up for limited amounts of time, usually for about eight to ten weeks at a time. Most of these outposts are between twenty and forty kilometers from the actual border. Asking who controls the resources that circulate through volumetric space is crucial to a better understanding of how inequality is produced in contested areas, especially those that extend above, below, and beyond a simple border line on a map. In the case of the Himalayas, bordering practices are indeed about “securing the volume” and about placing limits on and across various geographical scales. But what happens when the full volume cannot be secured?

Several recent incidents on the western Himalayan borders of India, Pakistan, and China illustrate how such anxieties are produced through the attempts to secure volume in fragmented vertical spaces. To exemplify, on April 15, 2013, Chinese soldiers placed either four or seven tents (the number is unclear) somewhere between ten and nineteen kilometers from the LAC near Daulat Beg Oldi (DBO) on the Xinjiang-Ladakh border of Aksai Chin, 150 kilometers away from the nearest human settlement. Because the LAC has never been agreed upon, there has never been a single border line in this area. Instead there are several lines; for instance, the line that the Chinese went up to in 1962; the line that the British established in 1865 and the Indians now claim; a number of border posts that the Chinese put up in 1958; as well as air-maintained Indian outposts in scattered areas along the region. All of these dots and lines on a map make up a rough area of approximately forty
thousand square kilometers, not manned by either group. During this particular incident, the Chinese happened to go up to the farthest point that they had reached in 1962. The Indian army responded by placing their own tents within three hundred meters of the Chinese tents. In retaliation, two Chinese military helicopters entered Indian airspace far away in another part of the disputed zone; several hundred kilometers south of where the original incident occurred. The standoff was said to have been resolved when Indian forces agreed to dismantle some border posts and security cameras in yet another part of the LAC, four hundred kilometers away from where the incident took place.

Later that year—and again several hundred kilometers from the location of the original incident—five Ladakhi nomads and their cattle were detained by the Chinese People's Liberation Army (PLA) after they had been found grazing in disputed Chinese territory. This was not news, however. Since 2011, many of the Ladakhi nomads in Chumar had reported to the local officials that their grazing pastures were shrinking, and that they needed to head closer to the LAC to maintain “adequate livelihoods.” Since the April 2013 incident at DBO, however, the Indo-Tibetan Border Police (ITBP) began to place stricter limitations on the mobility of its own nomad citizens and cattle. According to some local villagers, this sparked off angry sentiments amongst several nomads who continued to head to the shrinking pastures and were then held by the PLA for several hours—along with their animals. Although all of these incidents may have been related, they involved different actors. They were also spatially fragmented, occurring in different areas, different altitudes, different times, and leaving different tidemarks behind. They erupted in bursts, punctuated by weeks where nothing happened. Furthermore, border disputes in this region are subject to temporal and seasonal fluctuations. The skirmish season is indeed a real thing: a moment or moments when soldiers, cattle, yak, and nomads can actually access the high-altitude border areas, but are liable to be detained should they venture too close to the contested areas. Disputes occur from April or May as the snows melt, to late autumn when the mountains are frozen over. The LAC is relatively quiet between January and March. However, according to local Ladakhi officials, skirmish season is beginning earlier every year, due to climate-related shrinking of grazing pastures and easier access to bunkers and outposts, if they are not destroyed due to avalanches, another factor in this increasingly volatile environment.

From a distance, these events all add up to a single “border incident” with a duration lasting nine months, and constitute yet another example of how the contingencies of a fourth, temporal, dimension are intertwined. Time and space become collapsed; multiple events merge into one incident; the tidemarks flatten
into one border line. Although these separate events leave different tidemarks on the ground, and although the skirmishes only occur when the areas become seasonally habitable, they are portrayed by nation-states as a single ongoing battle between Pakistan and India, or India and China, as well as a military triumph against the high-altitude elements. In actuality, we have various human groups pushing upward and forward but later retreating, leaving tidemarks of material remains behind: flags, tents, dead bodies. High-altitude battles often feature the trope of human expertise against nature, as well as the rational expansion of capitalism though the securing of volume. The flattening or collapsing of volume and time into more securable dimensionalities is one way for the state to portray its progress, and to make territory and people more legible.20

A fully working, stable border is needed for the shape of the state to coalesce more clearly, but in the volatile Himalayan environment, it is not yet there. This not-yet-there calls for state-led measures to push for the kind of infrastructure that will help to define the shape of the state, in areas where the land cannot possibly hold it. Military outposts in the western Himalayas and crossborder trade are in fact interlinked. The Indian Centre of Defence (ICD) not only sets up BOPs for security, but is also in charge of establishing Integrated Check Posts (ICPs) for crossborder trade. The problem in setting up these outposts and checkpoints, according to an ICD representative, is the large swathes of unmanned border areas along the LAC. “Presently, the BOPs are positioned at a distance of 30 to 40 km from each other. It is difficult for the forty or so people manning each BOP to monitor the distance between the two posts.”21 At the time of writing this chapter, over forty new BOPs were reportedly being set up on the Indian side of the northeast Sino-Indian border in Arunachal Pradesh and Sikkim in order to improve national security, and would at the very same time act as border trade checkpoints to increase trade relations with neighboring countries, namely China, Bangladesh, and Nepal: “These BOPs will facilitate maintaining of security as well as provide better connectivity and accessibility for the local people. . . . We have approved the setting up of 37 additional BOPs in Arunachal Pradesh and five in Sikkim. The additional BOPs besides strengthening border security will facilitate the people living in those areas.”22

To what extent and exactly how it will improve the lives of the local people remains to be seen. In order to secure the volumetric territory they claim for both security and trade, and in order to establish these BOPs and ICPs, India and China must make use of technology that enables people to survive in these altitudes. It is through these means that this vast area of forty thousand square
kilometers that is not inhabitable can be secured and animated. This “border work” is not simply a matter of delegating surveillance and presence to machines, however. helicopters may bring supplies and personnel to the tops of mountains, but they are merely facilitators for human bordering practices. It is here that we see the underlying significance of the tropes of time in the mobilization of this technology: helicopters dropping off supplies, or “super-high-altitude clothing” unveiled at the Defence-Indian Technical Textile Association joint seminar. There is a sense that borders are incomplete, in formation, and that more border work remains to be done. Infrastructures such as borders—as fuzzy as these ones are—are often of temporalities that “do not inhabit human lifetimes.” Neither country is currently able to fully possess or secure their territory up to the borderlines they both claim, but they are continually making progress toward these goals. And this is where the second temporal aspect of bordering is visible. In addition to skirmish seasons, there is also a teleological aspect to bordering practices. In other words, there is a temporal horizon of bordering—at least in some of these Himalayan areas—that involves the future possibility of total mastery over the high-altitude elements: “We cannot totally control the border yet, but we will.” Once again, this exposes the lag between the collapsed volume of the contour of the nation as it is described or represented by both states (in different configurations of course), and its shape as it is actually experienced: fragmented BOPs forty kilometers away from each other, for example. Krishna’s cartographic anxiety, of never fitting the actual border, thus comes to the fore in this vertical dimension. But the idea always remains that the nation will eventually grow into its cartographically defined shape; the nation will eventually grow into its intended “geobody.” There is a sense that, ultimately, time will bring the actual contour of the nation—as dynamic as it is—in line with its cartographic outline.

Acting East and Opening the West

Prime Minister Narendra Modi’s revival of India’s “Look East” policy (renamed the “Act East” policy in 2014) has meant that the current government is seriously undertaking several plans to strengthen existing ties with its East and Southeast Asian neighbors. At the same time, China’s “Open Up the West” scheme, as well as its trade-centered Belt and Road Initiative, are also underway. These long-term policy plans feature extensive infrastructural expansion into their respective borderlands. China’s road and rail network, for instance, is steadily progressing toward its Nepali and Indian borders, with the Qinghai-Tibet...
railway moving further toward Nepal, the Nathu La border in Sikkim, and to Nyingtri, toward the Indian BOPs in Arunachal Pradesh. Such macrolevel plans are premised precisely on the "not-yet-there" aspect of bordering, so the disputed borderlands along China and India remain the focal point for bringing humans closer to their intended cartographic outlines. Yet these are outlines with multiple iterations, outlines that have messily overlapped or are fragmented, never fitting together neatly like puzzle pieces.

Paying attention to lag and the temporal aspects of securing volume may indeed open up some new theoretical avenues for border studies, but it remains methodologically quite ambitious. If infrastructures last beyond lifetimes, how exactly do we study future-oriented borders "on the ground," so to speak? At what point in time do we begin such a study? When do we end it? Yet if the goal of the state is to secure uninhabitable vertical border regions for territorial limitation and openings to new markets, then it may be possible to focus on specific events that happen inside the lag between national outlines and the push to reach them. This may be done on a case-by-case basis—in snippets and snapshots, as was attempted here. Furthermore, despite the fact that reports of additional BOPs and the introduction of drone maintenance in these remote mountain borders paints a picture of imminent Sino-Indian military clashes in the near future, it is very difficult to tell if indeed skirmishes are going to increase in these high-altitude borderlands. Himalayan glaciers are melting at extreme and alarming rates. On the one hand, with the continuing climate crisis, skirmish season in the western Himalayas may in fact—as mentioned above—be extending earlier every year. As the bare face of the mountains continues to be exposed for longer periods of time and nomads continue to search for better grazing land closer to the border area, they are increasingly seen as breaching military zones. On the other hand, the melting glaciers and snows in both sections of the mountain range have already begun to exacerbate continued avalanches and devastating landslides. Might these disasters work in other ways, by acting as a stopgap to skirmish season? Only time will tell.

NOTES

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DC, in 2017 and the Asian Borderlands Conference in Kathmandu in 2016 for their helpful comments and questions.


4 van Schendel, “Geographies of Knowing,” 647–68.


“Centre to Set up 42 ITBP Border Outposts.”

Reeves, *Border Work*.