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Borders as Infrastructure

The Technopolitics of Border Control

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1 The Border as a Vehicle

Migrating through the Mountains

Although the term “border” expresses delimitation and demarcation, it remains a concept with few limits. What was initially meant as a border, or which later becomes a border, can accrue functions not normally associated with borders. I state this not to preempt attempts to define “borders” in advance, but to emphasize that borders arise, change, perish, and continue in other guises.

Clavière is a municipality in the Susa Valley in Italy, at an altitude of 1,760 meters. The alpine village is home to a refuge known as Chez Jesus. “Chez Jesus” is not the original name of the building; nor was the building originally a refuge. Once a church, Chez Jesus is now occupied by a pro-migrant collective. On April 22, 2018, approximately 300 so-called irregular migrants and activists gathered at the refuge. After sharing lunch, the migrants and activists, some affiliated with the No Borders movement, began their “march against frontiers”—a 19-kilometer trek from Clavière to the French city of Brainçon—to protest the militarization of the border by state authorities and the local police.¹ The march was also a response to provocations by members of Generation Identitaire, the youth wing of Les Identitaires (formerly known as Bloc Identitaire), which was founded in 2012. Members of Generation Identitaire, patrolling the area around the Col de l’Echelle, used helicopters, drones, and jeeps to block the roads; destroyed signs along the path meant to aid migrants; and, acting as a militia, handed migrants over to the police.² In August 2019, three members of Generation Identitaire were fined and jailed by a French court.³ By wearing uniform jackets, driving marked vehicles, and using “military language,” they had led migrants to believe they were police officers.⁴

Why did the migrants want to cross the border in the Hautes-Alpes? To understand their route, we have to go to Ventimiglia—and to Europe’s border policies in general. Ventimiglia is a seaside border town in northern Italy, four miles from the French Riviera. In the summer of 2015, the French government reintroduced border checks in an attempt to prevent irregular border crossings, using a provision in the Schengen Agreement of the European Union (EU) that allows states to introduce partial, temporary controls in case of emergency. But although the French government imposed ID checks on rail and road routes, it did not open centers where migrants could request asylum. Ventimiglia quickly became crowded with *transitanti* (migrants in transit); as many sought shelter in the town, camping under bridges, it was christened the “Calais of Italy” because the presence of migrants waiting for an opportunity to cross the border to France resembled the situation in Calais where migrants waited for a chance to reach the United Kingdom. In the meantime, the policies of the Italian government grew more repressive. Desperate attempts to reach France led to massive loss of life, as migrants drowned in the Roja River, were hit by cars, or were electrocuted on top of trains.⁵ Commissioned by Médecins du Monde, the Dutch photographer Henk Wildschut chronicled the lives of the *transitanti* in Ventimiglia: the arrival of a young man from Nigeria at the train station, a man from Bangladesh walking back to Ventimiglia after being sent away from the border by French police, a man from Gambia looking toward the sea, envisioning a route toward a better future.⁶

Due to these containments, pushbacks, and forced transfers from Ventimiglia, migration routes—which had previously seen migrants walking through railroad tunnels or hiding in vehicles—moved inland into the Alps.⁷ One region that saw intensified movement was the Roya Valley—dubbed the “vallée rebelle” by *Libération*—due to the aid given to migrants by local community members.⁸ As thousands of migrants, including unaccompanied minors, sought to hike over the border, the French authorities again intensified their controls.⁹

Joshua F. left his home in Cameroon in 2016, traveling via Chad and Libya to Italy, where he reached the village of Clavière. During his journey, he fell victim to human trafficking, forced labor, and slavery. But unaccompanied children were often refused formal recognition as minors, and thus entry into France; assessments of their age often fell short of French regulations that require considering educational and psychological factors

in a spirit of “neutrality and compassion.” The practices of the French authorities did not only let down the migrant children. Although humanitarian assistance is protected under French and European law, the police intervened in search-and-rescue operations conducted by aid workers, volunteers, and activists.¹⁰ Borders thus not only moved geographically, following the routes of migrants; they also penetrated local communities and societies. And when the passage through the Roya Valley in the Alpes-Maritimes became more treacherous, routes moved once again, this time to the Hautes-Alpes, including the Susa Valley and Clavière.

Irregular migration between Italy and France arises out of many tensions, such as between the migration policies of several European countries; the European Union’s Dublin Regulation, which states that migrants should apply for asylum in the country where they arrive first; and the aspirations of many migrants to travel to countries in the north and west of Europe, where prospects are considered better. Migrants from Africa and Asia crossing the “frozen border” in the Alps; the control of the border by police and state authorities; humanitarian support from solidarity groups; and vigilante violence by members of anti-immigrant organizations—all illustrate the many meanings and movements of borders that I address in this book.¹¹

Amid Moving Things

The borders of Europe run a gamut of policies, technologies, and interventions. The emergence of new migration routes, the rise of new borders and border controls, surveillance and patrolling by local police and state authorities, the rise of migrant solidarity groups and antimigration activism, renewed border controls in the Schengen Area—all point to tensions in and around the borders of Europe. What has befallen the once-almost-invisible borders of Europe? How can Europe combine open borders for a select group of countries, while maintaining border controls with others? How does Europe project itself geopolitically through its borders? What do these questions tell us about the very concept of borders? And what about the politics that accompany borders?

For some people, the fall of the Berlin Wall in 1989, the collapse of the Soviet Union, the drawing back of the Iron Curtain, and the reunification of East and West Germany heralded the coming of a borderless world. The

expansion of the European Union, the expected spread of liberal democracies and open markets around the world, the introduction of open borders through the Schengen Area—all fueled an idea that Europe would leave behind the Cold War and prosper in a borderless world. But thirty years after the fall of the Berlin Wall, and despite the Schengen Agreement, Europe still has walls, permanent or temporary border checks between member-states, and a host of border control policies and technologies at its disposal to monitor and control the movement of people. All of this has become starkly visible since the so-called migrant crisis of 2014–2016.

My argument is not that Europe sleepwalked from a divided world into a borderless one, only to wake up in a world still divided by borders. My contention is that something else has changed—namely, the borders themselves. Since the Peace of Westphalia and the subsequent formation of nation-states, European borders—under the trinity of sovereignty, territory, and jurisdiction—have marked the authority of states and the boundaries of nations. But today, far from simple lines on a map, Europe's borders and border controls are vehicles for power, control, organization, coordination, and technology.¹²

Many of the issues that I address in this book can be seen through other lenses, such as “migration,” “security,” or “surveillance.” But not all roads equally lead to Rome. Centering our analysis on borders allows us to focus on the relationships between states, international human mobility, and technology. The following chapters will trace the interactions of actors, institutions, and technologies that lead to the emergence of Europe's *border infrastructures*—a concept that in turn lends itself to studying the entanglement of digital, physical, and natural borders, various forms of governance, and the mechanisms of circulation, inclusion, and exclusion. The concept of border infrastructures also allows comparison with other kinds of information, communication, transportation, and security infrastructures as we study mobility and the conflicts and cooperation that it engenders. Border infrastructures shape new relationships between states and people, between initiatives to control and to care, and connect landscapes to seascapes, bringing geography back in.

In approaching borders, this book does not seek an omniscient view from high above mortal humanity—*kataskapos*, as the Greeks called it (from *kata*, “downward”; and *skopos*, “view,” or “target”).¹³ My perspective rather

begins *in medias res* (in the middle of things) in order to do justice to the granular and often haphazard ways in which borders infiltrate states and populations, landscapes and seascapes, and a spectrum of technologies and materialities. This chapter introduces three key concepts—technopolitics, mediation, and movement—that recur throughout the book; the concept of border infrastructures will be unpacked in chapter 2.

The concept of mediation will be fleshed out empirically in subsequent chapters, as we travel from borders on land and at sea to “smart” borders at the airport, from detention centers on the Aegean Islands to European databases and the headquarters of Frontex—the European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union, in Warsaw. For now, note that the notion of mediation holds that the *interactions* among actors, institutions, and technologies that constitute borders (in our case) generate *changes* that affect the constituting elements, from which new relationships and entities emerge. These changes take place via both the *transportation* and the *transformation* of the respective entities. Interactions are not restricted to social interactions; rather, they include the circulation of all kinds of information, knowledge, and techniques. Interactions do not leave the participating entities untouched; they affect the meaning and position of actors, institutions, and technologies, turning them into “mediators.” Combining the functions of managing passenger flows, checking goods, and regulating migration at the airport leads to new connections and disconnections among the actors, institutions, and technologies that execute these tasks. When border security approaches to irregular migration interact with humanitarian approaches to provide medical care and legal aid, notions of care and control become entangled, as do the respective actors and institutions.

One consequence of this view is that the border may appear omnipresent—that everything becomes a border or is perceived as such. We saw how border controls and the actions of state officials, migrants, solidarity groups, and anti-immigrant activists in the Alps reproduced and transformed the border. Border controls do not take place only at international boundaries, but also inside and outside state territory at the hands of national border guards, as well as the personnel and techniques of private security firms. Any study of Europe’s borders thus must resist turning into a reductionist “borderism.” “Presentism” in the study of history means that the present is

projected onto the past, whether in an explanatory or anachronistic way. “Borderism” analogously implies that all boundaries, policies that bear on mobility or circulation, and mechanisms of exclusion are seen as borders of some sort. What, then, would distinguish borders from national registries of citizens, urban surveillance practices, or identity checks to access certain services? Everything would become a border.

But there is also something to be said in favor of presentism as a way to study the coming into being of different presents. Scholars in science and technology studies have argued that the emergence of technologies cannot be explained by situating them in historical context. Technologies both change and are changed by society; for this reason, technologies should be considered sociotechnical constellations that create new associations and introduce new social, cultural, economic, and political relations and stratifications. Similarly, the emergence of borders cannot be explained only by situating them in their historical circumstances. Borders carry with them all kinds of political ideas, ideals, and motives; developed and deployed as instruments of authority, they shape, restrict, and broaden our repertoires of political action. For this reason, I conceive of borders as *mediators*.¹⁴ Mediation emphasizes the relationship between technologies and societies and the construction of entities and events situated in between them. Events, furthermore, carry a certain presence: “mediation refers to the event, insofar as its possible justification by the terms between which it becomes situated comes after the event, but even more insofar as these terms themselves are then expressed, situated, and make history in a new sense.”¹⁵

While the study of borders, migration, and state formation often focuses on international mobility, border control policies, and their humanitarian consequences, little work to date has explored the mediating work of borders. To do so, I work with concepts first developed in science and technology studies and in the philosophy of technology, and then elaborated in schools within political theory and international relations, as well as in parts of border studies, migration studies, mobility studies, critical security studies, and geography.¹⁶ The concept of mediation focuses our attention on the fluid relations among borders, state authority, technology, and mobility. Mediations concern more than technical connection or political and administrative cooperation; they point to the emergence of novel forms of power, authority, and control, new sociotechnical arrangements that

affect existing political orders. As the intensified border controls between Italy and France revealed, mediations include the transfer of knowledge and technologies, international cooperation between various practitioners, collaboration between state and nonstate agents, and the translation and implementation of political ideas and ideologies. Borders are themselves movable entities; they *shift* when state boundaries are redrawn and *transform* when new control mechanisms are deployed.¹⁷ But the idea of borders as mediating entities points to something more fundamental.

The relation between motion, borders, and politics is a much-discussed theme in the critical scholarship on borders, captured in the concept of “kinopolitics”—“kino” derives from “kinetic” and the verb “kinein,” meaning “to move.”¹⁸ A key idea in kinopolitics—the in-betweenness of borders—holds that borders not only reproduce the distinction between inside and outside, but also are motors that affect the deeper structuration of societies.¹⁹ This accounting of borders underlines their mediating function and “spatial dynamic” as active entities that create centers and peripheries.²⁰ This mediating aspect of borders can be extended to the movement of all kinds of actors, institutions, and technologies.²¹

The intimate relationship between borders, materiality, and movement encourages us to take the notion of mediation a step further. The notion of *viapolitics* denotes movement and emphasizes the role played by vehicles—ranging from airplanes and boats to trucks and containers—in the process of migration and how they carry violence, struggle, and power.²² Violent acts are not only committed by state authorities, as we saw in Generation Identitaire’s use of helicopters and drones at the Col de l’Echelle. And as we saw in Ventimiglia, the “vias” include railroads and tunnels, the routes that migrants take, and their own bodies and legs as they cross forbidding mountain passes. But viapolitics does not apply only to vehicles and “things” that travel and the routes they take. Borders, I argue, can also be seen as vehicles.²³

It may seem odd to relate borders and border politics to movement and circulation. Aren’t borders about preventing particular people from entering? But as the example from the Alps and numerous studies have pointed out, blocking is but one function of the border. And although debates over international mobility are often couched in the binary of “open” and “closed” borders, borders are better seen as selection mechanisms that allow

the circulation of *some* people, goods, finances, and information.²⁴ Walls that seek to prevent people from entering often fail in their aims, leading to “waterbed effects” and the search for alternative routes. During Europe’s so-called migrant crisis, thousands of individuals, mainly from Syria, crossed the border between Russia and Norway at Storskog—on bicycles. They were exploiting a loophole in the rules: while Russia does not allow people to cross on foot and Norway does not let in drivers carrying passengers without documents, bicycles are permitted on both sides.²⁵ Walls can also lead to “now or never” moments that force migrants to take riskier routes or pay higher prices to reach their destinations. Borders may thus produce blockages in specific places while promoting circulation elsewhere, while walled states arguably project weakness rather than strength—a lack of economic and diplomatic means to influence human mobility.

Borders, in short, are mechanisms that organize circulation—of not only people but ideas and imaginations of international relationships among states and peoples. Whether it concerns the mobile provision of care and control in the traveling humanitarian border or the circulation of information and images enabled by sprawling databases, infrastructures of movement depend on all kinds of meticulous translations and associations, all sorts of small steps to bridge distances in time and space. These mediations in turn continuously lead to new infrastructures as the deployment of devices, instruments, and information systems expands.²⁶ Emphasizing the “kino” and the “via” and the variety of objects and subjects that move across and through borders paves the way to further conceptualizing the mediating role of borders.²⁷

Technologies and Borders

Europe’s borders are focal points where questions about states, politics, technology, citizenship, and international mobility come together. Borders give rise to questions about people’s rights, inclusion and exclusion, state sovereignty, authority, jurisdiction, identity, and belonging. Borders come in many shapes, including checkpoints on land, at sea, and in airports; they encompass passports and travel documents, visas and databases, asylum procedures, and deportation policies. Borders are variegated entities that operate in different ways across space and time, affecting almost everyone who travels—citizens, expats, tourists, and migrants—albeit in starkly different ways. Borders can induce racialized and gendered violence and

pose specific risks to specific groups of people aspiring to mobility. Border controls in Europe also affect sedentary populations, as the regulations, registrations, and techniques governing international mobility require ever more data and secure identity checks in an interconnected world. History is replete with policies developed to address specific problems which were later applied more generally. The fingerprinting policies of the United Kingdom (UK) were not developed by Scotland Yard—they arose in the colonies, particularly India, in the second half of the nineteenth century as colonial administrators sought to tackle the problem of fraud and impersonation. What began as handprinting developed into fingerprinting and a technique for civil identification before it became a tool for identifying criminals.²⁸

Borders have a particular relationship with technology. The term technology not only alludes to the technical aspects of devices—tools, materials, machines, instruments, and computer networks—but how they are designed, produced, and managed. Technologies inform—and limit—how societies are governed and can be imagined to be governed. Like technologies, borders are both concrete and abstract, both material and ideational.

Take, for instance, how borders affect time. Borders can delay or accelerate the crossing of boundaries. For some travelers, automated borders at airports speed up checking in and passport control; for others, borders mean waiting for papers and queuing at embassies. Databases function as archives of human mobility, storing information about travelers in order to recognize patterns and make decisions in real time. Border-monitoring technologies aim to arrive at *situational awareness* by connecting interventional space to real-time imaginaries. Social media affects the organization of time as migrants travel through places and spaces, while online mapping platforms allow people to report critical situations where migrants are in danger. Borders can unite the histories of peoples and nations; recall colonial or violent pasts; and encourage dreams of reaching destinations and the future. In all such cases, technologies inform existential and political questions; and devices, networks, and infrastructures point to a material locus, as well as a particular form of politics.²⁹ Technological transformations, moreover, produce a variety of temporalities. Introducing new border technologies will favor some groups of migrants while disadvantaging others, such as those granted visas and able to enter countries by plane versus those who have to take other routes to apply for asylum. Migration is mediated by all kinds of information and communication technologies.

Technology also guides the political imagination. The border between the United Kingdom and the Republic of Ireland in the wake of Brexit has once again become the subject of heated debate over “hard borders,” “soft borders,” “visible borders,” and “invisible borders.” While any visible hard border between the Republic of Ireland and Northern Ireland recalls the violence of “the Troubles,” the transition that began on January 31, 2020, envisions a new model to regulate the movement of people, goods, capital, services, and information. All kinds of technological solutions are now being considered. Options include “trusted traveler” and “trusted trader” schemes, digital platforms for the preclearance of travelers, automatically processed customs systems, the electronic identification of vehicles through number plate recognition, and the certification and global positioning system (GPS) tracking of goods. But regardless of how virtual or invisible they may appear, all these technologies come with registration, administration, checks, risk analyses, and surveillance systems. As an expert on the Irish border stated in the *Irish Times*, “a ‘frictionless’ border is almost an oxymoron.”³⁰

To clarify the relationship between technologies and borders, I critically elaborate on the distinction between an *ontic* view, which sees technologies as instruments or as outcomes of human design, and an *ontological* view, which suggests a more intimate and co-constitutive entanglement between humans and technology.³¹ In the ontic view, technology is usually defined in instrumental or anthropological terms—the former sees technology as a means-ends relationship, the latter as the result of human activity. In the ontological view, technology harbors a mode or attitude toward reality that unveils something about the relationship between humans and technologies, and ultimately about our “being.”

This distinction can be illustrated through the technologies of border control. A wall to prevent irregular border crossings, even if ineffective or counterproductive, is a means to an end. Other examples of the ontic view include legal approaches that seek to separate technologies from their uses and meanings, such as when the consequences of a database are evaluated using the purpose limitation principle that restricts the collection, processing, and use of data to specific purposes to prevent function and data creep. But deployments of technology raise other issues. The use of Big Data for security purposes creates new categories of travelers considered a risk; facial recognition technologies can lead to profiling and discrimination; and speech

recognition technology can be used to test the language proficiency of people seeking residence, although experts disagree whether such software is sufficiently accurate for this purpose. Technologies also affect the discretionary powers of civil servants. Personnel who question asylum seekers use decision-supporting tools such as maps with detailed regional information and automated decision trees to check countries of origin; such tools not only support but prestructure decisions so that it is hard to distinguish which parts of the decision to grant asylum were driven by technology. When technology is conceived in relationship to being, an even broader picture emerges. Technologies to control borders are no longer evaluated by their particular uses; rather, they are part of an emergent machinery that informs our thinking about territory, sovereignty, and human mobility.

However, between *ontic* and *ontological* views, many more forms of borders, technology, and politics are available. The study of borders and technologies widens our conceptual repertoire to analyze the relationship between technologies and politics, showing that there are many more options in between reducing technologies to instruments and enlarging them into expressions of our relationship to being. The politics of technology can be conceived in myriad ways, from technology being essentially political, to being a form of politics by other means, to being the site of political contestation, to being a part of our collective material “world making.”³² What remains to be investigated are the analytical schemes that underlie these various conceptions of politics and technology—to unravel how they relate to and may lead to each other. Some repertoires see borders as objects or instruments of state power; others see borders as networks, as large-scale configurations that organize international human mobility; yet others see borders as a kind of worldview, a way of ordering reality. Next, I present a technopolitical account of borders that privileges the *transformations* between these repertoires by following how technologies travel from one form to another.

The Technopolitics of Borders

Emphasizing that technology, in the context of migration and border control, has a political dimension may seem like stating the obvious. Why does the study of borders, migration, surveillance, and security require this extra emphasis on political issues and concepts? Few people will deny that policies

surrounding international mobility and migration stem from political choices regarding citizenship and rights, inclusion and exclusion. The technologies involved *always* aim to control, surveil, monitor, and select as they serve political goals, or because they are deployed in highly politicized situations where risks are assessed and decisions about visas or asylum must be made. Nevertheless, there remains something peculiar about iris scans, fingerprints, databases, detention centers, radar images, patrol boats, and barbwire fences. There are important differences in claiming that things are designed to serve a political goal—that technologies are part of a political constellation—and that things generate political consequences. Although something political is at stake in all of these cases, we need to examine different conceptions of technopolitics to clarify what they mean by “politics.”

To begin with, definitions of technopolitics need not consist of a combination of a definition of “technology” and a definition of “politics.” The literature on borders, migration, technology, and security has produced a plethora of concepts to distinguish among particular kinds of technopolitics.³³ The constitutive and sometimes decisive role of technologies and materialities is widely acknowledged, empirically as well as conceptually.³⁴ For example, theorists inspired by the work of Michel Foucault generally understand technology in the broad sense of the term, referring not only to concrete things, networks, and instruments but to the arrangement of techniques that govern subjects, the relationships between technology, power, and knowledge, and how subjects and objects are created by particular ways of seeing and knowing. Notions of “governmentality” and biopolitics and how policy apparatuses govern populations and territories have informed analyses of border regimes, security policies, and state regulations; refugees and humanitarian governance; citizenship; and international mobility regimes. These notions also encourage us to see policies as a kind of technology organizing the governance of borders and the movement of people.

Analyses in science and technology studies, most notably elaborating on Bruno Latour’s work, to which I will return in detail in chapter 3, show that technologies are not only neutral means to achieve certain goals, as they transform goals and needs. While the presence of technologies has made long-distance communication and curing diseases easier and more efficient, it has also altered how we communicate and what we treat as a disease. Technology is thus seen as a repertoire of actions, interventions, and representations through which issues can be articulated—a conception

that allows us to rethink the sociotechnical relationship between humans and technology. As both instruments and expressions of being, technologies are indispensable linkages in the sociomaterial world.

Despite the wide attention that is already being given to the relationship between technology and politics, there are some specific characteristics that deserve further conceptual examination, particularly where borders are concerned. The morphological conception of technopolitics that I develop in this book foregrounds three aspects—*materiality*, *mediation*, and *movement*. So what does a morphological approach to technopolitics entail? Morphology is the study of shapes. Rather than providing an analysis of various kinds of technopolitics or taking the study of policies, regulations, and border regimes as a starting point, a morphological approach aims to identify *forms* of technopolitics by analyzing how politics and technologies intermingle. My morphological approach does not a priori view technology as an instrument, network, or worldview; it holds that technopolitics can take many shapes and transform from one to the other. It focuses on the transformation between repertoires that consider borders as objects or instruments, borders as networks, and borders as a kind of worldview.

In contrast, normative philosophical approaches often view borders as the objects of policies, instruments of legislation, obstacles for migrants, or the avatars of politics. These perspectives are justified, both conceptually and empirically. In practice, borders are often understood and applied as instruments. Understanding technology as a means to an end fits well within existing institutional politics, as it allows distinguishing between goals and implementation in order to better organize the spatial, temporal, and functional division of tasks and responsibilities. Nevertheless, instrumental approaches often ignore how technologies develop and change, the gradual merging of their goals and functions, and their unforeseen or underestimated side effects. Normative approaches distinguish between humans and nonhumans, focus on decision-making, and hold that technologies can be designed and governed according to political will. But such approaches hit their limits when it turns out that objects cannot be easily isolated from other elements in the surrounding environment, and when their becoming political brings about a collective transformation of related entities. Distinctions between subjects and objects are even harder to maintain once we see that decision-making, the anticipation of risks, policymaking, and political thinking are all suffused with technology. The understanding

of borders as technopolitical entities requires a broader perspective in order to take these meanings into account.

Nevertheless, the focus on technopolitics is far from self-evident. The first risk is that emphasizing the networked nature of borders complicates demarcation: how do we decide which situations and forms of violence, exclusion, and oppression can still be said to relate to borders, and which ones not? Network analyses have been criticized on the grounds that it is often impossible to define a network's boundaries—a criticism that surely resonates if borders are deemed to be everywhere. Where, then, does the border begin and end? But network studies and situational attention need not be mutually exclusive. "Networks can take any scale—have the power to cross different organizational levels—precisely because each relation invokes a field of embodied [social] knowledge about relationships."³⁵ If the border is everywhere, it can be analyzed everywhere in its different manifestations. The form of organization required to connect the various settings is arguably more important than the breadth of the network or the scope or scale of the infrastructure.

The second risk of (particularly my morphological understanding of) technopolitics is that focusing on the multiplication of borders and the technological machinery of bordering renders travelers and migrants and the injustices they endure invisible. Celebrating hybrid formations can obscure enduring asymmetries between actors and agents.³⁶ Opening up configurations of agents, institutions, and technologies in order to study processes of inclusion and exclusion, the creation of new asymmetries and forms of violence is thus necessary to keep the political nature of networks and infrastructures in plain sight. Analytically privileging the workings of technology should not mean that international political developments and situational particularities—the cultural, economic, and historical dimensions of the places where technologies operate—fade from view. While focusing on technopolitics emphasizes the role of all kinds of nonhuman entities and devices that make up the border, we still need to attend to violence, discrimination, oppression, and exclusion.

The morphological account of technopolitics presented in this book will focus on the development and dissemination of political ideas via their manifestations in all kinds of technologies and how those ideas are affected and change. Border control technologies such as walls, fences, cameras, and databases are not only instruments that can be acted upon at will; the

following chapters will explore the idea that border politics develop *through* technologies as well.³⁷ Technology is not just an instrument, a device like a hammer that we use for a specific purpose. Nor is technology just an extension of the body, a prosthesis. Yes, glasses improve our vision, but something else is involved too. The morphological view holds that knowledge and ideas are realized and unfold through the development of technologies.

To develop my morphological account of the technopolitics of borders, I introduce the notions of *peramorphic mediation* and the resulting *peramorphic politics*. *Peras* is the Greek word for “boundary,” “limit,” or “end”; and *morphic* originates from the Greek *morphe*, meaning “shape” or “form.” The term *peramorphic* can be used descriptively, but also pejoratively. “Anthropomorphic” means having the form of a human, while “anthropomorphism” is often used pejoratively, implying that human characteristics are misleadingly attributed to something that is not human. In a similar vein, the term *peramorphic* can be used to describe something turning into a border, but also to argue that something is unfairly or mistakenly seen as a border. Once a border is created, more are likely to follow—in different shapes at different locations. Borders are contagious; processes of mediation always create more and new borders.

My notion of peramorphic mediation, to be discussed in detail in chapter 3, focuses on the creation, reproduction, and distribution of borders by all kinds of translation processes and the intermingling of borders with movements and materialities of all sorts. The resulting morphological understanding of the technopolitics of borders—peramorphic politics—acknowledges the intrinsic tensions contained within borders: between closing and opening, between demarcating a certain space while opening or defining another. In the first instance, peramorphic politics can be seen as a *limited* kind of politics. It sets its own boundaries by pursuing a limit—narrowing the repertoire of technopolitics in which compromises must be made between circulation and isolation, mobility and fixity—into a program oriented at an *eschaton*, a final event or last thing.

Then again, peramorphic politics is more concerned with the opening that follows the ending, the horizon that offers a window on future events. A border is not only something that blocks; it is also “that from which something begins its precensing.”³⁸ A border, in this view, is a kind of horizon. What glows on the horizon is space, created by a boundary. But borders in this line of thinking still lack shape and volume, and they are

pictured as mere lines or perimeters—a flat horizon. Whereas boundaries may be the starting point of something else, borders themselves fall out of view as entities. For this reason, I develop over the course of the following chapters a peramorphic approach that acknowledges borders as entities with a particular extensiveness.

Following Border Infrastructures

Scholars in science and technology studies often investigate the emergence of things by *following* the actors that constitute them—thus studying things in the process of becoming or, in our case, infrastructures in the making.³⁹ Methodologically, the “following” concerns human actors, social and political institutions, and technologies, while focusing on their interactions allows for a perspective that acknowledges that political ideas and policy practices often co-emerge.⁴⁰ While political decisions may enforce certain policies and programs, their exact meaning often only emerges in their making. An example that will recur in the coming chapters is the development of EU databases for visas, asylum, and migration, such as the Visa Information System (VIS), the Schengen Information System (SIS), and the European Asylum Dactyloscopy Database (Eurodac). The meaning of the phrase “digital border surveillance” unfolds through the interoperability of the various databases and the interactions of the actors and institutions using them. The meaning of the concept relies on the consequences it brings through practice.

Applying the methodological and conceptual notion of “symmetry” to borders, states, and migrants raises thorny questions. Broadly speaking, the literature on borders and migration harbors a tension between views that privilege the “tactics of bordering” and the “autonomy of migration,” respectively—a palpable tension when these are presented as key poles in the politics of Europe’s borders.⁴¹ The autonomy of migration argument begins with the premise that human mobility is a right undermined by regulations, obstructions, and interventions, by documents, walls, visas, and violence. From this perspective, borders are never natural entities but constructions that constrain human mobility. Similarly, the notion of “migration” itself is seen as a particular way to conceive of human mobility, namely as movement in a world governed by states, jurisdictions, and borders regimes. The risk of designating human mobility as “migration” is that it naturalizes

the border.⁴² Borders are indeed material compositions that can be seen as expressions of authority and jurisdiction, as manifestations of state power and the governance of human mobility—as vehicles of politics, thought, and action. But neither is human mobility—fueled and mediated by a range of social, economic, ideational, and technological factors—a natural phenomenon. Rather than holding that “if there were no borders, there would be no migration—only mobility,”⁴³ I suggest that if there were no state borders, other kinds of borders would emerge, in different shapes, at other locations.

The vignettes at the beginning of this chapter revealed the mobility of migrants, borders, and border controls; the We Are Here movement further illustrates how borders keep moving with migrants. This movement mainly consists of undocumented migrants who collide with borders wherever they go. The movement began in 1997 with the so-called Caravan of Migrants in Germany; the “We Are Here” slogan has its roots in the United Kingdom, where black and South Asian antiracist activists in the 1980s chanted, “We are here because you were there.” In the United States in the 1990s and 2000s, undocumented migrants chanted “*Aquí Estamos, y No Nos Vamos!*” (Here we are, and we’re not leaving!), often accompanied by “*Y Si Nos Sacan, Nos Regresamos!*” (And if they throw us out, we’ll come right back!).⁴⁴ The city of Amsterdam has also seen manifestations of this movement, with undocumented migrants gathering at a bunker in the Vondelpark and in empty churches, schools, and office buildings.⁴⁵ The intriguing aspect of these actions is not only that undocumented migrants claim a position in the public sphere, but also that their very actions create a public sphere, which—like the border—they carry with them.⁴⁶

Two lessons can be drawn from all this. First, we need a symmetrical perspective to simultaneously examine human agency and technological structure—one able to transcend the dichotomy between the subjects and objects of border control technologies (i.e., the distinction between those who develop the infrastructure and those who are subjected to it).⁴⁷ In other words, borders move not only with the steps that states take to reposition them, but with the movements of migrants and their material means of movement.⁴⁸ Second, borders are not always the robust and durable building blocks they proclaim to be. In border surveillance and mobility management, they are often patchworks, outcomes of diplomacy under highly

politicized circumstances and the cut-and-paste work that comes with creating “systems of systems” that aim at “interoperability,” giving rise to various forms of “data friction.”⁴⁹ The infrastructures that monitor mobile agents are themselves mobile.

The conceptual and the empirical thus travel and change together.⁵⁰ As we saw in Ventimiglia, the technological construction of the border is not the simple result of a clear-cut decision-making process translated into policies and executed by state officials and private contractors; the actual border resembles a patchwork where conflicting desires, existing patterns, and new trends are woven together. Conceptually, there are two important points. First, a multiplication of labor takes place via all kinds of border practices and activities. Second, a great deal of translation work is required to relate concepts such as “labor” to concrete material situations.⁵¹

My focus on materiality thus has two aspects. The first is to acknowledge the role of material constructions such as databases, detention centers, and rescue operations as sites of border politics, as well as the role played by material devices ranging from migrants’ cell phones to the design of airports within border infrastructures, which will open up practices, technologies, and relationships to examination. The second is to acknowledge that accounting for nonhuman elements requires a different approach. Respecting the transformative role of materialities requires a conceptual repertoire able to detect the interactions and translations taking place between actors, institutions, and technologies. These repertoires must also be able to follow transformations as technologies travel and intermingle with landscapes and seascapes. Following interactions between humans and technologies will yield unexpected encounters, as border technologies not only consist of high-tech information systems, but entail all kinds of mundane materialities as well.

The Boundaries of Europe

While I focus on Europe and Europe’s borders, many of the developments described in this book are driven by the decisions and policies of the European Union. It is important to note that Europe and the European Union are not synonymous. When I refer to EU member-states, institutions, technologies, agencies, regulations, policies, and politics, the reference will be obvious. But the control of Europe’s borders is not limited to EU policies and

politics. The European Union involves nonmember-states in its border politics through partnerships and associations. Cyprus, Ireland, Croatia, and Romania are members of the European Union but not part of the Schengen Area; meanwhile, Lichtenstein, Iceland, Norway, and Switzerland are not members of the European Union but participate in Schengen. New countries may join the European Union; some are already candidates, including Albania, the Republic of North Macedonia, Montenegro, Serbia, and Turkey; others are potential candidates, such as Bosnia and Herzegovina. And of course, the United Kingdom has left the union. EU policies also affect border control in countries in Africa. Partnerships with African countries and the so-called externalization of border control transfers EU border politics across borders.

Chapter 2, which recounts the rise of Europe's border infrastructures, begins in the mid-1990s but focuses in particular on the years 2014–2016, often referred to as the years of the “migrant crisis” or “refugee crisis.” I reproduce these terms with the proviso that this so-called crisis was actually a multiplicity of crises: a political and policy crisis of decision-making, a crisis of solidarity, and above all, a humanitarian crisis. Although this period was exceptional in many ways, the events also revealed a great deal of continuity from earlier policies, plans, geopolitical developments, and humanitarian dramas. Since 1960, the number of migrants as a percentage of the world's population has remained remarkably stable, at roughly 3 percent. The idea of a migrant or refugee crisis also has to be understood in context, as refugees represent only between 7 and 8 percent of the global migrant population.⁵² The terms “crisis” and “exceptional” also run the risk of—intentionally or unintentionally—legitimizing certain actions and responses to avert an alleged crisis or to justify exceptional measures to solve it. While I do not avoid these terms, they need to be used with caution.

The distinction between refugees, migrants, and asylum seekers deserves attention. This book is not about migration within the European Union (largely consisting of labor migration within the single market), but about migration to the European Union from so-called third countries—countries that are either not part of the union or countries and territories whose citizens do not enjoy the right to free movement that the union enjoys. But this still covers many forms of human mobility. More precisely, this book focuses on the relationship between borders and what are called “mixed

movements” or “mixed migration” from outside Europe. According to the United Nations High Commissioner for Refugees (UNHCR) and the International Organization for Migration (IOM), the term “mixed movements” refers to “flows of people traveling together, generally in an irregular manner, over the same routes and using the same means of transport, but for different reasons. The men, women and children traveling in this manner often have either been forced from their homes by armed conflict or persecution, or are on the move in search of a better life.”⁵³ The European Commission defines “mixed migration flow” as a “complex migratory population movement including refugees, asylum-seekers, economic migrants and other types of migrants as opposed to migratory population movements that consist entirely of one category of migrants.”⁵⁴

Although the migration movements that I address in this book include asylum seekers and refugees, in the following chapters I generally use “migrant”—an umbrella term that includes refugees and asylum seekers. Although many people who arrive in the European Union seeking international protection can be considered refugees in a humanitarian sense, from a legal point of view it would be inaccurate to call them “refugees” until they are legally granted refugee status. But there is another reason to apply the umbrella term “migrant,” and to refrain from a hasty categorization in migrants, refugees, and asylum seekers. Doing so would introduce a false dichotomy between people who, after long procedures, are considered refugees in the legal sense of the word and people who are not considered refugees but are nonetheless looking for refuge for good reasons. Creating such categories is one of the functions of selection processes at the border. We need to exercise due caution when categorizing migrants.

Although Europe’s current borders and politics are far from *sui generis*, they have some unique features. First, the European Union is not a nation-state but a union of states; this affects the role of state apparatuses in border control and how authority, sovereignty, and jurisdiction over territory and mobility are expressed. Second, Europe’s borders are highly variegated, consisting of land, sea, and air borders, internal borders between member-states, external borders with neighboring countries, and surveillance efforts inside and outside European territory. Third, Europe’s borders have seen dramatic changes over the past decades. The expansion of the European

Union with new member-states, the reunification of the two Germanys, the creation of the Schengen Area, and the various treaties, agreements, and partnerships on migration and border management with countries outside of the European Union have turned Europe into a transnational border project.⁵⁵ These particularities notwithstanding, the highly dispersed and moving borders of contemporary Europe can be seen as places where issues concerning territories, infrastructures, authority, technology, and mobility interact. Findings from studies elsewhere that emphasize the disseminated nature of borders apply to the European situation as well.

The European Union's geopolitical and security interests provide a window for studying the entanglement of politics and technology, infrastructures, and states. As security, migration, and foreign policies become increasingly linked, borders are the entities par excellence to use to study the composition of power and infrastructure and the frictions and the political and technological mediations they bring about. Much more than the instruments of states, borders bring about all kinds of interactions among countries, state authorities, private firms, travelers, and technologies. The issuing of passports, visas, identity cards, and travel documents is intimately connected to the installing of national and international registrations, databases, checkpoints, and monitoring instruments. The threat of terrorism in Europe following 9/11 and the attacks in Madrid in 2004 and London in 2005 entangled border control, migration, and security policies and strengthened the external dimension of Europe's border politics, which now consist of an extensive infrastructure of identity checks, control mechanisms, surveillance instruments, and security policies that intervene inside and outside Europe. Borders are not just lines on a map or stripes through the landscape; they have volume, spatially and materially.

As a union of states, the European Union as a political entity differs from "states," "federations," and "empires."⁵⁶ But its border politics have many similarities with those of states around the world. Twenty-first-century borders provide vignettes of the intensified efforts to control international human mobility, of how sovereign authority and control over territory are currently expressed. While the boundaries between the United States and Mexico and the barriers and surveillance systems deployed by Israel in the West Bank are considered iconic borders, many more examples worldwide showcase similar border politics and technologies. Whether it is Australia's

ocean patrolling, instituting biometric travel authorization in Uganda, or surveilling the Bengal borderlands, technologies, geographies, and authorities are intimately entangled at the border. Europe is no exception. Fences surrounding the Spanish enclaves of Melilla and Ceuta in Morocco, registration centers in Lampedusa and Sicily, barbed wire in the Balkans: local manifestations of the border may be said to be everywhere.

In the meantime, borders have been stretched, displaced, and transformed. Automated border controls at airports, the sanctions against private carriers transporting undocumented travelers, and the mobility partnerships between the European Union and third countries belong as much to the borderscape as refugee camps and detention centers. European countries have also copied ideas and practices from other places. The European Union's planned entry-exit systems are inspired by the Biometric Identity Management system of the United States, formerly known as US-VISIT. The European Border Surveillance System, known as EUROSUR, follows in the footsteps of previous surveillance programs in Spain and North Africa, while Israeli security systems and border surveillance technologies have influenced EU policies. A further factor is the growing role of the transnational security industry, with private companies promoting the integration of various systems to gather, interpret, use, and transport data and information for multiple applications.⁵⁷

Breaking with European exceptionalism is not to suggest that a global border regime has emerged. Although border configurations and border politics may have many things in common around the world, border infrastructures always manifest themselves under particular circumstances in place and time and harbor specific selection mechanisms. The different visa regimes used by European countries and the particular selections and distinctions they draw—between migrants from “Western” and “non-Western” countries, former colonies and countries without a shared colonial past, or labor and knowledge migrants—often produce arbitrary and/or discriminatory categorizations that lead to unequal, racialized, and gendered forms of inclusion, exclusion, and circulation.⁵⁸

These specific selection processes underline once more that borders are saturated with tensions and conflicts, answer particular needs and questions, cause specific problems and are informed by particular forms of knowledge, expertise, and technology. Rather than being the expression of fixed states or nations, borders transform political entities, while border

infrastructures fuel identities and imaginations as states and nations. Studying border infrastructures is therefore also a means to study broader political transformations. As such, the other chapters in this book aim to not only offer a novel conceptualization of technopolitics and a technopolitical interpretation of borders, but a description of Europe and the project of the European Union, as driven by the development of border infrastructures.



Watchtower, Bulgaria, September 2015.

Source: Henk Wildschut.