LIFELINES

THE TRAFFIC OF TRAUMA

HARRIS SOLOMON

L I F E L I N E S

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Publication of this open monograph was the result of Duke University's participation in TOME (Toward an Open Monograph Ecosystem), a collaboration of the Association of American Universities, the Association of University Presses, and the Association of Research Libraries. TOME aims to expand the reach of long-form humanities and social science scholarship including digital scholarship. Additionally, the program looks to ensure the sustainability of university press monograph publishing by supporting the highest quality scholarship and promoting a new ecology of scholarly publishing in which authors' institutions bear the publication costs. Funding from Duke University Libraries made it possible to open this publication to the world.

For Gabriel

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NOTE ON ILLUSTRATIONS

For the images that begin this book's chapters, I layer textures on traces I make from photographs to think about the gestures of trauma care that redirect and transform its traffic. I was encouraged to draw by one of the trauma ward's resident physicians. I noticed how they would sometimes sketch out a problem or issue at hand when we spoke because they felt pictures could explicate details better than words. They suggested I try it too. I gained inspiration from accounts of ethnographic drawing, including Czerwiec (2017), Hamdy and Nye (2017), Jain (2019), Povinelli (2021), and Taussig (2011). I learned how to shape ethnographic inquiry through drawing from Andrew Causey (2017) and how to stay with lines and transits from Renee Gladman (2010, 2016, 2017). I was also fortunate to take drawing lessons. My teacher, Zoe Schein, challenged me to see how lines of action and marks of stillness and shadow could scale up a feeling or an idea. I continue to learn about what lines can do from the artist Ranjit Kandalgaonkar.

I took the base-layer photographs, with two exceptions: the drawing that begins the introduction is a traced adaptation of a photo by Steve Evans (2008), and the drawing that begins chapter 1 is a traced adaptation of a photo in Ansari (2018). All the drawings include adaptations, rearrangements, sketched-in components, and textures that are not in the original photo. There are both additive and protective dimensions to this imaginative overlay. Inside hospitals, I never photographed patients (nor was I allowed to). I took very few photos, in fact, and most were of banal objects and architectural details: notebooks, machines, filing cabinets, washbasins, hallways, lockers, bins of medicines, paper piles, and storage corners.

Tracing these photos into a different medium—a line drawing—conjures memories and stories. It is an act that demands I remember who and what constitutes a given scene. It also compels me to sit with what I do and do not know. This involves filling in, erasing, or recasting things the base-layer image might suggest.

Holding a pen continuously for a stretch, and then braking, and then veering elsewhere are actions that shaped how I conceptualized, wrote, revised, and rethought prose. Tracing is a tactile enactment of intermittent gestures. It tracks constellations of discontinuities. This generates a sense of movement that words may strain to address, or the other way around. Approaching research material from both lines and words foregrounds uneven pathways as a critical ethnographic motif. It is a practice that catalyzes questions: How does a specific line come into being? What forces facilitate, constrain, and sustain one line's convergences with another's? What kinds of restraint are necessary in depicting scenes of extremes? What happens when lines run parallel, intersect, or diverge, even provisionally? Is there something important about that provisional relationship? What does it mean to gain proximity to a crossing—say, a critical decision—and to push forward? Or to see it ahead but remain stuck in place?

Tracing renders fluctuations in density, curvature, edge, and trajectory. Similarly, this book grapples with lines of life in flux.

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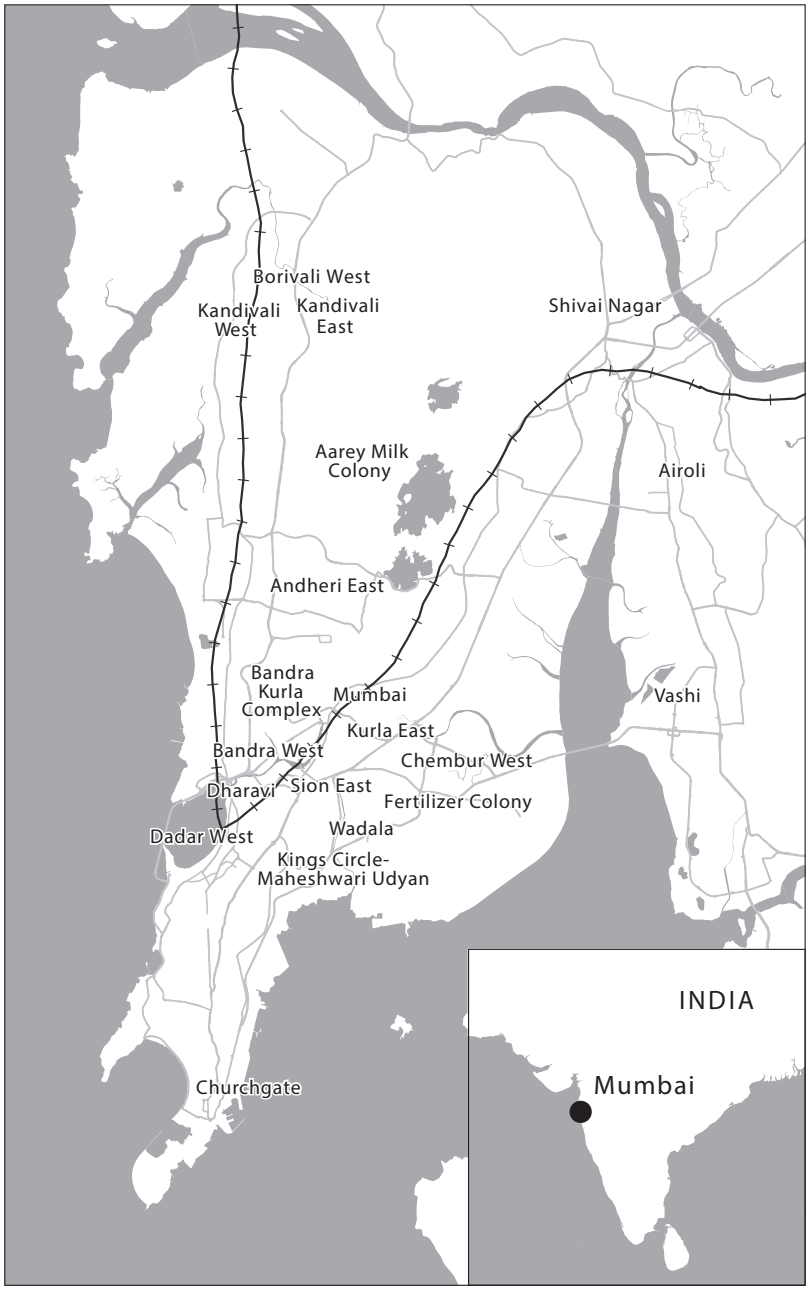
My mother, Dale Solomon, is an ethnographer at heart, always curious about the backstories of the everyday. She sent love and encouragement from afar and never flinched when hearing me relay difficult moments from the hospital; instead, she responded, "And what did you learn?" I've tried to stay with that question.

This book is dedicated to Gabriel Rosenberg. He has kept me alive and moving in ways neither of us imagined would ever be necessary. His brilliance, patience, and clear seeing charge me and my words with momentum. There is something gravitational to his love; it draws me home.



Introduction

THE TRAFFIC OF TRAUMA

YOUNG MAN ON THE LOCAL TRAIN IN MUMBAI. DRAWING BY AUTHOR.

I reckon the siren like thunder: threat, distance, relation.

The sound is high-pitched, continuous, and mechanical, and I do not recognize it at first. The siren does not warble; its pitch is constant. Suspended in traffic, the ambulance proceeds fitfully next to a Shiva temple and does not move fast enough for me to perceive the wave changes of the Doppler effect. Cars and rickshaws and motorcycles edge around the accident scene, which is less a full stop and more a diversion. The siren joins the sonic fold of Mumbai's traffic alongside horns offering "you go" or replying "my turn" as cars dance. From a distance, the road looks frozen. Up close, things are stop-and-go as injury and repair churn.

I reach my destination an hour later and never learn about that ambulance, but the siren stays with me. It broadcasts traffic's milieu, mobility's tectonics, and the challenges of moving injury in Mumbai. Who was inside that ambulance? How did it get to the hospital, and once there, what ensued? How does injury move after the accident? And what of traffic: How do people clear paths through the traffic of trauma?

A Crossing

A year passes. I am researching the social trajectories of traumatic injuries from traffic accidents as they move into, through, and out of Mumbai's largest public hospital trauma ward, at a hospital I call Central Hospital. Hearing of my work, a friend tells me to meet Kalvin, because Kalvin's friend Raghu died in a train accident. Kalvin tells me the story as we navigate Mumbai's streetscape on foot.

Raghu left work one evening and headed home on the local train with two friends. He stepped toward the train's always-open door to take a phone call, and to give him privacy, his friends moved further into the compartment. People began yelling that someone had fallen out of the train. The friends could not find Raghu. Later a witness told the police, "He just fell, gone" (gira, ho gaya). The train continued on, moving everyone else who needed it. The friends got off at the next station and circled back to search the tracks.

Kalvin reflects on the moment when the friends phoned him. He knew what had happened from a lifetime of riding the train through the city's construction zones. "You know the iron rods that go in concrete? He fell off the train and onto those rods."

Kalvin sees an opening in the congestion, and we dash into the street as he continues.

The police joined the two friends and walked along the tracks with flashlights. They called an ambulance when they saw Raghu lying unconscious. Rush hour delayed the ambulance, so one of the friends attempted rescue. He gathered Raghu's body in his arms, carried him back to the station, lugged him onto the next train, and disembarked at the next station closer to a hospital. Police there flagged down an autorickshaw and forced the driver to head toward the hospital, where doctors declared Raghu dead on arrival.

Kalvin wards off oncoming vehicles with his outstretched palm, so we can live to finish the story.

So much hope was invested in moving and being moved. But Raghu never moved *through* the hospital trauma ward. The orderlies would not wheel Raghu down the hall from the emergency room into the trauma ward's resuscitation area. The nurses would not twist open IV drips to address his pain and raise his blood pressure. He would not be pushed into the operating theater for surgery to stop internal bleeding, lying flat. He would not exchange breath with a ventilator in the intensive care unit (ICU). His movement stopped at the hospital's entrance, so medicine could not attempt to make him live through its rhythms and tempos. Raghu navigated a lifeline en route to his home. After the accident, his friends navigated him along a lifeline to the hospital. But trauma medicine would not be able to shift things further.

Kalvin rode the local train to view Raghu's body at the hospital, and he rode it home afterward. It was the journey's enduring embodiment he

remembers. "It made me shiver, the iron on the train. The sound is terrifying. It's like we are traveling in death . . . a vehicle of death."

Traffic transforms in the street. A clearing expands, and we cross to the other side.

Lifelines

In Mumbai, like in many places, living demands movement through traffic to survive. Traffic is mobility's vital forces at work: a flux of discontinuities. As in my crossing with Kalvin, living with traffic is a matter of being in punctuated transit. Even if one moves alone, both constituting and navigating traffic, this is often done for someone else: commuting to work, shopping for vegetables, taking the children to school, driving for a customer. Yet after a traffic accident occurs, uneven movements do not cease. How might traffic continue in order to shape someone's potential survival? How does trauma move after the accident? And how does medicine move us?

Lifelines addresses these questions through an ethnography of mobility and mortality in Mumbai. It traces traumatic injuries from traffic accidents through differences in motion. It is a book about social life in situations of life-threatening imbalance. It is about trauma in its surgical sense—wounds that are immediately life-threatening—and about the intimacies of trauma's treatment in a hospital. It describes the transitional qualities of relations among medical crisis, medical care, and social life. Scenes of life at the edge of death in a public hospital trauma ward demonstrate the increasing ordinariness of traumatic injury in India and the Global South. They exemplify how movement shapes contemporary health crises globally, how irregular stoppages and flows constitute clinical forms and social relations, how injuries inflect moral and technological dilemmas, and how medical anthropology might address these matters in new and necessary frames.

My research tracked trauma through its different contact points with medicine, from an ambulance's arrival to a patient's surgery, and from family visitation to recovery back home. Throughout, in-motion embodiments would take on new urgencies after a collision. This suggests that the collision is not always an ending. It can be a beginning for medicine to make injured bodies matter through volatile activities of different forms and scales.[1] Those activities may be openings and closings, the staving off of

bleeding or the shifting of beds in the ward. They could be efforts to hold someone still or to shock them into activity. They may be transfers out of the ward or regulations on access inside.

Trauma care exemplifies this clinical kinetics. People in the wake of trauma's forces discern changes in movement as central to survival. Patients and their families constantly ask what the hospital's next move will be. A change in motion causes injury; injury demands medicine; and medicine constitutes new and vital possible holds and shifts. In this light, medicine is ultimately a problem of how to move, as much as it is a problem of what to know. Medicine, then, is a process of traffic.

The movements of locomotion endanger bodies in terms of risk or exposure. Assessing such risks is crucial for understanding the uneven distribution of traumatic injuries from traffic accidents. This frame of thinking asserts the trauma of traffic: how malfunctioning, overburdened, or degrading transport structures and infrastructures are injury's causal conditions. By working from this perspective, large-scale quantitative and epidemiological studies emphasize trauma's conclusion in injury or in death in order to compel policy change.

Studying the trauma of traffic is certainly necessary. Everyone working in Central's trauma ward agrees that transit structures can disable and that movements and countermovements on the city's roads and commuter trains shape the likelihood of a patient's arrival at the hospital ward: a motorbike skids on uneven pavement, tumbling riders onto the road; a car dashes a rickshaw; a truck plows down a woman crossing the road; a luxury vehicle runs over pavement dwellers; a man falls out of a railway carriage. Traffic as injury's cause is not a matter up for dispute. The trauma of traffic delivers bodies to them to work on, every day.

That is the arrival story. But what's next, in terms of trauma's continuities?

What follows is an argument about how traffic can constitute a social field, an embodied process, and a clinical infrastructure beyond the accident scene. The argument is this: bodies may appear to leave traffic, but traffic does not necessarily leave bodies. This argument hinges on the idea that movements aimed at keeping someone alive continue after the collision, and that such movements constitute traffic too. In contrast to the trauma of traffic, this book describes injury's relational kinetics after the accident. That is, it describes the traffic of trauma.

Lifelines affirms moving and being moved as core powers of embodiment, medicine, and social life. It describes the intimate, irregular, syncopated, and negotiated activities resulting from the occurrence of traumatic

injuries. Casting these activities as traffic, the book takes injury, injury experience, and injury care to be matters of differential motion. One of its aims is to unsettle the fixity of injury, of wounded bodies, and of sociality. I show how injury and movement connect people, even as a given wound lodges in an individual's body. This means that trauma, embodiment, and care exist in terms different than those premised on a singular wounded body at rest. By contrast, I argue, they come to matter through patterned and relational movements that might remedy life-and-death situations. I call these movement patterns *lifelines*.

Lifelines are relational survival projects. They involve ideas and actions chained together to transition a body through time and space. They materialize through real and imagined differences in movement and have the potential to shape the outcome of trauma. Their potential has a doubled kinetic quality. Vital movements may become injurious, and dangerous moves may aid treatment. Consider how Raghu went onto the train, then off the train, first for his commute and then in his fall. Then his friend brought Raghu's body back onto the very same conveyance by which he had thrived moments before. Carrying the body rather than waiting for an ambulance to stabilize it may have worsened Raghu's injuries, perhaps, but the friends decided that there was no choice: his survival was on the line. So Raghu went back onto the train and toward the hospital. In this example, commuting and carrying mark out provisional lifelines: they shift embodiment by shifting movement. Because these changes may have life-and-death consequences, lifelines are projects of kinetic, clinical, and vital differentiation. The lifelines in this book span the arc of trauma care, from the accident scene to the hospital, through triage, treatment, surgery, intensive care, death, and discharge. The chapters show how the particularities of traumatic injury shape different lifelines. Together, these lifelines create terms of relation for trauma's traffic.

My perspective on traffic's connections between moving and living derives from the local description of Mumbai's local train system, which is known colloquially as the city's *lifeline*—an English word used across vernacular languages. Mumbai's local train moves life. The lifeline in Mumbai is a material metaphor for the shaky differences among the bodies of the riders, the traffic of the city, and the politics of their relations. It signals movement's necessity in the face of traffic's obstacles, because the train makes transit faster amid heavy road congestion in an island city with a population density of nearly thirty thousand people per square kilometer. It marks the train's politics as multiscalar, folding Mumbai's bodies into

India's broader history of colonial and postcolonial development through the railways (Aguiar 2011; Bear 2007; Hurd and Kerr 2012; Kerr 2003; Prasad 2016) and connecting somatic movements to crowds (Canetti 1962; Low 2000; Mazzarella 2010, 2017; V. Rao 2007b; Tambiah 1996; R. Varma 2004).[2]

This connection is at once vital and lethal. Mumbai's local train moves life at considerable bodily risk, killing nearly ten people each day and injuring many more. To accommodate the rush hour density of fifteen people per square meter, the carriage doors remain open while the train moves.[3] The city's residents observe that Mumbai's lifeline, in Hindi called *Mumbai ki lifeline*, is simultaneously Mumbai's deathline, *Mumbai ki deathline*. The train is a lifeline because it is a traffic infrastructure whose relation to survival is provisional. It is a dangerous savior, always containing the possibility to effect both livelihood and death through its moves.

The varied movements that assemble a lifeline might also be productively figured as the casting out of a life preserver to a drowning person. In this instance, throwing the life preserver is a provisional move. But it is a two-way situation, one that brings the person who is throwing and the person who is drowning into relation. The person who throws the preserver pulls on the rope so that the drowning person might live. Otherwise, the drowning person might not be able to navigate the sea's undertow. Yet the drowning person can be moved in another direction by the sea's waves if forces on the body add up differently. Agencies of pulling may momentarily change. Any attempt to shift a threat to life is always subject to such differences in surrounding turbulence and interpersonal action.

A broader question of this book is how thinking about such differences in movement can enable thinking about what lies at the heart of medicine. Medicine unequally navigates bodies through obstacles toward treatment, always with the potential for both healing and damage. Even at rest, or stuck waiting, patients in the grip of trauma care eventually get shifted (willingly or not, alive or not). Strict categories of moving versus not moving may strain to describe the power formations at stake in any given scene of medical care. Just as I am calling for a conceptual shift from the body static to the body kinetic, I pay attention to bodies as they move unevenly through medicine. To describe lifelines in this context is to develop a vocabulary for survival projects, and to specify medicine's stutters of both fixity and flow.

In the case of Mumbai, medicine and urbanism must be thought together through such moving terms. The "urban" of the hospital certainly refers to its location geographically in a city, but it also entails the internalization of the

city's unequal somatic pressures. Trauma medicine operates on the urban environment's fleshy incursions and focuses on injuries that open the body's interior to its lived milieu. By invoking the "traffic of trauma" to think about embodied velocities, I do not remove *traffic* from the street and neatly apply it idiomatically to traffic in the ward, such that the ward mirrors or magnifies the street. To do so would be to separate bodies from infrastructures and to keep bodies in aggregate, an approach often found in the sciences of urban planning and engineering. It is in many ways a useful approach: traffic engineers and scientists optimize that aggregate through complex and varied calculations of how drivers, pedestrians, and cyclists move. They suggest how behavior may be modified through changes in roadway design, signage, speed limits, and redirections of flow (Wolshon and Pande 2016). This approach can reveal breakdowns (a traffic light blinks out) and deviations (as a police officer diverts cars). Yet bodies are not always "users" of transit infrastructures who can move through infrastructure untouched. Traffic's complexities stem in part from its qualities of both particle and wave. Road traffic produces wounded bodies, and trauma medicine picks up the task of moving them through its own traffic forms. Ethnography in this context involves rethinking the yoking of bodies to traffic, through an anatomy and physiology of traffic from the ground up.

Trauma

The biopolitics of trauma is a politics of moving and being moved. Traumatic injury results from shearing or puncturing forces; movement is its very condition of possibility. Clinically, *traumatic injury* (and its more abbreviated form, *trauma*) refers to a blunt or penetrating wound that is immediately life-threatening, as well as the body's response to that wound. Objects at rest cannot cause trauma and accidents. Only moving forces can. Because trauma has a kinetics, it can cause a disturbance: concrete is on the road; now it is in your head; now the surgical instruments in the hands of the neurosurgeon are in your brain. Disparate materials of the world collide, damaging tissue in the skull. Organs and circulatory vessels tear, and blood flows into spaces of the chest where it does not belong. Medicine intervenes and makes prior circulations possible again.

In the trauma ward at Central Hospital, the English-based clinical term *trauma* is used in local languages to classify such wounds. The ward treats major trauma from two categories of traffic accidents: road traffic accidents

and railway accidents. It also treats falls and wounds from physical assault, but it tends to refer sexual assault cases to the hospital's gynecological and obstetrics department. This has consequences for the gendering of trauma in the trauma ward and is not a categorical quibble; it is a reminder of how violence achieves unequal forms of clinical legibility (Mulla 2014).

In speech, injury's circumstances may become known as an *accident*. This is glossed as *hadsa* in Hindi, *apghat* in Marathi, and *aksident* in Mumbai's colloquial Hindi dialect. Both the Hindi term *chot* (meaning "wound") and the English-derived term *injury* are used in conversation to refer to an accident's outcomes.[4] There is much to be said about whether accidents are really accidental—that is, about how intentionality and structural violence bear on events that are hardly matters of chance (Figlio 1983; Fortun 2001, 2012; Jain 2013; Lamont 2012; Perrow 2011; Petryna 2002). Public health scholars tend to use the term *injury* to assert that there are really no accidents because all events have underlying causes. I am mindful of this distinction, and it is indeed important. However, I will stay with local linguistic forms, and so my use of *accident*, *injury*, and *wound* reflect translations of the terms that ground the work of the ward.

The ward's work tells a broader and troubling story about the extensive burden of road and railway traffic accidents in contemporary India and in the Global South. For example, taking into account the variation of rural areas less defined by traffic congestion, nearly four hundred people die each day in India as a result of road traffic injuries. This makes India the source of over 20 percent of global road traffic deaths (World Health Organization 2014). Each year, nearly one million people in India die from trauma (India State-Level Disease Burden Initiative Road Injury Collaborators 2020), and many more are hospitalized; road injuries have been the primary cause of death among men age fifteen to thirty-nine in India in several studies (India State-Level Disease Burden Initiative Road Injury Collaborators 2020; N. Roy et al. 2010, 2011). Traumatic injury and death shift gendered and socially classed household wage-earning structures and broader care economies.

Living with and being in relation to traumatic injury sets the central narrative condition and case study for this book. Being subject to lifeline projects in a hospital is a selective affordance. In India half of the people who experience major trauma die at the accident scene or during the journey to the hospital; they are more like Raghu than not. And of those who make it to the hospital, studies estimate that between 12 percent and 20 percent die within thirty days of admission, although clinical researchers believe

that more than half of in-hospital trauma deaths are preventable with early resuscitative treatment and close monitoring of physiological signs such as systolic blood pressure that can predict mortality (Bhandarkar et al. 2021; Gerdin et al. 2014, 2016; V. Kumar et al. 2012; N. Roy et al. 2016; N. Roy 2017).[5] The costs associated with treatment and death or rehabilitation can easily exceed a household's limits, sending already-poor families into catastrophic expenditures, poverty, and debt in a country that spends 1 percent of its gross domestic product (GDP) on health and where families pay for at least 70 percent of most health-care costs out of pocket.[6] The implication is that I am telling stories about a representative sample of people situated between walking away with minor injuries and dying on the spot. But not everyone gets to be in the middle, and not everyone follows a linear path through treatment.

The violence of trauma's causes is selective and, like its consequences, defies easy alignment with accusations of absolute speed or certain immobility. Vehicular traffic in Mumbai can keep many roads in a trickling gridlock, but the intervals between speedup and slowdown make accidents between cars, pedestrians, motorcycles, and trucks very high.[7] Those who can afford to be in the protective cage of a car or in less crowded, more expensive train compartments experience exposure to risk and the pleasures of mobility differently from pedestrians or commuters in more crowded, less expensive train compartments. While traumatic injury may be attributed to chance or misfortune, it is also the case that bodies do not move at random. Rather, they are invested with unequal propulsions, inertias, and repulsions that derive from gender, caste, class, age, family position, and community of origin (to name just a few of the many interlocking forms of social stratification in India). These investments shape the aftermath of injury too, in movements toward a public hospital instead of a private facility. Trauma produces, and is produced by, these forms of structured inequality and inflects the lifelines forged in response.

Senior surgeons in Central's trauma ward describe these inequalities partly through changes in injury patterns over time. For instance, head injuries increasingly define the clinical profiles of patients. A surgeon named Dr. D runs complex epidemiological studies in the trauma ward and is attempting to create India's first trauma registry. He attributes the change to transformations in local and national political economies. During the 1980s and 1990s, which he describes as the heyday of Mumbai's gang violence and communal rioting, he would have to separate young men in the trauma ward according to their different gang affiliations. Limb and chest

wounds dominated the cases. But in sync with India's economic liberalization in the 1990s, the world adjustment that brought in Toyota compact cars and Honda Hero motorbikes, social class dynamics shifted transit patterns. More people moved through the city in owned, rented, or borrowed vehicles. Economic precarity amplified the number of passengers on the local trains, particularly in the less expensive and more crowded second-class compartments. Everyone negotiated spatial displacement as skyrocketing rents made living in the city's center unaffordable and as work became synonymous with extensive commutes.[8] Scooters became ubiquitous, and helmet laws were only intermittently enforced. The underworld invested in lucrative real estate and construction projects, diminishing gang fights but intensifying the ways that everyday urban mobility entailed navigating an obstacle course of concrete and potholes.

As Tarini Bedi notes, Mumbai's "progressive registers of infrastructural modernization have a dual face—of building and making and of destruction, demolition, and phasing-out" (2016, 388). When Kalvin asked me, "You know the iron rods that go in concrete?" he was not only asking about the thing that killed Raghu. He was also asking that I recognize an ever-present feature of Mumbai's landscape: the intrusions of *salli* (iron rods) sticking up out of the ground in construction sites or fast approaching a car's windshield when the *salli*-ferrying truck in front of it comes to a sudden halt. In theory, one may take something like a pothole and cast it as the exceptional sign of injury causation. Yet something else is at work here: the absolute ordinariness of iron rods, potholes, dug-up pipes, and stray bricks and the ways that people shift around and through spaces of injurious obstacles as they navigate those same spaces for everyday needs.

The ordinary unevenness of motion suffuses clinical spaces. Trauma surgeons deal in a currency of morbid jokes, in casual conversation or at work. These jokes, which trauma surgeons fully recognize as modes of coping, can distribute from doctor to patient. For instance, Dr. D, the surgeon, recalled operating on a patient who had been run over by the train, a seeming collision and deceleration. Beyond the trauma of the injury, the patient was also intoxicated. He was missing both lower legs, and they were going to have to do an above-the-knee amputation—"one of the worst kinds of procedures," Dr. D said. When the patient woke up, he looked at Dr. D and posed a very reasonable question: "Where are my legs?" (mazha pay kuṭe ahe?). Dr. D offered what he thought was an equally reasonable reply: "They're coming on the next train" (agli gaḍi se aa jaege).

The image of dismembered legs riding the train is jarring enough. But just as striking is Dr. D's droll certainty that a different train, right behind the index of the event, will deliver the feet back to an injured person lying in the hospital. It is a dark reminder that inequality's kinetics continue after the wounding, that there are multiple and terrifying ways that bodies can become part of the city's traffic, and that the city can become part of the body's traffic. This insistence on moving embodiment as the link between the city and the clinic also appears in the lifeline Kalvin's friends forged to bring Raghu's body back onto the next train that arrived at the station, certain that it would arrive and take them onward, to the hospital. Not every person working in the trauma ward may share Dr. D's telling of the changes in trauma cases. But it is indisputable to those in the ward that what it works on, what its epidemiology estimates, and what my own ethnography tracks is kinetic violence in a space that is *of* the city, even as it is *in* the city.[9]

The City and the City Hospital

When I see injuries in the trauma ward, I am seeing the city at work. Systems of roads, railways, and hospitals are interfacing, each of them producing and produced by structural conditions such as class and caste.[10] A lifeline in this context is a transitional infrastructure, something that provides the lifeworld of structure (Berlant 2022). I am an ethnographer, and for me, methods and concepts are descriptive. Yet an enduring challenge to describing infrastructures—even provisional ones—is the problem of overcoming their determinism (Anand 2017, 172) and attending to their episodic qualities (Berlant 2016, 2022). Closed-ended deterministic frames about injury's cause (e.g., automobility will always injure, or, the railway system embeds its own killing force) may not in fact structure how people find themselves in a given scene of injury. Conditions of cause and consequence do not always match.

Therefore, with emergent motion as its focus, this book develops a social theory that is somatic and situational. It acknowledges infrastructural wounding but does not assume that trauma resides only in infrastructure's failures. That framing is inadequate for the task of addressing how conditional movements generate inequalities (Farmer 2004). What is necessary is to develop a framework that foregrounds how people live out infrastructural disruption and infrastructural repair; I trace lifelines to do so (Anand 2017; Anjaria and McFarlane 2011; Baviskar 2003; Chu 2016; Coleman

2017; De Boeck and Baloji 2016; De León 2015; Finkelstein 2019; Jusionyte 2018; Melly 2017; A. Roy 2009).[11]

History imbues these connections. The powerful polysemy of railway accidents in urban India is a historical feature inseparable from colonial power. Laura Bear explains that accidents on trains in colonial India marked the "uncontrollable nature of commodities and markets" while also confirming British colonial fears "that Indians could not be trusted with the supervision of industrial machinery" (2007, 65). Railway accidents are historical forms that evidenced the otherness of Indians to colonial bureaucrats and exemplified "hierarchies of Indian society that emerged from nationalist responses to the coloniality of its spaces" (62; also see Goswami 2004; Thiranagama 2012). I would add to these insights that contemporary road and railway injuries are inseparable from the politics of the contemporary hospital, whether or not the injured make it that far.

The railway is more than just its accidents. Marian Aguiar argues that the railway is the infrastructure that, for British colonial powers, promised to make colonial India "a more manageable state" (2011, xiv). Bombay, later Mumbai, has often been at the center of this mythical and material project (Prakash 2010a). This occurred through the nineteenth-century urban planning efforts that transformed the city's fishing docks into ports of colonial, global trade (Dossal 1997); the industrial booms of the city's iconic textile mills that circulated cotton, textiles, and wealth for family-firm investors (Finkelstein 2019); the clearing of those mills and the attendant real estate speculation that made way for pharmaceutical industry centers in the twentieth century (K. Sunder Rajan 2006); 250 years of circulating capital through the Bombay Stock Exchange of Dalal Street (Kulkarni 1997); the dominance of Hindi-language mass mediation through the film industry (Ganti 2012); the circulation of commodity promises through product advertising (Mazzarella 2003); and the ongoing dispossession of the city's poorest inhabitants from their homes (Appadurai 2000b). In other words, transit infrastructures must be understood as historical nodes of possibility for capital flows and their attendant affects and practices of global cosmopolitanism and modernity. Traffic is not just a decontextualized "problem," then. It is the site where Mumbai's deep layers of urban planning transform into embodied realities, through a politics of uneven motion that connects the city's people to capital and labor through local, regional, national, and global frames.

I foreground the hospital in those shifting frames. The site at the book's center, a large municipal public hospital I call Central Hospital, has been

connected to traffic accidents since its opening in the mid-twentieth century. Central sits in the heart of the city, and the city pumps through it. It began as a military hospital in 1944 for the Indian naval forces involved in World War II and was built at a central railway node to handle the transport of the sick and injured. After Indian independence in 1948, the hospital's governance shifted over to the municipality of Mumbai. Its trauma ward is the city's busiest Level 1 trauma center and one of the few such dedicated centers in India. The trauma ward is a point of pride for the hospital's administration. This fact is often a talking point for visitors, the other being the hospital's proximity to one of the country's largest slum neighborhoods, which the hospital serves intimately.

Sarah Hodges notes that hospitals in nineteenth-century India materialized state power and "provide distinct templates for our understanding of the colonial state's crisis-driven extension of public welfare" (2005, 398). I would suggest that Central Hospital's trauma ward offers a contemporary resonating case. Its rhythms are modes of postcolonial governmentality and reflect the challenges of providing public medicine as public works (Adams 2002; Amrith 2006, 2007; Arnold 1993, 2004; Baru 2003; S. Patel and Thorner 1995; Qadeer 2000, 2013; Sivaramakrishnan 2019).[12] This too constitutes the cityness of the city hospital. In this light, I offer a contrast to important works about the politics of injury that begin after the injury has settled into either tort law (Jain 2006) or traffic policy (Barker 1993, 1999). The cases I describe in this book are still in motion and set the public hospital into counterpoint with other movement crises.

The hospital's cityness often gains legibility in scenes of somatic disruption. Perhaps it is not surprising that scholars of urban South Asia turn to the gruesome injuries that occur on transport systems to theorize sociality, a conceptual approach that I extend from the street to the hospital. For example, cultural theorist Ravi Sundaram (2009) details how the bodily and psychic shock of the modern and the urban in India now forms as road accidents. Centering his analysis on Delhi in the 1990s, when spectacular car accidents proliferated as private car ownership did too, Sundaram argues that contemporary India is suffused with what he terms *wound culture*. He critiques contemporary, Eurocentric urban planning logics that uncritically map cities metaphorically as pure flows. In such Enlightenment-inflected models, the intersections of the city are like agile connective joints, and expressways are like unobstructed blood vessels. Unobstructed movement gains centrality among such ideas.[13]

Wound culture, by contrast, is a framework open to the ways that urban public culture may operate in terms different than flow. Through an analysis of Delhi's widespread traffic accidents, Sundaram argues that in India there is a public cultural sense of being overwhelmed by trauma on the road, such that "divisions between private trauma and public tragedy blurred, suggesting a traumatic collapse between inner worlds and the shock of public encounters" (2009, 170–71). A focus on wound culture highlights the interruptions of moving between flesh and space and shows that wounds can emerge from *both* stasis and flow (Edensor 2013; see also Hansen and Verkaaik 2009; and Gidwani 2008).

Sundaram writes of Delhi, but his insights can certainly be considered in Mumbai, Lagos, Jakarta, Mexico City, or many other settings where traffic is "absolute" and seemingly intractable (Lee 2015). He develops a way of thinking urban entropy differently than scholars who take the generalized, unwounded body as the city's metonym (Sennett 1994). He challenges models in which the crash and the wound are destined to be aberrations because of erroneous assumptions about circulatory flow and equilibrium. In regimes of wound culture, injurious traffic *is* the city, and cities must move with crashes. Processes of moving and processes of wounding must be thought together.[14]

Movement

Raghu did not move through the trauma ward at Central Hospital, but Subhash does. It's a few years after Kalvin and I talked. An orderly wheels Subhash in on a gurney; his leg is crushed, and a friend accompanying him explains how kinetic actions turned deadly. Subhash leaned out of the local train's open door, and as a second train passed by in a different direction, a man on the passing train grabbed Subhash and pulled him out of the compartment. He fell underneath one of the moving trains. Someone must have pulled the emergency chain to alert the driver to stop the train, and once it halted, a group of men extricated him from under the train and carried him to a taxi. The doctors attend to the most visible wound—Subhash's leg—and begin assessing him for signs of chest and head trauma. Subhash's brother arrives soon after; walking into the ward, he takes in the scene, halts, and falls to his knees. He gathers himself, wipes his tears, and positions himself by the gurney, in Subhash's field of vision, and tells him that things will be okay and he will move again.

Trauma frustrates but may not always exceed singularity. There are often many unknowns that suffuse moments when the injured person may be unable to speak and/or should not be queried so that they can recover. For the surgeons, Subhash's injury has a precise location. Subhash's brother sees this too. At the same time, for Subhash's brother (and for the surgeons too), trauma extends beyond the bounds of the subject in a not-injured person's commitment to stand by the one whose life is in danger.[15] This means that trauma is relational and social but also that these terms require greater specificity to address the intimacies between bodies on unequal terms of activity.[16]

To specify these terms requires an expansive sense of the metacategory of movement involved in the trauma care context. Movements may take shape as speedups and slowdowns. Sometimes they involve a change in place but sometimes they take form as a desire to shift out of being stuck in one spot. A binary framework that opposes absolute flow to absolute stuckness is inadequate for the task of describing movement and traffic in this context. In such a binary framework, important but intermediate movement relations might get muted in the service of affirming extremes of stoppage, attrition, schism, and loss accompanied by surplus signification (Caruth 2016; Leys 2010). There are consequences to depicting movement in extremes. A focus on interruptive freeze and amplified signs tends to fix trauma in an individual's struggle against the immobilizing grip of a collision event or to pin trauma to particular historical trajectories (Fassin and Rechtman 2009). Stuck in the crash and a stop-go frame, it can also be difficult to ascertain the ongoingness of the injured present (Berlant 2011, 81) and the moving after-ness of injury (Wool 2015).

Recall Kalvin's invocation of the local train as a "vehicle of death" as he heard the sound of its rustling metal components, a sound of motion. He heard these sounds as he continued to ride the train, a habit he did not cease. Intermediate, reverberating, habitual, and emergent shifts may shape how beyond clinical technicalities, traumatic injury becomes traumatic. A halting collision may not be the only place to find trauma's signs. I am suggesting that to understand the impacts of mass injury and death, intimate episodes of transition deserve close attention. To people caught in these episodes, they may feel different than aggregate extremes. Being subject to trauma's movements may not be the same thing as being broken by trauma.

Nor must "movement" mean a large-scale change in location. Consider the ways Robert Desjarlais (1997) discusses movement in his ethnography of a homeless shelter in Boston. Desjarlais describes how residents of the

shelter pace, come and go according to scheduled routines (or not), how they shift from one spot to another. Homelessness, he suggests, may not neatly align with "a metaphysics of presence, dwelling, and stasis" and instead entails dislocation and movement (103). Dislocation can mean the difference from standing in one corner of the shelter compared to another. Movement involves transition, desired and/or actualized, but often does so in ways that are different than a grand journey.

Thinking about movement in terms of small but vital displacements can address a tendency in some trauma studies scholarship to frame trauma as knowledge that the individual or collective should or should not face. While important, this stance may make it harder to grapple with trauma's terms that may operate beyond reconciled knowing. For instance, debility and disability can simultaneously mark bodily difference and the unequal ability to make claims on that difference (Addlakha 2018; V. Das and Addlakha 2001; Friedner 2015, 2022; Jain 2006; Kohrman 2005; Livingston 2005; Wool 2015). Furthermore, trauma and the medicalization of trauma are not the same thing (Ralph 2020). The medicalization of injury and disability may in fact have depoliticizing effects (Dewachi 2015, 2017; Jain 2006; Kafer 2013; Ralph 2014, 2020). As Lochlann Jain (2005) explains, injury and its reverberations in medicine and law should be understood as more than a sum of individual harms. Injury is materially and socially generative precisely because it is structural, relational, and unequally distributed. These scholars point toward the need for the ethnography of injury to situate itself somewhere between individuals and collectives.

Differences in bodily movement are a powerful site to do so, because movements can be ambivalent, powerful, elusive, and transformative. In Subhash's case, this could mean considering trauma's disturbance in family ties and also in Subhash's leg. It also could mean understanding Subhash's injury as a disturbance to a specific space—a public hospital ward—where there is no guarantee that individuals are afforded the space and time to encounter their calamity alone. And it could mean considering how medicine, the family, the state, and the law can disturb Subhash, as each domain struggles to authorize a connection between itself and his wound.

My emphasis on describing bodily movement patterns, assembling them as lifelines, and aggregating them as traffic is a way of thinking about relationality. Relationality can mean how persons and structures intersect. For example, in *Rhythmanalysis*, Henri Lefebvre writes of bodily rhythms that he calls "becoming irregular" (*dérèglement*)—rhythms that are "symptomatic of a disruption that is generally profound, lesional and no longer

functional" and that occur "by passing through a crisis" (2004, 44). For Lefebvre, irregular bodily rhythms and movements mark an impasse between how authoritative institutions demand that bodies move and how bodies may not comply.

Relationality can also mean how people interact with each other in a crisis situation. Focused more on crisis as an ordinary form than Lefebvre, Lauren Berlant takes the glitchy rhythms of everyday life as a site for "inventing new rhythms for living, rhythms that could, at any time, congeal into norms, forms, and institutions" (2011, 9; see also Berlant 2022). Berlant calls these rhythms *disturbances* and highlights how movement can be something that brings people into relation (2011, 6).[17] Infrastructure, agency, and embodiment can change terms through a small gesture, and a disturbance's potential lies in its power to shift situations. Movement is what makes relationality; it's not just what signifies it. Movement is "the activation of a new field of relation," Erin Manning argues. It is "always cueing in the complexity of the speeds and slownesses around you" (2016, 18, 120). Always containing the potential for both habit and novelty, movement blurs a singular body and the situation in which it is emplaced. Movement can also underlie therapeutic relations: the demand for subjects "to realign themselves with the timings and shared truths of others" (Desjarlais 1997, 175).

Social infrastructures emerge through relational movements (Elyachar 2011, 96). Relational movements also constitute subjects: "Bodies do not map easily onto subjects," Lawrence Cohen observes, and subjects emerge "as relations among and between bodies and their presumptive parts" (2011, 50). Ethnography attentive to such moves can deepen analyses of medicine, certainly, but also forms of vulnerability more broadly (De Boeck and Baloji 2016). It can shift the frame from injury to injury's sociality, and from the wound to the attempts to reckon with and repair the wound. This is because movements are provisional and therefore political. They bridge bodies and environments. They seed crisis, crisis response, and crisis theory. If sociality can be located in "a provisional moment," as Lauren Berlant and Kathleen Stewart (2018, 21) argue, the sociality of trauma might be located in provisional movements, through subtle gestures that amplify structural intensities: A scalpel's incision. A limb's jolt. Pushing a hospital trolley into the operating theater. Queueing to see the doctor, shuffling forward. Fingers dialing a phone number to notify a family that their child is in critical condition. Easing someone into a hospital bed. A test run of walking with crutches. A palm's muscular compression on an open wound.

Any analysis of the movements of medicine in contemporary India must begin from the social fact that differences in flow and stuckness concretize home, work, kinship, classes, and castes, determining who facilitates which critical transitions (Narayan 1992; Raheja and Gold 1994). Movement can render life transitions into metaphor, allegory, and poesis. This occurs as marriage, aging, and death are spoken of as shifts in time and place (Cohen 2000; Desjarlais 2016; Parry 1994; Pinto 2008b). Movement is a site of social and personal valuation in South Asia, a way of describing both ordinary life and life's crises, and movement constitutes the dependencies that make social relations legible (Bedi 2018; Sadana 2010, 2018). Urban settings organize these phenomena, from the "train friends" of daily commutes to threats of sexual violence in transit systems (Amrute 2015; Phadke, Khan, and Ranade 2011). Lifelines entail such differential shifts and affirm Central's trauma ward as a South Asian lifeworld because of motion's continuities and breaches.

Medicine

Each of the book's chapters examines how different lifelines shape trauma's traffic. This includes *carrying* the injured, done by emergency responders and ambulances, which forms lifelines of transfer (chapter 1); *shifting* patients and evidence awaiting care in casualty wards, which constitutes lifelines of triage (chapter 2); *visiting*, as patients' kin visit the ward and the ward visits its workers, moves that constitute lifelines of home (chapter 3); *tracing* the identities of the high number of unconscious, unidentified patients with traumatic brain injuries, done by medical workers and the police to constitute lifelines of identification (chapter 4); *seeing* an operation, in the context of both my fieldwork and my own personal surgical crisis, to grapple with lifelines of surgery (an interlude titled "Seeing"); *breathing* through mechanical ventilation for chest trauma and the bioethical dilemmas of life support, which makes up lifelines of ventilation (chapter 5); *dissecting* corpses in the hospital's morgue, which forges lifelines of forensics (chapter 6); and *recovering* with disability back home, which forms lifelines of discharge (chapter 7).

As a book structure, these chapters may seem to suggest that trauma's traffic has a linear shape. However, the path I follow from transfer to treatment to discharge is an ideal type and only one model. At any point, things can branch in different directions. I do not claim that it is the only shape or

that it is the path that everyone follows. But linearity and seriality, real or imagined, often guide confrontations of trauma as patients, their kin, and clinical providers contemplate what happens next, and how. Even in the stickiest traffic, people reach a destination, eventually.

Together, these patterns tell a story about the power of movement into, through, and out of the clinic, one that joins accounts of the clinical and political potentials of movement by medical anthropologists. In an inpatient psychiatric hospital in North India, for instance, Sarah Pinto (2013, 2014, 2015) examines the "choreography" of patients as they wander, itinerant both physically in the ward but also in narratives that shift genres among personal accounts, dreams, films, and clinical notes. Ethnographies of postcombat wounded soldiers in the United States describe how care involves movements of limbs and of labile diagnostic categories such as post-traumatic stress disorder (PTSD) (MacLeish 2013; Messinger 2010; Wool 2015; Wool and Messinger 2012). In Sharon Kaufman's (2005) work on dying in American hospitals, movement structures medicine's ethical textures, a matter also described by Scott Stonington (2020). I share with these scholars an interest in how movements constitute the lived dilemmas of medicine and how that which moves around and through an unresolved wound can easily flicker between the concrete and the illusory.

Trauma medicine is a particular site of uneven motion because it is multiply institutional. The story of trauma in the United States is often the story of large public hospitals in major metropolitan areas. Traumatic injury in India demands an especially *public* sort of medicine, a government-funded health-care apparatus that is in constant relation to the casualization of labor in the health-care sector and the privatization of health care more broadly (Baru 2003). Most large hospitals have an emergency department, especially newer, private and corporate-run hospitals. Most smaller public hospital emergency departments are staffed with general practitioners, but they are not necessarily staffed with the surgeons and ready-to-go operating theaters that are necessary to address life-threatening major trauma.

Trauma surgery is primarily practiced in public, government hospitals and is crisscrossed by ambulances and also by the private hospitals that patients often arrive at first, only to be refused care on the grounds of inability to pay, which shifts them to public facilities as a consequence (see Bhalla et al. 2016, 2019; Sriram, Gururaj, and Hyder 2017; and Sriram, Hyder, and Bennett 2018).[18] The exceptions are higher-end private hospitals that draw the very few specialists in emergency medicine in India, a field that

few physicians will specialize in because of limited residency spots (Sriram, Baru, and Bennett 2018; Sriram, Hyder, and Bennett 2018). The setting of Central Hospital's trauma ward is thus unequivocally biomedical. While people in urban India seek out varied health-care providers and medical modalities for sicknesses from colds to tuberculosis, and while medical expertise mingles forms of "traditional" and "modern" medicine (Naraindas 2006), everyone knows that a major accident requires biomedical attention, and it is unthinkable to go anywhere but a hospital.

Based in the trauma ward, I explore a return to the hospital to craft an ethnography of medicine and science. Hospital ethnography is often regarded as an institutional study by medical sociology, and like similar institutional studies, sustained research "inside" the site can yield insight into social life "outside." And yet there are also calls to move hospital ethnography out of this edifice complex and to describe it neither as a mirror of its presumptive outside nor an exceptional space. What, then, can a hospital be?

In foregrounding differences in motion, I hope to reveal the instability of what counts as "the field" in the rapidly shifting scenes of a hospital. This is not just about getting out of the edifice complex; this is about finding analytic terrain to address how the hospital is both institutional and transitional. The hospital can indeed be a space of reification (Taussig 1980), and bodies in clinics are a canvas for power over life, formations of self, and sovereignty (V. Das 2003). But this does not mean that the hospital is a fully insulated institution. It cannot be, because it is selectively open to shifts in people and situations. In my previous work (Solomon 2015, 2016), this idea guided my approach to questions of how the clinic inflects lifeworlds inside homes, in markets for drugs and therapies, and in public spaces. Moving back into the hospital, I am guided by ethnographies and histories that track social inequality as a clinical intensity and that depict how social class, kinship, religion, ethnicity, and community histories infuse clinical spaces (Banerjee 2020; Livingston 2012; McKay 2017; Pandolfo 2018; Pinto 2014; Rosenberg 1987; Street 2014; Van der Geest and Finkler 2004; Van Hollen 2003; S. Varma 2020; Venkat 2021; Winant 2021; Zaman 2004, 2005). If the hospital is understood less as epiphenomenal and more as a process of embodying motion, the social worlds of the hospital can be better understood as emergent and in transition.

Annemarie Mol has written at length about the doing of medicine, that is, the ways that medicine must be approached as a matter of practices

(Mol 2002; Berg and Mol 1998). This framing moves away from medicine as a problem of knowing. Mol suggests that we understand medicine through its praxiographic terms. This entails tracing particular medical practices and reflecting on what these practices do rather than limiting the ethnography of medicine to what medicine knows. For Mol, differences in medicine are differences in doing medicine.

For me, differences in medicine are differences in moving medicine. Trauma medicine produces shifts in sociality and technics and relocates the consequences of unplanned convergences from the street to the clinic. It closes open wounds and manages spaces that have been breached. It shifts bodies into different shapes and shuttles them through different specialties. Pain medications stream through IV drips, and air courses through a ventilator's breathing tubes. Care also trudges through paperwork and multiple consults. In medicine, differences in moving are the differences in doing at stake.

Methods and Writing

What sorts of methods are adequate for researching and narrating trauma's traffic? As people move through situations of injury (and *people* here includes the ethnographer), the lifelines of trauma are wrought from within the domain of movement, not outside its bounds. Lifelines create possibilities and problems for ethnography, because narrating lifelines means narrating how people are in the middle of injurious transitions that may be generative even as they are exhaustive.[19] How might ethnographic writing account for such scenes?

Methods are part of the answer. I began this project in 2014, struck by the significant number of injuries and deaths from traffic accidents that kept appearing in the Mumbai neighborhood I had lived and conducted research in for many years. My sense was that traffic was deeply embodied. I wondered if conversations about infrastructure in anthropology and beyond might look different if infrastructure and flesh were not so easily separated. I questioned why scholarship on cities had mostly overlooked medicine as a critical site of the urban. Perhaps because of reasons of access, medical anthropology had to date not addressed injury from within clinical spaces.

I met with epidemiologists in Mumbai who study traumatic injury. The social dimensions of trauma were not yet part of their mostly quantitative

research, and they were interested in a qualitative study of the contexts, causes, and consequences of trauma. I proposed fieldwork in two clinical settings: in the casualty ward of a smaller hospital I call Maitri Hospital (detailed in chapter 2) and in the trauma ward of the larger hospital I call Central Hospital (detailed from chapter 2 onward). Two municipal hospital surgeons I knew introduced me to the staff and faculty at Maitri and Central and facilitated discussions and the formal institutional permissions from hospital deans and municipal health authorities that enabled me to conduct fieldwork. My research was governed by three institutional review board approvals. One approval came from my home institution in the United States, and two approvals were secured in India: at each hospital the research was governed by an independent ethics committee protocol review process. In the day-to-day activities of research, I was supervised by senior faculty, attending physicians, and charge nurses. I presented deidentified research results at various stages of the project to hospital staff, and to a study group of Indian physicians, public health workers, social researchers, and students.

The trauma ward at Central was the site of my most intensive periods of fieldwork over eighteen months between 2014 and 2020. I observed cases from arrival through treatment, as they progressed through different waystations of care and endured the choreography of trauma's different clinical practices: general surgery, anesthesiology, neurosurgery, orthopedic surgery, and nursing. At Central, like at many public hospitals, the team of providers who make the thing called *trauma medicine* happen approach a single case by integrating these different domains of medicine, each with its own epistemological orientations and habits of practice. This is because there are few seats for postgraduate training in trauma surgery and for specialized trauma nursing in India. The trauma team includes other workers who add another layer of specialization, a labor of care that I try to spotlight through accounts of technicians, orderlies, sweepers, paramedics, police, and mortuary workers, who each connect differently to a traumatic injury, to a patient, and to patients' kin. Their connections could be dismissed as informal clinical labor in contrast to the work of doctors, but I have chosen to treat them as central because they shape lifelines too. My purposeful inclusion of them in the book emphasizes the diverse ecology of a public hospital, upholds the power of clinical labor, and reveals how the social in social medicine coheres beyond doctor-patient relationships.

I conducted observations during different hospital shifts (morning, afternoon, and overnight) to understand different rhythms of the ward

as well as to ensure repeated, representative interactions with the ward's staff. Individual interviews with staff were conducted at a time of the worker's choosing, secured through a formal informed consent process, and recorded when possible or allowed by the interlocutor. Semistructured interviews elicited data on a staff member's own educational and work experiences, memories of the first day in the ward, notable/memorable cases, and opinions on the ward's functions and on the social aspects of trauma care. Interviews were conducted by me along with an independent research assistant who was not a hospital worker and who was a Mumbai local able to converse fluently in the respondent's preferred language. Interviews were transcribed and translated by me and by the research assistant and were analyzed for emergent concepts and connective themes. My understanding of the broader contexts governing the municipal hospital system and traffic accidents came from analyzing city newspaper coverage of health care, transit and traffic politics, and specific accidents. This was done using database software set to search Marathi, Hindi, and English sources.

In each chapter I reflect on different methodological modes and the resulting differences in narrative conditions. In stretches of more accelerated storytelling, I do not wish to attribute a sense of chaos to those working in the ward and by extension to attribute blame to providers. In trying to capture intervals of downtime, I do not wish to paint a one-dimensional portrait of bureaucracy's gumminess. Rather, I develop an emergent ethnographic method to contend with ethically complex situations. This method is grounded in questions of what the ethnographer can and should follow and what they should leave unmoved. The difference between *can* and *should* matters, especially when one accounts for patients and families. I did not pursue an interview with a patient until they were deemed stable, or they requested that we speak. At that point, informed consent would be solicited for an extended, recorded interview. While the circumstances of injury events sometimes surfaced in those interviews, I did not ask about them. Inquiry can be disturbing in this context, and disturbance is not what I want someone with traumatic injury to experience. I want them to rest, en route to discharge. I do not want the people who make my study possible to continue to make my study possible. I want them to exit the ethnography alive. So there are limits to my understanding, and there are time delays. I see this as a research ethic of measured refrain.

I also came to understand the necessity of being careful in research and writing regarding eventedness. I did not assume I knew what "the event"

of trauma was for anyone else. The ethnographer may enter a scene after its "original" event—in my case, I enter the scene of the hospital after an accident that I do not see—but people may still be processing the event. Furthermore, "the event" as such is often unstable and plural. Ambulance workers might compare dangerous intersections. Triage doctors inquire what is happening in the patient's body, right now, and remix the responses with perceptions of a wound's backstory. Visiting family members and police sometimes ask questions about "the event." Sometimes the events of the accident are withheld from the critically injured, especially those who cannot speak when on ventilator support. The hospital morgue attempts to derive causes of death from the postmortem. Patients who achieve discharge may revisit the accident once home, in reflection, in accusation, and in appeals for compensation. Simply being a patient in a hospital involves its own qualities of eventedness. Consequently, the chapters pay close attention to what elements of trauma get to become an event, for whom, and on what terms.

It is inaccurate for me to assume that when I see someone in the hospital, I am definitely seeing the bottoming out of their world.[20] This can be a difficult ethnographic commitment to uphold, given the severity of injuries one observes in trauma and the intensity of care that providers are making happen to ensure someone will survive. But there is also the risk of assuming the injury and its care completely define someone's life in the present and for the foreseeable future. The injury and the hospital are parts of someone's world but not the only parts. For the person who has been injured, what matters to them may not plot out on a grid with clear-cut coordinates. The psychic resonances of trauma do not necessarily operate through ready-made scripts. Experiences of street, train, office, ambulance, hospital, and home often mingle. One cannot assume that the clinic must be the de facto narrative anchor for clinical stories, especially at the hinge between living and dying. Trauma—like any medical calamity—is multivocal, and those voices can be out of sync and out of place (Briggs and Mantini-Briggs 2016). It is also critical to remember that many of the patients in Central's ward *do* survive.

A person in a hospital bed in pain can do many things besides feel pain in a hospital bed. They can put themselves together and reflect on life's circumstances. They can reaffirm assertions of the self that may not be allowable or hearable elsewhere. They may resist lifelines: changes in movement deemed helpful by others may in fact be experienced by patients as violent or unnecessary, because medicine's potentials can be damaging even as they

are therapeutic. Patients devise their own lifelines too, presenting themselves to hospital staff in ways they think the institution desires, because they believe this may secure their release. The ethnographer, the patient, and the doctor may be in the trauma ward together, but that does not mean trauma moves them all equally. Traffic is always open to novel micromaneuvers, even if not much appears to have moved from a distance.

Where does that leave the ethnographer? For my own part, I regard my position as one principally defined by a freedom of mobility that grants the privilege to observe, listen, ask, and write on terms of my choosing. I could always calibrate my own proximity to scenes and could always leave the hospital. I had the ability to exit, to *not* have to be in situ in the ways patients, families, and health-care workers must be. My engagements with this project also stem from relations to Indian physicians and researchers who authorized my presence and guided the work. To the degree that ethnography operates as a lifeline for me, the traffic it produces connects to my own gendered, racialized, nationalized, and professional mobilities.

Narratively, I employ different forms of pacing to contend with visceral scenes that may shift quickly or may get bogged down. Care may sound clamorous or register as laggy; wounds appear as gross and extraordinary even as they get normalized. One might address this as a matter of content: What does the reader need to know? However, I work from a different question: How does a scene need to move? This is a question about different aspirations and actions of transition and one sparked by the drawings that begin each chapter. Wondering how people come to inhabit movement's language and action, I looked to photos of transition. I then traced the lines of the photos in drawings, because tracing lines compelled me to stay with the constitutive elements of a given situation. This is more than a question of representation. It is also a matter of action. Implementing this book's findings to improve trauma outcomes requires focused attention on the different ways medicine moves people. I aim to model that process by tracing trauma's shifts.

In traffic, so much moves while slowing. So much drags while quickening. Lines through traffic may not guarantee resolution, yet they create potentials for transition. Where will these lifelines lead?

NOTES

Introduction

1 On volatile movements, see Grosz (1994).

2 Marian Aguiar (2011) describes the train in India in terms of the affective relations among speed, life, and death. For instance, the train forms the still backdrop to the carnage of the 2008 terror attacks on Chhatrapati Shivaji Terminus and also sits still as it frames the fast-paced dancing for the closing montage of *Slumdog Millionaire*.

3 Like many of my Indian colleagues who talk to people about the Mumbai local trains, I frequently face a simple question: Why don't the doors close? Common answers include: because no institution will pay for it or because doors that can close safely while still maintaining the trains' roughly thirty-second stay at a given station are expensive and too new a technology. Air-conditioned trains with closed doors have begun to run in recent years on the Western Line. For a comprehensive history of the Mumbai rail system, see Aklekar (2014).

4 Importantly, *injury* also has a legal definition: under Section 44 of the Indian Penal Code, "the word 'injury' denotes any harm whatever illegally caused to any person, in body, mind, reputation or property." Available at https://www.indiacode.nic.in/handle/123456789/2263?sam_handle=123456789/1362.

5 The picture of mortality from road accidents comes primarily from burden-of-disease reports, which have been the linchpin of advocacy for the uptake of transport injuries as a legitimate and growing public health concern. Figures from a nationally representative survey in India based in verbal autopsy data estimated a death rate of 20.7 deaths per 100,000 people for men, and 5.7 per 100,000 for women (Hsiao et al. 2013). The global incidence of these injuries is either static or decreasing in most geographic regions, except, notably, South Asia and Africa, where they are in fact rising (India State-Level Disease Burden Initiative Road Injury Collaborators 2020). Injury prevention is an established field of public health, and roads have been in its sights for quite some time. But, increasingly, surgery has become a key domain for making sense of and sounding the alarm around road traffic injuries. This coincides with the rise of "global surgery," the christening and renaming of the enterprises of surgical outreach teams and Lancet Commissions that circulate conferences, camps set up to perform operations, white papers in journals, and on-site training visits. Here, the matter of road traffic injuries—which are technically classified as trauma—may fall under the umbrella of other types of surgical interventions, such as obstetric procedures or

neurosurgery. Questions of cost-effectiveness and feasibility, such as "Is surgery for the rich, or can surgery be done safely worldwide?" guide ways of researching injury. These different assemblies of expertise, commitment, ethics, and resources structure how the world might understand the deaths of 200,000 Indians from road traffic accidents in 2015. And like many aggregates, this number hides the specifics that matter, such as the location of deaths: 36 percent on the spot at the crash site, 11 percent during prehospital transport, and 53 percent at the hospital—with little known about postdischarge mortality and morbidity. See Gururaj (2005) and N. Roy (2017) for in-depth analyses of mortality statistics. Also see V. Patel et al. (2011); and I. Roberts, Mohan, and Abbasi (2002). On global injury burdens, see Meara et al. (2015).

6 See Mohanan (2013) for a study of the "shock" of accidents on household economies in India; Manoj Mohanan delineates how in the face of serious injury of a person in the household, families are able to smooth out spending in many domains, but debt remains an important and common way to do so. Also see Krishna (2011). A study from North India estimates the prevalence of catastrophic expenditure resulting from injuries (primarily road traffic injuries) at 22.2 percent of participants sampled for the study; catastrophic health expenditure refers to expenditure on health care above 30% of consumption spending; see Prinja et al. (2019).

7 On "the interval" as a critical space-time form, see Fisch (2018).

8 See Sundaram (2009) on how discourses of urban degradation move from decrying the failures of infrastructures to proposing neoliberal solutions.

9 My thanks to Nikhil Anand for this provocation.

10 Lewis Mumford's *Technics and Civilization* (2010) proposes technics as a rubric for understanding the relationship between technology's affordances and its damages to human life. Mumford recounts different ways that medicine itself has a technics. From antiseptics like carbolic acid that derive from coal to the light bulbs in X-rays, medicine itself works through intimacies with technological shifts, intimacies that Jennifer Terry (2017) frames as "attachments" in her case study of contemporary biomedicine's entanglements with war-making technology. My use of *traffic* gestures to these attachments between medicine and violence but makes a particular claim about the centrality of movement and mobility to such attachments. On writing violence, see Nelson (2009).

Theorists of the accident in cultural theory often fetishize the agent of wounding itself as the accident's primary source (Figlio 1983), and gesture to problems of compensation as an accident's core consequence (Figlio 1982). Many appeal to Paul Virilio's argument that technology embeds its own disaster, what Virilio (2007) terms "the original accident," such that the shipwreck lies in the invention of the ship. This is a suggestive framing, but it is too static for my needs. It is premised on looking backward, not forward to the problem of living on with trauma. This is why I can only take technology-focused structural claims so far: they make it difficult to remain open to surprises in the moving after-ness of injury, in forms that may not replicate what seemed preordained. See Fisch (2018); Jain (2006); and Siegel (2014).

11 These might be understood as "shifting poetic forms" of the road (Stewart 2014), such that infrastructures reveal their aesthetics. This builds on, but also differs from,

urban theory that takes generalized movement as its central assumption (Thrift 2008). For Penny Harvey and Hannah Knox (2015), incidents of harm on roads create "ambivalences" and open up questions about the difference between reckoning infrastructure through its prior relations of neglect, on one hand, and its futures of risk management, on the other. But because I am immersed in the trauma ward where the present moment of an accident is still unfolding, my approach is necessarily different.

12 On health care in colonial Bombay, see Ramanna (2002, 2012). That Central Hospital is a postindependence institution means that both oral and written histories of its work bear different kinds of attention to British colonial power than the histories of other large hospitals in Mumbai that opened before independence.

13 A set of complementary ideas to wound culture are those of "signature injury" and "woundscapes," as detailed in Terry (2009).

14 The figure of the flaneur cannot hold as an exemplar for southern somatic urbanisms if one follows Sundaram's claim that the bodies in the cities of the Global South are in a foundational relationship to traffic accidents; the flaneur is already embodied in relation to the environment. What I suggest here is that the environment is in relation to the body, such that to walk is to be exposed to planned infrastructural violence even as it is to enjoy the city and to move for life. One must move to live, but doing so comes with a significant chance of injury, which sparks movements anew. The flaneur, discussed at length in Walter Benjamin's commentary on Charles Baudelaire, also inhabits much of the critical theory of "everyday life." This occurs, notably, in the work of Michel de Certeau, whose essay "Walking in the City" has the flaneur guide the reader through political possibilities and constrictions (de Certeau 2011). De Certeau elaborates themes of habitability, exile, and visibility in speaking and walking, deeming the latter to be poetic. Walking is one form of what de Certeau calls a "tactic," a practice integral to everyday life. In urban space, such a life is based on what we might describe in shorthand as the shock of the urban in Benjamin (W. Benjamin 1968; Buck-Morss 1992) and Georg Simmel (1903). Yet Lauren Berlant resists certain ingrained ways of thinking the urban and shock, by asserting that such "everyday life theory no longer describes how most people live" (2011, 8). Here Berlant aims to depart from a model of life based on the "cognitive overload in the urban everyday" (9). One challenge is to read this insight alongside, through, and sometimes against assertions of body/city reverberations; as Simmel notes, "Man does not end with the limits of his body or the area comprising his immediate activity. Rather is the range of the person constituted by the sum of effects emanating from him temporally and spatially. In the same way, a city consists of its total effects which extend beyond its immediate confines" (1964, 419). For a different genealogy of shock's epistemic force and location in war, see Geroulanos and Meyers (2018).

15 Michel Foucault adapted the term *milieu* from Georges Canguilhem to address "the space in which a series of uncertain elements unfold" (Foucault 2009, 20). For Canguilhem (1991), *milieu* refers to the contextual environment of an organism. For Canguilhem, notions of normality and pathology are relative and may vary according to

what gets counted as "the environment." In Foucault's rendering, a milieu is "what is needed to account for action at a distance of one body on another" and "the medium of an action and the element in which it circulates" (2009, 20–21). I draw on facets of both definitions to clarify trauma as medium, action, and object of relational relocation, fixation, runaround, and feedback loop. See Annemarie Mol's (2002, 122–23) reading of Canguilhem, particularly on the matter of norms, and Veena Das's (2015) approach to norms.

16 On tracing, see Napolitano (2015). As I explored in my previous work on metabolism and metabolic illness (Solomon 2016), bodies and environments may not respect hard-and-fast inside/outside bounds. I make a similar claim here: traffic and trauma operate as connected modes of embodiment through unsteady and uneven passages and set the terms of how the world gets inside bodies and how bodies exist within the world.

17 Berlant's engagement with shifts and adjustments in action is meant to assess particular qualities of everyday sociality rather than specific internal states of a body (as Lefebvre does). Disturbances allow Berlant to analyze social and political tectonic historic changes—such as the attrition of the social support net in the United States—as they manifest in interpersonal encounters that may not scale up to "an event" as such.

18 The history of ambulances in India is mostly traced as the history of the St. John Ambulance service. For a contemporary ethnography on ambulance services in the United States, see Jusionyte (2018).

19 Stories "find cracks in the order of things, then wedge themselves into the cracks and shape them with the resonance of other stories" (Lepselter 2016, 55).

20 Lauren Berlant and Diane Nelson taught me this, a painful gift. I miss you.

Chapter One: Carrying

1 On gesture, see Birdwhistell (1952) and Manning (2016).

2 The paper cited here was published as a state-level EMS service began in Maharashtra. The authors anticipate the rollout of the service and find its potential a relatively "moot point" because of the high cost of funding the system. Instead, the authors recommend "reinforcing the existing system of informal providers of taxi drivers and police and with training, funding quick transport with taxes on roads and automobile fuels, and regulating the private ambulance providers, [which] may prove to be more cost-effective in a culture where sharing and helping others is not just desirable, but is necessary for overall economic survival" (N. Roy et al. 2010, 150). The speedy response desired is the transgression of traffic. This would ensure that the injured do not die en route, a phenomenon that occurs enough to merit news attention, although the more likely (and, in some ways, more complex) doom scenario is that an injured person's vitals become so muted while in transit to the hospital that, upon arrival, the systemic damage is too extensive to remedy fully. Much of the choreography of ambulances in India both derives from and continues to relate to pregnancy, labor, and delivery.