

From the Goddess Ganga to a Teacup: On Amitav Ghosh's Novel *The Hungry Tide*

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Consider the image of the Sundarbans, shown in Fig. 8.1, of the geometric errancy of blue-white tendrils of water reaching up into the Indian continent. Nestled comfortably at the height of outer space, the satellite image exists at the scale of the “planetary” that so many theorists of the Anthropocene find alluring, allowing us to assess, to measure, to manage, a ready-made map for navigating the territory.¹ At this resolution we cannot see any of the region’s residents (humans, tigers, dolphins, crabs), but we can begin to imagine mythic figures of the region, as Amitav Ghosh does, imagining the river Goddess Ganga tangled in the unraveling hair of Shiva. Yet this heightened view insulates the image from any tempestuous events below (the tides, flooding, seasonal cyclones). It takes for granted the seemingly frictionless and transparent air as the “normative” medium for zooming between scales of relation. Yet what would it mean to zoom in but get “stuck” at the level of water? How might we imagine a concept of scale responsive to specific environmental conditions, emerging out of the opacity of briny Sundarbans’ waters?

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Fig. 8.1 Landsat 7 satellite image of the Sundarbans estuary system, released by NASA Earth Observatory, 2008

Towards exploring these questions, I turn to Amitav Ghosh's novel, *The Hungry Tide*. The novel immerses us in the question of how to navigate different scales of relation through the medium of water, blending story and environment in ways that make impossible their disentanglement. From the story of the Goddess Ganga falling from the sky, to the scientist Piya tracking dolphins in the Sundarbans, to a chance meeting occurring because of spilled tea, *The Hungry Tide* suggests a theory of scale that fundamentally concerns the problems of navigation and orientation, or how different bodies sense and move within and through the world. Focusing on the figure of "falling water," I argue for the significance of theorizing friction across scalar shifts. Joanna Zylińska reminds us that "scale" is from the Latin *scala* or "ladder," a "practical and conceptual device that allows us to climb up and down various spatiotemporal dimensions in order to see things from different viewpoints."² *The Hungry Tide* also operates through a ladder-like aesthetic of verticality through the cyclical rise and fall of tidal waters, and through the vertical movement of storm water that collapses scales of relation.

Falling water changes the possibilities of orienting *with* stories and *within* stories, precipitating sensory shifts in figurative language. Narrative provides the conditions of possibility for seeing how water signifies differently across scales, such that sensing scale depends on the orientation(s) of the subject and the layers of mediation and culture that enable the subject to observe phenomena. In this way, story functions as an orientation technique for navigating the scalar relation between self and world; to be without stories is to be lost and disoriented, unable to position oneself in relation to the mass of stories that came before. Scale, then, is not only a Cartesian matter of spatiality—of the visual ability to zoom in or out to different levels—but also a matter of phenomenology (whose eyes are we seeing through?) and orientation (where are we seeing from?).

I theorize scale through the medium of river water, drawing on its varied material properties—its silted opacity, its viscosity—to develop a sense of scale responsive to milieu. This shares kinship with Zylińska's call to think of scale as "part of the phenomena it attempts to measure," rather than an abstract measure imposed from the outside.³ As we will see, theorizing scale through water—especially the phenomenon of *seeing* at particular scales—runs into problems when that water is muddied. Water calls into question the expected transparency and frictionless zoom of shifting between scales, which constitutes a kind of forgetting of the body, environs, and opacity of the Other. Theorizing scale through falling water, with all its disorienting estrangements, brings us to an ethics of crossing scales that fundamentally depends on humility.

FALLING WATER

The Hungry Tide is formally divided into two sections: the bhata and jowar, or the ebb and flood tides. The bhata codes for exposition (as the waters recede, land and story are revealed), while the jowar codes for the loss of history (as flood waters rise, they cover land and erase the material traces of history). Tidal rhythms thus inform the overall structure of the novel, as well as the action that happens in the diegetic world of the novel. The poly-vocal structure of the novel also braids together three narrative points of view: Piya, a cetacean biologist (ecology); Kanai, a professional translator (language); and Kanai's uncle Nirmal, who wrote an account of the Morichjhāpi massacre in a notebook (history). Like

the watery tendrils of the broader estuary (Fig. 8.1), the three narratives cross and depart, adding up to a larger geography, or *hydrography*.⁴

The movements of water draw together both mythic and mundane scales of relation. The novel begins with the story of a river crashing down from the sky, a story that the linguist Kanai reads from a few Xeroxed pages as he sits on a crowded train going from Kolkata (Calcutta) to the small coastal town of Canning:

In our legends it is said that the goddess Ganga's descent from the heavens would have split the earth had Lord Shiva not tamed her torrent by tying it into his ash-smear'd locks. To hear this story is to see the river in a certain way: as a heavenly braid, for instance, an immense rope of water, unfurling through a wide and thirsty plain. That there is a further twist to the tale becomes apparent only in the final states of the river's journey—and this part of the story comes as a surprise, because it is never told and thus never imagined. It is this: there is a point at which the braid comes undone: where Lord Shiva's matted hair is washed apart into a vast, knotted tangle. Once past that point the river throws off its bindings and separates into hundreds, maybe thousands, of tangled strands.⁵

These italicized passages are from the writings of Kanai's late uncle Nirmal, who explains how the river Ganga came to be on earth when the "heavenly braid" of the goddess Ganga fell into Shiva's hair. The landscape tells a story that exceeds the time frame of a single human life. Yet the unraveling of Ganga's braid is not only an origin story: it also figures as a visual omen for what becomes of stories—the possibility of their becoming frayed, disintegrated, unraveled, interrupted, and channeled elsewhere. Indeed, after only two pages the narrative switches to the perspective of another rider on the same train: the young US ocean biologist Piya, who, carrying a cup of chai, is knocked by one of the train passengers. Piya spills her spiced milk tea mostly out the train window, "but she could not prevent a small trickle from shooting over his [Kanai's] papers" (8). This accidental spillage of tea—arching out of the cup and falling onto the very pages of the story that we, along with Kanai, are reading—mirrors the goddess Ganga falling to earth. Falling water figures as a plot device and substance that connects Ganga to Shiva, Piya to Kanai, entangling their destinies. Yet the accident of spilled tea not only echoes the Ganga story visually (a trickle rather than a torrent) but also interrupts our reading of that very story. Angry at having

tea spilled on Nirmal's writings, Kanai "crumpled up the pages he had been reading and tossed them out the window" (9). We will never know if there was more to the Ganga story than the two Xeroxed sheets of Nirmal's writing we read before they were soaked by spilled tea. Water disrupts Kanai's and our experience of reading the Ganga myth, beginning and ending the possibility of the story. Water does not only exist at different scales of relation; it actively crosses these scales and disrupts them.

Nirmal's story emphasizes the narrative dimension of understanding events that unfold at a planetary scale, a perspective that sees geology and mythology both as stories that compress vast scales of time and space into relatable things and processes. Later in the novel, Nirmal attempts to convince a young Fokir of the relation between geology and mythology with the following comparison: "Look at the size of their heroes, how immense they are—heavenly deities on the one hand, and on the other the titanic stirrings of the earth itself—both equally otherworldly, equally remote form us" (150). I see Nirmal's hydrographic imagination of the subterranean flow of the Ganges as another such compression of scale. Framed as a meditation on how he would teach children about Morichhāpi, the Sundarbans, and beyond, Nirmal describes how the Ganga is the "greatest of all earth's rivers" (150), proved by a map of the sea floor that reveals its continued passage:

In the reversed relief of this map they would see with their own eyes that the Ganga does not come to an end after it flows into the Bay of Bengal. It joins with the Brahmaputra in scouring a long, clearly marked channel along the floor of the bay. The map would reveal to them what is otherwise hidden underwater: and this is that the course of this underwater river exceeds by far the length of the river's overland channel. (150–151; original italicized)

This imaginative leap provides the preconditions for nationalist pride and a sense of regional belonging. To imagine the "hidden Ganga," extending one's cartographic imagination along into oceanic depths, is to reimagine how the borders of the nation extend beyond terrestrial space both horizontally (into the Indian Ocean) and vertically (below sea level, and down into the benthic deep). Nirmal's hidden Ganga is another example of how mythology intersects with geology because of the way that both involve narrative techniques of conveying scale. Nirmal writes that in both geology and mythology, "the plots go round and round in both kinds

of story, so that every episode is both a beginning and an end and every outcome leads to others. And then, of course, there is the scale of time—yugas come next, *Kaliyuga* and the *Quaternary*. And yet—mind this!—in both, these vast durations are telescoped in such a way as to permit the telling of a story” (150; original italicized). The verb “telescoping” suggests a kind of visual channeling not unlike the channeling of the Ganga itself on the seafloor, a necessary reduction or funneling to a human scale to “permit the telling of a story.” Geology and mythology utilize narrative as a way of bringing something very large into relatable scale, to personify and thus see the river as an active force for creation, rather than passive matter. However, Nirmal’s map of the hidden Ganga, of a river within an ocean, does not visualize or illustrate the fluid river or the ocean itself: the map only *indicates* fluid form by earth contours, the scoured and clearly marked channel that the river continues to cut along the bottom of the seafloor. The vertical dimension of the water column remains to be completed by a leap in imagination.

Spatial theories of ocean navigation have focused on moving *across* water in a horizontal fashion, rather than up and down through the actual water column.⁶ In contrast, *The Hungry Tide* depends upon a principle of verticality, whose scale shifts differ from the horizontal imaginary that has so permeated geographic mapping practices.⁷ Kimberly Peters and Philip Steinberg write that “[h]eight and depth open up new dimensions of space,” challenging the ways that map-based spatial studies have favored the horizontal.⁸ Verticality is the precondition for imagining volumes rather than planes. Countering Claude Lévi-Strauss’s characterization of the sea as a space of absence, Peters and Steinberg contend that,

the sea is not merely a planar, flat, monotonous area that offers only a horizontal field of vision. It is a space of flux, flows, and churning. It is deep, volatile, and ever changing. It is a volume that—with the persistence of depth and mobility—produces realms of invisibility that frustrate conventional forms of knowledge.⁹

The Sundarbans waters “frustrate” these conventional forms of knowledge by obfuscating that which is submerged, shifting the contours of island boundaries, and rerouting new channels of water. Consider Piya’s scientific attempts to map dolphin routes with GPS, a tool for recording hard, factual evidence of location. Upon her first contact with

Sundarbans Irrawaddy dolphins, Piya “had only to extend her arm to get a reading on the GPS monitor. She recorded the figures with a sense of triumph: even if the dolphins took flight this very minute, this little scrap of data would have made the encounter credible and worthwhile” (95). Even after she loses her written data when the cyclone hits, her GPS remains intact: “All the routes that Fokir showed me are stored here. . . . Fokir took the boat into every little creek and gully where he’d ever seen a dolphin. That one map represents decades of work and volumes of knowledge. It’s going to be the foundation of my own project” (328). Digital recording, as it so often does, signifies a collective desire to fight against erasure and ensure the preservation of information against the vertical fluctuation of the tides.

Fokir and Piya represent two differing epistemic practices—satellite-scale navigation via GPS vs. human-scale observations, oral history vs. digital documentation—and yet the rhythms of their work (fishing, cetacean study) are highly compatible. Consider how Piya describes the experience of being a cetacean biologist, watching the water for hours on end:

for a long time nothing happens, and then there’s a burst of explosive activity and it’s over in seconds. Very few people can adapt themselves to that kind of rhythm—one in a million, I’d say. That’s why it was so amazing to come across someone like Fokir . . . it’s like he’s always watching the water—even without being aware of it. I’ve worked with many experienced fishermen before but I’ve never met anyone with such an incredible instinct. It’s as if he can see right into the river’s heart. (221)

Seeing “right into the river’s heart” is, of course, not a matter of vision alone, but part of Fokir’s experience as a fisherman, able to read many kinds of cues in the mangrove forest: sounds, felt rhythms of water, knowledge of the tides, knowledge of the migrational habits of dolphins—embodied sensations that the zoom function of cameras cannot relate by vision alone.¹⁰ Fokir has attuned himself to the rhythms of the delta and migration routes of the Irrawaddy dolphins in relation to the story of Bon Bibi, the merciful goddess who saves supplicants from tiger attacks, as told to him by his mother Kusum (who died in the Morichhāpi incident when he was young).¹¹ Kusum called the dolphins “Bon Bibi’s messengers” (254): they disperse at high tide to gather news around the area, and return to certain deep pools at low tide to report

to her. Fokir's knowledge of Sundarbans ecology is thus inextricably tied up with the mythological story of Bon Bibi. Fokir's attunement with the water, or how Piya says he seems always to be watching it "without being aware of it," is suggestive of what Stefan Helmreich calls "oscillating ocean time" rather than "geologic time," the documented, stable object of scientific inquiry, with which we might associate Piya.¹² What we learn from Fokir is a way in which the Bon Bibi story becomes a way of navigating and living within oscillating ocean time; the story not only teaches Fokir how to look at his environment, but how to survive within it, crossed by different scales of moving water (blood, tides, storms). For Fokir to "see into the river's heart" is less a matter of literal transparency of the water than of the familiar opacity of a story, learned by heart. Another way of putting this is that each scale of trained observation—Fokir's local knowledge and Piya's GPS-assisted notation—depends on orienting via particular kinds of devices (technical, narrative), and yet what Piya finds surprising is their compatibility in practice.

The Hungry Tide's oscillation between local and global scales of relation is evocative of tidal dialectics—or tidalectics—theorized by poet Kamau Brathwaite and taken up by scholar Elizabeth DeLoughrey in *Routes and Roots* (2007). Tidalectics suggest new paradigms of spatial relation and navigation based on the "chronotope" of the coastal margin and tidal rhythms.¹³ DeLoughrey writes that Brathwaite's tidalects present "a dynamic model of geography [that can] elucidate island history and cultural production, providing the framework for exploring the complex and shifting entanglement between sea and land, diaspora and indigeneity, and routes and roots."¹⁴ Tidalectics suggest an ecopoetics where "the continual movement and rhythm of the ocean" foregrounds "alter/native" epistemologies distinct from western colonialism and its geopoetics. For example, the ocean navigational practice called "etak" imagines that the voyaging canoe is standing still in the ocean and instead the islands and cosmos move, flowing towards the traveler, countering Western mapping practices that assume a moving subject amongst a stationary landscape/waterscape.¹⁵

As we have seen, *The Hungry Tide* is guided not only by a horizontal imaginary, but also by falling, which suggests a *vertical tidalectics*, modifying and expanding the Caribbean theorization of tidalectics to include rising and falling (in) water. Fokir's navigation of vertical tidalectics takes place not through the Western scientific precision of GPS mapping, but through the interrelation of ecology and mythology,

of the recognition of tidal cycles as taught by the Bon Bibi myth. Yet Fokir is just as vulnerable as anyone else to another vertical dimension—that of the sky, when the cyclone hits at the end of the novel. The storm inverts the previously settled boundaries between earth, sea, and sky; for example at one moment, Piya sees "something that looked like a whole island hanging suspended above their heads: it was a large clump of mangroves, held together by the trees' intertwined roots" (314). Vertical tidalectics account for not only the regularity of tidal rhythms, but also for currents of air and their capacity to organize into dangerous cyclones, with the capacity to destroy and reorder the delicate fringes of coastal life.

Indeed, water does not signify consistently nor produce the same affect across scales. Paradoxically destructive and benign, water is that element that connects across scales but also violently destroys the insulating boundaries between scales.¹⁶ On the one hand, we have the goddess Ganga who in falling would have catastrophically "split the earth" (6), and on the other hand, Nirmal's characterization of the ebb tide as a cause for celebration, for "it is only in falling that the water gives birth to the forest" (7). Consider the following passage from Rainer Maria Rilke's *Duino Elegies* that Nirmal uses to evoke the surprising affect of falling tides:

we, who have always thought of joy
as rising . . . feel the emotion
that almost amazes us
when a happy thing falls. (7)

Nirmal's use of Rilke's stanza sets up a relationship between human emotion and the environment that is different from what we intuitively expect to be joyful.¹⁷ George Lakoff and Mark Johnson have made the argument that the ways we cognize and speak about the world reflect our physiological embodiment and cultural experience. They identify a pattern of "orientational metaphors," using case studies from how people speak about being happy or healthy ("I'm feeling up today") or feeling sad, ill, or injured ("I'm feeling low").¹⁸ The joy of the falling tide goes against our habitual intuition of falling as sad, rising as happy. Thus for Nirmal to connect the falling water of low tide to Rilke's lines that celebrate "when a happy thing falls" surprises us because of its sensory

inversion, a kind of alienation effect.¹⁹ Water extracts us from the very habits of thought we are accustomed to on land, shifting the aesthetics of our perception.

Sarah Ahmed's theorization of "queer phenomenology" precisely takes up these questions of orienting to place and attending to how our emotions are directed to what we come in contact with. By focusing on the way that (sexual) orientation can be thought of as a matter of residence, or how we take up space, Ahmed offers a provocation to consider how "what? we think 'from' is an orientation device."²⁰ We can extend Ahmed's provocation to attend to where we think "from" in *The Hungry Tide* to consider the queerness of falling water. The vertical dimension of falling should remind us that orientation is not only about turning left to right (as for Heidegger and Kant), but also up and down. Falling can mark a transition in milieu (air to water) and a new moment of contact, a transition of sense from one world to another, but with dramatic reorganizational consequences where many things are sure to be knocked out of place—moments of radically jumping between scales, or even of dangerously collapsing them.

What we learn from Nirmal and Rilke, then, is that falling waters signify differently at different scales: they are catastrophic at geologic or mythic scales (as with Ganga falling to earth), joyful at low tide, accidental when spilled from a teacup. This insight resonates with Timothy Clark's observation in *Ecocriticism on the Edge* that the meaning or moral of a story (like the meaning of water here) depends on the scale at which we examine it.²¹ Clark examines the stakes of reading Raymond Carver's short story "The Elephant" across scales, arguing that while the story could be read for its heroism or protest against social exclusion on an individual or national scale, a geologic scale casts the story as one of human entrapment in petroculture. This critical necessity to shift scales and apprehend differences at scale has been persuasively articulated by Ursula Heise in *Sense of Place, Sense of Planet* (2011). Heise argues that contemporary environmentalism and ecocriticism should not favor local interaction with nature above, or in opposition to, the possibilities of environmental engagement at a distance. A hybrid kind of environmentalism might instead shuttle between scales of relation, from local farming or hiking to representing the global through digital mapping practices.

FRICTION AND OPACITY

For Clark and Heise, the critical strategy of shutting between scales would seem to solve the critical problem of each scale's limitations, leading us towards a kind of comparative hermeneutics between scales. Yet perhaps moving between scales is not frictionless, but instead a matter of risk associated with the transition. Consider the moment when Piya falls into the water, after trying to hand the fisherman Fokir a wad of cash in compensation for the forest guard's fine (read: theft) of Fokir's earnings. The chapter "Snell's Window" begins almost sleepily, and is worth quoting at length:

In the clear waters of the open sea the light of the sun wells downward from the surface in an inverted cone that ends in the beholder's eye. The base of this cone is a transparent disk that hangs above the observer's head like a floating halo. It is through this prism, known as Snell's window, that the oceanic dolphin perceives the world beyond the water: in submersion, this circular portal follows it everywhere, creating a single clear opening in the unbroken expanse of shimmering silver that forms the water's surface as seen from below.

Rivers like the Ganga and the Brahmaputra shroud this window with a curtain of silt: in their occluded waters light loses its directionality within a few inches of the surface. Beneath this lies a flowing stream of suspended matter in which visibility does not extend beyond an arm's length. With no lighted portal to point the way, top and bottom and up and down become very quickly confused. As if to address this, the Gangesic dolphin habitually swims on its side, parallel to the surface, with one of its lateral fins trailing the bottom, as though to anchor itself in its darkened world by keeping a hold on its floor.

In the open sea Piya would have had no difficulty dealing with a fall such as the one she had just sustained. She was a competent swimmer and would have been able to hold her own against the current. It was the disorientation caused by the peculiar conditions of light in the silted water that made her panic. (46–47)

The passage performs the very disorientation that Piya feels, taking the reader across two kinds of habitat and embodiment: clear water and silted water, dolphin embodiment and human embodiment. What we might call a *perceptual aesthetics of scale* in this passage not only concern



Fig. 8.2 Example of Snell's Window, U.S. Navy photo by Mass Communication Specialist 1st Class Jayme Pastoric

changes in size (small to large, local to mythic) but also changes in medium (like air to water) and the possibilities of perceptual orientation within that medium.²² Snell's window not only refers to the portal of optical clarity through which the dolphin sees the surface; it is the aperture by which we, along with Piya, speculatively inhabit the dolphin's visual world in the medium of water (Fig. 8.2). Yet to inhabit the Irrawaddy dolphin's visual world is to experience the riparian milieu of hazy, silted water with no "window," a frightening experience in which Piya could not tell up from down and could not orient. It is not surprising, then, that the scene of a milieu-shift is also a scene of rebirth: as Piya struggles in the water, the river's edges "seemed always to recede, like the slippery walls of a placental sac" (47). Piya survives only with Fokir's life-saving help as he dives into the water to haul her up, a kind of vertical baptism with Fokir as the silent midwife.

Yet consider the striking sequence of perspectival shifts from paragraph to paragraph, where shifts in scale necessitate shifts in orientation. Whereas Ghosh could have written the scene in more action-packed terms (ex: Piya struggled desperately to orient in the river!), he instead mediates Piya's experience in the river by first imagining the perspective

of dolphins. The first paragraph describes the oceanic dolphin's point of view, or what it is like to look through clear seawater towards the sky. The next paragraph negates the first: we are not in the clear ocean waters, we are in the silted opacity of the Sundarbans waters, foreclosing such a window into the sky. The third paragraph negates the previous two: we are not seeing from the perspective of the dolphin, but from Piya's eyes as she flails in the disorienting conditions of the cloudy river water, uncertain which direction is "up." This process of negation characterizes Timothy Morton's theorization of "ecomimesis" in nature writing: the attempt to simulate presence through the description of place. Like Ghosh's "Snell's Window" chapter, Morton discusses how nature writing typically presents a cascade of positions that retrospectively revise each other, forcing the reader to re-evaluate the stability of her point of view.²³ Morton gives the following example: "As I write this, I am sitting on the seashore. . . . No—that was pure fiction; just a tease. As I write this, a western scrub jay is chattering silently on a copy of an anthology of Romantic poetry," continuing *wise en abyme*. Morton argues that the "as I write" gesture of ecomimesis cannot "achieve escape velocity from writing itself" but aims towards a poetics of ambience, in which writing only impossibly approximates the sensation of being in a particular place.²⁴

It is this very impossibility of conveying an *unmediated* sense of emplacement—or perspective *from* a given scale *for* a particular observer—that underlies the ontological conditions for writing in *The Hungry Tide*. Ghosh goes to great lengths to make this impossibility noticeable. He continually reminds the reader of the limits of translation—that what it is like to see through another's eyes is always already refracted through the viewer (or reader) in her own perceptual environment. In one scene Piya imagines the dolphins "listening to echoes ping-pong through the water, painting pictures in three dimensions—images that only they could decode. The thought of experiencing your surroundings in that way never failed to fascinate her: the idea that to 'see' was also to 'speak' to others of your kind, where simply to exist was to communicate" (132). The alerity of dolphin communication might occur through a whole complexity of body positioning and protocols around "reading" each other through sonar.²⁵ Piya reflects that in comparison, human speech "was only a bag of tricks that fooled you into believing that you could see through the eyes of another being" (132).

This scene balances a speculative generosity towards the synesthetic mode of dolphin communication (“to see was also to speak”) with a qualification—that to know this is to have that very knowledge mediated by the trickster figure of human language.

Perhaps a comparative hermeneutic of sliding across scales (taken as frames of reference) is not so frictionless after all. Consider Ghosh’s obsession with moments where language breaks down, only able to approximate the experience of another, both in the case of the character Fokir and the case of the river dolphins. Throughout the novel, we are only privy to third-person limited points of view in English, focalized through Piya, Kanai, and Nirmal (as translated from Bengali to English for us by Kanai). Yet despite his centrality to so many events, we never hear what Fokir is thinking—Ghosh simply doesn’t make the attempt. The closest he comes to showing us Fokir’s perspective occurs in a scene at the end of the novel when Kanai, who had lorded his superior education over Fokir, takes up Fokir’s dare to set foot on a possibly tiger-inhabited island and falls face-first into the mud. Kanai looks at Fokir and reflects that it is as if “he were seeing not himself, Kanai Dutt, but a great host of people—a double for the outside world, someone standing in for the men who had destroyed Fokir’s village, burnt his home and killed his mother; he had become a token for a vision of human beings in which a man such as Fokir counted for nothing, a man whose value was less than that of an animal” (270). Kanai’s moment of double-consciousness—of himself seeing Fokir see himself—does not aspire to see directly from Fokir’s point of view, but remains mediated by his own presence. If one of scale’s ladder-like synonyms is *hierarchy*, then we should be conscious of whose eyes we aspire to see *through* as we climb up and down its rungs.

Ghosh’s decision not to write from Fokir’s point of view conscientiously avoids replicating the colonizing gaze that would be so easy to attempt in third-person omniscient perspective, preserving in Fokir what Caribbean poet and philosopher Édouard Glissant calls the “opacity of the Other.” For Glissant, opacity is “the moral generosity disposing me to accept the principle of alterity, to conceive of the world as not simple and straightforward, with only one truth—mine.”²⁶ Glissant argues that it is not necessary to grasp the other or become him in order to feel solidarity with someone; rather, one should strive to preserve the other’s opacity and *not* imagine that he can be entirely and transparently understood in his thoughts, motivations, desires, and identity. Glissant invokes

a rather suitable estuarine analogy to talk about opacity: if the West has seen the world as if through the clear water of a mirror, there is, “opacity now at the bottom of the mirror, a whole alluvium deposited by populations, silt that is fertile but, in actual fact, indistinct and unexplored even today, denied or insulted more often than not, and with an insistent presence that we are incapable of not experiencing.”²⁷ This environmental analogy should remind us of Piya falling into the silted waters—the waters that are Fokir’s territory—and of how Fokir can “look as if into the river’s heart.” Fokir, and the subalterity Glissant alludes to, is akin to silt itself, “an alluvium deposited by populations” whose presence is insistent, yet illegible. Opacity draws on the environmental imaginary of silted waters to imagine a version of identity politics that opposes the demand to fully disclose, to translate into the language of power, or to rely one’s ever-evolving identity. Opacity is precisely what the satellite image (Fig. 8.1) rails against, in pursuit of clarity, transparency, knowability, the entire motivation for seeking to look from the planetary scale in the first place. The implications of a concept of opacity for scale theory should be clear: how might our visual perception, barriers of language, or practices of encountering the world affect how we see at different scales? Do we always expect to see clearly at every level?

The possibility of a theory of scale inspired by the estuarine environment brings us to the dual question of the relation between water and words in *The Hungry Tide* and our (in)ability to see clearly through them. It is almost too easy to read water as a metaphor for everything in the novel. Sometimes words are water, as in Nirmal’s observation that “the mudbanks of the tide country are shaped not only by rivers of silt, but also by rivers of language: Bengali, English, Arabic, Hindi, Arakanese, and who knows what else? Flowing into one another they create a proliferation of small worlds that hang suspended in the flow” (205; italics original). Yet this interpretive view not only threatens to essentialize water to a set of fluid properties, predictable at every scale, but also neglects the various phase changes that water can go through. Sometimes words are abrasive and solid (artificial, mediating), as when the fisherman Horen recounts a time that he made love, where “there were no words to chafe upon our senses: just an intermingling like that of fresh water and salt, a rising and a falling as of the tides” (301). Words may “chafe,” but silence allows for intimacy and intermingling through other modes of sensation. Thus, words are like water if they are *transparent* (simulating direct access) and not like water if they are *opaque* (get in the way of understanding).²⁸

Language appears as an intuitive device only when we do not notice its mediating function, only when it appears so naturalized so as not to be noticed. The material properties of water—to be clear or silted—constitute an environmental imaginary that not only informs how we understand language but, crucially, how we understand the friction involved in shifting perspective across scales—which also means across forms of embodiment and environment.

Ghosh's textual opacity is the antithesis of the satellite image that I began with, with all its desired transparency and mastery of vision. So often, thinking across scales is frictionless, like zooming in and out in Google Earth.²⁹ Yet what I have aimed to show, alongside Joanna Zylińska and Timothy Clark, is that every scale leaves something out. Scale is always for a particular perceiver, colored by species (human or dolphin?), language (English or Bengali?), and milieu (air or water?). Sliding along scales in geography and in literary fiction is in fact not frictionless, but always involves acts of translation. There is an excess of knowability and materiality in the world that our abstractions of particular scales do not account for that Zylińska calls thinking at the “universal scale.” Her “universal scale” is not a desired totality but a gesture towards that which escapes totalization. It serves as “a reminder for us that there is an excess to our acts of world-making and that it is perhaps imprudent or even irresponsible to forget about it in all kinds of discussions.”³⁰ Reading *The Hungry Tide* is an exercise in appreciating this excess, estimating what we don't know as we move across scales, translate perspectives, reorient across milieu. Opacity leads towards an epistemic humility when attending to matters of scale.

SATURATION

Falling water and its power to collapse scales relates to a broader politics of endangerment in India and the Pacific Ocean today.³¹ In addition to the 2004 tsunami, sea-level rise and government-sponsored dam building continue to threaten coastal and other littoral zones. Take, for example, the neopolitics of recent protests where villagers from Madhya Pradesh submerged themselves in river water for over fourteen days in September 2012.³² The dams raised the height of rivers in low-elevation land, saturating the farmland that residents needed to survive. The human cost of this damming has been recorded by numerous documentary films, such as *The Narmada Diary* (1995). Bishnupriya Ghosh

notes how the camera—so comfortably able to zoom out to take in the glory of the dam—falters when a man points to where his home had once been, “unable to capture or locate what lies beneath, what has been lost.”³³ The water constitutes a vertical barrier that the camera and its penetrating zoom function cannot pass through, the scale of devastation unable to be fully represented. The problem of flooding in Madhya Pradesh evokes what Rob Nixon has called “displacement in place,” an erosion of land and resources “that leaves communities stranded in a place stripped of the very characteristics that made it habitable.”³⁴

Displacement in place is part of a broader Anthropocene politics that continues to face problems of definition, representation, and responsiveness across scales.³⁵ Yet one of the consequences of thinking scale through the medium of water is that scale need not be so mathematical or clear-cut. Drawing on the work of Karen Barad, Joanna Zylińska offers a strong provocation to think about scale as “part of the phenomena it attempts to measure,” not imposed from the outside, but generated from within a particular situation.³⁶ This claim takes on new significance when we think about scale through water, as the condition of where we think *from*. Once water is of material consideration, scale theory needs to consider not only size, but also orientation, opacity, and the possibility of experiencing multiple scales at once.

One watery concept that signifies the plenitude of experiencing multiple scales at once is *saturation*.³⁷ Consider Kanai's reflection that “Rikie said ‘life is lived in transformation,’ and I think Nirmla soaked this idea into himself in the way cloth absorbs ink” (233). Although this is, on the one hand, a comment about Nirmla's life-long enrapture with revolutionary ideals, we can also read it as an example of remediation. To “soak” an idea into oneself might remind us of a kind of calligraphy, in which people are the pages that are not so much inscribed as stained with the ink of stories. Yet on a more literal level, Nirmla (having passed away) exists ontologically *as ink itself*, at first on the pages of his notebook, secondly in Kanai's memory after the notebook is lost, and finally as ink again when Kanai proposes to “write the story of Nirmla's notebook” (329) at the end of the novel—which we can assume is actually *The Hungry Tide*, the novel we just read. The substance of ink thus connects language and water, a noninscriptive conception of writing that does not cut or mark the subject so much as occupy, suffuse, and move the subject from within, a condition in which experience is condensed

into the small-scale and portable substance of inked pages, an ontological condition of being saturated by stories larger than oneself.³⁸

In the final scene, after surviving the cyclone, Piya and Nilima exchange thoughts on what exactly makes a home. Rather than referring to the ground beneath their feet, Piya and Nilima both identify two types of mobility or ritual connected to water: for Piya, "home is where the Orcaella [dolphins] are," while for Nilima, "home is wherever I can brew a pot of good tea" (329). The ritual of brewing a pot of tea, to drink together with company, is an opportunity to share water and to share stories. Saturation—to be filled with water—provides an alternative to the fixed "groundedness" of home, suggesting participation and continuity simultaneously. Perhaps saturation allows us a partial view of how we always already participate in multiple scales of relation, even though the nature of this participation might be opaque.

In the Sundarbans, one might be occupied by many waters.

NOTES

1. On "planetarity," see Spiyak and Chakrabarty. On the relation between power and vision from above, see Arendt, Virilio, Chow, and Pratt.
 2. Zylinska, 26.
 3. Zylinska, 29.
 4. See Baucom.
 5. Arnav Ghosh, *Hungry Tide*, 6. Subsequent references are in parentheses in the text.
 6. See Steinberg.
 7. Asking what it would mean to "secure the volume" (49), Stuart Elden has compellingly argued for a geographic practice that takes verticality into consideration, particularly in areas like Israel and the West bank where tunnels course through hillsides, unseen topographically.
 8. Peters and Steinberg, 127.
 9. *Ibid.*, 128.
 10. Arnav Ghosh characterizes Fokir as the person most closely in tune with the forest and Irrawaddy dolphins, but also as subaltern: the only time he "speaks" in the novel is when Kanai reads in Nirmal's writings a memory of what Fokir said as a boy. Every time he appears as an adult in the novel, what he says is either translated into English by Kanai, or met with Piya's incomprehending ears.
 11. According to Nilima's informal estimate, "a human being is killed by a tiger every other day in the Sundarbans—at the very least" (199).
12. The story of Bon Bibi—so moving for Kanai and Kusum in their youth—begins not in India, but Arabia, when two twins (Bon Bibi and her brother Shah Gonioli) are sent east to establish an area for human habitation. They banish the existing demons to half of the land; the strongest demon, Dokhin Rai, is said to take the form of a tiger who will eat you if you cross into his territory. Dokhin Rai promises great wealth to one man in return for the sacrifice of one young boy, Dukhey; but when Dukhey is left, he calls on Bon Bibi for help, and she saves him.
 13. Like tidalectics, oscillating ocean time is a theory that develops out of environmental form and specifically in response to wave movement, a temporal "genre" that "takes in such *long durée* processes as ocean circulation as well as such rapid changes as tides and waves" (Helmreich 107).
 14. See Cohen.
 15. DeLoughrey, 2.
 16. *Ibid.*, 3.
 17. As Astrida Neimamis helpfully points out, water does not demonstrate only dialectical properties, but a multitude of different properties. Delineating six hydrologies, she argues that water can: be gestational; have the capacity to dissolve; act as a medium of communication; produce differentiation; serve as an archival medium; and exceed mastery in its ultimate unknowability.
 18. The joy of the tides falling is different from the "pathetic fallacy" famously derided by the critic John Ruskin. Whereas the pathetic fallacy describes a misattribution of human emotions to inanimate natural objects (related to personification), the joy of the tides falling locates emotion in the human observer rather than an environmental feature or object.
 19. Lakoff and Johnson, 15.
 20. Also consider the terror when a thing rises, like a crocodile: "Suddenly the water boiled over and a pair of huge jaws came shooting out of the river, breaking the surface exactly where Piya's wrist had been a moment before" (144).
 21. Ahmed, 4.
 22. Clark, 104.
 23. This resonates with what I have elsewhere named *milieu-specific theory*, a critical awareness of the relationships between our environment and how we speak about the world. See Jue, "Vampire Squid Media."
 24. Morton, 29.
 25. *Ibid.*, 30.
 26. For additional perspectives on dolphin communication, see McIntyre, Bartson, Peters, Burnett, and Bryild.
 27. Glissant, 154.
 28. *Ibid.*, 111.

28. Alexander Galloway has noted something similar about interfacial media: "the more intuitive a device becomes, the more it risks falling out of media altogether, becoming as naturalized as air or as common as dirt. To succeed, then, is at best self-deception and at worst self-annihilation" (25).
29. See Jue, "Proteus and the Digital."
30. Zylinska, 26.
31. Ghosh also wrote a short essay about the literal loss of identity that accompanied the Indonesian tsunami of 2004, where survivors had had their ID cards and passports swept away. See Ghosh, "The Town by the Sea."
32. For more on the submerged protests in Madhya Pradesh, see Das.
33. Bishnupriya Ghosh argues that such documentaries cultivate an aesthetic of emplacement that immerses the spectator in the world soon to be lost so that we too might inhabit the loss of those affected by the dam (74–75).
34. Nixon, 19.
35. Legal scholar Jedediah Purdy points out the "devastating absence of any agent—a state, or even a movement—that could act on the scale of the problem" or contextualize the human cost of change in the Anthropocene (n.p.).
36. Zylinska, 29.
37. Water is more than a dialectical substance that can create or destroy; see Neimanis's discussion of water's multiple properties (to archive, gestate, dissolve, communicate, differentiate, and remain unknowable).
38. For more on the coincidence between ink and subjectivity, see Jue, "Vampire Squid Media."

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CHAPTER 9

World Literature as a Problem of Scale

Oded Nir

To speak of literature and spatiality is to speak of figurative mechanisms, or the literary constructions that stand for certain spaces and allow us to grasp them. The attempt by novelists to produce figures for national space is perhaps the most well-known example of this process: to imagine the nation means here to craft a complex social and geographical allegory, in which different socio-geographical types must be imagined to work together to overcome contradictions that tear them apart, or in which the protagonists' adventures somehow mirror those of the nation.¹ Realist and historical novels are good examples of almost explicit figuration of national space in literature. Less well understood, perhaps, is the spatially orienting function of utopian novels, which constitute "pedagogical practices . . . that enable us to inhabit, make sense of, orient ourselves within, and act through" social spaces.² In all of these examples, what is to be noticed at the outset is that the representational challenges of scale are expressed in a tension between detail and system, where the former belongs to the realm of the immediately visible, and the latter remains invisible and not immediately graspable, in need of a reductive figuration that would make it thinkable at all. As Toscano and Kinkle have recently asserted, the tension between detail and system,

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