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Article

Hill Meets Plain: E. M. Forster's Narrative Tremors

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This essay makes a case for why Forster set *A Passage to India* in the lowlands of the Himalayan Mountains by reading the novel alongside colonial descriptions of Indian geological phenomena. Tracking the novel's particular interest in mountain formation, continental fusions and the aetiology of earthquakes, it suggests that Forster's geological register is an expression of his anxieties about what form an independent India would take. While the novel's geological descriptions reveal what Adelene Buckland calls 'colonial habits of thought', they also mark a departure from Forster's previous writing on Indian landscapes in his letters and essays. Forster was concerned in this period with what he calls a 'spirit of Non-Cooperation' that has entered India, and the geological brings an invisible scale to the socio-political tremors of the present that suggests a landscape in flux. Its disturbances affect the security of English enclosures, psychic and social, while through geological metaphors—caterpillars and waves—Forster conveys the rearrangement of its central characters' allegiances, and how they are tossed about, propelled out of, or hardened by the novel's shifting landscape. Drawing Forster's geological writing into dialogue with Archibald Geikie's description of thrust-faults in the mid-1880s, Richard Oldham's seismology investigations in the late 1890s, and Émile Argand's writing on continental fusion in the early 1920s, the essay turns to the sonic resonance of the Marabar Caves. In the Caves, Forster expresses the antagonism of encroachment and upheaval, and what proximity to Europe means for the nation in formation.

When Cyril Fielding finds Adela Quested looking at the Marabar Hills from the lawn of the bridge party at Chandrapore, he perceives her gaze as horizontal:

> She was looking through a nick in the hedge at the distant Marabar Hills, which had crept nearer, as was their custom at sunset; if the sunset had lasted long enough, they would have reached the town, but it was swift, being tropical.[1]

There are two details in this short introduction to the hills that move the description from the figurative to the empirical. The first is to do with an optical illusion that makes objects in the distance seem closer than they are. The second is the image of these rock masses 'creeping

[1] E. M. Forster, *A Passage to India*, ed. Oliver Stallybrass (London, 2005 [1924]), 41. All subsequent quotations from *A Passage to India* will appear in parenthetical page numbers.

nearer'. If the action in the passage were sped up by millennia in a narrative time-lapse outside the constraints of human lifespans, this is perhaps what these masses of rock would be observed to do. A geological perspective on these lines reverses the narrator's exaggeration of strange visions produced by a tropical environment: the hills may well move closer to the town, but long before or long after the person now observing them has begun or stopped looking. Geology cannot rely on human observation alone, because the human eye does not reach so far back in time, nor see so deeply under the earth. Adelene Buckland describes this effort by nineteenth-century geologists as akin to 'confronting a world that is now operating at such a scale as to be invisible'.[2] Before the invention of technological apparatus to close these distances of human perception, geological investigations of the nineteenth and early twentieth centuries often relied on finding metaphors to synthesize their findings. The image of the Marabar Hills 'creeping closer' makes them sound like a creature crawling on the ground: a snake, or a caterpillar. In geology, the term 'basement fold caterpillar' is used to describe the folding of crystalline bedrocks over their covering sedimentary layers, lending an organic figure to the motion of these formations across the earth akin to the millennia-long suspension of a butterfly in larval form.[3] This essay reads *A Passage to India*'s geological register as a way for the novel to imagine the upheaval of social architectures by unseen and unfelt tremors, making a case for why E. M. Forster chose to set the novel in the lowlands of the Himalayas.

Most of *A Passage to India* is set 50 metres above sea level while the Himalayas loom, invisible from the plain, hundreds of miles north. In the early 1920s, geological hypotheses about the formation of mountains (orogeny) and the aetiology and processes of earthquakes (seismology) were joined to a controversial new theory in plate tectonics of horizontal propulsion. The formation of the Himalayan Massif was a central case study in this theory. In 1922, the Swiss geologist Émile Argand described the joining of the Indo-African and Eurasian plates as a 'duel' of 'attacking folds' from the Indian side, with a 'surprise ending': an ongoing 'dynamic solidarity' between the continents.[4] The Barabar Caves in Bihar are lowland traces of this duel. Forster's choice to put their fictional counterparts, the Marabar Caves, on the horizon of *A Passage to India*'s social world places the novel's location just outside the dynamic solidarity with which, argues Argand, the geological process concludes. The Caves cannot quite be claimed as part of this fusion; in this story, they are marooned caterpillars that never made it all the way up to the Massif. Other possibilities for the cave sequence make appearances in the novel: Ajanta, Girnar, Hampi, Vijayapura, and Mandu. When Mrs Moore's ship sails west round the Bombay peninsula past Colaba and she lists the sites in India she has not seen and now never will, she also passes the Elephanta Caves (198). The narrator is careful to emphasize this choice of location as a place distinct from other archaeological wonders of India. At the beginning of the group trip to the Marabar Caves, the narrator is clear that there is something especially strange about the echo at the Marabar. While there are some 'exquisite echoes in India', like the 'whisper' at Bijapur or the 'long solid sentences' at Mandu which 'return unbroken to their creator', the Marabar echo is 'entirely devoid of distinction' (137). These other caves comply with human projections; in the Marabar Caves, there is only resonance.

Forster spent relatively little time in eastern India during his two pre-*Passage* trips to India in 1912–1913 and 1921, when he worked as the private secretary to the Maharajah of Dewas Senior, Tuoki Rao III Pawar, in the southwestern state of Madhya Pradesh. He visited Bihar

[2] Adelene Buckland, 'Inhabitants of the Same World: The Colonial History of Geological Time', *Philological Quarterly*, 97 (2018), 219–40, 221.

[3] Michael Johnson and Simon Harley, *Orogenesis: The Making of Mountains* (Cambridge, 2012), 48.

[4] Émile Argand, *Tectonics of Asia*, tr. Albert V. Carozzi (New York, NY, 1977), 56. All subsequent quotations from *Tectonics of Asia* will be abbreviated as *TA*.

and the Barabar Caves in 1913 before he ran out of travel funds and returned west. Bihar's imperial history is significant for Forster's choice of location, tied to the British East India Company's tax revenue schemes after the Battle of Buxar in 1764, site of the 1770 Great Bengal Famine and the programme of agricultural land reform that followed, and of an older series of religious and economic passages between the plains and the mountains. For the English characters, the Himalayas represent a space of matrimony or retreat: Adela and Ronnie are due to get married in a house in Simla with 'a view of Tibet' (141), and Mrs Moore will have to 'remain perched up in the Himalayas waiting for the world to get cooler' after Ronnie and Adela's hypothetical wedding (125). For Fielding, they offer respite from the commodification of human desires that is at work in the modernizing plains. After the trial, 'puzzled and worried' by Aziz's aversion to being '"mentioned in connection with such a hag"', by which he means Adela, Fielding relates this distaste to a general modern desire for beautiful appendages (cars and women): it is 'to escape this rather than the lusts of the flesh that saints retreat into the Himalayas', he decides (227). A view of Tibet would mean looking across from central India to the Tibetan Plateau, the geological formation caused by the Indo-African and Eurasian plate collision. The significance of this is lost on the English characters, for whom the Himalayan foothills are where the troubles and muddles of the plains can be temporarily left behind. A view of Tibet allows the gaze to remain horizontal, undisturbed by hidden depths.

The introductory passages of the novel's second part, 'Caves', introduce a geological time at odds with the Himalayas as a temperate backdrop for social reproduction, or ascetic retreat. The narrative voice in these pages demonstrates a striking geological awareness, and the word 'geology' appears in the second sentence:

> Geology, looking further than religion, knows of a time when neither the river nor the Himalayas that nourish it existed, and an ocean flowed over the holy places of Hindustan. (115)

The passages that follow, analysed at greater length later in this essay, are an accurate geological description of the formation of the Himalayas through the collision between India and Eurasia. Forster seems to have been aware of some of the most recent theories in orogeny, the science of mountain formation. Argand's *La tectonique de l'Asie* (*Tectonics of Asia*) (1924) was the inaugural lecture at the International Geological Conference held in Brussels in 1922, when Argand built on Alfred Wegener's hypothesis of continental drift to suggest horizontal folding as an explanation for mountain formation.[5] While most theories of mountain chain formation at the time suggested an upwards motion—mountains coming out of the ground vertically—Argand suggested that the Himalayas were formed by a long 'duel' between the continents, where rocks deeper under the earth's surface are folded and lifted in a caterpillar-like motion that propels sediment forward.

The plot of Forster's novel, I want to suggest, is held in a process of suspended metamorphosis. Its English caterpillars do not transform into butterflies. In Chandrapore, before the trip to the Caves, a general, undifferentiated human spirit lives in 'a cocoon of work or social obligation' and Mrs Moore and Adela Quested 'lived more or less inside cocoons' after hearing Professor Godbole sing and the 'maze of noises' he creates in his song (124). After the trial, when the court spills into the streets, the English are 'caught like caterpillars' in the by-ways,

[5] Émile Argand, *La tectonique de l'Asie*, 'Congrès géologique international, Comptes rendus de la XIII[e] session, en Belgique 1922' (Liège, 1924), 171–372.

and 'could have been killed off easily' (219). The need for some organic transformation is implied but never happens, as the novel's unchanging caterpillars become more vulnerable to attack. It is Aziz who is associated with the release of butterflies from cocoons at a moment of forgiveness, when he connects Adela to the name of Mrs Moore in his letter to her:

> When he had finished, the mirror of the scenery was shattered, the meadow disintegrated into butterflies. A poem about Mecca – the Caaba of Union – the thorn-bushes where pilgrims die before they have seen the Friend – they flitted next; he thought of his wife; and then the whole semi-mystic, semi-sensuous overturn, so characteristic of his spiritual life, came to end like a landslip and rested in its due place, and he found himself riding in the jungle with his dear Cyril. (304)

The burst of organic life from Aziz's imaginary grass finds a place to settle. The disintegration of meadow into butterflies transforms across this passage into a rockfall coming to a halt, moving past the poetic, spiritual, and personal pillars of Aziz's inner life, and freeing his thoughts to rest in the present: the final conversation with Fielding. Aziz's imaginary passage through quotidian landscapes, from meadow to landslip to jungle, constructs a mobile proximity between earth's forms and his interior world, as well as a sense of the psychic disturbances that such movement might cause.

Despite this release, Aziz has no practical vision for what will happen when '"India shall be a nation"'; perhaps '"a conference of oriental statesmen"', he suggests to Fielding, who derides what he perceives as Aziz's naivety about modern nation-states (306). The possibility of religious nationalism is left open. This essay returns to the novel's unsettled ending amid the contemporary challenges to post-Independence secular democracy in India. It argues that Forster's geological metaphors and the acuteness of what Santanu Das calls his 'geolocal precision' are crucial to the novel's sense of political disturbance, at a moment when the terms of citizenship in an India ruled by Indians were under construction.[6] I revisit Sara Suleri's interpretation that Forster's novel 'initiates the Western narrative of India', and that Forster's India is only 'symbolic of something the Western mind must learn about itself'.[7] I argue instead that Forster's novel anticipates Aamir Mufti's later identification of a 'crisis of postcolonial secularism' in India after the Vishva Hindu Parishad's destruction of the Babri Masjid in 2002, when —as he puts it—'the very structure of Indian citizenship [...] came crashing down'.[8] Would an independent India mean a 'dynamic solidarity' between neighbouring nations and its internal religious differences, or would these differences instead produce what Mufti calls 'the terrorised and terrifying figures of minority'?[9] *A Passage to India* offers nothing like a genealogy or hierarchy of pre-colonial forms, but continually puts these into lateral relation with each other, evading value judgements about communal tensions either through parody or the mediation of other characters' perceptions.

Forster makes a Muslim character the novel's Indian protagonist, but the social landscape around Aziz changes from British to Hindu across the novel's three parts. In the first two parts, there is no direct access to a Hindu character's thoughts; when Professor Godbole arrives for tea, 'polite and enigmatic', he 'only ate—ate and ate, smiling', saying nothing about religion (66), and the word 'perhaps' is used several times when other characters speculate on what he might be thinking. The settings of the first and second parts of the novel are introduced

[6] Santanu Das, '"In a Church, in a Cave": Cruising with E. M. Forster', *The Cambridge Quarterly*, 50 (2021), 143–58, 150.
[7] Sara Suleri, 'Amorphous India: Questions of Geography,' *Southwest Review*, 71 (1986), 389–400, 389.
[8] Aamir Mufti, *Enlightenment in the Colony: The Jewish Question and the Crisis of Postcolonial Culture* (Princeton, NJ, 2007), 1–2.
[9] Mufti, *Enlightenment in the Colony*, 2.

by a narrator who dismisses Chandrapore, which 'presents nothing extraordinary' (5), and is then awed by the Marabar Hills, which are 'like nothing else in the world' (116). Godbole's perspective comes into focus two years later, at the beginning of Part III, 'Temple'. In another fictional location, the Indian-ruled state of Mau, Godbole prepares for the Krishna festival; where Part I opens with a description of the down-at-heel colonial town, and Part II with the rocky outpost of the Marabar Hills, the Mau palace contains a courtyard of 'Hindus only', 'the toiling ryot, whom some call the "real" India' (270). English and Hindu forms lie either side of the Caves; by contrast, the Muslim festival Mohurram is mentioned in relation to a British fear of Muslim attacks, but is not directly represented. Aziz does not understand the 'living force' that Hinduism represents to its followers, 'any more than a Christian could' (289–90). His decision to support independence does not indicate conversion to or even much familiarity with Hinduism; neither the British nor the Hindus offer him a full sense of social incorporation. Instead, he allies himself with the force encroaching on English forms, and by doing so, he makes this force composite.

The vision of the nation emerging from these shifting alliances may well be a product of what Mohammed Shaheen calls Forster's 'evasive mind' which, he argues, 'succeeds in suspending the line of balance marking the fictitious from the real'.[10] Shaheen reads Forster against his apparent invitation 'to see him as noncommittal in politics and society'.[11] *A Passage to India*'s metaphors of unsettled ground indicate a conflict between the narrator's feelings about the likelihood of a unified Indian nationalism, and the Indian protagonist's hope for it. Suleri's argument that the novel displays an 'impulse to empty the area out of history, and to represent India as an amorphous state of mind' does not account, either, for its precise representation of the geological history of the Indo-Gangetic plain and the mountains above it. This essay reads the novel's anticolonial disturbance through its local landscapes of transformation: political, personal, and geological. I argue that *A Passage to India* is suspended in the antagonistic confrontation between caterpillar-like encroachment on one side, and the engulfment of surface-level architecture on the other, in moments of what Ben Woodard calls 'vertical ungrounding'.[12]

THE ANTICOLONIAL AS UNSETTLED GROUND

The abrupt turn to deep time in *A Passage to India* comes in a register of dark tourism when the narrator introduces the Caves at the beginning of Part II. Among the many clashing forms of knowledge in the novel, the narrator's geological consciousness is poised to encroach when the setting shifts beyond small-town colonial India. The Caves are an outpost for the novel's preoccupation with the problem of knowing, or getting to know, the 'real India', while the narrator is determined that they comprise their own image-system that escapes human projections, because 'they are older than all spirit' (116). Whether or not the narrator is right about the absence of ghosts in the Caves, the case for the exceptional quality of the Marabar Hills is not prompted by spiritual awe or anthropological curiosity, registers dealt with either ironically or disinterestedly, but conceived as a matter of geology. At this point, metaphors of political and geological transformation introduce questions about the novel's sedimentary layers: how deep does the colonial go, how indurated are its symbols of colonial rule, and what stable connections do rising political tensions displace or loosen?

[10] Mohammed Shaheen, 'Forster's Salute to Egypt', *Twentieth Century Literature*, 39 (1993), 32–46, 32.
[11] Shaheen, 'Forster's Salute to Egypt', 33.
[12] Ben Woodard, *On an Ungrounded Earth: Towards a New Geophilosophy* (New York, NY, 2013), 44.

The Barabar Caves are located in a part of the Indo-Gangetic plain prone to seismic activity, and eastern India was the site of the Great Earthquake of Assam and Bengal in 1897. The Earthquake was the first seismological case study to have shocks measured in seismology stations around the world. Forster's narrator finds the Marabar Hills peculiarly unspeakable, strangely hidden, oddly unmarked, and out of proportion—'even Buddha, who must have passed this way down the Bo Tree of Gya, shunned a renunciation more complete than his own, and has left no legend of struggle or victory in the Marabar' (116). The rock formations of the hills cannot be made into units of agricultural production, and they cannot be inhabited, so they yield nothing of value to British imperial interests. In her work on geology and the nineteenth-century novel, Buckland shows how important literary forms and structures were to early nineteenth-century geologists for making earth's features better understood.[13] While knowing that his incomplete calculations often exceeded the capacity of language to capture these features, Charles Lyell felt that European science could best comprehend these scales. If, as Buckland argues, geological imaginations relied on colonial habits of thought to close the gap between invisible scales, then these habits of thought tend to project sociopolitical transformation onto geological upheaval.

The real Barabar Caves are nodes in a network of spiritual and academic history, but the narrator suggests that the fictional Marabar Caves have been left alone by religious pilgrims, as if these pilgrims 'found too much' of the 'extraordinary' in them (116). While deep time might be read as an attempt to evade the chaos of the contemporary, the Caves are not comforting forms; the temporality they evoke is more frightening than reassuring. This said, it seems easier for the tour group to be bored or bemused by the Caves than to acknowledge the depth of anxiety about the subcontinental transformation of the present. The anxious tedium—carried over from Part I into the description of the Caves—lends an unsteadiness to the narrator's description of the hills. The Marabar Hills 'rise abruptly, insanely, without the proportion that is kept by the wildest hills elsewhere', as if their formation transgresses the reasonable movements of their relatives (115). Forster's narrator insists that the Caves are not uncanny, but their strange formation puts pressure on their visitors' ways of seeing, accustomed as they are to views of the plain.

The tectonic description of the Barabar Hills is 'a gently folded volcano-sedimentary pile in an intracratonic abortive rift'; that is, the surface-level product of folds moving northwards.[14] In the Geological Survey of India's aerial tectonic map of the seismic region between Bihar and Nepal, the Caves are a strange blot in the middle of a plain, wrinkles in a flat landscape, isolated from the larger complex of nearby hills. The nearest relatives in altitude of the surrounding lowland hill formations are hundreds of miles to the north. As composites of real location and fictional atmosphere, incongruous and place-making, the Caves plot the political climate of the novel's composition onto this outpost of hill and plain.

THRUST FAULTS AND FLUID ROCKS

A Passage to India's central scene of unseen intimate encroachment takes place on the site of a continuing collision between tectonic plates deep below the ground. The prose is charged by images of unsettled ground: ground that is both unstable and unoccupied. The landscape of the countryside outside Chandrapore is amorphous, as Suleri suggests, and it changes between characters' different apprehensions of it. These differences make it hard to determine whose perspective should be trusted more than others; Aziz's version of the novel's landscape is not

[13] See Adelene Buckland, 'Losing the Plot: The Geological Anti-Narrative', *19: Interdisciplinary Studies in the Long Nineteenth-Century*, 11 (2010), n.p.; and *Novel Science: Fiction and the Invention of Nineteenth-Century Geology* (Chicago, IL, 2013).

[14] Sujit Dasgupta, Prabhas Pande et al., *Seismotectonic Atlas of India and its Environs* (Kolkata, 2000), 27.

the same as the narrator's. Aziz's relationship with shifting ground is described through his encounters with European forms and takes place at sea level, while the Barabar Hills reach as high as 800 feet. The fault-line of the Marabar Hills plots a difference between horizontal vision and sensorial depth, between not seeing clearly and feeling too deeply. As Adela, Aziz, and the unnamed guide walk towards the Caves without the aid of this aerial perspective, the boulders and the stones begin to speak:

> The air felt like a warm bath into which hotter water is trickling constantly, the temperature rose and rose, the boulders said, 'I am alive,' the small stones answered, 'I am almost alive.' Between the chinks lay the ashes of little plants. They meant to climb to the rocking-stone on the summit, but it was too far, and they contented themselves with the big group of caves. (141)

The dialogue between boulder and stone could be a hallucination produced by the rising temperature and the 'slightly tedious expedition' to the Caves. This hallucination seems to be shared as the characters move through the humid air without the relief of conjunctions. The respite of organic life—the 'little plants'—is foreclosed by their ashiness: there is only residue. 'Ash' is an odd term for the remains of dead plants, and more appropriate for the immediate aftermath of volcanic explosions—as if the eruption that formed the hills had happened recently enough for the evidence of its wreckage to remain visible. There is a sense of being depressed by a tectonic environment: the perspective faces the ground, and the heat prevents the group from climbing higher. The small comedy of sedimentary interaction before the accusation that precipitates the novel's '"earthquake"', to use Fielding's later term, the stones and boulders chattering to each other, does not form the foundations of human security. These strange sound-images pass across the prose between commas, the dust of minor details trailing the people, not worth the conversion from loose earthly sounds to human dialogue. The possibility of another narrative time-lapse mediated by a hazy impression is held off by the collective decision not to venture higher. This time of rocks and stones remains half-perceived through the impressions of the visitors, and un-investigated.

In the early 1880s, two groups of geologists independently identified breaks in the earth's crust, when older rocks from lower levels of the earth moved above younger, higher ones. These were termed 'thrust-faults', the geological trace of old pathways for fluid flows of earthquakes. At the Glarus Fault in the Alps, Arnold Escher Von Der Linth, Albert Heim and Marcel Alexandre Bertrand, and the Moine Fault in the Scottish Highlands, Charles Lapworth, Benjamin Peach and John Horne recorded visible layers in the geological record of these faults which proved that large masses of rock had been thrust across the earth, sometimes across distances of several or hundreds of kilometres. They found that the rocks of these faults had been subject to compression and stretching. Archibald Geikie was the first to use the term 'thrust-plane' to describe a reverse fault in the Eriboll Tract in the North-West Highlands. He recreated its imagined genesis in an 1884 report in *Nature*:

> The thrust from the eastward against this ridge must have been of the most gigantic kind, for huge slices, hundreds of feet in thickness, were shorn off from the quartzites, limestones, red sandstones, and gneiss, and were pushed for miles to the westward. During this process, all the rocks driven forward by it had their original structure more or less completely effaced. [15]

[15] Archibald Geikie, 'The Crystalline Rocks of the Scottish Highlands', *Nature*, 31 (1884), 29–31, 30.

The idea of a human observer being close enough to these enormous propulsions to witness them in real time is both terrifying and impossible. Geikie's language is that of an Exodus retribution wrought on Earth, before human habitation: 'terrestrial displacements' and 'extraordinary dislocations' of rocks thrust over miles, creating 'foldings and ruptures' in the crust, which produce 'a peculiar streaked structure which reminds one of the fluxion lines of an eruptive rock'.[16] His description conveys the fluidity of this process: the rocks move like waves across the surface of the earth, changing form and shape as they are pushed forward.

Forster introduces the Marabar Caves as remnants of a tumultuous geological event: 'The mountains rose, their debris silted up the oceans, and gods took their seats on them and contrived the river, and the India we call immemorial came into being. But India is really far older' (115). It is impossible to go back far enough, these lines seem to say. 'Far', an adverb overpowered by its adjectival form, is an imprecise measurement that collapses into the distance of deep time. These sentences are constructions of expansion, and the sense of the ancient in the paragraph comes from a long, composite process of upheaval; the ancient is not the gods who took their seats at the summits of the mountains, but a topographic rearrangement:

> In the days of the prehistoric ocean the southern part of the peninsula already existed, and the high places of Dravidia have been land since land began, and have seen on the one side the sinking of a continent that joined them to Africa, and on the other the upheaval of the Himalayas from a sea. (115)

India came to be the shape that it is through the loss of land mass on one side, and the sedimentary 'upheaval' of the Himalayas that now join it to Eurasia, when the waters of the Tethys were closed by the piling of rocks. Argand describes the 'closing of the Tethys Sea' as a 'collision of jaws' which produced a 'dynamic solidarity' out of a 'moving flux' (*TA* 56). Forster's account suggests a kind of tilting, one side of a continent sinking while the other rises. The difference between south-west and north-east is measured as a reversal in height: the south-west is submerged, while layers of rock under a disappeared ocean have risen to become some of the highest places on Earth.

Aziz is attuned to the fluidity of his surroundings, even as he seeks solid ground. His awkward, abbreviated, and emphatic uses of English—'oh, please!' 'did not send'—interrupt the tidy grammar of the English visitors. Through sudden jumps of mood and allegiance, Aziz's transformation over the course of the novel is formed by uncomfortable, ad hoc compromises between his unarticulated criticisms of English behaviour and his growing commitment to an India ruled by Indians. Part I ends with Aziz reflecting on his friendship with Fielding. Fielding has been courting danger by speaking frankly in front of the nationalists Ram Chand and Rafi. He has said that he does not believe in God, a sentiment that proves something general to the men to whom he is speaking about the troubling things they have heard about English atheism. Aziz asks Fielding if he will '"promise to come at once to us when you are in trouble"' (112). Fielding dismisses this offer of help: '"I never can be in trouble"' (112). Socially, this declaration shows that Fielding considers himself impervious to criticism; structurally, it distances Fielding's security in his secular sense of being from Aziz's religious sensitivity by placing him in an enclosure impervious to exterior disturbance. Fielding cannot rely on Aziz, because that would be to admit to instability, and that the walls of this secure existence are weaker than they seem. Fielding, Aziz sees, 'has nothing to lose', while Aziz is 'rooted in society and Islam' (121). After this exchange, Aziz realizes that although he lives 'vaguely in

[16] Geikie, 'The Crystalline Rocks', 30–31.

this flimsy bungalow, nevertheless he was placed, placed' (121). He and Fielding might be 'friends, brothers', but while Aziz thinks of himself as rooted in place, Fielding describes his role in India as '"teaching people to be individuals"' (121). This fault-line mixes the natural metaphor of rootedness and place with a question over the limits of social compromise. Fielding's limits are clear, while Aziz's are in flux. By the end of the novel, both have been forced to change their positions: Fielding, to acknowledge his commitment to 'his own people' (303), and Aziz, to the people 'placed, placed' like him. On one side there is imperial anxiety about an independent India and religious zealotry, and on the other a realization that the lack of interest of Raj governance in religious forms weakens its position. This is also an argument about what can be expressed at a given moment depending on one's opinion at the time, and what it is prudent or possible to say. Fielding does not perceive himself to be in conflict with the nationalists, while Aziz sees ground being taken in the nationalists' argument against a centralized secular democracy, and for decentralized Swaraj self-governance.

Four years after the 1918 Armistice, Argand described the collision between the Indo-African and Eurasian continental plates as a 'duel' that took place over a 'front of 12,000 kilometres' (*TA* 53). On the Indian side, 'attacking folds' launched 'partial offensives' against the northern side. In Argand's version of geological time, the Himalayas are not spaces of ascetic retreat but a millennia-long battle 'caught in motion' (*TA* 54). He describes the conclusion of this duel not as a triumph of one plate over the other, but as a 'dynamic solidarity' between continents that become one solid land mass through the mountain chain that joins them. Imagining this collision as solidarity is one example of Argand's tectonic poetics, and his insistence that the impression of these forms as permanent or fixed is illusory. The epilogue of *Tectonics of Asia* concludes:

> Day after day, through infinite time, the scenery has changed in imperceptible features. Let us smile at the illusion of eternity that appears in these things, and while so many temporary aspects fade away, let us listen to the ancient hymn, the spectacular song of the seas, that has saluted so many chains rising to the light. (*TA* 164)

In inventing methods to measure geological depths and topographical phenomena, geologists should not forget that all this is subject to change, Argand suggests. What remains, what can be counted on, is a song, not a fixed landscape. While continents seem solid, and while the ground underfoot may appear to be stable, this sound endures. To Argand, the lands of Asia curve and bend over millennia, rising from and falling into the water. Being 'placed' is a matter of how long ago or how far back someone extends their perspective. What is visible now are the remains of so many duels, which will continue to alter the shape of the continents.

Forster's narrator describes this transformation in a less romantic key: 'As Himalayan India rose, this India, the primal, has been depressed, and is slowly re-entering the curve of the earth' (115). Directly after Aziz's silent criticism of Fielding, the novel moves into its description of orogenic transformation, joining the threat of civilizational clashes that concludes the novel's first part to the geological encroachment that formed the Marabar Hills:

> It may be in aeons to come an ocean will flow here too, and cover the sun-born rocks with slime. Meanwhile the plain of the Ganges encroaches on them with something of the sea's action. They are sinking beneath the newer lands. Their main mass is untouched, but at the edge their outposts have been cut off and stand knee-deep, throat-deep, in the advancing soil. (115)

'Throat-deep' is a dramatic way to talk about mountain foothills: it imagines a body out of its depth, bound in sediment. In language similar to Argand's metaphor of an intercontinental duel, Forster applies the vocabulary of oceanic movement ('something of the sea's action') to dry sediment, imagining wave movements that take place over thousands of years. There is an ambivalence around—even distaste for—organic life, with the innocence of 'sun-born rocks' threatened by the creep of 'slime'. If this passage is read as a metaphor of political transformation, and following the coding of the Himalayas in the novel's first part as a place of refuge from lowland conflicts, it anticipates a time when these conflicts will encroach upon the enjoyment of the mountains as spaces of spectacle and retreat for the English, forcing the horizontal perspectives of the English to look at what is below them. Woodard uses the term 'vertical ungrounding' to describe the effect of force on the earth's surface 'which threatens to undo the ground below its deepest territorial depths'.[17] The introduction to 'Caves' figures socio-political transformation as geophysical process. It unsettles the depth of colonial influence on the landscape of the novel, marking the arrival of a lowland Indian modernity. In the next section, the essay examines this metaphor of encroachment in the context of Forster's other writings on India before turning to a discussion of Fielding's suggestive use of 'earthquake' to describe the immediate events of 'Caves'.

ENCROACHMENT AND EARTHQUAKE

Playing geological wonder against socio-political or historical specificity sets what John Beer calls the hostility of 'the finite intractability of rock' against a fertile plain.[18] The 1793 Permanent Settlement between the East India Company and local rulers created a new class of private landholders (zamindars) to fix land revenues and ensure regular income: this was a way for Britain to recover from the 'embarrassment' of stranded imperial domination in India after the Bengal Famine. As Ranajit Guha puts it, 'In order to prevent [English domination] from doing mischief, it had to be held fast to the ground by an intricate mesh of policy inhibiting all movement', regulating and legislating Britain's economic interests in India.[19] Guha's metaphor of British rule as a body needing to be 'held fast' to the ground evokes tension ropes and dug-out foundations, the 'mesh of policy' fixing British interests in an attempt to construct a more stable colonial presence: colony-making to ground and legislate imperial profiteering.

In Forster's earlier descriptions of Indian mountains and hills, they appear as backdrops for minor scenes of royal court life, or as sites of exhausted resources. In 'The Machine Stops' (1909), the Himalayas are former sites of extraction. The story is set in a future when humans can no longer inhabit Earth because of its toxic atmosphere; survivors live on airships, pressing buttons for food, clothes, baths, and communication with other humans. Some unnamed global catastrophe has happened, while the mountains remain constant and visible: static, remote objects upon which the reproductive zones of human bodies can be projected: 'the snows were awakening to their morning glory, and clouds still hung on the breasts of Kinchinjunga' [*sic*].[20] In his nonfiction writing on India, Forster describes the curious charge of being an Englishman on an elephant and employee of a princely court in the countryside. This special status renders him conspicuous and vulnerable to insults from both colonial bureaucrats and Hindu nationalists. In a 1921 letter titled 'The Insult', in *The Hill of Devi*, Forster relates being 'insulted' during a visit by a colonial agent to Dewas Senior after he is excluded from an honour, the ceremonial distribution of pan and attar held back by the agent's English Chief of Staff

[17] Woodard, *On an Ungrounded Earth*, 44.
[18] John Beer, 'The Undying Worm', in Malcolm Bradbury (ed.), *E. M. Forster: A Passage to India. A Casebook* (London, 1970), 186–215, 195.
[19] Ranajit Guha, *A Rule of Property for Bengal* (Durham, NC, 1996), 168.
[20] E. M. Forster, 'The Machine Stops' (1909), *The Machine Stops and Other Stories* (London, 2024), 7.

when he reaches Forster in the line.[21] Forster is out of place. The 'insult' indicates some limit-point for British politicking in the princely states, and for relations of proximity between Indian and English assistants: 'what this means in an Indian Court you can't imagine', he informs his mother.[22] In Forster's accompanying commentary on this letter, he recounts another insult. Riding an elephant in Nagpur, he is 'mocked at by supporters of Swaraj', and he recognizes that it is because he is 'an Englishman on an elephant'.[23] These two incidents give a sense of the contemporary tensions that Forster's exceptional position draws out. He writes himself as a provocation in these situations: in his subservient position in the Maharajah's court, he undermines the authority of Raj governance over princely states; and in his seat on top of an elephant, looking down, he restates the supremacy of British governors over Indian subjects. Both insults happen in spaces outside the colonial metropolis where Forster is an Englishman unaccounted for in the social provisions of the locality, and because of a relative lack of surveillance on the insulters.

This equivalence between insults was fast disappearing as one side declined in power, while the other was rising. His 1922 essay, 'The Mind of the Indian Native State', satirizes the colonial agent as 'a wilted and almost pathetic figure', collapsing at the 'slightest resistance', who has become 'abjectly polite', compelled now to 'see the point of an Oriental joke' and to 'instruct his chuprassies not to rob his hosts'.[24] This was because, in Forster's analysis, the British needed to use the Native Princes as 'counter-weights against the new Nationalism': a unified India would strip these states of power, wealth, and influence. Democratic nationalism was not in their interests, and on this the British and the princely states were in agreement, resulting in 'curious alliances'.[25] The essay captures a particular moment of Indian nationalism, where 'a Gandhi succeeds to a Tilak', as he puts it: 'a new spirit has entered India'.[26] He describes this new spirit as a manifestation of a global situation of 'Non-Cooperation' (anti-imperial internationalism) whose political aspirations bear closer resemblance to what the British had attempted to implement—a central government for a federal system—than the remote tyranny of the princely states. Forster's simplification of Swaraj might be attributed to the dominance of English commentary at the time he was writing: his encounters with nationalists were limited to newspaper reports and second-hand accounts. In December 1912, members of the Bengali anticolonial organization, Anushilan Samiti, threw a bomb at Charles Hardinge, the Viceroy of India, during a ceremonial procession through Delhi. Hardinge was seated on an elephant at the time.[27] Forster was on his first trip to Dewas when it happened, and heard an account of it from his friend Malcolm Darling when Darling arrived in Dewas soon after.[28] The bomb incident was an important moment for Forster's understanding of revolutionary nationalism in India and the danger it might pose to Delhi's Muslim communities. Forster's friend Syed Ross Masood, son of Syed Ahmed Khan, was part of a line of liberal Muslim reformers who promoted social mobility for Muslims via appeasement of and assimilation into Raj governance, rather than armed

[21] Forster, 'Letters of 1921', in *The Hill of Devi* (London, 1953), 29–99, 57.
[22] Forster, 'Letters of 1921', 58.
[23] Forster, 'Letters of 1921', 59.
[24] Forster, 'The Mind of the Indian Native State', in *Abinger Harvest* (London, 1936), 318–27, 318.
[25] Forster, 'The Mind of the Indian Native State', 339.
[26] Forster, 'The Mind of the Indian Native State', 319, 327.
[27] For broader context on the Delhi bomb incident, see Sumit Sarkar, 'Political and Social Movements 1905–1917', in *Modern India 1885–1947* (London, 1989), 96–164; Peter Heehs, *The Bomb in Bengal: The Rise of Revolutionary Terrorism in India, 1900–1910* (New York, NY, 1993); Amit Kumar Gupta, 'Defying Death: Nationalist Revolutionism in India, 1897–1938', *Social Scientist*, 25 (1997), 3–27; and Joseph McQuade, 'The Magical Lore of Bengal: Surveillance, Swadeshi, and Propaganda by Bomb, 1890s to 1913', *A Genealogy of Terrorism: Colonial Law and the Origins of an Idea* (Cambridge, 2021), 83–124.
[28] Forster, 'Letters of 1912–13', in *The Hill of Devi*, 5–16, 6.

resistance: 'The Mahommedans are in the most frightful state because Delhi is their city, and the bomb was probably thrown by some Hindu, who was angry at the transfer of the capital from Calcutta', Forster writes.[29] 10 years later, in his 1922 essay, Forster mocks the imperial fetishism of the Anglo-Indians who look to the Native Princes as Englishmen looked to pre-Weimar Germany, as an example of autocratic strength: '"They stand no nonsense over there," is their attitude'.[30] Nonetheless, Forster's own attitude was to perceive this new spirit of Non-Cooperation as a threat; in 1912, to India's Muslim communities, and in 1922, to the political forms of pre-colonial India represented by the princely states.

A Passage to India expresses this rising turmoil where Forster's earlier writings evade it. While the narrator uses the language of orogeny and plate tectonics, Fielding's awareness of the possibilities of geological metaphors is more explicit. In his final conversation with Adela after the trial, he describes the events since the trip to the Caves as an 'earthquake' (149). Both of them have reached the end of their 'spiritual tether', unable to tell whether there truly are 'worlds beyond which they could never touch':

> They only realized that their outlook was more or less similar, and found in this a satisfaction. Perhaps life is a mystery, not a muddle; they could not tell. Perhaps the hundred Indias which fuss and squabble so tiresomely are one, and the universe they mirror is one. They had not the apparatus for judging. (248)

There is a rueful exhaustion in this conversation, and a possibility left open. Adela cannot remember further into the cave than when she '"ran [her] finger along that polished wall in the dark"'—a wall that mirrors back its subject with the light from the narrow entrance, before the visitor reaches the dark, circular meditation room, which empties out human words into sonic resonance. Beyond that memory, she is '"up against something,"' she says to Fielding, '"and so are you"' (248). Whatever it is, it goes beyond what can be touched or understood. There seems to be a shared apprehension that some missing apparatus exists for measuring this, and that the absence of such a scientific instrument is more reassuring than the prospect of supernatural perception. Adela withdraws telepathy as a possible explanation, and the narrative moves towards consensus on a shared outlook as they mirror each other across the room, which is now missing two of its previous human dimensions, embodied in Mrs Moore and Aziz. In comparison to a four-planed conversation in Part I when Aziz finds himself 'out of his depth' in Fielding's rooms (63), Fielding and Adela now stand in a broken house, and above and below them is an unmeasurable 'universe'. Fielding's euphemistic use of 'earthquake' comes a few lines later, in words that are spoken aloud: Fielding will not be obliged to resign his job: '"I really get on with Indians, and they do trust me,"' he says, and, he goes on, '"until the next earthquake I remain as I am"' (248–9). Outside the walls of this conversation, a 'Hindu-Moslem entente' is taking place as a result of the trial, but Fielding's sense of his own personal qualities—being liked and trusted—override these external threats to his 'remaining as he is': in India, in his job, and in his enclosure of self-assurance. To Fielding, the events leading up to this would seem like an 'earthquake': an unanticipated upheaval against which he has little control and which he can only see out and survive.

Fielding's use of 'earthquake' can be read through a broader colonial imaginary of the South as seismic-prone. In her study of the Spanish poet Garcilaso de la Vego, who settled in a seismic-prone Cusco during the sixteenth century, Anna Brickhouse argues that Garcilaso's

[29] Forster, 'Letters of 1912–13', 6.
[30] Forster, 'The Mind of the Indian Native State', 325.

portrayal of Peru and Chile as a 'land of earthquakes and tremors' was a way to 'narrate the rupture of conquest, but also a critical idiom of terremoto [mobile earth] for telling the story of Indigenous efforts to destroy colonial settlement'.[31] By portraying this area of the world as an earthquake-prone 'torrid zone', Garcilaso participated in a widespread imaginative mapping of geophysical catastrophe onto the South—what Brickhouse calls the 'moral southernising of catastrophe'—in a 'prehistory of disaster capitalism'; by contrast—and here she invokes Voltaire—the North would 'enrich itself on your losses'.[32] There is something comparable at work in Fielding's use of 'earthquake', which is the only time the word is used in Forster's novel. Its intended irony lightens the tone of a difficult conversation; he does not have to resign his job, but he is resigned to the volatile situation of his surroundings. It is a gesture of reassurance that acknowledges hidden tremors in the landscape affecting his and Adela's ability to judge what has happened accurately.

Fielding's apprehension of the subterranean volatility of their surroundings recalls what the geologist Richard Dixon Oldham had called 'unfelt disturbances'.[33] The word 'earthquake' introduces another regional context for Forster's choice of Bihar for the setting of *A Passage to India*. In June 1897, tremors of the Great Earthquake of Assam and Bengal reverberated from its epicentre on the Shillong Plateau across the world, killing 1600 people and causing huge damage to buildings and towns, and reaching the lowland plains of the Barabar Caves. Reports of the earthquake reached Britain in eye-witness accounts in the *London Times*.[34] The earthquake created a rupture that lifted the northern edge of the Shillong Plateau by 11 metres and made it shorter. It was what seismologists Roger Bilham and Philip England describe as a rare 'giant plateau-building earthquake' which occurs every 3000 years, indicating the vulnerability of parts of what is now Bangladesh to seismic activity.[35] The 1897 earthquake's movements were also recorded in seismology stations across Europe—Rome, Padua, Siena, Pavia, Potsdam, Grenoble, the Isle of Wight, and Edinburgh—and prompted an international effort to interpret the types of movement recorded across its duration: first, an undulating movement of the ground; second, distinct undulations of longer wave periods, and third, great oscillations (*RGE* 239). It was an opportunity for seismologists to speculate on the 'unfelt disturbances' that precipitate earthquakes, a combination of horizontal and vertical forces compressing and lifting earth and its objects in what Oldham called seismic waves.

Oldham was an assistant superintendent for the Geological Survey of India at the time of the earthquake and wrote an extensive report on it for its *Memoirs*. He identified two classes of ground fissure caused by earthquakes: ones that start at the surface and penetrate down, and ones of 'deep-seated origin', a fracture which 'comes upwards from below' (*RGE* 86). These upward-travelling fractures are the source of the wave motion that causes disturbances in surface soil, and sometimes of solid rock. These fissures in the juncture of hill and plain were visible in the earthquake's aftermath:

> The thrust of the hill and plain against one another has caused the alluvium to be thrust forward and raised into the low ridge or roll [...] while on the return a space was left which could not be filled up by the alluvial soil without its surface being lowered. (*RGE* 93)

[31] Anna Brickhouse, 'Earthquake and Whale', *Leviathan*, 20 (2018), 85–102, 90.
[32] Brickhouse, *Earthquake and Whale*, 90.
[33] Richard Dixon Oldham, 'Report of the Great Earthquake of 12th June 1897', *Memoirs of the Geological Survey of India*, 29 (1899), v–379, 227. All subsequent quotations from 'Report of the Great Earthquake' will be abbreviated as *RGE*.
[34] 'Earthquake in India', *London Times*, 16 June 1897. The *Times* ran regular reports on the earthquake between 16 June and 10 August 1897.
[35] Roger Bilham and Philip England, 'The Shillong Plateau and the Great 1897 Assam Earthquake', *Tectonics*, 34 (2015), 1792–812, 1808.

Alluvium is ground thrusted about, an unsettled combination of clay, silt, sand and gravel. Its lack of consolidation means that it is easily moved around and deposited in new places by sources of intense pressure like the flows of rivers, or underground movements, or by what Oldham called *P* waves: seismic waves. By tracking and plotting the arrival times of *P* waves, it was possible to interpret the effects of the earthquake. The Geological Survey used these maps to form new hypotheses on the inner structure of Earth.

These waves were measured in part by relying on eye-witness accounts, mostly from colonial sources. Oldham's report does not start with numbers, but with narrative. Over these narrative accounts, he drew isoseismic lines, producing a map of seismic intensity by assessing what kind of shock was felt, where, and to what degree. The first account, classed as 'Personal Experience', is from F. H. Smith, a GSI employee in Shillong: 'At 5.15 [...] a deep rumbling sound, like near thunder, commenced, apparently coming from the south or south-west, followed immediately by the shock' (*RGE* 4). Smith goes on to describe this 'rumbling', which came a few seconds before the shock, before 'the ground began to rock violently, and in a few seconds it was impossible to stand upright, and I had to sit down suddenly on the road' (*RGE* 4). He watched as long cracks appeared on the road, an earth-bank around a water tank started to shake, and the banks at the side of the road flattened around him. Shillong's Assistant Superintendent of Telegraphs estimated its whole duration to be 'about 1 ½ minutes', and found the direction difficult to determine: 'The hill I was on at the time simply felt as if it was being rapidly moved in a horizontal plane backwards and forwards', a motion 'so violent' that he had to 'crawl on [his] hands and knees and hold on to a tree for support' (*RGE* 7). A journalist writing in the *Pioneer* newspaper says that theirs are 'the personal impressions of one who has had little, if any, scientific training', and gives an account similar to the others: 'the movements seemed to me to be distinctly horizontal and undulating, the surface of the earth presenting the aspect of a storm-tossed sea' (*RGE* 7). The writers of these accounts are unable to determine anything definitive about the length of the earthquake or the direction of the waves, through lack either of measuring devices or of scientific training. These are descriptive impressions of the shock, and Oldham can only use their similarities to indicate consensus. Despite this imprecision, Oldham relies on these narrative accounts more than Indian records. Discussing reports on the earthquake's aftershocks from the Goalpara district, Rupsi, and the Kamrup district in the 'extreme north', to use his phrase, where colonial presence was limited or non-existent, Oldham casts doubt on Indian records of seismic experiences, 'which might be considered to be tainted with the inaccuracy attaching to most Indian statistics'(*RGE* 127). 'Independent and unquestionable evidence' comes from Gauhati [Guwahati], which had a larger colonial presence (*RGE* 127). In Oldham's report, seismic waves are plotted onto European descriptions of experiencing their effects.

'Earthquake' is a striking metaphor for Fielding to use because the long-term effects of an earthquake on its epicentral surroundings are difficult to ascertain immediately. As a colonial witness whose testimony might have been given greater weight than Indian accounts, Fielding's private comparison of the trial and its aftershocks to an 'earthquake' suggests his inability to comprehend the origin of these events. He is able to acknowledge that something catastrophic has happened, but does not consider what this might mean about the instability of particular forms, not least the local political pressure placed on the British legal system from outside the courtroom which unsettles the testimony of the central witness. And the seismic metaphor introduces another geological line of enquiry: how deep do colonial markings of space go? The final section of this essay considers the submergence of hardened vertical forms alongside the horizontal displacement of rocks as Forster's own topographical rearrangement of the four central characters. This tilting transforms Fielding's former complacence about his position in

India into an expression of his desire to remain close to Aziz. In a time-lapse of orogenic process, the two can remain near each other as sedimentary layers in a geologic record of different human epochs, but in the seismic time of the present, they are 'swerved apart' and must remain in 'single-file' (306). As Fielding's reliability diminishes, the ending of the novel stretches out the difficulty of establishing the truth of an event across this racial hierarchy.

INDURATION, DISPLACEMENT, AND RESONANCE

If the final conversation between Adela and Fielding in India is missing two dimensions, this final section follows what happens to those lost perspectives. One of them hardens, while the other is displaced: Mrs Moore and Dr Aziz are last seen outside Chandrapore, on either side of the subcontinent, one of them sinking while the other is propelled horizontally across the plain, mirroring the encroachment of sea-like sediment moving in waves across the older forms of the 'sun-born rocks'. By the end of the novel, neither character is legible within European approximations. Forster's geolocal precision includes the place of Mrs Moore's death, and specifically its latitude: she dies just north of Bombay, south of the horse latitudes 30 degrees north of the equator, a climatic zone which according to Chandrapore's District Superintendent of Police, causes '"all unfortunate natives [to be] criminals at heart"' (156). The horse latitudes describe still places of calm winds on either side of the equator where the occupants of stalled ships sailing to the New World would throw the horses they carried into the sea to conserve drinking water. Mrs Moore's body is lowered into the sea below the edge of the Eurasian continent after her own process of hardening. In her final conversation with Adela,

> Mrs Moore showed no inclination to be helpful. A sort of resentment emanated from her. She seemed to say, 'Am I to be bothered for ever?' Her Christian tenderness had gone, or had developed into a hardness, a just irritation against the human race; she had taken no interest in the arrest, asked scarcely any questions, and had refused to leave her bed on the awful last night of Mohurram, when an attack was expected on the bungalow. (187)

In geology, induration, meaning the hardening of rocks, taken from the Proto-Indo-European root deru- ('be firm, solid, steadfast'), referred originally to objects made of wood and was later applied to bodies and alchemical processes; it is now also used as a medical term meaning the thickening of skin. Rocks harden because they are cemented by soil, or because they are compacted together, or because the heat of igneous movement bakes them together.[36] This passage gives some explanation of the process Mrs Moore has undergone since the trip to the Caves. The perspective is Adela's: Mrs Moore is interpreted, horizontally, anxiously, from the outside, a mysterious form on which Adela can project an alternative version of the present; her hardness allows Adela to acknowledge Mrs Moore's 'irritation' as 'just'. An unreadable quality 'emanates' from Mrs Moore, as if she has become an object with alchemical properties. She no longer offers the defence of 'Christian tenderness' against the Ashura festivity that might (but does not) prompt an overflow of Muslim feeling to hit the European dwelling. Mrs Moore becomes a hardened piece of sediment sinking into the ocean, thousands of feet below the surface of the earth.

By contrast, Aziz is last seen on the plain, among the rocks, as the horses that he and Fielding ride—still alive—'swerved apart', after Aziz declares: '"we shall drive every blasted Englishman into the sea"' (306). He is propelled in these final pages away from colonial dependence. The final passage of the novel is a declaration if not of independence, then of forces

[36] Rhodes W. Fairbridge, 'Induration', in *Geomorphology: Encyclopaedia of Earth Science* (New York, NY, 1968), 188.

compacted and compressed rising to the surface of the social, fissuring ground-level compromises continually made vulnerable by the unexpected topography of the earth's movements: 'the earth didn't want it, sending up rocks through which riders must pass in single-file' (306). This earthy resistance to human 'want' might be read as a way to mysticize or even parody the political forces of anticolonial organization Aziz articulates. However, the novel's interest in geological metaphors suggests that the sediments of English presence will in time become yet one more layer of the rocks from which plateaux emerge. It shifts the landscape from the claustrophobia of Adela's horizontal view of the Marabar Hills 'through a nick in the hedge' to a view of Mau from above as Aziz and Fielding move through the single-file pass to the other side: 'the temples, the tank, the jail, the palace, the birds, the carrion, the Guest House, that came into view as they issued from the gap and saw Mau beneath: they didn't want it, they said in their hundred voices' (306). The novel's final words on the possibility of connection in postcolonial India—'"No, not yet,"'—allow this refusal to proliferate sonically. The novel ends with the psychic displacement of these two characters, no longer able to cooperate because there is no longer the alibi of not seeing far enough. Having moved as individuals through the pass formed by displaced rocks, they share a vantage point on the forms that jostle against each other on the plain, while the discomfort of feeling too much overwhelms the conclusion: '"It's what I want. It's what you want"', says Fielding, finally articulating the conflict of personal desire and political tumult that means he is unlikely to experience another Indian 'earthquake'.

As Mrs Moore leaves India, she is haunted by the memory of the Caves' resonance: 'Before time, it was before space also. Something snub-nosed, incapable of generosity—the undying worm itself' (196). Instead of providing the relief of a horizontal view, the Caves taunt Mrs Moore with the source of the flies in Aziz's small and shabby dwelling: the mud, the ground, and sources of life. Her terror suggests that some openness towards life in its various forms, some lively benevolence in Mrs Moore, has hardened into disenchantment, shutting down her desire to engage with it at all. These two missing dimensions exceed the narrator's anxieties about anticolonial encroachment, and the author's political evasions. In the Caves, the mimesis of physical, psychic, and dialogic colonial architecture, practised so painstakingly by Aziz in Fielding's rooms, falls away; they will not mimic human sounds, and in their place, there is a sonic resonance. This resonance is registered through an apprehension of anticolonial disturbance, where vertical hardness sinks below the surface of the earth while horizontal looseness moves forward. The sonic resonance emanating from competing cultural sites is anticipated by the decisive moment of the trial. When Adela must confirm what happened, the Caves proliferate: 'Her vision was of several caves. She saw herself in one, and she was also outside it, watching its entrance, for Aziz to pass in' (215). The atmosphere of the Caves exceeds the culture clashes of Forster's earlier novels by shifting the vexed architecture of European morality into a darkness liable to encroach on its visitors without warning, where horizontal and vertical forces move invisibly.

The Marabar Caves are the composite figure of the novel's anticolonial aesthetics, going beyond its author's defences of India's pre-colonial civilizations and an aristocratic democracy in his letters and essays.[37] They register the socio-political disturbances of dissent, felt and unfelt, as well as being remnants of a tumultuous event whose meaning cannot be seen or

[37] For a discussion of Forster's idea of an 'aristocratic democracy' as a counter to Rudyard Kipling's 'authoritarian aesthetics', see Michael Lackey, 'E. M. Forster's "Kipling's Poems": Negotiating the Modernist Shift from "the authoritarian stock-in-trade" to an Aristocratic Democracy', *Journal of Modern Literature*, 30 (2007), 1–11.

deciphered. They are a symbol for and location of an ongoing encroachment which pushes against the stable mythological architecture of European settlers. In place of declarations of speech, there are reverberations of sound, and instead of a written constitution, there is an atmosphere of disturbance. As Aziz jumps between sympathies on shifting ground, he is propelled out of colonial descriptions of landscape and event into unsettled sediments of anticolonial feeling at the outpost of hill and plain.

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