

The Plantation’s Outsides: The Work of Settlement in Kalimpong, India

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Henry Raymond Edmunds was born around 1888, most likely on a tea plantation in the Dooars region of what is now West Bengal. The son of a white father and an Indian mother, he would have been labeled by the colonial establishment as “half-caste,” a “Eurasian child.” His documented life begins in an orphanage run by the American Protestant Mission in the Bengal administrative center of Asansol in the early 1900s.¹ Despite these humble beginnings, by 1922, he had become Superintendent of Agriculture for the Darjeeling District, and in 1935, he was given an MBE for his services to imperial agronomy. Today, Edmunds is nearly forgotten, both in India and in Britain. What remains of his biography is available only in fragments, yet his story, that of an orphaned Anglo-Indian child who became a senior civil servant and scientist in the British colonial bureaucracy, is instructive for understanding the racial logics and practices of colonial land acquisition, or “settlement,” on India’s geographical margins.

Though Edmunds’ life and career coincided with the economic apex of plantation-based tea production in India, he was never himself a tea planter. He spent his career on the outsides of the plantations, in the missionary and agricultural enclave of Kalimpong, across the Teesta River from the famed tea plantations of Darjeeling. The heroes of most colonial accounts of the greater Darjeeling region tend to be white planters, whose memoirs tell of felling native forests, recruiting armies of laborers, and blanketing the steep Himalayan foothills in a lucrative monoculture. In the area that is now West

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¹ Interview with Henry’s son David Edmunds, 14 Oct. 2019.

Bengal, these monocultured resources were—and continue to be—tea, cinchona, and timber.

The history of Kalimpong and the work of people like Henry Edmunds, however, highlight that in order to understand how colonial governance worked in the Indian Himalaya, it is necessary to attend to a variety of land tenure and labor arrangements beyond the plantation. To this day, residents of Kalimpong maintain that they occupy a “green belt,” an explicit and deliberate contrast—an outside—to the region’s most notable crop production system.

Central to colonial governance on the margins of British India was the notion of “settlement.” Settlement was an experimental process rather than a predetermined one. British governors attempted to put non-plantation space to multiple uses. In this sense, their work might be termed “biopolitical” (or, in Kregg Hetherington’s [2020] terms, “agribiopolitical”), in that it was geared toward supporting and amplifying the life chances of certain human bodies and certain botanical species (tea workers and tea, of course, but as I show below, small farmers and a variety of food crops as well) (Foucault 1978). Through a series of experiments, colonial agents made calculated choices about which of these forms of life should be made to flourish, and which might be allowed to perish. Importantly, this biopolitical project was not rolled out in a coherent or deliberately sequential manner. Settlement was, and continues to be, sedimented, with experiments in agronomy, Christian missionary education, and geography lying over one another across decades of colonial and postcolonial development. This was manifested most clearly in the creation of so-called “demonstration farms,” which brought together colonial authorities like Edmunds, the Protestant missionaries who educated him, and the Nepali, Lepcha, and Bhutia people who occupied the smallholdings of Kalimpong.

Settlement is perhaps the quintessential colonial aspiration and technique, but it has taken different forms, from the proactive invasion of stolen land by white populations, to the transformation of rangeland into pasture, to the educational (or penal) effort to “civilize” and discipline Indigenous peoples (Wainwright 2008; Edwards 2003; Pandian 2011; Kauanui 2016; Wolfe 2006; Tuck and Gaztambide-Fernández 2013). Colonial settlement in India was distinct from the settler colonialism that took hold in British-controlled North America and Australia, where indigenous groups were displaced and replaced by white settlers. In Kalimpong, settlement was not so much a geographical diffusion of white bodies *onto* land as it was the diffusion of European legal, economic, and ethical postures *towards* land, and with it the diffusion of senses of self, work, and belonging. Agricultural demonstration was a technology for that diffusion.

As Joel Wainwright (2008: 203) defines it, “to settle is to resolve difference, bring to accord ... in such a way that achieves spatial fixity and

stability. To settle is to sediment sociospatial relations.” Indeed, as the everyday practices of planting certain crops in certain ways across the mountains of the Indian Himalaya attest, the logics and techniques of settlement in Kalimpong (much as in Wainwright’s study of the former British colony of Belize) have outlived the formal end of empire by a degree of decades.

As a sedimentation of sociospatial relations, settlement was partly a matter of violent coercion and cooptation of labor, but in plantation economies—from the slave plantations of the Americas to the tea plantations of South and Southeast Asia—settlement was also a biopolitical process. It required a close management of sexuality, nutrition, and disease (Stoler 1995; Mbembe 2003) to, in Wainwright’s words, “resolve difference.” Colonial, missionary, and capital actors worked deliberately to construct an explicitly *non-plantation* landscape that was oriented to the reproduction of life—both plant and human. While plantations have been described as spaces for the elaboration of biopolitical regimes geared to making (some) laboring bodies live and letting others die, attention to the plantation’s outside is instructive for understanding how biopolitics “stretches beyond bodies” (Murphy 2017: 141). What Michelle Murphy calls “distributed reproduction” accounts for “the uneven relations and infrastructures that shape what forms of life are supported to persist, thrive, and alter, and what forms of life are destroyed, injured, and constrained” (ibid.: 141–42).

The intentional creation of an outside to the plantation is of course not unique to the colonial Indian context. What might most readily come to mind when thinking of food production in plantation contexts are the provision grounds of Caribbean plantations. In her work on Caribbean plantations, Sylvia Wynter juxtaposes the “plot” and the plantation. Plots began as an “indigenous, autochthonous” foil to the plantation, which was “owned and dominated by external forces” (1971: 96). Wynter describes how, from the inception of the plantation, owners provided slaves land on which they could grow food to feed themselves. The ceding of “provision grounds,” she notes, would also maximize the profits of the plantation. Wynter maintains that “this plot system, was ... the focus of resistance to the market system and market values.” Enslaved peoples “transplanted to the plot all the structure of values that had been created by traditional societies of Africa” (ibid.: 99).

“This folk culture became a source of cultural guerrilla resistance to the plantation system,” Wynter continues, “But ... the plantation, dependent on mass-labour, was determined to use their ownership of the land to compel [the enslaved person] back to work; and to his role in the structure of exchange value. The plantation was the superstructure of civilization; and the plot was the roots of culture. But there was a rupture between them, the superstructure was not related to its base, did not respond to the needs of the base, but rather to the demands of external shareholders and the

metropolitan market” (ibid.: 100). Wynter argues that this tension, this clash between the plot and the plantation, frames Caribbean history and literature (see also DeLoughrey 2011; Thomas 2016).

Carved out of newly annexed land largely after the formal abolition of slavery in the British Empire, Indian tea plantations also included space for subsistence plots for individual laborers, but, at least in Darjeeling, these plots were not as vast even as Caribbean provision grounds (Besky 2017; 2014). The scant archival evidence that is available shows that markets, funded by the Darjeeling municipality, sprung up in strategic locations to serve the food provision needs of growing plantation workforces.² To be sure, there is more to be gained from a comparison between Caribbean and South Asian plantation contexts than one essay can cover. Here, I use Wynter’s identification of a dynamic relationship between plot and plantation to consider how the work of settlement collapses simple binaries between the “productive” and “reproductive.”

In Kalimpong’s agricultural outsides, food crops, as well as racialized bodies and the revenue logics of empire, were reproduced. Kalimpong absorbed the adjacent plantation’s biological and moral excesses (the Anglo-Indian progeny of planters and civil servants, like Henry Edmunds) while replenishing its deficits (grains and other food crops). This was a biopolitical mode of governance, but it was not a deterministic or purely repressive one. As part of an open and iterative experiment in distributed reproduction, it also afforded new or unexpected solidarities (Murphy 2017: 143). Today, residents of Kalimpong view their communities as a point of contrast, of even resistance, to the plantations across the river in Darjeeling.

I first learned of Henry Edmunds from a series of annual reports he wrote. These described his work as one of the managers of a 70-acre demonstration farm situated just below the Kalimpong town bazaar. Edmunds’ reports were tucked into the tomes of similar yearly records archived by the Bengal Agricultural Department. When the demonstration farm opened in 1907, it sloped down from the bazaar to the banks of the Relli River, thousands of feet below. This made the farm representative of the varied soil types, slopes, and altitudes in which Kalimpong’s farmers worked. Today, the demonstration farm’s landmass is considerably smaller. Since Indian independence in 1947 it has made way for new and expanded villages, but the site still houses a government agricultural experimental station. The station is supported by the Indian Council of Agricultural Research (ICAR), the extension and training branch of the Ministry of Agriculture and Farming. It is known to Kalimpong residents today as the “Seed Farm”

² See BL IOR NEG 11665/2: “Notes on the Darjeeling Improvement Fund, 1933,” from the Frank Owen Bell Collection, for a narrative account of the work of the DI Fund by Prawash Chandra Talukdar, ex-haat clerk, 9 Apr. 1933.

(harkening back to a time in which farmers could obtain free or subsidized seed there). Its experimentation and demonstration plots on the day I first visited in May 2019 included kiwis, oranges, garlic, corn, and medicinal plants.

The Kalimpong Demonstration Farm is prototypical of the demonstration plot, a contemporary vogue in rural development (see Kiptot and Franzel 2015; Ngumbi 2017), a kind of “model,” “performative,” or “show” agriculture, in which experts make small farmers aware of new tools for dealing with droughts, floods, blights, and market fluctuations (Flachs 2017; 2018; Flachs and Richards 2018; Münster 2018; Richards 1989; Stone 2018). Even though demonstration plots are lauded by their state, NGO, and university exponents as a means of promoting food and livelihood security, capital interests in the form of agrochemical firms and seed companies often coopt agricultural extension stations, particularly demonstration plots, to access new markets. In India, this cooptation has had devastating results, in the form of debt, pesticide resistance, and land loss (see Sethi 2018; Aga 2019).

Agricultural demonstration, particularly outside the United States, is most closely associated with the work of Norman Borlaug and the Green Revolution of the mid-twentieth century. Paul Richards, describing the Green Revolution in West Africa, explains that in his writings Borlaug mixed the intricacies of cutting-edge science with sweeping statements about hope and optimism for development. Borlaug was steadfast in “the need to mix faith and fact” (Richards 1997: 207). It was through demonstration, after all, that farmers not only came to know about new seeds, crops, and practices but also came to see, and believe in, their efficacy. Borlaug wrote: “Demonstration must be done in the farmer’s field ... but unless these changes are *spectacularly* demonstrated by showing what is possible, one cannot put the change across to farmers” (1972: 582, quoted in Richards 1997: 207, Richards’ emphasis). Richards explains that “Demonstrations, in short, must be demonstrations of yield *potential*, not examples of what might be achieved in reality ... on-farm trials are opportunities for farmers to become believers” (1997: 207, his emphasis). Experimentation and notions of potentiality are thus never about the productivity of plants alone. Agricultural development, from colonial settlement to the Green Revolution, also carries with it a reproductive politics, “a process of supporting some things and not others” (Murphy 2017: 142).

From the logics of the Green Revolution to the rollout of GM seeds, these entanglements of capital and agricultural training have been portrayed by political ecologists as manifestations of postwar development discourses that laud improvement through a diffusion of technology and the entrepreneurial spirit (Gupta 1998; Li 2007; Escobar 1995; Ferguson 1994). The evental, the spectacular, and the entrepreneurial were key to the uptake of new agricultural practices and technologies. Faith in productivity was not politically neutral. As Nick Cullather (2010) describes, hunger eradication programs and Green Revolution-inspired agricultural development across Asia were wrapped up in

Cold War logics (see also Gupta 1998). Similarly, Murphy (2017) describes how “the population” itself became an experimental object in the same historical period. Models for understanding what Murphy terms “the economization of life” were born out of economic and colonial projects shaping human futures. Reproduction—of both bodies and the food that nourished them—was the central social act in making those futures possible. Murphy’s key observation is that it is management of reproductive capacity, rather than productive capacity, that often drives global development. This reproductive capacity is gendered, and it is more than human. In the story of colonial agricultural extension in Kalimpong, we can start to piece together historical antecedents to latter-day projects like those described by Murphy and Cullather. Further, we can see how the reproduction of plants and people was mediated by intertwined acts of faith, from the technological to the ethico-religious.

In this article, I historicize agricultural extension in Kalimpong, on the geographical margins of the colonial state, to highlight not only its racialized and gendered politics but also a larger imperial project that merges material (i.e., food) provision with social reproduction (i.e., childrearing, kin-making, racial differentiation). I do this to show that while nearly-forgotten figures like Edmunds and out-of-the-way places like Kalimpong initially seem exceptional, it is perhaps at empire’s frontiers that state-making practices may be most palpable (see Cons and Eilenberg 2019). The creation of a viable, smallholder-driven food economy was vital to the expansion of colonial governance, but a close look at how that expansion was achieved helps us understand the reproductive valences of settlement more broadly.

SETTLING KALIMPONG

Kalimpong was part of a large parcel of land annexed by the British from the Kingdom of Bhutan in 1865 after decades of border disputes. This area, referred to in colonial texts as the “Bhutan Dooars,” included large parts of the contemporary Indian states of West Bengal and Assam. The region took its name from the towns and trading posts, or “doors,” to the mountainous kingdom. The British annexed the Dooars with the intent of widening and fortifying the colony’s northern border, and of creating a territorial land bridge to the resource frontier of Northeast India. The annexation brought the British closer to three independent kingdoms: Nepal, Bhutan, and Sikkim. From Kalimpong, the British also launched trade expeditions into Tibet, a long desired but forbidding source of goods and wealth.

The establishment of plantations and farms in the Himalayan foothills was far from the first “settlement” operation in colonial India. As David Arnold (2005) has argued, beginning the period of East India Company rule in Bengal, “settlement” referenced a transformation of land into revenue-generating property through a combination of economic incentives and scientific intervention, or in colonial parlance, “improvement” (see also

Guha 1996[1963]). Settlement standardized and made legible cultivators' and landlords' relationships to land and to the state (Gidwani 1992; Cohn 1996; see also Scott 2010). Central to the work of settlement were experiments in botany that helped cement the viability of the imperial project through the introduction of plantation crops like tea, cinchona, rubber, and indigo (Drayton 2000; Anker 2001; Rajan 2006; Schiebinger and Swan 2005). These experiments often took place on the resource frontiers of Asia, which Jason Cons and Michael Eilenberg call "assemblages" of material production, colonial governance, and scientific knowledge (2018; see also Ali 2018; Aso 2018; 2009; Dey 2018, Kumar 2012; Sivaramakrishnan 1999).³ The success of tea plantations, which were first established in Assam in the 1830s and in Bengal starting in the 1850s, owed much to economic botanists' push to settle the Himalayas by "improving" its forested landscape. Applying lessons from experiments performed in botanical gardens in Calcutta, they established monocultures in which the wild and "native" tea bushes (*Camellia sinensis*, var. *assamica*) were civilized by the refined Chinese tea bushes (*Camellia sinensis*) (Besky 2014; Dey 2018; Kar 2008; Sharma 2011).

But agronomic experimentation was not enough to settle resource frontiers. Equally important was work to "improve" local populations. This was certainly the case in the hills of Bengal, where the provision of housing, schools, and healthcare would motivate laborers, most of whom were recruited from eastern Nepal, to permanently settle in plantation villages and cultivate tea and cinchona. Such provisions, established under colonial rule and extended into the post-independence era, have made the geographical fixity of both plants and the plantation labor force appear natural, even when houses and monocultures become vulnerable to landslides and floods (Besky 2017).

Plantation development gave rise to two biopolitical challenges. First, the racial division of labor on plantations was clear, with white managers geographically and socially segregated from nonwhite field laborers. The presence of mixed-race children therefore presented a problem for a plantation complex built on the assumption that certain bodies were naturally suited for certain spaces and forms of work. Second, the gardens of plantation villages were often too small to sustain the steadily growing population with basic staples, most importantly grain crops like rice, millet, and corn. Tea planters in Darjeeling used the provision of garden space as a labor recruitment tool in the industry's early years, but over time, they moved to restrict both the quantity of space to which workers had access and the rules governing land tenure, in the interest of keeping labor pliable

³ The colonial botanical garden was also central in colonial agricultural projects aimed at the testing and extension of commodity crops like tea, rubber, cinchona, or indigo to such frontiers (Baber 2016; Brockway 1979; Drayton 2000; Grove 1995).

(Besky 2017; 2014). Tensions between the drive to maximize plantation profits, ensure a social order, and improve populations met with a demand on the part of the growing white population of the “hill station” towns of Darjeeling and Kurseong for ready access to familiar fruits and vegetables. Darjeeling was the summer capital of the Raj. This meant that an entire administrative infrastructure, and the officials staffed within it, moved up to the cooler hills to escape the hot, rainy summer months in Calcutta (see Pradhan 2017; Kennedy 1996; Bhattacharya 2012; Kenny 1995). The problem of how to feed both the plantations *and* the seasonal administrative class was only magnified in the wake of the annexation of Bhutan and the expansion of British India’s northeastern frontier.

To resolve these tensions, the plantation needed a productive, governable, and settled outside. The outside of the plantation had to be ordered with similar technologies and logics to the plantation, with those technologies and logics enrolled for different ends. In 1882, some twenty years after the annexation of the Bhutan Dooars, the British civil servants established the Government Estate of Kalimpong and declared that the colonial government would be the sole landlord. In Kalimpong, what colonial era bureaucrats termed “survey and settlement operations” began with cadastral surveying, the twinned process of mapping and rent-setting. *Jhum* (swidden) and forest were divided into individual holdings. Local land agents (*mandals*) were supported by the Government of Bengal to provide recruitment incentives to peasants (*raiya*s) from low-caste and tribal groups from Nepal, as well as Indigenous Lepcha and Bhutia groups, to move onto the Government Estate as permanently settled, rent-paying farmers.

But Kalimpong was remote. The government needed human resources and infrastructure to make settlement a reality. It found a willing collaborator in the Scottish Presbyterian Mission that gravitated to the newly acquired area. The colonial government deputized the mission’s charismatic leader, Reverend John Graham, to carry out many of the functions that civil servants performed in southern Bengal. In turn, the government provided support to the church in the form of money as well as swaths of rent-free land for schools, vocational programs, and residences for white and newly converted local Christian parishioners.

Kalimpong soon became a hill station akin to Darjeeling, but smaller in scale, with a small European enclave of settlers occupying the tops of the ridge, and Indigenous and Nepali farmers on the slopes below (Pradhan 2017). Kalimpong’s soils and slightly lower altitude were well suited to food crops. As in other contexts, colonial administrators came to the conclusion that small-scale agriculture, properly managed, could answer food provision questions (see, e.g., Kearney 1996), but, to adapt Murphy’s terms once again, small farmers would require attentive training in reproduction, the “process of supporting some things and not others” (2017: 142). Agricultural

education, then, began with the presumption that farmers' dispositions to their bodies and to crops had to be actively honed and meditated by "modern" scientific methods and logics of property. Cultivating crops and cultivating selves, in this vein, animated the work of settlement.

AGRICULTURAL EXPERIMENTATION AND SETTLEMENT IN BENGAL
(1886–1902)

The 1870s saw famines sweep across India, including in Bengal and Bihar in 1873 and 1874. In response, the colonial Famine Commission called for the establishment of a new Bengal Agricultural Department. In 1886, the year of the department's inauguration, Bengal contained 1,861 Government Estates, spanning over five million acres. The Kalimpong Government Estate was one of two estates located in the hills, and it was considerably smaller and less populated than the others in southern Bengal. In that year, the newly appointed Director of the Agricultural Department, M. Finucane, explained that in the wake of the famines,

struck with the absence of proper means of collecting reliable information in times of prosperity, on which the action which adverse times require might be based ... the [Famine] Commission recommended, in the first place, that better methods of cultivation should be introduced, and agricultural knowledge more widely diffused. In the second place, they recommended that measures should be adopted for the collection and record of those results of past experience and current events, which would enable the Government to deal systematically, effectively, and economically with famine when it might arise.⁴

The new Agricultural Department would focus on the collection of "statistics of vital, agricultural and economic facts."⁵ "Agricultural statistics," the department maintained, were an "essential requisite of good government."⁶

The department's charge to collect more and better statistical data came in the wake of a wave of enumerative-cum-administrative efforts across India, focused mostly on the census (Cohn 1996: 8). Anticipating the Green Revolution's approach several decades later, the department looked for ways to use administration to optimize certain forms of human and botanical life (Hetherington 2020). The department's purpose was not just to prevent famine, however, but to improve agriculture and make it profitable through rents and revenue. Murphy (2017) argues that projects of managing populations are fundamentally economic. The Bengal Agricultural Department is one example. On government estates like Kalimpong, the post-famine bureaucratic project of "making live" was to be linked to the economic

⁴ BL IOR/V/24/120: *First Annual Report of the Director of the Agricultural Department, Bengal*, 1886, 1.

⁵ *Ibid.*

⁶ *Ibid.*, 3.

project of “making work” (Li 2009; see also Mathur 2016). This coupling of a close measurement of the food supply with an active investment in farmer productivity reflected a logic that was emerging across the British Empire. David Nally, writing about the British colonial response to the Irish famine of the 1840s, calls this “a colonial form of agrarian capitalism ... geared toward surplus extraction and social control” (2008: 717). But surplus must be mediated and managed through less visible forms of social reproduction.

In much of Bengal, land tenure was not defined in ways that were legible to European idioms of property, particularly in the areas that had been annexed from Bhutan in 1865. As part of the establishment of the new Agricultural Department, ten million acres in Bengal were formally surveyed.⁷ To do this, the department trained and deployed a force of (usually European) “settlement officers,” along with a mostly Indian staff. Their surveys produced updated cadastral maps. These maps would allow settlement officers to return to the same plots each year to see whether fallow land had been brought under cultivation, and if so, to extract rent from the *raiyat* whose name appeared in the record. If the land was occupied by a *raiyat* who was not on the official rolls (and therefore not paying rent), the collector would take revenue in the form of in-kind payments of harvested crops. If a plot had gone out of cultivation due to abandonment, the collector could attempt to settle it with a new *raiyat*.⁸

The first survey and settlement of Kalimpong took place in 1882. During the first settlement, surveyed land was divided into blocks, each to be overseen by a *mandal*. The plots in each block were then populated by *raiyats*, either Lepchas and Bhutias, or farmers who had been displaced from their homes in eastern Nepal.⁹ The *mandal* collected rent from the *raiyats* and remitted it to the Estate manager. In return, the *mandals* were able to keep 10 percent of their collections. The cadastral surveys divided land into categories of “productive” and “unproductive.” The rate of rent for productive land was 8 annas (1/16 of a rupee) per acre, and for unproductive land 4 annas per acre.¹⁰ “Productivity” was defined in 1882 in the “broadest sense of fertility of soil, proximity to markets and other advantages” (Bell 1905: 32). Rents were set on ten-year terms, and the settlement process was repeated regularly after 1882 (i.e., 1892, 1901–1903, 1919–1921). In each block, the settlement officers identified large plots of “wasteland” on which *mandals* could settle

⁷ Ibid., 22 of Appendix.

⁸ Ibid., 15 of Appendix.

⁹ It is worth noting again that a similar recruitment process took place on tea plantations, where labor recruiters, or *sardars*, brought displaced eastern Nepali families over the newly created border with the promise of housing, jobs, and garden space (Besky 2017; Middleton 2018).

¹⁰ *Mandals* did not receive a cut of cardamom rents, which were set considerably higher, at Rs. 10 per acre (Bell 1905: 33).

new residents.¹¹ In the intervening years between settlement operations, *mandals* could keep all the rents they collected from these new wasteland settlers (ibid.: 31–32). *Mandals* worked on behalf of the government, because as Charles Bell, the Settlement Officer in charge of the 1902 settlement operation, explained, “Government is the proprietor of the Estate. There are no private landlords or tenure-holders; nobody in fact between Government and the *raiyyat*, who is in most cases the actual tiller of the soil” (ibid.: 12).

In order to get produce from the estate to market, the settlement guidelines stated that each *raiyyat* “must supply provisions and coolies according to his ability for Government purposes at market rates. He must also supply two days’ labor, free of charge, for each adult, male or female, living on his land, for road making purposes” (colonial officials referred to this as a “free labor” system [ibid.: 13]). The terms of the leases required *raiyyats* to erect boundary markers within six months of occupation. They had to surrender land that was at any point required for government purposes, and upon surrender they would only receive compensation for buildings and crops, with a portion of rent remitted. They could not cut down trees of more than one foot in girth, and they had to plant one tree per acre per year. They had no exclusive rights of the use of any stream (ibid.: 12–13). Focused on infrastructure, forestation, and the establishment of viable food crop plots, the settlement process amounted to a complex management of “distributed reproduction,” “the extensive relations that support or manage life” (Murphy 2017: 138). *Raiyyats* were compelled to construct an infrastructure for an administration that was “intent on designating and managing surplus life for the sake of capital” (ibid.). Here, the “surplus” was both the human labor power that lay beyond the immediate needs of the large-scale plantation complex and the agricultural outputs that exceeded the immediate needs of the small farmer. Settlement harnessed labor surplus through mandated road construction and infrastructural maintenance, and it harnessed botanical surplus through the construction of food markets.¹²

This management of surplus entailed a linkage between dispositions to agricultural reproduction (fomented through tenancy rules) with dispositions to race and sexual reproduction (fomented through the tight control of

¹¹ Vinay Gidwani (1992: PE40) describes the British obsession with “waste” in the context of the Permanent Settlement. “Wastelands” were, to cite a colonial source he engaged, “the all important question” that undergirded settlement. What “waste” was, however, was and continues to be an open concept. Revenue generation was without a doubt a driving force for English land settlement policies. In a narrow, conventional reading, Gidwani argues, waste is best understood as the site or base for revenue extraction. But for Gidwani, “Not only was it a category of land created for tax records, it was a colonial commentary on native society in Bengal,” most notably, the Bengali *zamindar*. Logics of “waste” solidified colonial dominance in Bengal (ibid.).

¹² See BL IOR NEG 11665/2: “Notes on the Darjeeling Improvement Fund, 1933.”

transfers and inheritance). A *raiyat* could not give land to another *raiyat* without consent of the Deputy Commissioner, and they could not sublet it. Though Nepalis could and did intermarry with the Lepcha and Bhutia communities, policies restricted Lepchas and Bhutias from transferring their land leases to Nepalis (Bell 1905: 15). Other “objectionable transfers” included cases of individuals who already leased multiple plots of land acquiring more land; exchanges that would leave one party with insufficient land to meet their basic subsistence and the rental obligations to the Government Estate; or, “Any case in which a transferee has paid the debt of the transferor ... it probably means that a local money-lender is getting hold of the land” (ibid.: 15).

Bell’s 1902 settlement report included a detailed description of the rules and norms surrounding how marriage and kinship should affect lease transfers among Nepali, Lepcha, and Bhutia people. He noted that land inheritance amongst all these groups was patrilineal. Only when there were no near-male relations did widows or daughters inherit. Nepali men who inherited leases from their fathers had to be prevented from turning their fathers’ widows off of the land, especially since (Bell claimed) Nepalis tended to marry multiple women, creating split loyalties among their sons (ibid.: 16). “Where, however, it is usual to join the mother’s name in the patta [land title] with that of the son in order to safeguard her right of maintenance. This happens more in the case of a stepmother, for many men, especially among the Nepalese, take a second wife while the first is still living” (ibid.). Among the Lepcha community, if a man died leaving a widow and nephews but no sons, “it [was] not uncommon for one of the nephews to marry the widow and inherit the land.... If all are married, one of them may take her as a second wife” (ibid.).

Though the survey and settlement process in Kalimpong mirrored those applied elsewhere in Bengal, the legal structure under which tenancy and rents were established was unique. Kalimpong was part of the district of Darjeeling, which from 1874 to 1919 was classified as a “Scheduled District,” a special status whereby the laws in effect in the rest of India were not applicable to the region.¹³ The chief reason for this legal exception was the dominance of plantations in the district. Tea planters were given broad latitude to create their own labor codes, agreed upon through the governance structure of the Indian Tea Association (Besky 2017). Since Darjeeling’s colonial fashioning as a hill station and sanatorium in 1835, in fact, planters had developed a funding and land allocation structure, which came to be

¹³ In 1919, Darjeeling became a “Backward Tract,” by which the administration of the district was vested in the Governor of Bengal. In 1935, Darjeeling became an “Excluded Area” whereby laws in effect in the rest of Bengal were not applicable in Darjeeling unless a special resolution was passed to extend them there.

known as the Darjeeling Improvement Fund (or DI Fund). This fund was used for “local improvement,” including the construction of roads, sanitation works, and other key off-plantation infrastructures.¹⁴ During the first two Kalimpong settlements of 1882 and 1892, the DI Fund established small *haats*, or market areas, and a handful of larger bazaars (including one in Kalimpong town) throughout the Government Estate. The DI Fund also set up *haats* and bazaars on the Darjeeling side of the Teesta River adjacent to the plantations. Though they all sat outside of them, both oral and archival accounts of these markets describe them as serving the food and supply needs of the growing plantations of Darjeeling, the Terai, and the Dooars, as well as the growing hill stations of Darjeeling, Kalimpong, and Kurseong. The DI Fund paid for the establishment and upkeep of these markets, appointing sweepers to each location to live nearby and maintain them. The DI Fund also paid for beautification programs, most notably tree-planting on roadsides throughout the district.¹⁵

By the turn of the twentieth century, then, the settlement of Kalimpong had created a new population of *raiya*s, whose rental terms incentivized agricultural productivity, de-incentivized intermarriage and alliance through kinship, and used “free labor” to construct physical infrastructure to increase the efficiency of circulation. The food crops grown by these *raiya*s were circulated through DI Fund *haats*, which in turn supported the plantations. To reiterate a point that I made in the introduction, these elements of settlement do not constitute a linear, planned administrative progression. The governmental initiatives that shaped the Kalimpong estate are more properly seen as sedimented experiments. Cadastral surveying introduced the problem of productivity, which in turn drew attention to the challenge of infrastructure and market-making. These technical matters were refracted through a politics of marriage, kinship, and inheritance.

In the plantation-dominated landscape of the Darjeeling district, then, there emerged a form of accumulation that depended as much upon the

¹⁴ The DI Fund dates back to 1838 (three years after the annexation of Darjeeling town), when “the Government of India directed that the quit rents paid by the settlers in the ceded portion of Darjeeling should be appropriated to a fund called the Location Fund and employed for purposes of local improvement. The rents of certain bazaars built out of the Fund and of other shops erected on public land were afterward added.” As Darjeeling town grew, so did the fund. For many years, in the mid-1800s, the primary objective of the fund was to fund the Darjeeling botanical garden, which was central to the expansion of the tea industry. But by 1907, “the fund was responsible for maintaining dispensaries, museums, primary education, rural water supply, ferries, rest bungalows, veterinary staff and for making grants-in-aid to various institutions.” The DI Fund managed about eighty-four different plots of land under an area of about 18,000 acres. Many of the eighty-four plots were *haats* and bazaars, and thus much of the revenue generated under the DI Fund came from the sale of food and goods in these markets to the plantations and towns. (Bar Association of Kalimpong memorandum on DI Fund and Development Area land, 2000 [author’s personal collection]).

¹⁵ BL IOR NEG 11665/2: “Notes on the Darjeeling Improvement Fund, 1933.”

allocation and distribution of productive responsibilities as it did upon the allocation and distribution of *reproductive* responsibilities—the building and maintenance of infrastructure, the regulation of marriage and inheritance, tree planting, and water distribution. Born initially out of a concern for hunger, the Bengal Agricultural Department turned its statistical, cartographic, and economic apparatus to the project of creating a reproductive outside to the plantation. But statistics, cartography, and economic incentives to grow family farms were not enough. Another key technology that occupied the new department—and one in which race would play a central role—was education.

SAINT ANDREW'S COLONIAL HOMES AND AGRICULTURAL LABOR
(1889–1907)

The Reverend John Anderson Graham arrived in Kalimpong from Edinburgh in 1889, a few years after both the first settlement of Kalimpong and the founding of the new Bengal Agricultural Department. Graham spent much of his first ten years in the region traveling among the plantation villages and newly settled farm plots, evangelizing to the Nepali, Lepcha, and Bhutia residents. During the first year of his ministry, Graham worked to host an annual agricultural fair, known simply as “the *mela*,” which brought farmers to Kalimpong town for competition, sociality, and agricultural education.

Hill stations like Kalimpong were chosen for their climatic qualities; they were cool alpine compliments to the plains. Partly for this reason, hill stations were popular sites for the creation of educational institutions oriented to the welfare of European children. This was particularly the case in the Darjeeling Himalaya (Dewan 1991). In 1900, Graham established the Saint Andrew's Colonial Homes (SACH). And “The Homes” (as it is referred to today) remains one of the English-medium boarding schools most readily associated with the region.

SACH was different from the region's other educational institutions in that it was initially devoted exclusively to the education of Anglo-Indian children.¹⁶ Graham's aim was to ensure that these children, the progeny of tea planters and

¹⁶ SACH was certainly not the first school to serve the Anglo-Indian community (see Sen 2017: ch. 3; D'Souza 1976; Graham 1934: 24–25). It was also not the only project aimed at redeeming the innate whiteness of Anglo-Indians. Satoshi Mizutani's (2011) excellent study of the whiteness in colonial India outlines several education institutions, most of which are in Calcutta (which housed the largest Anglo-Indian, as well as “poor white” communities), which served domiciled white and Anglo-Indian students (see also Bear 2007, for an ethnography of an Anglo-Indian work-based community). Sen, however, notes that SACH was set apart from these other schools by its commitment to a “more practical institutional and agricultural education” for “destitute children” (2017: 114). It is notable that SACH expanded in the wake of the Simla Conference of 1901, which reviewed European education in India and noted that European schools, including those serving the Anglo-Indian community in Calcutta, were not serving the poorer sections of the Anglo-Indian community. SACH sought to fill this gap.

civil servants, became productive citizens of the empire (Mizutani 2011; Lepcha 2017). As Jayeeta Sharma explains, Reverend Graham had observed more than a few “blue-eyed children ... in the workers’ quarters of tea plantations on visits to white neighbors and planter friends in the Eastern Himalayas” (2017: 49). The existence of these children on plantations was framed in colonial accounts as “a wicked problem” and “an intractable concern for government,” one that betrayed a moral failing at the heart of the plantation enterprise (May 2017: 61; see also Sen 2017; D’Souza 1976; Caplan 2001). Indeed, as the official history of SACH notes, some British planters may even have been encouraged by their companies to pursue sexual relations with the women who worked for them (Mainwaring 2000; see also May 2017). Graham himself wrote in his early account of his mission that planters’ duties, among other things, required that in winter, they pitch their tents among their “coolies,” and that as “strangers in a strange land,” they were susceptible to “the special and powerful temptations of a heathen environment” (1897: 110–11).

Graham’s mission took on the rhetoric of rescue and rehabilitation. In his 1897 account, *On the Threshold of Three Closed Lands*, written before he opened SACH, he described working with the progeny of white colonists as a “duty.” Graham wrote the book during a return trip to Scotland after the early years of his mission. During this trip, he visited William Quarrier’s Orphan Homes of Scotland, founded in 1876.¹⁷ Central to Quarrier’s educational approach was housing students in “cottages,” to which they would affix a new familial identity. Graham replicated this domestic approach in Kalimpong, to “aim at uniting the children into one big family. But the unity sought is not mass uniformity.... It is a unity through the union of separate cottage-homes in which, as far as possible, the benefits of the divine family unit may be realized” (1934: 32). The central figure in this form of distributed reproduction was the European “mother” or “aunty,” one of whom was in charge of each cottage. Since Anglo-Indian children had no other families, Graham claimed, SACH would serve in that capacity.

A surrogate family, headed by a desexualized European matriarch, was intended not just to domesticate but to racialize. SACH was funded through donations, not the financial backing of the Church of Scotland (McCabe 2017: 48–49), and the school advertised itself to potential donors across India and Europe as an effective “solution” to the “Eurasian Question” (Mizutani 2011: 138; see also Graham 1934; Jacobson 2018). Like his educational counterparts in Darjeeling and other Indian hill stations, Graham touted the cool climate of the hills as a purifying, cleansing one (Mizutani

¹⁷ The Orphan Homes sought to educate children, mostly orphaned children in Glasgow, with vocational skills and resettle them in Ontario and Quebec, Canada. Through mission networks, Quarrier’s network had resettled around seven thousand children by 1938.

2011: 169; Dewan 1991). Graham's promotional material explained that SACH was testing a belief that by separating the Anglo-Indian progeny of planters from their social context and relocating them to both the rigid order of a European-style education *and* the redemptive climate of the hills, these children could be "schooled into 'whiteness'" (Sharma 2017: 45).

Articles in the first issues of SACH's promotional organ, the *Saint Andrew's Colonial Homes Magazine*, explained that an Anglo-Indian community abroad could not self-segregate; it had to "be absorbed into the dominant race" (Murray 1901). If an Anglo-Indian settler abroad remained racially identified as such, "he will be doomed to failure.... At the very outset of his colonial career the Eurasian is by nature forced to take a subordinate position. His relation to the Colonial will be that of servant to master." The *Homes Magazine* explained that SACH "is the training ground, this is the starting point, and yonder is the goal, far off in the distant light" (ibid.). That "distant light" would be the absorption of SACH graduates, as passable white settler colonists, in other imperial locations outside of India. Much as Borlaug's agricultural demonstration work sought to cultivate "faith" in the efficacy of new technologies and techniques amongst farmers, Graham's racial experiment was the subject of demonstration that required from its witnesses a "faith" in the malleability of race (Richards 1997; Borlaug 1972). The demonstration farm brought these two projects of faith together.

Graham's objective in agricultural education at SACH was to give Anglo-Indian children vocational and social skills so that they could not only contribute to the empire through forms of work but also pass as white outside of India. Students were "resettled" across the British Empire, primarily in New Zealand and Australia, but also in Canada, where they worked as agricultural laborers (McCabe 2017). As Satoshi Mizutani explains, "Agricultural training assumed a central place within Graham's reformist programme, because it was primarily as independent farmers that the Colonial Homes institution wished to send its children overseas" (2011: 169). Resettlement began in 1907, with two students being sent to New Zealand (Graham 1934: 36). By 1938, 130 graduates—"the best and the brightest"—had been resettled in New Zealand alone (McCabe 2017: 1).

Though SACH offered courses in a variety of vocational subjects for both Anglo-Indian boys and Anglo-Indian girls, its most visible feature was the "Homes Farm," where boys were trained in agricultural science and methods. Working with the land through agriculture would cultivate within the boys the bodily comportments and skills associated with the white working class. Vocational training for men included not only farming but also trades like blacksmithing and carpentry. For women, training involved handicraft production, including needlework and lacemaking, and service work such as nannying and nursing. Such skills were deliberately chosen as

school subjects to reflect labor shortages abroad in settler colonies (ibid.: 50). Once settled abroad, graduates would, hopefully, start their own families. Their children would be, according to SACH logic, “born Britons” (Fields for Emigration 1901).

SACH's mission resembles Ann Stoler's description of efforts in the Dutch East Indies to use education to discipline poor whites within the plantation economy. For Stoler, race was central to this biopolitical project. The whiteness of Indies-born people of Dutch ancestry was not a given; rather, “what sustained racial membership was a middle-class morality, nationalist sentiments, bourgeois sensibilities, normalized sexuality, and a carefully circumscribed ‘milieu’ in school and home” (1995: 105). There are also striking similarities to Native American residential schools in the United States and Canada (see Willinsky 1998; Tuck and Gaztambide-Fernández 2013; Wolfe 2006). A key difference in Kalimpong was that Anglo-Indian children were not resettled within India, but instead relocated to settler colonial contexts in which their vocational training would allow them to make a living and live independently. Again, Murphy's (2017) observations about the interplay between social reproduction and the management of surplus populations are salient here. Anglo-Indians were a problematic surplus population in India—and specifically in the plantation regions of northern Bengal—but (once “whitened”) a beneficial supplement to other parts of the Commonwealth.

While other scholars—some of whom even have kin connections to SACH—have written about these resettlement projects (McCabe 2017; May 2017), Graham's efforts to use agricultural education and experimentation to improve the lives of the Nepali, Lepcha, and Bhutia *rai*yats who lived in Kalimpong are less well known.¹⁸ It was in Kalimpong—and on the demonstration farm—that the educational mission of the colonial bureaucracy and the Protestant mission converged. So too did Christian redemption coincide with the redemption of Anglo-Indian men through work on Kalimpong's farmers and their crops.

Henry Edmunds, whose story began this essay, was one of the first students to graduate from SACH. Unlike many subsequent graduates, however, Edmunds was not resettled abroad. With the agronomic and academic training that he received at SACH, Edmunds went on to operate the farm of an English couple living elsewhere in Bengal. He penned letters back to Graham and his wife describing the hardships on the farm, including

¹⁸ This is far from the only British colonial planned relocation of Indian laborers abroad (see Carter and Torabully 2002). Contemporaneous labor migrations of Indians included those to Fiji (Gillion 1963), Mauritius (Mishra 2009; Carter 1992), and British Guiana and the Caribbean (Bahadur 2013; Kale 1998). Importantly, SACH students were not indentured workers, nor did they work on sugar plantations, as was the case in many of these other locations.

wage theft and racism. Amidst this, Edmunds studied for and passed the civil service examinations and soon secured a place within the Bengal Agricultural Department in Calcutta and southern Bengal. A star pupil and favorite of Dr. Graham, Edmunds would not be gone from the hills for long.¹⁹

While Edmunds was still a student at SACH, colonial administrators started to take a keen interest in Graham's annual agricultural fair, the *mela*. The report on the settlement of the Kalimpong Government Estate during 1901 and 1902 praises the *mela* as a vehicle for solidifying productivity and entrepreneurial spirit among the settled *raiya*s (Bell 1905: 27). The records of the Agricultural Department indicate that the colonial government began providing annual funding for the *mela* around the turn of the century and continued to do so for several subsequent decades.²⁰ Importantly, the fair was the first vehicle through which the church entered public life in Kalimpong. In return for government support, Graham and his fellow missionaries organized demonstrations and presentations on cattle husbandry, fertilization, and agricultural implements. At the *mela*, demonstration collapsed faith within new practices and technologies and the Christian church.

That year, the Younghusband expedition resulted in the British occupation of Lhasa and forced trade concessions on the previously isolationist Tibetan state. Kalimpong became a key node in the trans-Himalayan trade, particularly in wool, and thus a new point of strategic colonial interest (Harris 2013). Between the first settlement operations in Kalimpong in 1882 and the third settlement operations in 1921, 153 miles of road were built, thanks to the "free labor system" that was written into the *raiya*t lease agreements. With government support, the *mela* began to draw even more traders and farmers each year from across Darjeeling, Sikkim, and Tibet. The growing population of Kalimpong farmers also participated.

If the DI Fund and the establishment of a network of *haats* functioned in part as a means of using peasant agriculture to replenish the plantation—supplying its labor force with the foodstuffs it lacked—then the establishment of SACH functioned, at least in part, as a means of absorbing the plantation's moral excesses. At the Homes farm and the annual *mela*, visitors could witness, first hand, the redemption of Anglo-Indian men, whose whitening was symbolically evidenced by the plenitude of their harvests and the ingenuity of their methods (see Stoler 1995: 104–5, 114). And while the moral contrast between Kalimpong and the surrounding plantations was personified most clearly in the successful, independent Anglo-Indian farmer, there were other potentially redemptive figures visible at the *mela*, namely, the Kalimpong *raiya*s. Looking across the history of

¹⁹ Interview with David Edmunds, 14 Oct. 2019.

²⁰ BL IOR/V/24/121: *Report of the Agricultural Branch of the Department of Land Records and Agriculture, Bengal*, 1905, iv.

colonial agriculture in India, this is perhaps not surprising. For example, Anand Pandian has shown how the Piramalai Kallars in South India, who were designated as a “criminal caste,” were targeted by a similar “array of experimental measures” in “moral pedagogy,” including schooling, agricultural training, and the extension of rural credit (2011: 160–61). There, too, the land itself had a moral role to play in the formation of the farming subject. In the context Pandian describes, colonial authorities saw “the arid quality of their native landscape as a ‘root cause’ of their criminality” (ibid.). In Kalimpong, farming competitions and missionization presented further proof that Nepalis, Bhutias, and Lepchas could also live productive and virtuous lives here on the margins of the plantation.²¹

THE KALIMPONG DEMONSTRATION FARM (1907–1940)

Before the establishment of the Agricultural Department in 1886, there had been attempts at “model farming” in Bengal, but they had largely been unsuccessful. According to the Director of the department, M. Finucane, this failure was

due to the fact that when the persons in charge of these experiments, such as Scotch gardeners or persons of that class, knew something of agriculture, they knew nothing of India, and were incapable of understanding the habits of the people with whom they had to deal, and of accommodating themselves to them; and when, on the other hand, they were cultured gentlemen capable of understanding the country and the people, they had no knowledge of agriculture, except such as they had acquired as *amateurs* by way of pleasurable relaxation from more serious pursuits.²²

Agricultural development required a different kind of colonial administrator. Agricultural education thus became a key part of the department’s mission. European experts might be able to be trained to run the higher rungs of the agricultural bureaucracy, but in order to do the everyday work of experimentation and demonstration a new class of Indian experts had to be trained. They needed to have knowledge of the local environments. Formal education could augment this knowledge (see Kumar and Raha 2016; Kumar 2016).

Agriculture in the hills required specific skills. While aspiring tea plantation managers could read manuals that detailed the specific challenges of different tea growing regions, including the hills, annual reports on Kalimpong within the Bengal Agricultural Department reports lamented that there was no reliable print material on hill agriculture. The assumed

²¹ There are other examples of the Christian church extending its influence through agriculture in India (see Basu 2016). The American Baptist Mission, for example, put agricultural development at the heart of their missionization program in Nagaland, the population of which is now 95 percent Baptist (see Longkumer 2019).

²² BL IOR/V/24/120: *First Annual Report of the Director of the Agricultural Department, Bengal*, 1886, 17–18.

environment in all manuals to which officers had access was the hot sunny plains of Bengal.²³ With some degree of surprise, the Director of the Agricultural Department wrote in 1909, “we find that in the hills we are dealing with soils totally different in composition to those of the plains of Bengal, where organic matter is very deficient in cultivated areas.”²⁴ Figuring out how to work within the ecological and climatic limits of the hills was of paramount concern, given the area’s growing population.

Newly appointed settlement and agricultural officers could not just perform the revenue extraction aspects of settlement, they needed also to know and communicate agricultural knowledge.²⁵ The department sought a trained staff of experts that could “intelligently observ[e] agricultural facts, and [manage] Government estates.” Agricultural officers would need to learn about “native systems of agriculture in selected localities, with a view to the ultimate introduction of better methods of cultivation, better seed, more valuable staples, &c, [and] show that such improvements are practicable.” After doing so, these same officials should be able to submit reports that outlined suggestions for “improving the particular crops in these localities.”²⁶ These agricultural agents did not necessarily have to be European. The details of a given region’s agricultural environment might be best known to people from that region, who could be schooled in specialized agricultural colleges. Since Bengal did not have such a college, resources were allocated to identify students to send them to colleges in North India, or even abroad, through an exchange program with Cornell University.²⁷

These new agricultural officers would then establish experimental and “demonstration farms” for the propagation of new seeds, the study of soils, and the careful calculation of inputs and yields. D. B. Allen, assistant to the Director of the Agricultural Department in charge of the “Northern Circle” of Bengal, wrote that it was not enough to show people how to do things—say, apply a particular manure. Agricultural officers needed to “at the same time show him [the farmer] that it will pay to follow our advice.... This is the true objective of the Demonstration Farm, the crucial question being not whether a special treatment is good for a crop, but will it pay the cultivator.”²⁸

²³ BL IOR/V/24/122: *Report of the Agricultural Department, Bengal*, 1912, 40.

²⁴ *Annual Report of the Kalimpong Demonstration Farm for the Year 1909–1910*, Calcutta: Bengal Secretariat Book Depot (1910), i.

²⁵ BL IOR/V/24/120: *First Annual Report of the Director of the Agricultural Department, Bengal*, 1886, “Letter from M. Finucane to Secretary to the Board of Revenue. No. 390T,” 1–30 of Appendix.

²⁶ BL IOR/V/24/120: *First Annual Report of the Director of the Agricultural Department, Bengal*, 1886, 4.

²⁷ See Brunner 2018; and Kumar 2016, on agricultural education in India. The Bengal Agricultural Department annual reports from the early 1900s outline the Cornell training program.

²⁸ BL IOR/V/24/120: *First Annual Report of the Director of the Agricultural Department, Bengal*, 1886, v. of Appendix.

SACH's Homes Farm, surrounding the school's cottages, was already producing enough vegetables, meat, and dairy to source the needs of Graham's growing boarding school. With the financial backing of the Agricultural Department, in 1907, Graham opened the first and only demonstration farm located outside the Bengal plains. The agricultural department provided SACH with a grant of Rs. 5,000 per annum for five years, with the proviso that while Graham would appoint and oversee all farm staff, "the demonstration work will be guided by the Deputy Director of Agriculture."²⁹ SACH students worked on both the Homes Farm and the Demonstration Farm to fulfill their vocational training and prepare them for resettlement.³⁰

The heart of the farm was the demonstration ground, where *raiya*s could come to collect seeds, either at no cost or highly subsidized, and learn how to plant and care for them. The government funded the project with the primary objective of propagating "English fruit trees," including apricots, plums, and walnuts grown from seedlings from the Royal Nurseries at Maidstone, England. These fruits were to be sold to the European occupants of Darjeeling and Kalimpong. The harvesting season for many of these "English fruits" corresponded with the time of year that colonial administration shifted to the hills, but over the first five years, these experiments largely failed.

The farm was more successful, at least in the short term, in improving the performance of staple grain crops, the main market for which was not the European elite but the growing population of Nepalis as well as Bhutias and Lepchas, on and off plantations. Buckwheat, corn, and millet, along with lentils and soybeans, were grown on terraced and unterraced, irrigated and unirrigated plots, at different altitudes. A key question for the officers in Kalimpong was how to deal with the "rapidity with which the rain drains off these slopes."³¹ The Agricultural Department had already dedicated decades of research to the Janpur variety of maize, which had proven to yield particularly well in the relatively dry plains, but at Kalimpong, the first round of experiments with Janpur maize failed. Farmers were already growing maize in Kalimpong and these local maize varieties fared much better in comparison. Experimentation in these early years focused a great deal on maize and the elaboration of techniques for growing the crop became the demonstration farm's first big success. Maize, unlike rice, could be intercropped with millet or soybeans. The 1913 Annual Report of the

²⁹ BL IOR/V/24/122: *Report of the Agricultural Department, Bengal*, 1908, 1 of Appendix.

³⁰ Elsewhere in colonial Bengal, there was a clear distinction between experimental farms and demonstration farms, or "model farms" (Roy 2016: 67). Kalimpong's demonstration farm served all of these purposes simultaneously since it was the only outpost in the hills not dedicated to the expansion of cash crops.

³¹ *Annual Report of the Kalimpong Demonstration Farm for the Year 1909–1910*, Calcutta: Bengal Secretariat Book Depot (1910), i.

Kalimpong Demonstration Farm suggested that if farmers dedicated their fields to maize and millet, then the government would be entirely justified in charging Rs. 1 per acre in rent to cultivators—double the 8 anna rent for “productive” land that had been established a decade earlier.³²

Henry Edmunds exemplified the department’s vision for what an Indian agriculture officer should be. He was trained not in an agricultural college, but on SACH’s farms and through SACH’s productivist curriculum. In 1914, SACH hired Edmunds to manage the demonstration farm. He enacted several changes at the farm and further expanded its experimental program. Edmunds also, according to those that remembered him, was central to the training of would-be resettled laborers. While after the fruit failure the farm was focused only on growing grains and lentils, Edmunds planted 2.25 acres of vegetables in 1918–1919. He explained in a written report that the “Objective with taking up vegetable cultivation on farm is to introduce it amongst the ryots in the Government Estate, and to put them in the way of exporting their produce to Calcutta at suitable times as well as provide for the needs of the new hill station of Kalimpong.”³³ All of the vegetables grown were deemed successful. The farm then distributed or sold at concessionary prices the seedlings of these “foreign vegetables.” This expansion was afforded by the extension of the Darjeeling Himalayan Railway, a narrow-gauge locomotive that had long connected the hill station of Darjeeling with the plains, to the base of the mountain below Kalimpong in 1915. The expansion primarily served to move wool out of Kalimpong, but it also facilitated the transport of vegetables and fruits to Calcutta.

Under Edmunds, the crops being experimented upon became racialized. Vegetables were often described as “foreign” or “European” and were thus marked as white, while staple grains were designated for the non-white populations of the hills. Given that the vast majority of the population of Kalimpong was producing its own food, the surplus was sold in DI Fund markets in Kalimpong and beyond, many of which were strategically located to serve the needs of the adjacent plantations. The demonstration farm was thus not only trialing crops, it was trialing whiteness itself.

Edmunds also greatly expanded demonstration work. Under his leadership, farmers were joined by local school groups from across Kalimpong in live demonstrations. School children took home seeds with the hope of distributing them to their parents and neighbors. The children were encouraged to explain the use of the new seeds, cultivation methods, and the market for these plants.

³² *Annual Report of the Demonstration Farm, St. Andrew’s Colonial Himes, Kalimpong for the Year 1912–1913*, Calcutta: Bengal Secretariat Book Depot (1913), 11.

³³ BL IOR/N/24/122: *Report on the Operations of the Department of Agriculture, Bengal, 1919*, 102.

These kinds of dissemination strategies remain popular in development practice today.

The 1920s also saw poultry experiments aimed at identifying which kinds of chickens work best for the hills. These experiments included the cross-breeding of Sikkim and English chickens. And despite English fruit trees failing years earlier, under Edmunds' tenure, the DI Fund underwrote half of a new 6.5-acre fruit crop experiment located in the center of the farm. Fruits grew this time, with oranges and pineapples most prolific among them.

Edmunds maintained that maize should remain the cornerstone of the agrarian economy in Kalimpong. According to a short 1997 retrospective on Edmunds published by the *Saint Andrew's Colonial Homes Magazine*, he had even earned the title "Mr. Maize" at the Homes.³⁴ In the 1924 annual report of the Kalimpong Demonstration Farm, Edmunds wrote that when intercropped with millet, maize was how most farmers in the region could make a living.³⁵ He oversaw the distribution of tens of thousands of pounds of high-yielding seeds each year.

In 1928, the Bengal Agricultural Department subleased the entirety of the demonstration farm from SACH. Edmunds stayed on as farm manager, but he soon became Superintendent of Agriculture for Darjeeling. After he became Superintendent, he set up four satellite demonstration centers on the most distant margins of Kalimpong, in Pedong, Git Beyong, Nimbong, and Yok Printam. To oversee these new demonstration centers and to help with the practical work, Edmunds appointed Jit Bahadur Limbu, who had worked at the farm for several years, and Daniel Juribu, who was from Nimbong. Edmunds, along with Limbu and Juribu, traveled to these locations and across the district doing demonstrations and presentations and distributing seeds. Farmers in each of the four satellite locations were selected to come to the demonstration farms regularly to learn and bring back seeds and methods. Farmers from each of the four blocks would work with specific crops (e.g., maize, millet, or vegetables, amongst other categories). As with the schoolchildren who visited the main farm in Kalimpong town, the idea was that these individual farmers, armed with new seeds and techniques for one particular crop, would then go back and train their kin and neighbors. Edmunds judged from the growth of *pukka* houses in the villages around Kalimpong (houses constructed out of durable material, as opposed to the raw, *kutch*a houses of highly degradable material used before) that experimentation and seed distribution were having their desired effect: permanently settling a new population of rent-paying *railyats* insulated against food insecurity.

³⁴ See <http://alkalyn.com/henry-raymond-edmunds-mbe.html> (last accessed 27 Sept. 2020).

³⁵ BL IOR/V/24/124: *Annual Report of the Department of Agriculture Bengal for the Year 1923–24, 1925*, clix.

CONCLUSION

Attention to what goes on outside cash crop plantations is crucial for understanding the multiple forms of productivity (e.g., industrial, peasant) that undergird colonial and contemporary capitalist projects. Such a perspective allows scholars to rethink the plantation as a technology not for eliminating biological and human diversity but for managing that diversity—to see the plantation and its outsides as reproductive technologies as much as productive ones (Murphy 2017). Nepali, Lepcha, and Bhutia farmers in Kalimpong, alongside Anglo-Indian children, worked in an enclave. To use Wynter's (1971) term, they were “adjuncts” to the empire, the market, and the crops they grew. The process of settlement through the distribution of smallholdings and the establishment of experimental farms facilitated several imperial ends: (1) rent extraction; (2) the slow opening up of frontier land to colonial control; and (3) the assurance not only that there was more food being produced but also that both white and Nepali, Lepcha, and Bhutia populations were able to eat according to their place and means within a racialized socioecological hierarchy.

The Kalimpong Demonstration Farm, and the work of figures like Henry Edmunds, transformed the countryside. They helped bring the annexed lands of the Bhutan Dooars under settled agriculture and into imperial governance. Agricultural experimentation fed the region's plantations and hill stations. Such experimentation thus demonstrated that small farmers and plantations could coexist, but more importantly, what was being demonstrated was a technique of settlement itself. This settlement was two-fold. For SACH students, settlement was a racialized disposition to land and labor that could be transposed to other colonial contexts. For Nepali, Lepcha, and Bhutia farmers, settlement was a racialized disposition to infrastructure, the market, and property. In the end, it was this multivalent logic of settlement, rather than particular seeds or irrigation practices, that was “extended” by colonial agricultural extension.

In 1940, Edmunds retired from the Agricultural Department and the publication of the annual reports on the Kalimpong Demonstration Farm ceased. The results of Edmunds' work, however, are infused in Kalimpong's present-day landscape. Plots of maize dot the landscape, and maize remains a food of the villages, a food of subsistence. Seed Farm managers, too, were long referred to as “Makaibaabu” or “Makaibaajee” (*makai*, meaning corn in Nepali, *baabu* a sign of endearment and respect, and *baajee* meaning grandfather).

Today, the remains of the “Seed Farm,” as it is locally known, are still visible, across the road from the Government of India's ICAR agricultural extension facility. Experimentation has moved away from staple crops like maize and millet to medicinal plants and high-value crops like kiwi. Though

the colloquial name “Seed Farm” indexes its past as a node through which people passed as they moved from villages to town and back again. Edmunds, too, looms large in the present and is still known to Seed Farm residents as “Makai Saheb.” The farm is not the only evidence of the enduring influence of the colonial logic of settlement in Kalimpong. Much of the land on which farmers across Kalimpong live and work is still leased from the government, which calculates rents based on projections about the market value of maize, millet, fruits, and vegetables.

Attention to the plantation's outsides has some political implications for the present. In a world where there seem to be fewer and fewer spaces “outside” commodity capitalism, how does the deliberate construction of such outsides help us understand the violence, racial orders, and ecological practices that have to be created to prop the capitalist system up (see Gibson-Graham 1996)? In contemporary anthropology and agrarian studies, colonial agriculture is often caricatured as a process of carving out monocultures. Capitalist agriculture is neocolonial, it seems, insofar as it perpetuates and extends monoculture. This means that in much scholarly and popular discourse, the “small farmer” must be either the victim of this continued expansion or the redemptive antidote to it. The case of Kalimpong is illustrative of the way in which small-scale, more seemingly biodiverse modes of agricultural production were, and continue to be, adjacent to, but not separate from, the growth and persistence of the plantation.³⁶ Such reproductive work includes food provisioning inside and outside the plantation.

This essay has suggested that the combined effort of religious educators and colonial administrators to create a small farmer-dominated outside to the plantation might be understood through the lens of “distributed reproduction,” foregrounding political decisions about which forms of life should be extended and which should be curtailed (Murphy 2017). Such a view captures the duality of the project of settlement, which is at once a coercive move of technology and people *onto* land and a more subtle and decidedly less deterministic effort to change ethical and technical postures *toward* land. A close attention to the long afterlives of colonial settlement can offer insights into how development forms as an outgrowth of colonial projects (Wainwright 2008). Indeed, the duality of settlement is captured in one of colonialism's major legacies to contemporary rural development, agricultural extension. While the term “extension” connotes a deepening of the reach of technology and government in the service of productivity, in practice (at least in Kalimpong) extension was at least as concerned with managing the distribution of reproductive capacities among peoples and

³⁶ This is also a point made in classic studies of peasantries and their relationship to capitalism (e.g., Kearney 1996).

plants. Here “reproduction” is not mere metaphor. The making of kin, the maintenance of infrastructure, and the circulation of seeds highlight how the process of bringing land itself into existence as an economic and ecological space is at heart a reproductive one.

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Abstract: While the colonial and contemporary economy of Bengal's Himalayan foothills is most often associated with the tea plantations of Darjeeling and the Dooars, the small farms of nearby Kalimpong were also a key space in which colonial agents and missionaries worked to "settle" the mountainous terrain. Focused on Kalimpong, this article traces the trajectory of one technology of settlement, agricultural extension, from the late 1880s to the early 1940s. It highlights agricultural extension's racialized and gendered politics, as well as its implication in a long-term project that merged material (i.e., food) provision with social reproduction (i.e., childrearing, kin-making). Agricultural extension created a patchwork of relatively biodiverse small farms that historical and contemporary accounts describe as a "green belt": a socio-ecological outside to the plantation monocultures that dominate the hills. British governors attempted to use non-plantation space for multiple ends. In this sense, their work might be termed "biopolitical," in that it was geared toward supporting and amplifying the life chances of certain human bodies and certain botanical species. Through a series of experiments, colonial agents made calculated choices about which of these forms of life should be made to flourish, and which might be allowed to perish. Importantly, settlement, as a set of intertwined projects, did not unfold in a coherent or deliberately sequential manner. Settlement was, and continues to be, a sedimentary process.

Key words: agricultural extension, social reproduction, colonialism, land, revenue, rent, missionaries, race, Himalayas