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Writing the History of a Colonial Institution: The case of the Government Cattle Farm, Hissar*

Brian P. Caton**

I have had enough colleagues, friends, family, and strangers—even in India—ask me why I should bother studying the Government Cattle Farm, Hissar, that I feel I should give some account of how I got into this business. I wrote a Ph.D. thesis some years ago that examined the processes of building the colonial state among pastoralists in southwestern Punjab, particularly in the Jhang, Montgomery, and Multan Districts.[1] These districts were notable for contributing well over 75% of the provincial revenue receipts under the heading "tirni",[2] despite the fact that animal use was nearly universal, spatially, and seasonal grazing was certainly present in districts and areas, now forming much of Himachal Pradesh, to say nothing of the regions west of the Indus River usually referred to as the Derajat. Though the most interesting data, in my view, emerged from documents written in the 1850s, immediately after annexation, I also consulted Revenue Department files from later periods in the nineteenth century. In those files I saw some references to stud rams and bulls from the Government Cattle Farm, Hissar, being distributed gratis to prominent herd owners in the 1870s.[3] In most cases, these owners neglected the stud animals, often resulting in death from starvation, and certainly the studs were not allowed

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to cover ewes or cows, if it could be prevented. A few owners did use the studs in the way that provincial officials hoped, but the scale of government's success did not engender much optimism in official quarters that the larger breeding agenda would meet expectations. This evidence certainly would suit the construction of a historical narrative seeking to measure the interaction between colonial force, resistance, collaboration, and, to an extent, subalternity—in short, colonial power—but I was very curious to know what sort of operation existed in Hissar and why it should have been there in the first place.

Thus my interest in the Government Cattle Farm grew organically out of my prior interest in the power relations, economy, and environmentality of animal herders in colonial Punjab, rather than being a particular place or case for answering a historical question that had driven my inquiry from the outset. Normally, in good historical writing, it is considered good to pose a historical question of some significance, offer a hypothesis, and use case data to argue for the validity of the hypothesis. My research thus far has been more a matter of immersing myself in case data and then casting about for a good historical question. So, rather than offering one thorough and good essay, tightly focused on a single historical question, I offer three short and mediocre essays, responding to three historical questions.

The first question is perhaps the most basic question of historical causation: Why did this institution get created? The short answer is, "to solve a military logistics problem", that is, to generate a supply of animal power to the East India Company's Army that would reduce or eliminate the Army's dependence on purchasing animals in the open market. Thus the first question is a fairly straightforward military history question.

Undoubtedly, self-conscious animal breeding projects began in colonial India in the 1790s, in the wake of difficult lessons learned by the Company's army in its engagements with Tipu Sultan. Although the military minds considering breeding had Tipu's arrangements for bovines in mind, the Bengal

government's more immediate concern in the 1790s was the means by which to obtain an adequate number of horses for cavalry and artillery purposes, without relying on horse markets located in territories into which the army sought to expand its northwestern frontier and thus had uncertain access. In the administrative correspondence proposing and establishing the Honorable Company's Stud, the breeding of bovines is clearly second to horses but not an afterthought. However, in the first ten years or so of its operation, virtually no concerted effort was made to improve the breed of bullock, nor to maximize production of bullocks of an existing breed or breeds. This may not come as a great surprise. Though horse traders had to make political decisions about to whom they should sell important military equipment, *banjaras* who owned massive numbers of cattle involved in the movement of grain from one place to another, frequently served both sides involved in a conflict. Armies seeking *banjara* services had to act in ways that did not take *banjara* services for granted. As a consequence of this difference in availability, the Company's army continued to rely on the hiring of *banjara* bullocks in order to move necessary supplies.[4] Despite this, or perhaps even because of it, in many places in the Military Department records, officers sought elephants, camels, and horses to substitute for bullocks when they could be made available, reflecting a prejudice against the bullock as a draught animal or an eagerness to be free of dependence on *banjaras*. Nevertheless, *banjara* bullocks and purchased bullocks were indispensable to military and civil government operations, not only from turning the machines that bored the barrels of artillery pieces, but also to the manufacture of gunpowder, and to carrying the baggage of visiting dignitaries (such as the Archbishop of Calcutta or the ex-Raja of Coorg). So while the Military Department spent considerable energy importing stallions and mares from England, the Cape of Good Hope, central and southwestern Asia, and New South Wales, and monitoring the produce of the Stud and its fiscal solvency, it still relied on early colonial processes for obtaining the necessary bullocks.

This situation changed slightly with the establishment of an Agency for Camels and Gram at the end of 1802.[5] Although

records as early as 1801 indicate some consideration of attaching camels to units of Native Cavalry, there doesn't seem to be any evidence prior to this date indicating an interest of the military establishment in the large-scale hire of camels as carriage labor, perhaps because the Company's base in Bengal gave it more immediate access to elephants, which were more powerful, intelligent, and durable in terms of working lifespan. However, elephants did tend to eat rather a lot, and as military expeditions pushed into drier zones of northern and central India, the army sought alternatives.[6] In 1808, one may find evidence of a fixed establishment of camels at Agra, Kanpur, Mathura, Saharanpur and Meerut, carried out by the then Agent for Camels and Gram, Lt. James Lumsdaine.[7] At this point in my research, it appears that the only reason why camels and gram were joined in a single agency was to facilitate the movement of gram, at that time the main fodder for horses, once it had been purchased. (The cultivation of oats came later on an experimental basis and in the long run never completely replaced grass or other vegetation as fodder for horses.) The Agent for Camels and Gram seems to have operated exclusively in the territories under the Bengal Government and sent camels to Madras and Bombay as needed. Once the Agency for Camels and Gram was folded into the operations of the newly formed Commissariat Department in 1810, this continued to be the procedure for delivering camels to locations outside Bengal—notably to the northern *Circars*, Nagpur, and Burma during the war there in the 1820s.[8] By that time the Commissariat Department was engaged in full-scale production of camels at Hissar, which is discussed in more detail below.

A substantial change in the process of obtaining bovine cattle occurred not so much with the organization of the Commissariat Department in 1810 but with the proposal of Maj. James Lumsdaine to add cattle breeding to the existing camel operation in Hissar in 1814.[9] Certainly, efforts at breeding cattle occurred in other locations, primarily at the Company's Stud in Pusa, as shown by the periodic dispatch of bulls and cows from Mysore, Hissar, and even England prior to 1814.[10] But William Frazer and

William Moorcroft, the Pusa superintendents in this period, did not devote much attention to cattle breeding, when compared to their primary charge of improving the breed of horse. Perhaps Lumsdaine's experience with camels, since his appointment as Agent for Camels and Gram in 1807, and his high position in the Commissariat Department after 1810, gave him more incentive to think about cattle breeding than the first two Superintendents of the Stud: Frazer, a breeding amateur, and Moorcroft, a veterinary professional. The scale of the Hissar cattle operation was large, though not without limits, and the bullocks could be inducted directly into the military service. Due to the massive requirements of the Company's army as a whole, the Hissar operation could only make up a small fraction of the supply of bullocks. But, I argue here that a small change is significantly different than no change.

It is also worth emphasizing the point that Lumsdaine planned the Hissar farm to be located in an area where he had successfully bred camels for about five years. Hissar, which had been an imperial city in Tughlaq times, had been eviscerated of its population during the *san chalisa* famine of 1782–83, so that even twenty years later few people inhabited the city or its neighboring villages. This emptiness, along with the fine grass produced between Hissar city and Agroha, was an advantage in Lumsdaine's plan, as government could be spared a great deal of negotiation with locals in order to appropriate land for the purposes of the farm. In the long run, it meant that rains, which failed relatively often, led to water and forage being unavailable to particularly horses and cattle in some years, which required herds of government (or "Public") cattle to be shifted to nearby areas where fodder and water were more readily available, usually to the north or northeast. The particular suitability of Hissar for camels made Lumsdaine's enterprise before 1814 fiscally sound. Government made an effort to note the profitability of the camel breeding project when reviewing the cattle proposal, and they were thus persuaded by Lumsdaine's claims that the joint camel, cattle, and horse facility would be similarly profitable—this in a bureaucratic climate where the Pusa Stud had to defend itself from

constant fiscal scrutiny from Calcutta. The camel branch enjoyed fiscal profitability, the cattle branch marginally so, and the horse branch constantly struggled to climb out of the red—mainly because of the exorbitant sums expended on purchasing English and Arab stallions. At this point, one should also note the proposed farm's organizational plan: the farm's three branches were all managed by Lumsdaine, but while he was formally a Deputy Commissary General (and the camel and cattle branches under the control of the Commissariat Department), his management of the horse branch was supervised by the Superintendent of the Stud, and his salary for managing the horse branch was paid from the Stud rather than the Commissariat Department. This rather odd joint reporting and funding remained in place through at least the 1840s; I haven't had enough time to look at files or even indexes for the 1850s, and W.S. Read's note that the farm was transferred in 1854 from the Commissariat to the Stud Department does not seem to take into account the prior arrangement.[11]

Lumsdaine's death in September 1816 might have brought the Hissar Farm to a quick conclusion, if government hadn't the insight or opportunity to appoint his brother, Lt. William Lumsdaine, to take charge, and to relieve the Hissar Supervisor of the other duties of the Deputy Commissary General. William had taken medical leave in 1813, after a successful service as Sub-Assistant Commissary General in Benares, and appears to have only recently returned to India in late 1815 or early 1816. Nevertheless, after disposing of his brother's estate, William threw himself into a largely successful term of management at Hissar, earning a promotion to Captain, presiding over expansions of the camel branch, and proposing expansion of the other branches, which ultimately met with the approval of Government. Although the promotion of the then Commissary General in 1823 moved Capt. Lumsdaine up the chain of command in the Commissariat Department and, therefore, out of Hissar, his proposals did result in a major territorial expansion of the Hissar farm carried out in 1824–25 by his successor, Capt. H.E. Peach. Government directed the Revenue Department in Delhi to take

all necessary measures to persuade landowners in the villages neighboring the farm to give up their claims. The Revenue officer deputed to this task largely failed, and Peach, perhaps because of his familiarity with the people who were his neighbors, was able to get the recalcitrant parties to sign over usage rights, so that the farm's expansion could proceed. These added villages brought the farm's boundary to its maximum extent. Capt. J.D. Parsons was appointed to direct the farm in 1826, when Peach was promoted during Lumsdaine's leave of absence, and Parsons remained in that position until 1837, when he was promoted to Major and the office of Deputy Commissary General. At that point the farm was given to the charge of Capt. Hailes, who went on leave in early 1841 and was replaced by his assistant, Capt. Dickey. (It might be worth noting that this narrative of leadership changes was all but invisible to Read, who thought Parsons served 1831 to 1854.) So, one larger story we have here is of institutional growth and generally smooth transitions in leadership.

However, my research thus far suggests that the Hissar Establishment never met the government's original hope that it would provide a supply of animals, particularly camels and bullocks, that had hitherto been obtained through the open market. Indeed, during the course of the First Afghan War, officers of the Commissary Department in the Upper Provinces were authorized to obtain, at inflated prices, camels to serve in Afghanistan, because the Hissar farm could not meet the demand (made heavier by the failure of the Army of the Indus to adequately rest and feed the camels in their custody).[12] In addition, a depot of camels was established at Ferozepore, despite government's concerns that guarding them against depredations from the "Sikh frontier" was impossible.[13] Nevertheless, in their defense of the Ordnance Cattle farm to the Military Board in 1844, the then current and a former supervisor contended that selling off the farm's live stock would be a pecuniary loss to government, that few bullocks suitable for artillery purposes could be had on the market, and that the purchase and rearing of young bullocks would not save government over the expense of rearing farm-born bullocks.[14] So in the end the institution, no matter how large, could never meet

the needs of an army whose demand for animals seemed constantly to increase; it could only meet that demand partially and give government some control over the type, or shape, of animal that the farm supplied.

The second question will sound familiar to those well read in the history of science, and particularly the history of medicine: Why did the Army deem it desirable to attempt to reshape animal bodies through breeding programmes? This question also attempts to separate analytically the Farm's purpose in animal reproduction from its purpose in improving the local breed of domesticate. In the literature on the history of medicine, from David Arnold and Michel Foucault before him, scholars have considered the institutional or individual use of power to discipline—that is, to control the movement or functioning of—the human body.[15] The only place where the history of medicine seems to think about the re-*shaping* of the human body is in the case of eugenics, and the literature on this topic appears to focus on the application of such ideas in the German Third Reich or in the American South prior to the mid-twentieth century. I haven't looked into this literature yet, as it doesn't hold out much promise of usefulness, but I'd like to return to a theme prominent in the history of colonial medicine, and in fact also the history of women in colonial India—namely, the human or specifically female body as the site of struggle between colonizers and colonized. Surely the many writings and readings of *Subaltern Studies,* have both problematized and reified the notion of "colonizers and colonized", but I am more interested in the body—the animal body, precisely—as a site for the expression of power relations between people. (There is a literature in what is usually called animal studies which broaches the question of power relations between people and animals, which I acknowledge but will not enter into here.) I am not so much interested in the power relations that produced the colonial state but, more broadly, those producing colonial conditions. The available evidence allows me to say much more about government's intentions for how these power relations played out and much less about how they in fact did play out.

To be sure, any breeding attempted by the cattle and camel branches of the Hissar Farm was not carried out consistently, in the way that horse breeding at the several locations of the Stud (including Hissar) required the maintenance of detailed records of bloodlines and offspring. Records of the first decades of the Pusa Stud include exhaustive inventories of animals, particularly those put forward and evaluated for possible incorporation into the service. Stallions, once tenured at a Stud or Depot, were frequently referred to by name in otherwise pedestrian correspondence. Such detail simply does not exist for cattle or camels, though some level of detail must have been recorded at some point in order to distinguish cattle of pure breed from those crossed one or more times. There does not seem to be comparable evidence identifying breeds or types of camel, though occasionally a distinction is made regarding the place whence or the persons from whom camels were purchased or hired. The Board of Superintendence in 1822 contemplated the introduction of Merino rams into India, based on the perceived success of a similar experiment in the Cape of Good Hope.[16] Originally, the rams were proposed to be delivered to the Hissar Farm, but in the end they were introduced in only a limited experiment in the Doon Valley. So in the first half of the nineteenth century, the farm carried on breeding of camels, horses, and horned cattle, though the care or precision with which breeding experiments were conducted varied considerably between species.

Periodically, officers in charge of the Government Cattle Farm and the Military Board complained that the cattle at the Farm were of a non-descript condition or mongrel breed, yet at other times the same personnel suggested the need for judicious crossing of breeds. This narrative points to a longer trajectory of indifference, indecision, or internal conflict among military personnel on this question. Although improvements to the breed of horned cattle were part of the plans for the Stud as laid down by Frazer in the 1790s, no urgency on the matter was expressed in the correspondence (or on the ground). In response to a perceived decline in the quality of bullock obtained in the Tirhut and Purnea districts, whence most bullocks had been obtained to that point,

the Commissary General in 1813 recommended the distribution of bulls from Haryana, Mewat, and Jodhpur to Bengali zamindars from these two districts, on terms similar to those set up for horse breeding managed by the Stud.[17] The Board of Superintendence of the Stud were so taken with the bulls that they requested a "proportion of cows" of the same countries be sent, as it would "greatly forward the improvement desired".[18] In 1824, government authorized the Supervisor of the Hissar farm to distribute annually a "certain number" of farm bulls to zamindars within 10 *kos* of Hissar, replacing the practice of giving a bull in exchange for a cow. The intent here was to improve the local breed, under the unwritten assumption that the farm bulls were superior in quality, but it also aimed to utilize local labour in doing so, along the lines for horse breeding on the "zamindari system" in the neighbourhood of the Pusa Stud, as Saurabh Mishra has explained in detail.[19] In 1830, W.C. Bentinck, the Governor-General, suggested closing down the cattle branch of the Hissar farm because it had been established on what he thought to be an erroneous assumption, namely, that "the breed of Cattle fitted for Ordnance purposes was rapidly degenerating…"[20] But a little over a year later, Bentinck directed the Military Board to produce "a compendium in the Native languages of useful information on the subjects of breeding, rearing and managing horses and kine", implying that he believed there to be considerable room for improvement in breed and breeding practices throughout India.[21] An experiment in crossing Mysore cattle with those already at Hissar ended in 1833, with the supervisor noting his inability to sell off the cattle, even at a loss.[22] However, Capt. E.J. Dickey, the in-charge of Hissar in 1841, made a fairly thorough list of the types of crossed cattle then available at the farm, and regretted that the farm had no bulls of the Mysore breed, which he thought good to cross with Nagore cows.[23] The distinguishing features of each breed or cross are not provided in detail, but only vague comments about their speed, power, size, and activity.

At one level *both* responses—crossing for improvement or weeding out mongrel breeds—reflect a broader arrogance toward things "native", which points toward modernization as the self-

justifying logic of the colonial enterprise. Indeed, when the Military Board had been requested to report on the mode of tending camels requiring medical treatment, they replied that "we know nothing, but it can scarcely be supposed that it is not susceptible of improvement just as the ordinary practice of common Farriers has been improved by the application of Veterinary Science".[24] At another level, breeding programmes point toward the state's desire to transform animal bodies as a means to discipline the humans responsible for managing the reproduction and care of those animals. This is the analogue to Arnold's *Colonising the Body*. But, the fact that British and Indian people were trying to *reshape* animal bodies means the analogue can only go so far, and the technique bears comparison with the means by which British and Indians transformed other material elements of their environments.

The third question, then, should consider how the operation of the Government Cattle Farm affected the local environment of Hissar and the broader locality of Hariana. This question rests on the assumption that any change in land use will produce an environmental effect. The administrative correspondence relating to the Government Cattle Farm certainly provides some indicators of climate: because the cattle operations in the early years depended entirely on rain-fed pasturing, years of severe drought resulted in heavy losses and experiments in temporarily relocating the herds to neighbouring tracts or as far away as the Doon Valley (approximately 260 km). Canals were repaired and excavated in order to bring water to the central station and to areas newly placed under fodder cultivation. Unlike in the Indus Valley canal projects, these canals seem not to have raised the water table or affected humidity or rainfall. So the answer to the question, in broad terms, is that we cannot precisely measure the environmental change in the areas of climate, soil and water quality, and biotic volume and diversity.

Some description of the environment of the farm is needed. Two features remain constant throughout the period under study: the country's flatness and aridity. In fact, the Hariana country was

so flat that, if the rains did come in abundance, people and animals had to cope with standing water, sometimes as deep as two feet, until the water percolated into the soil or evaporated.[25] Though the farm was not located in the driest part of the Hissar District, the experience of the *san chalisa* famine suggests that drought could inflict long-term damage to biotic life. However, records do not provide a clear picture of drought before British rule; it is possible that the several droughts of the 1830s and 1840s represented an increase in the frequency of drought, but we cannot be sure. Droughts resulting in fodder famines are noted in the Military Department records for 1833/34, 1837/38, 1841/42 and 1844.[26]

The aridity problem was to some degree mitigated by the excavation of irrigation works. When the Tughluq emperor Firoz Shah in the mid-fourteenth century sought to build a small fort in the midst of his hunting grounds, he also excavated a canal that diverted water from the Yamuna River, in order to provide a greater and perhaps more reliable water supply for the fort—not for the purpose of cultivation. That the canal extended beyond the fort might be taken as an indication he intended human and animal wastes to be washed away (to the west) from the fort as a sanitation measure.[27] We might thus assume that the country around the fort, for some miles, was characterized not by endless expanses of grass but by a sort of savannah in which grass grew around the types of shrubs and trees that could survive the climate. Some cultivation may have sprung up outside the hunting grounds, and may have been carried on long after the fort had been abandoned by the Tughluqs and their successors in Delhi. When James Lumsdaine showed up around 1809, he found the canal out of use and the villages around the fort sparsely inhabited or abandoned. Thus, Hissar had the visage of a country well-suited for raising camels, who prefer (if not require) bushes and trees for browsing. However, by 1826, the Hissar Supervisor entered into correspondence with the civil branches of government to determine whether government had the right to send its camels to browse on private property and how much compensation should be paid to the property owners where camels were sent.[28] This

continued to be a problem into 1833.[29] Certainly, government repaired the Western Yamuna Canal, and the availability of water increased cultivation along its banks. This cultivation, occasionally of fodder, provided a strategic reserve during drought years, but it also made cultivators there more susceptible to water-borne diseases.[30] In 1833, Parsons had an extension from the canal cut to fill a tank serving the cattle buildings at Salli, but it appears not to have been engineered well enough to keep the tank filled most years—certainly not during drought years.[31]

Yet the most significant (and perhaps most obvious) effects derived from the concentration of large numbers of large ungulates in a relatively small place. Some officials in the early years of the institution hoped it would have the effect of channelling all traffic in camels from Punjab and Bikaner. Although we do not have any time series of data that would confirm the presence or absence of change in camel trade, we do have population estimates; in 1843, the Hissar supervisor estimated the human population at 7,000 and claimed that they had "no particular branch of trade".[32] The population of camels or cattle at any given date was in the range of 2,000–9,000 (each); the breadth of this range is meant to accommodate losses in years of drought and fodder famine. This results in a population density well below the concentrations of modern American feedlots, but one does wonder about the effect of increased population density on soil and water conditions. Of course, since soil and water pollution was not a concern of government in the early nineteenth century, we do not have any data to answer this particular question. The most notable effect of increased population was the increase, from the 1830s forward, in the amount of land in the farm under cultivation of fodder crops (including *jowar*, *kurbi* grass, *moth*, and oats).

By way of conclusion, let me suggest that the three essays I have presented here show how one may use a particular case to tell different kinds of stories. The creation of an institution devoted to the reproduction of animals important to military strategy is a simple enough story, but it also points to the

strategies, deemed scientific or otherwise, by which animal reproduction was to be managed both within and, to an extent, without the grounds of the institution. And the grounds themselves imply the existence of bodies, both animal and human, in space—the use and processing of soil, air, water, and biotic material that bodies require in order to facilitate reproduction. In one sort of presentation, the stories about military supply, science, and environment might be made separately, in fact not in the same presentation at all, but doing so would leave the "thingness" of the institution aside or, most likely, leave it as an assumption foundational to whatever narrative might be crafted. I have attempted to foreground the institution, by exposing its material and rhetorical building and re-building blocks, in order to find a way to talk about the processes by which institutions take on reality in people's minds.

Footnotes

[1] Brian P. Caton, "Settling for the State: Pastoralists and Colonial Rule in Southwestern Panjab, 1840–1900", Ph.D. diss., University of Pennsylvania, 2003.

[2] British officials most commonly glossed this as "grazing tax". See Caton (2003), chapter 4, for a detailed explanation.

[3] See, for example, No. 53A., Lt. Col. W.C. MacDougall, Officiating Superintendent of Studs, to Secretary to Government of India, Military Department, 7 Dec. 1872 (British Library, Oriental and India Office Collection [hereafter OIOC], P/131, No. 12, April 1873).

[4] Humphry Bullock and B.N. Majumdar, *History of the Army Service Corps*, v. 1 (New Delhi: Sterling Publishers, 1976), 27–8.

[5] Minute by J. Salmond, Military Adjutant General, 31 July 1802 (National Archives of India [hereafter NAI], Military Proceedings, 16 Sept. 1802, No. 12 & 13).

[6] The supply of elephants also seems to have been limited; thus one finds records of camels bought or hired from northwestern India being deployed in Sylhet, Manipur, and Burma. See No. 6487, R.M. Cunliffe, Commissary General, to Lt. Col. Commt. W. Casement, Secretary to Government, Military Department, 3 Oct. 1826 (NAI, Military Proceedings, 6 October 1826, No. 202).

[7] No.109, A. Greene, Secretary to Military Board, to Lt. James Lumsdaine, Agent for Camels and Gram, to the care of the Postmaster at Cawnpore, 19 July 1808 (NAI, Military Proceedings, 10 Oct. 1808, Nos. 108 & 109).

[8] For example, see NAI, Military Proceedings, 4 March 1815, No. 146.

[9] NAI, Military Proceedings, 28 May 1814, Nos. 74 & 75. Lt. Lumsdaine had been promoted to Major upon his commission as Deputy Commissary General upon the creation of the Commissariat in 1810.

[10] Extract of Military Letter from Bengal, 29 Aug. 1799 (British Library, OIOC, L/MIL/5/465).

[11] W.S. Read wrote, to my knowledge, the only account of the Government Cattle Farm in print. W.S. Read, *The Government Cattle Farm, Hissar: A History and Guide*, rev. ed. (Lahore: Superintendent, Government Printing, Punjab, 1937).

[12] No. 2203, Maj. W. Burlton, Commissary General, to Capt. H. Debude, Officiating Secretary, Military Board, 9 Oct. 1840 (NAI, Military Proceedings, 21 October 1840, Nos. 169).

[13] No. 721, Military Board, to the Right Honorable George Earl of Auckland, Governor-General of India in Council, 20 Oct. 1840 (NAI, Military Proceedings, 18 November 1840, Nos. 214 & 215).

[14] No. 141, Military Board, to the Hon'ble W.W. Bird Esq, Governor-General of India in Council, 28 June 1844 (NAI, Military Proceedings, 9 August 1844, Nos. 177 & 178).

[15] David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Berkeley: University of California Press, 1993).

[16] Henry Wood, to President & Members of the Board of Superintendence of the Stud, n.d. (NAI, Military Proceedings, 19 July 1822, Nos. 123 to 125). The initial proposal also includes the introduction of a bounty on wolves, who were claimed to have carried off children of villages in addition to sheep.

[17] No. 119, T.M. Weguelin, Commissary General, to C.W. Gardiner Esq., Secretary to Government, Military Department, 10 Nov. 1813 (NAI, Military Proceedings, 13 Nov. 1813, Nos. 119 & 120).

[18] [No. 98] No. nil, George Herbert Gall, Secretary [to Board of Superintendence of the Stud], to C.W. Gardiner, Secretary to Government, Military Department, 15 Jan. 1814 (NAI, Military Proceedings, 22 Jan. 1814, Nos. 98 & 99).

[19] No. 272, William Casement, Lt. Col., Secretary to Government, Military Department, to Secretary to Board of Superintendence of the Stud, 18 March 1824 (NAI, Military Proceedings, 18 March 1824, No. 134). Saurabh Mishra, "The Economics of Reproduction: Horse-breeding in early colonial India, 1790–1840", *Modern Asian Studies* 46, no. 5 (2012): 1116–44.

[20] W.C. Bentinck, Minute by the Governor-General, 24 June 1830 (NAI, Military Proceedings, 25 June 1830, No. 4).

[21] W.C. Bentinck, Minute by the Governor-General, 7 Sept. 1831 (NAI, Military Proceedings, 21 October 1831, No. 70).

[22] No. 227, Captain J.D. Parsons, to Captain G. Young, Secretary and Accountant, Military Board, 23 March 1833 (NAI, Military Proceedings, 19 April 1833, No. 50).

[23] No. 57, Capt. E.J. Dickey, In charge Hissar Establishment, to Lt. Arthur Broome, Officiating Secretary, Military Board, 18 August 1841 (NAI, Military Proceedings, 6 October 1841, No. 186).

[24] No. 78, Military Board, to the Rt. Hon'ble George Earl of Auckland, Governor-General of India in Council, 13 May 1841 (NAI, Military Proceedings, 26 May 1841, No. 192).

[25] Copy No. 94, [H.E. Peach], to Lt. Hickey, Secretary to Board of Superintendence of the Stud, n.d. (NAI, Military Proceedings, 22 July 1824, Nos. 136 to 138).

[26] No. 274, Capt. J. Hailes, Supervisor Hissar Establishment, to Capt. E. Sanders, Secretary to Military Board, [n.d.] March 1838 (NAI, Military Proceedings, 16 April 1838, No. 167). No. 46, Maj. C.T. Thomas, Supervisor Hissar Establishment, to Maj. H. Debude, Secretary to Military Board, 4 Aug. 1842 (NAI, Military Proceedings, 16 Sept. 1842, No. 129). No. 19, Military Board, to the Right Hon'ble Edward Lord Ellenborough, Governor-General of India in Council, 14 May 1844 (NAI, Military Proceedings, 7 June 1844, No. 147).

[27] *Gazetteer of the Hisar District, 1883–84* (Lahore: The Arya Press, 1884; reprint, Lahore: Sang-e-Meel Publications, 2001), 4.

[28] See NAI, Military Proceedings, 22 Sept. 1826, No. 161 & 162, and also No. 445, William Casement, Lt. Col., Secretary to Government, Military Department, to Secretary to Board of Superintendence of the Stud, 22 Sept. 1826 (NAI, Military Proceedings, 22 Sept. 1826, No. 163).

[29] See No. 400, Col. W. Casement, Secretary to Government, Military Department, to Military Board, Stud Department, 22 August 1833 (NAI, Military Proceedings, 22 August 1833, No. 119), and No. 262, Military Board, to the Right Hon'ble Lord W.C. Bentinck, Governor-General in Council, 1 October 1833 (NAI, Military Proceedings, 10 October 1833, No. 89).

[30] *Gazetteer of the Hisar District, 1883–84*, 5.

[31] No. 271, Capt. J. Hailes, Supervisor Hissar Establishment, to Lt. W.E. Baker, Superintendent of Canals West of the Jumna, 15 March 1838 (NAI, Military Proceedings, 16 April 1838, No. 167).

[32] No. 74, Lt. Col. E. Gwatkin, Superintendent of Studs N.W.P., to Maj. H. Debude, Secretary to Military Board, 25 Aug. 1843 (NAI, Military Proceedings, 5 January 1844, No. 156).