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A cabinet of the ordinary: domesticating veterinary education, 1766–1799†

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Abstract. In the late eighteenth century, the Ecole vétérinaire d'Alfort was renowned for its innovative veterinary education and for having one of the largest natural history and anatomy collections in France. Yet aside from a recent interest in the works of one particular anatomist, the school's history has been mostly ignored. I examine here the fame of the school in eighteenth-century travel literature, the historic connection between veterinary science and natural history, and the relationship between the school's hospital and its esteemed cabinet. Using the correspondence papers of veterinary administrators, state representatives and competing scientific institutions during the French Revolution, I argue that resource constraints and the management of anatomical and natural history specimens produced new disciplinary boundaries between natural history, veterinary medicine and human medicine, while reinforcing geographic divisions between the local and the foreign in the study of non-human animals. This paper reconstructs the *Ancien Régime* reasoning that veterinary students would benefit from a global perspective on animality, and the Revolutionary government's rejection of that premise. Under republicanism, veterinary medicine became domestic.

On 5 September 1794, Philibert Chabert, the director of the Ecole vétérinaire d'Alfort, sent a request to the Commission d'agriculture et des arts for thirty pints of a transparent volatile alcohol called *esprit de vin*.[1] Esteemed chemist and member of the recently dissolved Académie royale des sciences Antoine Baumé had explained its diverse medical properties: when taken internally it coagulated blood and all other humours, hardened fibres and reduced their suppleness; when applied topically it closed open wounds, enhanced sweating for purification, and treated fresh burns. He cautioned, however, that overuse was associated with paralysis, withering and engorgement.[2] Claude Bourgelat, founder of French veterinary education, had meanwhile written that *esprit*

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1 Philibert Chabert to Commission d'agriculture, 19 fructidor an II, Archives nationales de France (subsequently AN) F/10/238.

2 Antoine Baumé, *Elémens de pharmacie theorique et pratique*, Paris: Veuve Damonneville, 1762, pp. 325–327.

de vin was integral to topical medicines for permeating the skin into the humours.[3] None of these medicinal characteristics spurred Chabert's particular request, however. His concern at that moment was not the conservation of life in the school's hospital, but rather the preservation of death.

The Ecole vétérinaire d'Alfort, the Ecole de santé, the Académie royale des sciences and many other institutions used *esprit de vin* to arrest the decomposition of their preserved anatomical and natural-historical specimens. The penetrating qualities that enabled *esprit de vin* to move through the tissue of the skin, to harden fibres and to close wounds also produced the retention of lifelike qualities in specimens after death. The alcohol was used in the desiccation process for dried specimens, and had also become the new preservative environment for wet ones.[4] Under the Revolutionary government, without access to the necessary materials, the veterinary school's specimen collection – a critical component of the school's identity from its foundation in 1766 – was at risk of rotting away. Additionally, as a royal institution, the entire school itself was vulnerable to liquidation. At the heart of Chabert's request lay the question, how does a corpse survive the French Revolution?

The political instability accompanying the French Revolution was felt in all cultural institutions of France, including scientific ones. Both Emma Spary and Roger Hahn have investigated the collapse and endurance of scientific institutions during the French Revolution.[5] Hahn explains how aristocratic elitism destroyed the Académie royale des sciences under the republican values of democratized education and science in service of the state. The Académie des sciences became the quintessential example of what was wrong with science under the monarchy; the culture of polite science at the expense of the masses was decried as anathema to visions of the new idealized republic. For Hahn, the two years between the closing of the Académie des sciences and the opening of the Institut de France represented a clear ideological break; the institutions were incomparable to each other, built under different governments and born of different ideologies. Spary, in contrast, shows how the Jardin du roi persisted as the Muséum nationale d'histoire naturelle. The Jardin du roi's collection of natural history specimens, the menagerie and its staff mostly survived a geographic relocation through a global network of support and prestige. Natural historians commenced a public education campaign that successfully promoted their field as the ideal discipline to give scientific insight into the future governance of the French citizenry, a project manifested in the museum.

Rather than using the Ecole vétérinaire d'Alfort as another case study of the survival or demise of a particular scientific institution through the Revolution, I argue that resource

3 Claude Bourgelat, *Matière médicale raisonnée à l'usage de l'Ecole royale vétérinaire*, Lyon: Jean-Marie Bruyset, 1771, p. 168.

4 Christophe Degueurce, Sung Vo Dhui, Jean Bleton, Paulette Hugon, Laure Cadot and Alain Tchapla, 'Un mystère: La technique de conservation mise en oeuvre par Honoré Fragonard pour créer ses fameaux écorchés', *Bulletin de la Société française d'histoire de la médecine et des sciences vétérinaires* (2008) 8, pp. 40–57, 40; Jean-Joseph Sue, *Anthropotomie, ou l'art d'injecter, de disséquer, d'embaumer et de conserver les parties du corps humains, &c*, 2nd edn, Paris: P.G. Cavelier, 1765.

5 Roger Hahn, *The Anatomy of a Scientific Institution: The Paris Academy of Science, 1666–1803*, Berkeley: University of California Press, 1971; Emma C. Spary, *Utopia's Garden: French Natural History from the Old Regime to the Revolution*, Chicago: The University of Chicago Press, 2004.

constraints imposed on the management and distribution of anatomical/natural history specimens produced new disciplinary boundaries between natural history, veterinary medicine and human medicine, while reinforcing geographic divisions between the local and the foreign in the study of non-human animals. Like other scientific and cultural institutions, the social and political merits of veterinary education endured repeated attacks throughout the Revolution. Scientific institutions did not need to change hands in terms of management or relocate in terms of territory to have the content of their research altered by the new priorities of new governments. The content of Alfort's anatomy cabinet, a symbol of its prestige and a representation of its intellectual priorities, played an especially important part in public debates about the role of veterinary education in the future of French agriculture. These public debates raised the stakes of private inter-institutional and governmental correspondence managing the scarcity of many basic pedagogical materials.

Historian Saurabh Mishra calls for veterinary history to take a more prominent role within the history of medicine, treating the history of medicine as its natural home.[6] As veterinary history becomes increasingly robust through studies of early modern folk medicine and a modern vision of 'one medicine', human medicine remains its central reference point.[7] Caution is necessary, however, when appropriating methodology from the historian of (human) medicine's toolkit. Just as the distinct social, legal and biological status of veterinary patients relative to human ones made borrowing from human medicine sometimes inappropriate or unimaginable, overuse of the historian of medicine's analytical frameworks may prematurely set the terms of a conversation. In late eighteenth-century France, where veterinary education was first institutionalized, veterinary medicine drew knowledge from many sources, of which human medicine was only one.

One of the aims of this article is to show how entrenched the early years of veterinary education were in the practices of specimen collection and preservation borrowed from natural history and human anatomy and to historicize how *veterinary arts* became predominantly conceived as *veterinary medicine*.[8] Thus, using the correspondence papers of the Muséum nationale d'histoire naturelle, the Ecole vétérinaire d'Alfort, the Ecole de

6 Saurabh Mishra, 'An introduction: veterinary history comes of age', *Social History of Medicine*, virtual issue September 2014, at www.oxfordjournals.org/our_journals/sochis/veterinaryhistoryintro.pdf.

7 Louise Hill Curth, 'The care of the brute beast: animals and the seventeenth-century medical marketplace', *Social History of Medicine* (2002) 15, pp. 375–392; Robert G.W. Kirk and Michael Worboys, 'Medicine and species: one medicine, one history?', in Mark Jackson, ed., *The Oxford Handbook to the History of Medicine*, Oxford: Oxford University Press, 2012, pp. 561–573; Susan D. Jones, *Valuing Animals: Veterinarians and the Patients in Modern America*, Baltimore: Johns Hopkins University Press, 2003; Ronald Hubscher, *Les maîtres des bêtes: Les vétérinaires dans la société française (XVIIIe–XXe siècle)*, Paris: Editions Odile Jacob, 1999; Roy Porter, 'Man, animals and medicine at the time of the founding of the Royal Veterinary College', in A.R. Michell (ed.), *The Advancement of Veterinary Science*, 4 vols., Oxon: CAB, 1993, vol. 3, pp. 3–9; Abigail Woods, Michael Bresalier, Angela Cassidy and Rachel Mason Dentinger, *Animals and the Shaping of Modern Medicine: One Health and Its Histories*, London: Palgrave MacMillan, 2018.

8 For a discussion of nineteenth-century 'veterinary arts' in England and their relation to human medicine see Abigail Woods, 'From one medicine to two: the evolving relationship between human and veterinary medicine in England, 1791–1835', *Bulletin of the History of Medicine* (2017) 91, pp. 494–523.

santé and the various governmental administrative bodies charged with managing the resources of scientific institutions, I argue that the government in effect domesticated veterinary medicine, thereby constraining the idea of France during a period of territorial expansion throughout the Revolutionary and Napoleonic Wars. Knowledge of how to treat local epizootics was severed from the project of collecting the world's creatures and from human medicine. Universalism was subordinated to a new agenda of keeping the French pastures populated with herds and tending to warhorses, even as those warhorses were instrumental in reshaping the hexagon, and expanding those pasture lands into annexed territory.[9]

Honoré Fragonard's legacy and the print culture of the cabinet

The Ecole vétérinaire d'Alfort opened on the outskirts of Paris in 1766 with the hope of accruing greater international recognition and support through proximity to the capital just four years after the first veterinary school had opened in Lyon.[10] Alfort is best known to modern historians for its exceptional museum, and most of the English-language scholarship examining the school during the *Ancien Régime* and Revolution focuses on the flayed and desiccated specimens of its first anatomist, Honoré Fragonard.[11] For Joan Landes, Fragonard's specimens display Enlightenment hierarchies between art and science; for Jonathan Simon they call into question traditional narratives of progress, science and secularism in the late eighteenth century; and most recently Lianne McTavish has interpreted Fragonard's figures as an attempt at resisting

9 To French historians, this argument may seem close to Albert Mathiez's association of the Revolutionary Wars with a departure from *Ancien Régime* cosmopolitanism. It is not my intention here to reinforce a break in French history where modernity gave rise to xenophobia. Plenty of xenophobia can be found at the Ecole vétérinaire d'Alfort prior to 1793, and I hope that no one perceives any nostalgia within the examples of specimens acquired through networks forged from colonial trade. See Albert Mathiez, *La révolution et les étrangers: Cosmopolitisme et défense nationale*, Paris: La Renaissance du livre, 1918. On foreignness in France see Peter Sahlins, *Unnaturally French: Foreign Citizens in the Old Regime and After*, Ithaca, NY: Cornell University Press, 2004; Christophe J. Tozzi, *Foreign, Black, and Jewish Troops in the French Military, 1715–1831*, Charlottesville: University of Virginia Press, 2015.

10 Alcide-Louis-Joseph Railliet and Léon Moulé, *Histoire de l'Ecole d'Alfort*, Paris: Asselin et Houzeau, 1908; Robert H. Dunlop, 'Bourgelat's vision for veterinary education and the remarkable spread of the veterinary "meme"', *Journal of Veterinary Medical Education* (2004) 31, pp. 310–314; Bruce Vivash Jones, 'Education: the keystone of the veterinary profession', *Veterinary Record* (2011) 169, pp. 222–225.

11 Joan B. Landes, 'Revolutionary anatomies', in Laura Lunger Knoppers and Joan B. Landes (eds.), *Monstrous Bodies/Political Monstrosities in Early Modern Europe*, Ithaca, NY: Cornell University Press, 2004, pp. 148–176; Landes, 'The anatomy of artificial life: an eighteenth-century perspective', in Jessica Riskin (ed.), *Genesis Redux: Essays in the History and Philosophy of Artificial Life*, Chicago: The University of Chicago Press, 2007, pp. 96–118; Jonathan Simon, 'The theatre of anatomy: the anatomical preparations of Honoré Fragonard', *Eighteenth-Century Studies* (2002) 36, pp. 63–79; Lianne McTavish, 'Intestinal chaos: tapeworms, dead flesh, and reproduction during the eighteenth century', in Raymond Stephanson and Darren N. Wagner (eds.), *The Secrets of Generation: Reproduction in the Long Eighteenth Century*, Toronto: University of Toronto Press, 2015 pp. 364–385; Sean M. Quinlan, 'Monstrous births and medical networks: debates over forensic evidence, generation theory and obstetrical authority in France, ca. 1780–1815', *Early Science and Medicine* (2009) 14, pp. 599–629; Christophe Degueurce, 'The celebrated écorchés of Honoré Fragonard, part 1: the classical techniques of preparation of dry anatomical specimens in the 18th century' (trans. Philip Adds), *Clinical Anatomy* (2010) 23, pp. 249–257.

death through anatomical immortality. The overwhelming spectacle of Fragonard's work, combined with lascivious rumours of forbidden romance and grave robbing in the production of its most infamous figure – *le chevalier* – results, though, in a narrower appreciation of the collection as a whole than of its *Ancien Régime* and Revolutionary contemporaries.[12] Fragonard's work fits seamlessly among histories of artisanal practices of scientific scholars in the early modern period and among stories of death and destruction during the Revolution, and consequently scholarship on his *écorchés* tends to situate these specimens within the framework of anatomical theatre and museology. The significance of this collection for veterinary medicine as an emerging scientific field remains unexplored.

From the beginning of the school's first classes, domestic and foreign print culture was captivated by the Ecole vétérinaire d'Alfort and its cabinet, but reducing the cabinet's value to Fragonard's *écorchés* seems to be a modern fascination. The earliest reference to the cabinet that I have uncovered comes from Dutch naturalist Eduard Sandifort, who in 1767 espoused the virtues of the school, complete with cabinet, garden and hospital, just one year after it accepted its first students.[13] However, he directed special interest towards no particular object. At its quinquennial anniversary, Robert de Hesseln's *Dictionnaire universel de la France* boasted that Alfort's 'anatomy cabinet' was the most beautiful and perhaps most complete in all of Europe, a sentiment many authors would reiterate over the next two decades.[14] Meanwhile, veterinary educators built allies across scientific fields on both local and international scales, and the school's public image was further promoted and reinforced by regional geographers and travel writers. Chabert's own efforts as director to augment the cabinet, now swelling with stuffed and dissected specimens, received praise in German-language travel writing and guides to the French countryside.[15] The strengths of the collection were thought to be its size, its diversity and its juxtaposition of the world's fauna and stages of growth. This is not to say that there were no references to Fragonard's ostentatious specimens, but to contextualize such mentions as sparse and ambiguous descriptions. One German professor, Heinrich Sanders, at the sight of Fragonard's young boy (flayed)

12 The passage from Rudolphi to which these rumours are attributed is notably a nineteenth-century account, one that circulated after the Terror and after Fragonard's own death. His two-volume technical work on human and veterinary medicine provides much more of an account of the school's significance and contribution than it does of Fragonard. Landes, 'Revolutionary anatomies', op. cit. (11), pp. 173–174. Karl Asmund Rudolphi, *Bemerkungen aus dem Gebiet der Naturgeschichte, Medicin und Thierarzneykunde*, 2 vols., Berlin: Gottlieb August Lange, 1804–1805, vol. 2, pp. 14–34.

13 Eduard Sandifort, *Natuur- en Genees-kundige Bibliotheek*, new edn, 9 vols., Gravenhage: Pieter van Cleef, 1765–1772, vol. 3, p. 856.

14 Robert de Hesseln, *Dictionnaire universel de la France*, 6 vols., Paris: Desaint, 1771, vol. 5, pp. 175–176; s.a., *Etat de la médecine, chirurgie et pharmacie en Europe et principalement en France*, Paris: Veuve Thiboust, 1777, p. 234; [Pierre-Thomas-Nicolas] Hurtaut and [Pierre] Magny, *Dictionnaire historique de la ville de Paris et de ses environs*, 4 vols., Paris: Moutard, 1779, vol. 2, p. 714; *Journal de Paris* (12 January 1781) 12, p. 49. [Luc-Vincent] Thiery, *Le voyageur à Paris*, part 1, Paris: Hardouin & Gattey, 1788, p. 124.

15 Johann Jacob Volkmann, *Neueste Reisen durch Frankreich: Vorzüglich in Absicht auf die Naturgeschichte, Oekonomie, Manufakturen und Werke der Kunst*, 3 vols., Leipzig: Casper Fritsch, 1787–1788, vol. 1, p. 521; J[acques-]A[ntoine] Dulaure, *Nouvelle description des environs de Paris*, part 1, 2nd edn, Paris: Lejay, 1787, p. 202.

mounted on a horse (also flayed), silk reins in one hand, whip in the other, described the piece as capturing the playful spirit of a nation that should perhaps be less playful.[16] Though Sanders clearly acknowledged Fragonard's work as exceptional, his description of it follows paragraphs listing the collection's hedgehogs, weasels, birds, donkeys, goats, oxen and horses (shy their *chevaliers*), as well as assorted stomachs, intestines, kidneys, spleens and bezoars. Fragonard's works may have been jarring, but it was the aggregate quality of the total collection that drew fame in its day.

Repetition and expansion

Whether written by naturalists like Sandifort or geographers like Hesseln, descriptions of the school's cabinet emphasized grandeur, completeness and the unification of domestic and foreign elements more than the curious anatomical oddities or foreign exotica in isolation.[17] Alfort was said to have the most complete and detailed collection of brains set in *esprit de vin* in all of France, and was compared favourably even to John Hunter's collection.[18] The 1795 inventory of Alfort's collection reveals thirty-one wet specimens of woman's gestation, forty-three for mares, forty-eight for cows and fifty-seven for ewes, and two bitch uteri.[19] Extensive repetition of similar specimens gave this collection a sense of value through scale. At the dawn of the Revolution, physician and encyclopedist Michel-Augustin Thouret finally put into words what everyone else seemed to have withheld under absolutism: the school had established 'a superb cabinet of animal anatomy, which grows considerably enriched every year, and which is already quite superior to that of the Jardin du roi'.[20] It was a celebration of consummate totality. The animal body as a whole disguised something that needed to be broken down and compared. This was what Chabert's jars accomplished, and it is what the evaporating liquor threatened to disintegrate.

Before the Revolution, the school procured specimens the way any other institution did, via a combination of donation, expedition and purchase.[21] The *philosophe* Voltaire furnished the school with a collection of kidney stones.[22] Chabert organized

16 Heinrich Sanders, *Beschreibung seiner Reisen durch Frankreich, die Niederlande, Holland, Deutschland und Italien*, part I, Leipzig: Friedrich Gotthold Jacobaer und Sohn, 1783, pp. 266–268.

17 This is consistent with the late eighteenth-century shift in cabinet content described by Katharine Park and Lorraine Daston as the '*Enlightenment* and the Anti-marvelous'. Katharine Park and Lorraine Daston, *Wonders and the Order of Nature, 1150–1750*, New York: Zone Books, 1998, p. 329.

18 Dulaure, op. cit. (15), p. 203.

19 Inventoire de la collection de l'Ecole nationale vétérinaire, an III, AN F/10/1294.

20 All translations unless otherwise stated are my own. Michel-Augustin Thouret, 'Anatomie', in *Encyclopédie méthodique: Médecine*, vol. 3, Paris, 1790, p. 648.

21 A careful examination of Alfort's financial records, AN F/10/1258–1264, reveals explicit reference to purchases for the collection. These include materials involved in preparation such as varnish or pins, as well as animal source material such as calf heads, cow eyes, human cadavers and various organs of local domestic species. Other donation records: 1ETP 300 Items 2534, 2535, 2536 Les Archives départementales du Val-de-Marne (hereafter ADVM). Gilbert, 4 February 1784, Dossier 1787 Projet des réglements, AN F/10/1200.

22 Claude Bourgelat, *Elemens de l'art vétérinaire*, 4th edn, Paris: Librairie vétérinaire de M.R. Huzard, an V/1797, p. 329.

student trips to the northern coast of France at Saint Malo to collect and preserve fish, and at least one of Alfort's dolphins that attracted so much attention came from Chabert's west coast trip to Boulogne.[23] He pulled aquatic specimens from the different port cities of France and made them a part of veterinary canon. Pierre Flandrin, another of the Ecole vétérinaire d'Alfort's administrators, had transported from England a number of live *animaux exotiques* acquired on other continents, including buffalo, llama and vicuña, as well as Indian rams and ewes.[24] By one report these were to be become experiments in domestication, but Flandrin died before publishing his papers.[25] As Lorraine Daston and Fernando Vidal have pointed out, 'naturalization' as a term for human and non-human immigration reminds us that the foreignness of these specimens was temporally dependent; the foreignness of a specimen, like that of a family, could be transcended through generational reproduction on French soil.[26] Flandrin was a collaborator with Louis-Jean-Marie Daubenton, who imported Merino sheep from Spain into France and brought the idea of animal 'acclimatization' into popular scientific and agricultural parlance.[27] Words such as 'expedition' and 'voyage' might seem inappropriate in the case of such nearby travel, but they appropriately capture the task of pulling the world together through mass acquisition, even as it was reliant on merchants, traders and local intermediaries within Europe. They also evoke something of the experience of transporting live animals. Such collecting was rarely achieved by single, direct trips; live animals would pass through many hands and generations of ownership before ending up at Alfort for public display. Paris, too, has its own marketplace legacy as the 'metropolis of *curiosité*'.[28] When a Bactrian camel arrived in the Paris market at place Maubert in 1787, Alfort graduate and instructor François-Hilaire Gilbert eagerly insisted that the cabinet should not lose the opportunity to include the creature within their collection.[29] This and the records of students returning specimens after graduation indicate that, under the *Ancien Régime*, at least some had firmly internalized the belief that domestic livestock management benefited from a diverse and ever-growing cabinet.[30] This position, however, was not universal – a point to which we shall return.

23 [Philibert] Chabert, [Pierre] Flandrin and [Jean-Baptiste] Huzard, *Instructions et observations sur les maladies des animaux domestiques*, Paris: Librairie vétérinaire de J.B. Huzard, 1793, pp. 17–18.

24 One of Flandrin's trips to England appears to have taken place around September 1783. See Flandrin to Sundersberg, 11 September 1783, Wellcome Trust Ms. 4736; Philibert Chabert on Pierre Flandrin's death, 15 fructidor an IV, Item 1903, ADVM 1ETP 258.

25 'Ausländischer Nekrolog: Pierre Flandrin, 1 May 1796', *Intelligenzblatt der Allgem. Literatur-Zeitung* (28 September 1796) 132, pp. 1113–1115, 1114.

26 Lorraine Daston and Fernando Vidal, 'Doing what comes naturally', in Daston and Vidal (eds.), *The Moral Authority of Nature*, Chicago: The University of Chicago Press, 2004, pp. 1–24. Sahlins, op. cit. (9), pp. 57–63.

27 Michael Osborne, 'Acclimatizing the world: a history of the paradigmatic colonial science', *Osiris* (2000) 15, pp. 135–151, 137.

28 Betinna Dietz, 'Mobile objects: the space of shells in eighteenth-century France', *BJHS* (2006) 39(3), pp. 363–382, 376.

29 Gilbert, op. cit. (21).

30 Review of Vitet's *Médecine vétérinaire*, in *Journal de médecine, chirurgie, pharmacie* (October 1787) 73, pp. 322–334, 328–329.

Importantly, it was not just veterinarians who saw the virtue of connecting domestic with foreign animals. Among the most important naturalists of the time, Georges-Louis Leclerc, Comte de Buffon, promoted the addition of a llama from the Spanish Americas to the school's collection, having noted that she died shortly after arrival at the school's menagerie with her cria offspring from England: 'we can see the stuffed skin and the body injected subcutaneously in Bourgelat's beautiful anatomy cabinet'.[31] Under the *Ancien Régime*, naturalists such as Buffon and Daubenton approved of veterinarians linking French and foreign specimens. Applying comparative anatomy and global ordering to veterinary studies was understood as support for those fields of inquiry, rather than competition. Alfort's collection was able to be separate from the Jardin du roi and still contribute to the project of natural history.

In Alfort's cabinet, as in many others, anatomical specimens did not just cross borders; they transferred environments too. The fish were mounted on plates and exposed to the air, while ruminants became aquatic within jars. A dolphin, like a cow and a monkey, could be stuffed, desiccated or defleshed. The abundance of animal remains and matching epistemic interest rejected an imperative to choose ideal preservation methods; instead, different techniques provided students with varying perspectives of internal and external anatomy. Specimens were formed as quickly as supplies permitted and as particular scientific gazes demanded. Exotica doubtlessly drew some attention to the collection, but all appeals to the size of the collection acknowledged that the bulk of the specimens came from sources familiar to the French citizenry. A third of their animal specimens came from horses, and when Fragonard was the school's anatomist, other livestock specimens came from the same butcher who furnished their students with meat.[32]

Sickly resources

In addition to these expected means of furnishing an anatomy cabinet, Alfort had a unique but underemphasized advantage in the ability to gather specimens from its hospital and from its sister school in Lyon.[33] Though other animal hospitals existed in

31 Georges-Louis Leclerc, Comte de Buffon, *Oeuvres completes de M. le Comte de Buffon*, vol. 10, Paris: Imprimerie royale, 1775, p. 371. Given that the body of the text makes reference to the llama in August of 1777, it would appear that the above date of 1775 was an error, intentional or accidental. On illicit printing see Robert Darnton, *The Literary Underground of the Old Regime*, Cambridge, MA: Harvard University Press, 1982, pp. 192–193. For another iteration after 1777 see Georges-Louis Leclerc, Comte de Buffon, *Histoire naturelle générale et particulière: Supplément*, 36 vols., Paris: Imprimerie royale, 1782, vol. 6, p. 204.

32 The name Le Moyne appears on dozens of receipts in the school's financial records for meat for the kitchen. Occasionally he also features in the 'objet divers' section with explicit reference to dissection and the cabinet. For specific examples see 'Chapitre de divers objets du mois d'avril 1770' and 'Chapitre de divers objets du mois de janvier 1770', in F/10/1260, cross-referenced against individual receipts located in the same files, AN F/10/1258–1261.

33 On Alfort's predatory relationship with the Ecole royale vétérinaire de Lyon see M.S. Arloing, *Le berceau de l'enseignement vétérinaire: Création et évolution de l'Ecole nationale vétérinaire de Lyon, 1761–1889*, Lyon: Imprimerie Pitrat ainé, 1889.

Ancien Régime France, none appear to have been comparable in scope or longevity.[34] For instance, short-term emergency hospitals were one response to cattle plague, though reuse of animal material in such cases was expressly forbidden.[35] From the foundation of veterinary education, in-house medical care was envisioned as a part of the school's essential services, and the school's hospital advertising focused on the needs of horses, cattle and mules at thirty-five *sols* a day, and sheep and 'other' animals at twelve *sols* a day.[36] The livestock of the poor were not subjected to any lodging fees, though their owners were charged for any pharmaceuticals used.[37] Of the three paid services for horses – farriery, pharmaceutical dispensing and hospital stays – the last generated 90 per cent of the school's medical services revenue, but it ought not to be understood as a profit-driven enterprise.[38] Increasing the price of hospital stays risked losing the school's most important teaching resource, dying animals.[39] Though this is not the place to give a comprehensive history of the school's hospital, it is important to understand how medical pedagogy, ailing patients and access to corpses intersected in the production of the school's cabinet specimens. Two sets of surviving hospital registers make this work possible. One is a detailed patient history covering the early years of the hospital (1767–1771) and another is a set of hospital financial registers that cover the dawn of the Revolution (1788–1790).[40]

Between October 1767 and September 1771, the school documented the treatment of 1,066 animals.[41] At any given moment, the hospital was treating between twenty and sixty patients with an average stay of forty-five days, with some animals dying on the

34 The former guard to the Polish king and sous-equestrian to the Royal Academy of Nancy, Jean Léonard Larché, advertised that he would be opening a horse hospital in a northern Paris suburb, Villette, in 1763, and by 1767 he had advertised that it had opened, but it seems to have left little mark. See 'Avis donné au publique par M. Larché', *Gazette du commerce de l'agriculture et des finances* (12 May 1767) 38, p. 371. 'De la gourme des chevaux', *Journal oeconomique, ou memoires, notes et avis* (1763), pp. 311–312.

35 There is an undated advertisement for a veterinary hospital created by the intendant in Saint-Emilion, Saint-Sulpice, quite possibly in response to a devastating epizootic outbreak in the provinces of Guyenne and Gascony in the 1770s. See also s.d., 'Avis sur la maladies des bestiaux', Archives départementales de la Haute-Vienne, C24. Passing references to a hospital in that region occur in Archives départementales de la Gironde, C3300.

36 These numbers come from the first veterinary school, which had opened in Lyon. See *Affiches de Lyon* (25 February 1762) 8, p. 31. Once Alfort was opened the advertising changed to thirty *sols* a day per animal. See *L'Avantcoureur* (19 August 1767) 32, pp. 499–500.

37 [Philbert Chabert, Pierre Flandrin and Jean-Baptiste Huzard], *Almanach vétérinaire, ou abrégé de l'histoire des progrès de la médecine des animaux depuis l'établissement des écoles royales vétérinaires*, Paris: Veuve Vallat-la-Chapelle, 1782, p. 13.

38 'Demandes faite par Monseigneur Iamber à Chabert' and 'Produit des hopitaux, de la Pharmacie et des Forges de l'Ecole Royale Vétérinaire de Paris en 1779, 1780, et 1781', dossier 1787, AN F/10/1200.

39 'Observations sur les changemens qu'il a paru convenable d'apporter au Règlement de 1780', dossier 63, AN F/10/1200.

40 Medical registers, 1767–1771: ADVM 1ETP 400, 401. Financial registers, 1788–1790: AN F/10/96, 97. Though these are asymmetrical sources, both provide a great deal of comparable knowledge about entry duration and mortality.

41 All comments on the hospital from this period of time come from having reconstructed their hospital records out of two separate manuscript registers of 583 and 663 pages respectively. ADVM 1ETP 400 & 401.

day of entry and others staying more than one year.[42] For those patients that died, the typical hospital duration before death was two months. Only eight of these 1,066 animals were not horses: a female donkey, a male and a female mule, and five cows, all of which survived. The remaining 1,058 horse patients were primarily noted as *cheval*, with at least seventy-three females documented; only five were marked as colts or fillies.[43] Outside observers interested in the broader agriculture applications were struck by the equine overrepresentation.[44]

The hospital's medical services were notably diverse. Admittance diagnoses included skin infections (warts, scabies), gait interference (grapple, vertigo), injuries and wear (sand cracks, nail pricks), elective surgeries (castration, docking), and various forms of tumours or swelling, especially in the legs. Treatment success varied, and even patients with some of the more seemingly benign maladies, such as warts, can be found among the listed fatalities. The most common diagnosis, however, was glanders, which had an exceptionally high mortality rate and is understood today to be a deadly but treatable bacterial infection.[45] Animals died on campus frequently, either as disease ran its course, following surgery, or through intentional slaughter. During these early four years of the hospital's history, Alfort lost 16 per cent of its patients. While this death rate is comparable to that of the human hospitals Paris Saint Sulpice and Béziers Hôpital Mage, the circumstances of these deaths differ substantially in that 42 per cent of Alfort's 'incurable' patients were deliberately euthanized.[46] Reflecting on later changes in human medical ethics, Dora Weiner has argued that, under the Revolutionary hospital reforms, and in return for health care, patients newly owed their bodies back to the state in the form of medical observation and experimentation and – in cases of their death – as cadavers.[47] Non-human animals functioned as a precursor example of such models of medical exchange.

While death was crucial for the collection, and the collection was crucial for the school, the role of the school's animal hospital as a source of materials was rarely

42 Not all horses staying approximately a year or longer needed constant medical attention, and some were moved out to the fields to graze as a part of their convalescence. Fols. 141–144, ADVM 1ETP 401; fols. 301–308, 597–601, ADVM, 1ETP 400.

43 There are at least two cases in the register that would indicate that *cheval*, though linguistically gendered masculine, did not always denote a male horse, including one case of pregnancy. Fol. 345, ADVM 1ETP 401. It appears as though sex-specific notation stopped being prioritized in the records after 1769, where the first two-thirds of the records contain 90 percent of the female notations. See also Jean Dubois, 'Le genre dans les noms d'animaux', *Linx* (1989) 21, pp. 87–91.

44 Johann Christian Erxleben, *Theoretischer Unterricht in der Vieharzneykunst*, Göttingen: Johann Christian Dietrich, 1798, p. 27.

45 In the eighteenth century, there were two common diagnoses for different manifestations of what is presently understood to be the same disease. When it manifested on the skin it was called *farcin* (farcy), and when it manifested in the lungs it was called *morve* (glanders). Patients diagnosed with *morve* had the highest mortality rate. Both farcy (*farcin*) and glanders (*morve*) have been combined here. On the difference between them and the difficulties of studying glanders in the pre-germ-theories context see Lise Wilkinson, 'Glanders: medicine and veterinary medicine in common pursuit of a contagious disease', *Medical History* (1981) 25, pp. 363–384.

46 Colin Jones and Michael Sonenscher, 'The social functions of the hospital in eighteenth-century France: the case of the Hôtel-Dieu of Nîmes', *French Historical Studies* (1983) 13, pp. 172–214, 175.

47 Dora B. Weiner, *The Citizen-Patient in Revolutionary and Imperial Paris*, Baltimore: Johns Hopkins University Press, 1993, pp. 1–14.

discussed explicitly. Instead, specimens accrued from the menagerie were more likely to have been publicly documented, as was the case in Buffon's description of the llama and cria. The loss of a notable attraction was normalized as a consequence of climatic response and redeemed by total scientific interest: 'This is without a doubt one of the greatest advantages that Alfort's menagerie has above all others that exist, where the animal, having been the object of a sterile curiosity, after its death is lost to science.'[48] A similar logical approach was taken to hospital death, but to reveal this would undermine the confidence in its medical function and hinder further access to patients as pedagogic material. Death was necessary and productive for teaching, but the school's utility was ultimately defined by its ability to improve and provide medical care.

By 1782 Alfort boasted eleven stables, where twenty students could manage eighty sick 'animals'.[49] The contrast between the overwhelming representation of horse patients in Alfort's hospital and the advertising of their services with species-neutral 'animals' is striking. Veterinary administrators insisted that they treated mules, asses, cattle and sheep as well as horses on site, which was as much an aspirational statement as it was a dissembling one. Other scholars have assumed that the overrepresentation of horse medicine in the collection could be attributed to an epistemic privileging of militarization, but this misses the species-specific conditions of animal treatment. Horses were frequently brought directly to campus and were immediately dissected and preserved with supplies on hand, while it was always easier for the veterinarian to go to a flock of sheep or herd of cattle than to transport a farm's worth of patients to hospital. Outpatients did not so easily lend themselves to the mass collection that occurred on site.

With 988 horses admitted to the hospital between November 1787 and January 1791, other inpatient species remained exceptional: ten cows, one bull, three mules, two goats and two donkeys. The average hospital stay for horses was by then shaved down to a month. Given that the Revolutionary records are primarily financial rather than medical in nature, very little comparison is possible regarding diagnoses, as these were only noted in one-third of cases. However, when calculated from this third, the numbers look much the same as before. Glanders remained the diagnosis most likely to predict mortality, with nearly half of those patients having died on site. The most visible shift in hospital management between the late 1760s and the 1780s is the rate of abandonment. Only 1 per cent of horses from the first cohort were abandoned, whereas in the years leading up the Revolution, marked by harvest failures and increasing financial desperation, 11 per cent of horses were abandoned. Nearly half of those animals were euthanized, often accompanied by the explicit statement 'killed [*tué*] for the operations course'.

Bourgelat had believed that the corpse was a window into the life of an animal, and he had written that by 'playing [*joüer*] with the tendons in a cadaver' students could better understand the muscular and skeletal structures that dictated animal movement.[50] He

48 Dulaure, op. cit. (15), p. 205.

49 [Chabert, Flandrin and Huzard], *Almanach vétérinaire*, op. cit. (37), pp. 12–13.

50 Claude Bourgelat, *Elémens de l'art vétérinaire: Zootomie ou anatomie comparée, a l'usage des Elèves des Ecoles Vétérinaires*, Paris: Vallat-la-Chapelle, 1766, p. 92.

had not been alone in that perspective. Christian Andreas Cothenius, physician to Friedrich II, advocated that any 'animal-physician' must first be 'an anatomist' and 'a butcher'.[51] Cothenius further had proposed the experimental model of slaughtering animals at several stages of disease to better understand the pathological impact on the body's interior before addressing curatives.[52] At Alfort the lives of veterinary patients were explicitly weighed in narratives of economy: dead horses stopped bringing in revenue, and cured abandoned horses were often sold or put to work on school grounds. One abandoned horse that had suffered from a dislocated shoulder was killed 'for instruction' after three months of treatment. The record noted that its shoulder could be consulted in the cabinet.[53] Hospital management spurred creative calculations in the management of life and death. When disease meant that neither meat nor hide could be consumed or sold, pedagogical utility was the next metric.

During the *Ancien Régime* and the Revolution, students practised diagnostics, pharmacology, surgery and external anatomy on their on-site patients, and every patient death was a further didactic opportunity in autopsy, internal anatomy and preservation. This post-mortem training included the production and preservation of specimens, a didactic practice that combined the rote memory work of anatomy with tactile and visual knowledge to create new scientific objects. A fundamental distinction between Fragonard's artisanal crafts and the majority of the collection is that most pieces were not aesthetic crafts of experts, but the work of students in training. The school's collection had grown so full of such specimens that a retired Commis des Haras described Alfort as little more than a repository for churning out specimens for fools who 'confused the size of a collection with erudition'.[54] In at least one case, Flandrin purchased a horse with a large testicular tumour with the explicit aim of preserving visual representations of the pathology, with seemingly little hope of curing it.[55] The collected tumour measured fourteen inches at its widest point and weighed fifty pounds, and required four containers for storage.

Prior to the Revolution, the breadth of Alfort's cabinet collection played a critical role in the school's national and international acclaim. Excesses of completion and comparison could render a cabinet of the ordinary as spectacular as that of monstrosities. Indeed, Harriet Ritvo argues that private cabinets opened to the public may have done as much to affirm the existence of monsters as to deny them, because there the public could see the bizarre intermingled with ordinary domestic elements.[56] Whereas popular tourist guides stressed the breadth of the collection, description of those more monstrous and curious

51 Christian Andreas Cothenius, 'Pensées sur la nécessité d'une Ecole Vétérinaire, avec des projets sur la maniere de l'établir', *Histoire de l'Academie Royale des Sciences et Belles-Lettres, Année MDCCLXVIII*, Berlin: Haude et Spener, 1770, pp. 42–69, 49, 59.

52 Cothenius, op. cit. (51), p. 52.

53 See records for property owner Victor Sellé: November 1789 and 1 January 1790, AN F/10/97. Cases that bridged two calendar years were often recorded twice.

54 Chaussart, *Le moniteur universel*, 9 February 1790, p. 32.

55 Pierre Flandrin, 'Description Pathologique et anatomique d'un sarcocèle monstrueux dans un cheval', *Journal de médecine, chirurgie, pharmacie, &c.*, April 1789, pp. 71–89.

56 Harriet Ritvo, *The Platypus and the Mermaid and Other Figments of the Classifying Imagination*, Cambridge, MA: Harvard University Press, 1997.

specimens was confined to more scholarly publications, available to experts but less so to a lay public. Louis Bredin, the director of Lyon's veterinary school, instructed the readership of the *Journal encyclopédique* to compare his findings against the specimen of a deformed cat skeleton held in Alfort's cabinet.[57] François Rozier, an instructor at the Ecole vétérinaire de Lyon, directed people to Alfort to find the jumart, nullifying Buffon's refutation of the animal's existence.[58] And Jean-Baptiste Huzard added a long description of the jumart's head kept in Alfort's cabinet when he translated Georg Hartmann's *Anleitung zur Verbesserung der Pferdezucht* (1786) into French.[59] Such attention to Alfort's cabinet by *lyonnais* scholars was no accident. One travelling physician who had spent time at both schools claimed that Alfort took the best of the anatomical specimens produced at Lyon.[60] Alfort became the place where readers were directed to see for themselves; it was the keeper of the evidence of another's claims.

These early labours of broad collection, trade and preservation culminated in Alfort's inventory boasting 3,033 items, supposedly crushing other French anatomy collections in number. But answering the question whether or not the cabinet at Alfort was actually the largest of its kind presents both empirical and analytical difficulties. For instance, the Académie des sciences had 1,079 zoological specimens at the time of the Revolutionary inventory, but its natural history collection numbered well over 3,500 when including botanical materials.[61] Alfort's collection could not be described as strictly zoological or anatomical either. In its tabulations, 128 medical, surgical and blacksmithing instruments, 150 stones, ninety-five extracted parasites/insects and more than fifty flat images populated the ranks alongside the terrestrial, aquatic and aerial fauna. Further, the number of other items at Alfort does not correspond to the number of bodies or body parts. Horses anatomized for the veterinary cabinet did not just have their four hooves; they had shoes, plaster casts and moulds, meaning that the possible number of feet from a single horse was not four but sixteen.[62] Broken bones were sometimes listed as two separate items, while single jars were sometimes stuffed with several specimens of a similar type. Beasts of burden were worked to death and worked to pieces; collections of bone fractures relayed human–animal labour relations, upon which veterinarians were trained to advise. The skin made one stuffed reindeer, its skeletal structure made two, and extracted organs dropped in alcohol continued the count. The school borrowed equally from the methods, optics and epistemologies of natural history

57 Louis Bredin, 'Description d'une production monstrueuse', *Journal encyclopédique* (June 1773) 4(2), pp. 333–336, 336.

58 [François] Rozier (ed.), *Cour complet d'agriculture: Théorique, pratique, économique, et de médecine rurale et vétérinaire*, vol. 6, Paris: Rue et Hôtel Serpente, 1785, p. 106.

59 A jumart is a hybrid species from the combination of a mare and a bull, a jack and a cow, or a bull and a jennet. The question whether or not it existed was highly controversial, with many well-established scholars of the Enlightenment disagreeing. Inventoire de la collection de l'Ecole nationale vétérinaire, op. cit. (19), item 1155. Johann Georg Hartmann, *Traité des haras avec un traité de mulets*, trans. Jean-Baptiste Huzard, 2nd edn, Paris: Théophile Barrois, 1788, pp. 289–292; [Johann] Georg Hartmann, *Anleitung zur Verbesserung der Pferdezucht ganzer Länder und einzeler Privatwirthe*, Tübingen: Johann Georg Cotta, 1786.

60 Erxleben, op. cit. (44), p. 26.

61 Richard, Etat des travaux de la section de Zoologie, 26 messidor an II, AN F/17/1237.

62 Inventoire de la collection de l'Ecole nationale vétérinaire, op. cit. (19), items 2035–2414.

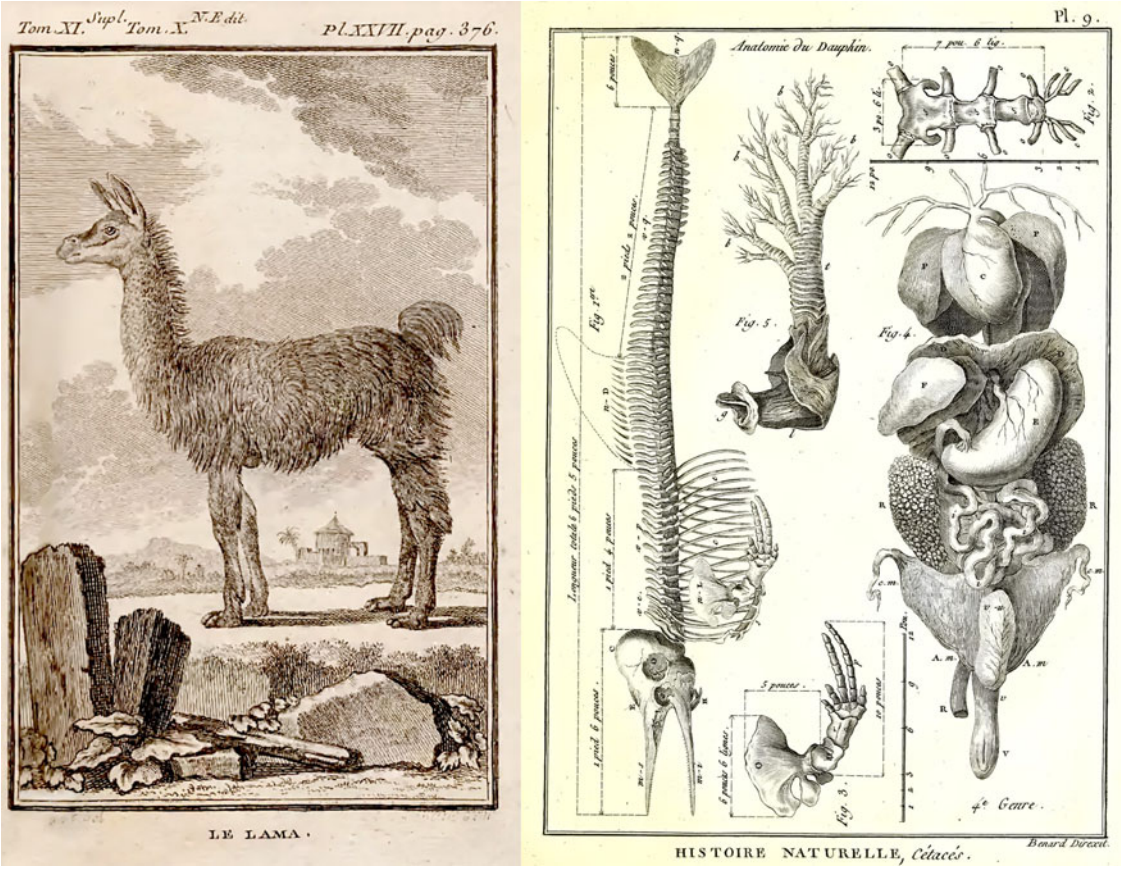

Figure 1. Two plates attributed to specimens held at Alfort. The left is a representational drawing of a live llama standing in its habitat. The right is the internal anatomy of a dolphin, including skeleton and organs. The llama lived in Alfort's menagerie and the skeleton came from Alfort's cabinet. Left: Georges-Louis Leclerc, Comte de Buffon, *Oeuvres complètes de M. le Comte de Buffon*, vol. 10, Paris: Imprimerie royale, 1775, Planche XXVII; right; [Piere Joseph] Bonnaterre, *Tableau encyclopédique et méthodique des trois règnes de la nature: Cétalogie*, Paris: Panckoucke, 1789, Planche IX. Images retrieved from the Biodiversity Heritage Library (www.biodiversitylibrary.org), used with permission.

through its stuffed or defleshed actors given dynamic poses, and of human anatomy through its representation of 'normal' and 'pathological' organs. Just as visitors were invited to see a textually described specimen 'live', artists who sought to represent the natural world came to Alfort for its dual display of interior and exterior (Figure 1). In death the body multiplied, and, with its management, so did the school's capacity to satisfy multiple forms of inquiry.

Trading horses

By the time of the French Revolution, Fragonard had been disassociated from the veterinary school for nearly twenty years.[63] Under the Revolutionary government, he joined the Commission temporaire des arts, a group tasked with the appraisal and redistribution of resources of those imprisoned, exiled, in hiding or dead in the wake of the Terror. The land, libraries, galleries and scientific collections left behind were taken as national property. Monarchical institutions were likewise appraised to determine how useful they could be to the new government, and austerity models replaced monarchical extravagance. A decree from 6 February 1794 named Fragonard, Jean-Baptiste-Jacques Thillaye and Félix Vicq d'Azyr as the advisers on the anatomical acquisitions; Jean-Baptiste Lamarck, René Louiche Desfontaines and André Thoüin were among the eight charged with managing natural history acquisitions and were also affiliates of the newly formed Muséum d'histoire naturelle.[64] Choosing experts to determine institutional redistribution often resulted in complex conflicts of interest. Many of these men had previously held or would simultaneously hold posts at the very same institutions where resources were up for redistribution.

On 14 May 1794 Fragonard wrote a scathing report on the state of Alfort's collection. Rats and insects were eating dried specimens, wet specimens were drying out from not having their liquors replenished, an employed caretaker was desperately needed, and the room could use some new windows and a good cleaning.[65] Just weeks later a second report authored by Fragonard and Vicq d'Azyr, another former veterinary instructor, took an even sterner tone.[66] No longer a list of ways to improve the facility, it suggested that Alfort's collection was too far degraded and too far outside Paris to serve French citizens, and that it should be gathered up and moved to the city centre. To the veterinary administration, this was a hostile proposition that had been gaining traction since 1789.[67] A consequence of having the greatest collection in France (if

63 Railliet and Moulé, op. cit. (10), p. 42.

64 *Procès-verbaux de Commission temporaire des arts*, vol. 1, pub. and annotated by Louis Tuetey, Paris: Imprimerie nationale, 1912, p. xxxv.

65 Honoré Fragonard, 'Rapport: L'École Vétérinaire Nationale', 25 floréal an II, Archives Départementales de Paris: Imprimerie nationale, 6AZ 274.

66 Félix Vicq d'Azyr and Honoré Fragonard, 'Rapport: Cabinet d'Anatomie de l'Ecole Nationale Vétérinaire d'Alfort', 5 prairial an II, AN F/17/1237.

67 Chaussart, op. cit. (54); *Le point du jour*, 17 August 1790, pp. 129–134; Philippe-Etienne Lafosse, *Mémoire sur l'Ecole royale vétérinaire d'Alfort: Raisons de l'inutilité de cet etablissement, & moyens de le remplacer avec beaucoup d'économie pour l'Etat*, 1789; *Journal des décrets de l'Assemblée Nationale, pour les habitans des campagnes*, 15 August 1790, pp. 23–24; *Journal des Etats généraux, convoqués par Louis*

not all of Europe), at a moment of mass restructuring, was that it became a target for those seeking power and prestige.

Bettina Dietz and Thomas Nutz describe the anatomical collections of *Ancien Régime* Paris as having 'aesthetic codes'.[68] Cultural capital was not just located in the possession of a collection, but also in its location and the aesthetics of display; the presentation of a cabinet enabled 'an elaborate performance of style within a framework of competitive social spectacle'.[69] When found negligent of such codes, collections came under scrutiny. In the *Ancien Régime*, attacks on the quality of display had been used when the king sought to gain control over a collection.[70] Government officials looking to seize patronage would emphasize the negligence of a previous owner. After the Revolution, the wet, rotting and endangered inhabitants of Alfort's museum relayed both the precarity of the segmented body and the uncertain future of veterinary education itself.

A month passed after Chabert's initial request, and his letters became increasingly desperate:

> The *esprit de vin* of the anatomy cabinet's specimens has been evaporating now for a long time … Several pieces are dried out and if we again delay replenishing the *esprit de vin* and resealing the jars the loss will be infinite. I have done all that I can to procure this liquor, but I have found none.[71]

He proposed as a workaround that sixty pints of the less potent liquor *eau de vie* might be procured from Orléans instead, and that the school could also acquire distillery equipment to produce their own *esprit de vin* from that, at least enough for the year.[72] As the school's future was being threatened by resource uncertainty, Chabert redirected his attention to making it more self-sustaining. He closed his letter insisting that his demands required the Commission d'agriculture's full attention, but, as is the case for many stories in the history of French administration, his requests would shuffle across many desks before being addressed.[73] All the while, air breathed the destruction of exposure upon his dead prizes. Four months after Chabert's initial request, he finally received the requested thirty pints; however, the quantity was no longer enough.[74]

XVI, le 27 avril 1789, vol. 14, pp. 466–467; Jacques-Bernardin de Saint-Pierre, *Mémoire sur la nécessité de joindre une ménagerie au jardin des plantes de Paris*, Paris, 1792.

68 Bettina Dietz and Thomas Nutz, 'Collections curieuses: the aesthetics of curiosity and elite lifestyle in eighteenth-century Paris', *Eighteenth-Century Life* (2005) 29, pp. 44–75, 46.

69 Dietz and Nutz, op. cit. (68).

70 For example, in June 1746, the room where the Académie des sciences held its meetings was appraised to hold almost eighty cabinets with rotting wood turning to worm food. The natural history specimens, mostly stones and minerals, were to be subsumed under the Cabinet d'histoire naturelle de sa majesté, to be properly cared for and studied. Buffon, 'Etat des Cabinets et Tables', 25 April 1748, Item 492, AN AJ/15/512.

71 Chabert to Commission d'Agriculture, 6 brumaire an III, AN F/10/238.

72 On the importance of *esprit de vin* see Baumé, op. cit. (2), pp. 325–327; Louis M. Cullen, *The Brandy Trade under the Ancien Régime: Regional Specialisation in the Charente*, Cambridge: Cambridge University Press, 2002, pp. 257–259; Emma C. Spary, *Eating Enlightenment: Food and the Sciences in Paris, 1670–1760*, Chicago: The University of Chicago Press, 2012.

73 Ben Kafka, *The Demon of Writing: The Powers and Failures of Paperwork*, New York: Zone Books, 2012.

74 Commission d'agriculture to Commission du commerce, 6 brumaire an III, AN F/10/238; Commission to Philibert Chabert, 19 frimaire an III, AN F/10/238.

Death required constant maintenance, and Chabert would spend the remaining years under the republican government requesting more pints, distillery equipment, turpentine and mercury, all to keep this collection literally and figuratively afloat.

Meanwhile, Thouret, on behalf of the Ecole de santé, and Jussieu and Lamarck of the Muséum d'histoire naturelle placed their own requests to poach several specimens from the Ecole vétérinaire d'Alfort.[75] The Ecole de santé had taken vegetal specimens from the suppressed Académie des sciences, and the museum had been taking the live animals from Versailles and Raincy as well as the dead specimens from suppressed collections across the country.[76] Just as Alfort had appropriated the anatomical specimens produced at Lyon, so institutions under the Revolution employed cannibalism as a strategy of survival. Thouret's observation that Alfort's cabinet surpassed that of the Jardin du roi was now being used against it. Jussieu and Lamarck protested that the people's natural history collection was missing just a few items to restore and unveil the universal natural order: 'Reunited with our objects, Alfort's specimens will acquire a greater value … incorporated into such a large collection, they will be seen among their analogues to be compared against, but also to complete their families.'[77] Whether it was the administrators of the Jardin du roi or of the Jardin des plantes speaking, the order of the natural world was always in reach but also always just a few more objects away. This is the language that garnered support for expeditions, even if in this case they were merely to the Parisian suburbs. Lamarck and Jussieu knew that specimens from the 'Indian Orient' and the Cape of Good Hope could be found locally and that they already belonged to the citizenry. They simply asked that the specimens be relocated to where they could do the most good.[78]

That completeness which had garnered Alfort so much praise under the *Ancien Régime* made it a target under the republic. What business did veterinarians have claiming possession over the building blocks of natural history? Distinct from Buffon, Revolutionary natural historians saw Alfort's collection as a subtraction of their resources, rather than additive to and collaborative with theirs. Only one field, by their estimation, held rightful claim to the description and cataloguing of the global order. They advised that veterinarians limit their services to the French domestic animal, stretching only as far as mixed breeds of livestock. To a veterinarian, they insisted, all foreign specimens were mere curiosities; they advocated for boundaries

75 Augustin Thouret to Commission d'instruction publique, 27 floréal an III, AN F/17/2280; Jean-Baptiste Lamarck and Antoine Laurent de Jussieu (Muséum nationale d'histoire naturelle) to Commission d'agriculture, 15 fructidor an III, AN F/10/238.

76 Nota, 8 pluviôse an III, AN F/17/2281. Dossier 'Animaux du Raincy 1794' and 'Notes relatives a l'établissement d'une menagerie' AN AJ/15/844. The Commission temporaire's meeting descriptions contain repeated reference to the museum's acquisition of specimens, base materials, books and living creatures from individuals' homes and larger collections. In *Procès-verbaux*, op. cit. (64).

77 Lamarck and Jussieu, op. cit. (75). On the significance of familial metaphors in the French Revolution see Lynn Hunt, *The Family Romance of the French Revolution*, Oxon: Routledge, 1992; Suzanne Desan, *The Family on Trial in Revolutionary France*, Berkeley: University of California Press, 2004; Jennifer Ngaire Heuer, *The Family and the Nation: Gender and Citizenship in Revolutionary France, 1789–1830*, Ithaca, NY: Cornell University Press, 2005.

78 Lamarck and Jussieu, op. cit. (75).

between comparative anatomy and studies of domestic pathologies. Marking foreign specimens as curiosities to veterinarians may seem intuitive to the modern reader, but this apparently natural distinction was forged out of the epistemic break between natural history and veterinary medicine in the final years of the Revolution. Since the beginning of veterinary education before the Revolution, the school's founder had explicitly advocated that veterinary medicine's knowledge of the animal kingdom could neither begin nor end with livestock. The most common inter-species comparison in Bourgelat's writings was that between horses and humans. The body of the veterinarian was the primary analogue. His texts stressed the diverse range of animal substances that furnished pharmacopoeia, and he understood that the apothecary's storefront was filled from both global flora and global fauna.[79] Bad air threatened the lives of veterinary patients, and so did insects, serpents and wolves, making all of them critical points of veterinary investigative study. The early textbooks of veterinary education made physiological and also social comparisons between French domestic animals and panthers, elephants, monkeys and bears.[80] Chabert himself continued this tradition when he studied the transmissibility and experience of a common skin infection across sheep, pigs, goats, monkeys and veterinary students, and suggested a shared experience of glanders between 'horses, asses, mules and probably jumarts and zebras'.[81] The collection's diversity was more than a magnet for attention; it was an intellectual and methodological insistence that animals' diseases partly described their connections in the global order.

Before the Revolution, Alfort's cabinet had been described as one of natural history and anatomy, with little consequence from either description.[82] Importantly, its students never took classes in natural history. Instead, in the mid- to late eighteenth century, anatomy was the primary study that allowed the comparison of domestic animals with global fauna. In one student notebook, between transcriptions of lecture notes on domestic breeding experiments on horses, are references to Jean-François Gerbillon's observations on the jumart in Nipchou.[83] For veterinarians, anatomy was the analytic starting point, under which natural history was a subset of interest – a proposition that seemed inoffensive to naturalists of its day. As the museum worked to take ownership of Alfort's possessions in 1796, they quickly turned the administrative debate toward the school's 'natural history collection' as a means of separating the fields of inquiry.[84] By lumping Alfort's collection into the natural history category, the

79 Bourgelat, op. cit. (3).

80 Bourgelat, op. cit. (50), p. 284.

81 [Philibert] Chabert, *Traité de la gale et des dartres des animaux*, Paris: Imprimerie royale, 1787, p. 13; Chabert, 'Extrait d'un mémoire sur la morve, inseré dans le volume de la Société royale de médecine, pour l'année 1779', *Observations et memoires sur la physique, sur l'histoire naturelle et sur les arts* (1783) 23, pp. 208–217, 208.

82 The only reference that I have located describing the space as a veterinary cabinet is Sanders's travelogue, op. cit. (16). All other sources move between 'anatomy' and 'natural history'.

83 Gustaf Lenboms's lecture notes (*c.*1763), D 1356b, fol. 502, Uppsala Universitetsbibliotek.

84 The shift by which multiple administrators come to describe Alfort's cabinet through the qualifier of 'natural history' hit its peak in 1796, when the museum was finally in the process of acquiring the objects to which they'd held claim for more than a year. See Ministère de l'intérieur to Ministère de la guerre, 21 pluviose an IV; Milet-Mureau to Ministère de l'intérieur, 3 ventôse an IV; Chabert to Ministère de

museum in Paris proper could claim priority. Other individuals trying to move the whole institution to Paris, not just its collection, also used similar rhetorical tactics. Alfort's value through excess was rhetorically dismantled; it represented something indiscriminate and non-systematic.[85] If it was a natural history collection, it was misplaced, mismanaged and underutilized; if it was an anatomical collection, then the human anatomical figures were decidedly of less value to Alfort's students than to those of the Ecole de santé. Pieces were inscribed as veterinary, (human) medical, or natural-historical in order to justify relocation, and these fields became increasingly disjoint.

It was not just the foreign specimens that were pulled onto the bargaining table during the Revolution. The Ecole de santé wanted the human and comparative-anatomy specimens and the chemistry equipment from Alfort as well, to fulfil its future students' needs.[86] This terminology of 'human and comparative-anatomy specimens' mirrored non-specific syntax used in the administrative management of specimen exchange. Governmental administrators adjudicating resource transfers between these scientific institutions rarely dealt with the minutiae of particular objects. Rather, generic types such as 'natural history' or 'human anatomy' were the building blocks of bureaucratic arrangements. It was only after both institutions agreed to the exchange of specimens of a kind that the contents of those exchanges received any clarification.

On 15 January 1795, the Comité d'agriculture presented to the National Convention a list of reforms that would be necessary in order for the Ecole vétérinaire d'Alfort to continue receiving government support. 'The cabinet's formation has prevented more than a quarter of even the best students from graduating', the Comité d'agriculture argued, while wholly rejecting any pedagogical merit to the production of specimens.[87] Anatomy was only essential to veterinary medicine if it was properly bounded by attention to essential, focused and specialized necessary knowledge. The Old Regime mentality – that one never wasted a corpse – was supplanted by a world view that students should not waste mental space or physical labour. Though the impact on veterinary

l'intérieur, 2 germinal an IV; Petiet to Ministère de l'intérieur, 27 germinal an IV; Petiet to Ministère de l'intérieur, 13 floréal an IV; Ministère de l'intérieur to Dubois, 15 floréal an IV; Ministère de l'intérieur to Ministère de la guerre, 19 floréal an IV; Ministère de l'intérieur to Chabert, 3 prairial an IV. From AN F/10/1203.

85 Responding to Richard Burkhardt, Jessica Riskin has argued that this systematic approach was conflated with the charlatanism of empiricism in the *Ancien Régime*. She argues that the 'spirit of system' was an epithet under the monarchial government. Richard W. Burkhardt, *The Spirit of the System: Lamarck and Evolutionary Biology*, Cambridge, MA: Harvard University Press, 1977; Jessica Riskin, *Science in the Age of Sensibility: The Sentimental Empiricists of the French Enlightenment*, Chicago: The University of Chicago Press, 2002.

86 Augustin Thouret to Pleichard, 10 prairial an III, AN F/17/2281; Extrait du Registre des délibérations de la Commission temporaire des arts, 25 Germinal an III, fol. 36, Carton 123, AN AF/II/17.

87 [Hilaire-François] Gilbert and [Jean-Baptiste] Huzard, 'Rapport fait au Comité d'Agriculture et des Arts de la Convention Nationale, le 28 Nivose an III', in [Philibert] Chabert, [Pierre] Flandrin and [Jean-Baptiste] Huzard, *Instructions et observations sur les maladies des animaux domestiques*, Paris: Librairie vétérinaire de M.R. Huzard, 1795, pp. 7–65, 21. Reprinted in full in *Instructions et observations sur les maladies des animaux domestiques*, 2nd edn., vol. 6, Paris, 1806, pp. 21–22. The veracity of such a claim seems extremely unlikely. The school's competitive exams did come under attack during the French Revolution, but having read dozens of exam descriptions for both Lyon and Alfort, I have found no evidence to suggest that detailed anatomical descriptions of foreign species were a deciding factor in certification.

education was slow, and felt more strongly under the Napoleonic reign than during the Revolution, the increase of government surveillance on distribution of scientific resources took hold at this moment.

While veterinary historians have often leaned on anthropocentrism to explain the historiographic subordination of veterinary medicine to human medicine, such an explanation would fail to capture the particular modes of argumentation deployed at the turn of the century. At the dawn of veterinary education, its value was regularly contested: should animals have access to health care when humans were still struggling for the same?[88] More than thirty years into its existence, however, by the time of the Revolution, veterinary education was indisputably important in an economy still overwhelmingly dependent on the labour of non-human animals and the sale of animal-commodity products. When the Ecole de santé petitioned to move resources out of Alfort and into their own classrooms they made no appeals to human superiority in the great chain of being. Instead they matched administrative austerity with pleas around intellectual restraint. Determining which pieces of knowledge were essential and peripheral to the future of each field was separate from determining the value of the fields of study themselves. Thillaye, both a member of the Commission temporaires des arts and a professor charged with the anatomy cabinet at the Ecole de santé, petitioned the Commission d'agriculture and insisted that it was the government's 'project to conserve only those pieces absolutely necessary for the veterinary school' and redistribute the rest.[89] The Commission d'agriculture sided with the Ecole de santé, and Thillaye was given permission to take what he needed.[90] The veterinarians could keep their horseshoes and hybrid breeding experiments, but the Ecole de santé would get the chemistry equipment, some of their human specimens and even comparative-animal specimens. The veterinarian's domain was being boxed into a smaller and smaller geographic and epistemic corner. With the precedent of a lack of administrative support, Chabert acquiesced gracefully.

Resolute to conserve the school's capacity to continue expanding its collection, Chabert offered the museum the taxidermy specimens they wanted, asking only for some glass jars and *esprit de vin* in return.[91] His act of beneficence was rewarded, but not as he had hoped. Administrative intermediaries, seemingly deaf to the urgency of Chabert's focus upon the materials of preservation, instead instructed the museum to survey their collection for specimen duplicates they could offer Alfort in kind.[92] The museum would take, among other things, Alfort's coati, adult and infant reindeer, mouflon, Indian hog-deer, bushbuck, seal and dolphin in exchange for a collection of

88 Dufot, 'Lettre', in *Journal de médecine, chirurgie, pharmacie, &c.*, November 1767, pp. 507–511, 509, reprinted in *Mercure de France*, January 1769, p. 157. Denis Diderot, 'Supplément du voyage de Bougainville, ou dialogue entre A et B', in *Oeuvres complètes de Diderot*, vol. 2, Paris: Garner frères, 1875, pp. 193–250, 236–237.

89 Jean-Baptiste-Jacques Thillaye to Commissaires pour l'organisation de l'Ecole de santé, 26 ventôse an III, AN F/17/2811.

90 Commission d'agriculture to Commission temporaire, 28 ventôse an III, AN F/10/238.

91 Philibert Chabert to Muséum nationale d'histoire naturelle, 26 messidor an II, transcribed in Lamarck and Jussieu, op. cit. (75).

92 Commission d'agriculture to Muséum nationale d'histoire naturelle, 5 jour complémentaire an III, AN F/10/238.

bezoars.[93] Such trades marked veterinarians as increasingly agriculturally focused, as bodily stones transitioned from pharmaceutical exotica to juridical tools, newly emerging as evidence in criminal cases of livestock poisoning, for which Chabert would serve as an authority.[94] Meanwhile, Chabert's list of desiderata expanded; he now needed 250 pints of *eau de vie* and a hundred pints of *esprit de vin* for the Alfort cabinet, along with a laundry list of other items including surgical and farrier's tools as well as ready-made pharmaceuticals following the loss of the museum's chemistry equipment.

Although tourist manuals had described the impressive cabinet display, the school's requests stressed an increasing struggle to keep their specimens in displaying order. Preservation was not something done in the past tense. It was a process that needed greater and greater resources; the volatile *esprit de vin* needed to be constantly replenished. But the inability to keep the jars full was only one of Alfort's struggles. What seemed most detrimental to the integrity of the collection was an inability to craft a narrative that made all the pieces fit together. Resource competition culminated in epistemic competition. In the *Ancien Régime* the collection's diversity supported the work of naturalists, but under the new regime it became reconstructed as a hindrance. This shift in perspective happened to individuals too. Gilbert, who had previously insisted that Alfort acquire the camel, reversed his position working for the Conseil d'agriculture, and, with another former student, accused Alfort of 'abandoning as unimportant all that was essential to veterinary arts to attach themselves to its most peripheral branches'; they were especially harsh on the inclusion of aquatic species.[95] Animality no longer served as a uniting justification for placement in a medical pedagogic setting. The veterinary students stood accused of ignorance of the anatomy of cattle and sheep, having spent their time studying dolphins and sharks instead.[96] What had started as a universalist and cosmopolitan project, bridging the local and the global, became framed as a distraction. Veterinarians would be slotted into anatomy, and natural history would be extracted from their purview, and the human body would become less of a reference for veterinarians even as other animals continued to serve human medicine at the Ecole de santé. After the Revolution, travelogues would continue to stress the importance of anatomical specimens to the school's functioning, but one Dutch author noted that its remaining 'natural history specimens' had been segregated from the domestic anatomy collection, and placed instead among the library books.[97]

93 Jussieu and Geoffrey to Ministère de l'intérieur, 6 ventôse an IV, AN F/10/1203.

94 Peter Borschberg, 'The Euro-Asian trade in bezoar stones (approx. 1500 to 1700)', in Michael North (ed.), *Artistic and Cultural Exchanges between Europe and Asia, 1400–1900: Rethinking Markets, Workshops and Collections*, Burlington: Ashgate, 2010, pp. 29–4; Chabert, Flandrin and Huzard, *Instructions et observations*, op. cit. (87), pp. 79–98; 'Egagropiles', in *Encyclopédie méthodique: Agriculture*, vol. 4, Paris: H. Agasse, 1796, pp. 161–166; François Sigaut, 'Combattre les préjugés sur l'empoisonnement du bétail à la fin du XVIIIe siècle', *Histoire & sociétés rurales* (2003) 19, pp. 241–251.

95 Gilbert and Huzard, op. cit. (87), p. 32.

96 Gilbert and Huzard, op. cit. (87), p. 33.

97 Adriaan van der Willigen, *Parijs in den Aanvang van de Negentiende Eeuw*, 3 vols., Haarlem: A. Loosjes, 1814, vol. 3, pp. 129–130.

Chabert's request for *esprit de vin* was only one of many moments throughout the Revolution when various branches of the Revolutionary government (including the Commission d'agriculture et des arts, the Ministère de la guerre, and the Commission temporaire des arts), adjudicated on whether or not potential preservation materials would be provided to the school, and eventually which specimens Alfort deserved to keep. Veterinary administrators responded to extra-institutional petitions for transfer of specimen ownership – especially from the Ecole de santé and the Muséum d'histoire naturelle – by privileging the continuance of preserving future specimens over protection of anything already preserved. Materials of preservation such as *esprit de vin*, mercury and turpentine became aligned with Alfort's future, and its expansive anatomical explorations a legacy of the past. These decisions collectively reframed the future pedagogical model of veterinary education under a new regime, centring on the relationship between French citizens and their livestock, and dividing the local specimens from the foreign ones. The Revolutionary discourse transformed the *Ancien Régime*'s veterinary cabinet from a symbol of intellectual mastery into one of chaos, and, as the Revolutionary Wars expanded France's geographic domain, the priorities of veterinary education would be reshaped from a broad study of animality to an art focused upon the French domestic.

In 1799, minister of the interior François de Neufchâteau proselytized a new vision for veterinary services to the group of veterinary students competing against each other during their public oral exams.[98] 'The monarchy', he explained, 'had founded an aristocracy even among the animals'.[99] The task of this generation was to specialize their services for the herd animals upon which the nation's economy and food supply were dependent; their attention was to be newly focused, at least in the government's eyes, upon the cattle that fertilized France's furlongs and the dogs that herded sheep alongside shepherds. 'It is for the herds, in general, that liberty requests your devotion … to those animals whose labours nourish the *patrie*, whose sweat fertilizes, whose skins decorate, and who carry into battle free men armed with the republican sword.' That this very sword was redrawing the French map to include territories in modern Italy, Belgium, Germany and the Netherlands, and that Napoleon had captured Jaffa in the week of the speech, went without contemporaneous comment. As France pursued territorial and commercial control at a near-global scale, the relationship between the local and the global was severed.

98 François de Neufchâteau, 'Discours prononcé par le Ministre de l'Intérieur à l'Ecole vétérinaire d'Alfort, le 10 Germinal an 7', in *Recueil des lettres circulaires, instructions, programmes, discours, et autres actes publics*, 20 vols., Paris: Imprimerie de la république, an VII, vol. 2, pp. 312–317.

99 On animals and the monarchy see also Peter Sahlins, *1668: The Year of the Animal in France*, New York: Zone Books, 2017.