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SCIENCE AND SENSIBILITY:

Louise Lind-af-Hageby's Diary as Female Testimony, Scientific Publication, and Antivivisectionist Tool, 1890–1918

Caitlin Harvey

The existing scholarship on the link between feminism and antivivisectionism has not fully contextualized the innovative rhetorical strategies and traditional forms of female writing that empowered Louise Lind-af-Hageby's political message in her published diary, "The Shambles of Science" (1903). Drawing upon a female literary tradition of refashioning scientific findings for non-scientific audiences, Lind-af-Hageby developed a record of first-hand observations and scientific arguments against vivisection that placed her on an equal footing with the men in her profession. At the same time, her work challenged contemporary gender scripts of female antivivisectionists as sentimental and uninformed. This paper adopts both a "long view" of "Shambles'" form and its place within women's writing on "Nature" and science between 1890 and 1918, and a "wide view" of Victorian female antivivisectionists' texts to situate this work within and to assess the interaction of relevant currents of women's writing, feminist thought, and antivivisection advocacy.

"The experiments which have been described in this little book are only instances of one part of the appallingly extensive system of exposing the sub-human races to torture for the sake of a 'knowledge' that debases the intellect, and a medical science that thinks that the body can be kept alive by killing the soul."

Louise Lind-af-Hageby and
Leisa Schartau, *The Shambles of Science* (1903)¹

A heady mix of physiology, feminist critique, and diaristic expression awaited Edwardians in *The Shambles of Science* (1903). "Ushered" into University College London's (UCL) physiology laboratory and lecture theater, *Shambles'* readers experienced scientific sites usually shut to non-specialist audiences through the mediating gaze of its two female authors.² Emelie Augusta Louise Lind-af-Hageby (1878–1963) and Leisa Katharina Schartau (1876–1962), female physiology students of Swedish royal descent, enrolled at the London Women's School of Medicine in 1902 "to investigate the *modus operandi* of experiments on animals, and then to study deeply

the principles and theories which underlie modern physiology."³ *Shambles* accordingly emerged as these students' collaborative diary and reflection on the animal experimentation undertaken by "modern" physiologists. Their recorded observations, especially of vivisection demonstrations, were exceedingly critical. Having attended the cross-institution courses in advanced physiology held at UCL, Lind-af-Hageby and Schartau bore witness to "the crime of vivisection" on over fifty occasions before conveying their unabashedly antivivisectionist findings to the public in November of 1903.⁴ Few physiologists and physicians, unsurprisingly, welcomed the publicity.

Yet the speed with which *Shambles'* publication ignited debate over antivivisection, and the women's part in that cause's promotion, signaled the diary's significance and incendiary nature for Edwardian physiologists and laypeople alike. Blending the genres of scientific observation and diary writing, Lind-af-Hageby and Schartau also innovated stylistically, while invoking an older affinity between women's writing and animal advocacy. It is *Shambles'* multifaceted character, its entwined political and gendered dimensions, and its hybrid form that engendered its broader impact and merits its consideration by historians. My purpose here, then, is to disentangle and contextualize the diary's interrelated elements to illuminate its broader contributions to discussions of antivivisection, feminism, and women's life writing in British society.

The diary's impact, in part, came from its capacity to subvert popular Victorian "gender scripts" about the uninformed and emotional female antivivisectionist. Given that vivisection's proponents derided female antivivisectionists' physiological knowledge as "at best incomplete and at worst hysterical," Lind-af-Hageby and Schartau prepared "to arm themselves with the language and arguments of the enemy and speak as doctors."⁵ Their efforts to address the public and a predominantly male physiological field did not go unnoticed. A publication penned by one of UCL's physiology professors appeared in the medical journal *The Lancet* just after their diary's debut. Dr. Augustus Waller, recording his lecture on chloroform's administration, wrote:

To anyone who has attended the lectures and practice of the laboratory during the past year it will, I hope, be matter of surprise that two intelligent young ladies should have come here . . . and have neither seen nor learned anything to give them pause from rushing into print with a horrified condemnation of physiology and physiologists. . . . Can it be necessary to tell you that we do not juggle with bottles of 'colourless and odourless' liquid as imagined . . . by the two ladies who have visited these 'shambles'?⁶

Legal action arose out of similar objections to those of Waller. Pushed by the antivivisectionist statements of *Shambles'* publisher Stephen Coleridge (1854–1936), Dr. William Bayliss swiftly called for a libel trial against the diary's creators.⁷ The resulting four-day, publicized trial of *Bayliss v. Coleridge*, held a month after *Shambles'* publication, examined its problematic chapter "Fun." Despite going unnamed by either author, Bayliss challenged the chapter's observations that instructors and students at UCL conducted a brown terrier's vivisection without anesthesia and across multiple experiments.⁸ At the same time, he supplied Schartau and Lind-af-Hageby with a public platform from which to testify to the press, as much as to the courts, about their antivivisectionist cause. An opportunity to speak against cruelty to animals also became a chance to engage the public as women. *Shambles'* publication and subsequent popularization, as the historian Mary Ann Elston affirms, exposed the unnamed alliance between feminism and antivivisectionism.⁹ Not all antivivisectionists were women, certainly, but when Schartau and Lind-af-Hageby advocated for animals they could hardly prevent their gender from inflecting the debate. Losing the trial then, and two thousand pounds along with it, proved to be of negligible importance.¹⁰ The case produced one of *Shambles'* best pieces of publicity—both for antivivisection and for female ability.

Following the offending chapter's removal, *Shambles'* sales increased, making way for four more editions by 1913.¹¹ Public action and debate surrounding the divisive diary did not end either. A memorial statue erected in honor of the "brown dog" in "Fun" transformed Battersea's Latchmere Recreation Ground into a flashpoint for antivivisection and medical student rioters after its unveiling in 1906.¹² While residents defended their often battered "brown dog" statue, Battersea's City Council quietly removed the controversial canine in 1910. Antivivisection advocates placed a less contentious rendering of the statue on the Recreation Ground in 1985, where it remains today.¹³ Popular reactions to *Shambles*, therefore, attest to the work's historical relevance in addition to its literary value. Scholarly efforts by the historians Coral Lansbury, Susan Hamilton, and Hilda Kean have emphasized the links between antivivisectionism and feminism in these women's writing, teasing out the diarists' invocations of "Nature" and "Science" as they related to a cultivated feminist politic.¹⁴ What might improve this historiography is both a detailed investigation of *Shambles* as a whole and an appreciation of Lind-af-Hageby and Schartau as women authors who innovated within a tradition of female popularizers of science and among their antivivisectionist contemporaries. How these writers expressed their "personal experience" as women and how they articulated their antivivisectionist agenda fused into a powerful mixture.¹⁵ Arguing as

feminist writers and as physiology students, Lind-af-Hageby and Schartau concocted a tactical and rhetorical blend that spurred action.

So how did *Shambles'* "generic" innovations and diaristic expression correspond to its antivivisectionist agenda? Can scholars draw broader contextual lines between modes of women's life writing and antivivisectionist strategies? And what if anything in the diary suggests that vivisection carried particularly potent threats for women? Such intricate questions as these offer no easy answers, but they can provide clues as to how women negotiated their roles in science and in society.

Drawing upon a female literary tradition of refashioning scientific findings for non-scientific audiences, I contend that Lind-af-Hageby and Schartau developed a record of first-hand observations and scientific arguments that placed them on equal footing with men in their profession and challenged contemporary gender scripts of female antivivisectionists as sentimental and uninformed. Enclosing their findings in a diary, these authors accentuated a particular brand of Victorian and Edwardian feminism that encouraged women's special role for moral and social improvement. By contextualizing *Shambles'* antivivisectionist and rhetorical strategies, connections emerge between women's writing on animals, the values associated with vitalism and Nature, and fears of "materialist men." Here I adopt both a "long view" of *Shambles'* diary form and its place within women's writing on the natural world, from 1890 to 1918, and a "wide view" of Victorian female antivivisectionists' writings to situate this work within relevant currents of women's life writing and feminist thought. Being essentially comparative in method, this analysis captures a cross-section of the dynamic interplay between antivivisectionism's influence on feminist writing and feminism's influence on antivivisectionist strategies.

Un-Emotional Advocates and an Emotional Historiography

Where did the story of *The Shambles of Science*, animal cruelty, and "two very attentive pupils" begin?¹⁶ Catching sight of the larger historical themes visible through the diary demands some comment on its character and creation. Educated in Stockholm and then at Paris's Pasteur Institute in 1898, the shock of French, adamantly pro-vivisectionist physiology led *Shambles'* authors into antivivisectionists' ranks.¹⁷ Neither Lind-af-Hageby nor Schartau were new to advocacy initiatives. Their support of women's suffrage, in England and in Sweden, and their regular writings on housing reform, pacifism, and prostitution indicated that when a cause demanded it, they were ready to step into the political fray.¹⁸ Louise Lind-af-Hageby rather than Schartau, was assuredly the more public figure. Established by the historians Hilda Kean and John Vyvyan as *Shambles'* "leading mind" and

"the dominant partner from the beginning," Lind-af-Hageby also becomes the predominant subject of this analysis.¹⁹ Parading outside Piccadilly shops with sandwich boards that sported antivivisectionist sayings and debating her physiology professors in public, Lind-af-Hageby led the defense of the diary and finely tuned her antivivisectionist tactics.²⁰ Her voice proved critical both to *Shambles'* inception and reception by the British population, making her a valuable subject for study on her own.

When published, the diary genre offered a capacious form that facilitated Lind-af-Hageby's entrance into the public sphere. Relying upon a "vitalist" vision of medicine and physiology that postulated "a 'life force' additional to mechanics or chemistry," Lind-af-Hageby adopted a competing scientific outlook to the alleged "materialism" of her professors and a viewpoint favored by Edwardian feminists who saw their promotion of a "vital" Nature as their moral route into the public realm.²¹ An angry admonition to physiologists in the diary's preface evidences these views, along with Lind-af-Hageby's reasoned, if not sarcastic, style. With an air of incredulity, she wrote: "Armed with scalpel, microscope, and test-tube, the modern physiologist attacks the problems of life. He is sure that he will succeed in wrenching the jealously-guarded secrets of the vital laws from the bosom of Nature. . . . the 'reverent study of Nature' is ridiculous to the physiologists of today."²² Of note here, surely, must be the characterized male gender of the unnamed "modern physiologist." "Man's" pillaging of a feminized "Nature" was not an uncommon image in Victorian writing.²³ Again, in another instance in which she invoked "Nature," Lind-af-Hageby described the establishment of artificial respiration in a white bull terrier. As *Shambles* notes: "If the [respiration] pump were stopped and no more air forced into his throat, his lungs would collapse, and the dog would die, for . . . Nature is a great deal more merciful than Science. But physiologists care little for the laws of Nature, and are brimming over with pride in their knowledge of the blood-pressure."²⁴ Both of these examples illustrate the diary's tone and distinctive style. In addition, they offer hints as to the complexity of Edwardian feminism's association with antivivisectionist agendas. Not wishing to be grouped with overly "sentimental" female antivivisectionists, and yet wanting to promote female capacities for scientific improvement, Lind-af-Hageby and her diary straddled a spectrum of Victorian and Edwardian thought. Many historians who have documented this difficult maneuver although, oddly, have not remained as emotionally distant from their subject as Lind-af-Hageby endeavored to be.

From the writer and historian John Vyvyan's *The Dark Face of Science* (1971) to the scientist Theodore Obenchain's *The Victorian Vivisection Debate* (2012), political contentions and often-emotional arguments have coursed through Victorian vivisection's historiography. Arguments over animal

experimentation, “still unresolved 150 years later,” crop up intermittently in historical inquiry.²⁵ While Obenchain’s examination of antivivisectionist Frances Power Cobbe’s (1822–1904) writing offers a more nuanced and pro-vivisectionist interpretation than that of Vyvyan, historians should disregard neither study on the basis of its allegiances alone.²⁶ Like many scholars favorable and unfavorable to animal experimentation—including the historians Richard French and James Turner, and the feminist-biologist Lynda Birke—Vyvyan and Obenchain still supply key insights into the nature of early animal advocacy.²⁷ Historians, more recently, have allied their investigations with religious history, the history of media, and theories of emotions, ethics, and empire. Susan Hamilton, for example, explores the “mixed-media strategy” of antivivisectionists by employing “social movement theory” as an analytic tool. A scholar of animal ethics, Chien-Hui Li, relatedly conveys how antivivisectionists used “theological, moral, and emotional resources in order to further the objectives of the movement.”²⁸ Such diverse investigations help to capture “the fine-grained socio-political matrix” out of which antivivisectionism emerged.²⁹

Less polemical in nature, this study traces the points of intersection and impact between lines of feminist thought, women’s life writing, and antivivisectionist advocacy through *Shambles*. Scholars have not ignored *Shambles*’ import, but none have foregrounded its stylistic conventions or positioned it adequately within the literary and intellectual patterns that inspired its creation. Hamilton, significantly, re-published the libelous chapter “Fun” in her anthology, *In Nature’s Name* (2002). Lansbury and Kean, less recently but with more dedication, paid attention to how *Shambles* and antivivisectionist literature combined female and animal welfare, employing animals “as surrogates for women who read their own misery into the vivivector’s victims.”³⁰ Extending the story begun in these analyses of *Shambles*, and then outlining its imbrication with other narratives, is the present aim.

Taking the “Long View”: The Diary Form and Women as Scientific Writers

When Schartau and Lind-af-Hageby fashioned their diary into a political tool, they fitted it into recognizable molds for women’s writing. Diaries during the nineteenth century held a publicly perceived “feminine aesthetic” or feminized form.³¹ Although men also wrote and published their diaries, a particular style of “privileging” and of writing without the “ego” or teleological arc of the apparently “androcentric” autobiography became associated with women.³² In hitching the diary form to the antivivisection cause, Lind-af-Hageby subverted many of the genre’s “feminine” conventions and thrust a female, anti-materialist voice into physiological debates.

Observing the diaristic conventions available to Victorian and Edwardian women, then, helps to untangle interlocking strands of "female" and antivivisectionist tradition.

The diary, in particular, recovered a custom of female diarists in the early nineteenth century recording scientific observations and characterizations of "Nature" for amateurs.³³ As medicine and physiology grew increasingly male and professionalized over the Victorian period, women without formal scientific education found it progressively more difficult to publish their naturalist observations and insights.³⁴ Lind-af-Hageby challenged science's growing isolation from the public and from female diarists with her own observational diary. Employing the diary as a means of providing readers with a "personal experience" of vivisection, Lind-af-Hageby "hope[d] that more and more ardent friends of this [antivivisectionist] cause will enter the laboratories . . . and tell the world what they have seen."³⁵ Antivivisectionists like Lind-af-Hageby, then, as this article will explore further, assumed an earlier and typically female role of popularizing scientific findings. Contextualizing *Shambles'* diaristic elements, first by form and then by style, illustrates the innovative aspects of Lind-af-Hageby's blending of the diary and observation forms.

Diary-writing developed into a vogue practice for middle- and upper-class Victorian and Edwardian ladies.³⁶ According to the literary critic Deborah Martinson's study of the "subjective self" in diaries, parents encouraged adolescent girls to keep private "non-productive diaries" that complemented their domestic duties.³⁷ Male self-representation, meanwhile, allegedly installed itself more easily into a "chronological, linear" template expressing "professional matter."³⁸ This template, predictably, was often a memoir or autobiography. Yet *Shambles* drew a clear narrative purpose from its antivivisectionist argumentation that scholars can hardly describe as scattered or "non-productive." Possessing sufficient time, literacy, and material resources, upper-class women like Lind-af-Hageby and Schartau could use antivivisection's focused message to destabilize aspects of the genre's "femininity." As Lansbury confirms, "Louise Lind-af-Hageby and Leisa Schartau, like most educated young women, had been taught to keep diaries, and in vivid and dramatic prose they recorded what they had seen at University College."³⁹ That "dramatic prose" challenged the typically private, domestic nature of many women's diaries, but the form's familiarity for Lind-af-Hageby and Schartau concurrently suggests one possible explanation for its use.⁴⁰ For Edwardian ladies, it supplied a convenient and comfortable structure. The diary's capaciousness as a form, moreover, permitted its appropriation for antivivisectionist ends.

Lind-af-Hageby, notably, retained some traditional elements of the diary in *Shambles*, which increased its accessibility and popularity. Detailed de-

scriptions of daily events without privileging one event over the next—this case of vivisection demonstrates—gave the appearance of continuity and longevity to the events the diary outlined.⁴¹ The other effect of this writing technique was to create the illusion of an honest “eyewitness” account, which in *Shambles* told of regularly occurring horrors. Since Victorians valued the female diarist as “writing and living within a [Romantic] tradition which valued her as a moral touchstone,” the feminized diary format, for them, carried a certain authenticity.⁴² Timeworn customs of diary-writing informed this “authenticity.” When not keeping household accounts, women used diaries during the eighteenth and nineteenth centuries for “spiritual search” and religious confession, as family or travel records, or as an outlet for the “habitual patterns of introspection” encouraged by Romantic notions of individual interiority.⁴³ As the novelist Sarah Grand’s female protagonist in *The Beth Book* (1898) displays, the diary’s facility for introspection allowed “the world without [to become] as nothing to her; it was the world within that signified.”⁴⁴ Latching onto this reputation for feminine introspection and diurnal truth, *Shambles* moved antivivisection along accepted and understood channels of discourse. In doing so, it capitalized on the existing, connotative meanings of the Victorian-Edwardian diary.

In terms of voice, *Shambles* radically diverged from most female diaries by positioning itself in line with feminist rhetoric. Since the authors reveal their gender and motives in their work’s preface, Lind-af-Hageby’s partnership with Schartau resulted in the diary adopting a collaborative female voice.⁴⁵ The effect of this joint voice, shown by *Shambles’* use of the pronoun “we” rather than “I,” is that the text articulates a perceived common ground and cause between female antivivisectionists. As Birke asserts, showcasing commonalities between women functioned as an early feminist objective.⁴⁶ Lind-af-Hageby’s use of “we” in the diary lent its pronouncements the authority of a collective and might permit the reader to imaginatively extend the diary’s voice to include other female antivivisectionists. Just as prominent antivivisectionist campaigner Frances Power Cobbe often composed her polemical literature from a second-person point-of-view, Lind-af-Hageby demonstrated a similar approach: “We do not hesitate to say that, as a rule, [vivisection] is distinctly brutalizing, that the majority of students are tainted by the callousness . . . which is so clearly demonstrated by their seniors.”⁴⁷ Few, if any, Edwardian diaries composed outside of families were openly joint projects. Outlining the introspective self in relation to others, according to the literary scholar Joanne Tidwell’s study of *The Diary of Virginia Woolf* (1915), were more common goals of the diary genre.⁴⁸ *Shambles* thus also complicated traditional conceptions of the diary and, in the process, imbued its antivivisectionist message with a more authoritative female voice.

Slipping between the conventions of a diary and a documented report, *Shambles* sketched a new stylistic configuration of physiological observation. For one, Lind-af-Hageby wrote with a sense of immediacy that stylistically matched scientific observation. Capturing the present-tense experiences of a frog's "spinal reflex movements" or "the smell of ether" in her writing, she hoped to impart that the "importance of personal experience of the methods of vivisection for those who throw themselves heart and soul into the battle against it cannot be exaggerated."⁴⁹ Despite the artifice inherent in the published diary's "momentariness," Lind-af-Hageby provided her readers with an illusion of immediate, personal experience with vivisection. Writer and literary scholar Rebecca Steinitz associated the diary's creation of "present-tense moments" with male observation-diary writing, particularly that of Samuel Pepys, an English naval administrator and MP famed for his decade-long diary. Although Pepys generated his diaristic "pictures" during an earlier period, the mid-seventeenth century, Steinitz argues that these pictures acted "as a kind of lens that enable[d] readers, in effect, to see for themselves."⁵⁰ Lind-af-Hageby, likewise, wanted her readers to see vivisection "for themselves." Vivisection experiments occurred in laboratories with restricted access and lecture-halls removed from public scrutiny and could not be witnessed by people outside the medical community.⁵¹ Her status as a medical student and the immediacy of her detailed renderings of vivisection experiments in *Shambles*, therefore, allowed Lind-af-Hageby to further the antivivisectionist cause in a way that other, less scientifically-educated antivivisectionists could not.

In so doing, *Shambles* merged with a "broader mixed-media strategy" of antivivisectionists.⁵² Practiced by animal advocates like Frances Power Cobbe and publisher Ernest Bell (1851–1933), the tactic of "assemblage" publicized physiology's flaws by repetitiously circulating shocking snippets of animal experiments excerpted from physiologists' own textbooks. Few of these advocates had entered physiology laboratories, however.⁵³ Being medical students, Lind-af-Hageby and Schartau added fresh, first-hand testimony to the small cache of experiments cycled through hundreds of antivivisectionists' leaflets and tracts.

Where *Shambles* intersects with antivivisectionist "assemblage" writing is in its references to outside sources. Like a well-researched investigation, and in contrast to the more self-reflexive character of the "feminine" diary outlined by Tidwell and the literary critic Alison Light, the diary quotes segments of vivisectionists' studies that served to buttress the women's testimony.⁵⁴ A chapter devoted to "Anaesthesia," for instance, undercut the vivisectionist contention that morphine or "morphia" provided suitable pain relief for animals. Prominent French physiologist, Claude Bernard (1813–1878), appeared in the book's charge that "one of the experiments on

dogs . . . was performed under morphia alone, which is not an anaesthetic, and under which, according to Claude Bernard, 'the animal remains sensitive . . . he feels pain, but had lost the idea of self-defence.'⁵⁵ On the same topic, Lind-af-Hageby added that "in the *British Medical Journal* of January 14th, 1899, p.94, it is said that 'Morphia does not act as a narcotic in dogs, but as a stimulant.'⁵⁶ Reconstituting the "assemblage" technique within her writing, Lind-af-Hageby's use of vivisectors' own arguments made it difficult to portray her reasoning as based on sentiment.⁵⁷ The master narrative that *Shambles* builds from these arguments and from experiential evidence instead altered traditional, opinion-oriented forms of diary-writing while enhancing the "assemblage" mode of protest already appropriated by antivivisectionists.

The fact of *Shambles'* rapid publication renders it yet more significant. Deviating from the characteristically "private" female diary, the contemporaneity and publicity garnered by *Shambles* made it akin to men's "religious, travel, military, and political diaries [that] usually appeared in print soon after they were written."⁵⁸ Female diarists, in contrast, published their journals with much less alacrity or often not at all.⁵⁹ *Shambles'* public appearance only a few months after the diary's final entry was thus not only distinctive, but also pragmatic. With a six-month limitation period on all offences established under the British Cruelty to Animals Act (1876), Coleridge, along with Lind-af-Hageby and Schartau, understood that the diary's evidence might be used to levy legal charges against physiologists if the book was printed in time.⁶⁰ Even if Dr. Bayliss had not sought a trial himself, the diary's swift debut points to its potential as a political and legal tool. The diary, importantly, also functioned as a feminist tool. It not only broke traditional norms surrounding the publication of women's diaries, but also introduced women and female professional students into the public vivisection debate. Using an original blend of form and style, Lind-af-Hageby envisioned a path of scientific progress that foresaw and included women in public life.

Other women, however, had tread the path of female popularizers of science before. In the "long" view of *Shambles'* significance, it is antivivisectionists' and women's contributions to popular science that help to appropriately situate this text. By publicizing scientific works, whether through assemblage or other media tactics, animal advocates contested laboratory science's growing exclusivity and, according to the professor of literature Susan Hamilton, "anti-vivisection directly challenged science's attempt to confine amateurs solely to the sidelines."⁶¹ Scholars can extend Hamilton's line of reasoning and render it more applicable to women's writing. While still a diary, *Shambles* compares most closely with women's journals of natural history and "Nature" observation. Until the 1860s,

women fulfilled a tradition of gathering evidence of the natural world for scientists and for their diaries.⁶² The literary critic Barbara Gates's study of women's historical connection to "Nature" elaborated this point, noting that Beatrix Potter's natural histories or Jane Marcet's chemistry texts "described scientific discoveries for an audience of women, children, and members of the working class, who had little or no access to specialist libraries or to universities."⁶³ The tradition of women's participation in natural history and natural science remained influential during the period of *Shambles'* creation. Lind-af-Hageby, whether consciously or unconsciously, reclaimed this tradition. As a feminist and antivivisectionist writer, she adapted the physiology supporting her arguments for non-specialist audiences.⁶⁴

The Edwardian "country diarist" drew her heritage from her Victorian predecessors. The same "Romanticism" that valued self-expression similarly esteemed interpretations of "Nature" as both spiritual and scientific searches.⁶⁵ Journal-keepers Emily Shore (1819–1839), George Eliot (1819–1880), and Muriel Foster (1877–1937) fit into this Romantic tradition, setting early precedents for "recording nature," while writers Jane Loudon (1807–1858) and Arabella Buckley (1840–1929) later published entire volumes that commuted scientific "truths" into engaging stories.⁶⁶ Since "it excited the youthful mind to the contemplation of infinite wisdom," Loudon composed natural histories for young readers.⁶⁷ Buckley's *The Fairy-land of Science* (1879) likewise bound fact and fiction together in order to interest the public in science's "wonders." In describing her "fairy-land," she asks her audience: "Can you see in your imagination fairy *Cohesion* ever ready to lock atoms together . . . or fairy *Gravitation* dragging rain-drops down to earth; or the fairy *Crystallization* building up snow-flakes in the clouds?"⁶⁸ Such scholarship might seem humorous today, but it attracted an enthusiastic Victorian following. Women writing on animal themes also proved to be immensely popular. Novelist Anna Sewell's (1820–1878) *Black Beauty* (1877), for example, sold over 91,000 copies, with excerpted sections on "Poor Ginger," a poorly-treated horse, and "The Hunt" that stirred feeling among animal advocates ready to vilify unsympathetic stable masters.⁶⁹ Nineteenth-century readers similarly purchased over 160,000 copies of Marcet's "Conversations" after 1806.⁷⁰ Even Lind-af-Hageby felt the pull to transform "Nature" in the service of science. Writing part nature-observation, part political tract, she reveled in "the glories of the mountains, beauty divine . . . a never failing source of hope and light for our struggling human race" in her *Mountain Meditations* (1917).⁷¹ Before writing this book, however, Lind-af-Hageby exposed and publicized the strange practices underway in England's physiology laboratories.

The struggle of Victorian and Edwardian women writers was to represent "Nature" and science without becoming naturalized themselves. As the

literary and feminist scholar Barbara Gates asserts, without “the pervasive feminization of nature and the naturalization of women, nineteenth-century Englishmen . . . could not have continued comfortably to relegate women to the realms of the erotic and the domestic and to exclude women from those of the public and the political.”⁷² Contemporary ecofeminist writing indeed continues to battle the alleged domination of Western patriarchal civilization suffered by both women and the natural world.⁷³ Perhaps articulated in less sophisticated terms than today, but no less significant, women’s nineteenth-century nature-writing developed feminist intonations that corresponded with women’s antivivisectionist texts.

Female writers and early feminists aligned and overlapped in their representations of “Nature” as a vital “life force.”⁷⁴ Antivivisection incorporated this element of signified “vitalism,” which allegedly contradicted the materialistic and mechanistic outlook of physiologists by espousing that the body could be studied as mechanisms and that “the secrets of the Mind can best be explored in Matter.”⁷⁵ Vitalist notions of physiology presented the study of comparative anatomy, experimental pathology, and “life force” in addition to physical matter as alternate paths for scientific innovation.⁷⁶ Experimental physiologists like Michael Foster (1836–1907) and John Burdon-Sanderson (1828–1905), meanwhile, attempted to establish themselves as part of an autonomous discipline, and many of them went to considerable lengths to purge their science of “old” vitalist methods.⁷⁷ Caught up in this debate, Lind-af-Hageby preferred vitalist arguments to “materialist” medicine. Although the grounds of the dispute between vitalist and materialist ideas continuously shifted over the century, vitalism’s spiritual and natural associations drew Lind-af-Hageby closer to its cause.

Women’s defense of vitalist principles propelled them into the public sphere. If a “life force” in nature existed, as some women argued, then perhaps a female moral or regenerative force also existed that could renew society.⁷⁸ Antivivisection, to the historian Nicolaas Rupke, “tie[d] into a more Romantic view of nature which emphasise[d] . . . such causes as alternative medicine.”⁷⁹ Reducing creatures into the “animal machines” once theorized by René Descartes grated against this view of nature and denied female affinities with “Nature” and animals.⁸⁰ Along these lines, Lind-af-Hageby popularized her own “vitalist” vision of science, given her observation that “in emancipating themselves from the old vitalistic and reverent views, the adherents of this [physiology] school have also expunged the unscientific and misty attributes of mercy and kindness towards inferior creatures which are coveted by less advanced men.”⁸¹ With a characteristic dose of stinging sarcasm, Lind-af-Hageby located her work in partnership with vitalist views and developing strains of Edwardian feminism.

Female antivivisectionists' writing pulled together early forms of scientific popularization and Edwardian feminist thought. *The Shambles of Science* exhibited this tendency as it slid into conventions set by female nature-writers and science popularizers from earlier decades. Ideological currents articulating "Nature's" spiritual and societal role evidently still lingered even as "science" slowly took up residence in laboratories. Stressing the lengthy literary interaction of women and natural science, the historian Mary Ann Elston claims that "there was a complex symbolic association between women, sentiment, and nature that was so significant in late eighteenth- and nineteenth-century thought."⁸² As physiologists began to detach non-professional women from this association, some women protested both these scientists' offences against them and against animals. Not all female antivivisectionists were feminists of course, but none acted as advocates outside of the constraints applied by their gender.

"Chambers of Horror": Women's Identification with Animals and Fears of Physiology⁸³

Antivivisection literature, like *Shambles*, invited women to identify with vivisected animals. Drawing upon mounting societal fears of physicians, who were often conflated with physiologists, and the female connection to the natural world, antivivisectionists' implicit and explicit anthropomorphism contributed to the raucous public reaction that *Shambles* received.⁸⁴ The link that antivivisectionists established between violence against women and animals also popularized the concept of women as protectors of animals and as promoters of their own interests, often as feminists or suffragettes.⁸⁵ A widened outlook on womens' and animals' shared victimhood, therefore, adds layers of extended meaning to antivivisectionist arguments.

When Lind-af-Hageby depicted animals subjected to physiologists' cruelty, she left imaginative space for those animals' metamorphoses into women. Female fears of harrowing gynecological exams left an imprint on antivivisectionist texts. In a period when women guarded their modesty with floor-length skirts and combinations (a one-piece, full-body woolen undergarment), The Contagious Diseases Acts, first passed in 1864, exposed women, particularly working-class women, to invasive treatments for venereal disease.⁸⁶ Mimicking the straps and equipment used by vivisectors, the infected "women would have been strapped to a frame which raised her pelvis while her feet were held in stirrups or footrests, and in this position a group of students would have been invited to inspect her genitalia. . . . The woman was less a patient than a subject for study."⁸⁷ From this type of venereal disease examination, a metaphor of medical science as women's "rape" emerged and fed the controversy surrounding gynecology's "in-

decent" methods.⁸⁸ Leaving the animal subject largely out of *Shambles'* chapter on "Pain" allowed Lind-af-Hageby to capitalize on this metaphor. Creating an "absent referent" to stand in for either a woman or an animal, she remarked: "Through the noise of machines, the buzz of electrical batteries that stimulate, the whistle of air pumped into cut throats, through the talking and laughing of men bent over their victims, there comes the cry of pain. Behind the clouds of smoke from cigarettes . . . there are eyes that gaze out in anguish, eyes from which the hope of death has fled."⁸⁹ Other female antivivisectionists relied upon a similar rhetorical strategy. In *The Confessions of a Lost Dog* (1867), Cobbe aligned the problems of a "lady" dog and her human mistress in order to demonstrate the vulnerabilities of both.⁹⁰ But women's vulnerabilities to male desires, whether scientific or sexual, received their most frightening representation in pornographic novels. Those novels published between 1870 and 1910, Lansbury asserts, involved "vivisection-like" straps and whips so that women could be subdued, tied down, and "mounted more easily."⁹¹ It was not a long imaginative leap for women to string together their subjugation in gynecology, pornography, and vivisection.

Sarah Grand's loosely autobiographical account, *The Beth Book*, highlighted female concerns and feminist associations with doctors, animals, and sexual imagery. The protagonist, Beth, identifies with the plight of an animal that her husband vivisects because she feels that the plight is her own. Upon discovering his vivisection experiments, she reflects: "His hands in particular . . . had a horrid fascination for her. She had admired them while she thought of them as the healing hands of the physician . . . but now she knew them to be the cruel hands of the vivisector, associated with torture . . . and when he touched her, her delicate skin crisped with a shudder."⁹² Over the nineteenth century, the torture and infliction of physical pain, as Beth expresses here, became increasingly abhorrent to Victorians.⁹³ A new kindness to animals, particularly for the English, seemingly indicated that society had achieved a higher level of moral progress.⁹⁴ For *Shambles'* authors, "inflicting pain on the small and the helpless" marked one as "an enemy of ethical progress."⁹⁵ Setting society back upon the path to morality and "progress" provided a public role for women like Lind-af-Hageby. Whether protesting vivisection or The Contagious-Diseases Acts, female antivivisectionists questioned a world in which male sexual authority and predominantly male scientific opinion held power over them.

Physiology's elitist pretensions ensured that antivivisectionists found a sympathetic ear among the working-class. Until the 1870s, the "gentleman scientist" chiefly controlled scientific endeavor. But the appointment of Michael Foster as the first praelector in experimental physiology at Trinity College, Cambridge, signaled the end of English physiology's stagnant

period under the gentry's roofs.⁹⁶ Once physiology became an established scientific specialty in English universities, animal advocates required a greater knowledge of laboratory practice to argue convincingly. The English naturalist Charles Darwin (1809–1882), perhaps surprisingly to some scholars, fell into this category.⁹⁷ Not wanting to distance himself from the scientific community, Darwin angered Cobbe and her Victoria Street Society for the Protection of Animals from Vivisection (VSS) by refusing to support their abolitionist stance on vivisection. From this act alone, many historians have depicted Darwin as a supporter of animal experimentation.⁹⁸ This deduction, as the historian David Feller correctly challenges, ignores the protective animal rights bills that Darwin pushed through as an informed animal advocate.

Darwin used his status as a man and place within scientific circles to shield physiologists' reputations, while he launched antivivisectionist legislation and seemingly pushed for heavier penalties and better enforcement against illegal vivisection procedures than Cobbe did.⁹⁹ The correlation between Darwin's position and pro-animal impact, nonetheless, suggested to women and working-class people the extent of their exclusion from physiological debate. A well-trod line of reasoning in antivivisectionist literature portrayed the working-class person, often dramatically, as an eventual object of dissection after elite vivisectionists tired of animals.¹⁰⁰ The antivivisection-oriented *Home Chronicler* clarified this connection. The journal proposed to readers that when a "poor painter or labourer has either fractured his skull or ripped open his back," the newly-trained experimenter might take advantage of his cultivated taste for vivisection "to prolong the operation of binding up the one or trepanning the other."¹⁰¹ Antivivisectionist writers then, despite many of them keenly feeling the fears they shaped in the public mind, played upon existing class tensions and feminine fears of elite science.

Female antivivisectionists, especially, urged women and the public to imagine the moral ramifications of vivisection experiments. In *Shambles*, Lind-af-Hageby presented vivisection as enacting two metamorphoses, including the "vivisected-animal-turned-woman." The other remained the transformation of those taking up vivisection's tools into "beast-like" beings. Even for the "young boys" employed as laboratory attendants, Lind-af-Hageby asked, "For what can they learn there [in the laboratory] that will help them become good and unselfish men?"¹⁰² *Shambles* and similar political texts nonetheless forged the strongest associations between female identifications with the "naturalistic" and, subsequently, the "analytic" vivisected animal.¹⁰³ Images of a male physiologist who "dominates and exploits women and animals alike" developed from a strand of "radical feminism supporting the identification of women with nature."¹⁰⁴ Ties between this thread of feminist thought and animals' plight wound around

Lind-af-Hageby's narrative. If the cruelties of vivisection purportedly extended to and fell unevenly upon women in the popular imagination, then understanding *Shambles'* strident denigration of this practice on women's behalf opens up and more completely contextualizes the diary.

A "Widened" Perspective: *Shambles'* Feminist Inflections and Comparative Antivivisectionist Achievements

The beliefs *Shambles* espoused did not develop in isolation. Variations of feminist ideology and antivivisectionist activism preceded the work, and a broader perspective of this diary, against the backdrop of British society, reveals where it met with and diverged from existing trends. Relying upon her diary and a distinct feminist politic, Lind-af-Hageby debated the terms upon which women could enter the male world and the scientific sphere.¹⁰⁵ Paying vivisection's price proved too costly. Animal experimentation appeared incompatible with women's inherent moral capacities, which demanded female involvement outside of the home and in championing antivivisection and vitalist medicine. As Lind-af-Hageby told *The Daily Mail* in 1914, the "whole [antivivisection] question is closely connected with the coming of women into social and political life, and I think we can say that the coming of woman is, in a sense, identical also with civilization."¹⁰⁶ Much of Lind-af-Hageby's objection to vivisection thus stood on moral grounds, allowing her to market her message to morally-interested political partisans of all stripes.¹⁰⁷

Conveying the moral standpoint that she shared with other female antivivisectionists, Lind-af-Hageby observed in *Shambles* that "there is something in vivisection which makes it abhorred by those who stand foremost morally and spiritually."¹⁰⁸ Anna Kingsford (1846–1888), a practicing physician and ardent Theosophist, mirrored Lind-af-Hageby's moral and antivivisectionist outrage. Like Cobbe, she understood that female antivivisectionists needed scientific, unsentimental arguments to deflect experimenters' criticisms of women advocates as "weak-minded fanatics."¹⁰⁹ Where vivisection's value was concerned, Kingsford agreed with her contemporaries "that every branch of intellectual research has its *moral limits*."¹¹⁰ Hashing out the "moral limits" of vivisection, as these women demonstrated, could also further a feminist agenda: it pushed at least some women into the public eye.

Closely linked to the Romantic esteem for "Nature" and vitalism, a feminine role for public social improvement, as Lind-af-Hageby envisioned it, existed in the Edwardian feminist conception of the "female genius." Sometimes known as the "superwoman," this female figure brought progress through her exceptionality and possessed inherent moral and

maternal qualities that would purify the public domain.¹¹¹ Vitalism corresponded to these beliefs, as the historian Lucy Delap described, because “feminists sought to use the discourse of Romantic genius, associated with the regenerative power of ‘life force’ . . . to indicate their aim to transform society.”¹¹² While the idea that innovation would come from only a few “superwomen” seemingly clashed with the feminist pillar of equality, this was not always true. In Lind-af-Hageby’s view, women earned their equality when they used their moral and spiritual “life forces” to correct the materialist physician who was “sure that he [would] succeed in wrenching the jealously-guarded secrets of the vital laws from the bosom of Nature.”¹¹³ Antivivisectionist women accordingly, as civilizers and moralizers, would emancipate themselves. The politics behind Lind-af-Hageby’s sarcastic tone moreover generated, as the literary critic Andrew Opitz suggests, an “artistic distance” that perhaps displayed a “superman complex.” This complex comprised “the romantic notion of an exceptional individual at odds with a disappointing and unworthy world.”¹¹⁴ By publishing and publicizing her diary, Lind-af-Hageby assumed the role of a “superwoman” as she challenged prevailing gender scripts of ill-informed female antivivisectionists and a “disappointing” world filled with vivisection. The many subtleties and nuances of her position within the wide range of Edwardian feminist ideologies, beyond those presented by this study, also suggest avenues for further historical inquiry.

A crucial piece of evidence pointing to *Shambles’* gendered assumptions remains its condemnation of female vivisectionists. If women’s special civilizing powers justified their equality, the rejection of those powers by practicing vivisection signaled a betrayal not only of “true science,” but also of their gender. The female vivisectionist, exposed to brutalizing influences, would never become a caring mother or compassionate citizen in Lind-af-Hageby’s view.¹¹⁵ As she asserted in her diary, “It is degrading for a man to spend a life in acts of cruelty, but it is ten times more so for a woman. . . . Will women who have been trained at the vivisection-table become gentle-loving mothers?”¹¹⁶ Lind-af-Hageby’s emphasis here on women as mothers was not antifeminist; she valued the home and believed in women’s access to the public sphere based on what they had achieved in the domestic one.

Worry over vivisection’s corrupting influence, particularly upon women, characterized Annie Besant’s (1847–1933) writings as well. Without the “restraint and condemnation of public opinion,” Besant believed that “the next step [after vivisection was] the torture of human beings.”¹¹⁷ The drawback of Besant’s activism, mirroring the disadvantages in Kingsford’s approach, was its reliance on Theosophism, mysticism, and free-thought, rather than on the physiology she had learned at London University as the primary grounds for vivisection’s rejection.¹¹⁸ These currents of Victorian

spiritualism lacked the credibility and pervasiveness that *Shambles'* scientific argumentation captured.¹¹⁹ To many Edwardians, Kingsford's avowal of having "killed" the prominent vivisectionists Claude Bernard and Paul Bert with her spiritual powers, did not bespeak a rational approach to animal protection.¹²⁰ In comparison, Lind-af-Hageby advanced similar antivivisectionist arguments to Besant and Kingsford, but she used more cogent observational methods. By virtue of its scientific approach then, *Shambles* more successfully combated both vivisectionists' arguments and degrading stereotypes of female antivivisectionists.

Frances Power Cobbe, Lind-af-Hageby's most prolific contemporary, wrote extensively on antivivisection and the "male" subordination of women and animals. Her public role, although preceding that of Lind-af-Hageby, appears the best precedent for the Swedish antivivisectionist's entrance into societal debates.¹²¹ Having founded the VSS in 1875 and the British Union for the Abolition of Vivisection (BUAV) in 1898, Cobbe publicly debated vivisectionists and published well-crafted "assemblages" of vivisection material, including her *Light in Dark Places* (1883), an "ocular illustration of the meaning of the much disputed word Vivisection."¹²² Taking up physiologists' claims, Cobbe penned sarcastic and satirical leaflets. In her *Science in Excelsis* (1897), she mocked physiologists' assertions of man's physical dominion over animals. In her invented scenario, Arch-Angel Raphael invokes his divine dominion over humans by vivisectioning physiologists in his "Celestial Laboratory."¹²³ Unlike Besant, Kingsford, and Lind-af-Hageby, however, Cobbe had no medical or scientific training. When she debated the intricacies of vivisection's efficacy, she was ill-equipped.¹²⁴ In this way, *Shambles* provided something distinctive to Edwardians: a reasoned and scientific argument without unpopular spiritual justifications for vivisection's end. Yet without placing this diary within its feminist milieu, and among the publications of other female antivivisectionists, its subtle negotiation and combination of feminist and antivivisectionist strategies would remain hazy.

Conclusion: A Science "in *Shambles*"?

In the years following her diary's publication and the release of a replacement chapter for "Fun," Louise Lind-af-Hageby became her work's public voice, deliberating vivisection's efficacy with physiologists and with men as an equally informed and engaged member of the scientific community.¹²⁵ Using that "voice," she addressed both Central Hall in Acton and Caxton Hall in London on the subject of "Vivisection and Medical Students" in 1907.¹²⁶ In 1906, she formed the Animal Defence and Anti-Vivisection Society (ADAVS), planting displays of vivisection experiments with stuffed

animals in the Society's Piccadilly shop window. She eventually became the honorary secretary of *The Antivivisection Review* and, by the time of her diary's fifth edition in 1913, she had lost another libel trial, participated in a second Royal Commission on Vivisection, and become a public figure.¹²⁷ Just as the diary facilitated her antivivisectionist message's distribution, at the same time, it empowered and enabled her public "inauguration" as a feminist advocate. A diverse combination of feminist thought, scientific observation, and diary-writing, *The Shambles of Science* pushed the public for comment because it pushed the boundaries of genre and antivivisectionist expression.

By untangling and contextualizing the diary's various components, I wish to convey that *Shambles* belongs within and helps scholars see the "longer" and "wider" traditions of women's and antivivisectionists' writing. Associations between femininity and the diary genre, intentionally or unintentionally, afforded Lind-af-Hageby an attractive literary enclosure for her scientifically-informed argument. Through its mediation of scientific information for lay audiences, *Shambles* reclaimed women's eighteenth and nineteenth-century roles as the popularizers of "Nature" and science. The growing significance of the laboratory for science by the late-nineteenth century meant that this diary squeezed an increasingly excluded female voice into public debate, while the number of male physiologists continued to grow.¹²⁸ It also embraced a feminist view of scientific and social progress. Women's equal stature outside the home, this view reasoned, relied upon female ability and vitalist arguments. Such a view was not antifeminist, rather it indicated the complexities and variability of feminist positions during the Edwardian period. By comparing *Shambles* and its author to their female peers, this diary reveals linkages between feminism and antivivisectionism and their influences upon one another.

As more women entered physiological research and as feminist objectives like suffrage received popular and legislative sanction, female support for antivivisection tellingly waned.¹²⁹ The association between animals' and women's mutual oppression had weakened, even if only slightly. Lind-af-Hageby, who never retracted her antivivisectionist position, continued to show that "the defence of animals must come from those who know something of their capabilities."¹³⁰ Lind-af-Hageby grasped those capabilities because she studied them, and by emphasizing animal capacities, she also displayed her own. As Rupke reminds scholars, the links between feminism and antivivisectionism were not spurious. Rather, they grew from a distinct socio-political context in which "the vivisection question functioned as a catalyst of deeper and wider conflicts in Western society."¹³¹ Whether judged by the "Brown Dog Riots" or the libel case it inspired, *Shambles* struck resounding chords in British society. For Edwardian readers then, it

purposefully blended diary and observation, feminism and antivivisectionism, and science and sensibility.

NOTES

¹Louise Lind-af-Hageby, and Leisa Schartau, *The Shambles of Science* (London: Ernest Bell, 1903), 206. Throughout this article, the term “vivisection” will refer to live experimentation on animals.

²Coral Lansbury, *The Old Brown Dog: Women, Workers, and Vivisection in Edwardian England* (Madison: University of Wisconsin Press, 1985), 10.

³Evalyn Westacott, *A Century of Vivisection and Antivivisection* (Essex: C. W. Daniel Company, 1949), 189; Schartau, *The Shambles of Science*, vii; and Leah Leneman, “The Awakened Instinct: Vegetarianism and the Women’s Suffrage Movement in Britain,” *Women’s History Review* 6, no. 2 (1997): 271–87, 277 (emphasis in original).

⁴John Vyvyan, *The Dark Face of Science* (London: McCabe and Joseph, 1971), 57; and Annie Besant, “Speech by Mrs. Annie Besant,” *Anti-Vivisectionist Review* (1909): 85–87, 85.

⁵Susan Hamilton, “Reading and the Popular Critique of Science in the Victorian Anti-Vivisection Press,” *Victorian Review* 36, no. 2 (2010): 66–79, 76; and Lansbury, *The Old Brown Dog*, 9.

⁶Augustus Waller, “A Lecture on the Administration of Chloroform to Man and to the Higher Animals,” *The Lancet* 162, no. 4187 (1903): 1481–6, 1481.

⁷“Coleridge Court Proceedings,” *The Daily News* (London, UK), November 19, 1903.

⁸Vyvyan, *The Dark Face of Science*, 55; and Mary Elston, “Women and Antivivisection in Victorian England, 1870–1900,” in *Vivisection in Historical Perspective*, ed. Nicolaas Rupke (London: Routledge, 1987), 259–94, 285. Under the British Cruelty to Animals Act of 1876, it was illegal to operate on anaesthetized animals or not “destroy” an animal after completing an experiment. The court, placing the burden of proof on Coleridge to prove that Dr. Bayliss had not used anesthetics, later declared that Lind-af-Hageby’s “eyewitness testimony” was insufficient to convict.

⁹Elston, “Women and Anti-vivisection.”

¹⁰Vyvyan, *The Dark Face of Science*, 42–43; and Elston, “Women and Antivivisection,” 266. According to Mary Elston, middle- and upper-class women made up 40 to 60 percent of Victorian antivivisection societies’ executive leadership. Few other social causes outside of suffrage boasted such high female participation.

¹¹Lansbury, *The Old Brown Dog*, 21; and Hempsen & Co., “Correspondence. Bayliss v. Coleridge. To the Editors of THE LANCET,” *The Lancet* 162, no. 4188 (1903): 1614. I could not find exact sales figures for *Shambles*, although over three thousand people gathered in Trafalgar Square in 1910 to hear Lind-af-Hageby lecture on the “brown dog,” and her book gained three new publishers after 1903.

¹²Vyvyan, *The Dark Face of Science*, 59; and Barbara T. Gates, *In Nature's Name: An Anthology of Women's Writing and Illustration, 1780–1930* (Chicago: University of Chicago Press, 2002), 91.

¹³Gates, *In Nature's Name*, 91; and Hilda Kean, "An Exploration of the Sculptures of Greyfriars Bobby, Edinburgh, Scotland, and the Brown Dog, Battersea, South London, England," *Society and Animals* 11, no. 4 (2003): 353–73, 355–6. Known as the "Brown Doggers" and led by prominent surgeon Lord Lister, medical students defaced the "brown dog" statue at Battersea between 1906 and 1907.

¹⁴Hamilton, "Reading and the Popular Critique," 69; and Hilda Kean, *Animal Rights: Political and Social Change in Britain since 1800* (London: Reaktion Books, 1998), 26.

¹⁵Lind-af-Hageby and Schartau, *Shambles*, xii.

¹⁶*Ibid.*

¹⁷Richard French, *Antivivisection and Medical Science in Victorian Society* (Princeton, NJ: Princeton University Press, 1975), 239; Nicolaas Rupke, "Introduction," in *Vivisection in Historical Perspective*, ed. Nicolaas Rupke (London: Routledge, 1987), 1–13, 10; and Harriet Ritvo, *The Animal Estate: The English and Other Creatures in the Victorian Age* (Cambridge, MA: Harvard University Press, 1987), 129. According to Rupke and Ritvo, the English antivivisectionist cause was stronger, and thus it attracted avid advocates like Schartau and Lind-af-Hageby.

¹⁸Westacott, *A Century of Vivisection and Antivivisection*, 189; and Louise Lind-af-Hageby, *Mountain Meditations, and Some Subjects of the Day and the War* (London: n.p., 1917), 7. Published in 1917, *Mountain Meditations* promoted Lind-af-Hageby's conceptions of war's fruitlessness, along with her engagement with "Nature" and its juxtaposition to war. She similarly composed "Women and War" and *On Immortality: A Letter to a Dog* (1916), underlining many of her other political beliefs like her confidence in women's civic and spiritual capabilities. Louise Lind-af-Hageby, "Woman and War," *No More War*, June 1926: v1. Nineteenth Century Collections Online, accessed 8 June 2016.

¹⁹Vyvyan, *The Dark Face of Science*, 62; and Hilda Kean, "The 'Smooth Cool Men of Science': The Feminist and Socialist Response to Vivisection," *History Workshop Journal* 40, no. 1 (1995): 16–38, 26. Within the remainder of this article, I will discuss many of Lind-af-Hageby's motivations for her diary and her actions outside of it without explicit reference to Schartau; I implicitly consider Schartau's opinions and writing, however, in direct discussions of the ideas she articulated in *Shambles*.

²⁰Kean, *Animal Rights*, 141.

²¹Lucy Delap, *The Feminist Avant-Garde: Transatlantic Encounters of the Early Twentieth Century* (Cambridge: Cambridge University Press, 2007), 252–3; Cynthia Russett, *Sexual Science: The Victorian Construction of Womanhood* (Cambridge, MA: Harvard University Press, 1989), 113; and Lennart Bromander, "The Vivisection Debate in Sweden in the 1880s," in *Vivisection in Historical Perspective*, ed. Nicolaas Rupke (London: Routledge, 1987), 214–235, 214.

²²Lind-af-Hageby and Schartau, *Shambles*, 3.

²³Barbara Cook, *Women Writing Nature: A Feminist View* (Toronto: Lexington Books, 2008), 2–3; and Carol J. Adams, *The Sexual Politics of Meat: A Feminist-Vegetarian Critical Theory* (New York: Continuum International Publishing Group, 2010), 64–65.

²⁴Lind-af-Hageby and Schartau, *Shambles*, 132.

²⁵Theodore Obenchain, *The Victorian Vivisection Debate—Frances Power Cobbe, Experimental Science and the “Claims of Brutes”* (Jefferson, NC: McFarland & Company, 2012), ix.

²⁶Vyvyan, *The Dark Face of Science*, 46.

²⁷Lynda Birke, *Feminism, Animals and Science: The Naming of the Shrew* (Buckingham: Open University Press, 1994), 4.; and James Turner, *Reckoning with the Beast: Animals, Pain, and Humanity in the Victorian Mind* (Baltimore, MD: Johns Hopkins University Press, 1980), 79.

²⁸Chien-Hui Li, “Mobilizing Christianity in the Antivivisection Movement in Victorian Britain,” *Journal of Animal Ethics* 2, no. 2 (2012): 141–61, 141–42.

²⁹Rupke, *Vivisection in Historical Perspective*, 5.

³⁰Lansbury, *The Old Brown Dog*, 128.

³¹Joanne Campbell Tidwell, *Politics and Aesthetics in “The Diary of Virginia Woolf”* (New York: Routledge, 2008), 3.

³²Rebecca Steinitz, *Time, Space and Gender in the Nineteenth-Century British Diary* (New York: Palgrave Macmillan, 2011), 111; Rebecca Hogan, “Engendered Autobiographies: The Diary as a Feminine Form,” *Prose Studies Special Issue on Autobiography and Questions of Gender* 14, no. 2 (1991): 95–107, 99; Sidonie Smith, *A Poetics of Women’s Autobiography: Marginality and the Fictions of Self-Representation* (Bloomington: Indiana University Press, 1987), 8–9; and Cynthia Huff, *British Women’s Diaries: A Descriptive Bibliography of Selected Nineteenth-Century Women’s Manuscript Diaries* (New York: AMS Press, 1985), xii.

³³Barbara Gates, *Kindred Nature: Victorian and Edwardian Women Embrace the Living World* (Chicago: University of Chicago Press, 1998), 3.

³⁴Hamilton, “Reading and the Popular Critique,” 66.

³⁵Lind-af-Hageby and Schartau, *Shambles*, xii–xiii.

³⁶Alison Light, *Composing One’s Self: Virginia Woolf’s Diaries and Memoirs* (Southport: Virginia Woolf Society of GB, 2007), 8.

³⁷Deborah Martinson, *In the Presence of Audience: the Self in Diaries and Fiction* (Columbus: Ohio State University Press, 2003), 4.

³⁸Shirley Neuman, ed., *Autobiography and Questions of Gender* (London: Frank Cass & Co. Ltd., 1991), 1–2.

³⁹Lansbury, *The Old Brown Dog*, 10.

⁴⁰Linda Peterson, ed., *The Cambridge Companion to Victorian Women's Writing* (Cambridge: Cambridge University Press, 2015), 3; and Tidwell, *Politics and Aesthetics*, 35.

⁴¹Hogan, "Engendered Autobiographies," 99; and Light, *Composing One's Self*, 6.

⁴²Catherine Delafield, *Women's Diaries as Narrative in the Nineteenth-Century Novel* (Surrey: Ashgate Publishing Limited, 2009), 9.

⁴³Robert Fothergill, *Private Chronicles: A Study of English Diaries* (London: Oxford University Press, 1974), 64; and Alice Mackay, and Pat Thane, "The Englishwoman," in *Englishness: Politics and Culture 1880–1920*, ed. Robert Collis and Philip Dodd (London: Bloomsbury Publishing, 2014), 217–54, 221.

⁴⁴Sarah Grand, *The Beth Book: Being a Study from the Life of Elizabeth Caldwell Maclure* (London: n.p., 1898), 5.

⁴⁵Lind-af-Hageby and Schartau, *Shambles*, xi.

⁴⁶Lynda Birke, *Feminism, Animals and Science*, 4.

⁴⁷Frances Cobbe, "The Rights of Man and The Claims of Brutes," in *Studies New and Old of Ethical and Social Subjects*, ed. Frances Cobbe (London: Trubner & Co., 1865), 232; and Lind-af-Hageby and Schartau, *Shambles*, 184.

⁴⁸Tidwell, *Politics and Aesthetics*, 2; 38; and Light, *Composing One's Self*, 4–5. Virginia Woolf's diaries, being contemporaneous to that of Lind-af-Hageby, provide well-suited comparisons with *Shambles*. Composing her diaries over thirty-eight years, Woolf pioneered "stream-of-consciousness" prose just before Lind-af-Hageby developed a very similar running commentary style of impressions in *Shambles*. Anne Fernihough, *Freewomen and Supermen: Edwardian Radicals and Literary Modernism* (Oxford: Oxford University Press, 2013), 86.

⁴⁹Lind-af-Hageby and Schartau, *Shambles*, 160, xii–xiii.

⁵⁰Steinitz, *Time, Space and Gender*, 115.

⁵¹Westacott, *A Century of Vivisection*, 7–8.

⁵²Hamilton, "Reading and Popular Critique."

⁵³Susan Hamilton, "'[T]o bind together in mutual helpfulness': Genre and / as Social Action in the Victorian Antivivisection Press," *The Journal of Modern Periodical Studies* 6, no. 2 (2015): 134–60, 134–5.

⁵⁴Tidwell, *Politics and Aesthetics*, 35; Light, *Composing One's Self*, 11.

⁵⁵Lind-af-Hageby and Schartau, *Shambles*, 161.

⁵⁶*Ibid.*, 162.

⁵⁷Patrick Brantlinger, ed., *Energy & Entropy: Science and Culture in Victorian Britain* (Indianapolis: Indiana University Press, 1989), 205. English biologist and pro-vivisectionist, Thomas Henry Huxley, relied on a similar rhetorical strategy in his own works, which “emphasize[d] experiment and observation in the service of scientific logic” (205).

⁵⁸Steinitz, *Time, Space and Gender*, 2, 111.

⁵⁹Tidwell, *Politics and Aesthetics*, 9.

⁶⁰Vyvyan, *The Dark Face of Science*, 59.

⁶¹Hamilton, “Reading and the Popular Critique,” 69.

⁶²Steinitz, *Time, Space and Gender*, 6.

⁶³Gates, *Kindred Nature*, 87.

⁶⁴Vyvyan, *The Dark Face of Science*, 35.

⁶⁵Gates, *Kindred Nature*, 11.

⁶⁶*Ibid.*, 8; George Eliot, *Recollections of Ifracombe* (London: Thompson & Co., 1856). Recording her *Recollections of Ifracombe*, George Eliot writes of man as a “parasitic animal” against Mother Nature (264–65).

⁶⁷Jane Loudon, “The Young Naturalist. [1863],” in *In Nature’s Name: An Anthology of Women’s Writing and Illustrations, 1780–1930*, ed. Barbara Gates (Chicago: University of Chicago Press, 2002), 466–72, 466.

⁶⁸Arabella Buckley, *The Fairy-land of Science* (London: Edward Stanford, 1879), 17–19. Emphasis in original.

⁶⁹Gates, *In Nature’s Name*, 86; and Anna Sewall, *Black Beauty* [1877] (London: J. A. Allen, 1989), 364–65.

⁷⁰Gates, *In Nature’s Name*, 438.

⁷¹Lind-af-Hageby, *Mountain Meditations*, 7.

⁷²Gates, *Kindred Nature*, 3.

⁷³*Ibid.*, 124; and Susan Griffin, *Woman and Nature: The Roaring Inside Her* (New York: Harper & Row, 1978), xxi.

⁷⁴Lucy Delap, *The Feminist Avant-Garde*, 267.

⁷⁵Frederic L. Holmes, “The Old Martyr of Science: The Frog in Experimental Physiology,” *Journal of the History of Biology* 26, no. 2 (1993): 311–28, 315; and Frances Cobbe, *The Moral Aspects of Vivisection*, 5th ed. (London: The Victorian Street Society, 1884), 10.

⁷⁶Bromander, “The Vivisection Debate in Sweden,” 214.

⁷⁷William Coleman, "The Cognitive Basis of the Discipline: Claude Bernard on Physiology," *Isis* 76, no. 1 (1985): 49–70, 49.

⁷⁸Delap, *The Feminist Avant-Garde*, 267.

⁷⁹Rupke, *Vivisection in Historical Perspective*, 8.

⁸⁰Deborah Rudacille, *The Scalpel and the Butterfly: The War Between Animal Research and Animal Protection* (New York: Farrar, Straus and Giroux, 2000), 17.

⁸¹Lind-af-Hageby and Schartau, *Shambles*, 6.

⁸²Elston, "Women and Anti-vivisection," 260.

⁸³Anna Kingsford, "Unscientific Science: Moral Aspects of Vivisection," in *Spiritual Therapeutics*, ed. William Colville Jr. (Edinburgh, n.p., 1883), 297–98.

⁸⁴Ian Miller, "Necessary Torture? Vivisection, Suffragette Force-Feeding, and Responses to Scientific Medicine in Britain c. 1870–1920," *Journal of the History of Medicine and Allied Sciences* 64, no. 3 (2009): 333–72, 333. According to Miller, popular publications frequently blurred public distinctions between the scientist, the physiologist, and the physician.

⁸⁵Adams, *The Sexual Politics of Meat*, 64–65.

⁸⁶Lansbury, *The Old Brown Dog*, 86.

⁸⁷Coral Lansbury, "Gynaecology, Pornography, and the Antivivisection Movement," *Victorian Studies* 28, no. 3 (1985): 413–36, 416.

⁸⁸Elston, "Women and Anti-vivisection," 279; and Moira Ferguson, *Animal Advocacy and Englishwomen, 1780–1900* (Ann Arbor: University of Michigan Press, 1998), 110.

⁸⁹Adams, *The Sexual Politics of Meat*, 64–65. Society allegedly develops absent referents when different names or absences are substituted for the presence of women or animals. Words like "meat" or "beef," for instance, could become absent referents for a cow (Lind-af-Hageby and Schartau, *Shambles*, 101).

⁹⁰Frances Cobbe, *The Confessions of a Lost Dog* (London: Griffith and Farran, 1867), 5–6.

⁹¹Lansbury, "Gynaecology," 421.

⁹²Grand, *The Beth Book*, 445.

⁹³Turner, *Reckoning with the Beast*, 79.

⁹⁴Cobbe, "The Rights of Man," 220; and Ferguson, *Animal Advocacy and Englishwomen*, 105.

⁹⁵Lind-af-Hageby and Schartau, *Shambles*, 183; and Lisieux Huelman, "Medical Ethics in Victorian Fiction," *Literature Compass* 10, no. 10 (2013): 814–21, 817.

⁹⁶Gerald Geison, *Michael Foster and the Cambridge School of Physiology* (Princeton, NJ: Princeton University Press, 1978), 3; Rob Boddice, "Vivisection: A Victorian Gentleman Scientist Defends Animal Experimentation, 1876–1885," *The History of Science Society* 102, no. 2 (2011): 215–37, 217–18.

⁹⁷Elston, "Women and Anti-vivisection," 263.

⁹⁸David Feller, "Dog fight: Darwin as Animal Advocate in the Antivivisection Controversy of 1875," *Studies in History and Philosophy of Biological and Biomedical Sciences* 40, no. 1 (2009): 265–71, 265; Elston, "Women and Anti-vivisection," 263.

⁹⁹Feller, "Dog fight," 267. Significantly, neither Darwin's *Playfair Bill* nor Cobbe's *Henniker Bill* passed into law. Feller here assesses intent rather than advocacy outcomes.

¹⁰⁰Hilda Kean, "The 'Smooth Cool Men of Science,'" 21–22.

¹⁰¹"Vivisection and the Working Classes," *The Home Chronicler* (London, UK), February 17, 1877, n.p..

¹⁰²Huelman, "Medical Ethics in Victorian Fiction," 817; and Lind-af-Hageby and Schartau, *Shambles*, 186.

¹⁰³Michael Lynch, "Sacrifice and the Transformation of the Animal Body into a Scientific Object," *Social Studies of Science* 18, no. 2 (1988): 265–89, 268. Lynch distinguishes between "naturalistic creatures" and the "analytical objects of technical investigation" that sacrificed animals become in the laboratory. Women traditionally connected more with the former type of animal, but feared being turned into the latter.

¹⁰⁴Elston, "Women and Anti-vivisection," 261.

¹⁰⁵Kean, "The 'Smooth Cool Men of Science,'" 26.

¹⁰⁶"Glasgow Vegetarian Society Speaker," *The Daily Mail* (London, UK), 1914, as quoted in Leah Leneman, "The Awakened Instinct: Vegetarianism and the Women's Suffrage Movement in Britain," *Women's History Review* 6, no. 2 (1997): 271–87.

¹⁰⁷Kean, "The 'Smooth Cool Men of Science,'" 23.

¹⁰⁸Elston, "Women and Anti-vivisection," 272; Lind-af-Hageby and Schartau, *Shambles*, 183.

¹⁰⁹Kingsford, "Unscientific Science," 292–93; French, *Antivivisection and Medical Science in Victorian Society*, 248.

¹¹⁰Kingsford, "Unscientific Science," 292–93. Emphasis in original.

¹¹¹Cynthia Russett, *Sexual Science*, 113.

¹¹²Delap, *The Feminist Avant-Garde*, 267.

¹¹³Lind-af-Hageby and Schartau, *Shambles*, 3.

¹¹⁴Vyvyan, *The Dark Face of Science*, 40; and Andrew Opitz, "Kierkegaard, Gramsci, and the Politics of Irony and Sarcasm," *Comparative Literature* 64, no. 3 (2012): 270–83, 270.

¹¹⁵Lind-af-Hageby and Schartau, *Shambles*, 110–11.

¹¹⁶*Ibid.*, 186.

¹¹⁷Besant, "Speech by Mrs. Annie Besant," 85.

¹¹⁸Annie Besant, *The Gospel of Christianity and the Gospel of Freethought* (London: Freethought Publishing Company, 1883), 2; and Gordon Melton, ed., *The Origins of Theosophy: Annie Besant* (New York: Garland Publishing, 1990), 2.

¹¹⁹Carol Mackay, "A Journal of Her Own: The Rise and Fall of Annie Besant's *Our Corner*," *Victorian Periodicals Review* 42, no. 4 (2009): 324–58, 327.

¹²⁰Lansbury, *The Old Brown Dog*, 93.

¹²¹Gates, *Kindred Nature*, 94.

¹²²Frances Cobbe, *Light in Dark Places* (London: Victoria Street Society, 1883), 3.

¹²³Frances Cobbe, *Science in Excelsis: A New Vision of Judgment*. 4th ed. (London: Williams and Norgate, 1897), 9–10.

¹²⁴Hamilton, "Reading and the Popular Critique," 64.

¹²⁵Louise Lind-af-Hageby and Katharina Schartau, *The Shambles of Science: Extracts from the Diary of Two Physiology Students*, 5th ed. (London: n.p., 1903), 238.

¹²⁶Westacott, *A Century of Vivisection*, 193.

¹²⁷"The Final Report of the Royal Commission on Vivisection," *The Lancet* 179, no. 4621 (1912): 818–21, 818; and "Lind-af-Hageby v. Astor and Others," *The Lancet* 181, no. 4678 (1913): 1176–77, 1176.

¹²⁸Elston, "Women and Anti-vivisection," 284.

¹²⁹*Ibid.*

¹³⁰Vyvyan, *The Dark Face of Science*, 35; Henry Bigelow, *Surgical Anaesthesia: Addresses and Other Papers* (Boston, n.p. 1900), 374.

¹³¹Rupke, "Introduction," 5.