

# Gender, nature, empire: women naturalists in nineteenth century British travel literature

Jeanne Kay Guelke\* and Karen M Morin†

Among the many British women abroad in the late nineteenth century were a number of travellers who toured the American West with a naturalist's pen and sketchbook. California, with its giant sequoias and redwoods, scenic Yosemite Valley and Sierra Nevada, and the Mediterranean flora of the southern coasts, especially attracted travellers with a naturalist orientation. We examine the botanical and naturalist writings and art of two well-known (and well-heeled) world travellers – Constance Gordon Cumming and Marianne North – and another more obscure British aristocrat, Theodora Guest, sister of the Duke of Westminster, who travelled in California in the late nineteenth century. We examine relationships among these elite women's association with the Romantic aesthetic and naturalist traditions, natural sciences, class-based associations between women and flowers, and emergent environmentalism. The works of these women indicate the process by which natural history rhetorics and styles became embedded within gender, class, and imperial relations; and how the division of natural history into professional and amateur domains relegated women to discursive margins.

**key words** women naturalists British travel writing American West

---

\*Department of Geography, University of Waterloo, Waterloo, Ontario N2L 3G1 Canada  
email: jkg@fes.uwaterloo.ca

†Department of Geography, Bucknell University, Lewisburg, Pennsylvania 17837 USA  
email: morin@bucknell.edu

revised manuscript received 26 March 2001

## Introduction

Nineteenth century travellers' and explorers' narratives generated considerable interest within British geography during the 1990s, as feminists and postmodernists sought to extend the scope of the discipline's historiography, particularly in deploying travel narratives to critique empire and patriarchy (Barnett 1998; Blunt 1994; Domosh 1991; Livingstone 1992; Morin 1998a, 1999). Expanded attention to Victorian women travellers and writers still engages debates about whether such women are properly 'in' or 'out' of particular scripts of geographical traditions and, if 'in', how they are to

be characterized. Within the mainstream or outside the margins (Domosh 1991; Stoddart 1991)? As plucky proto-feminists (Birkett 1989), as victims of sexism (McEwan 1998), as agents of empire simultaneously negotiating respectable femininity (Blunt and Rose 1994; Kearns 1997), or even as virginal spinsters to be contrasted with sexually liberated males (Gregory 1995)?

Gillian Rose (1995) reminds us that such alternate versions of geography's history basically reflect debates about the nature of the discipline today. Disciplinary history continues to exhibit problems of presentism, in which '[t]he writing of certain kinds of pasts is legitimated by, and

legitimates only certain kinds of presents'. Rose (1995, 414) argues that it is important for geographers to extend their historiography beyond today's accepted disciplinary boundaries and 'paternal lines of descent'. '... writing [geographical] histories without considering what has been constructed as not-geography is to tell only half the story. It is also to replicate the erasure of geography's others'. She argues against the notion of geography as transparent intellectual territory, and for a 'focus on the boundaries at which difference is constituted' (1995, 416).

Working from Rose's insights, we examine some 'near-geographies' – the naturalist and botanical writings and artwork of three aristocratic British women who travelled to California in the late nineteenth century. California, with its giant sequoias and redwoods, scenic Yosemite Valley and Sierra Nevada, and the Mediterranean flora of the southern coasts, especially attracted travellers with a naturalist orientation. Constance (CG) Gordon Cumming and Marianne North were well-known world travellers and nature artists during their lifetimes; while Theodora Guest, sister of the Duke of Westminster, was more obscure.<sup>1</sup>

Our case study of the California naturalist writings of Cumming, North, and Guest is undertaken with the primary question of whether they produced an identifiable 'women's knowledge'. We ask how their gendered subjectivities affected how they produced natural history. We do not undertake this task in some sort of naive essentialism (Women and Geography Study Group 1997, 20–21) (WGSG). To the contrary, we circumscribe our subjects in terms of their learned culture and situated knowledge: ethnicity (British), class (upper), period (late Victorian), and education (natural history, discussed in detail below.) Natural history and overseas travel lend themselves easily to the concept of negotiated *discourse*, involving specific practices like field-sketching, collecting, train travel, as well as language. Nor do we attempt to discover naturalist 'foremothers' and intellectual lineages; for we view Cumming, North, and Guest simply as participants in larger popular projects, rather than as founders of them or as educators of subsequent generations of students.

In that sense, we are not attempting to describe Cumming, North, and Guest as representative of the larger cohort of British women who travelled, wrote, and often collected or sketched, such as the better-known Mary Kingsley and Isabella Bird.

Rather, we focus upon a selection of the three women's travel and botanical experiences primarily as a means of understanding the heterogeneity of geography's history and the 'situated knowledges' that comprise it (even if we also implicitly place importance on incorporating analyses of women's narratives into our discipline). As the WGSG (1997, 20) explains:

Here history is being written not in terms of understanding contemporary circumstances, but in terms of forgotten or erased knowledges, of lines of writing and analysis which were marginalised, overlooked or bypassed by other (masculine) lines of enquiry. Such strategies of writing history then provide ample testimony to the heterogeneity (as opposed to homogeneity) of geographical knowledges and to the legitimacy of non-hegemonic geographical knowledges today.

Part of this project must necessarily address the problem of narratorial authority for women (Morgan 1990; Morin and Guelke 1998): of how their communications about nature reveal the rhetoric of women's efforts to be taken seriously by the public. We believe that how Victorian women described nature or how they discussed their landscape paintings is more than the sum of their empirical observations, situated knowledges, disassociation from imperialism (Pratt 1992), or the physicality of their voyages (Kearns 1997). In addition to these, women chose particular tropes in order to be recognized as credible experts.

In the pages that follow we ask about the types of records female naturalists produced within the venues that were available to them. Although our focus on nineteenth century natural history suggests potential pedigrees for today's environmental geography and biogeography, our three subjects' writings relate more closely to non-research endeavours that nevertheless engage many geographers today; namely the rationales behind liberal education, eco-tourism, nature-writing, and environmentalism. The three women's landscape and botanical painting and sketching can be classed among the 'forgotten' or 'erased' knowledges or skills (WGSG 1997, 20) important to geographers of an era of primitive photographic (and non-existent computer graphics) technologies. Although these endeavours have been defined out of today's empirical geography, they share an obvious common focus on spatial distributions and the earth's living surface.

But we interrogate more recent post-colonial versions of disciplinary history, as well. Beyond Victorian travel writers' emphasis on geographical concepts like place, landforms, and foreign areas, the broadly inclusive theme of nature overlaps today's disciplinary boundaries. As discussed below, we do not find the three naturalists to be disingenuously 'innocent' of colonialism (Pratt 1992): indeed, they often explicitly supported it. Rather than demonstrating how these women exemplified imperialism or femininity in British colonies where power relations were institutionalized, we study them in the more socio-politically ambiguous terrain of California. Although California was part of an independent republic, British capital, investment, and tourism signified a modified or informed imperial presence there and in other parts of the American West (White 1991, 258–263; Rico 1998; Farrar-Hyde 1990).

We provide an alternative to the argument that the quintessential knowledge-producing imperial subject was male and middle class (McEwan 1998; Kearns 1997, 451) by examining wealthy women from privileged, well-connected backgrounds. These upper class women had different expectations and constraints than those influencing middle class British women, for whom the ideologies of domesticity and respectability were more prominent (Mulvey 1990).

In order to address these themes we begin with overviews of Cumming, North, and Guest and their contributions. To contextualize their work, we then summarize the *milieu* of Victorian British natural history with attention both to cultural artifacts such as species names, collections, and botanical illustrations; as well as to colonial power relations, such as Kew Gardens' mercantilist agenda and lumbermen's destruction of California's sequoias and redwoods. Disciplinary ambiguity and erasure of distinctive borders between science and popular culture were hallmarks of British natural history, particularly before c.1880; a discursive space that women like Cumming, North, and Guest could and did exploit. We conclude with some implications of our research for interpreting 'fathers' of academic geography like Alexander von Humboldt, and extending the scope of histories of geography beyond the confines of academic research lineages to include its more pedagogical and popular forms.

### (Brief) biographical sketches

Constance Gordon Cumming (1837–1924) (Fig. 1) travelled and published extensively throughout her life, enabled through her aristocratic, wealthy Scottish background.<sup>2</sup> Cumming visited San Francisco and Yosemite Valley in 1878, and published, along with seven other travel books during her career, *Granite Crags of California* (1886) out of her experiences. She was also an accomplished water colourist, exhibiting some of her 1000 paintings and sketches throughout Britain and self-illustrating her books, including *Granite Crags*.<sup>3</sup> Cumming has been recognized as an artist of the American West. Thirteen of her water colours are listed in the Smithsonian's inventory; one of her paintings, 'Father of the Grove' (Calaveras Grove), is in the Kahn Collection in the Oakland Museum (Thurin 1997, 81); and others are held by the National Park Service, Yosemite National Park; and the California Historical Society.<sup>4</sup>

*Granite Crags of California* (1886), written as letters to Cumming's brother and sister, mostly describes the forests, trees, shrubs, flowers, parks, and gardens of central California, and her experiences exploring and painting the Yosemite Valley. Cumming devotes entire chapters to individual gardens and especially the forests of the Sierra Nevadas, highlighting species previously unknown to her. Cities as well are brought under a naturalist gaze as Cumming's narration of them focuses nearly entirely on the biota of their gardens and parks, such as Golden Gate Park and Woodward's Garden in San Francisco.

Marianne North's (1830–1890) (Fig. 2) posthumously published travel writings, the two-volume *Recollections of a Happy Life: Being the Autobiography of Marianne North* (1892; see Morgan 1993), describe her two trips to North America in 1875 and 1881.<sup>5</sup> Essentially the project that North made her life's work, on the advice of her friend, Kew Gardens' director J.D. Hooker, was to paint as much of the world's flowers and vegetation in their natural habitats as she could manage (Brenan 1980; Morgan 1993; Ponsonby 1990; Middleton 1965). North accordingly spent nearly 15 years of her life travelling around the globe, collecting natural objects, painting flowers and scenes of natural vegetation. As a wealthy Victorian in an era when most women of her class were educated at home, North had little serious artistic or scientific training. What she did possess, like Cumming, however,



Figure 1 Constance Gordon Cumming as she appears in her autobiography, *Memories* (1904, 196) (Photograph by W Crooke. Reproduced courtesy of Cincinnati Public Library, Cincinnati, Ohio)



Figure 2 'Marianne North at her easel'

(Photograph reproduced courtesy of the Director, Royal Botanical Gardens, Kew)

were sufficient private funds to pay for her own travels, and sufficient personal connections to travel with influential letters of introduction to botanical gardens, colonial administrators, and influential citizens wherever she went. A wealthy single woman from a well-connected family, North donated funds to Kew Gardens to build a gallery to house over 800 of her paintings, together with panels of wood sampled from trees of the various places she visited, including those of Yosemite.<sup>6</sup>

Theodora Guest (c.1840–1924) toured North America in 1894 by private train car.<sup>7</sup> Her *A Round Trip in North America* (1895) details her seven-week, 11,000-mile criss-cross journey of North America both through narrative description and her own illustrations. As the latest of the three naturalists considered for this study, Guest most firmly belongs in the category of tourist. In her *Round*

*Trip*, Guest, more so than either North or Cumming, commented on American social life, major cultural or scenic attractions, and tourist accommodations (see Morin 1998a; 1998b). Yet Guest equally represents the archetypal 'amateur naturalist' figure of the late nineteenth century that we characterize below. Flowers, gardens, trees, seashells, insects, and wildlife most capture Guest's interest during her North American journey; and descriptions of the quality of her lodgings, restaurant meals, transportation, and porter arrangements frequently intertwine with her naturalist writing.

### Traditions of British natural history

In order to address our basic research questions of whether or how our suite of British female

naturalists expressed a gendered knowledge or an imperialist agenda through their writings, it is important to delineate some of the attributes of Victorian natural history and science as competing sets of cultural practices, and of British women's opportunities within them. We position gender and class issues centrally within our analysis. For instance, attainment of the career of 'scientist' or 'geographer' either requires birth into a privileged class as a prerequisite or else it is the corollary of the attainment of an academic post (Berman 1975; Rupke 1994, 55–62); in the nineteenth century it usually required maleness, as well.

Several different intellectual traditions also pertain to female naturalists in Britain. One of the most visible was scientific botany, especially as it came to be defined after about 1870, and as professional botanists would define their field today (Shteir 1996; Creese 1998; Gates 1998). Together with various branches of zoology, Victorian natural science emphasized classifying, collecting, and preserving specimens. Allen (1976) defined a second tradition as natural history, which encompassed both taxonomy as well as a range of proto-scientific ideas and practices that either yielded to, or uneasily co-existed alongside, natural science. An example might be an amateur plant collector who identified several new species and possibly wrote up these discoveries for the journal of a scholarly society, all the while adhering to a belief in natural theology: that collecting plant specimens encouraged appreciation of their Creator.

A third even more extensive category that is far too polyglot conceptually to encompass some very different fields (as defined today) might be called 'nature studies', a term specifically coined in the late nineteenth century. It is Barber's (1980), Merrill's (1989), Shteir's (1996) and Gates's (1998) more extensive scope for natural history; comparable to Germany's *Naturphilosophie* (Koerner 1993, 472).<sup>8</sup> It would include scientific botany, horticulture and gardening, environmental education, poetry about nature, as well as paintings of plants within the humanities and fine arts traditions. Both the more concise and inclusive delineations of natural history pertain to endeavours that were wildly popular in Victorian Britain.<sup>9</sup>

But the value of the more conceptually inchoate scope of nature study is that it provides a catchment area for everything relating to nature that does not currently take as its reference point presentist contemporary natural science. It also is a

way to comprehend artifacts that overlap out of science into other more popular or creative endeavours. For example, Victorians were fond of cataloguing specimens and displaying them in glass cases in their parlours, thus blurring the distinction between taxonomy and home décor.

The distinction between the amateur and the scientist, the tourist versus the scholar, probably registered seriously in Britain only after 1870, with traces of the older undifferentiated thinking patterns persisting for decades afterwards (Rupke 1994, 59–60; Livingstone 1992, 212–3). For context, recall that no British universities offered natural science degrees before 1861. In the 1870s when North and Cumming began their voyages, Britain's leading scientific societies normally were run by gentleman-amateurs (Allen 1976, 56–7, 184; Livingstone 1992, 158–60).

Indeed, Charles Darwin would be considered an amateur by today's definition of scientist. He never held an academic appointment, had no advanced degree, and did most of his writing at home on the Wedgwood estate. Much of the deference accorded to him by the scientists of his era apparently rested on his privileged family connections (Berman 1975; Brockway 1979; Rupke 1994).

Part of the reason for this state of affairs was Britain's tradition of the independently secure gentleman-scholar, for whom education in natural science was an expression of self-improvement. Shteir (1987, 1996, 174) termed this context 'polite botany', botany 'at the breakfast table'. The purpose of studying botany was to improve and polish the gentleman or lady as much as it was to advance knowledge, particularly with the justification of natural theology. Indeed, a diagnostic feature of the elite was their prerogative to separate learning from the need to apply it to earn a living; a belief with major implications for the advancement of natural science, given Britain's hegemonic class system.

Amateur-based natural history did create space for women to study natural phenomena on the equivalent moral grounds of self-improvement. Within the conceptual framework of the Doctrine of Separate Spheres (Cott 1977, 197–205; Smith-Rosenberg 1985), Victorian natural history operated far more in the private domestic sphere than did the professionalized scientific experimental botany and zoology that replaced it. Even within the strictures of middle class Victorian social norms, women's naturalized affiliation with

the private sphere permitted them access to learning natural history along with most of its practices: membership in most field clubs, development of specialized private botanical gardens and greenhouses, correspondence with other naturalists, preservation of specimens, authorship of books and papers, and botanical illustration (Phillips 1990; Creese 1998). If the most prestigious London natural science societies were based on the gentleman's private dining club model and consequently excluded women (along with working class, ethnic and religious minority men), many of the regional and local societies were mixed by both gender and class.

Several environmental historians, geographers, and literary critics have analysed the ways in which elite Euro-American women in particular inhabited the 'naturalist' figure in the nineteenth century, principally through botany and travel writing (Norwood 1993; McEwan 1998; Shteir 1996; Meyers 1989; Gates 1998; Gould 1997; Losano 1997). Norwood (1993) argues that botany's association with a feminine aesthetic tradition led to its becoming a popular hobby for privileged women, including for leisure-class travellers. McEwan (1998, 219) calls botany the 'feminine science par excellence' in the nineteenth century, 'unmanly and ornamental'. Women's exclusion from post-graduate education and professional science throughout most of the nineteenth century turned Britain's 'amateur' approach to nature study into women's preserve (Gates 1998; Shteir 1987, 1996). With the garden considered an extension of the domestic sphere, interest in flora especially complemented women's restricted mobility. The study of botany encouraged women to be outdoors and engage in a limited intellectual pursuit. Norwood (1993, 54–97) argues that this was reinforced through women's participation in botanical drawing and flower painting. Women excluded from university posts found outlets in writing natural history texts for elementary schools and children (Meyers 1989). Some British social commentators argued, regarding genteel young ladies on country estates, that botanizing and floral painting would distract them from idleness and turn them toward natural theology (McEwan 1998; Shteir 1987, 1996). Moreover, taken out of the realm of artifact and into the realm of social norms and motives, botanical illustration could provide a rationale for leisured women to imbue their travels with wholly acceptable Victorian impulses towards

nature study, dissemination of information, self-improvement, and cataloguing the natural world.

As recently as 1905, a British art historian could argue that few female artists were attracted to landscape painting (Sparrow 1905, 69), suggesting that women 'are more held by the personal than the abstract'. This splitting of nature may reflect Edmund Burke's (1757) widely accepted division of feminine and masculine esthetics. Gould (1997, 35–6) argued that female naturalists' language tended to emphasize the 'beautiful' concepts deemed suitable for women by Burke's division of esthetics into the beautiful and the sublime. To women belong descriptions of the petite, delicate, and colourful; in contrast to appropriate male emphases on grand, vast, awe-inspiring or mysterious entities.

Wealthy, privileged Victorian women like Guest, North, and Cumming with a taste for natural history therefore could and did exploit venues open to them. The figure of the wealthy, indomitable English dowager comes to mind: self-confident, socially active and adept, an absolute arbiter of taste, and often outspoken. Tourism might also suit her tastes, as it did for many Victorians who could afford to travel. Victorians enamoured of natural history planned to collect, sketch, or paint specimens and scenes during their holidays. Ornamental gardening or even private botanical gardens could be developed as an adjunct of domesticity or the show-place grounds of a country house. The *noblesse oblige* ideology of social reform could also extend to environmental protection. But because few British women received a systematic university education before 1900 (Creese 1998), many of their writings today suggest a more idiosyncratic, reflexive, eclectic, and fluid tone than the discrete fixed hierarchical categories and theories beloved of university men (Lawrence 1994, 21). If excluded from histories of natural science on the one hand, and academic humanities and fine arts on the other, Victorian women naturalists were strongly affiliated with the vanishing fields of natural history or nature study that could be claimed by neither or both. Theirs was a catholic, eclectic world.

Although their interests generally turn to the recovery of neglected authors and/or female naturalists' rhetoric or self-expression, the problem of how Victorian women signified narratorial authority engages scholars of female naturalists, as well (Shteir 1987, 1996; Gates 1998). Morgan (1996)

and Losano (1997), in focusing on Marianne North, argues that she moved beyond the rhetoric of a woman engaged in a naturalized feminine pursuit of flowers to deploy a sense of personal emancipation and professionalism in her journal writings about her floral paintings. In our readings of travellers' texts (below) we find that their attempts to establish themselves as authorities on botany and other sciences emerge in a number of ways. Among many other strategies, they submitted their paintings to public display; they provided Latin names and Linnaean terminology for the different species of plants and animals they encountered; they drew on the expertise of male authorities they met, such as John Muir, when it suited their arguments (e.g., Cumming 1886, 325–31); and they collected biological specimens, sometimes for public collections. North, Guest, and Cumming also compared the natural landscapes of California to that of other places around the globe, based on their own earlier travels; establishing their credentials as seasonal world travellers.

Mary Louise Pratt (1992) posits male European naturalists abroad as disingenuously ignoring the colonialism of which they are agents, for instance in their textual 'erasure' of indigenous people. In considering female naturalists in British colonies, McEwan (1998, 219) argues that,

It is no coincidence that the participation of middle-class British women in field natural history corresponded with the expansion of the British empire and the increased opportunities for travel abroad ... botanical study was very often the legitimating factor for women travellers' otherwise transgressive presence in imperial spaces.

Mary Kingsley, for instance, justified her presence in colonial West Africa by claiming that she travelled simply to collect botanical specimens (Blunt 1994). Drawing on the work of Pratt (1992), McEwan goes on to argue that there 'was a close relationship between natural history, cartography, and the geographical enterprise of naming, which were central to the emergence of Europe's "planetary consciousness" and the construction of global-scale meaning. Travel writing, and the observational enterprise of documenting geography, flora and fauna, was fundamental to this' (McEwan 1998, 219). Yet we question whether wealthy and evidently self-confident women considered themselves to be either transgressive or 'innocent' of British imperialism – they often fully supported it.

## Women's 'naturalist knowledge'

### *Botanical illustrations, landscape painting*

Constance Gordon Cumming, Marianne North, and Theodora Guest all sketched and painted on their travels. But to define their artwork only in the context of a suitably feminine, ladylike pursuit is to overlook the multiple and much more extensive set of discourses in which their work appeared. To relegate botanical illustration just to the 'breakfast room' or other feminine sphere, for example, is to overlook the multiple utilities of this type of artifact. Highly detailed exact line-drawings of flowers, left plain or coloured, were extremely useful to the plant taxonomy of the Victorian period, as any amateur can attest who has tried to identify a plant species using one of the older unillustrated and highly specialized plant keys. Precise botanical drawings were invaluable to plant taxonomists who worked with taxa that could not be readily dried and pressed into herbarium sheets, such as cacti. Botanical illustrations occurred along several social continuums, moreover. The more scientific were specifically crafted to display flower stamens and pistils for systematic analyses; the more lavish and appealing, to sell horticultural products or to subsidize botanical research; the more dilettantish, to grace parlour walls (Blunt 1950; Buchanan 1979; Mabey 1988; Scourse 1983). Thus, the notion of discrete categories of what is scientific, proto-scientific, or popular, commercial, or fine art erodes in the example of Victorian botanical illustrations.

Nor were Victorian women's contributions to botanical illustrations restricted to ladies of (too much) leisure (Phillips 1990; Creese 1998). Notable female and male botanical illustrators also came from the families of trades people, such as publishers, engravers, and nurserymen, who had a strong business interest in high-quality reproductions (Weathers nd; Blunt 1950; Buchanan 1979; Mabey 1988; Shteir 1996). A few women produced museum-calibre floral still-life paintings, or incorporated accurately rendered flowers within paintings of human subjects (Sparrow 1905). It would also be mistaken to view women as strictly ghettoized within the field of botanical illustration: men contributed to this field, ranging from amateurs to the dean of Victorian botany, Kew Gardens' director Joseph Hooker.

Theodora Guest often contradicts tidy feminine categories in her artistic creations. Guest illustrated *A Round Trip in North America* herself, primarily



Figure 3 'Cypress Point, Monterey, on the Pacific Ocean,' Lady Theodora Guest, *A Round Trip in North America* (1895, 111)

(Reproduced courtesy of the Rice Institute Library, Houston, Texas)

with landscape sketches of California coasts (Fig. 3), scenic waterfalls and rock outcrops in Yosemite, and other western mountainous scenery. But she also sketched a simple flower, the *cyclothra*, as her book's cover design. Her interest in natural history and botany come to the text's forefront in a number of such ways. At train depots, rural villages, cities, beaches, and other scenic attractions Guest describes and names the hundreds of botanical and other specimens in her view. She narrates and sketches sublime scenery when it suits her purpose, but also takes closer looks at flowers. She delighted equally in both wild and cultivated flowers, at a time when many cultivars had only recently been grown commercially from their wild progenitors (Brockway 1979; Coats 1969). Guest also emerges as a feminine, 'polite' naturalist in the practice of her vocation. She frequently mentions male members of her travel party picking flowers for her to sketch, or holding an umbrella over her head to keep off the sun while she sketched (1895, 131).

Marianne North devoted much of her life to a project intended to support the Hookers' mercantilist agenda at Kew Gardens: to represent by means of plant specimens Her Majesty's entire empire (Brockway 1979; Rupke 1994, 80–4; Ritvo

1987, 205). Both North and Hooker justified her vocation to paint the world's flowers and vegetation as a way to record rare and beautiful flowers that were rapidly disappearing under human impact. Her vivid colors contrasted sharply with the dried, often faded herbarium specimens, black-and white etchings, and primitive photography that typically portrayed flora during her era (Brenan 1980; Mabey 1988; Ponsonby 1990).

If it is difficult to place North as a botanist or more scientific type of naturalist,<sup>10</sup> it is also difficult to place her as an artist. From a fine art perspective, North's technique is not strong, the novelty of her subjects is what principally engages the viewer. She cannot be classified as a scientific illustrator: most of her flowers are insufficiently detailed to permit exact taxonomic analyses. She did not appear to consider selling any of her paintings at a time when opulent botanical illustrations were used to market ornamental garden plants and even serious scholarly botany books.

Several critics cryptically term North's flowers as unpleasant or even frightening (Blunt 1950, 237; Merrill 1989, 168). From a creative perspective, however, such negative comments suggest that North unsettled and then engaged the viewer in an alternative way of seeing the natural world.

Indeed, in her best paintings, such as those of California carnivorous plants, North shares a talent with Georgia O'Keeffe for 'pulling' the viewer into the plants: they begin to appear as wholly other, as exotic, and sometimes as erotic female (Losano 1997, 443–4) or male (Fig. 4). Her painting of a fallen, decaying California sequoia also exhibits these characteristics: it is not skillfully executed, but her focus on the interior of the rotting trunk begins to pull the viewer into its dark recesses. And perhaps the amateurish quality to many of North's paintings is also the point: encouraged to be a decorative, but not a serious professional artist, it is what a wealthy woman of her generation *would* have produced.

CG Cumming sketched landscape scenes most days while in Yosemite. She described her daily routine as beginning at 05:00, with male chaperones, porters, or carriages carting her art supplies to the day's designated location (e.g. 1886, 204, 242–4). Cumming's descriptions of her sketching and painting expeditions in Yosemite produce her as an authoritative, purposeful, traveller and naturalist (cf. Losano 1997). What Cumming considered her 'systematic' and comprehensive method of exploring and painting Yosemite (1886, 189–90) would ensure her status as one with expert, reliable knowledge of the region. And in fact, Cumming became known for the 'accuracy' of her landscape paintings. She wrote of friends' insistence that she exhibit her Yosemite work in a 'grand show' before leaving the Valley (1886, 282–3). She had finished 25 drawings during her time there, and began another 25; most of which she considered large for watercolour sketches (30 by 20 inches). The enthusiastic band of supporters at the art show gratified her, 'as they recognized all their favourite points of view, and vouched for the rigid accuracy of each' (1886, 282).

On her last expedition through the park, Cumming took the opportunity to further emphasize that these attributes of expert, authoritative knowledge via naturalist art belonged squarely in the feminine domain, at least for those with genteel, if informal British educations and backgrounds. One (female) visitor claimed Cumming must be a man to produce such artistic creations: 'Why, I do believe you are a man! Come now, do tell me, – aren't you a man really?' In response, Cumming wrote:

Why my poor little water-color paint-box should be considered masculine I cannot say, but it attracted great

notice in the valley as something quite unknown, even to most of the tourists, – the artist masculine, armed with cumbersome oil-paints, being the only specimen of the genus known in the Sierras (1886, 289).<sup>11</sup>

Cumming perhaps disturbed Yosemite visitors by painting grand vistas in primitive settings (Fig. 5), versus dainty close-up flowers, the former encoded as masculine in Burke's aesthetics (Gould 1997, 35–36). While poking fun at the implied manliness of oil paints versus the more feminine water colours in the above excerpt, in a larger sense Cumming here, though, seems to be subverting these compartmentalizations.

### *Nature aesthetics*

Hotel developers, railroad companies, the federal government, and other entities interested in promoting tourism principally directed attention to sublime nature in the American West, especially available at such monumental, scenic attractions as Yosemite. But CG Cumming presents herself as much more than a mere tourist; she occupies a rhetorical space of a travel writer with a keen sense of duty to provide measurable data and other statistical information about California's mountain ranges and the waterfalls, trees, and rock formations in Yosemite Valley (1886, 216ff). And yet the genre of travel writing also gave Cumming an opportunity to express what might be called a 'naturalist-aesthetic' more so than a 'scientific management' style of naturalist knowledge. In fact, she includes the latter only to support her expressed 'love' of nature, or, alternatively, the esthetic unlovability of certain aspects of Yosemite scenery. Providing heights and measurements of rock formations in Yosemite served, then, an aesthetic purpose for Cumming. 'I give you the altitude of all these grand crags and mountains,' she wrote, 'because I know no better way of conveying to you some standard of their glory; and yet, how utterly useless figures really are to enable any one to realize such subjects!' (1886, 124–5).

Cumming's romantic and aesthetic language place her beyond the pale of natural science by focusing on the author's subjectivity and on meaning and value of nature beyond the lab or herbarium. Cumming devotes more text in *Granite Crags of California* to describing trees than any other natural feature, and it is in her descriptions of trees that her aesthetic language gains its full rhetorical force. Much of the text focuses on the well



Figure 4 'North American carnivorous plant painted in England. Behind, on the left, is a Californian Pitcher Plant (*Darlingtonia californica*), with in front a Common Pitcher Plant (*Sarracenia purpurea*); on the right is a Yellow Pitcher Plant (*S. flava*) with in front a Venus' Fly-Trap (*Dionaea muscipula*)' Marianne North (Reproduced courtesy of the Director, Royal Botanical Gardens, Kew)



Figure 5 'The Sentinel Rock,' C F Gordon Cumming, *Granite Crags of California* (1886, frontispiece)  
(Reproduced courtesy of Cincinnati Public Library, Cincinnati, Ohio)

known groves of the giant redwoods and sequoias (e.g. 1886, 77–81), highlighting their numbers; sizes – one tree was 132 feet in circumference; and ages – some as old as 2000–3000 years. While duly impressed by their characteristic features, Cumming finds little attraction to the giant trees: ‘there is nothing lovable about a Sequoia. It is so gigantic that I feel overawed by it’ (1886, 76). In reflecting on a day’s outing near Clark’s Ranch outside of Yosemite, she wrote that, ‘We have spent a long day of delight in the most magnificent forest it is possible to imagine; and I have realized an altogether new sensation . . . They are wonderful – they are stupendous! But as to beauty – no. They shall never tempt me to swerve from my allegiance to my true tree-love, the glorious Deodara forests of the Himalaya’ (1886, 75).

While drawing on and gaining authority from her extensive prior travelling experience, Cumming here applies the standards of art criticism to nature, as opposed to more scientific standards. She prefers the Himalayan trees to the unlovable giant sequoias, although she concedes that in Yosemite the ‘queen of beauty’ is the sugar pine, *Pinus Lambertiana* [sic]: ‘so exquisite is the grace of its tall tapering spire and slender branches, each following the most perfect double curve of the true line of beauty’ (1886, 79). While interested in classifying and providing taxonomic descriptions and names to the scores of varieties outlined in a chapter on forests of the Sierras (1886, 322ff) – the pines, firs, spruces, and cedars which comprised ‘nineteen-twentieths of these glorious forests’ – in the end Cumming ranks them according to their beauty and other aesthetic qualities, such as shape, proportionality, and colour. In this way Cumming seeks to deflect attention from the grandeur of the big trees, toward an appreciation for the subtler qualities of the less noticeable varieties.

North’s published memoirs regarding California also place her well within the aesthetic side of the Victorian naturalist tradition (Morgan 1993 1:202–12, 2:191–201). She rates various sites as beautiful or ugly depending on whether wildflowers are in bloom or shrivelled in dust: the latter a common occurrence as she visited California in summer. North spends ‘lovely’ days painting intriguing vegetation. Views and sunshine are ‘magnificent’ (Morgan 1993 2:195). In North’s discussions of scenery and flowers, however, the rhetoric of establishing her authority may also be glimpsed. She compares Yosemite Valley with Switzerland, the

Dolomites, the mountains of Brazil, and the Tyrolean Alps; thus establishing her credentials as a knowledgeable world traveller. Garden plants in California are ‘nothing new’ but familiar to her from India, Brazil, and Australia.

So long as equally important variables of ethnicity (Britishness) and class (privileged) are included, it seems clear that by the final quarter of the nineteenth century, Burke’s division of ‘sublime’ men and ‘beautiful’ women no longer held: these writers adopted the ‘long view’ when it suited them; either in paintings, sketches, or written texts.

### *Collecting and cataloguing*

Victorian women contributed to scientific botany as it was defined in their day, based on published scientific papers indexed by the Royal Society (Shteir 1996; Creese 1998; Gates 1998). Sometimes contributions were based on discoveries of new species or careful descriptions of taxa. Even for naturalists who did not write up their investigations, women’s (and men’s) collections of natural objects, when donated to research herbariums and museums, formed the material basis for researchers’ scientific taxonomy and systematics. While this branch of biology has receded to a minor subfield today, it comprised a significant share of the discipline during the nineteenth century (Allen 1976; Barber 1980; Harvey-Gibson 1919; Merrill 1989) and remains the foundation for much biogeographical and ecological research. North, Cumming, and Guest also collected specimens during their travels. Encouraged by friends (including Charles Darwin) to pursue her interests in botany, Marianne North’s primary goal of painting the world’s tropical plants and flowers was seconded by collecting and donating her samples of tropical woods to Kew Gardens (Ponsonby 1990; Robinson 1990, 146–7).

Theodora Guest collected specimens throughout the journey and recorded her findings at each day’s end (though does not say what she intended on doing with them back in England). Returning to the train car after a day’s outing along the coast at Monterey, California, she wrote that, ‘I hastened to my press, made of blotting-paper and an enormous atlas, to dry the many new wild flowers; and deposit our cones and shells in the various nets that hang round the car for such purposes’ (1895, 113). Guest expresses frequent pleasure in finding and collecting various species in their native habitats, for instance in this excerpt:

We drove on to the beach, where I had hoped to make a sketch, and sat down on the rocks for the purpose. But there was too little sun and too much wind, so ... I joined the others, who were doing better in Venus's ear shells, or 'Abelones', [sic] as they are called by the natives. It was very difficult, amusing, scrambling in the rocks, especially impeded as I was by a variety of wraps ... but it was worth a struggle to pick up with one's own hands some of these grand shells one had admired from childhood ... it takes a great pull to get them out, they stick so fast in the rocks, and some of them have the abelones still in them, which is more than one bargains for. We made a really good haul at last of big ones, in their glorious colours; all the curls of the semicircular edge of the shell turning the same way ... those in the China seas turning the other (1895, 115–6).

Guest's text reads much like that of today's African photo-safari tourists on first encountering 'zoo animals' about their own business in the wild. Guest was equally blissfully unaware as are most tourists of any ecological impacts of their trophy-seeking, which included shells of large, living abalone. This excerpt exhibits a variety of Victorian nature themes, including the difficulties of feminine attire for collecting specimens.

### *Binomial nomenclature*

We previously noted how collecting, both specimens and observations, was important to all of these writers. This acquisitive quality to botanizing and landscape painting seems akin to hunting: nature is not just admired, but is some sort of trophy – a sketch, a watercolour, a pressed specimen, a written description is obtained and brought back home (Losano 1997). And just as trophy hunting was reserved principally for upper class English men, so botanizing requires upper class women's informal education, refinement, and sensitivity.

Latour (1987, 215–45) and Miller (1996) offer a more explicit interpretation of naturalists overseas, as individuals who knowingly transfer geographical and biological information back home to 'centres of calculation' such as London's scientific and military institutions. A 'cycle of accumulation' then follows, in which useful information stored at the centre is utilized by subsequent voyagers who contribute new information back to it in turn; often in the belief of future economic or political gain such as exploitable crop species or advantageous trade routes.

For new data to be truly useful at the centre, however, systems of classification – like binomial nomenclature – and protocols for naming new phenomena are highly desirable. Foucault, in his *The Order of Things* (1970, 125–65), details one 'archaeology' of scientific classifying discourses that developed in natural history. He argues that beginning in late seventeenth century Europe, this involved matching up visual attributes of natural phenomena with their representations ('things and words'). The end purpose of these classification systems and 'cycles of accumulation' is, of course, amassing of political and economic power at the centre of calculation (Gregory 1994).

Caution is required in making these connections, however. It should be remembered that Carl Linnaeus's first purpose, for example, was not to support global colonization, but to enable European botanists to communicate about local species, presumably in support of the natural theology he firmly upheld (Blunt 1971). Stated differently, binomial nomenclature is only partially implicated in colonial expansion or ecological imperialism, which have proved themselves entirely capable of classifications of foreign areas and devastating conquests without it. Common English names of plants are equally up to the task of Europeanizing the tropics, for example, so long as botanists of different languages do not need to communicate with one another.<sup>12</sup>

Tracing the overlay of the scientific European mind upon the planet to Linnaeus's development of binomial nomenclature in the eighteenth century indeed traces 'paternal lines of descent' (Rose 1995, 415), but it can ignore the intervening decades before this type of revolution was sufficiently complete to assume the naturalized status now accorded them. For example, Linnaeus's own 'sexual' system of species identification was based on flowers' number and arrangement of stamens and pistils. It rapidly collapsed under various competing 'natural' systems that expanded the plant taxonomist's task to examine seeds, leaves, buds, etc. (Stafleu 1971; Meyers 1989; Koerner 1996). The sometimes acrimonious debates between proponents of newer and better systems took decades to sort out, leaving Linnaeus principally remembered as the semantic founder of the genus-species Latin name and secondarily remembered as proponent of a thoroughly discredited system for actual plant identification. Compendia of plant species will often print lengthy lists of the

various Latin names by which they have been known, together with the names of the botanists who proposed or used the various Latin names in their research: mute evidence of the indeterminacy (if not occasional disarray) of nomenclature within its community of practitioners.

Other forms of expression, other idioms addressing the natural world, have proven themselves equally capable of verbally Europeanizing the rest of the globe, ranging from the Catholic church to Goethe's and von Humboldt's mystical belief in the unity of nature (Koerner 1993; Dettelbach 1996). During the natural history fad of the Victorian period, western idioms ranging from binomial nomenclature to aestheticism and the Romantic impulse to natural theology were widely applied to overseas environments and cultures (Livingstone 1992, 130–3). Victorian travel writers and naturalists proved dexterous in deploying these different styles to suit their rhetorical purposes. It is in the interplay between, and selection of, various terms to describe nature that their agendas can be discerned.

North's, Guest's and Cumming's texts are rich and detailed in their observation of flora and use of binomial nomenclature. If Theodora Guest was not always accurate (confusing, for example, California live oak, a *Quercus*, with holly or *Ilex*) (1895, 122), she seems to make a serious effort to use Latin names for flora. Marianne North gives genus names for many plants, but seldom species names; and common names often serve (e.g., Morgan 1993, 2:197). She gives no taxonomic analysis or speculation on her observations. She sometimes prefers ornamental gardeners' idioms, such as whether wild or cultivated flowers are massed and in monochrome or multi-coloured groupings. Cummings' tree examples cited above display a mixture of botanizing with a wholly Romantic impulse to reflect on nature's impacts on her emotions.

North's, Guest's, and Cumming's use of Latin names thus becomes a way to affiliate the traveller with the ranks of learned botanists, rather than the common herd. Their frequent use of genus or family names only, however, suggests that some did not make the effort to identify the species they observed, placing them more in the category of the tourist than of the professional botanist. As a cultural practice binomial nomenclature becomes a way for them to establish narratorial authority rather than to supplement scientific advances.

### *Naturalists and empire*

Particular naming procedures, as a form of 'collecting' little known places via travel texts and other written genres, may not straightforwardly support imperial agendas. But women travellers' attempts to acquire and disseminate botanical observations and specimens in other ways did more explicitly serve larger imperial purposes, even as North's, Cumming's, and Guest's biographies suggest quite different impulses for travel. When reading their 'lady-like' naturalist pursuits against the development of American and British imperialisms in the American West region, this may occur at several scales.

For instance, CG Cumming positions herself as 'scientific manager' when discussing agricultural production of the San Joaquin Valley of California, pointing out the extent of cultivation, farming procedures, fertility of the soil, and general outputs. She gushes over potentialities for future European immigrants, especially with the aid of irrigation (1886, 59–65, 349–57). In this way Cumming serves as an adjunct promoter of American imperialism via British expansion overseas, encouraging European immigration to California and thus continuing displacement of Native peoples and a turn to a cash economy.

Shteir (1987, 1996), Gates (1998), Morgan (1996), and Losano (1997) are mindful of naturalists as purveyors of their home society's mores as well as their mercantile agenda. This relationship is perhaps most applicable to the case of Marianne North and the Hookers' project for Kew Gardens. The Hookers sought new exotic plant species with commercial potential for British consumers (Brockway 1979, 103–39; Frost 1996; King 1985, 205; Morgan 1996, 117). Although potential tropical plantation crops generated the keenest interest, the Victorians also imported thousands of exotic plant species for ornamental gardening (Webber 1968; Martin 1988). Ideally living plants from overseas that could be propagated were sought for the Kew Gardens, but dried herbarium specimens and sketches from both male and female donors were also archived. Thus British women's travel books that reported on 'botanizing' and overseas gardens – North's as well as Cumming's and Guest's – had at least the potential to stimulate British consumers' appetites for wild and cultivated exotic species.

North apparently supported the Kew Gardens project of mercantile botany. She painted

economically useful species that had previously been collected and developed by male botanists. We uncovered one example of a commercial plant-hunter in Sarawak who based his quest to export a rare pitcher plant (*Nepenthes northiana*) upon one of North's paintings (Coats 1969, 209). Marianne North's donation of funds to build the North Gallery at Kew Gardens to house her paintings suggests her desire to contribute to its project. Yet Cumming and Guest seemingly wrote and sketched outside this type of explicit mercantile agenda. North also painted species that could not be cultivated commercially in the colonies or in English gardens or hothouses; specifically to show what these little-known wild species were like.

### *Environmental rhetorics and imperial ambivalence*

Complaints about rampant American deforestation and lumbering also surfaced in the women's texts as a form of 'naturalist knowledge'. Their rhetorics do not stem from mercantilism or scientific ecology but can be traced to an alternative Romantic/aesthetic tradition that measured the effects of deforestation by standards of beauty or ugliness. Like many other commentators who engaged in the emerging environmentalist debates, these writers supported the preservation or conservation of picturesque or aesthetically pleasing landscapes such as forests, while advocating the large-scale development of land that was considered otherwise 'useless', such as the central American grasslands (Morin 1998b). Such emerging environmentalist aesthetics, aligned with John Muir, John Ruskin, Henry David Thoreau, and others, positioned itself against the ignorance and greed of the American government, American businessmen, and working class lumberers. CG Cumming and Marianne North both politicized environmentalist concerns in this way.

Marianne North's narrative places her firmly within European traditions of imperialism, ethnocentrism, and femininity (Blunt and Rose 1994). North easily 'erases' the local, particularly indigenous inhabitants, a trait in common with Pratt's (1992) depiction of European naturalists overseas such as Alexander von Humboldt. North, too, pursues nature, not people, except insofar as they are knowledgeable naturalists themselves. Yet North's inability to identify strongly with people in preference for vegetation permits an 'anti-

conquest' (Pratt 1992) of a different type. North displays a moral environmentalist sensitivity in her criticisms of loggers, who by 1880 had already decimated many stands of California's big trees. In one passage, for instance, she reports that,

My host took me some miles up a side valley to see some [redwood trees] which were fifteen feet in diameter, and nearly 300 feet high. They were gradually sawing them up for firewood, and the tree would soon be extinct . . . It is invaluable for many purposes, and it broke one's heart to think of man, the civiliser, wasting treasures in a few years to which savages and animals had done no harm for centuries (Morgan 1993, 2: 211–2).

North condemned the commercialism of California clear-cutting practices. Although British people of North's class benefited from logging under Britain's development of American natural resources (e.g. see White 1991, 260–3), criticism of environmental despoliation provided one means of positioning one's aesthetic sensitivities in a morally superior position.

CG Cumming's environmental politics also emerges on the subject of deforestation. 'Well would it be for California,' Cumming asserts, 'if her human inhabitants would give some heed to the future of her timber, instead of so ruthlessly destroying it to meet the requirements of the moment' (1886, 319). Cumming raises a number of troubling issues related to destruction of the California forests, including species extermination, wasteful practices (such as cutting down trees solely for their bark), ineffectual and 'worthless' California lumbering laws, the ruthless greed of (working class) lumberers, and crass appropriation of nature by business, for capitalistic ends (1886, 43, 319–20, 341). Of the depletion of the redwoods she complains that,

Formerly many of the hills near San Francisco were clothed with the beautiful redwood; but it was found . . . valuable for building purposes, . . . it is a favourite wood with the builders; and so the forests near San Francisco now exist only in the form of houses or railroad timber. And still the work of destruction goes on, and north and south the lumberers are busy felling the beautiful growth of centuries, to be turned to common use (1886, 43).

And of the giant sequoias she laments that, 'It is really pathetic to hear of the wholesale destruction of these grand forests, which year by year are mowed down wholesale by lumberers – men whose one thought in connection with trees is, how

many feet of timber they will yield' (1886, 45–46). Even when destruction arose from scientific advancement rather than commercial lumbering – as in the following case, when she witnessed the felling of a tree whose wood and bark was to be distributed to various parts of the world – Cumming questioned the justness of the 'murder':

... one of the noblest trees was felled, – an operation which kept five men hard at work for twenty-two days, boring through the tree with pump-augers. Even after the poor giant had been sawn in two, it refused to fall, and its murderers had to work for three days more, driving in wedges on one side, till they succeeded in tilting it over; and great was the fall of it (1886, 311).

Both Cumming's and North's critiques of deforestation seem principally to derive from their naturalist-aesthetic impulse rather than from a more scientific or ecological one. To them, deforestation is bad because crass Yankee materialism motivates it and because it leaves ugly scars on the landscape. The narratorial authority that both North and Cumming exert on environmental issues also seems to derive from their feminine, upper-class gentility. As women, they were positioned to articulate heightened sensitivity to natural beauty. Such feminine, upper-class women were by their gender excluded from – and by their wealth and class insulated from – the world of business, thus they were situated in a position from which to critique lumbering practices. On the other hand, their class positioned them to benefit from the 'world of business', even if they could not personally own property. Thus these texts demonstrate an uneasy association between naturalist-aesthetic knowledge and advancing capitalist/imperialism development in the region.

## Discussion

Alexander von Humboldt's inclusion in geography's 'paternal lines of descent' is seldom questioned. He nevertheless drew inspiration from Goethe and Schiller, and with them he believed in the unity of nature, the primacy of art, the personal emancipation of travel (Pratt 1992; Koerner 1993; Dettelbach 1996; Nicolson 1990). Yet these aspects of his thought lie excluded from most presentist contemporary accounts of his contributions to geography and natural science. While post-colonialists might interrogate the innocence of von Humboldt's romantic impulses (e.g. Pratt 1992),

they might equally support scholarship on him that extends beyond conservative tropes of Man the Scientist and that links him to the larger social and cultural movements of his day.

Like Alexander von Humboldt, the Victorian women naturalists discussed in this study equally revered grand scenery, quoted poets, and expressed their landscape ideas through artistic sensitivities. They belong to a forgotten tradition of inquiry about the earth's surface that was not science or much like contemporary geography, but it had a highly distinguished pedigree in western thought nonetheless (Gates 1998, 253). Indeed, a cursory look through any British poetry anthology will reveal how closely attuned to nature Britain's canonized Victorian poets were; and that some of their poetry contains the kind of detailed, precise observations of organisms that would today be ascribed to ethologists or plant ecologists.

Merrill's (1989) inclusive view of natural history includes a range of cultural practices that were subsequently written out of both natural science and the historiography of proto-science; as well as out of humanities and the fine arts into the indeterminate zone of popular culture.<sup>13</sup> Both he and Allen (1976) argued that the Victorians blurred many disciplinary categories and distinctions that are taken for granted today; or put differently, that many of today's western taken-for-granted classifications had not yet developed. Consequently, from a presentist perspective, scientific 'advances' appear today both to have been more clear-cut and uncontested than they actually were at the time, and also to have changed society's thinking far more rapidly than is often the case.

There is no need to interpret nature poetry, prose nature-writings, travel diaries, or botanical sketches as 'bad science' or 'un-geography'. Rather, it makes sense to view Victorian naturalists as partaking of a large, inchoate tradition with diverse sources of inspiration that only began seriously to diverge into separate subjects in the 1870s, with the emergence of modern university disciplines. But the lineages that did not become natural science research nevertheless extended the liberal arts tradition in American university teaching, in today's popular, aesthetically based environmentalism,<sup>14</sup> in landscape paintings, and in nature writing. Guest, North, and Cumming indicate through their texts and paintings something of what Victorian natural history was like with all of its attendant imperialism and situated knowledges.

Victorian naturalists, particularly women, were often self-described (and subsequently criticized) as amateurs. The root of amateur is *amare* – to love. Before about 1870, this passion was eclectic and meant simply that one studied nature for love of the subject, not because one needed it to earn a living. As such, to be an ‘amateur’ was a mark of class privilege. That Victorian women tended to produce particular types of naturalist knowledge speaks eloquently to the masculinization of academic knowledge and the power relations that intimidated most women from advanced educations and academic careers. A Great Men (or even Great Women) linear historiographic tradition (Livingstone 1992; Stoddart 1986) cannot include much of what women produced; a cultural history approach can question *why* female naturalists produced what they did (Shteir 1987, 43) from within the venues open to them.

In the hands of women naturalists, naturalist travel writing indeed displays some very subversive opportunities to rethink geography today from the sidelines of ‘not-geography’ (Rose 1995, 414) or ‘erased knowledges’ (WGSG 1997, 20). The figure of the Victorian female naturalist writing from the eclectic natural history or nature studies tradition subverts masculinist classifications and narrative structures of scientific botany and regional geography. Lawrence (1994, 21) in fact claims that indeterminacy and flexibility of language and subject matter was a hallmark of travel writing generally and women’s travel writing particularly. The Victorian model of amateur curiosity-based learning, and learning that leads primarily to better-informed human beings, finds little place today in geography’s research-based ‘lines of descent’ historiography, but it is difficult to argue against the value of intellectual enrichment in the artistic creativity, environmentalism, or ecotourism which it fostered. In short, there may be something rather threatening in what the outlook of a Cumming, North, or Guest represents to the professionalized middle class natural science and geographic establishment, both today and during the Victorian period.

Did our three naturalists exhibit a kind of ‘women’s knowledge’ – not as essentialized but as reflective of their ethnicity, family status, and class, which in turn permitted them to pursue their own interests in the natural world and in travel? There were feminine aspects to their practices, such as Cumming’s and Guest’s acceptance of chivalrous

males who picked their flowers or carried their belongings. Although none of the women considered themselves to be feminists, it is hard not to read a certain amount of personal emancipation and the desire to be taken seriously in their texts. This is not to cast Guest, Cumming, or North as heroines, however: their Victorian prejudices against poorer classes and people of colour offend today’s sensitivities (Morin 1998a). Perhaps it is best to interpret their gendered knowledges as in a state of negotiation, as when Cumming paints heroic landscapes but demurely refers to her ‘poor little paint box’, or when North speaks out against male lumbering practices: from a safe distance.

If much of Victorian women’s natural history writing seems boring or forgettable today, it must be remembered that they hold no monopoly over boring or forgettable publications, whether written as natural science or nature studies, and within or outside of the academy. For one thing, most readers today will have lost the educated Victorian’s facility with a range of nineteenth century literary and scientific source materials, so that simultaneous allusions to poets and botanists that might have thrilled a Victorian reader have lost their richness of meaning today. We need not simply add in Great Women to a Great Men tradition of naturalist historiography, in any event (Shteir 1987, 33). Rather, we should become cognizant of the ways in which smaller lives and lesser figures explored and utilized the intellectual developments of their period, and in some ways foreshadowed ours.

### Acknowledgements

This paper was first presented at the Association of American Geographers Annual Meeting in Pittsburgh, Pennsylvania, April 2000. Thanks to Denis Cosgrove, two anonymous referees, and Ron Martin for providing helpful critiques of an earlier draft. Thanks also to Jane McGeogh of the University of Waterloo for her much appreciated administrative assistance.

### Notes

- 1 Marianne North, CG Cumming, and Theodora Guest were among a larger group of British women who published travel books about North America in the mid and late nineteenth century. Notable among these are Isabella L Bird, *A Lady’s Life in the Rocky Mountains*

- (1879); Rose Kingsley, *South by West or Winter in the Rocky Mountains and Spring in Mexico* (1874); Emily Pfeiffer, *Flying Leaves from East to West* (1885), and Theresa (Yelverton) Longworth, *Teresina in America* (1875). Yosemite was among the most well advertised scenic attractions of the transcontinental railroad journey, and many described their experiences there. Theresa Yelverton (Longworth) also published a fictional account of her experiences in Yosemite, *Zanita: A Tale of the Yo-semite* (1872), that featured a strong likeness of John Muir as principal protagonist.
- 2 Cumming's parents died in her youth, though not before her mother imparted in her an extensive knowledge of and appreciation for botany, zoology, and geology (Cumming 1904, 34–8). She noted, for instance, that she 'had access to all the books and periodicals on gardening' (1904, 35). Unmarried and with few familial or other responsibilities, she began her travels in 1868, when she toured India with her sister and brother-in-law. In 1872 she travelled to Ceylon, later to Fiji, followed by California in spring 1878. In all Cumming authored eight books about her global travels, on South Asia, the South Pacific, California, China, and Ceylon, and also produced an autobiography late in life (Adams 1883; Robinson 1990, 93–5; Birkett 1989; Cumming 1904; Thurin 1997).
  - 3 Cumming's painting and sketches appeared in the Indian and Colonial exhibitions in London and subsequently in Liverpool and Glasgow; others were exhibited to support missionary work. *Granite Crags* contains eight of the 50 drawings and watercolours she made of the Yosemite area. Given Cumming's (and North's) subsequent exhibitions of their paintings, we assume a British (and American, in Cumming's case) public's taste for viewing this form of botanical and other naturalist representation.
  - 4 In her lifetime, however, Cumming lamented her lack of recognition for her artwork – that it brought her 'no advantage whatever, beyond receiving a couple of medals' (as quoted in Birkett 1989, 228).
  - 5 After North's death, her voluminous correspondence and travel diaries were edited and posthumously published by her sister (Morgan 1993).
  - 6 Within the North Gallery, Marianne North arranged the rooms to house collections sorted by continent, with groups of paintings organized by country of origin (Brenan 1980; Mabey 1988, 177; Morgan 1993; Ponsonby 1990). The North Gallery thus became a kind of symbolic, carefully organized microcosm of world plant bio-regions. After retiring from active travel, she designed gardens around her country house with a similar continental plan.
  - 7 Guest travelled in comfort with her husband and a male friend in a private railroad car arranged by an American friend, Frank Thomson, General Manager of the Pennsylvania Railway, and attended by a manservant ('Lawrence') and her (nameless) lady's maid. The coach road through the mountains to Yosemite was still rough and hazardous, but it was well-travelled by several decades of travellers and tourists, and Yosemite Valley itself provided several hotels from which to choose (Blodgett 1990; Demars 1991). She also made a point of visiting American botanical gardens, notably the Missouri Botanical Gardens in St. Louis, and in California the private grounds of widowed Mrs. Leland Stanford (via the all-important letter of introduction).
  - 8 'Nature studies' took on a concise meaning at the turn of the century as a reaction against scientism and as a programme of environmental education for children (Allen 1976, 203, 227).
  - 9 See for examples: Carruthers 1879; Lowe 1874; Scourse 1983; Sparrow 1905; Turner 1893; Yonge 1887.
  - 10 Other botanists named a genus plus three new species after her, an honour usually reserved for titled colonial administrators or respected botanists.
  - 11 Ogden (1990) identifies the best known of Yosemite artists as Albert Bierstadt, famous for his 'monumental' large canvasses and Hudson River School style. Ogden identifies no female artists of the Yosemite Valley, yet perhaps Cumming ought to be counted among them.
  - 12 Recall that the genus *Pinus* means pine, *Lilum* means lily; species names *vulgaris*, *borealis*, and *foliosum* mean common, northern, and leafy, respectively. *Rosaceae* is the rose family.
  - 13 See, for example, Lowe's (1874) book *Our Native Ferns*. It mixes taxonomy, ecology, aesthetics, and horticulture. The author acknowledges the contributions of numerous amateur collectors to his knowledge of various species.
  - 14 The liberal arts tradition in undergraduate education is a cornerstone of the curriculum in any comprehensive American university, as their catalogues will attest. As a Swede, Linnaeus had no hope of fostering colonies in a political sense. He did, however, encourage his peripatetic students to bring back live plant specimens to Sweden in the hope of growing them commercially at home (Koerner 1996), a goal that failed in Sweden's dark winters.

## References

- Adams W H D 1883 *Celebrated women travellers of the nineteenth century* W Swan Sonnenschein, London
- Allen D E 1976 *The naturalist in Britain: a social history* Allen Lane, London
- Barber L 1980 *The heyday of natural history 1820–1870* Doubleday, Garden City NY
- Barnett C 1998 Impure and worldly geography: the Africanist discourse of the Royal Geographical Society, 1831–73 *Transactions of the Institute of British Geographers* NS 23 239–51

- Berman M** 1975 'Hegemony' and the amateur tradition in British science *Journal of Social History* 8 30–50
- Bird I L** 1879 [1969] *A lady's life in the Rocky Mountains* University of Oklahoma Press, Norman
- Birkett D** 1989 *Spinsters abroad: Victorian lady explorers* Basil Blackwell, Oxford
- Blodgett P J** 1990 Visiting the realm of wonder: Yosemite and the business of tourism, 1855–1916 *California History* 69 118–33
- Blunt A** 1994 Mapping authorship and authority: reading Mary Kingsley's landscape descriptions in **Blunt A and Rose G** eds *Writing women and space: colonial and post colonial geographies* Guilford Press, London
- Blunt A and Rose G** eds 1994 *Writing women and space: colonial and postcolonial geographies* Guilford Press, London
- Blunt W** 1950 *The art of botanical illustration* Collins, London
- 1971 *The compleat naturalist: a life of Linnaeus* Collins, London
- Brenan J P M** 1980 *A vision of Eden: the life and work of Marianne North* Holt, Rinehart and Winston, New York
- Brockway L H** 1979 *Science and colonial expansion: the role of the British royal botanic gardens* Academic Press, New York
- Buchanan H** 1979 *Nature into art: a treasury of great natural history books* Wiedenfeld & Nicolson, London
- Burke E** 1757 [1979] *A philosophical enquiry into the origin of our ideas of the sublime and beautiful* Menston, UK
- Carruthers (Miss)** 1879 *Flower lore: the teachings of flowers, historical legendary, poetical & symbolical* McCaw, Stevenson & Orr, Belfast
- Coats A M** 1969 *Quest for plants: a history of the horticultural explorers* Studio Vista, London
- Cott N F** 1977 *The bonds of womanhood: women's sphere in New England, 1780–1835* Yale University Press, New Haven CT
- Creese M R S** 1998 *Ladies in the laboratory? American and British women in science, 1800–1900: a survey of their contributions to research* Scarecrow Press, Lanham MD
- Cumming C G** 1886 *Granite crags of California* Blackwood, Edinburgh
- 1904 *Memories* Blackwood, Edinburgh
- Demars S E** 1991 *The tourist in Yosemite, 1855–1985* University of Utah Press, Salt Lake City
- Dettelbach M** 1996 Global physics and aesthetic empire: Humboldt's physical portrait of the tropics in **Miller D P and Reill P H** eds *Visions of empire: voyages, botany and representations of nature* Cambridge University Press, Cambridge, 258–92
- Domosh M** 1991 Towards a feminist historiography of geography *Transactions of the Institute of British Geographers* NS 16 95–104
- Farrar-Hyde A** 1990 *An American vision: far western landscape and national culture, 1820–1920* New York University Press, New York
- Foucault M** 1970 [1994] *The order of things* Vintage, New York
- Frost A** 1996 The antipodean exchange: European horticulture and imperial designs in **Miller D P and Reill P H** eds *Visions of empire: voyages, botany, and the representation of nature* Cambridge University Press, Cambridge
- Gates B T** 1998 *Kindred nature: Victorian and Edwardian women embrace the living world* The University of Chicago Press, Chicago
- Gould S J** 1997 The invisible woman in **Gates B T and Shteir A B** eds *Natural eloquence: women reinscribe science* University of Wisconsin Press, Madison, 27–42, reprinted from *Natural History*, June 1993
- Gregory D** 1994 *Geographical imaginations* Blackwell, Cambridge
- 1995 Between the book and the lamp: imaginative geographies of Egypt, 1849–50 *Transactions of the Institute of British Geographers* 20 29–57
- Guest Lady T** 1895 *A round trip in North America* Edward Stanford, London
- Harvey-Gibson R J** 1919 [1981] *Outlines of the history of botany* Arno Press, London
- Kearns G** 1997 The imperial subject: geography and travel in the work of Mary Kingsley and Halford Mackinder *Transactions of the Institute of British Geographers* 22 450–72
- King R** 1985 *Royal Kew* Constable and Company, London
- Kingsley R** 1874 *South by west or winter in the Rocky Mountains and spring in Mexico* Isbister, London
- Koerner L** 1993 Goethe's botany: lessons of a feminine science *Isis* 84 470–85
- 1996 Purposes of Linnaean travel: a preliminary research report in **Miller D P and Reill P H** eds *Visions of empire: voyages, botany and the representations of nature* Cambridge University Press, Cambridge, 117–52
- Latour B** 1987 *Science in action: how to follow scientists and engineers through society* Open University Press, Milton Keynes
- Lawrence K R** 1994 *Penelope voyages: women and travel in the British literary tradition* Cornell University Press, Ithaca
- Livingstone D N** 1992 *The geographical tradition: episodes in the history of a contested discipline* Blackwell, Oxford
- Longworth M T (Yelverton)** 1875 [1974] *Teresina in America* Arno Press, New York, 2 vols
- (Longworth) Yelverton M T** 1872 [1991] *Zanita: a tale of the Yo-semite* Ten Speed Press, Berkeley, CA
- Losano A** 1997 A preference for vegetables: the travel writings and botanical art of Marianne North *Women's Studies* 26 423–48
- Lowe E J** 1874 *Our native ferns; or a history of British species and their varieties* George Bell, London 2 vols
- Mabey R** 1988 *The flowering of Kew: 200 years of flower paintings from the royal botanic gardens* Century, London
- McEwan C** 1998 Gender, science and physical geography in nineteenth-century Britain *Area* 30 215–23

- Martin T** 1988 *Once upon a windowsill: a history of indoor plants* Timber Press, Portland Oregon
- Merrill L L** 1989 *The romance of Victorian natural history* Oxford University Press, New York
- Meyers G** 1989 Science for women and children: the dialogue of popular science in the nineteenth century in **Christie J** and **Shuttleworth S** eds *Nature transfigured: science and literature, 1700–1900* Manchester University Press, Manchester, 171–200
- Middleton D** 1965 *Victorian lady travellers* Routledge & Kegan Paul, London
- Miller D P** 1996 Joseph Banks, empire, and ‘centres of calculation’ in late Hanoverian London in **Miller D P** and **Reill P H** eds *Visions of empire: voyages, botany, and the representation of nature* Cambridge University Press, Cambridge
- Morgan S** 1990 Victorian women, wisdom, and southeast Asia, in **Morgan T E** ed, *Victorian sages and cultural discourse: renegotiating gender and power* Rutgers University Press, New Brunswick NJ 207–24
- ed 1993 *Recollections of a happy life: being the autobiography of Marianne North* University Press of Virginia, Charlottesville, 2 vols
- 1996 *Place matters: gendered geography in Victorian women’s travel books about southeast Asia* Rutgers University Press, New Brunswick NJ
- Morin K M** 1998a British women travellers and constructions of racial difference across the nineteenth-century American West *Transactions of the Institute of British Geographers* NS 23 311–30
- 1998b Trains through the plains: the Great Plains landscape of Victorian women travelers *Great Plains Quarterly* 18 235–56
- 1999 Peak practices: Englishwomen’s ‘heroic’ adventures in the nineteenth-century American West *Annals of the Association of American Geographers* 89 489–514
- and **Guelke J K** 1998 Strategies of representation, relationship, and resistance: British women travelers and Mormon plural wives, ca. 1870–1890 *Annals of the Association of American Geographers* 88 436–62
- Mulvey C** 1990 *Transatlantic manners: social patterns in nineteenth-century Anglo-American travel literature* Cambridge University Press, Cambridge
- Nicolson M** 1990 Alexander von Humboldt and the geography of vegetation in **Cunningham A** and **Jardine N** eds *Romanticism and the sciences* Cambridge University Press, Cambridge, 169–85
- Norwood V** 1993 *Made from this earth: American women and nature* University of North Carolina Press, Chapel Hill
- Ogden K N** 1990 Sublime vistas and scenic backdrops: nineteenth century painters and photographers at Yosemite *California History* 69 134–53
- Pfeiffer E** 1885 *Flying leaves from east to west* Field and Tuer, London
- Phillips P** 1990 *The scientific lady: a social history of women’s scientific interests 1520–1918* Wiedenfeld & Nicolson, London
- Ponsonby L** 1990 *Marianne North at Kew Gardens* Webb & Bower, Exeter
- Pratt M L** 1992 *Imperial eyes: travel writing and transculturation* Routledge, London
- Rico M** 1998 The cultural contexts of international capital expansion: British ranchers in Wyoming, 1879–1889 *Antipode* 30 119–34
- Ritvo H** 1987 *The animal estate: the English and other creatures in the Victorian Age* Harvard University Press, Cambridge MA
- Robinson J** 1990 *Wayward women: a guide to women travellers* Oxford University Press, Oxford
- Rose G** 1995 Tradition and paternity: same difference? *Transactions of the Institute of British Geographers* 20 414–16
- Rupke N A** 1994 *Richard Owen: Victorian naturalist* Yale University Press, New Haven CT
- Scourse N** 1983 *Victorians and their flowers* Timber Press, Portland OR
- Stafleu F A** 1971 *Linnaeus and the Linnaeans: the spreading of their ideas in systematic botany, 1735–1789* A Oosthoek’s uitgeverij, Utrecht
- Shteir A B** 1987 Botany in the breakfast room: women and early nineteenth century British plant study in **Abir-Am P G** and **Outram D** eds *Uneasy careers and intimate lives: women in science 1789–1979* Rutgers University Press, New Brunswick NJ
- 1996 *Cultivating women, cultivating science: Flora’s daughters and botany in England, 1760–1860* Johns Hopkins University Press, Baltimore MD
- Smith-Rosenberg C** 1985 *Disorderly conduct: visions of gender in Victorian America* Oxford University Press, New York
- Sparrow W S** 1905 *Women painters of the world* Frederick A Stokes, New York
- Stoddart D R** 1986 *On geography and its history* Basil Blackwell, Oxford
- 1991 Do we need a feminist historiography of geography – and if we do, what should it be? *Transactions of the Institute of British Geographers* NS 16 484–7
- Thurin S S** 1997 Constance Gordon Cumming *Dictionary of literary biography* 174 67–88
- Turner C H** 1893 *The floral kingdom: its history, sentiment, and poetry* John Lewis Childs, Floral Park NY
- Weathers J** ed nd (c.1915) *Commercial gardening* vol 2 Gresham Publishing Company, London
- Webber R** 1968 *The early horticulturists* August M. Kelley, New York
- White R** 1991 *‘It’s your misfortune and none of my own’: a history of the American West* University of Oklahoma Press, Norman
- Women and Geography Study Group of the RGS/IBG** 1997 *Feminist geographies: explorations in diversity and difference* Longman, Edinburgh
- Yonge C M** 1887 *The herb of the field* Macmillan, London