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"FAC-SIMILES OF NATURE": VICTORIAN WAX FLOWER MODELLING

By Ann B. Shteir

THE GIGANTIC WATER LILY WHOSE seeds were brought to England from the Amazon in 1847 had been sighted a decade earlier in British Guiana by Sir Robert Schomburgk and described in 1837. Named *Victoria regia* and now known as *Victoria amazonica*, the spectacular specimen had huge leaves five feet in diameter and seventeen feet in circumference, and flowers more than twelve inches in diameter. Germination of the seeds took some time, but in 1849 three plants developed, and the race was on to propagate the first flower. The triumphal first bud in England opened in early November 1849, its flower measuring three feet in circumference, at the Chatsworth estate of the Duke of Devonshire where the gardener and landscape architect, Joseph Paxton, had designed a greenhouse and water tanks for this purpose; Margaret Darby has detailed the precise attention that Paxton gave to the levels of light, moisture, and heat so as to approximate the plant's native habitat. The *Victoria regia* produced 126 large, beautiful, and fragrant white and pink tinted flowers. It was a popular wonder and received clamorous public attention for its size, beauty, and surprising strength. Paxton presented a leaf and flower to the Queen and Prince Albert at Windsor, and a well-known engraving in the *Illustrated London News*, November 17, 1849, showed Paxton's eight-year old daughter Annie standing on one of the leaves. Publication in 1851 of *Victoria Regia; or Illustrations of the Royal Water-Lily* with life-sized drawings and lithographs by Walter Hood Fitch and descriptions by the botanist Sir William Jackson Hooker brought further celebrity to the plant. Soon after, John and Horatio Mintorn, wax flower artists in London, were commissioned to make a model of the flower of this huge plant in different stages of development – "from the large and bristly bud to the white opening petals, and the full-blown flower, in its beautiful variegation of form and tint" (the *Daily News* July 17, 1850). Exhibition of the wax model generated wide press coverage about the "fac-simile . . . of one of the most curious botanical phenomenon of the present age" (Mintorn 1844, ii-iii).

Flowers made out of wax were a Victorian cultural phenomenon that went beyond the specifically botanical, and the Mintorn *Victoria regia* was in many ways the apotheosis of the Victorian wax flower movement. While not a fervid cultural fashion on the order of the Tulipomania of the seventeenth century or the mid-nineteenth-century Fern Craze, wax flowers had their heyday in Victorian England, particularly during the 1840s and 50s (Allen 1996, 1969; Scourse). Queen Victoria loved wax flowers, and 10,000 white roses were crafted from wax for her marriage celebration on February 10, 1840. At the Great

Exhibition of 1851, visitors could marvel at displays of wax flowers, from delicate individual specimens to extravaganzas of variety and scale. Books, pamphlets, and magazine articles taught the art of modelling floral "fac-similes of nature" in wax, and wax flowers found a place in the parlour and the lecture hall, as ornament and as visual aids in teaching. Wax flowers were part of the nineteenth-century British fascination with flowers, botanical art, and wonders of nature in many forms and sizes. One expression of this was the prevalence of floral motifs and naturalistic versions of flowers and fruits in household decoration such as in wallpaper or in domestic artefacts crafted out of wax (Logan 43–45, 174–75). More broadly, interest in wax flower modelling illustrated a Victorian fascination for the culture of the copy, shown for example in the fashion for "poses plastiques" and "tableaux vivants" and in experiments by early photographers such as William Talbot and Anna Atkins to create accurate renderings of nature through processes such as "photogenic drawing" and cyanotypes (Schwartz; Armstrong and de Zegher). The culture of natural history was another framing narrative for this kind of work, particularly the Vegetable Kingdom as an object of adoration, study, empathy, and utility, cultivated by diverse audiences across a wide range of age and social classes (Shteir).

History

SHAPING PLANTS AND FLOWERS in wax may strike us at first as quintessential Victoriana – the stuff of parlour ornament and of decorating styles from which modernists fled. But wax modelling of plants and flowers belongs to a larger artistic history that includes modelling portraits, effigies, reliefs, and medals. The history goes back to Greece and Rome, farther back still to IInd Dynasty Egypt, and forward into Norman waxen effigies and sixteenth-century Italian miniature portraits and statuettes (Pyke). Wax was a medium in religious art for votive offerings and statues of saints. Medieval nuns, for example, modelled wax flowers as garlands to decorate saints, as well as wax flower wreaths for graves (Howe 420).

Wax work also forms part of the history of scientific modelling. Dating back to the sixteenth and seventeenth centuries, and flourishing particularly during the eighteenth century, wax models were widely used for purposes of teaching and research. In late eighteenth-century Paris, for example, Andre Pinson made over 500 botanical models of fungi in wax to illustrate stages of growth, as well as to distinguish poisonous from non-poisonous specimens. His contemporaries Clemente Susini and Luigi Calamai, working in Florence at the Istituto Botanico, likewise produced botanical specimens in wax, including full scale models of fruits (Pyke 23, 107, 143). Pinson, Susini, and Calamai also crafted wax models that were used to teach anatomy. Particular renown attached to twenty-six complete wax human figures with removable body parts, as well as 2800 models of limbs and organs created at the Museo di Storia Naturale "La Specola," Florence. Coloured, ornamented, these wax "sculptures" included female figures – known as Venuses – which were adorned with lipstick and pearls, laid out for the male gaze, to be handled as the object of study (Jordanova 44–45). Wax models were used to teach anatomy, pathology, and gynecology, and played an important part in the history of midwifery, as when Marie Biheron, working in France from the 1750s on, presented anatomical wax models of pregnant women to major academies; her "artificial anatomy" enjoyed utility and celebrity (Gelbart 49). Into the early nineteenth century, modellers continued to produce anatomical-pathological works in wax for museums and medical schools. It was Jacques Talrich, doctor and modeller to

the Paris School of Medicine, who produced the wax head of Jeremy Bentham in 1833 that still sits atop Bentham's own skeleton at University College, London (Pyke 144–45). In the history of embryology, wax models were used both for teaching and research. Recent scholarship about scientific modelling has drawn attention to embryological wax figures made for university anatomy teaching by the family firm of Adolf and Friedrich Ziegler in Freiburg across the second half of the century, and to the artisanal culture out of which they worked; plastic reconstruction became a key technique in embryological anatomy by the mid 1880s (Hopwood 2002, 2004).

In England, wax modelling also enjoyed a parallel life in secular and popular culture in the form of waxwork effigies of royalty and nobility from present and past history that were put on display at fairs and in private museums and exhibitions in London. Entrepreneurs with a flair for theatre capitalized on popular interest. For example, Mrs. Salmon, a very successful waxwork impresario of the early eighteenth century, had a permanent exhibition in Fleet Street where her figures included "King Charles the First upon the Fatal Scaffold" and a mechanized figure of Mother Shipton, "who administered a farewell kick to Mrs. Salmon's patrons as they left" (Altick 51–52). Others in England modelled wax as a handicraft and an art form. In the late seventeenth century Queen Mary, wife of James II, cultivated a fashion for wax modelling of flowers and fruits as a pastime among women in court circles; her interest in making floral garlands and wreaths in wax was based in the practices of nuns in Italy who modelled wax flowers as grave decorations and ornaments for plaster saints and Virgins.

Marie (Grosholtz) Tussaud's career as a modeller developed from both the scientific and artistic traditions of wax work. She developed her skills at the side of her uncle, Dr. Curtius, who had modelled anatomical subjects in wax before turning to wax portraiture. When Elizabeth, sister to Louis XVI, saw their work, and wanted to learn the art of modelling in wax, Marie Grosholtz was appointed to teach her, and lived with her at Versailles until 1789 (Herve 1838, 24–25). In that fateful year Madame Tussaud took a cast of the face of a prisoner released from the Bastille, and thereafter was busy with revolutionary figures in life and in death. For three decades after her arrival in England in 1802, she was an itinerant exhibitor who toured across Britain and Ireland with life-sized effigies of figures from the historical past and present. Returning to London in the 1830s, she began the focus on contemporary events and celebrities that would be a hallmark of her collections. As Pamela Pilbeam's study makes clear, issues of vulgarity and respectability are unmistakeable in the history of waxwork entertainments, and the studied elegance of Madame Tussaud's display spaces in Baker Street and other London venues was intended to make her exhibitions palatable to a respectable and middle-class clientele.

Gender Malleabilities

THE ART OF WAX FLOWER MODELLING flourished in England from the later eighteenth century on, and enjoyed particular cachet during the 1840s and 50s. It was a gendered and class-linked accomplishment, promoted as a welcome activity for women of social standing or pretension to social standing. Publications with titles such as *Elegant Arts for the Ladies* (1860) taught how to fashion flowers out of little shells for hair ornaments, model ferns and flowers out of leather for ornamental frames or boxes or bookstands, and use seaweed to make pictures; wax modelling was part of that repertory. This is the world of

Elizabeth Barrett Browning's orphaned Aurora Leigh, sent home to England to live with an aunt who is all duty and social convention, and who "liked accomplishments in girls." And so, Aurora Leigh reports, "I danced the polka . . ., /Spun glass, stuffed birds, and modelled flowers in wax" (1: 424–26). Aurora Leigh and her aunt were among the targeted readership for books that gave instruction about how to cast wax flowers, finish and fashion wax leaves, and produce botanically specific parts of a flower, always within gendered norms for women of that day.

Young Aurora Leigh would have cultivated her floral talents by reading one of the surprisingly many books and pamphlets that taught how to recreate "natural" flowers through the artifice of wax. Incorporating elements of scientific botany, these publications have much to say about "deceiving the eye" with naturalistic representations. Authors also struck a nationalistic note, and presented British wax flower modelling as an alternative to, and improvement upon, French artificial flowers made from fabric and paper. These publications illustrate the spread of a fashion, but also suggest careful positioning of wax flower modelling. The language and tone of instructional books about wax flower modelling highlight the gentility and respectability of modelling and looking at wax flowers. They link wax flowers to aristocratic practices, perhaps as a way to avoid associations between wax modelling of flowers and the vulgarity of popular wax effigies.

Wax flower handbooks shaped an activity and made it suitable for their intended readership by emphasizing different features of the work. John and Horatio Mintorn's *Hand-Book for Modelling Wax Flowers* highlighted aesthetic benefits in the first edition of their instructional manual, pledging that the pupil who would "copy in Oil or Water Colours the beauteous productions of the Floral World" will have "an intimate knowledge and constant imitation of detail" as a result of modelling parts of a flower. The wax modeller also will be able to record knowledge of exotic "floral marvels" that otherwise would be lost; "of many a gorgeous flower that had been culled in the vast region of South America, and transported hither with anxious care, no vestige is left but our representation in Wax of its resplendent beauties" (Mintorn 1844, 3, 6). The Mintorns made larger claims in later editions: "The uses to which this branch of the Plastic Arts can be applied are manifold: – first, the most life-like representations of nature; – secondly, for Botanical purposes, Museums, etc.; – also, as most graceful and beautiful appendages to the Drawing-room; indeed, to any purpose for which the real Flowers are used" (Mintorn 1852, Preface). Emma Peachey's 1851 *Royal Guide to Wax Flower Modelling* promotes wax flower work on gender-linked grounds. Peachey labels the craft "an accomplishment at once royal and feminine," an "elegant art" that "requires but the fairy touch of a delicate hand to fill each available place in the chamber or drawing-room with the most perfect and beautiful imitations of the flower-garden" (Peachey 1, x). She also promotes the health advantages of wax flower modelling for growing girls, particularly when contrasted with "fancy work" that calls for standing over frames, harming eyesight and posture. *A Royal Guide to Wax Flower Modelling* figures a moment in the history of floral representations when various languages of nature overlapped. As an instructional handbook, it explains botanical terms and supplies technical details about how to craft naturalistic floral representations in wax. It also draws upon the coded messages in the then fashionable Language of Flowers to suggest larger meanings for the flowers that pupils can craft. In the springtime bouquet on the book's frontispiece, a golden crocus, for example, denotes "youthfulness," the violet stands for "modesty" and the tulip for "declaration of love" (Figure 16). In Peachey's multi-purpose book, flowers carry layers of meaning that embrace

Figure 16. Frontispiece, from Emma Peachey, *Royal Guide to Wax Flower Modelling* (London: 1851). Courtesy of the Hunt Institute for Botanical Documentation, Carnegie Mellon University, Pittsburgh.

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botany, art, and moral signification. Rebekah Skill's *Art of Modelling Wax Flowers* (1852) is more focussed on educational aspects of wax flower work. Turning beyond aesthetics and ornament into botanical information and instruction, Skill encourages readers to examine actual flowers because "knowledge of the structure and character of plants, of their scientific arrangement and classification, materially assists us in obtaining a correct idea of those minute parts of a flower which escape the general eye" (Skill 10). Skill goes beyond most writers of wax flower manuals in the way she integrates botany into her book and makes botanical knowledge part of education for women of the leisured classes. "Botany now forms a part of school education, and thus art and science may mutually aid each other; a young lady may turn from the study of terms and characteristics to the emulation of beauty of form and colouring in nature" (11). Skill broadens the class horizon for wax flower work, noting that the taste for this has spread outside the world of the noble and wealthy.

Wax Technology and Commerce

THE CULTURAL DISCOURSES OF WAX flower modelling promote aesthetic and botanical dimensions of the work and are also technological. Beauty and some scientific knowledge may be parts of the activity, but so too is attention to the handicraft of shaping and tinting wax. Instructional books and articles focus on techniques and materials for crafting objects by hand. To do the work, they explain, one must have certain types of equipment: sheets of wax, pins to roll and shape wax, wires to provide stability, tints and colours, brushes and scissors of various sizes, and, finally, glass shades to cover the completed specimen. Authors give instructions for making specific flowers and list materials requisite for the art. The tools of these "works of industry" carry readers from technology into commerce, and it is common for instructional manuals to insert price lists for supplies.

Keeping in step with floral enthusiasms, the Mintorn brothers introduced the *Victoria regia* into the fourth edition of their *Hand-Book for Modelling Wax Flowers* in 1850. Here are their instructions about how to model the popular and gigantic water-lily:

> For this Flower select extra thick White wax, the ten outer petals being doubled to give them greater strength, coloured on both sides with white powder; the pin should be used on the glossy side, and to make them round it will be necessary to use the finger or thumb. The centre is cut of bright Yellow wax, placed between two sheets of Lemon: the small row of points to be placed round the foundation (which ought to be as large as a good-sized cherry, and made on doubled thick wire); . . . all these parts require colouring at the points, with a mixture of Yellow, No. 2, and White; the petals are to be placed on in rows of five . . . the stem, which should be made of a good thickness, and made of Lemon wax, tinted with pale Green. The bud is formed of the four calyx, placed on a foundation as for the Flower, the points meeting at the top to give it a closed appearance. When well made, no Flower looks better in wax than the Water-Lily. (Mintorn ed. 7, 1855, 45–46)

Across the body of wax modelling literature, there is a striking lack of detail about the composition of the wax to be used to craft objects such as the gigantic water-lily. Authors of how-to books often were modellers who also sold their own materials, and a proprietary practice likely led to silence about the chemical features of their own products. Historically, the basic medium for wax modelling was beeswax. Modellers also incorporated paraffin wax, tallow, spermaceti, and the resin balsam. Beeswax was preferred because of its versatility

and stability, but paraffin was widely used because it is cheaper and softer (Purewal). G. W. Francis, a mid-century botanist and popular writer who had no commercial interest in the sale of materials, explained how to make wax sheets by blending white wax with "pure tallow," "together with half a teaspoonful of salad oil in winter" (24). The Mintorns claimed that their parents spent years improving the wax they produced for sale, and they in turn went on to invent "Mintorn art fabric," a wax material which came to be indispensable in modelling for museum purposes, but the composition of the material long remained a professional secret (Howe 421). Skill devised her own wax recipe by combining new chemical substances, and reminds her readers that wax for summer use is prepared differently from that for winter, but gives no further instruction. She also remarks that models made from wax which is too delicate will crack and fall apart. How then to ensure elasticity and durability? Her own composition fits the bill. In a similar promotional vein, the anonymous female author of *The Wax Bouquet* claims that whereas most wax sold by wax-chandlers contains spermaceti, "Whitaker Wax" is "pure and unadulterated." Spermaceti is "a beautifier of wax for general purposes," but its admixture makes sheets of wax too brittle for modelling. By contrast, Whitaker wax "is distinguished for its flexibility, and moulds very pleasantly" (*Wax Bouquet* 9). She promoted wax sold at the Whitaker Wax Counter in the Soho Bazaar, London, where wealthy women could shop for millinery, lace, and other articles for personal decoration (Adburgham 23).

Students of wax modelling were encouraged to buy ready-made sheets of wax as well as patterns and pre-cut sets of leaves for specific flowers. Shops in London and workshops of modellers sold supplies, and modellers outside the metropolis could order materials through agents. The Mintorn brothers, for example, manufactured materials at their workshop in London and sold them for export or by retail from their own counter in the Soho Bazaar. They also manufactured wax flower making kits. An extant kit from about 1850 gives a gratifying tangibility to wax flower modelling. An "object lesson," one of those "Things that Talk" (Daston), the wax flower making kit is a gem for the material culture of natural history. A box of japanned metal that sat until recently deep in the archival bowels of the Victoria and Albert Museum, London, it contains fifty-two brushes, packets of wax in various colours, modelling tools, patterns, and a small implement that resembles a serrated pastry cutter. The name "Mintorn & Co." appears on some of the paper wrappers that contain patterns for various flowers, e.g., a scarlet passion flower, a pink rose, a dahlia. Twenty-four packages contain parts of flowers cut out of paper; these served as the stencils for cutting the wax. Some of the packages are dated, e.g., January 16, 1852; a package with patterns for making a white camellia is dated March 26, 1853. It seems likely that some patterns came with the kit itself and others were added to the collection by buying other packets and/or by making up one's own, perhaps sharing or trading with friends. The kit also contains a set of instructions in handwriting that dates from a later time, suggesting that it was in use over at least several decades.

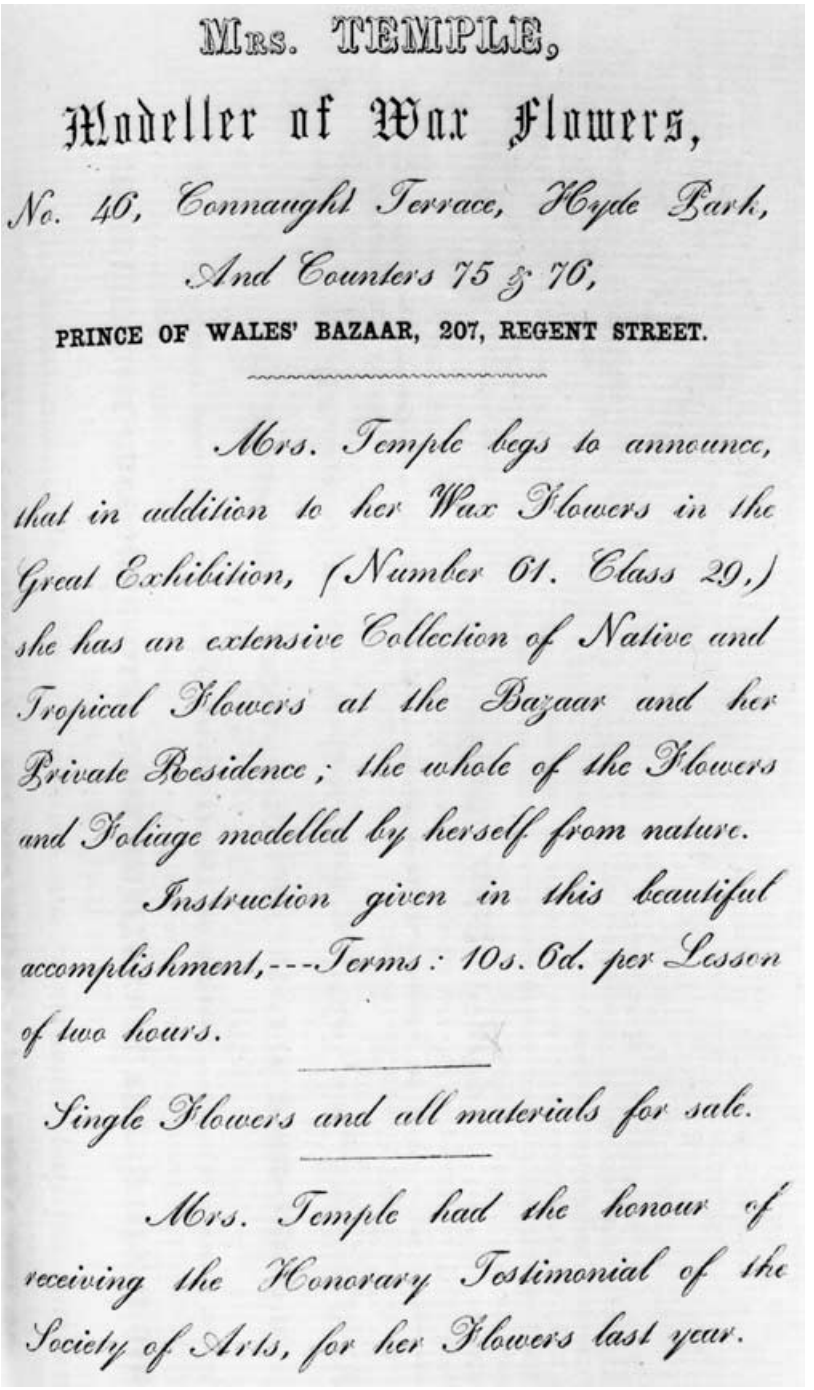
Wax "Works of Industry" at the Great Exhibition in 1851

WAX FLOWERS WERE AMONG THE 100,000 exhibits of hand-crafted and machine-made "Works of Industry" displayed at the Crystal Palace in 1851. In the classificatory scheme formulated to give some coherence to the organization of exhibits, wax flowers were assigned mainly to Class 29, "Miscellaneous Manufactures and Small Wares." They were placed

among articles such as candles, umbrellas, and soaps that were "principally, though not exclusively, related to the minor points in the domestic economy of society" (*Official Descriptive and Illustrated Catalogue* 2: 789). (Wax flowers also were on display in the exhibit of the West Indies that showcased tropical flowers, vegetables, and fruits, classified as "colonial produce.") The variety and scale of wax floral work at the Great Exhibition ranged from individual specimens to arrangements that were six feet tall, and included orchids, rhododendrons, garden flowers, and several wax models of the *Victoria regia.*

Since wax floral models at the Great Exhibition brought together art and industry, commerce and culture, exhibitors were designated in the Official Catalogue as "manufacturer," "inventor," "producer," and "designer." The "Producer" Emily Temple, for example, exhibited "Wax flowers and foliage modelled from nature" (Figure 17). "Designers and Manufacturers" John H. Mintorn along with Horatio, Elizabeth, and Rebecca Mintorn exhibited "Flowers modelled in wax, showing their applicability as ornaments for the drawing-room, &c" as well as "Rare and curious botanical specimens modelled in wax from life, showing their growing state, and exhibiting the varieties and phases of their existence" (*Official Descriptive and Illustrated Catalogue* 2: 793–94). Twelve women were among the fourteen exhibitors presenting wax flower work, including Jane Clara Lemare**,** and Mary Ann Galton. Eliza Makepeace, for example, exhibited "Models in wax . . . *Lilium lancifolium speciosum* . . . *Gloxinia perryana* . . . *Rhododendron cunninghami*, and improved method of preparing wax for modelling flowers." The medal awarded in this category of work went to Elizabeth and Rebecca Mintorn, sisters from a dynasty in the art and commerce of wax flowers whose children began modelling in the 1830s; their brothers John and Horatio won a gold medal for their wax models when they were still boys. After working initially from a studio at 36 Soho Square, London, the brothers opened a showroom at 106 New Bond Street in 1853; there they displayed "their Octagon Case of rare and beautiful Orchids and Tropical Plants from the Great Exhibition" (*Handbook of Wax Flower Modelling* ed. 6, 1853, Preface). In addition to manufacturing wax modelling kits and selling requisite materials for wax flower modelling, they produced a steady stream of instructional books to promote the craft. Their family business later diversified into other types of artificial flowers; one Mintorn sister gave lessons in paper-flower making, and Mrs. J. H. Mintorn wrote *The Handbook to paper-flower making* in which, in language identical to wax flower books, Mrs. Mintorn encourages readers to work from "the natural flower" and aim for "a portrait" (Preface).

Emma Peachey, Artiste in Wax Flowers to her Majesty, was to have been among the exhibitors in the Crystal Palace in 1851. She created several enormous pieces for display in Class 29. One was a bouquet of wax flowers with several hundred specimens "from the simple honeysuckle of the cottage garden, to the rarest and most valuable exotics of the East" and covered by a glass shade nearly six feet high; another was "a group of fruitage, covered with a glass shade more than four feet high, and nearly three feet across, being the largest ever yet blown in England" (cited Peachey 61, 63). There appears to have been a glitch in plans, however, due perhaps to politics or happenstance. Wax flowers were assigned exhibition space in the Crystal Palace on the upper floor of the North Transept Gallery, and Peachey considered the location unsuitable for her work because of the weight of her pieces and the ambient temperature at the site. She withdrew her exhibition pieces, and displayed them privately, at her house in Rathbone Place, London. This action occasioned some notoriety, for which she received a good deal of press coverage, many visitors – she claims 50,000 – and presumably also customers.



MRS. TEMPLE,

Modeller of Wax Flowers,

No. 46, Connaught Terrace, Hyde Park,

And Counters 75 & 76,

PRINCE OF WALES' BAZAAR, 207, REGENT STREET.

Mrs. Temple begs to announce, that in addition to her Wax Flowers in the Great Exhibition, (Number 61. Class 29,) she has an extensive Collection of Native and Tropical Flowers at the Bazaar and her Private Residence; the whole of the Flowers and Foliage modelled by herself from nature.

Instruction given in this beautiful accomplishment,---Terms: 10s. 6d. per Lesson of two hours.

Single Flowers and all materials for sale.

Mrs. Temple had the honour of receiving the Honorary Testimonial of the Society of Arts, for her Flowers last year.

Figure 17. "Mrs. Temple, Modeller of Wax Flowers." Illustration, from *The Prospectus of Exhibitors* (London: The Royal Commission of the Great Exhibition, 1851). Vol. 16. Courtesy of the V&A Images/Victoria and Albert Museum, London.

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Wax flower modelling was a career generated out of necessity for Emma Peachey, one that integrated art, natural history, commerce, fashion, and gender. It was she who crafted the 10,000 white wax roses as bridal favours for Queen Victoria's wedding celebrations. The daughter of an officer and surgeon in the British army, her fealty to the Queen was a part of the story that she recounts.

> When I first commenced the agreeable occupation of imitating nature, I had not the slightest idea of ultimately making it a profession. My anxious desire, I may say, my ambition, was to produce something that might be considered worthy of the notice of our most Gracious Queen, who at the period I allude to, 1837, had just ascended the throne . . . . Our beloved Sovereign, ever ready to encourage talent or industry in any form, condescended to permit a bouquet, which I designed and executed for her inspection (in token of my loyalty) to be placed as an ornament in one of the royal palaces. (3)

But she was later compelled, she writes, "by a change of circumstances . . . to make the art of wax flower modelling a source of profit. Her Majesty, unsolicited by any, spoke to then Lord Chamberlain relative to a warrant of appointment being granted to me" (3). In 1839 Emma Peachey received the Royal Letters Patent as Artiste in Wax Flowers to Her Majesty. Based in London, she became a teacher, and worked from her studios giving lessons to fashionable young women. Her career was shaped by the commercial possibilities of floral art at that time. Clearly entrepreneurial, she wrote a series of articles about wax flower modelling for the *Lady's Newspaper & Pictorial Times*, a new weekly publication, under the pseudonym "E. H., Late Pupil of Mrs. Peachey." (She revealed the authorial ruse in her 1851 book.) One issue carried an illustration of a "Group of Wax Flowers, The Property of Her Majesty the Queen . . . purchased from Mrs. Peachey by her Majesty, to adorn the royal residence" (*Lady's Newspaper* 2: 447). She too sold materials to be used in this art, including wax, colours, brushes, pins, and wire, and invited customers to view her works. She reports that flower painters used her wax models in their work "in cases where the evanescent properties of the flower of nature prevented the possibility of committing their similitude to canvas ere their beauty had faded" (5). She also reports about supplying wax flowers as illustrations to botanical lectures. In other words, she asserted her versatility in moving across the domains of both art and science.

From "Accomplishment" to Teaching Tool?

ALTHOUGH A WAX MODEL OF A GOLDEN crocus displayed under a glass dome in the parlour is not the same as a teaching model which is meant to demonstrate botanical features of that flower, it nonetheless nicely encapsulates the culture of Victorian natural history. Migrating back and forth between the drawing-room and the artisanal world of museum display, Victorian wax modelling represents mid-century interest in material objects as well as preoccupation with nature's beauties and wonders. Emma Peachey's book and story illustrate attempts to bridge a growing divide between art and science by calling on the languages and techniques of each. Her *Royal Guide to Wax Flower Modelling* is not a botanical work and does not claim to speak to audiences of specialized knowledge and practice. Nevertheless, it integrates and thereby cultivates some botanical knowledge for its target audience. Her book shows the fluidity of knowledge of nature across different areas of culture. At mid-nineteenth

century, when professionalizers of botany were channelling plant study into disciplines and formalized institutions, other plant lovers were active in fields, gardens, and glasshouses, and brought plants into their homes as ornament and objects of reverence, and as examples to be modelled in wax. The work of Peachey, Skill, the Mintorns, and others who crafted their "fac-similes of nature" in wax is a visual and material manifestation of this climate.

Pedagogy is an aspect of Victorian natural history, and authors, publishers, and teachers put their minds, pens, and pencils to formats that would make their materials accessible and enticing for different audiences. Wax models of plants became part of the tool kit for teachers and popular lecturers. The potential for cross-over from ornament to science was advantageous for modellers (such as Emma Peachey) who did not begin as botanists, and who sought ways to have commerce and technology work for them by advertising the use of their work in botanical lectures. In 1879 James Mintorn and a married sister, Mrs. Mogridge, were invited to make wax models for the Natural History section of the British Museum, and Mrs. Mogridge later came to specialize in modelling birds. She and her brother Horatio Mintorn were commissioned to produce wax models of plants and insects for the naturalistic dioramas at the American Museum of Natural History, where Carl E. Akeley had devised and patented a method for making leaves of wax by using bleached beeswax and various types of clay molds (Coleman). They travelled extensively in America and came to be known as the "Talented Mintorns," "Two Artists Who Made Bogus Flowers and Plants Which Deceive the Eye" (cited Howe 421). Their family legacy extended into the twentieth century as well, in the distinguished career of Mrs. Mogridge's niece Edith Emett Blackman, whose wax models of flowers and insects were commissioned for the Royal Botanical Gardens at Kew and for many museums and private collections (Case).

The female lineage is a distinctive feature of the culture of wax modelling. From medieval nuns to seventeenth-century princesses, from effigy-makers to entrepreneurial managers of popular entertainments, women wax modellers came from across a broad class spectrum. Their modelling in the nineteenth century became associated with bouquets of wax flowers that usually were delicate but also could be massive and overflowing. Writing about the history of waxwork figures, Hillel Schwartz discerns a decline in the status of waxwork during the nineteenth century "at the same time that other 'women's work' – in thread, shells, ivory, paper, foil, and wax flowers – was being demoted by a patriarchate intent upon defining an exclusively male public sphere . . . . Wax figures . . . were being reduced as women themselves were being reduced, to a confining domestic correctness" (Schwartz 104). The dignity of historical wax effigies gave way in this account to tawdry impersonations made of cheap materials.

The cultural climate for waxwork did indeed change as the clock turned toward the mid-nineteenth century. Wax flower modelling is a narrative of malleability, with women perhaps more as objects than as agents. It was promoted as an ornamental activity for women of leisure. Discourses of elegance and gentility in the books that promoted wax flower modelling for women differ markedly from the robust tone of business acumen manifested in the careers of eighteenth-century waxwork managers. However, wax modelling manuals taught art, technique, and some knowledge of nature. They pulled botany into art, and both into commerce. An individual wax modeller such as Emma Peachey took her materials and the materials of her life into her own hands, as a shaper of flowers and a shaper of herself. Although Emma Peachey positioned wax flower modelling as "an accomplishment at once royal and feminine in its origin and progress," she herself enacted a career path far from

ornamental womanhood. She challenged categories of femininity and accomplishments in the way she handled herself and her work. In this she embodies paradoxes in the life of Queen Victoria explored by scholars alert to how gender ideologies of that time were proclaimed through many cultural forms, yet resisted and disrupted in the agency and power of the Queen herself (Munich; Homans and Munich; Booth 245–81). The royal water-lily named *Victoria regia* had considerable allegorical resonance in this regard. The wondrous plant from the Amazon was a rarity, much like the Queen herself; and the unique genus "Victoria" symbolized the Queen's magnitude and standing. However, the species name for the plant was fraught with contradictory impulses of that time. In a complex politics of naming, this fabulous specimen was initially designated *Victoria amazonica*, but, as Adrienne Munich has explained, the species name "amazonica" was withheld until after the Queen's death because the epithet might have been construed as referring to masculinized women rather than to geography. In this regard, the history of the plant's name itself embodies "Victoria's ambiguous position, in relation to the Woman Question" (Munich 219). During her lifetime, *Victoria regia* served therefore as a visual motif for ambiguities surrounding the Queen and also some of her subjects. Gender-linked activities, artistic fashions, colonializing impulses, hunger for exotics, and career-making came together in the figure of a plant that drew attention from botanists, artists, collectors, and enthusiasts of the Vegetable Kingdom. How suitable, then, that wax flower modellers should instruct their female pupils in the art and science of shaping "fac-similes of nature." Taking versions of the plant as specimens of self-hood, Victorian practitioners of wax flower modelling can be seen as working to model themselves, molding sheets of wax, curling the leaves, and tinting the petals so as to craft their own works of industry within the mid-century cultures of art and natural history.

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