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William Bartram's Inimitable Picture: Representation as the Pursuit of Natural Knowledge

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In July 1767 the London mercer and natural history enthusiast Peter Collinson (1694–1768) requested a drawing of the American lotus (*Nelumbo lutea*) from William Bartram (1739–1823), a Pennsylvania botanist. Collinson alternately referred to this exotic as *Colocasia* and *Faba aegyptica*, which he had attempted, unsuccessfully, to establish in his garden at Mill Hill. Disappointed, he asked for a "picturesque figure" that featured the plant's leaf, flower, and seed, so that he might better ascertain its genus and species.[1] In response, Bartram produced a pen-and-ink drawing that depicts the lotus as it grows in its marshy environs, capturing its development in the portrayed bud and blooms.

(Fig. 1). William Bartram, Round Leafed Nymphea as Flowering. Colocasia [*Nelumbo lutea*, American lotus and *Dionaea muscipula*, Venus fly-trap], ca. 1767, black ink, 39.8 x 30 cm, The Natural History Museum, London. Photo: Trustees of The Natural History Museum, London.[2]

To enhance the picturesque effect, he tucked beside it a vignette of a great blue heron and a Venus flytrap, each pursuing in its own way its respective quarry. The bird dips forward to catch a tiny fish, while the flytrap's lobes open to entice a mayfly.

Bartram faithfully adhered to Collinson's request, yet surely the composition was unlike anything Collinson could have expected. The lotus blossoms tower overhead, dwarfing the great blue heron in the foreground, while a flat, floating lotus leaf tips forward, as though seen from above. The drawing's inconsistent scale and multiple points of view are disruptive, and some scholars have interpreted them as the work of a draughtsman unfamiliar with the conventions of natural history representation or, at the very least, the work of an untrained eye and hand.[3] While Bartram's colonial status might encourage such interpretations, this drawing suggests something quite different: not his unfamiliarity with, but rather his ambivalence toward, natural history conventions. Bartram's drawing of the American lotus models his concerns about natural history representation and its claim to accuracy.

Standards for picturing nature in the Anglo-American world were codified in the publications of London's Royal Society and were premised on the idea that what one can *know* turns on what one can *see*.[4] Seventeenth- and eighteenth-century artist-naturalists employed certain devices to underscore a sense of transparent transcription in their representations of nature. Some excised the specimen from its original setting and emphasized its taxonomic characteristics, whereas others situated it in an agreeable, if wholly invented, environment. Regardless of the device, the artist's mediating role was to appear carefully controlled, almost effaced, so that knowledge might be presented as self-evident truth, rather than a process of empirical observation and rational synthesis.

This visual rhetoric of transparency and self-evidence essentially minimized the efforts of colonials who observed and collected American natural productions for study. Letters, specimens, and drawings from British North America were shipped to London, where they were examined by European virtuosi, incorporated into a preexisting body of knowledge, and visually re-presented as fact. By the mid-eighteenth century, however, naturalists had begun to recognize that propagating species in foreign sites, under new conditions, could effectively alter the plants' lived expressions.[5] This recognition challenged existing representational conventions, since the material interdependence of plant and environment could neither be properly assessed through transplants and preserved specimens, nor transferred, unaltered, to a two-dimensional representation on paper. In his drawing of the American lotus, Bartram registered the problems inherent in such notions of transparency and self-evidence; he did not present knowledge as a seamless whole, but rather encouraged viewers to trace his material and intellectual construction of it.[6]

A Curious Performance

In eighteenth-century natural history, "plain" was a laudatory term. It suggested that natural productions and their representations were minimally mediated, as close as possible to the objects' original state. For flora, specimens that had been placed "betwixt the leaves of some large *Book* . . . till they are sufficiently dryed" were especially valued, and Bartram's drawing of the lotus adapts, in part, the specimen's flat, matter-of-fact presentation.[7] In the lower right corner of the composition the leaf floats on the surface of the water, surrounded by three blossoms and two towering leaves. While the flowers' staggered and overlapping forms imply a fictive three-dimensional space, the floating lotus leaf does not participate in this fiction. It tips forward, as though pressed against the surface

of the paper, mimicking a dried and pressed leaf, such as those collected by the naturalist Mark Catesby during his American travels in 1722.

(Fig. 2) Mark Catesby, *Nelumbo lutea* specimen, 1722, Sherard Herbarium, Oxford University (Photo: Oxford University Herbaria, Department of Plant Sciences)

Catesby sent these lotus specimens to the Oxford botanist William Sherard with minimal commentary, providing only the plant's references in Leonard Plukenet's botanical publications, as well as his name and the place and date of collection, indicating that the prepared specimen could speak for itself.[8] In tipping the lotus leaf forward, Bartram visually echoed this seemingly unmediated method of conveying nature.

The specimen was well suited, in the European mind, to the American collector, since it offered neither inference nor interpretation, but rather the material object itself. In so doing, it minimized the potential interference in transmitting botanical particulars to Europe, where they could be assessed, compared, and incorporated into natural knowledge. At the same time, however, other representational models were encouraged of the American colonial, especially since the finer details of the plant could be lost in drying and pressing. In the eighteenth century, selected details held great meaning: according to the predominant taxonomic system of the day, developed by the Swedish naturalist Carl Linnaeus, plants could be identified and classified by the number, shape, position, and proportion of their stamens and pistils, as well as by

the morphology of their petals, calyces, fruit, and seeds.[9]
A visual manifestation of this classificatory system can be seen in the illustration of horsebalm, made for Linnaeus's *Hortus Cliffortianus* (1737) and designed by the noted botanical illustrator, Georg Ehret.

(Fig. 3) Jan Wandelaar after Georg Dionysius Ehret, *Tab. V: Collinsonia*, from Carl Linnaeus, *Hortus Cliffortianus* (Amsterdam, 1737), engraving. Photo: Wellcome Library, London.

The plant is situated in the Linnaean class *Diandria*, order *Monogynia*, meaning its flower possesses two stamens and a single pistil. The plant would be distinguished from other genera in its class and order by its five-toothed calyx, its small tubular corolla with distinctive fringe, and its single round seed, all of which are carefully and distinctly rendered. Despite the seemingly "natural" appearance of Ehret's horsebalm illustration, the close attention paid to these taxonomic characteristics reveal the image is far less portrait than it is diagram.[10]

Bartram's drawing of the American lotus likewise gives the flower its full due, in accord with Linnaean botanical taxonomy, and presents a bud, an open blossom, and a fully blown bloom. The bud offers a clear view of the calyx, while the open blossom highlights the corolla's double row of petals. The fully blown bloom, depicted at the instant before the petals fall away, reveals the flower's many stamens (as corresponds to its class, *Polyandria*) and the lotus's distinctive fruit, pocked with seeds. Bartram's portrayal of the lotus's flowers reveals not only his

material familiarity with the plant, but also his conceptual familiarity.

To the specimen-like leaf and Linnaean flowers, however, Bartram appended another visual convention—the vignette—that worked to undermine the drawing's sense of representational transparency. Bartram situated the leaves and flowers in a pond, with a heron perched at its edge. The bird suggests a moment of narrative suspension, as it tracks the movement of a fish through the water. This scene calls to mind the work of Bartram's model and mentor, the British ornithologist George Edwards, who popularized the vignette as a means for making natural history representations seem self-evidently "natural." In the preface to his *Natural History of Uncommon Birds*, Edwards wrote that he often elaborated the "Grounds" of his plates with additional flora and fauna. The intent was to avoid the unpleasant sameness of other ornithological illustrations, but such elaborations were also intended to make his etchings more "natural and agreeable," thereby transforming his illustrations into scenes the viewer might plausibly encounter.

(Fig. 4) George Edwards, *Plate 135: The Ash-colour'd Heron from North-America*, from *A Natural History of Uncommon Birds*, vol. 3 (London, 1750), etching. Photo: Trustees of The Natural History Museum, London.
[11]

In his own drawing, Bartram borrowed from his mentor quite literally—the great blue heron, pond, and fish are all deftly copied from Edwards's illustration—yet his citation does not create a more natural and agreeable environment for the lotus. Rather, it highlights the drawing's sense of disjunction; where the flat leaf disrupts a tentative construction of depth, the bird undermines it entirely.

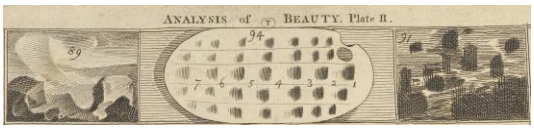
Bartram could have chosen any number of species from Edwards's publications to augment his portrayal of the lotus, yet he selected a strikingly large bird, all while shrinking it to a small addendum at the edge of his composition. It looks in danger of being enveloped by the leaf behind it, even though the leaf's natural diameter of 12 to 16 inches is only a third of the heron's projected height. Due to the drawing's disorienting inconsistencies of scale and alternations between surface and depth, the portrayed objects do not read as part of a legible perspectival scheme, nor do they appear to occupy the same plane. The composition instead constructs a spatially indeterminate world that shifts between flatness and fullness.

The Picturesque and the Pleasures of Pursuit

Though strange, the spatial indeterminacy of Bartram's drawing seems the product of intention, in which the naturalist interpreted Collinson's request for a picturesque figure in the broader sense of a visually appealing design. In the 1760s, the picturesque most commonly referred to a Claudean landscape composed of interlocking wedges of color and tone that yielded a pleasing gestalt and a gentle movement in and through the composition.

(Fig. 5). William Woollett after Claude Lorrain, *The Temple of Apollo*, 1760, etching, 43.5 x 57.2 cm, The British Museum, London. Photo: The British Museum.

In his 1753 aesthetic treatise, *The Analysis of Beauty*, the English artist William Hogarth maintained that an image representing no particular scene but composed of "lights and shades only, properly disposed . . . might still have the pleasing effect of a picture," and he provided two non-representational scenes of his own design to illustrate the point.



(Fig. 6) William Hogarth, *The Analysis of Beauty, Plate II*, 1753, engraving, 42.5 x 53.5 cm, The Metropolitan Museum of Art, New York. Photo: The Metropolitan Museum of Art. Detail.
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Hogarth would yoke these compositional ideals to the convincing portrayal of volume and three-dimensional space, but he ultimately defined the picturesque as the visually pleasing arrangement of lights and darks across a surface.

"When lights and shades in a composition are scattered about in little spots, the eye is constantly disturbed," Hogarth observed, and he instead directed artists to carve the composition into three or five parts to establish a visually compelling variety.[13] Bartram appears to have followed these directives in his drawing for Collinson. In the striated bottom band, encompassing the lower third of the composition, Bartram provided a dark, contrasting background for the lotus leaf and the delicately balanced great blue heron. In its top register he inverted this light-against-dark arrangement by leaving the background untouched, and figuring against it the three flowers and two tented leaves. Bartram stitched these parcels together with the stippled lotus stems and the flowering plant on the drawing's far left edge, creating an interlocking composition. Formal rhymes enhance the effect: the repeated use of an ovoid or teardrop shape links the body of the bird, the lotus bud, and the thinly inscribed vein patterns on the lotus leaves.[14] The drawing's division by thirds and fifths, along with the unity of its composition, faithfully adheres to Hogarth's instructions.

In his exceptionally literal interpretation of the picturesque, Bartram substituted elegant surface design for spatial coherence. The alternations between flatness and fullness emerge from his refusal to integrate the drawing's different representational conventions into a plausible portrayal of three-dimensional space. Instead, the

drawing lays bare its seams, offering a visually pleasing but bewildering vista. Just as Bartram explored the American wilderness to pursue unfamiliar species for his European colleagues, so, too, must the drawing's viewer explore and assess this unconventional landscape. Bartram even reinforced the theme of pursuit in his alteration of the heron, which hunts its prey with greater alacrity than in Edwards's etching, and in his inclusion of a Venus flytrap, which patiently attends the mayfly.[15]

While Hogarth's aesthetic dictates provided Bartram with a template for the picturesque, they also offered a model for conveying a sense of exploratory movement. His *Analysis* was an enormously popular text in British North America, where the absence of art academies required aspiring artists to train abroad or to teach themselves through manuals. The English artist's prolific print production made his artwork well known in the colonies, and *The Analysis* and a full portfolio of Hogarth's prints were acquired by the Library Company of Philadelphia before 1767.[16] Perhaps it was at the Library Company that Bartram first encountered the volume, or in the collection of a friend. Though there is no written record confirming his familiarity with Hogarth's text or engravings, his drawing of the American lotus suggests that he derived from *The Analysis* a model for the portrayal of pursuit.

Hogarth's *The Analysis of Beauty* presents "fitness" as the overarching requirement for beauty, since a beautiful form is one suited to its object and function. Fitness establishes a proper balance of variety and uniformity, simplicity and intricacy, and yet—because this balance is not a given—Hogarth's theory also necessitates a process of discovery. His text often reads as a paean to pursuit: "Pursuing is the business of our lives," Hogarth observed, "and even abstracted from any other view, gives pleasure. Every arising difficulty... gives a sort of spring to the mind,

enhances the pleasure, and makes what would else be toil and labour, become sport and recreation."[17] According to *The Analysis*, aesthetic pleasure is inseparable from its discovery: "Wherein would consist the joys of hunting, shooting, fishing, and many other favourite diversions, without the frequent turns and difficulties, and disappointments, that are daily met with in the pursuit?" Forms that keep the eye in irregular motion are enjoyable, even beautiful, just as a cunning old hare pleases the hunting dog more readily than a prey easily caught.[18]

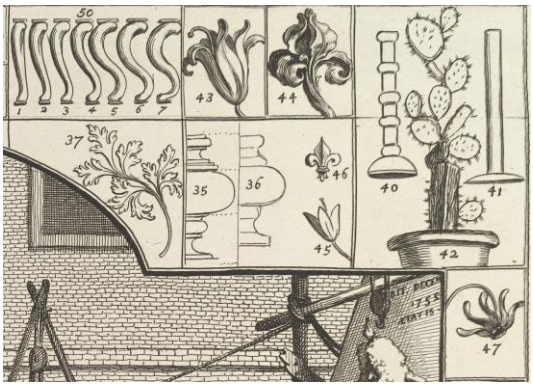
Hogarth illustrated the pleasures of pursuit not only through verbal metaphors but also through the visual associations found in the treatise's explanatory plates. Each features a central scene with a series of numbered figures ranged round its border.

(Fig.7) William Hogarth, *Analysis of Beauty, Plate I*, 1753, etching and engraving, 39 x 50.5 cm, The Metropolitan Museum of Art, New York. Photo: The Metropolitan Museum of Art.

Despite the taxonomic effect of the numbered figures and gridded border, the represented objects seem almost arbitrary. The perimeter of *Analysis of Beauty, Plate 1* features, among other things, cross-sections of molding and natural and stylized plants. Its central scene of a sculpture yard, though carefully organized according to linear perspective, hosts a similarly strange assortment of figures. While it portrays casts of classical statuary, as befits the locale, it also depicts such unanticipated inclusions as a turbaned man reading an anatomy text. The relationships among the scene's objects are associative,

and Hogarth encouraged viewers to pursue these patterns.

Hogarth's description of "pleasing forms," for instance, offers just one example of this pursuit. His text notes how the curves of the molding in figures 35 and 36 of plate 1 are divided into "well-shaped quantities" that yield a pleasing effect, not unlike the parsley-leaf in figure 37, which is similarly divided into "three distinct passages."[19]



(Fig.7a) William Hogarth, *Analysis of Beauty, Plate I*, 1753, etching and engraving, 39 x 50.5 cm, The Metropolitan Museum of Art, New York. Photo: The Metropolitan Museum of Art. Detail.

While the text identifies the figures, it is the viewer's task to find and compare them. Figure 37 is to the immediate left of figures 35 and 36 in the upper right quadrant of the picture, making them relatively easy to locate, but other references require a concerted search.

(Fig. 7b) William Hogarth, *Analysis of Beauty, Plate I*, 1753, etching and engraving, 39 x 50.5 cm, The Metropolitan Museum of Art, New York. Photo: The Metropolitan Museum of Art. Detail.

For instance, when the text cites figure 48, a capital composed of hats and periwigs that exhibits the same balance of simplicity and variety as the molding and parsley-leaf, it would seem that it, too, should be located in the upper right quadrant of the plate.[20] Yet the area shows only figures 35 to 37, 40 to 47, and 50, forcing the eye to scan the frame and enter the perspectival space before locating the capital next to the turbaned man.

In encouraging this sort of "dynamic perception," to borrow a

term from Hogarth scholar Frédéric Ogée, the plate calls into question the naturalness of both the specimen drawing and illusionistic perspective.[21] The plate's gridded frame reads as a series of Ehret-like engravings, each featuring an isolated object or set of objects, as though presenting the self-evident knowledge of a natural or cultural production. Yet Hogarth juxtaposed these individual images against the one-point perspective of the central scene, thereby creating a jarring union of different representational modes. In tracking his formal comparisons, the eye shifts between surface and depth as it moves between taxonomic and perspectival grids. In prompting these shifts, Hogarth disrupted the concept of representational transparency and self-evidence, and instead demanded the viewer's active engagement.

Bartram's rendering of the American lotus equally triggers such participation. Its bewildering sense of space keeps the eye motile, scanning the composition in an attempt to makes sense of its shifting scale and points of view. Through this act of pursuit, the viewer encounters the objects and concepts by which Bartram came to know the natural world, signaled by the specimen-like leaf, the Linnaean flowers, and George Edwards's heron. Moving from his material observations to their rational processing, the drawing indicates that natural knowledge is neither self-evident nor the product of a distant and disinterested curiosity, but is the result of one's own physical and intellectual investment in the living world. More field guide than transparent window, Bartram's pen-and-ink drawing maps out that investment, taking the viewer through the different stations of empirical observation, discovery, and synthesis. On receipt of the drawing that Bartram had so laboriously crafted, Peter Collinson described the awe and wonder it produced. "I and my Son opened my Ingenious Fr^{d} Williams, Inimitable Picture of the Colocatia," Collinson wrote in February 1768. "So great was the Deception it

being a Candle Light that we Disputed for Some Time weather it was an Engraveing or a Drawing it is really a Noble peice of Pencil Work . . . I will not Say more in commendation because I shall Say to Little where So Much Due.”[22] One can imagine Collinson and his son hunched in the dim winter light, perhaps tracing the drawing’s lines with their fingertips, and imagining the intensive effort required—Bartram’s effort—to craft such an “Inimitable Picture” of natural knowledge.

ENDNOTES

[1] Collinson to John Bartram, July 31, 1767, in *The Correspondence of John Bartram: 1734–77*, ed. Edmund Berkeley and Dorothy Smith Berkeley (Tallahassee: University Presses of Florida, 1992), 685; hereafter *CJB*. William's father, John, was a nurseryman who encouraged his son's natural history pursuits.

[2] Collinson to W. Bartram, Feb. 16, 1768, in *William Bartram: The Search for Nature's Design*, ed. Thomas Hallock and Nancy Hoffmann (Athens: The University of Georgia Press, 2010), 72.

[3] Charlotte Porter views the strangeness of Bartram's work as a result of his colonial status; see her essay "The Drawings of William Bartram (1739–1823), American Naturalist," *Archives of Natural History* 16:3 (1989): 289–303. Christopher Iannini, on the other hand, overlooks the drawing's fragmented quality and suggests instead that it conveys a "sense of epistemological stability and transparency." See Iannini, *Fatal Revolutions: Natural History, West Indian Slavery, and the Routes of American Literature* (Chapel Hill: University of North Carolina Press, 2012), 179.

[4] For a discussion of knowledge as visible and possessible, see Svetlana Alpers, *The Art of Describing: Dutch Art in the Seventeenth Century* (Chicago: University of Chicago Press, 1983), 72–91.

[5] Daniel Worster describes the development of a proto-ecological view of nature in *Nature's Economy: A History of Ecological Ideas*, 2d ed. (Cambridge: Cambridge University Press, 1994). For a discussion of the eighteenth century, see especially chapters 1 and 2. As pertains specifically to the Anglo-American exchange of plants, see Stephanie Volmer, "Planting a New World: Letters and Languages of Transatlantic Botanical Exchange, 1733–1777," (Ph.D. diss., Rutgers University, 2008), 22–63, 221–54, and Amy Meyers, "Picturing a World in Flux: Mark Catesby's Response to Environmental Interchange and Colonial Expansion," in *Empire's Nature: Mark Catesby's New World Vision*, ed. Amy Meyers and Margaret Beck Pritchard (Chapel Hill: University of North Carolina Press, 1998), 228–61.

[6] Michael Gaudio suggests that Bartram was driven by a desire for representational transparency; see "Swallowing the Evidence: William Bartram and the Limits of Enlightenment," *Winterthur Portfolio* 36:1 (Spring 2001): 1–17. While I agree Bartram was fascinated by transparency, he seems always to have recognized it as duplicitous.

[7] John Woodward, *Brief Instructions for Making Observations in all Parts of the World* (London, 1696), 12.

[8] Woodward, *Brief Instructions*, 12.

[9] For a brief description of taxonomically relevant properties in the Linnaean system, see Kärin Nickelsen, "The Content of Botanical Illustrations," in *Draughtsmen, Botanists, and Nature: The Construction of Eighteenth-Century Botanical Illustrations* (Dordrecht: Springer, 2006), 71–105, esp. 96–97.

[10] Lorraine Daston and Peter Galison refer to this as a "reasoned image"; see *Objectivity* (New York: Zone Books, 2007), 58.

[11] George Edwards, *A Natural History of Uncommon Birds*, vol. 1 (London, 1743), xix.

[12] William Hogarth, *The Analysis of Beauty*, ed. and with an introduction by Ronald Paulson (New Haven: Yale University Press, 1997), 87.

[13] Hogarth, *The Analysis*, 86–87.

[14] Meyers identifies Bartram's consistent use of reflected form and links it to his environmental view of nature; see "Sketches from the Wilderness: Changing Conceptions of Nature in American Natural History Illustration, 1680–1880" (Ph.D. diss., Yale University, 1985), 132–38.

[15] This drawing is believed to contain one of the first portrayals of the Venus's flytrap seen in Europe. After showing the drawing to his friend, John Fothergill, Collinson wrote to Bartram, "the Decoration of the Ground, about the faba Egyptica [American lotus] are Imaginary plants—which [Fothergill] thinks is quite out of Character, —When you have so many fine Real Ones." See Collinson to W. Bartram, July 18, 1768, *The Search for Nature's Design*, 76.

[16] The Library Company voted in 1764 to acquire the full suite of Hogarth's prints, which were finally purchased and delivered to Philadelphia in 1767. See Leonard Larabee, ed., *Papers of Benjamin Franklin, January 1 through December 31, 1766*, vol. 13 (New Haven: Yale University Press, 1969), 271, n. 4. They acquired their first copy of Hogarth's *Analysis* between 1757 and 1765, and a second copy when they merged with the Union Library in 1769; see *The Charter, Laws, and Catalogue of Books, of the Library Company of Philadelphia* (Philadelphia: B. Franklin and D. Hall, 1765), 43.

[17] To telegraph the importance of pursuit and discovery, Hogarth featured Christopher Columbus on the subscription ticket for the *Analysis*; see also Hogarth, *The Analysis*, 32.

[18] Ibid.

[19] Hogarth, *The Analysis*, 44, 46.

[20] Ibid.

[21] Frédéric Ogée, "Je-sais-quoi: William Hogarth and the Representation of the Forms of Life," in *Hogarth: Representing Nature's Machines*, ed. David Bindman, Frédéric Ogée, and Peter Wagner (Manchester: Manchester University Press, 2001), 76–77.

[22] Collinson to W. Bartram, Feb. 16, 1768, *The Search for Nature's Design*, 70–71.