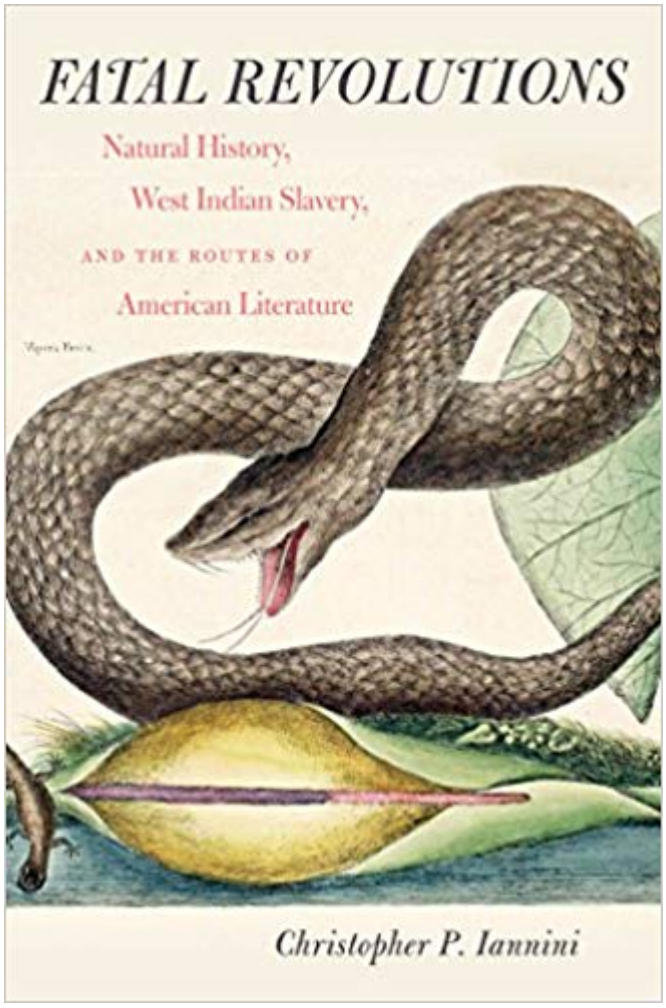
John James Audubon, the American “Hunter-Naturalist”: A New Species of Scientist for the New Nation

As much as Audubon drew attention to himself as an artist and man of science—and he did so ceaselessly and shamelessly—he also drew the attention of the American people to the richness and diversity of nature in America, helping them see it in national as well as environmental terms.

Routes and Revolutions

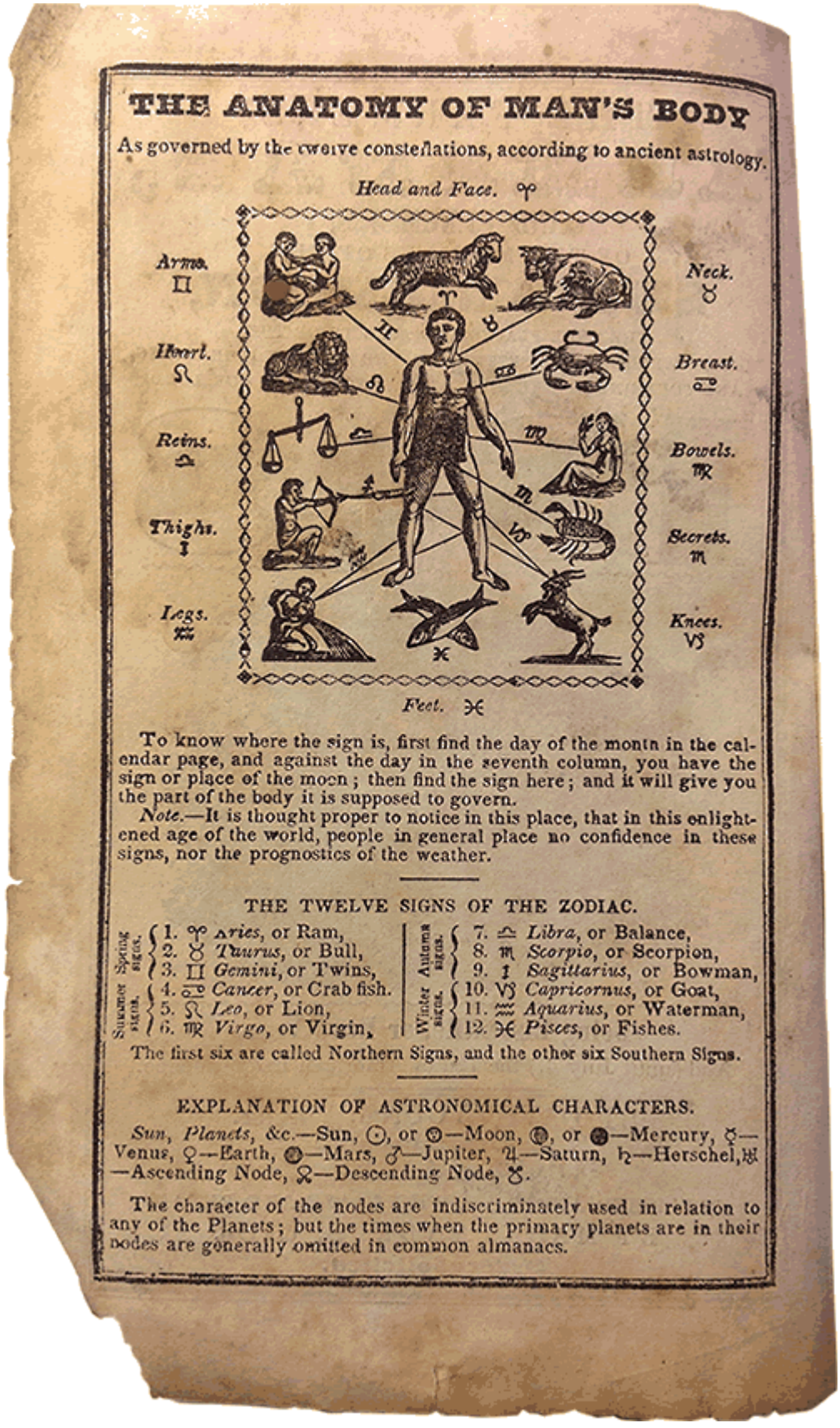


Crèvecoeur, William Bartram, Jefferson, and Audubon appropriate the "ideological assumptions, discursive conventions, and representational techniques" of earlier Caribbean natural histories to debate the implications of plantation slavery for a nation ostensibly committed to equality.

Sagas in Stone

We began with only a rudimentary idea of how to build the wall.

Reading the Man of Signs, or, Farming in the Moon



THE ANATOMY OF MAN'S BODY

As governed by the twelve constellations, according to ancient astrology.

Head and Face. ♈

Arms. ♊ — *Neck.* ♉

Heart. ♌ — *Breast.* ♋

Reins. ♎ — *Bowels.* ♍

Thighs. ♐ — *Secrets.* ♏

Legs. ♒ — *Knees.* ♑

Feet. ♓

To know where the sign is, first find the day of the month in the calendar page, and against the day in the seventh column, you have the sign or place of the moon; then find the sign here; and it will give you the part of the body it is supposed to govern.

Note.—It is thought proper to notice in this place, that in this enlightened age of the world, people in general place no confidence in these signs, nor the prognostics of the weather.

THE TWELVE SIGNS OF THE ZODIAC.

Spring signs.
1. ♈ *Aries*, or Ram,
2. ♉ *Taurus*, or Bull,
3. ♊ *Gemini*, or Twins,

Summer signs.
4. ♋ *Cancer*, or Crab fish.
5. ♌ *Leo*, or Lion,
6. ♍ *Virgo*, or Virgin,

Autumn signs.
7. ♎ *Libra*, or Balance,
8. ♏ *Scorpio*, or Scorpion,
9. ♐ *Sagittarius*, or Bowman,

Winter signs.
10. ♑ *Capricornus*, or Goat,
11. ♒ *Aquarius*, or Waterman,
12. ♓ *Pisces*, or Fishes.

The first six are called Northern Signs, and the other six Southern Signs.

EXPLANATION OF ASTRONOMICAL CHARACTERS.

Sun, Planets, &c.—Sun, ☉, or ☼—Moon, ☽, or ☾—Mercury, ☿—Venus, ♀—Earth, ⊕—Mars, ♂—Jupiter, ♃—Saturn, ♄—Herschel, ♅—Ascending Node, ☊—Descending Node, ☋.

The character of the nodes are indiscriminately used in relation to any of the Planets; but the times when the primary planets are in their nodes are generally omitted in common almanacs.

One of the most common printed images of the first half of the nineteenth century was also the one of the most derided—often, treacherously, in its own caption. Right under his woodcut of “The Anatomy”—the image of a male body

linked to the signs of the zodiac that began most American almanacs—the almanac-maker David Young wrote sourly in 1848: “It is thought proper to notice in this place, that in this enlightened age of the world, people in general place no confidence in these signs, nor the prognostics of the weather.” In this, as he certainly knew himself, Young was wrong. “There are many men at the present age, so far behind the times,” complained another author, two years before Young’s Almanac “that if they have a tooth to pull, a vein to open, a pig or a calf to castrate, a patch of thistles to mow, a bunch of white birches or scrub oaks to cut down, or a dose of physic to swallow, the chapter of signs must be consulted, and their connection with the body, or the plant ascertained before anything can be done.” At least one of these men, as demonstrated in the margin of the second image on the left, was using my copy of Young’s almanac.

If by the 1840s the Anatomy and the columns of calendrical symbols to which it was keyed had been an embarrassment to American almanac makers for more than a hundred years, they nevertheless still stood as required elements of the agricultural Almanac, the most stable features of a famously volatile and various form. One reason for their persistence was their importance to the practices of “moon farming,” which used astrological information to mark time and schedule agricultural tasks. The astrological tables were, as such, as important as the other (more recognizably utilitarian) forms of information that almanacs provided—critical elements of these objects that rural Americans hung from hooks on the wall, whose ripped pages they repaired with careful stitches, and, as above, whose margins they marked with signs of their own.

Image 1. “The Anatomy of Man’s Body,” from David Young, The Farmers’ Almanac, and Ephemeris of the Motions of the Sun and Moon, the True Places and Aspects of the Planets, Rising and Setting of the Sun, and the Rising and Southing of the Moon, for the year of our Lord, 1848 (Ithaca: Mack, Andrus, & Co., 1847). Courtesy of the author.

To contemporary historians, the first pages of an almanac can be frustrating to work with. It’s tempting to skip to the later sections—rich, if confusing, collections of texts that mingle seasonal poetry, jokes about Irishmen, and stories of canny farmers, with helpful information about circuit court session dates and the “Use of Sulphuric Acid as a Manure.” The first pages, by contrast, consist of the Anatomy, some astronomical calculations, and a twelve-page calendar packed top to bottom with unfamiliar symbols. When students in my classes seem to be identifying too much with seemingly “modern” nineteenth-century farmers, a short almanac “problem set” quickly restores their sense that they’re dealing with a culture alien to them.

Some of this seeming impenetrability comes from our lack of familiarity with the night sky. The anatomy refers, on one level, to perfectly visible astronomical phenomena that were rather more reliable than nineteenth-century clockwork. For farmers, the signs of the zodiac retained their concrete

physical meaning: the east-to-west procession of twelve constellations through which the sun and the moon and the planets seem to move, imprisoned in the flattened disk of the solar system. Where our modern newspaper horoscope tells us about our birthdate in terms of the sun's place in this sequence, breaking the year into twelve months, nineteenth-century farmers were primarily interested in the faster circuits of the moon, which moves across the whole zodiac every twenty-eight days, spending about two days in most signs. Almost all almanac calendars devoted a column to this cycle, allowing readers to determine the sign of the moon when the moon and stars were hidden by daylight or by the rotation of the earth. The anatomy connected this macroscopic physical phenomenon to the smaller cosmos of the human body, linking each body part to a corresponding sign—the two arms to Gemini, the twins; the breast to Cancer, the Crab; the "secrets" to Scorpio, the scorpion.

But what did the signs and the phases of the moon mean to moon farmers in the 1840s? In the almanac we have the tools of moon farming, but explicit guidance for the everyday use of these tools had been stripped out of almanacs in the eighteenth century, as the reputation of astrology declined. Our clearest accounts of the changing oral tradition of nineteenth-century moon farming in fact come from its most voluble enemies, the self-consciously scientific "improving agriculturists" who controlled the agricultural journals, and who made attacks on moon farming a standard genre of agricultural journalism.

Several consistent sets of rules can be pieced together through these hostile sources. The first set followed the waning and waxing of the moon—usually described in the columns of the almanac by a moon face marking each quarter. Some described analogies between the increase and decrease of moonlight and increase and decrease of substance on earth; thus, for example, pork cured in the light of the waning moon would itself dwindle to nothing. Others connected darkness to subterranean activity, and light to activity above ground. Potatoes, beets, and turnips should be planted in the old or declining moon; oats, corn, and wheat planted in the old moon would produce "roots, and no stalk, or seed."

The second set of rules followed the anatomy itself, and relied on analogies between the plants and animals of the farm, and the human body. The moon's presence in each sign, it was argued, brought an effusion of blood to the corresponding organ in the anatomy. Physicians had to avoid operating on these flooded organs to avoid hemorrhage; manipulating nonhuman bodies, farmers had to take similar issues into account. For example, when the moon passed into Leo, a sign keyed to the heart, farmers knew that cutting trees and vines would be satisfactorily deadly, but on the other hand, "wo be to the unlucky calf or colt, that happened to undergo castration when the sign indicated the forbidden region [Scorpio]" Other sign rules were less clearly medical. When the moon was in Virgo, "sometimes called the Posey Girl," a committee investigating "Lunar influence in Agriculture" in the *Southern Planter*, reported disapprovingly and disbelievingly, "everything then sown or planted, will expend all its energy in blossoms on account of that girl's propensity for flowers."

Relatively simple, these rules are the ones I use in my classes, the easiest to grasp for both undergraduates and anti-moon-farming reformers. However, it's clear from a few references that other rules surrounded other kinds of calendrical information. For example, the ascending and descending nodes of the moon (also known as the dragon's head, and the dragon's tail)—that is, its movement north and south of the path of the sun, and the direction of the moon's horns, as well as the exact clock time of the full and new moon—were certainly used to make the weather predictions that some almanacs included and others left to their readers. Agricultural improvers rarely touch on these matters. Perhaps these rules were less commonly used, or artifacts of older practice; perhaps they were merely too complex for improvers interested only in superficial dismissal. It is possible, indeed, that much of the uniformity of accounts of moon farming came not from a still unified moon-farming culture but instead from the echo-chamber of anti-moon-farming rhetoric, bounced from exchange column to exchange column in the nation's agricultural journals.

It is easy to look at the Anatomy and see unchanging tradition, perhaps even active resistance to modernity and the market. The Man of Signs, after all, reaches back to at least 1300, and some of the rules of moon farming can be traced back to classical authors, Pliny in particular. Improving farmers assiduously created this impression. Moon farmers, described as slaves of a tyrannical "Ancient Astrology," fit well into a broader improving narrative of a battle against superstition. Complaints about moon farmers merged seamlessly into an even more common trope—that of the bull-headed, "plow-jogging" neighbor, mindlessly adhering to old ways in the face of the new kinds of empirical evidence.

Image 2. Calendar page, April, from David Young, The Farmers' Almanac, and Ephemeris of the Motions of the Sun and Moon, the True Places and Aspects of the Planets, Rising and Setting of the Sun, and the Rising and Southing of the Moon, for the year of our Lord, 1848 (Ithaca: Mack, Andrus, & Co., 1847).

Bucking narrative convenience, however, almanacs and moon farmers regularly incorporated new scientific knowledge. Young's Almanac of 1848 took into account not only the heliocentric universe, introduced to American almanacs in the mid-eighteenth century, but also the motions of a new planet called "Herschel" that had only been known since its discovery by William Herschel in 1781 (later to be renamed Uranus). Perhaps more importantly, even as improvers cast moon farmers as the enemies of improvement, moon farmers were improvising rules to govern improvers' most prized scientific practices: growing fertilizing crops like clover and employing soil amendments like plaster of Paris. One improving lecturer complained that his moon-farming neighbors refused to allow cattle "to run on clover plastered during the full moon" since, "they will certainly burst, in consequence of the extending principle imparted to the elements of vegetation at this critical phase." It is perhaps

worth noticing that improvers and moon farmers, like modern veterinarians, recognized the tendency of cattle suddenly to inflate, a sometimes fatal malady cured then and now by a sharp three pointed knife stabbed into the fourth stomach, releasing trapped gas, which could be lit by a candle as it escaped. (Cattle really are more interesting than they look.)

According to improvers' accounts, moreover, moon-farming neighbors defended their terrain with a market-oriented language of yields and profits. As new techniques emerged in the commercializing agriculture of the nineteenth century, moon farming extended to include them. Indeed, this blending of old and new methods was supported by improvers themselves, who, lured both by almanacs' profitability and by their broad audience, themselves printed almanacs, complete with anatomy, signs, disclaimer, and instructions in improving practices, and advertisements for the *Cultivator* or the *American Agriculturists*.

Though I've been collecting rules and hints for several years, I don't yet understand the cosmos that nineteenth-century almanacs describe. Indeed, I am sure that that cosmos, if it was even unified enough to call a cosmos, is no longer knowable, given the many prisms through which it has been refracted and distorted. However, assembling an imperfect picture of moon-farming practice, using rules learned from moon farming's enemies, reaffirms that the dichotomy between "modern" and "traditional," which has remained stubbornly evident in historians' writing about rural Americans, wavers on closer inspection, even when looking at the Man of Signs.

Further Reading:

The (still-useful) classic account of American almanacs is Marion Barber Stowell, *Early American Almanacs: The Colonial Weekday Bible* (New York, 1977). For a rich account of the incorporation of new science into the eighteenth-century almanac, see Sarah Gronim, *Everyday Nature: Knowledge of the Natural World in Colonial New York* (Camden, N.J., 2007). Maureen Perkins explores the parallel transformation of the almanac form in Great Britain in Maureen Perkins, *Visions of the Future: Almanacs, Time, and Cultural Change, 1777-1870,* (Oxford, 1996). Thomas Horrocks gives a broader picture of the use of almanacs in medicine in early America in Thomas A. Horrocks, *Popular Print and Popular Medicine: Almanacs and Health Advice in Early America* (Amherst, Mass., 2008).

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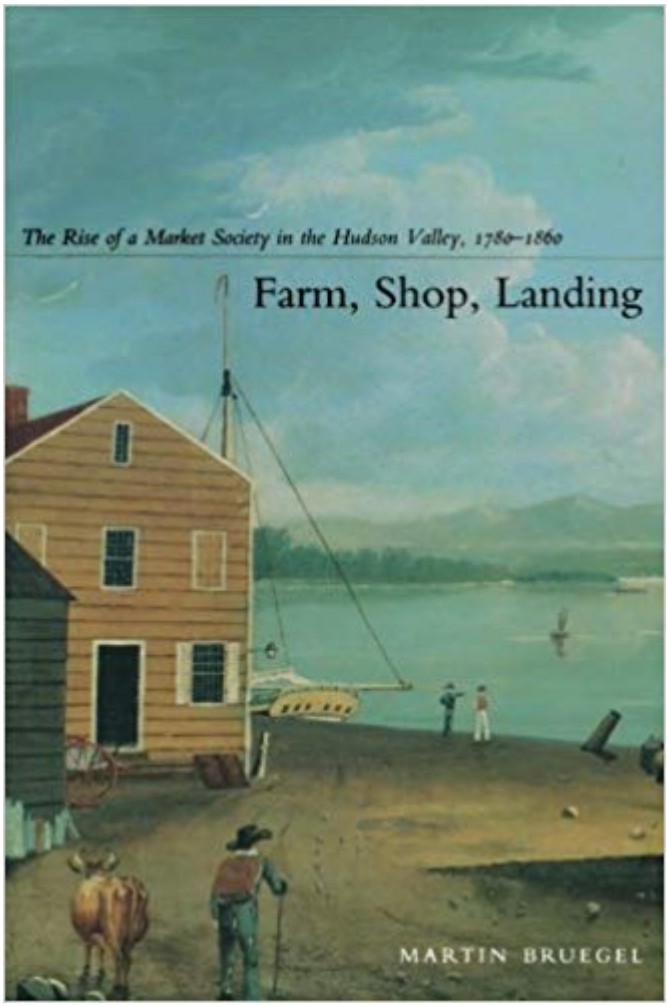
Gems in the Pasture

“[I]n late March, just days before Plimoth Plantation’s village of 1627 was to come to life for the 2001 season, the museum’s 130 head of livestock were rounded up and removed to a modern breeding barn at the back of the property.”

The Search for the Cure

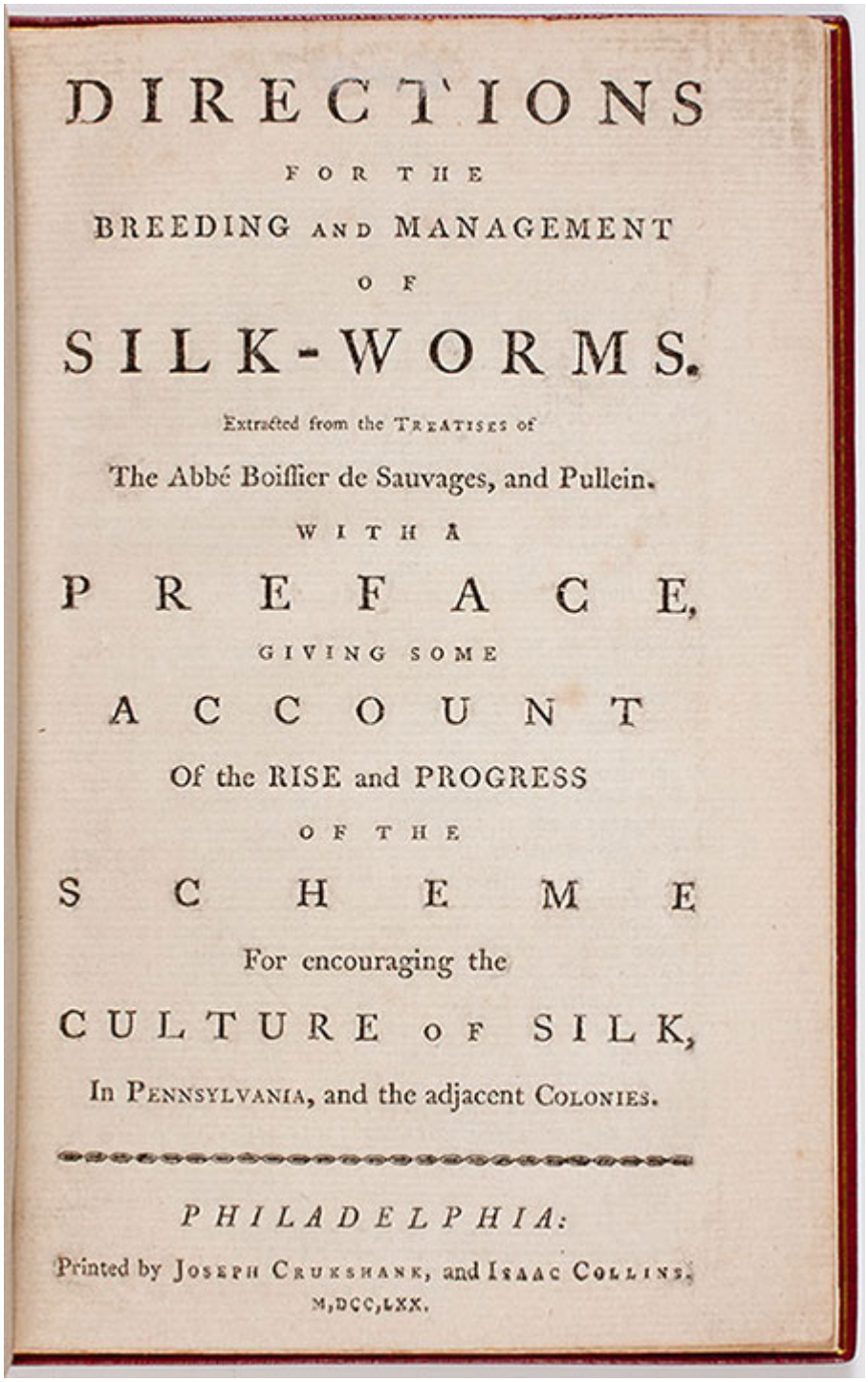
Is there anything more ludicrous than the present day barbeque contests in which contestants are prohibited from supplying meat that might be more sapid than those of their fellows?

Farmers, Tenants, and Capitalists



“Face-to-face interpersonal relations took on far more importance in this society than abstract, impersonal economic relations, symbolized by commercial paper (whose origin might be unknown) or distant banks.”

Unraveling the Silk Society’s Directions for the Breeding and Management of Silk-Worms



DIRECTIONS

FOR THE

BREEDING AND MANAGEMENT

OF

SILK-WORMS.

Extracted from the TREATISES of

The Abbé Boissier de Sauvages, and Pullein.

WITH A

PREFACE,

GIVING SOME

ACCOUNT

Of the RISE and PROGRESS

OF THE

SCHEME

For encouraging the

CULTURE OF SILK,

In PENNSYLVANIA, and the adjacent COLONIES.

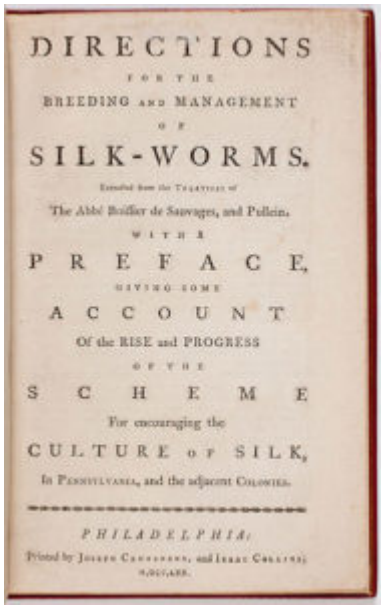
PHILADELPHIA:

Printed by JOSEPH CRUKSHANK, and ISAAC COLLINS,

M,DCC,LXX.

At a slim forty-seven pages and mere twenty centimeters high, the weightiest thing about the 1770 book, *Directions for the Breeding and Management of Silk-Worms: Extracted from the Treatises of The Abbé Boissier de Sauvages, and Pullein, with a Preface giving some Account of the Rise and Progress of the Scheme For encouraging the Culture of Silk, in Pennsylvania, and the Adjacent Colonies,* is its title. This visually undistinguished octavo is small and plain, with no images or diagrams. Only a single printer's ornament on the title page—a horizontal chain common enough to be used by printers from Boston to Charleston—graphically enlivens its text. Yet this visually unassuming book is vividly illustrative. This slender volume discloses wide-ranging connections

among science, commerce, politics, gender, religion, and print culture in the eighteenth-century British and French Atlantic worlds that coalesced around the making of silk, or sericulture.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Title page from Directions for the Breeding and Management of Silk-Worms … by Abbé Boissier de Sauvages, printed by Crukshank and Collins (Philadelphia, 1770). Courtesy of the American Antiquarian Society, Worcester, Massachusetts.

1. Among the reasons it illustrates such extensive networks is that *Directions for the Breeding and Management of Silk-Worms*, although a published text, is not unlike a commonplace book. Its pages contain writings by men who put ink to paper in London, Philadelphia, Dublin, New Jersey, and France. Enlivened with scattered notations and opinions about the writings gathered within, it is both compilation and distillation. Inside the physical confines of a single binding, it brings together original musings, bits of writing copied from personal letters, and extracts and translations of previously published materials, creating a new, and newly coherent, narrative.

2. Rather than reflect the collecting efforts of a single individual, however, this particular commonplace-like text was created by a group of men. Most probably compiled by a committee of four, it chronicles the work of the newly established American Philosophical Society's "Silk Society." Housed within the APS "Committee on Husbandry and American Improvements," the Silk Society aimed to put Pennsylvania in the vanguard of colonial sericulture. Under the Silk Society's erudite guidance, Pennsylvania was to become the colony that raised the most silkworms, grew the most mulberry trees to feed them, and harvested the most dead worms' cocoons to be converted into thread for weaving silk cloth. The society described itself as a "Number of Gentlemen, animated with a

Love of their Country" to promote the "raising of silk." *Directions for the Breeding and Management of Silk-Worms* was their marketing tract and how-to manual. Alluding to natural history and commerce alike, it sold sericulture as a fascinatingly scientific yet undemanding industry with great economic potential, one of interest to urban natural philosophers and merchants yet simple enough for humble farmwives to understand.

3. Somewhat against common wisdom and the lessons of history (which gave pride of place for colonial North American sericulture to Georgia—never mind the global dominance of China), the Silk Society boasted that "No Country seems better adapted to the raising of silk Worms" than Pennsylvania. As befitted their shared membership in the APS, these men backed their patriotic assertion with science. They used empirical observations about local botany and global geography to argue for the project's economic viability. Approvingly noting the ready availability of indigenous mulberry trees, they trumpeted that "any person who will cast an eye on a map of the world" must naturally conclude that Pennsylvania "is well adapted to the raising of silk, as lying so nearly in the same climate and latitude" with "the great empire of China" (long and legendarily held, of course, as the source of the world's best silk).

4. Thus emboldened by their grandiose empirical observations, the Silk Society encouraged Pennsylvanians to cultivate silkworms and bring their cocoons to the public manufactory—a "filature" in the language of the business—they would establish in Philadelphia. In this manufactory, urban workers (otherwise poor and under- or unemployed) would unravel and reel the cocoons harvested by rural laborers (envisioned as mostly women and children). This raw silk would then be exported in skeins across the Atlantic to Britain, where it would be sold for weaving fabric in the London silk industry. A competition for Parliamentary bounties offered to the American colony that produced the largest amount of raw silk added economic incentive. With a conciliatory nod to British wariness about colonial production expressed during the contestation over the Stamp Act five years before, the Silk Society was careful to note that "indeed this design is so far a happy one, that while it promises to be so advantageous to ourselves, it interferes with no commercial interest of the mother country, but on the contrary co-operates with the intention of the Parliament." The Silk Society's sericulture project, in other words, was promoted as an "American Improvement" that benefitted the colony and the empire both.

5. In its preface, *Directions for the Breeding and Management of Silk-Worms* offers a history of itself as a book, as well as of the Silk Society's project. No less a figure than Benjamin Franklin was pivotal to both these histories. In 1770, when this book was printed, APS founder Franklin was in London, and (if more were needed) this book offers proof of the omnipresence of his impact on colonial natural philosophers regardless of his physical whereabouts. Sericulture was a project dear to Franklin's heart. He called silk "the happiest of all inventions for cloathing." He touted its potential for clothing large populations like China's (and, not coincidentally, like the one he had famously predicted for colonial America in Parliamentary testimony over the

Stamp Act). The book highlights his role, offering an interesting glimpse into one of Franklin's less famous interests. The APS voted to move forward with its sericulture project only "upon a letter being laid before them from Dr. Franklin to one of the members." In true commonplace fashion, the book includes bits of this private letter, in which Franklin urged the APS to seek political as well as economic backing for the project. The book also includes the textual fruits of his advice: a copy of the APS funding petition to the Pennsylvania Assembly and a list of the upwards of 300 male subscribers who signed up to back the silk-making efforts.

6. It is as a material text that this book best reflects the pragmatic politics and economics behind Franklin's recommendations and its own publication. An intriguing thing about this otherwise physically mundane text is that the set of pages marked with the signature of "B" comes after those marked "Bb." Printers used such signature marks to ensure that a book was assembled in the proper order, with "Bb" indicating that the set of pages so marked (called a signature, or a gathering) was meant to follow "B." This book, then, somewhat unusually reverses the order in which its pages were printed, with the set printed first coming last, and that printed last coming first. Franklin's letter was received in January, and the APS voted to move forward with their silk project in February, first advertising it in Philadelphia newspapers in April. This book was one of the first to be printed by Isaac Collins and Joseph Crukshank, not long after the two fellow Quakers entered into partnership in Philadelphia in January of that year. As Collins and Crukshank operated together only until that August, this book was compiled sometime in that period, most likely between March and June. Evidently that window of time was not sufficient to gain funding from the Pennsylvania Assembly. With the optimal season for hatching silkworm eggs and harvesting mulberry leaves fast approaching, the Silk Society had to act faster than politicians. Thus they started a private subscription plan to fund the project. The printing of the preface, accordingly, came after the printing of the body of the text. This late preface reflected the pragmatic demands of printing and funding; a delay due to uncertainty over the length of the to-be-added preface, and the desire to publish a complete subscription list as antidote to political lethargy.

7. In addition to Franklin's letter, the preface includes portions of a letter from "an ingenious" APS member, New Jersey Anglican Reverend Jonathan Odell. Odell was the friend and protégé of Franklin's illegitimate son, William, then governor of New Jersey. In his letter, Odell describes his work translating the French pamphlets "our worthy friend Dr. Franklin" sent over from London along with his letter, the *Mémoires sur l'éducation des vers à Soie* (1763) by Abbé Pierre Augustin Boissier de Sauvages. The French Catholic cleric shared Franklin's keen interest in the scientific study of sericulture and its economic possibilities (in the abbé's case, of course, for Britain's traditional enemy, the kingdom of France). That Odell, an Anglican minister, translated the works of a Catholic cleric is a fitting reminder of the links between religion and sericulture. Early modern people on both sides of the Atlantic found evidence of God's work in sericulture. They marveled at the

silkworm's metaphorical possibilities, praising the wonderment of such a dumpy, ugly creature creating one of man's most elegant textiles. Such beauty emerging from such ugliness was seen as "an emblem" of an "adorable Lord and Saviour," reminder of a God who clothed man in the shining raiment of eternal life after the imperfect mortal body died. Despite its religious associations, Odell complained of the work, calling it "an endless task," because the "Abbé is tedious, minute and philosophical." What is published in *Directions for the Breeding and Management of Silk-Worms* is, one senses, Odell's decidedly frustrated and accordingly loose (condensed from hundreds of "tedious" pages to seventeen) summary of a less than word-for-word translation of Boissier de Sauvages.

8. The imprecision of Odell's translation probably did not trouble his readers. Franklin's inclusion of Boissier de Sauvages' treatise with his private letter indicates that neither the Library Company of Philadelphia (another Franklin-founded Philadelphia institution) nor an APS member owned it, meaning that the French text was not readily available in the colonies. By contrast, the other treatise on sericulture summarized in the book—one by yet another cleric, Irish Anglican Reverend Samuel Pullein—was both widely available and popular. Extracts of Pullein's *The culture of silk, or, An essay on its rational practice and improvement … for the use of the American colonies* (1758) were even printed on the front page of colonial newspapers. With their version of Pullein, the book's authors managed to outdo Odell's skills at dramatic textual reduction by extracting a mere eleven pages from his nearly 300-page work. Pullein was popular among women readers as well as men. Pennsylvanian Sabina Rumsay recorded her successful sericulture efforts after reading Pullein in a letter the APS reprinted as far afield as the *Boston Chronicle*. And Pullein was discussed in private colonial correspondence among women. Eliza Lucas Pinckney and her daughter, for example, both wrote to friends about using Pullein in sericulture efforts on their South Carolina plantation—efforts conducted, of course, through the labor of their slaves. Such female involvement in sericulture was not unusual. In fact, the Silk Society began its book by tracing the history of sericulture from its first, ancient efforts by its "inventress" on "the island of Cos." Another woman, Susanna Wright, who pioneered sericulture in Pennsylvania and even wrote her own treatise on the subject, won the 1771 contest for silk production advertised in the Silk Society's book.

9. Not surprisingly, given the historical prevalence of women in sericulture, the Silk Society's book offers examples of how those officially marginalized in global knowledge networks of learned men (like women and colonists) did, in fact, actively contribute to them. It also offers insight into the importance of creolized knowledge in the Atlantic World. Odell's goal was to "elucidate the French treatises" of Boissier de Sauvages with "adaptations and notes particular to our own climate." Adapting the abbé's advice to suit an American rather than a European climate and audience, Odell's synopsis offers "asides" specific to "this Province," and sprinkles in local aphorisms (as, for example, when cautioning against exposing mulberry leaves to frostbite by citing "an

Indian proverb which says, that ‘winter seldom rots in the sky:’ the meaning of which is obvious, that sooner or later we must expect to feel our share of cold”). Odell’s localized approach was in keeping with accepted knowledge that sericulture was production that benefitted from on-the-spot empirical observation—even from women involved in it. The Silk Society, in fact, used their book to entreat locals to share their experience—particularly that “better adapted to this climate and country than what are delivered” in the European texts.

10. In the end, like so many colonial sericulture efforts before it, the Silk Society’s efforts did not come to much. Pennsylvania did not, as the APS hoped, outstrip Georgian silk production (much less that of China). This little book, then, is testament to a moment of shared optimism about a grand plan that would ultimately fail. It also hints at a far grander North American plan that would soon fail: that of the British Empire. Despite pointed assurances to the contrary, the Silk Society’s project contained seeds of American competition with Britain within it (as its champion, Franklin, most assuredly knew). After all, Franklin had testified before Parliament during the Stamp Act Crisis that “with a little industry” Americans could make cloth “at home.” During the Revolution, Franklin’s daughter would send him material proof of the colonial manufacturing possibilities within the Silk Society’s project. In 1778, she shipped twenty-two yards of homespun silk woven from Pennsylvania silkworms to him in France to present to Queen Marie Antoinette, evidence that Boissier de Sauvages had been used to good effect.

Like the empire, the men who came together within its pages would break apart. Odell, like his friend William Franklin, would become estranged from William’s father, Benjamin, and eventually leave the country. Before he went, he would use his literary skills to write fiercely satirical Loyalist verse under the pen name “Britannicus.” It hardly needs mentioning that Franklin would pick up his pen in the opposite cause.

Further Reading

To date, the best work on colonial sericulture efforts focuses on the South. See work by Ben Marsh such as “Silk Hopes in Colonial South Carolina” in *The Journal of Southern History* 78:4 (November 2012). Marsh’s forthcoming book, *Unraveling Dreams: Silkworms and the Atlantic World, c. 1500-1840* (University of Georgia Press) also promises to add a great deal to colonial sericulture history. Also see the introductory section of Jacqueline Field, Marjorie Senechal, and Madelyn Shaw, *American Silk, 1830-1930: Entrepreneurs and Artifacts* (Lubbock, Texas, 2007). For work that considers colonial sericulture within the larger context of American husbandry projects and Enlightenment thought on progress, see Joyce Chaplin, *An Anxious Pursuit: Agricultural Innovation and Modernity in the Lower South, 1730-1815* (Chapel Hill, N.C., 1993). For what is perhaps the best look at how colonists (men and women both)

contributed to Atlantic world natural history networks, see Susan Scott Parrish, *American Curiosity: Cultures of Natural History in the Colonial British Atlantic World* (Chapel Hill, N.C., 2006). To gather biographical details on early American printers, visit the Printers' File at the American Antiquarian Society in Worcester, Mass., which provides an invaluable factual starting point (special thanks are due to the curator of that record system, Ashley Cataldo, as well as to AAS Curator of Books, Elizabeth Watts Pope, who both provided invaluable expertise and assistance for this piece). Biographical studies exist for some of the key players in the making of *Directions for the Breeding and Management of Silk-Worms*. See Whitfield J. Bell Jr., *Patriot-Improvers: Biographical Sketches of Members of the American Philosophical Society, Volume One, 1743-1768, Memoirs of the APS,* Memoir 226 (Philadelphia, 1997). For more on Odell, see Cynthia Dubin Edelberg, *Jonathan Odell: Loyalist Poet of the American Revolution* (Durham, N.C., 1987). For more on Collins, see Richard F. Hixson, *Isaac Collins: A Quaker Printer in Eighteenth-Century America* (New Brunswick, N.J., 1968). For more on Franklin, see WorldCat.

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The Sideboard Takes Center Stage

Along with the broadening of the palate came a taste for dining rooms suited to more epicurean appetites. Indeed, by the middle decades of the nineteenth century, the designated dining room had become a central fixture of the Victorian home.

“If I had ye gift of tongue”: The Obsession with Keys in the Seventeenth Century

Keys are border-phenomenon that split the world into a within and a without and, in the seventeenth century, record a surprisingly tight fit between subject and object.