In November of 1739, the Reverend George Whitefield prepared to leave Philadelphia, continuing his tour of the colonies. His farewell sermon on the afternoon of his departure was "preached for an hour and a half from a balcony to upwards of ten thousand hearers, who were very attentive and very much affected." To Whitefield, it seemed a fitting culmination to a successful visit. Later that evening, in his journal, he praised God generously for having opened so many doors. But the warmth of his reception in the city also drew forth a note of caution. "I wonder we have no more adversaries," he mused. "By and by, I expect Satan and his emissaries will rage horribly. I endeavored to forewarn my hearers of it. Lord prepare us against a day of spiritual battle." Whitefield’s thoughts on the revival in Philadelphia point to the Great Awakening’s triumph there, and to the dissension which followed swiftly in its path. The spiritual battle Whitefield sensed in the offing was to center upon questions he unwittingly left behind: what was the nature of true religious experience, and what was the proper foundation for a knowledge of God? Such questions seemed all the more pressing to those Philadelphians who were also engaged in sorting out the varied epistemological claims of the scientific Enlightenment. Whitefield himself was sensitive to opposition from listeners more inclined to search for empirical evidence than to follow the promptings of the Spirit. On one occasion during his Philadelphia visit, he felt moved to preach at unusual length "against depending on our natural reason" in matters of religion. After the sermon, he sought further understanding of the larger purpose it had served:

As I was going home, I said to a friend, "Surely, some reasoners were in the congregation." Upon enquiry, I found a number of them were present, and then I knew wherefore I was so assisted. . . . One of these reasoners a little after, meeting Mr. B. said, "What! Mr. Whitefield could not make the people cry this afternoon?" "A good reason for it," said Mr. B, "he was preaching against Deists, and you know they are a hardened generation."

Whitefield seemed to take particular pleasure in bringing conviction to the recalcitrant "deists," perhaps because he recognized the gravity of their
challenge to the revival. After he had departed, Philadelphians were still faced with the task of reconciling the apparently competing claims of reason and piety.

One solution to this problem is exemplified in the life and work of the botanist John Bartram. Like other “reasoners” in Philadelphia at mid-century, Bartram shared the Lockean conviction that religious enthusiasm “arises from the conceits of a warmed and overweening brain.” At the same time, he held an abiding faith in a personal and loving deity. Distinguished thus from both the enthusiasm of the revival and from the deism which Whitefield had feared would rise to oppose it, Bartram pursued a middle road between the two. While he accepted the value of reason, and the empirical method, his approach to science was also guided by the assumptions implicit in the Quaker tradition
from which he emerged. An examination of his personal and scientific correspondence reveals that Bartram's thought was part of a larger attempt to solve the post-Awakening crisis of religious authority.

The distinction maintained in this article between Bartram's enlightened brand of theism, and eighteenth-century deism requires further comment, particularly because Bartram has so often been described as a deist in historical interpretations of his life and thought. Part of the difficulty stems from the "elusiveness of deism" as a religious category. But to place Bartram in the company of American deists obscures the fact that his view of the scientific method was governed by certain presuppositions about God—things which he accepted on faith. The claim that Bartram's religious assumptions guided his approach to Enlightened science reverses the historiographical position—reaching back to the work of Leslie Stephen—which presents eighteenth-century Christianity as a system of belief fatally compromised by an intractable tide of new ideas. In order to clarify the relationship between faith and science in Bartram's thought, it is helpful to begin with a discussion of those things which distinguished him from his deistic counterparts.

In his paper on "Religion and Science in American Philosophy," James Ward Smith describes deism as the belief that God and his creation are "wholly distinct" from one another—a position set apart from the theist's belief in both divine immanence and transcendence. He points to the deists' definition of God as a First Cause, a being who created the world, set it in motion, and retired from active participation in the affairs of mankind. To this "textbook definition" must be added some further characteristics of the deists' metaphysics—particularly the central idea that "men have been endowed with a rational nature which alone allows them to know truth and their duty when they think and choose in conformity with this nature." Underlying this statement is the sweeping demand that the operations of human reason must be both the source of knowledge, and the measure of its truth. Even the Holy Ghost, as Matthew Tindal argued, "can't deal with men as rational creatures, but by proposing arguments to convince their understandings and influence their wills." Such a claim supported the idea that God was removed from the operations of his universe, and that our ideas about him were derived from an understanding of those eminently reasonable and ultimately discoverable natural laws which he had left behind.

Confusion over the issue of who was a deist and who was not is compounded by the fact that eighteenth-century science was accepted with equal swiftness by thinkers of both deistic and of more orthodox persuasion. There were telling differences, however, in their methods and expectations. This point is made by Alfred Owen Aldridge, in a discussion contrasting the
respective religious beliefs of Benjamin Franklin and Jonathan Edwards: "The question is—does it make more sense to begin with nature and to reason therefrom to nature’s God (the method of Franklin and Jefferson) or to begin with God (a metaphysical assumption) and to reason from there to God’s nature (the method of Edwards)." The American deists, as Aldridge indicates, effectively placed the limits of human reason on religious experience, eschewing "metaphysical assumptions" in favor of reading the book of nature. They used the argument from design to support the idea that God was primarily the "Almighty Lecturer," as Thomas Paine called him—a term which points to the emphasis upon reason as the first principle in Paine’s theory of knowledge. The extent to which the deistic sensibility was constrained by this epistemology is illustrated in Addison’s translation of Psalm 19, quoted approvingly in Paine’s *Age of Reason*:

What, though in solemn silence all Move round this dark terrestrial ball? What though no real voice, nor sound, Amidst their radiant orbs be found? In reason’s ear they all rejoice.

In the deist’s scheme of things, there was no room for the still small voice. As Philip Freneau declared in his poem “On the Uniformity and Perfection of Nature,” religion ought to be grounded in visible evidence: “belief, if not absurd and blind/ Is but conviction of the mind.”

The limits on the way in which God communicated his presence to mankind also applied to the deists’ ideas of proper worship. Thus while they “could still chant the praises of the Creator with all the fervour of a Rousseau enthusiast,” there was a notable absence of certainty about the purpose of such praise. This is evident in Franklin’s admission that he supposed God ought to be worshipped, even though it was the height of presumption to imagine that the deity could be interested in hearing, let alone require, adoration from his creatures. Praise to the God of nature became primarily a useful fiction to promote moral behaviour. It did not promise to bridge the gulf between man and a distant deity. "Whether we sleep or wake," as Paine put it, "the vast machinery of the universe still goes on." The fundamental difference between deism and the religious views of John Bartram, then, rests on the latter’s faith in a personal God—a being who presided over the order of nature, and over a supernatural realm of grace. Thus while he accepted human reason as a gift extended by the hand of God, Bartram also believed in the possibility of communion with the deity. The hope of participating in the love of God, of reaching out toward the realm of grace, lay at the heart of his encounter with both the Enlightenment and the Great Awakening.

Part of Bartram’s response to the great revival came in the form of a warning to his children: enthusiasm must not be confused with piety. He
instructed them to be cautious in expressing devotion to God. "Many enthusiasts," he told them, "abstain from their daily labour under the pretense of serving God." The inevitable result was a confounding of true religious purpose. On these grounds Bartram expressed suspicion for the supposedly contentious behaviour of New Englanders. He complained of them in a revealing letter to his friend and fellow Quaker, Peter Collinson: "I dont much care if I go to new england next year to see what sort of clownish sanctified people they are there. Several of them hath come to my house and I showed them what civility I was master of and desired them to write to me which they said they promised they would yet the lying elected hypocrits wont send me one line." In Bartram's view, outward displays of religious fervour engendered neglect of proper worship. Most notable among his "enthusiast" targets was Whitefield, whose purchase of a large tract of Pennsylvania land for a settlement and school drew criticism from Bartram. He speculated to Collinson that Whitefield proposed to bring as many as would make a township of his friends from England. I suppose he deigns them to be such favorites as was elected before thay was born or begot or before the foundations of the world was laid and then when thay get up into heaven thay are to witness against us at the great day of Judgement.... (I suppose thay will send us reprobates hundreds and thousands if not millions to hell.)

In light of his contempt for Whitefield, it is not surprising to find Bartram on another occasion reminding Collinson that he held "little respect to apologies and disputes about the ceremonial part of religion..."

Bartram's disdain for religious argument is perhaps best illustrated by his difficulties with the Darby Monthly Meeting of Friends. In 1758, he was officially disowned for refusing to profess a belief in the divinity of Christ. His conduct throughout the lengthy proceedings was remarkable, and in itself reveals a great deal about his religious views. After the original complaint had been officially made, he would neither appear in order to answer the charge against him, nor alter his view when prevailed upon to do so by successive delegations of Friends sent forth to help him change his mind. Despite the Meeting's unequivocal decision that Bartram was "no member of our Christian Society," he continued to attend regular worship services. His action gave silent testimony to the belief that religious contention introduced more than its share of "animosities, confusion and disorders of mind and sometimes body too."

Bartram's mistrust of intolerance and dogma was thus reinforced through his personal experience. In response to those whom he liked to call the "mistery mongers" of organized Christianity, Bartram expressed admiration for the Pennsylvania History
rational religion of the philosopher Confucius: "His notion of God was, that he was the Supreme truth and reason, or the fountain from whence truth and reason were communicated to man." However, the body of Bartram's writings suggest that his recognition of God's rationality was only part of the story. His reaching out toward "reasonable religion" had more to do with a reaction against enthusiasm and the attending unpleasantness of doctrinal disagreements than with any desire to limit the operations of God to those circumscribed by deism. In fact, Bartram's religious sensibility was much closer to Quakerism than has been readily recognized. His reaction to the Great Awakening was in keeping with that of other Philadelphia Quakers, who lent little support to Whitefield and his band of "hot-headed predestinarians." In part, the cool reception given to revivalists like Whitefield can be attributed to the general decline of enthusiastic tendencies within Quakerism itself. By mid-century, few were prepared to recognize the Awakening's enthusiastic encounter with the Spirit as reminiscent of the early religious experiences of their own movement's founders. In Bartram's case, this was reflected in his personal mistrust of the revival, and in his acceptance of an enlightened belief in the value of reason.

If Bartram shared his fellow Quakers' aversion for the Awakening, he also shared their traditional view of the deity as a personal and provident being. This belief was not undermined by his unitarian leanings. Shortly after his disownment, Bartram composed a "memorandum for his children," perhaps hoping it would clarify the clouded question of his religious principles. Much of the document, including an amended version prepared in the year before his death, is taken up with a poignant discussion of Bartram's search for a right relationship with God. The possibility of personal communion with the deity informs his definition of religious experience. Typical of the piece is the following passage, in which Bartram prayed God would welcome into heaven those whose pious minds are waiting to hear the midnight cry and with their lamps trimmed and Ready to meet their God whom they have Loved hoping he will receive them into the glorious mansions where the wicked might cease from troubling them and all the tears be wiped from their eyes where they may Praise and glorify the Eternal Supreme Majesty of heaven their only beloved which was is and is to come with Seraphick Love Eternally in the heavens.

That Bartram, so sceptical of the religious expressions of others, could write an impassioned testament to the love of God, is not surprising when we consider the kind of deity whom he worshipped. His God was an immediate presence, active in, though distinct from, the processes of nature. He approached the
George Whitefield, the great evangelist of the 1730s and 1740s. Bartram attempted to mediate between the enthusiasm Whitefield represented and the anti-pietist mentality of the Deists.
deity with “great humility love and resignation to him that I may daily serve him in stillness and uprightness of heart praising and glorifying him in harmonious quiet.” The form such praising and glorifying could take, however, was limited by Bartram’s antipathy to enthusiasm. The Awakening had taught the need for prudence. How, then, could Bartram pour out his own devotion to God without succumbing to the “rule of irregular passions?”

Bartram’s solution united the epistemological assumptions of eighteenth-century Quaker quietism with the respectability of enlightened science. Quietism held that a knowledge of God was indeed attainable, but not through the usual channels of active seeking—the rituals of churchly worship and the construction of rational argument. Instead, the prepared and quiet heart must wait; an apprehension of God’s presence and truth would follow. The idea of restraining “creaturely activity” implied both the natural insufficiency of human resources, and the encouraging possibility that such deficiencies could be mended by an infusion of the divine spirit. Each of these notions was important to Bartram. His repeated emphasis on humility and quiet before the presence of God was balanced by his hope for universal salvation. As a quietist, then, Bartram thought scientific study could be a form of gradual preparation, leading inexorably toward a heightened sense of God’s truth. Here was an approach to the natural world which avoided both the enthusiasm of the revival, and the reduction of God to the role of a distant first cause. Consequently, Bartram did not use scientific evidence to generate proofs for the existence of God; this much he assumed from the beginning. He also assumed that nature was suffused with divine presence, as God presided in his “mediate government” over the natural order. The world of nature was most meaningful as common ground—a point of contact between God and the quiet heart of the believer.

The relationship between science and preparation for the receiving of grace was explored further in Bartram’s memorandum. The young, he urged, about “the age of sixteen or twenty,” ought to receive instruction in natural history and natural philosophy:

Explain unto them the numberless number of the stars, the planetary system and their vast dimensions roling in the vast expanse of heaven all supported by the all mighty Creator of the universe. This will raise their ideas of the adorable infinite majesty and the inability and insignificancy of themselves.

Through contemplation of God’s works, the devout would not only see the physical manifestations of divine wisdom, but feel the effect of God’s immediate power. This after all, was the source of genuine religious experience. Bartram
elaborated on this point for the benefit of his children:

This is the foundation of true religion, we ought to love and fear God not only for fear of punishment or hope of reward but in awful reverence and humility worship him in sincere devotion and thanksgiving and praise which is not received by force of education or the vain traditions of mankind but is manifest to us in great degree by pious contemplation of his power majesty and wisdom in the incomprehensible magnitude and numbers and distances of the celestial orbs and their regular motions and distances one from another which declares of mediate government of the sovereign power over all creation.\(^3\)

Dispensing with both the "force of education" and the "vain traditions of mankind," Bartram encouraged the direct apprehension of divinity over any attempt to argue for the external evidences of Christianity's truth.

The influence of quietism can be seen in the special meaning Bartram attached to the idea of "pious contemplation." He followed his own advice, seeking a sense of the sublimity of God by immersing himself in the sublimity of nature. Religious emotion occasioned in this way remained anchored in the objective reality of the natural world. His botanical studies were thereby cloaked in the mantle of empiricism, even while they served as his preparation for a colloquy with God. On one level, his famed travels in the wilderness provided seeds and botanical specimens for his own garden and the collections of his European patrons. On another level, the whole enterprise provided endless opportunity for encounters with the God of creation. As he told fellow naturalist Mark Catesby, he travelled so far and so often, not because he would "naturally delight in the perilous solitudes but entirely to observe the wonderful productions in nature."\(^3\) In such situations, he found himself drawn toward the deity. "The presence of God was with me," he wrote to his family after an extended trip to the Carolinas. "My heart overflowed with praise and humble adoration to him both day and night, in my wakeful hours."\(^3\)

Bartram's scientific method took its lead from the assumption that truth, be it scientific or religious, came not from indulging in abstruse speculation and argument, but from surrounding oneself with the pattern and detail of natural forms. His greatest contribution to botanical knowledge—the identification of reproductive structures in plants—was to Bartram primarily a matter of "accurate observation and judgment."\(^3\) Likewise, he admired proper scientific method in the work of others. In a letter to Cadwallader Colden, Bartram praised the "Rational Conclusions from accurate and mature observations of facts" characteristic of Colden's science, and contrasted the latter's work with the "incredible and wonderful relations from the reports of those whose
observations penetrated no deeper than the superfices of nature.” But Bartram's confidence in rational scientific explanation went hand in hand with his confidence in a beneficent deity. There was no real distinction between a reasonable scientific explanation and a statement of divine truth.

Part of the reason for this was the fact that Bartram in turn drew upon his faith in an immanent deity to solve “scientific” problems. The “mediate government” of God over the processes of nature explained certain phenomena which seemed to depend on something other than mechanical principles. He was, for example, especially puzzled by the “surprising motions” of plants, which defied the limits of scientific terminology:

Some of their fluids are conveyed after such a manner as seems more misterious than those of animals and seems beyond the power of mere mechanism as if they had perception and sense. They have a quality so near it that we want a proper term to explain it to one another.  

Some things, such as the “evening contraction and morning expansion” of flowers could only be understood as the effects of God’s immediate, sustaining presence. “If we wont allow them real feeling or what we call sense,” he continued, “it must be some action next degree to it or the immediate finger of God, to whom be all glory and praise.”

Because the identification of science and piety was so complete in Bartram’s methodology, he made no attempt to separate religious sentiment from his descriptions of natural phenomena. In the following passage, for example, his account of the “formation of animals” dissolves, becoming a moment of praise:

The wisdom and power of the deity is perspicuously manifested in all their tribes as it is discovered by dissection which discovers numberless numbers of vessels and tubes for the conveyance of fluids and organs separating the different liquids absolutely necessary to the health of animals and the continuation of life.... I shall now conclude this section with the words of Paul to Timothy, Now to the King of eternity incorruptible invisible, only-wise God be honour and glory forevemore.

Typically the larger tendency in Bartram’s thought—finding in descriptions of nature a genuine experience of the deity—lent the qualities of liturgy to his botanical writing. In letters to Peter Collinson, he frequently employed the language of worship to describe the scientific enterprise:

I am well pleased with the relation of thy fine curious flowers in thy garden thy agreeable description of thy greenhouse and its furni-
ture. . . . I was ready to wish myself with thee to assist in such an acceptable sacrifice as to have held the censor or blew the coal to kindle the incense or else to have had thy company in my little library or Chappel as I call it; or rather in the grand and spacious temple amongst the lofty chains of mountains and craggy precipices of elevated rocks embellished with various shrubs plant evergreens out of their uneven surfaces and the dark gloomy shaded vails with the variety of the finy tribe or various shrubs and plants. . . . All the objects in these varieties of situations demonstrate the power and wisdom of an all mighty power the contemplation of which with humble adoration we humbly resign our will to his.

The "grand and spacious temple" of nature encouraged Bartram to answer with an act of devotion: the resignation of his will before the presence of God. The most vociferous enthusiast could ask no more than this. Yet Bartram's response to "our eternal father the one and true and living god" flowed freely, as long as it was prompted by the pious contemplation of nature. As he told Collinson, "my head runs all upon the works of God in nature. It is through that telescope I see God in his glory." The image of nature as an instrument reveals the extent to which natural history pointed beyond itself to the supernatural reality undergirding all earthly phenomena.

The scientific correspondence which united Bartram in friendship with other botanists, such as Peter Collinson and Dr. Alexander Garden of Charleston, also drew him into a kind of religious fellowship. They, too, sensed natural history's power as a form of worship, and their meditations upon things divine were inextricably woven into the details of scientific description. "How eminently happy," wrote Garden, "are these hours, which the humble and philosophic mind spends in investigating and contemplating the inconceivable beauties and mechanisms of the works of nature, the true manifestations of that supremely wise and powerful Agent who daily upholds and blesses us." Bartram was "very much affected" by his frequent readings of Garden's "pious reflections," and reciprocated with some reflections of his own. Collinson, for his part, affirmed both the usefulness and the limits of human reason in solving the puzzles of natural history. Ultimately, he appealed to faith. "Suppositions," he told Bartram, "are endless, and we are still in the dark, relating to the many wonderful phenomena of nature. The great Author of our being has set limits to our reasoning faculty, that we may be sensible of our imperfection; yet has permitted us mental excursion." With the faculty of reason reduced to a series of mental excursions, natural history became a spiritual exercise. As Collinson pointed out to his friend, "there is no end of the wonders in nature. The more I see, the more I covet to see; not to gratify a trifling curiosity, but to raise my
mind in sublime contemplation on the unlimited power and wisdom of the
great creator of all things."\textsuperscript{47}

Bartram’s expressions of piety in letters to Collinson are particularly
significant, for it was to Collinson that he divulged his unguarded criticism of
the revival. Yet Bartram’s willingness to attack openly some Christian doctrines
lends sincerity to his profession of others. The aftermath of religious revivals—
“animosities, confusion and disorders of mind”—which he saw in proliferation
throughout Christendom, profoundly affected his ideas about the expression of
religious belief. “Where there is the greatest talk and pretence of religion,” he
maintained, “the substantial part which is Love resignation and humility to the
eternal Power is often neglected.”\textsuperscript{48} In response, Bartram turned away from the
Christ-centered theology at the core of the Awakening, and from the institu-
tions promoting it. This is evident in the outline for a simplified faith which he
submitted to Collinson:

dear Peter let us worship the one almighty power in sincerity of heart
with resignation to his divine will doing to others as we would have
them do to us if we was in their circumstance living in love we may
die in hope, then if wee dont go to heaven I believe we shant go to
hell.\textsuperscript{49}

Bartram’s universalism completed his rejection of the revival. But it also
supported the idea that the inner experience of divinity, rooted for Bartram in
scientific observation, could serve as a means of grace. Believing that “we shant
go to hell,” Bartram saw the possibility for contact with divinity here on earth.
Contemplation of the natural world would “incline the pious of heart to
overflow with daily adoration and praise to the grand giver and supporter of
universal life.” Here Bartram was in agreement with Collinson’s notion of the
limits of human reason, for mankind’s participation in the love of God surpassed
a mere understanding of natural laws, drawing instead upon the supernat
ural and immediate presence which lent them existence. It was as quietist, rather
than rhapsodic deist, that Bartram asked, how can the observer of nature look
upon created beings “without amazement or contemplate the divine majesty
that rules them, without the most humble adoration esteeming ourselves with
all our wisdom as but one of the smallest atoms of dust praising the living God,
the great I am.”\textsuperscript{50}

A belief in God was not the product of Bartram’s natural theology; it was
his starting point. And his understanding that the scientific method had laid
bare the operation of natural laws was still no substitute for piety. His sense of
reason’s purpose, and of its limits, proceeded from traditional Christian
assumptions about the personality and immediacy of the deity—ideas which
even Bartram’s perception of the excesses of the revival could not destroy. The
analysis offered here suggests that in epistemology and in sensibility, Bartram was more like his son William than has been readily recognized.\textsuperscript{51} Bartram’s answer to the Great Awakening also holds far-reaching implications for our understanding of the American Enlightenment. His theological preconceptions determined his response to new ideas, and closed off the road to scientific deism paved by Franklin. The persistence of these theological ideas in the Enlightenment experience of John Bartram attests to their power. It also raises the question of how widely they were shared among the member’s of Bartram’s scientific circle, who had similar concerns. His example opens the possibility that for others, too, perhaps “pious contemplation” of nature proffered the surest path to the arms of God.

Notes

2. Ibid., 10 November 1739.
9. Matthew Tindal, Christianity as Old as the Creation (London, 1731), 179.


14. See for example Franklin on Divine Providence in his “Articles of Belief and Acts of Religion” (Philadelphia, 1728), 163: “I imagine it great Vanity in me to suppose, that the Supremely Perfect does in the least regard such an inconsiderable nothing as Man.”


16. See Emerson, “Latitudinarianism,” 36–42, on the idea that the “realm of grace” lies outside the scope of eighteenth-century deism.

17. John Bartram, Memorandum to his Children, 1758–59, MS, Bartram Papers, Historical Society of Pennsylvania. (Hereafter HSP.)

18. John Bartram to Peter Collinson, 22 July, 1741, Bartram Papers, HSP.

19. Ibid.

20. Bartram to Collinson, 6 July 1742, Bartram Papers, HSP.


23. Bartram to Collinson, 6 July 1742, Bartram Papers, HSP.


26. This view is articulated by Tolles, who argues that the Philadelphia Friends did not want “to be reminded by the antics of the revivalists that they, too, had once been violent extroverts and fanatics whose behaviour had been indecorous in the extreme.”

27. This is suggested by Edmund and Dorothy Berkeley, *Life and Travels*, 179.

28. Bartram, Memorandum to his children, 1777, MS, Bartram Papers, HSP.

29. Ibid., 1758–59.


31. Ibid., 101–2.


33. Ibid., 1777.

34. Bartram to Mark Catesby, 1740, Bartram Papers, HSP.

35. Bartram to Moses or William Bartram, 9 November 1762, Bartram Papers, HSP.

36. Bartram to William Byrd, 1739, Bartram Papers, HSP.


38. Bartram to his children, 1777.

39. Bartram to Alexander Garden, 5 March 1762, Bartram Papers, HSP.

40. Bartram to his children, 1777.

41. Bartram to Collinson, 27 April 1755, Bartram Papers, HSP.

42. Ibid.

43. Bartram to Collinson, 3 December 1762, Bartram Papers, HSP.
44. Alexander Garden to John Bartram, 23 February 1761, Bartram Papers, HSP.
45. Bartram to Garden, 25 March 1762, Bartram Papers, HSP.
46. Collinson to Bartram, 18 February 1756, Bartram Papers, HSP.
47. Collinson to Bartram, 25 July 1756, Bartram Papers, HSP.
49. Bartram to Collinson, 6 July 1742.
50. Bartram to Garden, 25 March 1762.