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"Such a Noise in the World": Copper Mines and an American Colonial Echo to the South Sea Bubble

SOMETIME IN 1719 AN AFRICAN SLAVE plowed up stones rich in oxide copper ore on the farm of Arent Schuyler, near Newark in East New Jersey. The discovery triggered the most frenzied mining boom in North America from the settlement of Jamestown in 1607 until the California Gold Rush. For five years, clamors echoed from Albany to Annapolis, and from the Atlantic coast west into the Susquehanna Valley. The excitement also spanned the social and economic spectrum of early America, from imperial officials and provincial gentry at the top through middling farmers, down to laborers, servants, Indians, and slaves at the

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very bottom.[1] Surviving records—which tell us much more about elite perceptions than those of ordinary mineral hunters—reflect anxious ambivalence about the event. Officials charged with keeping order in colonial society, or elites who benefited from that order, conjured visions of poor farmers drawn from the plow; foreign enemies leaping greedily into the fray; Indians lashing out at zealous treasure seekers; untimely divisions within their own ranks; and the complication of already vexatious problems of colonial governance. These concerns virtually catalogued the issues at stake in the struggles between Captains John Smith and Christopher Newport over the early economic promise of Jamestown. The same officials and elites were not shy, however, about their own willingness to become rich. The documents that alert us to this long since obscured episode were explicitly the products of their makers' determination to cash in on the bonanza, and the ink was often barely dry on the pages before the writers were out of doors trying to do just that.[2]

During the same period, another exuberant treasure hunt shook the British economy. In the spring and summer of 1720, city merchants, aristocrats, country gentlemen, army officers, attorneys, clergymen, widows and pensioners, members of parliament, and cabinet ministers—or their agents—besieged London's Exchange Alley to buy shares of stock floated by the South Sea Company to finance its transition from a chartered trading company into the private holder and manager of the British national debt. After the prices of South Sea stock, and that of other companies formed to exploit the boom, collapsed in the fall of 1720, individuals dug themselves out from the financial wreckage. Parliament investigated the episode, assigned the blame, and apportioned penalties by 1723, and the English nation and empire slowly recovered from the commercial damage. Although the "South Sea Bubble" has been treated as an example of the economic folly embedded in human nature, some modern scholars view it as part of a turbulent transition toward the creation of national economic structures adapted to a capitalist economy. Robert Walpole's adept management of the aftermath of the crisis to limit

[1] The Schuyler episode has no extensive history, but see Elizabeth Marting, "Arent Schuyler and His Copper Mine," *Proceedings of the New Jersey Historical Society* 65 (1947): 126–40.

[2] For the mineral frenzy at Jamestown, see "A True Relation of Such Occurrences and Accidents of Noate as Hath Hapned in Virginia . . . [1608]," and "The Proceedings of the English Colonie in Virginia," in *The Complete Works of Captain John Smith*, ed. Philip L. Barbour (Chapel Hill, 1986), 1:27–97, esp. 57, 77–79, and 218–19, 234–35; Alden T. Vaughan, *American Genesis: Captain John Smith and the Founding of Virginia* (Boston, 1975), 41–45.

its harm to British public institutions speeded his political rise and the creation of the strong prime ministership.[3]

Evidence of direct ties between the colonial mining episode and the "South Sea Bubble" crisis is fragmentary, but many American observers—especially conservatives who worried about public order—believed that the phenomena were metaphorically if not structurally related. The Schuyler discovery came before news of the upward spiral and sudden collapse of stock prices in London crossed the Atlantic, so the connection was more mediated than specifically causal. The post-Bubble depression of trade in the ports of New York and Philadelphia, and the discovery of a mundane industrial commodity in the shared hinterland of both towns, apparently combined to provoke inhabitants of this most socially plural and economically competitive American region to imagine an invisible but alluring new subterranean topography beneath their feet.[4]

But "mundane" and "industrial" are culturally laden terms and deciphering them is necessary to understand the Schuyler boom. Some so-called "bubble stocks" trading in London raised or renewed hopes of finding precious metals in America. Both English bubblers and colonial mine seekers probed latent veins of cultural belief in invisible value or sudden wealth that were as old as the days of Christopher Columbus and Sir Francis Drake, but that had changed fundamentally during a century of intensive English state-building and capitalist transformation. In the Elizabethan world that produced both Smith and Newport, copper had arcane and vestigial associations with gold in the popular imagination. Only small amounts of copper were found in sixteenth-century England

[3] Interest in the European fiscal crises of 1719–1722—which included John Law's "Mississippi" scheme in France as well as the South Sea Bubble—may rise again in the age of Enron. For standard accounts see John Carswell, *The South Sea Bubble* (Stanford, Calif., 1960); P. G. M. Dickson, *The Financial Revolution in England: A Study in the Development of Public Credit, 1688–1756* (London and New York, 1967), 153–59. Larry Neal, *The Rise of Financial Capitalism: International Capital Markets in the Age of Reason* (Cambridge, 1990), esp. chaps. 4 and 5, takes a more analytical perspective, using the tools and quantitative data of modern economic history.

[4] For the commercial depression in the Philadelphia region, see Gary B. Nash, *Quakers and Politics: Pennsylvania, 1681–1726* (Princeton, N.J., 1968), 332–33, and *The Urban Crucible: Social Change, Political Consciousness, and the Origins of the American Revolution* (Cambridge, Mass., 1979), 119–20. In the latter book, Nash doubts that the indirect effects of the Bubble crash on the Atlantic maritime economy played as much of a role in Philadelphia as falling grain prices in the British West Indies. But accounts of the widespread effects of the decline of stock prices in London, Paris, and Amsterdam on trade and economic activity in Western Europe make it hard to believe that those events did not contribute to similar problems in America and the Caribbean. See Dickson, *Financial Revolution*, 150–58; Carswell, *South Sea Bubble*, 199–201.

and the state recruited German miners to extract its ores. After that industry failed under mysterious circumstances during the Civil War, Englishmen imported their copper and brass from Scandinavia and forgot about their native ores or their metallurgical associations.[5]

Their North American contemporaries retained older and more complex ideas about the relationship between the precious yellow metal and its red industrial cousin. It is an American grade school cliché that England's first ventures across the Atlantic came in response to Spain's discovery of precious metals in Mexico and Peru. If the subject *had* a scholarly historiography it might trace an ironic Boorstinian pragmatism by which the evolution of an American political economy entailed a paradoxical reverse alchemy that transmuted an Elizabethan gold rush into the sustained exploitation of diverse base resources by a resolutely practical population. English adventurers sought a northern counterpart to Spain's Mesoamerican El Dorado. After a brief interval of disappointing, disorderly, and disastrous efforts, they bowed to experiential evidence and became rich. Eschewing precious metals and accepting whatever the continent offered them, they cultivated staple crops, nurtured appropriate industries, and perfected an economy based on market agriculture and trade rather than quixotic extractive dreams. In the nineteenth century that economy ingested vast quantities of base metallic ores and spewed forth wealth far beyond the comprehension of either gold-crazed conquistadores or their Elizabethan imitators.[6]

[5] For smaller speculative companies formed in 1720, see William Robert Scott, *The Constitution and Finance of English, Scottish and Irish Joint-Stock Companies to 1720* (Cambridge, 1910–1912), 3:445–58. On the Elizabethan world view as it applied to what we would call economic geology, see John R. Stilgoe, *Common Landscape of America, 1580 to 1854* (New Haven, 1982); Arthur O. Lovejoy, *The Great Chain of Being: A Study of the History of an Idea* (Cambridge, Mass., 1936); E. M. W. Tillyard, *The Elizabethan World Picture* (New York, 1944), 73–76; Katharine Brownell Collier, *Cosmogonies of Our Fathers: Some Theories of the Seventeenth and Eighteenth Centuries* (New York, 1934), 414–27; Joyce E. Chaplin, *Subject Matter: Technology, the Body, and Science on the Anglo-American Frontier, 1500–1676* (Cambridge, Mass., 2001). For sixteenth- and seventeenth-century copper mining in England and its demise, see Henry Hamilton, *The English Brass and Copper Industries to 1800* (London, 1926), chaps. 1–2; G. Hammersley, "Technique or Economy? The Rise and Decline of the Early English Copper Industry, 1550–1660," *Business History* 15 (1973): 1–31; John Postlethwaite, *Mines and Mining in the Lake District, an Essay* (Leeds, U.K., 1877); W. G. Collingwood, *Elizabethan Keswick*, (Kendal, U.K., 1912).

[6] This parable is so appealing and so convergent with his synthesis that one rereads Daniel J. Boorstin's *The Americans: The Colonial Experience* (New York, 1958) almost with wonder to realize that Boorstin himself did not write it, but its early features have been sketched by other historians. Compare, for example, Louis B. Wright, *The Colonial Search for a Southern Eden* (University, Ala., 1953), 5-16, 22, 33, and *The Dream of Prosperity in Colonial America* (New York, 1965), 36–38, 68,

It would be folly to deny either the fact or the importance of the processes by which colonists came to see America less as an Edenic garden to be stripped at will and more as a plot that had to be cleared, planted, and nurtured before it could be harvested. If we accept this evolution too readily, however, we risk obscuring lastingly important refractory elements in those processes. One scholar has admitted that the El Doradan vision "died hard" in a climate of ascendant Jacobean mercantilism. A closer look at the two centuries after 1600 suggests that it never really died at all, and that even its ultimate transformation was a halting and convoluted process.[7]

The adventures of Martin Frobisher at Baffin Island in 1576 in search of a Northwest Passage, or of Sir Humphrey Gilbert in Newfoundland, or Gilbert's half-brother, Sir Walter Raleigh, at Roanoke during the next decade, all testify to the remarkably deflective character of minerals on the late Elizabethan imagination. Captain Newport's "guilded refiners" carried this vision to Virginia before John Rolfe's experiments with tobacco in the early 1610s fused and stabilized the ambivalent material preoccupations of his generation by drawing from gold some of its almost toxic magic. Rolfe offered the colonists a product that could actually be *grown in*—rather then merely used to *pave*—their streets, sustaining many of the same irrational impulses that bullion had while nudging the American economic imagination toward firmer ground. But southerners continued, at generational intervals until at least 1700, to search the interior for minerals in parties that were often almost "conquistadorean" in their character and appearance.[8]

New Englanders were reputedly made of more pragmatic stuff. John Smith explored and named that region in the 1610s after being driven from Virginia the previous decade. He urged Englishmen to emulate not

76–80, with Carole Shammas, "English Commercial Development and American Colonization, 1560–1620," in *The Westward Enterprise: English Activities in Ireland, The Atlantic, and America, 1480–1650*, ed. K. R. Andrews, N. P. Canny, and P. E. H. Hair (Detroit, 1979), 151–74.

[7] Wright, *Colonial Search for a Southern Eden*, 21.

[8] For the Frobisher expeditions, see James McDermott, *Martin Frobisher: Elizabethan Privateer* (New Haven, 2001); Robert McGhee, *The Arctic Voyages of Martin Frobisher: An Elizabethan Adventure* (Seattle, 2001); and James McDermott, ed., *The Third Voyage of Martin Frobisher to Baffin Island, 1578* (London, 2001). For Gilbert and Raleigh, see A. L. Rowse, *The Elizabethans and America* (New York, 1959); David Beers Quinn, ed., *The Voyages and Colonizing Enterprises of Sir Humphrey Gilbert* (London, 1940); and David Beers Quinn, ed., *The Roanoke Voyages, 1544–1590* (London, 1955). These southern mineral hunting expeditions have never been treated by scholars, but they are discussed in Wayne Bodle, "'The Humour That Now Prevails': Mines and Mentalité in Early America" (unpublished paper, 1988), 11–15.

the Spaniards but rather the Dutch, who he said had made "th[e] contemptable trade of fish . . . their Myne; and the Sea the source of all their silvered stream of vertue; which hath made them now the very miracle of industrie."[9] Conventional accounts and much evidence suggest that American Puritans did just that. But John Winthrop Jr., the son of one founder of Massachusetts Bay and an alchemist besides, sought and executed grants from both that colony and Connecticut in the 1640s to explore systematically for minerals of all kinds. Before dying in 1676, Winthrop wrote his region's interim mineralogical epitaph, one that reconciled the certain presence of hidden metallic riches with their temporary inaccessibility:

> It may be God reserves such of his bounties to future generations. Plantations in their beginnings have worke ynough, & finde difficulties sufficient to settle a comfortable way of subsistence. . . . Its not to be wondered if there have not yet beene *itinera subterranea.*[10]

Third generation Puritans decided that this "future" was theirs and they began the project of detaching copper from its gilded context and repositioning it as an industrial commodity. Soon after Winthrop's death, muted silver-hunting frenzies coursed through New England from the Saco River Valley in Maine to the Narragansett region of Rhode Island.[11] When Charles II revoked the Massachusetts Bay charter in 1684 to erect the "Dominion of New England," a group of "moderate" Puritans—including Winthrop's sons, Wait and Fitz-John—with their Anglican merchant allies, sought to exploit the interim provincial government to launch a series of land speculation, banking, and other economic development projects that partly revolved around their new hopes of finding

[9] John Smith, "A Description of New England" [1616], in *Complete Works of Captain John Smith*, ed. Barbour, 1:331.

[10] Robert C. Black III, *The Younger John Winthrop* (New York, 1966), 110, 124–26, 160; Ronald S. Wilkinson, "The Alchemical Library of John Winthrop, Jr. (1607–1676) and his Descendants in Colonial America," *Ambix* 11 (1963): 2–48; John Winthrop Jr. to Henry Oldenberg, 12 Nov. 1668, in *Collections of the Massachusetts Historical Society*, 5th ser. (Boston, 1882), 8:132–33.

[11] These projects were much less frenetic than those occurring in the southern colonies and they have drawn little systematic notice from historians outside of the antiquarian literature. See Matt B. Jones, "An Early Silver Mining Promotion in Massachusetts Bay," *Proceedings of the Massachusetts Historical Society*, 3d ser., 65 (1932–1936): 372–86; and Wayne Bodle, "The Diligence of Inquisition: Anglo-American Mining in the Restoration Era" (unpublished paper, 1988), 21–24.

valuable ores.[12] When the Dominion's new governor, Sir Edmund Andros, proved intractable, the moderates sought to discard him. Richard Wharton, Winthrop's son-in-law, went to London to establish his land claims, carrying samples of New England "ores" drawn from the ventures of the previous decade that were believed to be silver.[13]

Wharton arrived in a city witnessing the early stages of a rebirth of English base metals production and buzzing with schemes to patent and incorporate new technologies to smelt and refine copper ores and their brass industrial end products. James II soon fell, taking with him both Andros and the Dominion. Wharton died in 1689, and his industrial mission was assumed by Increase Mather, who had come from Boston in 1688 to lobby for the restoration of the old Massachusetts charter. The political and mining projects quickly became entwined. As Mather navigated tricky imperial currents at Whitehall, the mineral goods in question were inexorably transmuted into "New England's copper." For the next generation, as New England executed its awkward but ultimately profitable "adjustment to empire," its reputed "copper" deposits vied with timber resources and naval stores as the objects of solicitous imperial and covetous mercantile attention, from London deep into the White Mountains of New Hampshire. Bernard Bailyn has shown how New England's first generation of merchants began commodifying their threadbare material endowment a full generation before 1680. Turning rubblestone into political capital by knocking it down from "precious" or royal status to merely "industrial" imperial utility may have been their most impressive work of salesmanship ever.[14]

[12] Bodle, "Diligence of Inquisition"; Theodore B. Lewis, "Land Speculation and the Dudley Council of 1686," *William and Mary Quarterly*, 3d ser., 31 (1974): 255–72.

[13] Richard R. Johnson, *Adjustment to Empire: The New England Colonies, 1675–1715* (New Brunswick, N.J., 1981), 83–84, 141, 166; Viola F. Barnes, "Richard Wharton, a Seventeenth Century New England Colonial," *Publications of the Colonial Society of Massachusetts, Transactions* 26 (1924–1926): 238–70.

[14] Rhys Jenkins, "Copper Smelting in England: Revival at the End of the Seventeenth Century," *Transactions of the Newcomen Society* 24 (1943–1945): 73–80; Christine Macleod, "The 1690s Patent Boom: Invention or Stock-Jobbing?" *Economic History Review* 39 (1986): 564–65; Hamilton, *English Brass and Copper Industries*, 101–3; Scott, *Joint-Stock Companies*, 2:404–5, 427, 430–77; Johnson, *Adjustment to Empire*, 166, 220–21. Johnson describes the copper episode as a "minor but recurring theme," and a "subterranean current running beneath the placid surface of official business" in a convoluted process that was essentially about ideology and imperial politics. See Eleanor Louisa Lord, *Industrial Experiments in the British Colonies of North America* (Baltimore, 1898), 6–7, 15–30. Bernard Bailyn, *The New England Merchants in the Seventeenth Century* (Cambridge, Mass., 1955).

The discovery of Schuyler's mine thus came after English technological progress and imperial development had raised copper to the liminal status of a strategic asset while the passage of time rendered the very idea of precious metals in North America into a caricature in the English popular imagination, to be catalogued somewhere between Elizabethan "Sea Dogs" and "Northwest Passages." In 1721, on the unverified warning of an obscure placeman in the colonial customs service about the possible diversion of Schuyler's ore to Holland, Parliament added copper to the list of "enumerated" goods that it had maintained since 1660. Then, when the ensuing rage "to run a Minehunting" brought predictable rumors that "silver and even Gold Mines are to be found in New Jersey," that province's royal governor, William Burnet, had difficulty even getting answers from Whitehall to his inquiries about what "reward" the Crown might allow to encourage finders of mines to disclose them for the royal exaction.[15]

The Middle Atlantic region was endowed with vast deposits of low-grade copper ore in Triassic "trap rock" strata running down the Connecticut River Valley from Massachusetts to the Long Island Sound, and then southwest across the Hudson and Delaware Rivers to the Potomac Valley. This band was broadest near the coast, crossing the hinterland shared by New York and Philadelphia. Those towns had well-capitalized merchant communities, good harbors, and complex trading networks extending throughout the Atlantic world. The region had degrees of ethnic and religious pluralism unknown in New England or the South, diverse and competitive economic cultures, belatedly maturing political institutions, and sharply contested internal colonial borders. It also had large amounts of iron ore that were beginning to be commercially exploited in the mid-1710s. That metal's technological and market characteristics contrasted sharply with the cultural contours of copper production in important ways that will be discussed below. These factors

[15] Francis Harison to Secretary William Popple, 17 Apr. 1721; Governor William Burnet to Lord Carteret, 12 Dec. 1722; "Opinion of the Attorney-General and Solicitor-General as to Ownership of Gold and Silver Mines in New Jersey," 30 Nov. 1723; Burnet to the Duke of Newcastle, 20 Dec. 1726; and Burnet to the Board of Trade, 19 Dec. 1726, all in *Documents Relating to the Colonial History of the State of New Jersey*, published in *Archives of the State of New Jersey*, ed. William Whitehead, 1st ser. (Newark, 1882), 5: 7–8, 64–67, 74–75, 120, 129, 132; "An Act to Prevent the Clandestine Running of Goods . . . and to Subject Copper-Oare of the Production of the British Plantations to such Regulations as other Enumerated Commodities of the Like Production are Subject" [1721], in *The Statutes at Large, From the Magna Carta to the End of the Last Parliament, 1761 [to 1800]* . . . , ed. Owen J. Ruffhead (London, 1768–1800), 5:380–86.

shaped the copper-mining boom that began in 1719, and complicated efforts by public officials to exploit its opportunities while containing its disorderly consequences.[16]

Arent Schuyler was a fit object of metallic deliverance for a generation of Americans who still saw in both the distribution and the disclosure of minerals the fickle hand of providence itself. He was a member of one of the elite Anglicized Dutch families of the Hudson Valley who helped to forge public order after the English conquest of New Netherland in 1664. He was a younger son in a large and competitive sibling cohort, however, and by the age of fifty-seven he was still a working farmer in the Dutch enclave of northeastern New Jersey while his older brother Peter sat on New York's provincial council, advising its governors on Indian policy.[17] Then in 1719 one of Arent's slaves found copper ore in his fields. Within a decade he was the richest man in New Jersey. Schuyler controlled an especially large and accessible deposit of high-grade oxide ore. His farm's location on the Passaic River, flowing through Newark Bay into New York Harbor, enhanced his competitive position. His marriage in 1724 to Mary Walters, the daughter of a prominent New York City merchant, gave him access to capital, credit, shipping, and London brokers. It may not have been apparent to Schuyler's legion of imitators in the region that the historic "first case" they so desperately sought to replicate was also geologically and geographically the "best case" possible, if not the *only* such case.[18]

The immediate response to developments at Schuyler's plantation was local and muted. Early in 1720 John Dod, of nearby Newark, leased the

[16] The best guides to the vast but still imperfectly synthesized literature on this region are Douglas Greenberg, "The Middle Colonies in Recent American Historiography," *William and Mary Quarterly*, 3d ser., 36 (1979): 396–427, and Wayne Bodle, "Themes and Directions in Middle Colonies Historiography, 1980–1994," *William and Mary Quarterly*, 3d ser., 51 (1994): 355–88. For a sampling of the literature on the region's ports, hinterlands, and merchant communities, see Cathy Matson, *Merchants and Empire: Trading in Colonial New York* (Baltimore, 1998); Thomas M. Doerflinger, *A Vigorous Spirit of Enterprise: Merchants and Economic Development in Revolutionary Philadelphia* (Chapel Hill, 1986); James T. Lemon, *The Best Poor Man's Country: A Geographical Study of Early Southeastern Pennsylvania* (Baltimore, 1972); Peter O. Wacker, *Land and People: A Cultural Geography of Preindustrial New Jersey, Origins and Settlement Patterns* (New Brunswick, N.J., 1975).

[17] George W. Schuyler, *Colonial New York: Philip Schuyler and His Family* (New York, 1885), 1:180–95.

[18] By 1724 Schuyler was able to revise his will, leaving handsome farms in three New Jersey counties to his sons by two marriages. In 1730 he added another codicil, doling out cash bequests to sons *and* daughters totaling twelve thousand pounds. "Will of Arent Schuyler," 18 Oct. 1706, Misc. Mss. Arent Schuyler, New-York Historical Society; "Will of Arent Schuyler," 17 Dec. 1724, New Jersey

rights on five hundred acres of his land there to two men "to search for and dig in any part of [Dod's] lands . . . to seek for any mines, minerals, copper, or other metals or ore." A year later, Newark's residents authorized the town's trustees "to let out the common lands or any part thereof to dig for mines."[19] By early 1722, a tumultuous mining boom swept across the Raritan River, through West New Jersey southwest toward the Delaware Valley. John Johnson, of Perth Amboy, advertised in a Philadelphia newspaper to:

> All persons who may have the appearance of Copper or other mines, on their lands and are not inclined to go on with the work themselves, that John Johnson . . . & Company will hire the land of the owners and give them one-sixth part of the produce of the mines, clear of all charges, and in eighteen months or sooner be obliged to provide miners and go on with the work.[20]

Johnson was soon prospecting on lands of Charles Dunstar, an English investor in the East New Jersey proprietorship, whose affairs were managed by James Alexander, a New York City lawyer. Late in 1722 Dunstar notified Alexander that he would sail for America on the "first ships" the next spring. Two New Jersey proprietary officers had "positively assure[d]" him "that I have mines upon some part of my estate." He urged Alexander to protect his interests, fairly cackling that if the report was true "we shall one day or other be topping doggs." One observer told Dunstar "that there is mines upon your land nobody doubts," but he urged him to come quickly. "Your affairs suffers extreamely for want of your presence," he warned, "for you had never so good a mine, there is nobody will take the true pains that ought to be taken . . . everybody [here] is heartily at work for themselves."[21]

Recorder of Wills, Liber B (1725–1734), 271–83; "Will of Arent Schuyler," (Codicil), 30 Oct. 1730, Liber B-2, 282–83 (microfilm, reel 15); and "A List of Bonds Paid to the Widow of Arent Schuyler," [ca. 8 May 1732], F. A. DePeyster Papers, box 4, fol. 11, New-York Historical Society, trace Schuyler's steadily increasing wealth during the 1720s, which seems difficult to attribute to anything *except* his flourishing copper mine.

[19] Indenture between John Dod and Gideon Van Winkle and Johannes Cowman, 24 Feb. 1720, quoted in Stephen Wickes, *History of the Oranges in Essex County, New Jersey, from 1666 to 1806* (Newark, 1892), 58–59; "Records of the Town of Newark, New Jersey, from Its Settlement to Its Incorporation in 1836," in *Collections of the New Jersey Historical Society* (Newark, 1864), 6:129.

[20] *American Weekly Mercury*, 13–20 Feb. 1722.

[21] Charles Dunstar to James Alexander, 10 Sept. 1722, and Archibald Kennedy to Charles Dunstar, 22 Nov. 1722, Rutherfurd Collection, New-York Historical Society.

In New York City there was "much talk" about Schuyler's fortune. Thomas Amory, a merchant visiting from Boston, reported that samples of the ore were being passed around town. There too the mining boom bore the trappings of a Schuyler family affair. In February 1722 Alida Schuyler Livingston, Arent's sister, and her son Phillip, were crossing Livingston Manor in Albany County on a sled, when they saw some odd looking rocks near Claverack Creek. Phillip told his father, Robert Livingston, in New York City, that he had found "green like copper oar. I think by what I heard that where the stones are beaten out green there must be a mine."[22]

In April 1722 Cadwallader Colden, New York's surveyor general, passed through Albany on his way to the Mohawk Valley to look at some land. He stayed at Captain John Collins's plantation near Fort Hunter. Collins, a British army officer, was married to Margaret Schuyler, another of Arent's sisters. She and her friend "Mrs. Ffeathers" [Margaret Vedder] spent the ensuing summer in "Indian country," looking for and negotiating over a mine there. "She has gone through a great deal of trouble and hardship about it," Collins told Colden, "and prevailed with the Indians . . . with trouble and expense to mark out the land where the mine is." Governor Burnet, of New York and New Jersey—who would soon warn London about the "humour that now prevails to run a Minehunting" in his jurisdictions—was a secret beneficiary of this complex transaction, which Colden quietly facilitated. Colden received contrary advice about the mining enthusiasm from his own kinsmen. From Scotland, his father-in-law, David Chrystie, wrote that he was "glad to hear that your Country is like to increase in riches by the discovery of these new mines." But Colden's aunt, Elizabeth Hill, a Philadelphia widow, hoped that he would "be at no expense concerning the Discovery of the mines."[23]

Mrs. Hill was peculiarly well-situated to weigh the relative merits of

[22] Thomas Amory to John Moore, 17 Oct. 1720, Amory Family Papers, 79:218–19, Massachusetts Historical Society; Phillip Livingston to Robert Livingston, 15 Feb. 1722, Livingston-Redmond Manuscripts, Gilder Lehrman Collection, Pierpont Morgan Library.

[23] "Cadwallader Colden's [Surveying] Book, 1721–1727," Cadwallader Colden Papers, Unpublished Scientific and Political Papers (microfilm, reel 3), New-York Historical Society (entries for 30 Mar.–22 Apr. 1722); John Collins to Cadwallader Colden, 17 Oct. 1722, in Schuyler, *Colonial New York*, 1:299–300. Colden issued a patent to himself, Collins, James Alexander, Lewis Morris, Margaret Vedder, and Abraham Van Horne (as trustee for Burnet) for six thousand acres on the south side of the Mohawk River near Canajoharie, where they searched for minerals in the late 1720s. David Chrystie to Cadwallader Colden, 24 July 1722, and Elizabeth Hill to Colden, 23 May 1723, in *Collections of the New-York Historical Society for the Year 1934* (New York, 1937), 8:71, 1:146–47.

ordinary commerce versus exuberant treasure hunting. From Philadelphia she had a close view of the Schuyler mining boom at its most virulent state. In the region between the Delaware River and the head of the Chesapeake Bay, the acquisitive impulses emanating from East Jersey intersected with a tangled web of old political problems and emerging socioeconomic issues to reveal a complex colonial culture under idiosyncratic strain. Here, through the mists of gentry covetousness and condescension, we can glimpse the divergent impacts of this episode on ordinary colonists.

In June 1721 the Philadelphia merchant and Pennsylvania proprietary official Isaac Norris Sr. wrote to Joseph Pike—an Irish Quaker from whom he held a power of attorney—about a spring of "red water" and a possible mine on Pike's ten-thousand-acre tract of land near the Schuylkill River in Chester County.

> Of late, but more particularly since ye finding and opening of a rich copper mine in East Jersey by one Scuyler of New York, very commodious both for digging and export, many people have spent much time in this and adjacent provinces in ranging and searching ye country for minerals. So that for some time past hardly any conversation escapes a mixture of hints, whispers, [and] discoveries of that sort. This brings to light every piece of heavy stone that's portable, and ye want of conveniences or skillful artists for tryall contributes . . . to ye continued search with hope.

Norris wrote that "the Country abounds with iron ore [and] 'tis . . . probable that good copper is found also," but he complained that "the people stop not here but will have Silver and Gold."[24]

That fall James Steel, the Penn family's receiver general, approached a proprietary surveyor, Isaac Taylor, about "another affair . . . relating to the present cry of mines." Several men had "been digging in Uchlan [Uwchlan Township]" near Joseph Pike's land with "an expectation of finding a mine," and they had asked Steel for advice about patenting the land. Steel held some unused warrants and he asked Taylor to survey the land for him as soon as possible. James Logan, the provincial secretary of Pennsylvania and the Penn's chief proprietary surrogate in the colony,

[24] Isaac Norris Sr. to Joseph Pike, 21 June 1721, and 11 June 1722, Isaac Norris Letterbook, vol. 8, Norris Papers, Historical Society of Pennsylvania. Norris had heard "whispers" that "very good copper ore" had indeed been found on Pike's land, but he cautioned that "in these cases of discoveries —like ye adepts in Chemistry, all are very secret."

heard from two men "that they know of some places in the Barrens of [Nottingham] township where there are appearances of valuable mines." He told Taylor to lay out two-hundred-acre tracts around any sites where there seemed to be copper ore, with the land to be divided between the proprietary family and the applicants. And when local inhabitants in Limerick Township, in Philadelphia County, who were contesting the boundaries of a tract that affected the control of a supposed copper mine, surprised him by going to court over the issue, Logan invoked the prerogatives of the acting proprietress, Hannah Penn. He seized the property to satisfy a debt, and then had it sold by the sheriff to a group of sixteen wealthy Philadelphians, in which he held an interest.[25]

By early 1723, some of the biggest fish in the region—cruising in schools self-described as "companies"—were gobbling up the smaller ones in both Pennsylvania and New Jersey. Thomas Shute, James Steel, Nicholas Scull, Jonathan Robeson, and William Branson, leased two hundred acres from Marcus Huling, a farmer from Manatawny Township on the Schuylkill River in Philadelphia County. Huling gave them the right for thirty years to "digg and sink proper pits . . . for the finding of Mine Oar." If they found minerals they would give Huling the first one and one-half tons of ore and one-sixth of the mine's output thereafter.[26] Shute and his partners envisioned a systematic effort to exploit minerals throughout the Philadelphia area. Isaac Norris told John Penn in England—for whom he also served as an attorney—of "a discovery some of the ramblers after mines have made on thy 12,000 acres upon Schoolkill of some oare which is conceived to be copper." Norris observed skeptically that "many of these discoveries are at first much talked of and yet dwindle to nothing," and he informed Penn that the suitors in question were "Thomas Shute and Company." He agreed with them for a five-year lease of a tract in Penn's Manatawny Manor "at ye place where ye mine is supposed to be." Shute had showed him copies of "all the other leases" his group had signed, "which were mostly for 21 years and ye undertakers were not under obligation to work [the mines] but may do it

[25] James Steel to Isaac Taylor, 8 Sept. 1722, James Logan to Isaac Taylor, 31 May 1723, and Jacob Taylor to [Isaac Taylor?], 22 Apr. 1722, Taylor Papers, vol. 14, Historical Society of Pennsylvania; James Logan to Woodlow and Lane, 30 Apr. 1723, and 6 May 1723, *Pennsylvania Archives*, 2d ser., 7 (1878): 74–75; Indenture between Andrew Hamilton and Edward Shippen, et. al., 11 Sept. 1734, Shippen Papers, vol. 15, Legal and Business Papers, 1721–1775, Historical Society of Pennsylvania.

[26] "Articles of Agreement . . . between Marcus Huling and [Thomas Shute, et. al.]" [14 Jan. 1723], *Pennsylvania Magazine of History and Biography* 33 (1909): 370–71.

or hold them vacant at pleasure." Norris insisted on an explicit clause requiring the lessees to work the mine or else surrender the premises. Shute returned with a more satisfactory lease, including a share for Norris, but Penn ordered Norris to suspend the negotiation.[27]

James Logan faced similar tensions between the imperatives of stewardship and the enticements of interest. Late in 1721 minerals were found on the proprietary Manor of Mount Joy. A year later Logan—as the attorney for the English owners, William and Letitia (Penn) Aubrey—sold a tract of land within the manor and belatedly notified his employers. William Aubrey responded with a blast of modulated Quaker wrath. He welcomed the "good news of ye great appearance of a very valuable mine" on the manor, but he wondered why Logan had "dispose[d] of our property in ye land so long after ye mine was found out." He was unsure whether to view the fact that Logan had reserved some of the mineral rights to himself as an expression of confidence in the value of the ore or as a breach of fiduciary trust. He reminded Logan that "ye meaning of a letter of attorney is to do by us as if we were on ye spott by ourselves," and acquiesced in Logan's own share of the venture, but he sternly demanded more timely reports in the future.[28]

At first glance this mining frenzy looks like a provincially fragmented and a regionally asymmetrical phenomenon: radiating out from its epicenter on Newark Bay and muffling into obscurity as it moved up the Hudson Valley through gauzy webs of family ties, but reverberating across the Delaware River into a thick nest of public/private and proprietary conflicts of interest. Considering it this way, however, misses the boom's explicitly *regional* character, and the insights that it offers into the different ways that public authority and private interest were balanced across the hearth of Britain's North American domain. Most of the key figures in this episode were public officials, with controlling authority over the disposal of *land* in their colonies. Logan was the president of Pennsylvania's proprietary land office, with the power to grant, withhold, locate, or collect revenue on every unsold acre held by the Penn family. James Alexander was the surveyor general to the East and West New

[27] Isaac Norris to John Penn, 10 Apr. 1723, and 4 Oct. 1723, Isaac Norris Letterbook, vol. 8. Penn's reply to Norris dated 18 July 1723 is inferable but has not been found.

[28] "Receipt of £30 to William Aubrey from Rees Thomas," 23 Nov. 1722, and William Aubrey to James Logan, 2 Apr. 1723, James Logan Papers, Misc. # 40, Daybook, 1722–1723, p. 34, and vol. 1, p. 84½, Historical Society of Pennsylvania (hereafter Logan Papers). Logan's letter to Aubrey dated 9 Nov. 1722 is inferable but has not been found.

Jersey Boards of Proprietors. Cadwallader Colden was the royal surveyor general of New York. New York was a royal colony and Pennsylvania was a familial proprietorship, but New Jersey had both a royal government and two interlocked proprietary land partnerships. Between 1703 and 1737, moreover, the same individual customarily held separate royal commissions to govern New York and New Jersey, while the Penns always owned substantial shares in both of the New Jersey proprietorships.[29]

Not surprisingly, these men were familiar with each other and dependent on or indebted to each other. Logan represented the Penns at quarterly meetings of the boards of both the East and West New Jersey proprietors. He was thus one of Alexander's superiors but also his friend. Colden lived in Philadelphia during the early 1710s, where Logan became his mentor before reluctantly surrendering him to the needs of Robert Hunter, the royal governor of New York and New Jersey from 1710 until 1720. Alexander and Colden sat on the provincial councils of New York or New Jersey under Hunter and his successor, William Burnet. By 1720 they were—with Lewis Morris and Robert Livingston—cogs in Hunter's New York-based political machine. Logan, Alexander, Colden, Hunter, Livingston, and Burnet, were Scotsmen, who intuitively aligned in the political affairs of an Anglicizing region. They also shared many intellectual and scientific interests. Their public and private connections were part of an informal but pervasive regional political network woven by William Penn—in dialogue *and* in dialectical conflict with—royal officials at New York between his arrival in America in 1682 and his final departure from the region in 1701.[30]

That network barely served its initial purpose of tempering regional chaos in the Middle Atlantic during Penn's time. Then, between 1710 and 1720, through the cooperation of Hunter, Logan, and yet another Scot, Pennsylvania's proprietary governor William Keith, it facilitated the

[29] Biographical information about these men varies widely in amount and quality. See Frederick B. Tolles, *James Logan and the Culture of Provincial America* (Boston, 1957); Alice Mapelsden Keys, *Cadwallader Colden, a Representative Eighteenth Century Official* (New York, 1906); Ellen Maria Russell, "James Alexander, 1691–1756" (Ph.D. diss., Fordham University, 1995). For an account of the complex and provincially interlocking political structure of the Middle Colonies, see Bodle, "Themes and Directions," and the sources cited therein.

[30] Wayne Bodle, "The 'Myth of the Middle Colonies' Reconsidered: The Process of Regionalization in Early America," *Pennsylvania Magazine of History and Biography* 113 (1989): 527–48; Mary Lou Lustig, *Robert Hunter, 1666–1734: New York's Augustan Statesman* (Syracuse, N.Y., 1983); Eugene R. Sheridan, *Lewis Morris, 1671–1746: A Study in Early American Politics* (Syracuse, N.Y., 1981).

emergence of the first sustained period of public stability that the region had known since the Dutch surrendered it in 1660. The 1720s mining boom was an extreme example of just the kind of societal dynamic the system had been built to contain: one in which colonists acted as if the new provincial and proprietary borders were invisible or even non-existent.

Ordinary Middle Colonists constructed their own *behavioral* "region" across the Hudson, Delaware, and Susquehanna watersheds during the 1660s and 1670s, even as Charles II and his advisors carved New Netherland like a platter of landed treats for royalist allies who had helped in his restoration. Countrymen and women met, married, planted, traded, landgrabbed, bail jumped—and now, it seemed, even *minehunted*—across provincial lines, often beyond the reach of formal jurisdictions, binding the region together and fraying their betters' nerves and interests. Penn's reintegrative regional diplomacy after 1681 proved more enduring and effective than James's abortive "Dominion of New England" as an instrument of transprovincial governance, but it was an example of almost desperate geopolitical "catch up." The public stability dividend that it promised to provide arrived in the Middle Colonies only in Logan's and Hunter's day.[31]

The mineral frenzy threatened to squander that dividend before it could be reinvested. Penn's transprovincial network of connections was a crazy-quilt of public/private attachments and counterpoised antagonisms. In the eighteenth century, its private dimensions expanded at the expense of its public character. This change did not diminish its capacity to foster regional coherence at the elite level, but it strained the processes of maintaining stability across a matrix of political and social boundaries. Ores were an invisible "wild card" distorting colonists' ability to evaluate land—the capital if not the currency of the region—and thus they could erode critical alliances or elite understandings that were pragmatic in nature even during the calmest times.

Mines especially tore at evolving links between elites who based their wealth on land and merchants involved in the economies of Atlantic commerce. For men like Logan, Colden, Alexander, or Livingston, land and its extractive appurtenances were foundations of economic power. They shared with the early southern gentry an understanding of minerals as providential "royalties" or by-products of land speculation and develop-

[31] Wayne Bodle, "The Fabricated Region: On the Insufficiency of 'Colonies' for Understanding American Colonial History," *Early American Studies* 1 (Apr. 2003): 1–27.

ment. To merchant skeptics like Isaac Norris, on the other hand, metallic ores were goods to be sold in Atlantic markets like codfish or cask staves. They had entrepreneurial instincts and were more inclined to risk capital that could not be absorbed by commerce and shipping in the charcoal *iron* industry. Iron required large amounts of technical knowledge, and tied investors to the productive process, from the extraction of raw material through the semi-finished state, but it was for that very reason congenial to the analytical sensibilities of entrepreneurs. Schuyler's success, by contrast, showed that copper—if undeniably a base metal whose value depended on its utility to English industrialists—shared with gold one defining trait of "preciousness": that a farmer might get rich by barreling and shipping its ore (along with its technical complexities) to metropolitan buyers.[32]

The discovery of a rich vein of copper ore in New Jersey threatened to stress or crumple critical internal institutional struts connecting and stabilizing the area's polar polities: New York and Pennsylvania. But in practice, the boom's most destructive potential effects occurred at the region's *edges*, where such transprovincial links had never even been fabricated. Along the perennially contested (if still unsurveyed) Pennsylvania-Maryland border during the early 1720s, mineral magic aggravated already complex problems of provincial governance.[33] As James Logan recalled the event a decade later, "after the discovery of Skuyler's [mine] in Jersey, a Coppermine was thought to be a vast estate, and the people in all those neighboring colonies were extreamly eager in search of such and fond of every appearance that gave them any hopes of such a treasure." Then, in early 1722, "a great noise [was] made . . . of a rich Copper mine being discovered on west side of Susquehanna . . . [near] Conestogoe." The resulting struggle exposed deep fault lines that

[32] Bodle, "Diligence of Inquisition." The distinction between provincial political elites who based their wealth, status, and identity on land and those who relied on trade is drawn for New York in Patricia U. Bonomi, *A Factious People: Politics and Society in Colonial New York* (New York, 1971). This distinction has neither been systematically demonstrated nor refuted across the Middle Atlantic as a whole. For the emergence of the iron industry, see Paul F. Paskoff, *Industrial Evolution: Organization, Structure, and Growth of the Pennsylvania Iron Industry, 1750–1860* (Baltimore, 1983), chap. 1.

[33] In the late 1720s and early 1730s, the hope of finding rich copper mines combined with structural political problems in New York to complicate efforts to finalize the boundary between that colony and Connecticut. See Philip J. Schwarz, *The Jarring Interests: New York's Boundary Makers, 1664–1776* (Albany, N.Y., 1979), chap. 4. Schwarz does not discuss the mining dimensions of the New York-Connecticut conflict, but they can be followed in the letterbooks of James Brydges, the first Duke of Chandos, in the Stowe Collection, Huntington Library.

had emerged in the structure of public authority in Pennsylvania after the death of William Penn in 1718 because of paralyzing disputes within the Penn family over the inheritance of his estate. These fault lines pitted Logan and the private Penn land development machinery against Governor Keith and most members of that colony's indigenous political establishment.[34]

In March 1722 Logan went to Conestoga to retrieve two of his own fur traders, John and Edmund Cartlidge, who had been accused of murdering a Seneca trapper. John Cartlidge had earlier told Isaac Taylor about a deposit of unspecified ore in the Susquehanna Valley. Logan feared that Cartlidge would reveal the mine's location to Governor Keith in exchange for leniency on the murder charge.[35] He guessed that Keith intended "to have [the mine] on any terms and to break through all rules and obstacles to obtain it." On April 5 the proprietary Board of Property ordered James Steel and Jacob Taylor to survey two thousand acres of land for the Penn family "where the said copper mines have been discovered." Steel left Philadelphia on April 6, but he met Keith returning from Conestoga the next day. Keith told his council that he had reached the mine site barely in time to prevent some Marylanders, led by Philip Syng, from surveying the land on a warrant from that province. Keith ordered Jacob Taylor to survey five hundred acres at the site to him on April 5, to prevent both border and Indian conflicts.[36]

[34] "Mr. [James] Logan's Solemn Declaration abo[u]t the Cause of his writing a L[ett]re to Mr. Simon Clements [in 1722]," [after 1 Nov. 1732], Logan Papers, vol. 1, p. 125.

[35] Isaac Norris Sr. to Henry Gouldney, 19 Apr. 1722, Isaac Norris Letterbook, vol. 8; Reports of James Logan and Col. John French, 21 Mar. 1722, in *Colonial Records of Pennsylvania* (Philadelphia, 1852), 3:147–50; John Cartlidge to Isaac Taylor, 17 Feb. 1722, and William Keith to Isaac Taylor, 26 Mar. 1722, Taylor Papers, vol. 14, (#2975 and #2976); James Logan to Simon Clement, 12 Apr. 1722, Penn Papers, Official Correspondence, 1:107, Historical Society of Pennsylvania. This episode is discussed at length in James H. Merrell, *Into the American Woods: Negotiators on the Pennsylvania Frontier* (New York, 1999), 115–21, without any reference to the mining controversy in which it was embedded, a good measure of the historical obscurity of the event. See also Francis Jennings, *The Ambiguous Iroquois Empire: The Covenant Chain Confederation of Indian Tribes with English Colonies from Its Beginnings to the Lancaster Treaty of 1774* (New York, 1984), 290–93.

[36] James Logan to Simon Clement, 12 Apr. 1722, Penn Papers, Official Correspondence, 1:107; "Order from James Logan, et. al. to James Steel," [5 Apr. 1722], Penn Papers from Friends' House, London (copy), Historical Society of Pennsylvania; Sir William Keith to the Pennsylvania Council, 16 Apr. 1722, *Pennsylvania Archives*, 4th ser., 1 (1900): 380–81. Keith was appointed by the Penn family, but his commission limited him to executing the laws of the colony in conjunction with the popularly elected assembly that passed them. The sale and management of the Penn's real estate was a structurally separate function run by the Board of Property under the provincial secretary, James Logan. This complex division of authority within the proprietary interest was strained by the con-

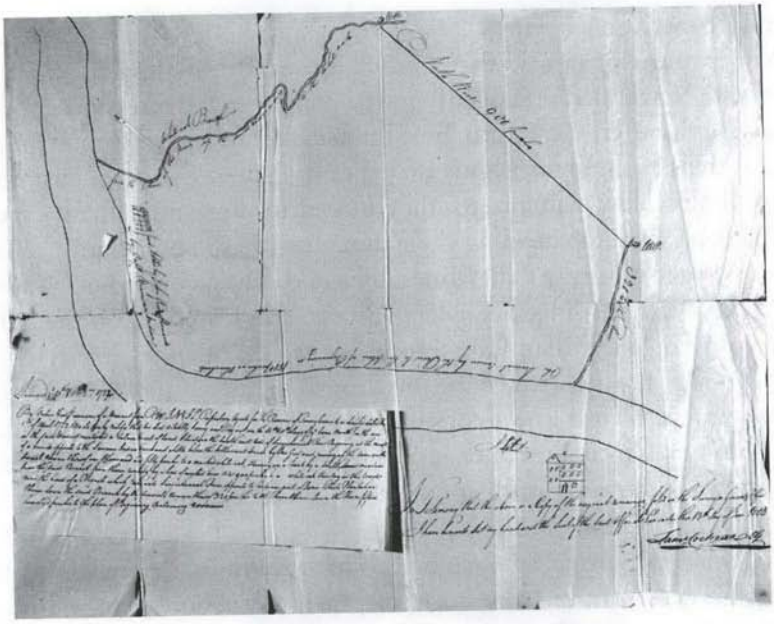

Fig. 1. 1804 copy of map surveying land along the Susquehanna drafted in April 1722 by Jacob Taylor and James Steel, by order of the Board of Property, under the provincial secretary, James Logan, upon reports of copper mines in the area. Cadwallader Collection, ser. 3, box 59, folder 3, Historical Society of Pennsylvania.

On his way home Keith learned that the Indians at Conestoga had "made a famous Warr dance." Steel persuaded Taylor to return to the mine and survey two thousand acres on Logan's and Norris's warrant surrounding Keith's tract. They heard that Syng—defying Keith's threats to arrest him—had surveyed two hundred acres around the mine *within* Keith's five hundred. A Maryland official sent two surveyors north to lay out a *ten-thousand*-acre proprietary reserve around Logan's, Keith's, *and* Syng's. The mine site now resembled a provincial bull's-eye on a continental archery range; with concentric rings of conflicting claims from two colonies, public and private parties, and rival claimants to civil authority

vergence of the lawsuit among Penn's heirs over inheritance of the proprietorship and the mining frenzy. Keith expected Pennsylvania soon to become a royal province and he began cooperating with popular political forces through their elected representatives, who he was otherwise mandated to oversee and restrain, in hopes of pleasing the Crown. His efforts, described below, to manage proprietary land affairs, exacerbated by the mineral issues, pitted him against Logan.

within Pennsylvania itself.[37]

Norris and Logan saw this episode as one threatening to the social order and Norris tied it explicitly to the commercial depression gripping Pennsylvania after the South Sea Bubble. While the common people pressed their assemblymen to issue paper money to ease their distress (a policy choice Norris abhorred), they turned to more immediate expedients. "People here are bending their thoughts (these poor times)," Norris fumed, "to get suddenly rich. Mines, ore, gold, silver, copper, are so full in everybody's mouths since Schuyler's success." He feared that if the talk of mines proved "more than Chimericall," it would inflame Pennsylvania's old boundary dispute with Maryland. Logan predicted that "Royal mines will be discovered, yet I never desire to see one opened in my time, unless it be considerable enough to engage the Crown to undertake the defence of it, for ye back parts of this province lie much exposed to Canada had they any great temptation."[38]

Logan tried to avoid an open breach with Keith by visiting the governor on his return from Conestoga, but their discussion dissolved into a shouting match. "He is resolved if he can to have [the mine] all in his power," Logan warned, "and then to take his measures afterward."[39] The factions sought at least to exclude Maryland from their squabbles by cooperating to prosecute Philip Syng. But in July 1722, Keith wrote to the acting proprietress, Hannah Penn, to give his own account of the mining controversy, and to accuse Logan of mismanaging her family's affairs. He reported that Logan was "giving away" the Penns' property, and observed that "the extravagant humour which prevails here about mines has considerably raised the value of lands."[40]

A different but still a complementary picture emerges when we view this episode from the Maryland side of the disputed border between these

[37] Keith to the Council, 16 Apr. 1722, in *Pennsylvania Archives*, 4th ser. (Harrisburg, 1900), 1:380–81; Logan to Simon Clement, 12 Apr. 1722, Penn Papers, Official Correspondence, 1:107; "Minutes of the Provincial Council," 16 Apr. 1722, in *Colonial Records of Pennsylvania*, 3:160–61; "Minute Book I," [16 Apr. 1722], in *Minutes of the Board of Property of the Province of Pennsylvania*, ed. William H. Egle, vol. 1 (Harrisburg, 1893), published as *Pennsylvania Archives*, 2d ser., 19 (1890): 712–13.

[38] Isaac Norris to Henry Gouldney, 9 Apr. 1722, Isaac Norris Letterbook, vol. 8; James Logan to Henry Gouldney, 12 Apr. 1722, Penn Papers, Official Correspondence, 1:109.

[39] James Logan to Henry Gouldney, 12 Apr. 1722, Penn Papers, Official Correspondence, 1:109.

[40] "Philip Syng's Affair," 28 May 1722, in "Minutes of the Provincial Council," in *Colonial Records of Pennsylvania*, 3:176–77; William Keith to Hannah Penn, 5 July 1722, and James Logan to John Penn, 12 Nov. 1722, Penn Papers, Official Correspondence, 1:115, 117.

two provinces. Correspondence between Maryland proprietor, Charles Calvert, Lord Baltimore, and his American agent, Philemon Lloyd, shows that Marylanders were closely watching the situation in Pennsylvania, and wondering how to exploit the divisions described above. In July 1722, Lloyd told Baltimore that "Schuylers & [Keith's] Mine upon the Susquehannah hath made such a Noise in the World, tht the Woods are now full of Mine hunters." He had heard conflicting reports about the status of Keith's operation. Some informants insisted that "the Governr &c after a great deal of Pains & Cost, [were] about to quit" the mine, but Syng believed that "such Reports [were] spread abroad on purpose" to allow Keith to "[carry] away the Oar wth little or no Notice." After Lloyd sent surveyors up to lay out a ten-thousand-acre reserve around the site, "the Pensilvanians had Notice of it [and] . . . posted Souldiers all about the Woods" to block the effort.[41]

In September Lloyd visited the mine country and returned with heavy bags full of promising stones and glowing accounts of "Sir Wms. Mine." He found a "house" on the east bank of the Susquehanna "built by [Keith] opposite to his mine for lodging ye oar when transported from the other side." Several workmen were digging three shafts, one of which was "about 20 feet deep." The miners were "very open and civil" and, after Lloyd gave them money for drink, they let him "take what ore I pleased." The ore "seem[ed] to prognosticate a vast quantity of coppery articles" and Lloyd used it to search for similar sites on his way home. He called the latter "better discoverys . . . than those that have spent many years in search of copper and lead." Indeed, he said, "silver oar I am positive there is within yr Lordship's province," but he warned that "ye woods are now full of idle fellows and people of mean circumstances as well of Pennsylvania as of Maryland who are in quest of Silver and Copper Oar."[42]

Besides providing the only account we have from someone who had poked his nose into an actual mine, Lloyd's letters offer the most intricate delineation of the inherent disorderliness of the Schuyler boom, and of the anxiety-generating quality of that episode for many people. The sources and nature of that disorder and anxiety were idiosyncratic, but they resolved themselves into three linked questions: How did one know

[41] Philemon Lloyd to Lord Baltimore and Co-Partners, 19 July 1722, in *The Calvert Papers*, Maryland Historical Society, Fund Publication no. 34 (Baltimore, 1894), 2:25–27.

[42] Philemon Lloyd to Lord Baltimore, 10 Sept. 1722, Dulaney Papers (Ms. #1265), box 1, Maryland Historical Society.

where minerals were located? If any were found, how did one identify or evaluate them and extract them from the ground? Finally, how could one manage, control, and protect ones interests in the matter if mines were discovered and proved? In effect, Schuyler's success quickly created a new invisible and inverted topography and a strangely three-dimensional real estate market wherever reports of the event were heard and credited. The subterranean dimensions of that market were difficult or impossible to factor into extant standards of land valuation, especially by amateurs. By raising the stakes and inviting mistakes, mines turned every acre bought, sold, surveyed, patented, or just glanced at from horseback or wagon top, into both a lottery ticket and a potential time bomb. No one wanted to be a Schuyler-manqué, who lived and died in modest circumstances ten feet above a fabulous treasure, *or* the hapless fool who inadvertently sold that treasure for a song.

Appropriately enough, the problem impinged from the top down. The more acres a man presided over (or *turned* over), the more likely he was to have something to worry about or to lose and the less able he was to keep his risks and opportunities under control or surveillance. His fortunes depended on others who—far from having any reason to promote them—had every incentive to usurp them. These difficulties began with the Crown itself and ramified down the imperial pyramid. Governor Alexander Spotswood of Virginia warned Whitehall as early as 1712 that the chartered reservation of "royal mines" meant nothing if people on the ground adhered to a realm-wide conspiracy of silence about the presence of minerals in America.[43]

As Philemon Lloyd informed Lord Baltimore in 1722, "I shall find my Self under a necessity of doeing something wth the discoverers rather than be Wholy shut out from these first undertakeings." He hoped to "treat wth such persons" who discover mines "So as they may be Encouraged to seek after & make [them] known," or else such persons "are like to conceal, & may possibly dye wthout Communicateing their knowledge unto any person whatsoever." Lloyd suggested more explicit reservations of mineral rights in all future land grants, but in practice this only let grantors bargain from legal strength and empirical weakness with parties holding no rights but much invaluable knowledge. The same cir-

[43] Alexander Spotswood to the Board of Trade, 15 May 1712, in *The Official Letters of Alexander Spotswood*, published as *Collections of the Virginia Historical Society*, ed. R. A. Brock, new ser. (Richmond, 1932), 2:160–63.

cumstances that made proprietorship an attractive business—vast amounts of land with small but rapidly growing populations—allowed the "ramblers" to know more about the value of specific tracts of land than their owners ever could. As Lloyd stated, "I may be advised of a Valuable Mine . . . and before I can make any further Enquiry; some peering fellow may ffind a better Vein of the same Mine, thô at some distance, and so take it up." He concluded that "without some such encouragement to discoverers, the Richest Oar will lay still confined within the Bowells of ye Earth, and known to some few only, who I believe at present get a living out of her by Stealth."[44]

The problem was familiar to agents, attorneys, and stewards. Lloyd heard reports of "a Rich lead Mine in the Iersys and a very Rich Copper Mine in Bucks Coty in Pensilvania." These caused the Pennsylvania Land Company of London much painful anxiety. Early in 1723 the company, having "hear[d that] ye great search [in America] was after mines," changed its standing policy toward its investment. It had previously pressed its agent, John Estaugh, to sell its land quickly, but now, "fearing [that it] should sell a treasure," it "countermanded" those orders and directed him to "take, use, and exercise all reasonable probable ways and means . . . for the discovery or finding out all mines or minerals on our lands."[45] Estaugh had great difficulty, however, conveying to his employers the full complexities of that enterprise. The committee received the news of mines near its lands "with pleasure," but it deferred to Estaugh any decisions about the appropriate "gratuity to ye discoverers." Estaugh finally "open[ed] the ground in hopes of finding a copper mine," but his widow, Elizabeth, was still begging the company more than a generation later to settle his mining accounts.[46]

It did not always help for principals to come to the ground in question to oversee their stewards or to learn directly about the practical difficulties involved. In 1724 Charles Dunstar sailed to America to manage his

[44] Philemon Lloyd to Lord Baltimore and Co-Partners, 19 July 1722, 8 Oct. 1722, in *Calvert Papers*, 2:25–26, 55; Philemon Lloyd to Lord Baltimore, 10 Sept. 1722, Dulaney Papers.

[45] Philemon Lloyd to Lord Baltimore and Co-Partners, 19 July 1722, in *Calvert Papers*, 2:26; and Elizabeth (Haddon) Estaugh to Thomas Jackson (n.d., but probably 1750s); "Instructions by the Grande Committee for the Pennsylvania Land Company of London . . . to John Estaugh," 29 Mar. 1723; Theodore Eccleston to John Estaugh, 6 Apr. 1723, all in Quaker Collection, Department of Special Collections, Haverford College Library.

[46] "Instructions by the Grand Committee . . . to John Estaugh," [1723], and Elizabeth Haddon Estaugh to Thomas Jackson, [1750s], Quaker Collection.

proprietary and mineral interests there. He was so enthralled with reports of the value of his American estate that he "thought it safe to come without money, and to sell lands here after he arrived." Once on the spot, however, he got cold feet and hesitated to sell *any* lands sight unseen, and he was soon awkwardly borrowing money from his own protégé, James Alexander. Dunstar finally began selling parts of his Jersey domain, but he always prudently reserved the mineral rights pertaining to those tracts.[47]

Such reservations were only as good as the knowledge that an owner could obtain about minerals on his property, and knowledge was literally power. Late in 1723 Peter Fauconnier and Ebenezer Willson, two New York land speculators, bargained with Cornelius Kuykendall, a planter from the Minisink Patent in Orange County, who had "discovered some places . . . like to contain coppermines." Kuykendall obligingly acknowledged that the supposed mines were "on some part of the land belonging to . . . Fauconnier and Willson" and he even condescendingly allowed that the "discovery, if properly made use of, might prove considerably advantageous" to the owners. But the mines "should remain wholly fruitless to a general loss if not improved, [and] that the same cannot be workt out nor any preparations made for doing it except the said [Kuykendall] be induced to shew [Fauconnier and Willson] the way thereto . . . and that these ought not to be done without a reward." Kuykendall's cooperation did not come cheaply, but the landowners had no real alternatives, and so they eventually came quietly to terms.[48]

Learning the location of purported ores raised the second anxiety-producing complication of the mining business; the quest for competent help in their evaluation, and, if justified, their extraction. If there was anything more disconcerting to a landowner than to hear from some leering countryman that there *might* be minerals *somewhere* on his estate, it was to be handed a bag of greenish stones and expected to know what to do next. Not everyone had in-laws trading to London, as Arent Schuyler did, but anyone who could seek European expertise was well-advised to do so. In September 1722 Sir Isaac Newton, the master of the English mint, ran some experiments on samples of "the Pennsylvania ore." His chief artifi-

[47] "Charles Dunstar to One of the proprietors in England" [c. 1725], in *Archives of the State of New Jersey*, 1st ser., 5:100–104; James Alexander to "Coll. [Robert Lettis] Hooper," 31 Oct. 1725, Rutherfurd Collection, 1:31.

[48] Articles of Agreement between Peter Fauconnier and Ebenezer Willson, and Cornelius Kuykendall, 25 Oct. 1723, Department of Special Collections, Museum of the City of New York.

cer, he said, "made the best tryall [he] could of the ore . . . and [found] nothing of lead or any other metal."[49]

To a reactionary like Isaac Norris, who feared rather than welcomed the mining excitement, the application of such expertise, with its predictably negative result, was a hopeful development that promised to prick the bubble and send chastened countrymen back to their fields or workbenches. To many of the latter, however, anyone with a plausible claim to expertise in the mysteries of metals was worth his proverbial weight in the ore of the moment. Christopher Sauer, a German immigrant and pharmacist, arrived in Philadelphia in 1724 when the Schuyler boom was winding down. Late that year he wrote to friends at home that:

> People [here] only lack smelters. They will gladly give a 3d part [of the ore] to him who can smelt. A false rumor went out that I could smelt. I have therefore been pestered much by the poor people who were gold and silver struck.[50]

A particular need, if the assayer's reports were favorable, was for "miners." This was more than a category of hard labor, or even of empirically skilled labor. It went, rather, to arcane understandings about the nature of ore development and distribution and to the practical mastery of such knowledge. Philemon Lloyd blamed much of the uncertainty about mines on "the difficulty [of] ffinding the Principal Veins; wch I take to be Owing to the Ignorance of the Miners." Lloyd reported with dismay that "the Mine from whence I had the Gray Oar . . . is seized by the Philadelphians, who have Lately, transported many horse load[s] of Oar from it." He had "never [been] at the Place," although "the Oar [was] brought to my House for Tryall." He laid a reserve around the site but the Pennsylvanians took possession of it and "a Compa of Cornish Miners, Employed by Sr Wm Keith, had Run of it, and say, it is as good Tin as any in Cornwall." Most American adventurers could not afford to import miners, much less send troops to seize promising ore deposits for their use, but a few colonials acquired enough skill to assume—at least in the

[49] Sir Isaac Newton to "My Lord," 25 Sept. 1722 (enclosing Thomas Weston to Sir Isaac [Newton]), 24 Sept. 1722, CO 5/1233/144, Public Record Office, England.

[50] Isaac Norris to Joseph Pike, 11 June 1722, Isaac Norris Letterbook, vol. 8; John Christopher Sauer (Sower) to "Dear Brother and Friends," 1 Dec. 1724, in "An Early Description of Pennsylvania," trans. and ed. by R. W. Kelsey, *Pennsylvania Magazine of History and Biography* 42 (1921): 250.

eyes of their credulous peers—the occupational title of "miner."[51]

Even if one located minerals, had them assayed, and hired experts to dig them up, mining was fraught with anxieties. Men opened mines in full knowledge that others might seize them. We have seen this concern in Isaac Norris's fears about border troubles with Maryland, in James Logan's worries about French incursions from Canada, and in William Keith's accounts of the Conestoga Indians' "famous Warr dance." Philemon Lloyd envisioned the definitive Anglo-American geopolitical nightmare, in which Frenchmen descended the Susquehanna Valley while Spaniards materialized in the Chesapeake Bay to "renew their Claimes" to eastern North America. But Americans' greatest fears of involuntary dispossession involved fast-talking, sharp-dealing Englishmen. If the woods were really "full of Mine hunters," some apparently spoke with London or West Country accents. William Keith warned the Board of Trade that "a Company in Bristol in conjunction with others at London intend[ed] to apply to H[is] M[ajesty] for a grant of the Royal Mines in these parts." He asked the Crown to order colonial governors to "report . . . the particular discoveries that have already been made in their Governments" before receiving any applications from Englishmen.[52]

John Gosling, a New Jersey planter, reported that "of late there [have] been Severall mines of Very Valluable metle Discovered in pennsylvania and new Jersey and the Collonies adjacent, which have given occasion of disputes whether Said mines . . . are granted to the present proprietors of the soil." These included "Several Rich mines . . . of silver and gold," and Gosling hoped that America might "Equall . . . New Spaine; in Royall mines." But "some persons in these parts haveing the like Knowledge of these Rich mines now Discovered and a Just Expectation of many new discoveries are Contriveing . . . in what manner they may finde means to Gain Grants from His Majesty of the said Royall Mines." The agents for

[51] Philemon Lloyd to Co-Partners, 28 July and 8 Oct. 1722, in *Calvert Papers*, 2:41, 59–60. On the intellectual heritage of early American understandings about minerals, see Stilgoe, *Common Landscape of America*, 274–90. Examples of American artisans calling themselves "miners" include John Harvey, of New York City, who worked on a mine on Cadwallader Colden's and James Alexander's tract in the Mohawk Country in New York in the late 1720s, and Richard Perrow, also of New York, who worked on a mine at Rocky Hill, New Jersey, in the same period. See John Harvey's account, 10 June 1727, and Bond of Richard Perrow, 14 July 1725, James Alexander Papers, box 15 and 13, New-York Historical Society.

[52] Philemon Lloyd to Co-Partners, 8 Oct. 1722, in *Calvert Papers*, 2:58; Sir William Keith to the Council of Trade and Plantations, 24 May 1722, in *Calendar of State Papers, Colonial Series, America and the West Indies*, ed. Cecil Headlam (London, 1934), 33:73.

several British companies, he noted, have "Given sufficient Cause to suspect theire advizeing theire Companyes to get those Grants and there by to Monopolize them."[53]

Such reports may have represented the predictable paranoia of an episode of this duration and intensity, but we should not dismiss them lightly. There is some evidence of the presence in the region of shadowy parties hard at work in English interests. In 1723 Philemon Lloyd "went up to the mine," where a "Bristol agent who is in search of mines" offered him five hundred pounds for this one. And many Jerseymen came to know Francis Willoughby, who seems to have represented English investors on the make. In December of 1724 Willoughby—describing himself as being "late of the Kingdom of Great Britain, now residing in [New Jersey]"—signed a lease with Henry Harrison for 225 acres at Rocky Hill for a thirty-one-year term, with provisions to mine the land. In the fall of 1726 Willoughby appeared on New Barbadoes Neck, where he leased the mineral rights on a tract from Edmund Kingsland "at the foot of the meadow adjoining Captain Arent Schuyler's line." The next spring he agreed with Johannes Van Emburgh to lease "all the mines, minerals, and ore" on a 150-acre tract on New Barbadoes Neck near Schuyler's land. In method if not intent, Willoughby exemplified the "peering fellow" about whom Lloyd warned Lord Baltimore. Ranging aimlessly through the woods in search of promising stones was a high-risk low-yield strategy, but in a pre-geological era, fixing on property next to known and already working ore deposits was probably the essence of prudent practice.[54]

The possibilities and hazards of agency were two-directional phenomena. If Englishmen came to America searching for treasure, provincials could also cross the ocean with similar visions and pose comparable prob-

[53] John Gosling to the Council of Trade and Plantations, 24 May 1722, in *Archives of the State of New Jersey*, 1st ser., 5:36–37. "B. B. G." wrote that "rich mines are found not only in . . . New Jersey, wherein indeed was the first opened, but in Connecticut, New York, Pennsylvania [and] Maryland," and that English agents "give out [that] they have or will advise their employers to get patents [from] H[is] M[ajesty] for all Royal Mines." B. B. G. to the Council of Trade and Plantations, 21 May 1722, in *Calendar of State Papers, Colonial*, 33:71.

[54] Philemon Lloyd to Lord Baltimore, 4 Nov. 1723, Dulaney Papers, box 1; Indenture between Henry Harrison and Francis Willoughby, 3 Dec. 1724, Stevens Family Papers (microfilm, roll 23), Stevens Institute of Technology; Indenture between Edmund Kingsland and Francis Willoughby, 19 Oct. 1726 [not found, but described in the recitals to an indenture between Kingsland and Willoughby, 22 June 1730], and Indenture between Johannes Van Emburgh and Francis Willoughby, 19 Apr. 1727, East Jersey Deeds, Liber K, 176–78, 41–43, New Jersey State Archives.

lems for absentee owners of American land. James Logan repeatedly urged the Penns to be wary of smooth-tongued colonial petitioners like Isaac Miranda, who, he said, "requires to be carefully watcht." Miranda joined Keith's mining project and then sailed for England late in 1722. Logan could not say exactly what relation his trip had to the mining episode, but he warned the Penns to be very careful about dealing with him. Settlers on the east bank of the Susquehanna River had made "very pressing application" to Logan out of fear that Miranda "has some design or instruction to procure a right to turn them out of their possessions or improvements." And Miranda indeed carried to London a list of absentee property owners from the Middle Atlantic region that reads almost like a directory of reputed mineral landholders there.[55]

The Schuyler mine boom did *not* wither as rapidly as it blossomed but it did recede in the mid-1720s. The excitement peaked in intensity between early 1722 and mid-1723 and then began gradually ebbing. In November 1723, a discouraged promoter told Charles Dunstar that "the talk of mines [was] very much over; none I know of but Mr. Schuyler's suceeding." The next fall Isaac Norris more approvingly reported that people who had "dugg and searcht [for mines] with considerable charge" had by then "almost given out." As formal eulogies on the episode these pronouncements were both exaggerated and premature. While the copper clamor clearly subsided by late 1725, as the feverish search disclosed no second Schuyler mine, the episode itself embedded the *idea* of valuable minerals more explicitly into the American consciousness than it had probably been since the early decades of the seventeenth century.[56]

Indeed, one striking element of this episode is its firmly *backward*-looking character. As Isaac Norris sourly and retrospectively pointed out in 1725, copper had been "ye great *pretense*" of the "noise made two or

[55] James Logan to Simon Clement, 22 Nov. 1722, and James Logan to Henry Gouldney, 7 May 1723, Penn Papers, Official Correspondence, 1:119, 125; James Logan to Springett Penn, 12 Nov. 1722, Logan Papers, vol. 10, Additional Letters and Business Papers; "An Abstract of the Account of Lands in Pennsylvania and New Jersey belonging to people in Brittain &c. delivered to Mr. Isaac Miranda," [5 Nov. 1722], Pennsylvania Miscellaneous Papers: Penn and Baltimore, Penn Family, 1:102, Historical Society of Pennsylvania. Miranda agreed to try to buy the lands on the list—including "William Obre [Aubrey]'s Manor called Letitia Penn's Manor"; "Robert Pike of Ireland['s] 10,000 acres at the healing spring above Great Valley"; and "Charles Dunster['s] lands in East Jersey"—and then to convey to John Budd of Philadelphia one-fifth of any lands that he acquired.

[56] John Hamilton to Charles Dunstar, 21 Nov. 1723, Rutherfurd Collection, scrapbook I, #25; Isaac Norris to Joseph Pike, 2 Sept. 1724, and Isaac Norris to John Penn, 9 July 1725, Isaac Norris Letterbook, vol. 8; Philemon Lloyd to Lord Baltimore, 8 June 1724, Dulaney Papers, box 1.

three years ago of mines." Norris was clearly a cynic, but there is corroborating evidence that for many parties, the pursuit of copper was a catalyst for a more general treasure hunt that soon began to focus on more unequivocally precious metals. There may have been a class basis to this division. Both Norris and Lloyd had a reflexive distaste for the fervor of the masses, but Christopher Sauer had no obvious reasons for caricature when he suggested that it was mostly the "*poor people*" who had become "gold and silver struck." While a copper mine might have been, as James Logan remembered, "a vast estate," it took little fiscal acumen for a farmer or a mechanic to see that to operate one in the manner that Arent Schuyler did would require a small fortune. Bullion, on the other hand, might make even a beggar rich.[57]

In places where the woods were truly "full of Mine hunters" this episode can be regarded as a species of Elizabethan revival, perhaps the last one of importance in the colonial period. If Captain John Smith had sailed into the Delaware Bay in 1722 and landed in Philadelphia at the height of the mining "humour," he would probably have reached for his quill to make yet another impassioned plea in support of *fish* as a nobler and more reliable colonial commodity than precious metals. Smith did not—as far as we know—stir from his grave, but a young Benjamin Franklin did arrive in the Quaker City late in 1723, just as the hysteria receded, to serve as a de facto intellectual surrogate for him. Franklin spent only a year in Philadelphia before going to London, and it is uncertain how much he observed of that phenomenon. After his return, however, Franklin wrote an allegorical account in 1729 of the "late and present scarcity of Money" in Pennsylvania, which had caused "great numbers of honest Artificers and labouring people . . . fed with a vain hope of growing suddenly rich [to] neglect their Business, almost to the ruining of themselves and Families . . . in a fruitless Search after Imaginary hidden treasure." Franklin said that these searchers were *still* operating in an "odd Humour of Digging for Money." Indeed, he observed, "you can hardly walk half a mile out of Town on any side without observing several Pits dug with that Design, and perhaps some lately opened."[58]

[57] Isaac Norris to Joseph Pike, 14 Dec. 1725, Isaac Norris Letterbook, vol. 8 [emphasis added]; Christopher Sauer to "Dear Brothers and Friends," 1 Dec. 1724, in "An Early Description of Pennsylvania," 250 [emphasis added]; "Mr. Logan's Solemn Declaration," [1732], Logan Papers, vol. 1, p. 125.

[58] [Benjamin Franklin], "The Busy-Body, No. 8," 17 Mar. 1729, in *The Papers of Benjamin Franklin*, ed. Leonard W. Labaree, et. al. (New Haven, 1959–), 1:136–37; Esmond Wright, *Franklin*

Franklin probably misinterpreted the material culture remains of the Schuyler mining boom in Philadelphia's near hinterland as evidence of a different, albeit related, alchemical phenomenon. But he strongly advocated "the rational and almost certain methods of acquiring Riches by Industry and Frugality," which he noted were "neglected or forgotten" due to the "conceit of finding money." And he paraphrased John Smith—who he rendered only as "A Sea Captain of my Acquaintance"—and who, he observed:

> used to blame the English for envying Spain their Mines of Silver; and too much despising or overlooking the Advantages of their own Industry and Manufactures. For my Part, says he, I esteem the Banks of Newfoundland to be a more valuable Possession than the Mountains of Potosi; and when I have been there on the Fishing Account, have look'd upon every Cod pull'd up into the Vessel as a certain Quantity of Silver Ore, which required only carrying to the next Spanish Port to be coin'd ento Pieces of Eight.[59]

The contours of the Schuyler mine boom are too furtive, and its dynamics are far too idiosyncratic, to embed easily in an "Atlantic" context with the South Sea Bubble crisis of the early 1720s, but the slim record that it left shows how speculation resonated differently on the colonial periphery than it did in the metropolitan core of imperial Britain. As Catherine Ingrassia has suggested, the intoxicated frenzies in London in 1720, and their results, reminded many Britons of the probable costs to both the state and society if emergent capitalist values ever slipped the social bonds of restraint historically forged by the "paternal and stable figure of the landed citizen," or if "new types of increasingly dematerialized property," based on credit relations and ever-fickle "reputation," ever became fully ascendant. Stock jobbing made even mercantile-defined "luxury" seem almost normal or safe by comparison, while tempting some

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of Philadelphia, (Cambridge, Mass., 1986), 29–37. For Smith's advocacy of fishing as the way to colonial wealth, see "A Description of New England," [1616], and "New England's Trials and Present Estate," in *Complete Works of Captain John Smith*, ed. Barbour, 1:331, 406. See Alan Taylor, "The Early Republic's Supernatural Economy: Treasure Seeking in the American Northeast, 1780–1830," *American Quarterly* 38 (1986): 6–34.

[59] "Busy-Body, No. 8," 138; Smith's "A Description of New England" was relatively rare, but similar language appears in his *General History of Virginia, New England, and the Summer Isles* (1624), which would have been found in Philadelphia, and which Franklin probably would have been familiar with. (Personal communication to the author from Professor J. A. Leo Lemay, 22 Feb. 1989).

substantial landowners literally to bet the farm (if not the realm itself) on risks that their economic or political milieu left them powerless to calculate. But even as it shook the foundations of state in the early 1720s, the South Sea Bubble hastened the mercantilization of the empire. Walpolean ministers and company managers found scapegoats and made modest reforms, many stocks revived to trade again another day, and a Hanoverian holy trinity of commerce, capital, and credit resumed the business of reshaping public life. An odd alliance of alienated "Real Whigs" and nostalgic Tories filled the popular prints with strident lamentations for a passing order, but their shrill denunciations of the looming "corruption" of politics or society, and their evocations of the true causes, courses, and possible consequences of the Glorious Revolution, seemed increasingly out of touch to most of their countrymen.[60]

These ideological traditions reached British North America *almost* in time to inform debates about the mining hysteria of 1722–1725, but they were perforce grafted onto a socioeconomic structure and a political system that resembled Britain's only in barest outline. Lewis Morris—who after 1720 inherited creative leadership of the New York political machine that his mentor, Robert Hunter, had crafted during the previous decade—extolled the virtues of the landed gentry and unabashedly indulged in the condemnations of merchant "greed" and "corruption" that were de rigueur in "Real Whig" circles after the Hanoverian Succession.[61] In 1727, James Logan abandoned Philadelphia for a stately house in the city's northern suburbs, and a year later Cadwallader Colden "retired" from New York City even more decisively—if somewhat more modestly—to a working farm at "Coldengham" in remote Ulster County. Both men talked hopefully about giving up their public offices and economic activities for lives of gentlemanly learning and contemplation. Robert Livingston spent increasing amounts of time developing and managing his spacious estate along the Hudson River below Albany. James Alexander remained a Manhattanite, but only to accommodate his thriving legal practice. His wealth was largely invested in rural acreage, which he imagined as being

[60] Catherine Ingrassia, "The Pleasure of Business and the Business of Pleasure: Gender, Credit, and the South Sea Bubble," *Studies in Eighteenth-Century Culture* 24 (1995): 191–210, esp. 192–294; Isaac Kramnick, *Bolingbroke and His Circle: The Politics of Nostalgia in the Age of Walpole* (Cambridge, Mass., 1968), esp. chap. 3;Neal, *Rise of Financial Capitalism.*

[61] Sheridan, *Lewis Morris*, esp. 8–11, 102, 119, 188. Morris, according to Sheridan, saw commerce as "an unworthy calling for a gentleman and despised most merchants as double-dealing tricksters who were constantly conspiring to cheat honest tillers of the soil." (8).

strewn with mines.[62]

These men were all "Anglicizers" at heart, but they played different and at best intermittent roles in the great Anglo-American political project of the day that Jack Greene has characterized as the "rise of the Assembly." Nor could any of them, except for Livingston and perhaps Morris, have been described this early in their careers as genuine landed gentry. Most, rather, were royal or proprietary land apparatchiks, trying to build modest estates of their own from piecemeal rewards for serving as stewards for the Crown or for absentee landowners. Moreover, the very conditions of landholding in America precluded the socially stabilizing role for its owners that English critics of the Bubble excesses strained to recall or to prescribe. A family like the Penns might own more land—proportional to the polity in question—than even the Crown had done in Britain for centuries. But at the other end of the spectrum, except perhaps in New York, ordinary yeomen owned, securely rented, or—through some combination of squatting, delayed patenting, or fee withholding—enjoyed the beneficial use or control of more acres than their English counterparts ever did. If soil had to serve any of the stabilizing social or political functions prescribed by London pamphleteers in *America*, it almost seemed that providence itself had debased that coin by making too much of it, while projectors from the Crown down to New Jersey's lowly fractional proprietors had mocked the claim by spending it too freely.[63]

Finally, the presumed distribution of subterranean minerals effectively paralyzed landholders from acting rationally on their best instincts to either hold *or* fold their economic portfolios, and in the process inevitably jeopardized their social authority. Peter Fauconnier's and Ebenezer Willson's indignant but silent acquiescence in Cornelius Kuykendall's extortion was bad enough. The grisly spectacle of Charles Dunstar's empty-pocketed impotence before his protégé, James Alexander, after he reached America, must have been genuinely excruciating. By forming an inverse and invisible new topography of valuation, minerals put colonial elites who based their wealth or status on land in a *literal* variant of the Real Whig essayist Thomas Gordon's metaphorical "upside down world," one that may have been as emasculating to them as the riptides of

[62] Tolles, *James Logan*, 186–88; Keys, *Cadwallader Colden*, 6–7; Lawrence H. Leder, *Robert Livingston, 1654–1728, and the Politics of Colonial New York* (Chapel Hill, 1961), chap. 17.

[63] Jack P. Greene, *The Quest for Power: The Lower Houses of Assembly in the Southern Royal Colonies, 1689–1776* (Chapel Hill, 1963).

Exchange Alley were to their more cosmopolitan counterparts in Britain.[64]

Ironically, it was the nascent merchant-nabobs of the Middle Atlantic region, like Isaac Norris—whose own British role-models reputedly lived one step down the slippery slope of speculation from the landed gentry—who attempted to restrain the mining boom. They scorned mineral "ramblers" in colorfully biased terms; vowed to wait out the post-Bubble Atlantic commercial crash on their own capital; dutifully hunted new markets for their dull cargoes of flour, bricks, fish, and (John Smith's *other* old standby) cedar boards; and began investing in charcoal iron plantations in almost painfully cautious and convoluted risk-distributing partnerships. Norris had opportunities to participate in several iron projects, which he initially rejected because of the costs of labor, the distance to markets, the "proposed partners and their circumstances," and even the profusion of competitive establishments. But this very analytical process seemed to demystify the issue for him, and Norris found his reluctance ebbing. "Yet I see [that] by dividing into small shares, they scuffle along," he acknowledged, "and are by what I hear or can observe like to make it answer at least for a time." Norris recognized himself as virtually a caricature of caution. "Being upbraded with neglect and indolence in a case of such general utility to ye country if not of large private advantage," he explained to Irishman Joseph Pike, "I begin to think of it." Neither Norris nor any merchants who reasoned the way he did had anything to apologize for to their proprietary landholding colleagues if coffeehouse debates broke out over who was running the colonies into ruin as Americans struggled with the consequences of the post-Bubble depression of the early 1720s.[65]

While would-be land barons like Logan, Morris, Colden, and Alexander dabbled in nonferrous mining ventures in the decades after the Schuyler boom faded, the merchants bided their time. Franklin was not the only Middle Colonist who knew where to find grown over, weed-strewn holes in the ground abandoned by the 1720s "ramblers," which served for a generation almost as material culture museums of credulity to some men and of lost opportunity to others. The merchants knew too,

[64] Thomas Gordon, *A Learned Dissertation upon Old Women, Male and Female, Spiritual and Temporal, in all Ages; whether in Church, State, or Exchange-Alley* (London, 1720), quoted in Ingrassia, "The Pleasure of Business," 194.

[65] Isaac Norris to Joseph Pike, 11 Dec. 1725, 24 Mar. 1726, Isaac Norris Letterbook, vol. 8; Paskoff, *Industrial Evolution*, chap. 1.

and they knew better than Franklin did, what had been sought there. When a second, and only slightly less virulent copper fever broke out in the region in the 1750s, and Arent Schuyler's heirs reopened *their* long-dormant shafts and imported America's first steam engine to drain their depths, the merchants were attentive. This time they joined in some of the new ventures, which focused less on finding minerals in new places than on applying technical solutions to known ore deposits that had seemed uneconomical a generation earlier. The latter projects were no more successful than they had been in the 1720s, but they illustrated both the continuation and the gradual transmutation of the El Doradan vision in early America.[66]

The colonial actors whose behavior most literally resembled that of London speculators pushing their way into the South Sea House in 1720 to enter John Blunt's "Third Subscription" of company stock were the peering "ramblers after mines" whose noisy presence in the background of the boom was noted by commentator after commentator. Alas, these actors remain as individually anonymous here as they were in the coldly dismissive accounts of men like Logan, Norris, and Lloyd. Neither the unequivocal losers nor the immediate winners of the contest, their fates still invest the episode with much of its humanity. In one ironic sense, their participation was subsidized, if not indemnified, by the resources of their economic betters. They were mostly urban artisans or laborers, and rural servants, tenants, or grown but still-domiciled sons, whose main "capital" consisted of their time and labor. If the Bubble-driven crash of Atlantic commerce interrupted overseas trade in colonial ports, and its ripple effects cut work in the shop or on the farm, then that capital might have been as profitably spent in beating the woods on proprietary manors—or digging futile pits for an honest day's wage from some credulous landowner—as any other way. Indeed, if the most reckless speculative schemes drove even slightly less indulgent forms of economic practice toward perverse states of cultural legitimacy, then the frenzied mine hunters of the Middle Atlantic region may have helped to induce their legislators to buck the bitter resistance of conservatives like Logan

[66] The Middle Atlantic copper-mining boom of the mid-1750s, overshadowed by the Seven Years War even more thoroughly than its precursor in the 1720s had been by the South Sea Bubble crisis, has been almost wholly ignored by historians. But, with specific respect to the Schuyler operation, see William Nelson, "Joseph Hornblower and the First Steam-Engine in America, with Some Notices of the Schuyler Copper Mines at Second River, N.J.," *Proceedings of the New Jersey Historical Society*, 2d ser., 7 (1882–1883): 177–236.

and Morris and support paper money bills in the assemblies of New York, New Jersey, and Pennsylvania during the mid-1720s.[67]

Such financial instruments—without central banks to stabilize them—were viewed by imperial leaders at Whitehall with little more favor than a Sword Blade stock as late as the American Revolutionary crisis of the mid-1760s. But especially in the "Quakerized" polities of Pennsylvania and New Jersey, paper money—and the public land-mortgage offices to which it was prudently attached by legislators—played a crucial role in institutionalizing the regional political stability that Penn, Logan, Hunter, and Morris had precariously forged by the 1710s, but that the furor over mines almost disrupted a decade later. This irony is fully worthy of the satirical talents of the artists and pamphleteers who limned and mocked company officers and bank directors in the wake of the South Sea debacle. But perhaps America had not produced such cultural figures then, or perhaps the best arts of historians have not unearthed them yet.[68]

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[67] Ingrassia, "The Pleasure of Business," 194, describes the cultural processes by which speculation, in bubble-driven circumstances, "alters the terms of evaluative discourse; luxury goods, often regarded as the cause of moral lapse in their own right, gain new acceptance in the face of completely intangible kinds of property" such as stock shares in dubious ventures.

[68] For paper money and its effects in the Middle Atlantic, see Mary M. Schweitzer, *Custom and Contract: Household, Government, and the Economy in Colonial Pennsylvania* (New York, 1987); Thomas L. Purvis, *Proprietors, Patronage, and Paper Money: Legislative Politics in New Jersey, 1703–1776* (New Brunswick, N.J., 1986), chap. 6. For an interpretation of the social and political consequences of the paper money and land office bills in the greater Delaware Valley, see Bodle, "Themes and Directions," 365–66. On the role of the Sword Blade Company in the South Sea Bubble crisis, see Carswell, *South Sea Bubble*, 57–58, 74–75, 169–70, and Neal, *Rise of Financial Capitalism*, 105–6, 109–10.