

Planter Industrialists and Iron Oligarchs: A Comparative Prosopography of Early Anglo-American Ironmasters

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In his encyclopedic account of the New Jersey charcoal iron industry, Charles Boyer contended that many furnace operations "closely resembled the famous southern plantations in the manner of the life and the position of the owner." Of William Richards, ironmaster at Batsto Furnace from 1784 to 1807, Boyer wrote

[He] considered the estate as a true manorial possession and conducted it as lord of the manor. He was not only the friend of those employed at the furnace and on the farms, but also their counsellor. ... When in need of a doctor, a lawyer or a minister, an appeal was made to the "big house," ... , and either his wife or some member of the family was always ready to give aid and comfort in their dire needs. Their groceries and clothing came from the store owned and operated under the personal supervision of the proprietor, and were doled out with no attempt to influence over-buying. At election times, the workers willingly followed the party candidates favored by the employer, whom they considered as better qualified to decide the issues which would be best for their own interests [2, 187-88]¹

Boyer's "kinder and gentler" America in which ironworkers gratefully deferred to their loving employers makes a labor historian wince and perhaps says more about his perspective on labor-management relations in the early 1930s than it does about William Richards. Nevertheless, Boyer's zeal to liken the behavior of northern ironmasters to that of southern planters points to the focus of this essay. This paper briefly compares the social origins and behavior of Pennsylvania and New Jersey ironmasters to that of their peers in Maryland and Virginia between 1715 and 1840. It addresses where ironmasters obtained the capital and expertise that they needed to run an ironworks; it describes the social interactions between ironmasters; and it speculates on the relationship between

¹Several scholars of the early Anglo-American charcoal iron industry who wrote in the early twentieth century, most prominent among them Arthur Bining, echoed Boyer's efforts to liken the socioeconomic functions of northern charcoal ironworks and southern plantations [1, 19-20].

ironmasters' social backgrounds and their efforts to recruit and retain labor.² As such, it represents part of a larger study that compares regional patterns of labor recruitment and labor management within the charcoal iron industry in order to explain how the northern and southern United States became distinct regions socially and culturally.

Running a charcoal ironworks profitably demanded both deep pockets and a wide range of skills of an ironmaster. Henry Drinker, Philadelphia merchant and majority shareholder in the Atsion Iron Works of New Jersey, estimated in 1786 that acquiring a suitable site, constructing a furnace, forge, storage facilities, and ironworkers' dwellings, and stockpiling raw materials and provisions to prepare for blast might total between 6,000 and 10,000 pounds--if the ironmaster was lucky [9, p. 366]. At that point the demands on an ironmaster's finances and acumen had just begun. Waterwheels, furnace stacks, forge hammers, and buildings all required constant repair, while woodcutters, colliers, and other waged employees demanded credit and goods at the company store. To stay in business, an ironmaster had to understand the production process (or hire someone who did) so that he could carefully coordinate supplies and work to maximize the efficiency of his operation. In addition, he had to read precarious markets astutely, usually with incomplete and outdated information, in order to gauge fickle demands and meet them promptly [26, pp. 3-90].

Charcoal iron production in the mid-Atlantic region entered an era of sustained growth after 1715 as a result of Hanoverian diplomacy, British mercantilist concerns, the deforestation of the English countryside, and growing local demand for cast and wrought iron products. Most of that growth occurred within the mid-Atlantic region, concentrated in a broad band that stretched south from northern New Jersey, through southeastern Pennsylvania, to the Shenandoah Valley of Virginia. Most of those who entered the industry in the early eighteenth century were British immigrants, although by 1765 several Germans had started operations in Pennsylvania, New Jersey, and Virginia's Shenandoah Valley. Some rose from craft or managerial positions to become ironmasters, usually by leasing an operation or purchasing a share in conjunction with partners. In southeastern Pennsylvania and New Jersey during the eighteenth century, ironmasters frequently entered into partnerships with Philadelphia merchants, who supplied the capital while the ironmasters brought their technical and managerial expertise. Well over two dozen Philadelphia merchants invested in Pennsylvania and New Jersey ironworks during the eighteenth century, most of them without taking an active interest in daily affairs [10, pp. 151-57; 31, pp. 98-100; 33, pp. 103-04]. Another common way individuals expedited their acquisition of a furnace or forge was by marrying into the family of someone who already owned one. This gave a prospective ironmaster access to expertise and capital, the two crucial ingredients for entering the iron business.

²As with many other eighteenth and nineteenth century occupational titles, early Anglo-Americans often defined arbitrarily who was an ironmaster. In addition to those who owned and operated a furnace or forge, casual investors, managers, and ironmasters. I define an ironmaster as someone who took an active interest daily business and either: (1) owned part of the venture or (2) rented the facility.

Thomas Potts and his heirs combined these strategies to construct the largest iron-making empire in colonial southeastern Pennsylvania. Potts, a butcher who had migrated from England to Germantown, probably learned how to operate an ironworks under Thomas Rutter, who built Colebrookdale Furnace in 1720. Potts leased Colebrookdale five years later for 48 tons of pig iron a year. At that time, Potts became manager and assumed part of a one-twelfth share. Seven of the other eight shareholders in Colebrookdale were Philadelphia merchants. By 1733 Potts had purchased a one-sixth share of Colebrookdale and a one-third share of Pine Forge. Four years later, Potts acquired part of the Rutters' share of Colebrookdale, giving him ownership of half the furnace. By 1742, he owned two-thirds of Colebrookdale [15, pp. 75-88; 21, pp. 39-61].

Shrewd deals had made Potts an ironmaster, but favorable marriages enabled he and his heirs to obtain a dominant position within the Schuylkill Valley iron industry. The remaining one-third share of Colebrookdale remained property of Thomas Rutter, the son of Potts's colleague, until he died in 1734. He left behind as his principal heirs, daughter Rebecca and young son Thomas III. Rebecca married Thomas Potts, Jr., giving the Potts family an interest in that one-third during Thomas Rutter III's minority. Thomas Potts' other son named Thomas married Anna Nutt and through her acquired an interest in Warwick Furnace. Thomas Potts's son John Potts, who had learned how to tend a furnace by serving as Colebrookdale's founder in the mid 1730s, by 1745 had come to own a two-thirds interest in Pine Forge [21, pp. 62-74]. Thomas Potts's sons expanded the estate he had built until, by the Revolution, the united Potts-Rutter-Nutt families owned outright or held shares in Colebrookdale Furnace, Mount Pleasant Furnace and Forge, Warwick Furnace, Coventry Iron Works, Spring Forge, Pool Forge, Pine Forge, Little Pine Forge, McCall's Forge, as well as other operations. The second and third generations of Potts ironmasters struck out beyond southeastern Pennsylvania, starting or investing in operations in Virginia and southern New Jersey [17; 21, pp. 73-93, 149-55].

Robert Coleman represents another example of the utility of learning the trade young and marrying advantageously. Coleman, born in Ireland in 1748, immigrated to Pennsylvania in 1764. After clerking in Reading for two years, Coleman obtained a position as clerk for Peter Grubb at Hopewell Forge in Lancaster County. From there, Coleman moved on to Quittapahilla Forge, then leased by James Old, a Welsh immigrant. Old clearly liked Coleman and took him along to Reading Furnace in Chester County. There Coleman married Anne Old, his employer's daughter, in 1773. By that year, Coleman, probably with help from his father-in-law, had accumulated enough capital to rent Salford Forge for three years. In 1776, Coleman leased Elizabeth Furnace in Lancaster County for seven years. By 1784, he had purchased two-thirds of the Elizabeth estate and by 1794, he owned the entire operation outright. By his death in 1825 Coleman had acquired Cornwall Furnace plus a controlling interest in the rich ore banks there, Colebrook Furnace, Union Forge, Mount Hope Furnace, and Hopewell Forge. The considerable wealth that he had accumulated through these operations he passed on to his four sons, all of whom continued in the iron business in Lancaster and Lebanon counties [22, pp. 92-93, 142-48, 158-77, 203-18; 30, pp. 18-19, 24-27].

Another ironmaster whose career resembled that of Coleman and Potts was William Richards. Born in Berks County in 1738, Richards worked first at Coventry Forge, where he wed Mary Patrick, daughter of manager John Patrick. Richards moved on to Warwick Furnace, where he learned how to make decorated stoveplates and firebacks. Richards left southeastern Pennsylvania for Batsto Furnace in Burlington County, New Jersey, serving as manager from 1773 to 1776. After serving as an officer during the war, Richards resumed duties as Batsto's manager in 1780. He managed to acquire a one-third share in Batsto in 1784 by promising future payments in castings and pig iron. His nephew Joseph Ball, a Philadelphia merchant and a former Batsto manager also purchased a one-third share at that time. Richards soon acquired a controlling interest in Batsto and there his sons Samuel, Jesse, Thomas, and Mark received their training in the charcoal iron business [27, pp. 3-32].

Samuel Richards subsequently became an even more prominent ironmaster than his father. In 1808, Samuel and cousin Joseph Ball purchased Martha and Weymouth Furnaces, both located in Burlington County. Samuel's brother Jesse, doomed to dwell for most of his life in the shadow of his more successful brother as manager of Batsto, founded the ill-fated Washington Iron Works in Bergen County in 1814. His brothers Thomas and Mark in 1815 each acquired a one-third interest in the Taunton Iron Works, situated near Medford. In 1819, Samuel purchased the defunct Atsion Iron Works, repaired the facilities, and there built a mansion from which he could supervise work at Atsion and make short journeys to examine progress at his other ironworks. By 1820, Samuel and his brothers had assumed considerable influence over the South Jersey's charcoal iron industry [27, pp. 35-36, 96-98, 156-67, 190-92].

Potts, Coleman, and Richards present but three examples in which a family or intermarried group of families rose to dominate the iron industry in their immediate area, a pattern common throughout Pennsylvania and South Jersey into the nineteenth century. The Grubb family, who began around 1740 with the mines at Cornwall, a century later owned furnaces and forges throughout western Lancaster, Lebanon, and York Counties [12, p. 13]. Brothers Michael and George Ege, both of whom learned the iron business at Elizabeth Furnace under uncle Henry William Stiegel, built or purchased several operations in the late eighteenth and early nineteenth centuries, George in Berks County, Michael in Cumberland County [6, pp. 117-18; 11, pp. 71-100]. Similarly Peter Schoenberger, son of George Schoenberger, who in 1804 moved from Lancaster County to Huntingdon County, Pennsylvania to help run Juniata Forge, by 1840 expanded his father's holdings to include 7 furnaces, 3 forges, and at least 25,000 acres, all located in the Juniata Valley [15]. As the experience of the Potts and Grubb families suggest, by the Revolution many of the prominent ironmasters in southeastern Pennsylvania represented the second, or in some cases, third generation in the industry [1, pp. 130]. Such generational continuity, along with

intermarriage, effectively concentrated capital, ownership, and managerial expertise in the hands of a small group of interrelated families.³

For the most part, the careers of Chesapeake ironmasters followed a different pattern. First of all, British capital played a significantly larger role there than in Pennsylvania and New Jersey during the eighteenth century. The Principio Company, composed primarily of English merchants, ironmongers, and iron manufacturers, mounted the first sustained large-scale effort to exploit ore deposits in the region in 1715. At its zenith in the 1740s, Principio boasted four furnaces, two forges, and an ore bank along the Patapsco River from which it boated ore north to Cecil County and south to the Accokeek Furnace in Virginia. The company had these operations managed by agents sent from Britain, some of whom, such as Stephen Onion and Thomas Russell, subsequently struck out on their own as Chesapeake ironmasters [28, pp. 23-87]. Principio soon met with imitators. In the 1730s a group of investors, most of them from Bristol, teamed up with local planter John Tayloe to establish Virginia's Bristol Iron Works [4]. The Revolution, which resulted in the seizure of most British assets, brought British capital's role in the Chesapeake iron industry to a screeching halt.

Tayloe's role in the Bristol Company's venture suggests the nature of creole participation in the colonial Chesapeake charcoal iron industry. Several of the most prominent men in the eighteenth-century Chesapeake, particularly in Maryland, held significant investments in furnaces and forges. Among them were John Tayloe, Dr. Charles Carroll, Charles Carroll of Carrollton, and Daniel Carroll, Daniel Dulany, Benjamin Tasker, Robert Carter, Augustine Washington (George's father), and David Ross [16, pp. 18, 23]. Unlike their northern counterparts who viewed themselves primarily as ironmasters, most of these individuals invested in the charcoal iron business to supplement their activities in planting, commerce, land speculation, and providing professional services. Iron production represented an attractive investment for such men because it complemented their other interests. The rhythms of charcoal iron production closely resembled those of a plantation, allowing planter ironmasters to divert supplies and laborers (most of them enslaved African-Americans) as necessary. Pig and bar iron fit into their commercial arrangements with British merchants. Ships that visited the Chesapeake to pick up tobacco crops often used pig iron as ballast. Furthermore, iron provided another commodity that British merchants would usually accept in exchange for the imported luxury items that planters loved to consume [16, pp. 252-389; 28, pp. 16-19, 189-237].

By the late eighteenth century, planter engagement in the iron industry took a backseat to that of non-natives, especially in Virginia. During the colonial era, non-natives already played a significant role in the Chesapeake iron industry. Scottish immigrant Lt. Governor Alexander Spotswood erected the first permanent blast furnace in Virginia [5, pp. 356-65; 8, pp. 295-98]. By the mid-eighteenth century, ironmasters, most of them trained in the Delaware Valley, joined the thousands of Pennsylvanians who migrated south into the

³I remain indebted to Mary Schweitzer for observing that intermarriage and generational continuity served to concentrate human capital (in the form of technical and managerial expertise), as well as finances and ownership in hands of a few families.

Shenandoah Valley. After 1760, nearly every prominent Virginia ironmaster came from Pennsylvania. Isaac Zane, Jr., native Philadelphian and son of a cabinetmaker, bought the Marlboro Iron Works in 1769 after having earlier acquired a quarter-share in a partnership that included three Pennsylvanians--John Hughes, John Potts, Jr., and Samuel Potts [24]. Soon after Zane moved south, Philadelphian Dirck Pennypacker, having built an ironworks in Maryland that got destroyed by a flood, opened Ridwell Furnace. The most prominent Virginia charcoal ironmaster of the nineteenth century, William Weaver, arrived in the Valley from the Philadelphia area. Some prominent families remained involved in the business, such as the Tayloes and the Ridgelys of Baltimore County, but outsiders dominated the Chesapeake iron industry after the Revolution [3, pp. 17-46].

David Ross represents something of a transitional figure in the Chesapeake iron industry. Ross immigrated from Scotland to Virginia sometime in the mid 1750s, apparently without any previous experience in iron manufacture. He must have possessed some means on his arrival, for he soon became involved in tobacco planting, land speculation, and commercial activities, among which he included the backcountry servant trade, a highly useful business for an ironmaster. Ross first entered the iron industry in 1765, when he became one of three investors to establish the Antietam Iron Works in Maryland. He purchased the Oxford Iron Works sometime around 1776 and there began to assemble an enslaved labor force that by 1811 numbered at least 220. Perhaps to help allay suspicions about where his political loyalties lay, Ross began acting as commercial agent for Virginia in late 1780, responsible for supplying the state's troops with clothing, ordnance, lead, and other military stores. By 1787, Ross ranked as one of the wealthiest owners of both land and enslaved labor in Virginia [20, p. 363]. His financial fortunes, however, had already started to head downhill. By 1812, Ross, hounded by creditors for close to three decades, had nearly drowned in a sea of debt. After his death in 1817, Ross's heirs sold off most of Oxford's enslaved work force and the operation fell into disrepair within two decades [7].

Ross's career resembled that of many other prominent Chesapeake ironmasters of his era. Like the Carrolls, the Taskers, the Dulany and the Ridgelys, Ross was at once a planter, merchant, and industrialist who figured among the elite of his society. His status as an immigrant ironmaster matches the colonial Chesapeake pattern followed by men such as Stephen Onion, Alexander Spotswood, Richard Snowden, and Thomas Russell. Finally, Ross, like most of his Chesapeake counterparts, did not follow the example established by the Potts, Grubb, Coleman, and Richards families, who used acquisition, inheritance, and intermarriage to dominate charcoal iron production in southeastern Pennsylvania and southern New Jersey for close to a century.⁴

⁴This is not to say that families of Chesapeake ironmasters did not intermarry, or that marriage did not facilitate entry into the iron business. Robert Carter obtained his shares in the Baltimore Company through his marriage to Frances Tasker [23, pp. 161-85]. Charles Ridgely married Rebecca Dorsey, ironmaster Caleb's sister. Little evidence exists, however, to indicate that Chesapeake ironmasters employed intermarriage as a strategy to concentrate capital and production facilities into the hands

How did the social backgrounds of mid-Atlantic ironmasters influence their efforts to recruit and retain labor? Since charcoal iron production demanded a division of labor and level of organization unmatched by most early Anglo-American enterprises, locating laborers and molding them into a reliable work force represented an ironmaster's greatest daily concern. A comparative analysis of how ironmasters recruited and managed labor within the mid-Atlantic charcoal industry hinges on the gradual movement of the economies of Pennsylvania and New Jersey toward a free labor system during the late eighteenth century [25; 29]. After 1780, ironmasters in those states reluctantly began to abandon slavery and indentured servitude as their Chesapeake peers continued to look to slavery to meet most of their labor needs.

For Chesapeake ironmasters who had ties to the plantation export sector, purchasing or hiring enslaved African-Americans simply represented a natural extension of their plantation labor regime. But familiarity and cultural preference do not entirely explain why Chesapeake ironmasters resorted to enslaved labor. Given the complicated and interrelated routines involved in iron production, slavery offered ironmasters a flexible work force over which they could wield considerable coercive power. In addition, relying on enslaved ironworkers freed them of the trouble and expense of locating and retaining skilled waged workers. These advantages of relying on enslaved labor also appealed to Isaac Zane, William Weaver, and most of the other Pennsylvanians who bought or built ironworks in the region between 1760 and 1840 [19].

Northern migrants' relatively quick and painless adoption of enslaved labor stemmed less from imitating their neighbors than from copying their mentors back in Pennsylvania. Eighteenth-century Pennsylvania and New Jersey ironmasters soon recognized the advantages to having enslaved laborers and many filled skilled positions with bonded African-Americans when the opportunity presented itself. By the Revolution, ironmasters in southeastern Pennsylvania and northern New Jersey stood among the largest slaveowners in the area. The passage of gradual abolition legislation eliminated this option after 1780, although most ironmasters tried to maximize their returns by having African-Americans enter a period of indentured servitude [25, pp. 32-40, 97-113, 182-87; 32, 474-78]. Such a development did not trouble individuals such as William Richards unduly, for in his will Richards manumitted Andrew and Ben, the last two enslaved men at Batsto [2, 188]. Guilt may have motivated this action or maybe Richards felt he could free them because he had enough waged workers to meet his needs. A surplus of available waged labor, however, was a situation that Richards had a hand in creating. Perhaps part of the reason why Richards could retain enough employees was because, as Boyer claimed, he provided services they wanted and he treated them well. But he and his family had also constricted their ability to seek employment elsewhere, for members of the Richards family owned most of the forges and furnaces located near Batsto. To avoid working for Richards or one of his sons, most ironworkers would have to leave the Pine Barrens, a journey of at least a couple of days.

of a small number of families as was the case in Pennsylvania and New Jersey.

To summarize briefly, New Jersey, Pennsylvania, and the Chesapeake initially saw a large number of immigrants enter the iron business, but the Chesapeake received significantly more British capital. For both regions after 1750, southeastern Pennsylvania continued to serve as a "hearth" in which future ironmasters learned their trade. Through inheritance and intermarriage, Pennsylvania and New Jersey ironmasters soon formed interlocking kin alliances that gave them local control over the industry. The concentration of ownership in the hands of a few interrelated families also enabled northern ironmasters to cope readily with the demise of slavery and indentured servitude. Several Chesapeake planters bought into or built ironworks, an investment that easily meshed with their other entrepreneurial activities. After the Revolution, British involvement in the Chesapeake iron industry ended, most planters abandoned their investments, and non-natives, especially migrants from Pennsylvania assumed the dominant role in the industry. Both native planters and northern migrants exploited enslaved labor heavily--the planters in part because doing so represented a natural extension from their other enterprises, the migrants because they recognized the conveniences that slavery offered them. Because of the time investment involved in detailed record linkage, the analysis presented here has remained primarily qualitative in nature. Future consultation of wills, deed, tax lists, and other records will provide a more detailed collective portrait of early Anglo-American ironmasters.

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