

How Sweden Went Global and Carolina Got its Hoes

An Atlantic tale

three factories of unparalleled size in the northeast of England and a set of warehouses in the English midlands that supplied rod iron to a swarm of out-workers. The latter, working in their own homes, hammered the rods into nails—thousands each day.

Crowley's success was attributable in part to his indomitable disposition. He was a man of unquenchable ambition and energy. But Sir Ambrose was also fortunate in his timing. His business career coincided with an epoch of near-continuous war, and it was the demands of the wartime state that sustained the Crowley firm's growth. The Glorious Revolution of 1688 had turned Britain, a peripheral actor in European affairs in the 1670s, into a key antagonist of France. King William's War (1689-1697) and Queen Anne's War (1702-1713), fought to thwart Bourbon expansionism, brought about a major overhaul of the British state. Naval and military expenditure grew stupendously, and it was as a naval contractor that Crowley grew rich. Sir Ambrose's main depot was at Greenwich on the Thames, hard by the Royal Navy's principal dockyards. At the time of his death he was owed over £50,000 sterling by the Navy Board—the government agency responsible for fitting out the fleet. For the Crowleys, then, the prospect of peace was troubling indeed.



An Exact Prospect of Charlestown, the Metropolis of the Province of South Carolina, engraved for the London Magazine (1762). Charleston's quayside is seen from across the Cooper River. On the left, a battery defends the town against attack from the sea. Upriver, piers jut out into the stream to allow ocean-going ships to load up with rice. Back from the wharves and warehouses were the principal streets of the "Metropolis of the Province," where the great planters resided for most of the year. "An European at his first arrival must be greatly surprised when he sees the elegance of their houses, their sumptuous furniture, as well as the magnificence of their tables; can he imagine himself in a country, the establishment of which is so recent?" Courtesy of the American Antiquarian Society, U.S. Views Collection.

The appearance of the *Crowley* and the *Ambrose* at Charleston's quayside signaled a reorientation of the business that John Crowley had inherited from his father. Naval contracting remained an important activity, but it was much reduced in scale after the peace of Utrecht. New sources of revenue had to be sought out: hence the priority now given to transatlantic markets. John Crowley, deprived of the naval orders that had been so lucrative in his father's time, turned to the West Indies and to that portion of mainland North America that most closely resembled the plantation complex of the Caribbean: South Carolina. These distant colonies formed a substantial market for

agricultural tools—a civilian substitute for the lost military orders.

The Caribbean sugar islands represented the largest single source of transatlantic demand for the Crowleys' hardware, but South Carolina showed the most rapid growth. "The Inhabitants," trumpeted one of the province's early boosters, "by their wise Management and Industry, have much improv'd the Country, which is in as thriving Circumstances at this Time, as any Colony on the Continent of English America." Economic improvement there had been, but it was born of violence and ruthless expropriation rather than "wise Management."

The years following the foundation of South Carolina in 1670 were years of carnage. Many of the earliest English settlers had come to the area from Barbados. Conscious of the spread of a sugar monoculture in the West Indies and the demand that it generated for labor, the English were soon encouraging the Native Americans with whom they traded to raid neighboring communities for slaves. This triggered a long series of Indian wars that furnished a steady supply of captives for the plantations of the Caribbean and resulted in a massive depletion of the indigenous population. A growing trade in deerskin made these bloody developments all the bloodier. Native traders exchanged the skins, much sought after by European leather workers, for muskets, shot, and knives, as well as other less lethal goods.

As the coastal lowcountry was emptied of its native residents it was repopulated with a new racial group and rededicated to the production of a new commodity. Rice, cultivated by African slaves, replaced animal skins and native captives as the region's chief export. Experiments in the growing of rice had begun in the 1690s as local planters sought a staple crop that would bring them the kind of fabulous wealth that sugar had brought their counterparts in the West Indies. Climatic and environmental conditions made it impossible for Carolina growers to compete directly with their wealthier West Indian counterparts (or with Chesapeake tobacco growers, for that matter), but the lowcountry's abundant swamps lent themselves to the planting of rice. By the 1710s the crop was *the* critical element in the local economy. Rice revolutionized life in Carolina, making the colony the richest in British North America. South Carolina also became home to the American mainland's most brutal slave regime. It was no coincidence.

Rice cultivation was enormously labor intensive. The conversion of marshes into rice fields could only be accomplished through an injection of African labor, for white servants were in short supply. English migrants found life in the Chesapeake, harsh though it often was, much preferable to the exhausting routine of planting, harvesting, and processing that rice imposed on its growers. Field hands were condemned to endless labor with the hoe, breaking up the soil and clearing weeds. The work was "peculiarly unwholesome, and even fatal to health." Slaves had to stand "anckle, and even mid-leg deep in water . . . exposed all the while to a burning sun, which makes the very air they breathe hotter than the human blood; these poor wretches are then in a furnace of stinking putrid effluvia." Coercion, and nothing less, was the basis of

planters' fortunes.

The province that had once been an exporter of Amerindian captives was now an importer of African slaves on a massive scale. It helped that some Africans, unlike north Europeans, were experienced cultivators of rice. At first, Africans were obtained through Caribbean slave markets, but by 1714 a direct trade with the Guinea coast was underway. Soon imports began to spiral upwards, culminating in 1738 when 3,658 slaves disembarked in the Carolinas. Rice brought about an Africanization of South Carolina. Blacks had formed a minor part of the province's nonindigenous population in its early days, just two hundred individuals out of twelve hundred in 1680. By 1700, as rice exports began to climb, blacks made up 43 percent of South Carolina's inhabitants. By 1720 they accounted for 70 percent of a population that now topped eighteen thousand. Carolina, a Swiss migrant remarked in 1737, "looks more like a negro country than a country settled by white people."

Rice exports from Charleston averaged 1.8 million pounds in the last five years of Queen Anne's War; in the five years between 1728 and 1732 they averaged 16.9 million pounds. This massive extension of rice cultivation through the lowcountry called for a wholesale reshaping of the landscape. This, in turn, rested upon an infusion of European-made *matériel*: hoes by the thousand, axes, spades, ox chains, and the like. It was this requirement that attracted the attention of metalware manufacturers in Britain and this that brought the *Crowley* and the *Ambrose* to anchor in the Cooper river, with the *Theodosia* (named to honor John Crowley's wife in 1718) and the *John* (registered in 1721) arriving in their wake.

The inventory of John Crowley's factories and depots, made after his death in 1728, reveals the full extent of his firm's reliance on plantation agriculture. It listed "Barbados Hoes" (in eight different types) and "Virginia hoes" (another eight types). Then there were "Carolina Hoes" and "Carolina Axes." There were also, lying oiled and wrapped in the shuttered darkness of the Greenwich warehouse, padlocks "for Negroes Necks." Goods like these were regularly consigned to Charleston in the 1720s and 1730s. When one Carolina merchant advised a London correspondent on the assortment of goods most likely to fetch handsome profits in the Charleston market, he stipulated "Crowleys best Broad Hoes & Narrow Hoes"—eighteen dozen of the former and twelve dozen of the latter. That Crowley hoes and hardware were sent to Charleston in bulk is evident from the scale of the debts incurred by the town's merchants. The biggest debtor, Joseph Wragg, whose brother Samuel was the colony's agent in London and a major metropolitan slave merchant, owed £3,914 sterling.

Visitors to the Crowleys' northern factories were quick to notice how many of the articles manufactured at Swalwell or Winlaton Mill were designed specifically for transatlantic markets. The Swede Johan Robsahm who visited the enormous Swalwell plant in 1761 walked through numerous smiths' shops "where shovels, mattocks, and hoes were made." Hoes and mattocks, Robsahm noted to himself, "are implements used in America for cultivating the ground instead of

ploughs." Another Swede, Reinhold Angerstein, who toured Swalwell in 1754, counted twenty-two workshops, each with three workers, devoted to turning out hoes. He also watched the making of a "certain kind of axe, 1 inch long, ground and polished all over," which was intended for the Indian trade. The axes, Angerstein noted, were intended for ceremonial rather than practical purposes, so the edge was not "ground really sharp but left dull." (Were these the "Carolina Axes," over a thousand of which were boxed ready for shipment in the Greenwich warehouse in 1728?)

Robsahm and Angerstein were not the first Swedes to visit the Crowley works in the eighteenth century. The Swalwell-Winlaton complex was, in fact, an almost obligatory port of call for those Swedes, mainly state officials, who crisscrossed central and western Europe from the late seventeenth century onwards as "industrial tourists." Mines, furnaces, factories, and warehouses rather than the architectural remains of classical antiquity drew these gentleman travelers abroad. They were not, as might be assumed, engaged in industrial espionage. Swedish travelers, it is true, were keenly interested in the new mechanical devices they encountered in Britain's industrial districts but not with a view to transplanting them in Sweden. Angerstein and his ilk were far more concerned with western Europe as a market for Swedish iron than as a source of technological novelty.

Although there was plenty of iron ore in England, there was very little wood to fuel the smelting process. In Sweden, abundant forests provided a cheap source of charcoal fuel. Only in the 1790s, with the broad adoption of coal-based smelting methods, was the British iron industry able to free itself from dependence on foreign iron.

Sweden had emerged as a great European power in the seventeenth century on the basis of mining and metal processing. Iron exports, which had averaged little more than three thousand tons per annum in the late 1620s, leapt to eleven thousand tons in 1640, then to eighteen thousand tons in 1650, and twenty-seven thousand tons in 1680. This startling escalation was a matter of policy. The Swedish state entertained territorial ambitions, but these could only be fulfilled if the poor and sparsely populated kingdom of the warrior-king Gustavus Adolphus could exploit its latent mineral wealth.

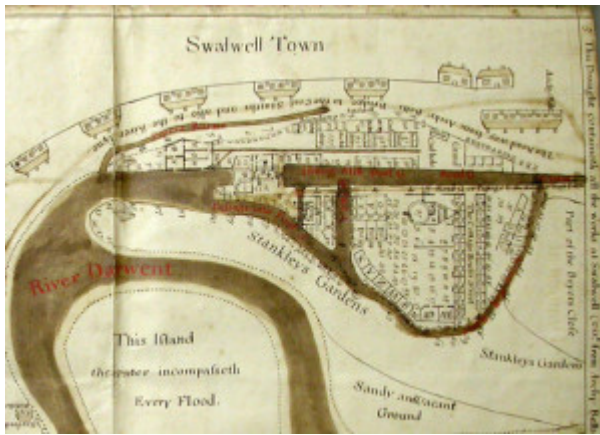
It so happened that iron was needed in the capital-rich Netherlands and capital was needed in iron-rich Sweden. In the 1620s, a group of opportunistic Dutch merchants capitalized on these needs, heralding a transformation of Sweden's industries. The Dutchmen were awarded wide-ranging privileges by the Swedish state, allowing them to establish a network of processing plants. The newcomers were able to take control of Sweden's copper resources (which were Europe's richest), set up cannon foundries at a time when endemic warfare made the gun trade especially lucrative, and redirect Swedish iron exports westwards. The greatly increased export revenues enabled Gustavus Adolphus to make his sensational entry into the Thirty Years' War, the immense dynastic and religious struggle that convulsed Europe in the 1620s and 1630s. It was this

twin military-industrial initiative that ushered in Sweden's "Age of Greatness" (*stormaktstiden*).

This was Sweden's era of imperial success, when her provinces stretched all around the Baltic, from Finland to Pomerania. Riga and Bremen were Swedish cities; the marshy delta on which St. Petersburg would one day be built was an as yet insignificant corner of the Swedish province of Ingermanland. Yet Swedish power, for all its martial lustre, was insecure. Despite a considerable increase in numbers during the seventeenth century, Sweden remained thinly populated. Sweden's enemies, on the other hand, were numerous. Were they to combine—as the Russians, the Poles, and the Danes did in 1699—the consequences would be severe. The Swedish crown lacked the manpower to compensate for battlefield losses, so when Sweden's principal field army was annihilated at Poltava in the Ukraine in 1709, the curtain fell on *stormaktstiden*. The Baltic empire was lost, ceded for the most part to Peter the Great's Russia.

Iron exports had laid the basis for Sweden's imperial experience in the seventeenth century. For Swedish officials in the eighteenth century it thus stood to reason that success in the iron trade would be the foundation of national renewal. This explains the avidity with which Swedes visited Britain, the destination for most Swedish iron exports. They were anxious to check that the bar iron manufactured in Bergslagen, the mining district that extended in a broad arc to the north and west of Stockholm, met with the approval of users in Europe's most dynamic iron market.

Reinhold Angerstein made a rough calculation of the annual consumption of iron at the Crowleys' Swalwell and Winlaton works. It amounted to 2,350 tons, to which the two in-house forges contributed no more than 400 tons. The remaining 1,950 tons were imported, largely from Sweden. Travelers like Angerstein were able to monitor the use of Swedish iron quite closely because every bar bore, by state edict, a stamp that identified the forge from which it came. Thus, Robsahm was able to note with satisfaction that the hoes and mattocks being made at Swalwell in 1761 for the American market were hammered out of iron bearing "the stamp 'C and Crown' from Älvkarleö." Robsahm had further reason for satisfaction as he described the manufacturing process. The hoes were forged for the most part from malleable iron, but the cutting edge that was to slice into the soil of the lowcountry was steel. And this steel, as Robsahm well knew, was made from the elite brands of Swedish iron, converted to steely hardness in the cementation furnaces of the northeast of England. Swalwell was just one node in a commodity chain that originated in the ore pits of Bergslagen and that snaked onwards into the Atlantic.



Ambrose Crowley's plant at Swalwell was built in the first decade of the eighteenth century, a mile downstream from Winlaton Mill, his existing factory in the Derwent Valley. When inventoried in 1728, which may have been the occasion for the drawing up of this plan, the Swalwell works included two steel furnaces (although only one, "No. 4," with its conical chimney, is shown here), associated forge hammers, a slitting mill, a blade mill, four anchor shops, air furnaces valued at £100, three warehouses, five hoe makers' shops, and shops for the making of frying pans, patten rings, and nails. Courtesy of the Tyne and Wear Archives Service, DX104/1. Not to be reproduced without permission.

Few in the lowcountry were aware of it at the time, but South Carolina's economy in the first decades of the eighteenth century was developing in dialectical tension with events in the Baltic region. The Great Northern War (1699-1721), the grinding conflict that brought about Sweden's eclipse as a major power, afforded Carolina's rice planters their point of entry into world markets. By disrupting the outflow of Polish wheat—the dietary mainstay of western Europe's urban poor for two centuries—the war encouraged grain merchants to look further afield for alternatives.

They found one such alternative in Carolina rice. The seemingly endless cycle of European war, which was echoed distantly in the assaults that South Carolina's colonists launched against Spanish settlements in Florida in 1702, 1703, and 1708, drove up the demand for Swedish iron, especially in Britain, where the consumption of iron and steel surged far ahead of local supply. This was a matter of some anxiety to the British authorities who fretted at their inability to command secure supplies of so strategic a material. Worse, from a strategic point of view, was the reliance of the Royal Navy on Russian hemp or Swedish tar. It was this that prompted the British Parliament to identify South Carolina as a counterpoise to the Baltic. Given adequate encouragement, could not tar and pitch be obtained from the pine forests of Carolina? That was the aim of legislation passed in 1705 to award a bounty on imports of naval stores from the American colonies.

This was the context in which John Crowley's ships sailed for Carolina with their cargoes of hardware. On their return they would carry rice, deerskins, and naval stores. When the *Crowley* cleared Charleston in November 1723, for example, she was loaded with 222 barrels of rice, 5 chests of deerskins, 457

barrels of pitch, and 267 barrels of tar. Others were quick to recognize the opportunities that Crowley had spotted. A Quaker merchant who traded out of Bristol, the premier port in western Britain, was one of them. He had the singular name of Graffin Prankard. Prankard's main business was with Stockholm, whence he imported large volumes of iron, but his ship the *Parham*, launched in 1722, also sailed for Charleston every winter. Her cargo would include metalwares, such as hoes and chains, and nails by the hundred thousand. Lead shot and gunpowder, staples of the Indian trade, also featured prominently. The return cargo from Charleston was of course rice, augmented by naval stores and dyestuffs. It was a flourishing trade, for Prankard soon built a new, far-larger ship to join the 100-ton *Parham*. The 226-ton *Baltick Merchant*, registered at Bristol in 1732, was capable of carrying over thirteen hundred barrels of rice.

There was no paradox in a ship named the *Baltick Merchant* engaging in transatlantic trade, for Graffin Prankard, even more than John Crowley, was seeking to capitalize on a potential symmetry between Baltic commerce and the passage of goods to and from Charleston. There was a complementarity between Swedish iron and Carolina rice that would allow Prankard to employ his shipping in a continual, year-round circuit. He dispatched the *Baltick Merchant* to Charleston in the autumn, just as ice was closing the more-northerly Baltic ports to shipping. While the *Baltick Merchant* struggled across a rough, wintry Atlantic, the Carolina rice crop, planted in the spring and harvested in the fall, was being prepared for shipment. Slaves were engaged in laboriously "pounding out" the rice in order to separate the husk from the grain. At the year's end, when the *Baltick Merchant* tied up at Charleston, hundreds of barrels of rice were ready to be stowed on board. Graffin Prankard's ships usually cleared Charleston in February or March, just as bar iron was on the move from forges in Bergslagen to Stockholm. Sledges carried the iron over the frozen lakes and snowy roads of the Swedish midlands to the thawing Baltic ports.

The successful completion of the circuit Prankard had initiated the previous autumn required careful synchronization among his agents across northern Europe. The cargo of rice would be delivered to Hamburg or Bremen in April or May. At the end of May, just as thousands of Africans were spreading out across the rice fields of Carolina to plant the new season's crop, the *Baltick Merchant* would pass east through the Sound en route to Stockholm. The cargo of iron and timber that awaited her would be loaded without delay, for the ship was to return to Bristol in time for St James's fair in July, the highpoint of the city's commercial calendar. St James's fair attracted buyers and sellers from across the southwest of England and the Midlands. And it was here that Graffin Prankard met the ironmongers and manufacturers who bought his iron and who supplied him with the exportable iron wares that would allow the transatlantic cycle to begin anew.

This pattern of trade thrived through the 1730s. The *Baltick Merchant* made the trip to Charleston every year. But the headlong development of South Carolina's

rice economy was about to undergo a sharp deceleration. The outbreak of war between Britain and Spain in 1739 brought a general disruption to Atlantic traffic; the slave rebellion at Stono, near Charleston, delivered an abrupt check to the Carolina trade in particular. The Stono uprising was, in fact, facilitated by Anglo-Spanish antagonism. The armed slaves who gathered at Stono on September 9, 1739, had heard of an edict issued by the Spanish governor of Florida promising freedom to refugee English slaves. The rebels who marched south, intent on reaching Spanish territory, were for the most part Angolans and in all likelihood Catholics. As they headed toward the hoped-for Spanish sanctuary, the conspirators killed the Europeans they encountered. (Their first victim, a storekeeper named Robert Bathurst, provided a ghoulish demonstration of the cutting quality of English steel: his head was severed and left on the steps of his shop.) The rebels were surrounded by militia forces before the day was out, but the brevity of the rebellion could not disguise its seriousness. Nearly two dozen slaveholders had died in an enterprise that clearly suggested concerted planning among the rebels. The colony's rulers were seized by panic.

The 1730s was also a time of mounting slave resistance on the Caribbean islands whose economies were so closely connected with Carolina's. The British authorities in Jamaica were engaged in a bitter war of suppression against the "Maroons," the runaway slaves who defied their erstwhile masters from mountain hideouts in the interior of the island, while a major revolt was only just thwarted in Antigua in 1736. Rebellious outbreaks sprouted across the Caribbean whether the islands were claimed by the English, the Spanish, the French, the Dutch, or the Danish. These insurrections reverberated in the Carolinas. Slave conspiracies were detected in 1730, 1733, 1734, 1737, and 1738. Amid such tensions South Carolina's rulers were inescapably drawn to the question of the province's racial imbalance. Steps were needed, it was decided, to curb the continuing inflow of African labor. Unless this was done, blacks would reach such a numerical preponderance that the Europeans would lose the coercive critical mass upon which their security rested. Moreover, the government set out to reduce the ratio of African-born slaves in the unfree population. Africans, officials increasingly feared, were intransigently wedded to memories of their former freedom, whereas American-born blacks, knowing nothing but servitude, were more biddable. Accordingly, the "Negro duty bill," enacted in April 1740, placed a prohibitively high tax on the importation of slaves. The effect was instantaneous. Slave sales collapsed: in the 1730s, 22,215 slaves had been landed in the Carolinas, but just 2,841 were disembarked in the 1740s. Nearly twenty years would pass before slave imports returned to their former level, and so the Carolina economy lost the ebullience that had attracted first John Crowley, then Graffin Prankard in the aftermath of Queen Anne's War.

The downturn in Carolina's fortunes coincided with the collapse of Graffin Prankard's. The *Baltick Merchant* sailed from Charleston for the last time in May 1740 with her usual cargo of rice and logwood. All was well until the ship was within sight of the Scilly Isles, off the southwest tip of England. But there she encountered a Spanish privateer. Being so close to home, the men of the *Baltick Merchant* resolved to make a fight of it. A four-hour pursuit

ensued. The two ships were well matched in terms of cannon, but the Spanish vessel carried a larger crew, and as soon as the ships came within musket range, this numerical superiority began to tell: "we had," said Nathaniel Alloway, the *Baltick Merchant*