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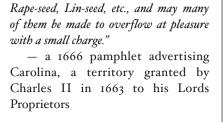
ECONOMICHISTORY-

Rice to Riches

BY BETTY JOYCE NASH

South Carolina nourished a wealth-generating rice industry until Asian competition and mechanization killed its comparative advantage

Rice cultivation relied on coerced labor.
Slaves built massive banks, and then flooded
those fields so the rice seed could germinate.
Later, they drained the fields and hoed the
weeds from the young rice plants.



"The Meadows are very proper for Rice,

ampbell Coxe grows a pretty serious rice crop, one of a precious few located east of the Mississippi. He cultivates Carolina Gold, a nutty-tasting heirloom rice, on 200 acres along the Great Pee Dee River in South Carolina.

Between the late 17th and late 19th centuries, this crop gilded lowcountry South Carolina's fortunes, as the colony led North American rice production. In fact, rice couldn't be ferried to northern European markets fast enough. Plentiful slave know-how and labor, tide-flooded fields, and savvy trade lobbying abroad created South Carolina's comparative advantage in rice production. Its prosperity was unequaled in the New World.

"In no time in history has the state been as wealthy financially, socially, politically. In that era, South Carolina

ruled. It's never hap-

pened before and never happened again," notes Coxe, who is an ardent student of his pet crop's history.

But by the late 1800s, world trade and transportation (the Suez Canal opened in 1869) brought in cheaper South Asian rice.

India, Java, and Burma usurped the European market. South Carolina lost its edge as the low-cost producer. This cycle would repeat in the 20th century

for South Carolina — only this time, the textile industry would go.

When the commercial rice industry eroded, so did the backbone of the economy.

First Crops

Where the first rice seed in South Carolina originated remains an educated guess. However, the rice story may begin with the earliest slaves, who cultivated the cereal for their own use.

Early European and English settlers from the West Indies, especially Barbados, sought land in Carolina soon after the English founded Charles Town in 1670, and brought slaves with them. But the settlers knew next to nothing about rice, according to historian Judith Carney, author of *Black Rice*. Many West Africans from the rice-growing regions of Senegal, Gambia, and Sierra Leone were among slaves shipped to South Carolina.

"The slaves that were brought to South Carolina were brought for one reason only," Coxe says. "They [planters] wanted them to already have ideas about how to increase production; they paid a premium for these people who already knew how to grow rice."

Early settlers planted rice first on dry land, then swamplands, but by the mid-1700s, planters were using the lowcountry's tidal rivers — the "great rice rivers" — to naturally inundate fields.

Elizabeth Allston Pringle took over her father's Cherokee plantation shortly before the turn of the 20th century. Her diary survives to describe firsthand her fields:

The rice-field banks are about three feet above the level of the river at high water, and each field has a very small flood-gate (called a trunk), which opens and closes to let the water in and out; but when a gale or freshet comes, all the trunk doors have to be



raised so as not to strain the banks, and the water in the fields rises to the level of the river outside.

Fast-forward to the present: Glenn Roberts develops concepts for historic properties, and founded Anson Mills (to grind heirloom grains) as well as the Carolina Gold Rice Foundation. He cultivates rice using the "trunk and dyke" system today on 300 acres. He grows for gourmets, including Alice Waters. "Our tidal trunks and dykes are indigenous," Roberts says. Recent archeological discoveries indicate that some of the cultivation technologies, including the cypress "trunks" that controlled the flooding, and evidence of planting techniques (with the heel of the foot), may be West African in origin.

Slaves did the backbreaking work of rice cultivation. They hand-built the massive banks that lined rice fields. They planted, then flooded the fields for germination, and later drained and weeded by hand, duties that large-scale planters couldn't have managed without them. Few but the coerced would have been willing to stand up to that workload.

Within two years of the colony's founding, more than one-quarter of the population were slaves. By 1770, the proportion of black slaves to the white population had jumped to 78 percent. But on the eve of the Civil War, in 1860, the percentage of black slaves in this lowcountry plantation landscape had fallen to 65 percent.

The rice industry depended on slave labor, with slaves working under an incentive "task" system: Once a slave completed an assigned job, he or she could pursue personal activities. This may have increased productivity. The lowcountry's wave of economic productivity grew out of its institutions, including slavery.

Creating an Industry

By the early 1700s the planters had gathered enough local knowledge and the necessary capital to "transform the land into a platform that would allow them to basically have the best market opportunity," says Peter Coclanis. He

wrote *The Shadow of a Dream*, a book about the economic life of the South Carolina lowcountry from 1670 to 1920. "Lots of African crops came over and not all became as important as rice. They [planters] created marketing channels and established links, created a real industry out of a crop."

South Carolina settlers had earned money through trade, particularly with the Caribbean islands, Barbados specifically. South Carolinians traded salted pork, grain, and other crops (as well as Indian slaves) for rum, sugar, and molasses from the Caribbean.

Early settlers also engaged in extractive industries like lumber and naval stores (tar and pitch). Indigo supplemented rice for some 40 years during the rice heyday, but precious few farmers planted indigo and processing machinery was scarce.

"Rice was the king of the kingdom," Coclanis says. And the rice industry came about as a conscious market choice among the European and British capitalists who settled the colony. Growers exported rice as early as the 1690s, and the real rice economy picked up steam after the 1720s.

Institutions also leveraged rice production, directly and indirectly. The Crown took over the colony in 1730, and subsequently passed the Land Act of 1731, which registered land and secured titles. Coclanis points out that it was only after 1731 that reliable mortgage capital markets emerged, benefiting planters.

Fiscal policies, too, boosted the rice economy. Government-issued currency aided production in stressful times. So did low taxes and spending on overhead such as law and order. Those elements "seem in retrospect almost ideally suited to foster growth and productivity in an export-oriented, slave-labor staple colony," Coclanis writes.

By November 1747 through November 1748, more than half -55 percent - of South Carolina's export value lay in rice. Just before the Revolution, the colony was exporting more than 66 million pounds. In 1774, the Charleston district's total wealth

per capita (free, not slave) was nearly 180 pounds sterling, compared with 38 pounds in New England and 44 pounds in the Mid-Atlantic colonies, according to Alice Hanson Jones in Wealth of a Nation to Be.

The best markets lay in northern Europe, and as long as transportation was affordable, South Carolina rice dominated: It was the most efficient producer in the West, and rice built the lowcountry plantations, many of which exist today.

Mechanization and Competition

But even before the Civil War cut off rice's slave labor, rice had slid into decline. Transportation improvements opened European trade routes with Asia, pushing South Carolina farther from its best rice markets. South Carolina exported 77 percent of its rice crop to northern Europe from 1730 to 1739, but only 49 percent by 1850 to 1859.

The rice dynasty had begun to erode well before many of the planters noticed. An array of forces led to its demise, and those intensified with the Civil War and the decline of slavery.

Steam shipping cut cost and time, and the Suez Canal brought Europe closer to Asia. In addition to the resulting global competition, changes wrought by the Industrial Revolution contributed to the shift in rice production to Western states. The internal combustion engine that had revolutionized agriculture paved the way for machinery that simply was useless in the pluff mud fields of South Carolina's lowcountry. And the state's upcountry farms didn't have the rivers that could provide power to pump the water necessary to grow rice.

While some of the more farsighted planters had worried about Asia early on, Coclanis says, it surprised many.

"It's kind of like an early example of globalization and how it affects areas differently," Coclanis says. After the Civil War, the American rice industry moved westward to Louisiana, Texas, Arkansas, and, later, to California. There, rather than compete with cheap Asian labor,

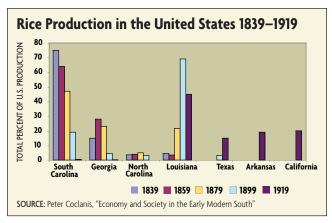
growers adopted machinery and technology. Arkansas, for example, today has a high technology rice industry. (The United States typically ranks among the top three rice exporters.)

Economic Development Redux

The cycle of boom and bust is older than the rice dream. It goes to show what a tricky

proposition economic development can be, Coclanis says. Early settlers made choices about what they could grow that would bring prosperity. "They were right in their assessment, given the limitations of topography, that rice was the best bet," he says. "But they rolled the dice on rice and put their marbles on rice. And it did not factor into their minds that market conditions could change." In the end, there was no internal demand to pick up the slack when the export market collapsed.

Variations on this theme continue today. Coclanis consults with Southeast Asian countries about the development



of their economies. He sees parallels between the fallen South Carolina rice complex and the plight of those countries. Problems in Burma, which also became overdependent on exports, serve as an example. "The whole area that became the rice exporting, production area hardly settled till the British came and ... encouraged the Burmese to move from the upper to the low-country area."

The Rice Niche

While the old rice empire is gone for good, specialty rice has gained ground. Campbell Coxe notes that in the Western rice-growing states, "they

probably sweep up more than we grow here."

Still, he aims to make his rice pay. He used to send his crop out to Arkansas for milling, but has since built his own mill, even though "everybody thought we were crazy." And he's trying to convince other farmers that there's a growing gourmet market out there for specialty rice. He gloats a little bit when cus-

tomers in Korea and Japan order his rice, which, by the way, they can on the Internet at \$8.47 for two pounds. And he feels pretty good about preserving the heirloom Carolina Gold rice for future generations, he and the half dozen or so others in the state who grow it to collect the seed. Some people grow rice to attract waterfowl for hunters; some just like to revisit the history.

"We do think it's historically beneficial — if nothing else to show people the great history behind the rice," Coxe says. "This one grain made South Carolina the richest colony in the New World.

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instead of the more expensive auction for funds. But the discount rate does not place a hard ceiling on the auction rate. In fact, in the first auction in April, the stop-out rate exceeded the discount rate.

Early results suggested the auction program may have been effective. The LIBOR-OIS spread, for example, has narrowed. When the two rates are closer together, credit and liquidity pressures are usually lower. However, this spread widened again in the first quarter of this year.

The auctions have been conducted on a biweekly basis through February, all were oversubscribed as bidding institutions asked for more funds overall than was offered. Though the identities of both bidding and winning banks are not made public, the total amount of borrowed funds going to each Federal Reserve district is reported. As of Feb. 27, for example, banks in the Fifth District had \$813 million of the \$60 billion total outstanding in the auction credit program.

The Term Auction Facility program was introduced as a temporary effort. Fed officials have been largely positive, saying it seems to have injected liquidity into the market when it was needed the most. The Fed has said it would seek public comment before deciding whether to make the program permanent.

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