The Cotton Plantation South since the Civil War

Aiken, Charles S.

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CHAPTER FOUR

Mechanization of the Plantation

There is impending a violent revolution in cotton production as a result of the development of the mechanical cotton picker. Cotton has awaited this event with the eagerness that it awaited the development of the gin. When it comes it will automatically release hundreds of thousands of cotton workers particularly in the Southeast, creating a new range of social problems.


LORD IN HEAVEN! Good God Almighty! Great Day in the Morning! It's here! Our time has come! We are leaving! We are angry no more; we are leaving! We are bitter no more; we are leaving!

We are leaving our homes, pulling up stakes to move on. We look up at the high southern sky and remember all the sunshine and the rain and we feel a sense of loss, but we are leaving. . . . We scan the kind black faces we have looked upon since we first saw the light of day, and, though pain is in our hearts, we are leaving. We take one last furtive look over our shoulders to the Big House—high upon a hill beyond the railroad tracks—where the Lord of the Land lives, and we feel glad, for we are leaving.

Richard Wright and Edwin Rosskam, Twelve Million Black Voices

THE PROCESS OF MECHANIZATION

Cotton production in the South was among the last of the American agricultural systems to be modernized with labor-saving machinery and techniques. In 1930, across the cotton regions more than 150 hours of labor went into every acre of cotton. Workers on cotton plantations were integrated into three distinct phases that required significant amounts of labor
FIG. 4.1. A sharecropper family plowing a cotton field with mules on the Wilborn plantation in Tate County, Mississippi, in 1961. Children not only provided labor, but they were also apprentices who were taught the obsolete art of cotton farming employing animal power. At the end of a row, the father yelled “haw” to his mule, the command to turn to the left. Charles S. Aiken

FIG. 4.2. Five tenant families weeding cotton on one of the viable plantations that remained in Greene County, Georgia, in 1941. Cooperative work among families, especially extended families, was common. Jack Delano, FSA Collection, Library of Congress
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—land breaking, planting, and cultivating; thinning and weeding; and harvesting (table 4.1).

Mules and horses, especially mules, which were preferred over horses by cotton planters, were the primary sources of power. Breaking plows and cultivators that were drawn by two or more animals were used on some plantations, but the common method of plowing was one mule directed by one person pulling one plow down one furrow (fig. 4.1). Spring plowing, planting, and several cultivations performed from late spring until the “laying by” of the crop in midsummer required approximately thirty-four hours of labor per acre. To insure a sufficient number of cotton plants, seeds were sown in continuous drills. Thinning excess plants and weeding between young cotton stalks in places where cultivator sweeps did not reach were performed effectively only by laborers wielding hoes (fig. 4.2). Thinning excess plants was executed once, but cotton had to be weeded several times from May into July. Approximately 20 percent of the labor input was for plowing, planting, and cultivating and another 20 percent for thinning and weeding. The remainder, more than half, was for harvesting. Cotton picking began in late summer and continued into late autumn (fig. 4.3).

FIG. 4.3. Picking cotton on the Marcella plantation in the Yazoo Delta in 1939. Cotton was placed into sacks dragged by the pickers, weighed, and emptied into wagons, which were designed to hold the 1,200–1,400 pounds of seed cotton required to gin one 500-pound bale of lint. Marion Post Wolcott, FSA Collection, Library of Congress
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**Table 4.1 Number of Man-hours in Cotton Production, Yazoo Delta, 1939**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaking, planting and cultivating using mules</td>
<td>33.6</td>
<td>20.9</td>
</tr>
<tr>
<td>Thinning and weeding</td>
<td>33.0</td>
<td>20.5</td>
</tr>
<tr>
<td>Harvesting</td>
<td>94.5</td>
<td>58.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>161.1</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Source: Langsford and Thibodeaux 1939.*

4.3). Cotton was placed in baskets and sacks as it was picked from the stalks and was temporarily stored in wagons or in small cotton houses that dotted the fields (fig. 4.4). In the Mississippi Loess Plains and the Yazoo Delta each tenant unit usually had a cotton house.

The intensive character of cotton culture, together with the relatively simple nature of part of the tasks, meant that all members of a black tenant household, including children from the time they were old enough to wield hoes and pull cotton from open bolls, were part of the production system. Men and older boys normally performed the plowing, but thinning, weeding, and harvesting involved women and younger children. The cotton acreage allotted to a tenant by a planter was largely determined by the size of his family. Because cotton culture was a family production system, the labor force was substantially greater than that indicated by the number of farmers. In 1920, several million persons participated in cotton production across the Southern plantation regions.

Modernization of cotton production required reduction of the labor in each of the three major phases (fig. 4.5). Tractors mechanized plowing, planting, and cultivating, and mechanical cotton pickers automated the harvest. Application of herbicides before and after planting became the principal method used to eliminate hand weeding. Critical to comprehension of the impact of the new technology in the plantation regions is the realization that the methods to reduce labor in each of the three phases were not developed simultaneously. The tractor was introduced first and herbicides last. In addition, not all cotton regions adopted the new technology simultaneously. The alluvial Mississippi Valley, including the Yazoo Delta, led in adoption, and the other plantation regions lagged at varying rates. As regions, the lower Piedmont, the Black Belt, and the Natchez district did not complete the transition to modern mechanized cotton
production. With each phase of mechanization, more and more farmers ceased growing the crop. Only in remnants of these once great agricultural regions, small “islands” where cotton culture remained, were the three phases of mechanization concluded.¹ The mechanization era extended from the 1930s through the 1960s, with the most significant impact occurring after the Second World War.

The history of the development of agricultural tractors, which began in the nineteenth century, was marked by important technological breakthroughs and milestones in design. Until the mid-1920s, the tractors available to American farmers were intended as general sources of mechanical power. From their power takeoffs, auxiliary machinery such as hay bailers, threshing machines, and saws could be operated. In fields they were limited, suited for land breaking and general plowing, but not well designed for row-crop cultivation. Although a boon on family farms of the Middle West, such tractors were thought to be of little value on labor-intensive cotton plantations of the South. In 1925, Illinois had 43,325 tractors, but Mississippi had only 1,871.² With abundant cheap labor, Southern planters had little incentive to purchase labor-saving machinery. Moreover, because a large labor force was needed for weeding and harvesting and because
mules would still have to be kept for cultivating, planters had little reason
to purchase tractors for land breaking and general plowing.

A significant event in tractor technology occurred in 1924 with Interna-
tional Harvester’s introduction of the McCormick-Deering Farmall, the
first all-purpose tractor. The Farmall had sufficient power for land break-
ning, and its tricycle design with high rear-axle clearance and braking of
either rear wheel for quick, sharp turns at the ends of rows made it suitable
for cultivation. The International Harvester Farmall Works at Rock Island,
Illinois, was opened in 1924 to mass-produce the new tractor. By 1930,
other farm implement companies had begun to introduce their versions of
an all-purpose tractor, using such names as Row Crop, General Purpose,
All Crop, and Universal. Antiknock gasolines, pneumatic tires, and further
design improvements made all-purpose tractors versatile and dependable
agricultural machines by 1935.3

The alluvial Mississippi Valley was among the leading cotton regions in
the adoption of tractors (figs. 4.5, 4.6). All-purpose tractors began to be
purchased in the Yazoo Delta shortly after they became available. Adoption
accelerated at a rapid rate between 1935 and 1946. Even during the Second
World War, tractors, which were considered strategic because of the drain
of agricultural labor by the military and factories, continued to be man-
ufactured in large numbers. Between 1940 and 1945 the number of tractors
in the Yazoo Delta increased from 5,277 to 8,717 (65.2%).4 By the end of the
war, the demand for tractors had outstripped the production. Plantations
with innovative management converted completely from mules to tractors.

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**Fig. 4.5.** The three critical stages of modernization of cotton production. The
dates are for acceptance by the innovators and the early adopters in the alluvial
Mississippi Valley (Aiken 1978). Courtesy of School of Geoscience, Louisiana
State University
The 4,000-acre Hopson Planting Company near Clarksdale sold all but five of its 140 mules and replaced them with twenty-two four-row tractors. The plantation’s mule-drawn equipment was disposed of in scrap drives during the war.⁵

Although more than half of the farms and plantations in the Yazoo Delta did not have tractors in 1946, between 1935 and the end of the Second World War, knowledge of how to use the machines in cotton fields was perfected and disseminated. By 1946, tractors, even if not ubiquitous, were accepted in cotton culture. In the five-state area of the lower Mississippi Valley, cropland broken with tractors increased from 16 percent in 1939 to 42 percent in 1946. More important was the advancement made in cultivation with tractors, which increased from 6 percent to 18 percent of the cotton acreage.⁶ That tractors rapidly replaced mules and horses in the Yazoo Delta once they were accepted is illustrated by a 1949 report by the region’s farm implement dealers, which stated that since 1945 they had quickly sold every tractor they could obtain.⁷ Even some advocates of small family farms understood the significance of the new agricultural technology. Although the Tallahatchie Leasing Cooperative Association, a Farm Security Administration project for black farmers near Glendora, Mis-
Mechanization of the cotton harvest was not as simple as mechanization of land breaking, planting, and cultivating. Not only did the mechanical harvester have to be a device that significantly reduced labor required to pick cotton, but it also had to operate in such a way that fibers were not broken and large amounts of trash were not collected. Several mechanical-harvest principles were patented, but only two, “spindle picking” and “stripping,” were perfected. Mechanical pickers remove seed cotton from the open bolls with revolving spindles, whereas strippers take entire bolls by combing plants with extended teeth, stationary slots, or revolving rollers. Each type of harvester was accepted in definite regions, with strippers employed almost exclusively on the Red Rolling Plains, the High Plains, and the Black Prairies in Oklahoma and Texas and spindle pickers in the other American cotton regions.

The first patent for a spindle picker was issued to Jedediah Prescott of Memphis, Tennessee, in 1850, but almost a century passed before spindle pickers were perfected and manufactured in large numbers (fig. 4.5). Although the spindle picker is among the most complex of agricultural machines, the lack of market among cotton planters was just as significant as the intricacy of the design in retarding development. As with the tractor, no market existed for a machine that would reduce labor in but one phase of cotton production. International Harvester played a major role in the perfection of the spindle cotton picker. In 1924, the company purchased the patents of Angus Campbell, who began work on a cotton harvester in 1885, and Theodore H. Price, who joined Campbell in 1910. By 1929, a harvester had been refined sufficiently that trial machines designed to be pulled by Farmall tractors were ready to be introduced. Two brothers of a yeoman-farm family, John and Mack Rust, began work on a spindle picker in 1924. With meager funds, by 1931 they had developed a machine that was capable of harvesting a bale of cotton a day, and in 1933 they demonstrated an improved model that could pick five bales a day.

Despite the progress that had been made on mechanical cotton harvesters by the early 1930s, fifteen years passed before they were mass-produced. Three major factors delayed their introduction. Although early trial machines were successful, they were not dependable because they still had several design flaws. A major breakthrough was made by International Harvester engineers when the one-row picker was mounted backwards on a Farmall tractor and the machine driven in reverse down a cotton row (fig. 4.7). The attitude against labor-saving machinery which prevailed during
the Great Depression was a second factor that prevented adoption of me­chanical harvesters. Although International Harvester was ready to begin field trials for spindle pickers in 1929, the autumn that the depression began, company officials believed it was unwise to advertise them because of increasing unemployment.11 Ironically, the Rust brothers, who were motivated to develop a picker from a deep desire to relieve one of the drudges in cotton culture, thought that “thrown on the market in the manner of past inventions,” their machine “would mean, in the share­cropped country, that 75% of the labor population would be thrown out of employment.”12 The Rust brothers’ efforts to control the use of their picker resulted in the machine not being manufactured in large numbers until after the Second World War.

The third factor that retarded manufacture of spindle pickers was problems encountered in ginning mechanically harvested cotton. Adoption of mechanical cotton harvesters had to be accompanied by development of new machinery and major investments in cotton gin plants. Just as a revolu­tion in cotton ginning occurred after the Civil War in the process of adjust­ment from a slave to a free labor force, a second revolution in ginning hap­pened after the Second World War as planters mechanized the harvest.13 Cotton harvested with a spindle picker has a higher moisture content and contains more trash than cotton harvested by hand. To process machine­harvested cotton, gin plants had to be equipped with devices for drying seed
cotton before it entered the gin stands and with machinery to remove additional trash. In 1945, 40 percent of the cotton ginneries in the lower Mississippi Valley had seed cotton driers, but most were not equipped with elaborate devices to remove trash, and the lint cleaner, an essential machine that extracts small bits of trash from ginned cotton, had not been developed.¹⁴

Mass production of spindle-type mechanical cotton harvesters began in 1948 with the opening of an International Harvester factory in Memphis. Other firms, including Ben Pearson, a Pine Bluff, Arkansas, sports equipment firm, and Allis-Chalmers, both with leased rights to the Rust patents, and Deere and Company, which in 1943 had purchased the spindle picker patents of Hiram and Charles Berry of Greenville, Mississippi, soon followed in commercial production of cotton harvesters. The alluvial Mississippi Valley, including the Yazoo Delta, led other Southern cotton regions in the adoption of spindle cotton harvesters (map 4.1). Although two decades passed before virtually all of the region’s cotton was picked mechanically, by 1956 the mechanical cotton harvester had become an important part of cotton production. More than one-fourth of the crop in the Yazoo Delta was picked by machines in 1956, and in the area surrounding the Stoneville Agricultural Experiment Station near Greenville, more than

MAP 4.1. Percentage of cotton harvested mechanically in 1956 (source of data: Cotton Division, Consumer and Marketing Service, U.S. Department of Agriculture)
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FIG. 4.8. The emerging Modern South plantation landscape. Large, high-capacity cotton gin with machinery designed to process mechanically harvested cotton rapidly in the Yazoo Delta in 1965. The new section of the building, indicated by the brighter corrugated steel, was added to accommodate new improved lint-cleaning machinery, which was developed shortly after the gin plant was built. Charles S. Aiken

half was harvested by them. Significant progress was made in cotton gin technology during the decade following the Second World War. By 1956, 57 percent of the gin plants in the Yazoo Delta were equipped to process machine-picked cotton (fig. 4.8).15

Tractors and spindle-type cotton harvesters are complex agricultural machines, but their development did not approach the problems encountered in the elimination of the simple hoe as the instrument for grass and weed control. The second of the three peak labor phases of traditional cotton production, thinning and weeding, was the last to be modernized (fig. 4.5). Elimination of labor for thinning the excess cotton plants was accomplished rather easily, but significant reduction in the labor needed to weed the crop was not achieved until the late 1950s.

Hand thinning was replaced by “hill dropping,” setting the mechanical planters to space the seed rather than to sow solid drills. Because the planting technique requires seeds with high germination rates, elimination of labor for thinning was accompanied by significant improvements in the quality of seed. Beginning in the 1920s, a largely unheralded revolution in plant genetics initiated by the boll weevil resulted in high-yield cotton varieties with high seed-germination rates. Although labor for thinning was almost eliminated, the problem of finding a method to control grass and weeds that grew on the rows between the cotton plants persisted. Among the approaches to solve the problem was that which sought to
perfect a hoeing machine. The Tillervator, the Kosik Crab Weeder, and the Dixie Cotton Chopper were among the various devices marketed. “Rotary hoes” became parts of the equipment inventories of some farmers, but chopping cotton with a machine was never perfected.

The complexities of finding a method of grass and weed control and, perhaps, the desperate nature of the problem are revealed by “flame cultivation” and “weeder geese.” Invented by an Alabama farmer in the 1930s, flame cultivation is a method whereby fire or fire and water are shot around cotton stalks from small jets on a device mounted behind a tractor. The principle of flame cultivation is not to burn grass and weeds but merely to expose them to fire so that cells expand and the plants die. Interest in flame cultivation was principally in the alluvial Mississippi Valley, and it grew and waned several times between 1945 and 1970. In the mid-sixties when excitement was at a peak, approximately 26 percent of the cotton in Mississippi, almost all of which was in the Yazoo Delta, was flamed. A limitation of flame cultivation is that it cannot be used on young cotton plants. Reluctance of even innovative farmers to employ a technique whereby fire is taken into a field also was a limiting factor. Flame cultivation was left to the bold and more adventuresome.

“Weeder geese” was another method used to attack the problem of weed control in cotton fields. The process involved releasing a flock of doves into the field, which would peck and就能够

**Fig. 4.9.** Tractor planting cotton and applying preemergence herbicides to a field in the Yazoo Delta in 1965. Rust that formed in steel tanks proved to be a problem in clogging the spray nozzles. By the 1970s, plastic tanks had begun to replace steel ones. Courtesy of the National Cotton Council
control. Flocks of geese were placed in cotton fields enclosed by fences. A brace of geese can weed approximately one acre. Use of geese was handicapped by several problems, including trampling of young cotton plants and poisoning of flocks by insecticides.\textsuperscript{17} Weed control with geese was never widely practiced in the Southern cotton regions, but in a few areas in the alluvial Mississippi Valley, such as the one centered on Weona, Arkansas, some planters employed them in the 1950s and 1960s. Not least among the drawbacks to the method were the hee-haws neighbors often gave planters who put geese in cotton fields.

The solution to the elimination of hand labor for weed control came with the introduction of herbicides in the 1950s (figs. 4.5, 4.9). Preemergence herbicides are sprayed as cotton is planted and, under ideal weather conditions, inhibit grass and weeds for up to four weeks. Postemergence herbicides are applied after preemergence chemicals lose their effectiveness. Herbicide oils were first sold in 1950, but it was not until diuron was introduced by DuPont in 1955 that the chemicals were effective enough that they began to be adopted rapidly. In 1955, preemergence herbicides were applied to less than 5 percent of the cotton acreage in the alluvial Mississippi Valley. Ten years later the chemicals were used on more than 80 percent of the cotton acreage in the Southeast.\textsuperscript{18}

**REORGANIZATION OF PLANTATIONS**

A complete set of machines and chemicals that effectively reduced labor in all three phases of cotton production was not available to cotton planters until 1955. A planter who in 1935 wished to reduce labor could purchase tractors, but they mechanized only one phase of cotton production. Spindle-type cotton harvesters became available in 1948, but cotton still had to be weeded by hand. Because large labor forces were still required for weeding or weeding and harvesting, from the 1930s through 1960s some planters saw little need to purchase tractors or mechanical harvesters even though the machines were readily available. In addition, the new labor-saving machinery and techniques initially were not as satisfactory as traditional cotton production methods. With the increase in the percentage of cotton harvested mechanically came a decrease in the quality of the fiber. Cotton picked by hand and ginned in antique plants remained superior in quality to that produced with sophisticated labor-saving methods and was aggressively sought by certain textile companies. Careless application of herbicides killed cotton plants, and extremes in rainfall rendered the chemicals ineffective. Many cotton planters resisted or cautiously experimented
with the new technology that involved such revolutionary practices as
taking fire and plant-killing chemicals into fields and harvesting cotton
with machines that lowered quality and price.

Because all machinery and methods to modernize cotton production
were not developed simultaneously and because many planters, even in
regions with large numbers of early adopters such as the Yazoo Delta,
accepted them cautiously, elimination of tenant farmers and reorganiza-
tion of plantations were evolutionary processes. Just as the geographical
form of the Southern plantation was altered after the Civil War in the
change from slave to tenant labor, so it was altered again after the Second
World War in the transition from tenants to machines, chemicals, and
wage labor. And just as there are scholars who fail to comprehend that
labor and spatial alterations did not destroy the plantation following the
Civil War, there are those who fail to understand that labor, technological,
and geographical changes did not annihilate it after the Second World War.
Mandle, for example, in discussing mechanization, states that “the planta-
tion economy did not collapse at once,” arguing that “the movement of
black labor in response to wartime demand” is what “doomed the planta-
tion econom".

Mandle is correct to the extent that the
New South planta-
tion came to an end, but he fails to recognize that a new, modernized
plantation economy emerged.

The modern spatial form of the Southern plantation is what in 1955
Prunty identified and termed the neoplantation (map 4.2). In the alluvial
Mississippi Valley the transition from the fragmented tenant plantation of
the New South era to the neoplantation of the Modern South began during
the 1930s and accelerated after the Second World War. The small tenant
farms within plantations vanished with the shift to wage labor. Because
houses scattered across fields were obstacles to efficient use of the new
machinery, those that were abandoned were razed, and the remaining ones
were moved to form a line of dwellings near the plantation headquarters.
The relocated dwellings in combination with newly constructed ones were
the third generation of houses for blacks after the Civil War (fig. 4.10).
High, open-sided buildings for storage of tractors and mechanical pickers
replaced mule and horse barns. The furnish system disappeared with the
demise of tenancy. Plantation commissaries and furnish merchant stores
were closed, and the buildings were razed or converted to other uses (fig.
4.11). Even cotton ginneries vanished from many plantations as large, ex-
pensive high-capacity plants capable of rapidly processing machine-har-
vested cotton replaced small obsolete gin plants. With the consolidation of
black schools after the Second World War, small one- and two-room plan-
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tation schools disappeared. The only New South–era landscape objects that remained on most neoplantations were big houses, churches, and cemeteries. With the reemergence of the village, the spatial form of the neoplantation of the Modern South resembles that of the Old South slave plantation more closely than that of the fragmented tenant plantation of the New South.

Both individual plantations and the plantation landscape were reorganized in stages. Because tractors did not reduce labor requirements for cotton production substantially, their introduction on a plantation usually was accompanied by minor reductions in the number of tenants and mules. Tractors were used for breaking and planting on a “through-and-through basis.” Fields were plowed and planted as though tenant farm boundaries did not exist. Only after the young plants “showed green in the row” did sharecroppers assume control of their farms, cultivating their

MAP 4.2. The emerging Modern South cotton plantation landscape. Fallback Plantation in Bolivar County, Mississippi, in 1954. A unit of the 37,000-acre Delta and Pine Land Company, Fallback was among the first to exhibit the removal from the fields of the tenant houses that were characteristic of the New South plantation. With the relocation of houses to a nucleated pattern, the village, an attribute of the Old South plantation and the world plantation, reemerged (Prunty 1955). Courtesy of the American Geographical Society
FIG. 4.10. The emerging Modern South plantation landscape. Row of tenant houses moved from the fields to the county road through the Roseborough plantation in Tate County, Mississippi, in 1961. Charles S. Aiken

FIG. 4.11. The vanishing New South landscape of the Yazoo Delta. Abandoned stores at Dundee, Tunica County, Mississippi, in 1978. A sundry store occupied what had been a large furnish merchant store on the bottom floor of the brick structure. The stores closed with the demise of tenant farming and the great exodus of blacks after the Second World War. The hotel that occupied the second story of the brick structure closed in the 1930s when automobiles and improved roads rendered train travel obsolete for the numerous salesmen from Memphis wholesale companies who roamed the region until the 1960s. Charles S. Aiken
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crops with mules and thinning, weeding, and harvesting by hand. Tractors allowed a portion of the cotton to be grown by planters without tenants. The “company crop,” or “day crop” as it was commonly called, was cultivated with tractors. Workers for weeding and harvesting were drawn from resident tenant and day-labor families and paid by the day for chopping and by the hundredweight of seed cotton for harvesting. The introduction of mechanical harvesters on plantations was accompanied by a further decrease in the percentage of cotton grown by tenants but usually did not result in their complete elimination. To permit time for day labor in the company crop, acreages assigned sharecropper families were smaller than under the traditional system. Even after the perfection of herbicides, a modified sharecrop system persisted on some plantations that had adopted methods for reducing labor in all phases of cotton production. To retain skilled workers and supplement wages, planters assigned machinery operators small, sharecrop cotton acreages that were planted and cultivated with tractors but weeded and picked by wives and children. Because of the blend of the old and the new, persons traveling across the cotton plantation regions from the 1930s through the 1960s were confronted with the paradox of seeing in adjoining fields modern machines and antique mule-drawn implements.

LEAD-LAG IN ADOPTION OF THE NEW TECHNOLOGY

INTRAREGIONAL LEAD-LAG

A lead-lag pattern existed among the plantation regions and among plantations within regions in the elimination of tenant farmers and the adoption of new technology. Owners and managers of particular plantations, such as the Hopson Planting Company, were innovators who rapidly adopted new machinery and techniques and modified spatial morphology, while at the opposite extreme were laggards who chose to continue traditional methods as long as possible. Until his death in 1942, William Alexander Percy resisted mechanization of his Trail Lake plantation, which was only 50 miles south of Hobson. Tractors were introduced to break the land in the spring, but mule-drawn equipment continued to be used for planting and cultivating.

In 1961, the plantations of Tate County in the north Mississippi Loess Plains depicted the transition from the New South tenant plantation to the Modern South neoplantation. The date is significant because the entire technology to modernize cotton production had been available for more than five years. Moreover, 1961 was the last year before the civil rights movement began to affect significantly traditional black and white rela-
tionships in the plantation regions. The location of Tate County is important. Although the north Mississippi Loess Plains lagged behind the Yazoo Delta in the adoption of new technology, agriculture and the plantation system were viable. The number of plantations had declined from the 168 enumerated in 1940, but Tate still had 51 farm operations that met the definition of plantation.\textsuperscript{25} Because the Loess Plains lagged in adoption of new technology, Tate County depicted various phases of the transition from the classic New South tenant plantation to the Modern South neoplantation.

Seven of the forty plantations studied had completed the transition from a tenant labor force and were neoplantations. The Double J Ranch,
named “ranch” to emphasize its registered cattle operation, was one of the seven (map 4.3). With its large fields, nucleated settlement pattern, and mechanized cotton production system, the Double J Ranch exhibited all the principal traits of the neoplantation. Approximately 130 acres were planted in cotton, 145 in corn, and 400 were improved pasture. The equipment inventory included five tractors, a mechanical cotton picker, a flame cultivator, and machinery for application of pre- and postemergence herbicides. Five resident black employees, who were paid weekly salaries, made up the resident labor force. In the late 1940s the plantation was devoted exclusively to cotton and had nineteen black sharecropper families and
thirty mules. The transition to a neoplantation began in 1948 and was completed in 1955 when the last sharecropper families left and the last mules were sold.

Three of the plantations in Tate County were still operated by traditional methods and contrasted sharply with the neoplantations. Morphologically and functionally the three differed little from the tenant plantation of 1910. They were cultural relics that persisted in the face of forces that would change them. Seven black sharecropper families worked the entire crop acreage on the Wilborn plantation (fig. 4.1, map 4.4). There were no tractors; fifteen mules supplied the power. Fifteen acres were planted in corn and 110 in cotton. In contrast to the large fields and nucleated settlement pattern of the Double J Ranch neoplantation, the dispersed house and field
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pattern on the Wilborn landholding was similar to the Barrow family’s Sylls Fork Plantation in 1881. The plantation was divided into subunits, and each sharecropper family worked its own farm from the spring plowing through the autumn harvest. Because mules were adaptable to cultivation of choice patches, a few fields contained less than 2 acres.

Twenty-seven of the forty plantations were neither classic tenant nor neoplantations. They combined elements that were common to both and represented various stages in the transition from tenants to mechanized farming. On the basis of the technological stage and the role of sharecroppers, two major types of transitional plantations, initial and advanced, were identified. Tractors had been introduced and fields consolidated on plantations in the initial phase of the transition. The advanced stage was characterized by the use of mechanical cotton harvesters and herbicides and by a further reduction in the percentage of the cotton crop worked by sharecroppers. The Roseborough plantation in 1961 was in the initial phase (map 4.5). In certain respects it was similar to the Wilborn plantation. Twenty-six acres were planted in corn and 180 in cotton. Fields were divided into ten small sharecropper units that were cultivated with twenty-six mules. But there were also significant differences between the two. On the Roseborough, the nucleated settlement pattern characteristic of the ne plantation had emerged through the relocation of dispersed houses, and two tractors were used to plow and plant fields (fig. 4.10). The landholding depicted a stage in the transition reached on a number of plantations in the Yazoo Delta by the mid-1940s. Use of tractors resulted in consolidation of small fields and elimination of idle strips. Stakes at the end of particular rows were the only visible evidence that large cotton fields were actually subdivided into small sharecropper farms. Fifteen acres were “company cotton,” worked for the owner using tractors for cultivation and day laborers from the sharecropper families for weeding and harvesting. The tractors were driven by the plantation’s manager and by a resident employee who was paid a weekly salary.

INTERREGIONAL LEAD-LAG IN MECHANIZATION

Whereas planters in the alluvial Mississippi Valley took the initiative in the mechanization of cotton production and reorganization of plantations and those of the north Mississippi Loess Plains were not far behind, Southern Piedmont farmers significantly lagged in the adoption of new technology. Only a few landholdings were reorganized as neoplantations. Because of the loss of its agricultural leaders, by 1935 the Piedmont had few innovative farmers. In addition to the leadership problem, the hilly terrain of the
Piedmont posed a greater challenge to mechanization than did the flood- plains of the Mississippi River and its tributaries or the river and creek bottoms and gently undulating interfluves of the Loess Plains. In addition, by the mid-1930s, a number of the agricultural college faculty and agricultural extension service personnel of the University of Georgia and Auburn University believed that cotton production on the Piedmont should be discouraged and alternative types of agriculture and land use promoted, including planting of eroded cropland to pine trees.

The rolling terrain of the Piedmont presented greater challenges to mechanization than that of the alluvial Mississippi Valley or the Loess Plains, but use of new machinery was hardly impossible. The best supporting evidence is that by 1970 most of the cotton remaining was produced employing four- and six-row tractors, two-row mechanical harvesters, and herbicides. The way in which the terrain of the Piedmont was perceived was more significant than the actual land surface. At the time of the introduction of tractors in the lower Mississippi Valley, the Johnson and Turner study assessing cotton production on the Piedmont stated, “There is a scarcity of large level fields and it is difficult to combine fields because of the irregular nature of the land, therefore tractor operated machinery to reduce labor costs scarcely seems practicable.” Twenty years later, tractors had been accepted on the Piedmont with fields redesigned for them. Planters in the alluvial Mississippi Valley were rapidly adopting mechanical cotton harvesters, but Piedmont farmers were advised: “Mechanical equipment that is currently used in other cotton-producing areas is not satisfactory for extensive use in the Piedmont. . . . This is particularly true of those machines required for chopping and hoeing, and for harvesting the crop. . . . In the face of increasing competition from cotton-producing areas that can adopt low-cost production practices, many cotton farmers in the area may find it advisable to consider alternative enterprises in which they have better competitive opportunities.”

Adoption of the new technology on the Piedmont required not only purchasing expensive machinery but also learning to use it. Bench terraces of the horse-mule era were replaced with channel terraces over which tractors and lumbering mechanical harvesters could travel, and the pattern of cotton rows on hillsides had to be redesigned to permit effective use of mechanical harvesters while preventing soil erosion. However, within an atmosphere in which many farmers believed that cotton would not survive, there was little desire to invest in expensive new machinery and to learn new skills. Mechanization was even more difficult in a milieu in which agricultural specialists continually told planters and farmers that the new technology could not be
used on the hilly Piedmont. The additional burden of adapting terrain to
machines and machines to terrain contributed to discouragement of all but
the most enterprising farmers. With each of the three stages in the mechani-
zation process, additional farmers quit growing cotton.

By 1970, all that remained of the once great lower Piedmont plantation
region were a few agricultural islands in the midst of a sea of pine forests
and abandoned fields. Among the remaining cotton growers were small
farmers, including part-time ones, who planted small cotton acreages to
supplement income, and elderly black tenants on former plantations, who
used mules to grow a few acres of cotton amid the ruin. Most of the cotton,
however, was grown by the few farmers who planted 100 or more acres in
the two larger agricultural islands of the lower Georgia Piedmont, one
centered on Pike County south of Atlanta and the other on Morgan,
Oconee, and Walton Counties near Athens. Small agribusiness firms to
which cotton gins were central were the foci of the islands. Among them
were the remains of John Bostwick’s small empire in northern Morgan
County, which was purchased by a local family from the cotton oil com-
pany that owned the complex. In part, cotton survived because of promo-
tional efforts by owners of agribusinesses. To sustain their companies,
which consisted of various combinations of gins, warehouses, farm supply,
and certified planting-seed businesses, owners had to keep local farmers
producing cotton. There were three types of large cotton growers: agribusi-
ness owners, traditional planters, and multitenants. Multitenants were a
new type of renter who leased cotton allotments from several landlords,
creating a large dispersed farm operation. The largest of the dispersed
farms met the definition of plantation and were fragmented neoplan-
tations. The multitenant system achieved economies of scale to support
large, expensive machinery inventories.

MECHANIZATION AND THE
DISPLACEMENT OF TENANTS

Public concern over displacement of tenant farmers in Southern agricul-
tural regions by mechanization occurred during two brief periods sepa-
rated by more than two decades. The first period was the latter part of the
depression; it lasted from 1935 to 1942. The other closely coincided with the
second and third phases of the civil rights movement. It began about 1963
and had essentially ended by 1974. The periods differed, however, in their
foci. During the thirties, almost all of the interest was in the plight of
poverty-stricken white tenant farmers. A quarter century later, concern
was over migration of blacks, who poured from the rural South into the nation’s metropolises.

In his award-winning book on Southern sharecroppers and the New Deal, David Conrad termed the tenants “the forgotten farmers.” Southern sharecroppers may have been neglected by federal programs, but they hardly were a forgotten people. The depression was the decade of the Southern tenant farmer. Never before or since have tenant farmers received the attention they were given during the 1930s. The image of the Southern tenant farmer was continually before the American public throughout the depression decade. A play adapted from Erskine Caldwell’s *Tobacco Road* opened on Broadway in December 1933 and ran continuously for the next seven and a half years. John Steinbeck’s *The Grapes of Wrath* was published in 1939, at the decade’s close. A widely read controversial novel, *The Grapes of Wrath* is the story of the Joads, a white Oklahoma tenant family evicted from the land who migrate to California and become itinerant farm laborers. So fashionable were Southern tenant farmers by 1938 that James Agee confided in his journal that “the cheap use of the word” had made him “unable to hear, say or think, ‘sharecropper’ without a certain amount of nausea.”

During the 1930s, the documentary, a new type of media that combined narrative and photographs, came into its own as an art form, and Southern tenant farming was a major topic. Erskine Caldwell and Margaret Bourke-White’s *You Have Seen Their Faces* (1937) employed photographs, captions, and text to depict the plight of the Southern rural poor. The impetus for *You Have Seen Their Faces* was Caldwell’s belief that “the best way to prove that there were men, women and children existing in the backlands in the miserable squalor as described in” *Tobacco Road* was to travel the South’s roads with a sensitive photographer and “produce a book which would portray real life of the rural South during the depression.”

Caldwell and Bourke-White’s book was followed by Herman Clarence Nixon’s *Forty Acres and Steel Mules* (1938), Archibald MacLeish’s *Land of the Free* (1938), Dorothea Lange and Paul Taylor’s *An American Exodus* (1939), and Richard Wright and Edwin Rosskam’s *Twelve Million Black Voices* (1941). All used Farm Security Administration photographs and employed Southern tenant farmers as a theme or a major topic. James Agee and Walker Evans’ *Let Us Now Praise Famous Men* (1941), the book often regarded as the classic of Great Depression documentary genre, was published at the conclusion of the first period of interest in Southern tenant farmers. Fewer than six hundred copies were sold because of loss of public concern with the Southern rural poor at the commencement of the Second
Let Us Now Praise Famous Men is the detailed study of three white tenant families in Hale County, Alabama. Seventy-two percent of Hale County’s population and the majority of the tenants were blacks. But editors of Fortune, who sent Agee and Evans south for the original purpose of producing an article on sharecroppers, instructed them to focus on poor whites. Blacks had always been impoverished, and their situation was of little interest to the magazine’s readers. Agee was an Upland Southerner from Knoxville, Tennessee, who did not know the Lowland South. Concerning the Fortune assignment Agee confided that he “knew little or nothing about the cotton country, beyond a rough idea of the look of it and an even sketchier idea of just what the situation was there, beyond what [he] had got out of Tobacco Road, some passages in Faulkner, and a few meetings of the Committee for the Defense of Southern Workers.” Agee and Evans did not actually get beyond the Upland South; the boundary between the two culture regions crosses northern Hale County. The duo happened upon the three white tenant families whom they made infamous on Mills Hill near Moundville, a few miles north of the Black Belt.

The depression Southern tenant farmer literature contains several major themes, including the economic and social plight of tenants, the effects of New Deal programs on tenancy, the impending economic collapse of the plantation system, and the eviction of tenants from the land. The depression and the decline in the price of cotton caused some planters to reduce the number of tenants. The first widespread publicity given to the eviction of tenants concerned ones expelled as a result of the Agricultural Adjustment Act. When Franklin Roosevelt became president in 1933, a surplus of 13 million bales of cotton existed, and the fiber was selling for only five cents a pound. The hastily written Agricultural Adjustment Act was an attempt to reduce agricultural surpluses, increase prices, and guarantee farmers minimum prices for crops. To decrease the glut of cotton, farmers plowed up 10 million acres, approximately one-fourth of the 1933 crop. In 1934, 15 million acres were not planted.

Acreage reductions under the Agricultural Adjustment Act were initiated without serious consideration as to effects on tenant farmers. Although more attention was paid to tenants in 1934 than in 1933, the Cotton Section of the Agricultural Adjustment Administration was run by persons whose perspective was that of the planter. Thoroughly familiar with the Southern plantation system, officials knew that legally sharecroppers were not tenants but laborers who were paid with a part of the crops. They also accepted the planter position that many share tenants were not actually independent renters. Any landowner, cash tenant, or “managing” share
tenant who controlled a cotton farm could sign a 1934–35 AAA contract, but nonmanaging share tenants and sharecroppers could not. Paternalism of planters, rather than legal constraints, were relied upon to protect the interests of sharecroppers and nonmanaging share tenants. Determination of who were managing and nonmanaging share tenants was left to the discretion of county committees, which were dominated by planters.\textsuperscript{40}

Under the Agricultural Adjustment Act, two types of payments were made to cotton farmers, rental and parity. The rental payment was for acreage taken out of production, or “rented” to the government. The parity payment was the difference between the price of lint per pound which the government guaranteed the farmer and the market price that the farmer received. The nature of the AAA cotton program motivated planters to reduce the number of tenant farmers. Cotton growers who had sharecroppers and nonmanaging share tenants were to give them their fair proportions of the AAA payments.\textsuperscript{41} A decrease in cotton acreage also meant that

\textbf{FIG. 4.12.} Cotton choppers on a plantation in the Yazoo Delta in 1936. Comparison with figure 4.2 reveals subtle differences that illustrate the beginning of the transition from the New South tenant plantation to the Modern South neoplantation. With the exception of two men, the choppers in this photograph are middle-aged women, and unlike those in figure 4.2, they are under the direct supervision of a white foreman on horseback. Complete to a driver, the day-labor system was essentially a return to squad and gang methods that planters tried unsuccessfully to introduce immediately after the Civil War. The shift from tenants to day laborers and tractors was not fully comprehended at the time this photograph was taken by Carl Mydans. FSA Collection, Library of Congress
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planters had to reduce the size of tenant farms. However, by keeping the farms the same size and decreasing the number of tenants, a planter could lower overhead and management costs. By eliminating tenants and working a larger share of the cotton acreage with day labor, a planter could keep a larger part of AAA payments.

With the commencement of the 1933 cotton plow up, letters from tenant farmers began arriving at the White House, the Capitol, and the Department of Agriculture, and they continued throughout the depression. Although failure to understand the complexities of the AAA program was the basis of many letters, there were genuine problems, including planters not sharing federal payments with tenants and the elimination of tenants in response to cotton acreage reductions. Elimination of tenants occurred in two ways. One was the outright eviction from a plantation; the other was reduction in status from tenant farmer to day laborer. Because few non-agricultural job opportunities existed in the plantation regions, tenants who were evicted and moved to local towns and cities also often became farm laborers paid by the day. Resident day laborers were permitted to live in a plantation house, usually without payment of rent and with the right to a garden plot and free firewood. Day laborers worked for a planter as needed, primarily for weeding and harvesting cotton. Elderly tenants and black tenant families headed by females were especially vulnerable to eviction or reduction in status. Increased use of day labor was essentially a return to the squad and gang systems that planters tried to introduce without much success immediately after the Civil War. Day laborers usually were worked in gangs or extended-family squads, but unlike the former slaves, who often were paid with a share of the crop, they were paid in cash daily or weekly (fig. 4.12). In the Yazoo Delta, the total black population peaked in 1940 at the commencement of the Second World War. The region’s black farm population, however, climaxed in the 1930s.

The idea that farm tenants were evicted from the land by new agricultural machinery developed after 1935 and received much of its impetus from two sources. One was the effort to explain the migration of down-and-out farmers from Oklahoma and Texas to the agricultural valleys of California. The other was publicity given to events surrounding the Southern Tenant Farmers’ Union. Dorothea Lange and Paul Taylor worked throughout the latter part of the depression studying and publicizing the plight of the “Okies” who became itinerant agricultural laborers in California. During the spring and summer of 1937 the couple traveled across the Southwest and Southeast to study and photograph farm tenants and dust bowl refugees and to discover the factors that caused the migration. In June, Lange wrote Roy
Stryker, chief of the Resettlement Administrations’ Historical Section, that she and Paul had discovered in Hall County, Texas, “a very interesting situation on tenancy—people put off farms, tenants, often of years standing and established—with tractors coming in purchased by the landowners with Soil Conservation money.” She continued, “Not just a few cases. It’s the story of the county. . . . How far across Texas the same story holds we do not yet know. . . . This may be an important part of our California story. In part I know it is now.” As Lange and Taylor continued their journey, they looked for additional evidence of eviction of tenant farmers by tractors. They were among the first to document the beginning of black migration from plantations of the alluvial Mississippi Valley to local towns and cities and to distant metropolises as a consequence of agricultural mechanization. Archibald MacLeish used a number of Lange’s pictures in Land of the Free. When MacLeish’s book appeared, the expression “tractored off” was added to the depression lexicon.

The idea of tenant farmers “tractored off” is more thoroughly developed in Lange and Taylor’s An American Exodus. The couple wrote that “the record of power farming in cutting cotton workers from the land [was] already impressive” and that “this problem, originating in the South, [was] national in its repercussions.” A former black tenant farmer supposedly said: “Tractors are against the black man. Every time you kill a mule you kill a black man. You’ve heard about the machine picker? That’s against the black man too.” The most striking testimonies of eviction by machine are not the prose but Lange’s pictures. Among the most memorable photographs is one of an abandoned house in the middle of a Texas cotton field with freshly plowed furrows up to the door step (fig. 4.13).

The most powerful and enduring expression of the idea of tractors pushing tenant farmers from the land is The Grapes of Wrath. Although Steinbeck did not meet Dorothea Lange until after publication of the novel, he was influenced by her photographs and Taylor’s articles. The novel synthesized several depression themes: poverty, tenant farming, drought, migration, and agricultural mechanization. Steinbeck vividly depicted two forces pushing tenants from the land, drought and the tractor.

And at last the owner men came to the point. The tenant system won’t work any more. One man on a tractor can take the place of twelve or fourteen families. Pay him a wage and take all the crop. We have to do it. . . .

The tenant men looked up alarmed. But what’ll happen to us? How’ll we eat?
You’ll have to get off the land. The plows’ll go through the dooryard. . . .

The tractors came over the roads and into the fields, great crawlers moving like insects. . . . Snub-nosed monsters, raising the dust . . . across the country, through fences, through dooryards, in and out of gullies in straight lines. . . .

The houses were left vacant on the land, and the land was vacant because of this. Only the tractor sheds of corrugated iron, silver and gleaming were alive; and they were alive with metal and gasoline and oil.48

The persistent role of *The Grapes of Wrath* in the portrayal of eviction of tenant farmers by agricultural mechanization is significant. Among depression novels, *The Grapes of Wrath* was surpassed in sales only by Margaret Mitchell’s *Gone with the Wind*. Steinbeck’s most famous novel is still widely read and still controversial. Both the novel and John Ford’s award-winning motion picture version of *The Grapes of Wrath*, which was filmed

![Abandoned house](image-url)
The alluvial Mississippi Valley in northeastern Arkansas and southeastern Missouri was among the areas where evictions and reduction in status of tenants as a consequence of the Agricultural Adjustment Act were most severe. Here, however, tenants did not accept the situation complacently. The alluvial valley in northeastern Arkansas and southeastern Missouri was a recently settled plantation area, and the tenant farmers included large numbers of whites as well as blacks.49 The area also was one of the few rural places of the nation where the Socialist Party had a relatively large membership. When Norman Thomas, leader of the Socialist Party, visited eastern Arkansas in 1934 to give an address, he encouraged two young members, H. L. Mitchell and Clay East, to organize a union to fight for the rights of tenant farmers who were evicted from plantations or denied their shares of AAA payments. The Southern Tenant Farmers’ Union, which began in Arkansas in 1934, by 1939 had spread to Missouri, Tennessee, Oklahoma, Mississippi, and Alabama and had thirty-five thousand members. By convincing influential persons such as Eleanor Roosevelt and Fiorello LaGuardia of the plight of sharecroppers and by effective use of the media in publicizing their situation, the union had a greater role than its modest membership suggests. Publicity of tenancy problems eventually led Franklin Roosevelt to create the Committee on Farm Tenancy. The committee’s report contributed to congressional passage of the 1937 Bankhead-Jones Farm Tenant Act and to the creation within the Department of Agriculture of the Farm Security Administration from the Resettlement Administration.51

From its inception, the Southern Tenant Farmers’ Union waged a successful publicity campaign. Books such as Thomas’s The Plight of the Sharecropper (1934) and Howard Kester’s Revolt among the Sharecroppers (1936), a “March of Time” film The Land of Cotton (1936), and a National Sharecropper’s Week launched annually from New York City were highly effective. However, in retrospect, Mitchell considered a highway demonstration in southeastern Missouri during January 1939 the “most spectacular event to occur in the sharecropper movement.”52 To protest eviction from plantations, 251 families composed of 1,161 persons camped at dispersed intervals along U.S. Highway 61. An investigation by the Federal Bureau of Investigation concluded that “the principal reason” for the evictions was “to enable the landowner to retain all of the AAA benefit money.” But Lange and Taylor put a different spin on the roadside demonstration in An
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American Exodus, interpreting it as evidence that “plantations of the Delta” were “coming under the machine” and “the sharecropper system . . . [was] collapsing at its advance.”

The roadside demonstrations caused Secretary of Agriculture Henry Wallace and other high-ranking officials in the Department of Agriculture to reassess the effects of New Deal farm programs on tenants. One official stated in a letter to Wallace that although “some of the displacement of tenants” going on in the South at the time traced directly back to that part of the Agricultural Adjustment Act program which paid a landlord “to make day laborers out of his tenants,” he also believed that mechanization had become a factor in the reduction of tenants. In 1939 and 1940, the Farm Security Administration sent Marion Post Wolcott, Russell Lee, and other agency photographers into the plantation South with specific instructions to find visual evidence to document eviction by machine. Among the photographs are Lee’s of the Southern Tenant Farmers’ Union members camped along Highway 61 in Missouri. In the autumn of 1940, Post Wolcott took a series of photographs of the Hopson Planting Company near Clarksdale, where tractors and the early International Harvester and Rust mechanical cotton pickers were tested and where day laborers were used in large numbers (fig. 4.6).

Wallace thought that deeper problems in the American economy, rather than the AAA or agricultural mechanization, actually underlay the eviction of tenant farmers. He also believed that mechanization was necessary to a viable future for the nation’s agriculture and was part of a logical economic process. According to Wallace, the Department of Agriculture had “never taken the position that . . . mechanization, with its obvious effect on labor, should be stifled or ignored.” Wallace wrote the following to Eleanor Roosevelt in the spring of 1939 when she requested more information on the condition of the displaced sharecroppers in Missouri:

Many thousands of needy farm families in other sections of the country are living under equally deplorable conditions. . . . Many of these families, like those in Southeastern Missouri, were sharecroppers or tenants who have been forced off the land by mechanization and other technological developments, or represent the historical and continuing off-throwing of population from the farms. The farms always have produced a much larger population than they support. . . .

When the Nation was expanding, this increase in population had opportunity either on new land or in the growing cities. The closing of opportunity in those two directions has resulted in damming up
The Cotton Plantation Landscape

on the farms millions of people who normally would have been taken care of elsewhere. . . . There are few facts so fundamental to our whole economic problem of today.\textsuperscript{55}

Paradoxically, after the Second World War the displacement of tenants from the land by mechanization and the flight of blacks into growing ghettos of the nation’s metropolises continued with little notice by the media or the public until the confrontational phase of the civil rights movement in the 1960s (figs. 4.14, 4.15). Counter to the idea that tenant farmers were displaced from Southern plantations by machines, the concept emerged after the Second World War that planters were forced to mechanize because labor migrated. By the mid-1950s the theory of a “labor vacuum,” which held that “machines do not displace labor, but merely come in to fill the vacuum left by labor which has already departed,” was prevalent throughout the Southern cotton regions.\textsuperscript{56} From the beginning of mechanization in the 1930s until the process was completed in the late 1960s, planters repeatedly denied that tenants, especially blacks, were displaced by machines. Rather, after the Second World War they complained of labor shortages, and many who purchased tractors and mechanical harvesters stated that they were forced to do so. Oscar Johnson, manager of the 36,000-acre Delta and Pine Land Company at Scott, Mississippi, wrote that although between 1935 and 1947 the number of tenant families on Deltapine dropped from 850 to 550, mechanization was “not the cause, but the result of economic change.” Dorothy Dickins, concerned over the number of workers who might be evicted by agricultural mechanization in Mississippi, concluded in 1949, “At the present time there is no problem of a displaced labor supply; in fact, there is a scarcity of labor on some plantations.” Arthur Raper and Harald Pedersen observed in 1954 in the Yazoo Delta, “Planter after planter . . . feel impelled to reiterate and reaffirm the defense which became the byword of the area in the late 30’s: ‘Not one family, not one person has been displaced by machines on this plantation.’”\textsuperscript{57}

In his study of the Southern plantation economy, Mandle supports the idea of mechanization as a replacement for labor that departed as part of his thesis that changes in the plantation system during the twentieth century were initiated principally by blacks. Blacks began migrating from plantations during the First World War. The unleashing of blacks from the plantation system, however, occurred primarily during the Second World War. Blacks were confined to the Southern plantation regions by a com-
FIG. 4.14. A 1947 cartoon illustrating the feared impact of mechanical cotton pickers on black agricultural tenants and laborers. “Is this a new opportunity for your business, or will it become an economic Frankenstein?” (National Cotton Council 1947)

FIG. 4.15. An obsolete, abandoned one-row mechanical picker mounted on a Model-M Farmall Tractor in 1988, four decades after the tide of history had washed over the cotton plantation regions, their people, and the “economic Frankenstein.” Charles S. Aiken
bination of racist hiring practices in Northern industry and immigration of cheap labor from abroad. With the advent of the Second World War, blacks were urgently needed by the military and by American industry. More than one million blacks migrated from the six Deep South plantation states during the 1940s, and “the vacating of the estates caused by the war accelerated trends towards mechanization of southern agriculture.”

WERE BLACK TENANT FARMERS DISPLACED BY MECHANIZATION?

Assessment of the relationship of mechanization of cotton production to migration of blacks from the Southern plantation regions must consider several factors. First, mechanization of cotton production did not play a role in black migration until the depression of the 1930s. The emigration of blacks from the rural South during the first three decades of the twentieth century was produced by other factors, including the “push” given by collapsing plantation systems on the lower Georgia Piedmont, the Alabama Black Belt, the Natchez district, and certain other regions. Migration from regions of agricultural demise was not just to cities but to viable Southern agricultural regions. While the black populations declined on the lower Georgia Piedmont, in the Alabama Black Belt, and in the Natchez district between 1910 and 1930, they increased in the Yazoo Delta and on the northern Mississippi Loess Plains. The “push” given by disintegration of plantation agriculture after 1900 coincided closely with the “pull” of new employment opportunities for blacks in the North. That the opening of jobs to blacks and the recruitment of black labor from the South during the First World War and the 1920s coincided with the impact of the boll weevil and the disintegration of the plantation system in particular regions was fortuitous. Without migration, even larger numbers of blacks would have been in destitute circumstances in the rural South during the 1920s and 1930s. Racial oppression in the South also was a major “push” of blacks to cities of the North and West, and the greater freedom that blacks found became a principal “pull” on relatives and friends who remained in the South. The de facto segregation in the North and West was not nearly as harsh as that mandated by law and by custom in the South. Many blacks who migrated thought that their children were in much better situations. Not only were schools in Northern and Western cities not legally segregated, but they were much better funded, had more comprehensive curricula, and extended through the twelfth grade.

During the depression, the imposition of federal acreage allotments on
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cotton and the commencement of mechanization with tractors began to eliminate tenant farmers in viable as well as declining plantation regions. The number of black farmers evicted was relatively small compared with the number who remained on plantations. However, had agricultural mechanization continued under the economic environment of the depression, a horde of evicted tenants reduced to the status of day laborers attempting to eke out a living would have resulted. The Second World War intervened, and a “pull” was exerted by military personnel requirements and industrial labor demands. The expanding postwar economy continued to offer urban job opportunities to Southern rural blacks. Even if they did not find the number and types of jobs they sought, perception of a better life in the city drew blacks in increasing numbers from plantation shacks to the nation’s cities. The number of blacks who migrated from Georgia, Alabama, and Mississippi was 773,000 between 1940 and 1950; 752,000 between 1950 and 1960; and 664,000 between 1960 and 1970.60 That mechanization of cotton production and transition from the New South tenant plantation to the Modern South neoplantation occurred in phases kept even larger numbers of blacks from being suddenly “pushed” from the land between 1935 and 1965. Moreover, planters did not make decisions to adopt new technology strictly on the basis of economics.61 Inertia and lack of confidence in machines and chemicals prevented immediate acceptance of new technology by some planters.

Despite the caution over mechanization, neither planters nor officials of the Department of Agriculture sought to retain the labor-intensive cotton production system. An important aspect of the relationship between mechanization and reduction in labor on plantations is that beginning in the 1930s wages for agricultural field labor were essentially inelastic. Planters who complained of labor scarcity during the 1940s and 1950s meant lack of abundant cheap labor, not the lack of workers. Except for skilled machinery operators, “competent labor,” no attempt was made to hold or recruit agricultural workers by increasing wages or the percentage of the cotton crop given to tenants. Across the cotton regions, wages for weeding and picking cotton did not increase between 1949 and 1965. In Mississippi the wage for picking a pound of lint cotton actually declined from 8.6¢ in 1949 to 7¢ in 1965.62 In 1965, the average worker could make only approximately $14 a day picking cotton.63 When cheap black labor became scarce, even reluctant planters adopted machines and chemicals rather than raising wages.

Another important aspect of the relationship between mechanization and labor is that the supply of agricultural workers was viewed by planters
in a regional rather than in a local spatial context. Migration of tenant families and day laborers from plantations did not necessarily mean exodus from the region. A process Paul Taylor described in the late 1930s in which tenant families evicted from plantations moved to local municipalities continued through the 1960s. Growth in the regional rural-nonfarm and urban black populations escalated while planters complained of labor shortages and contended that mechanization did not displace agricultural workers but replaced those who left. Taylor thought that “the presence of this reserve, comprised principally of cotton workers recently swept from the land into the towns,” was what made “tractor farming feasible.” Blacks who did not migrate from the region were employed “only as a reserve to meet seasonal peak needs” for weeding and harvesting. Improvements in the rural infrastructure assisted planters in the elimination of tenant farmers. New types of spatial linkages developed between plantations and towns and cities. “Daily movement of labor between town and plantation,” wrote Taylor, was “facilitated by very recent construction of graveled and hard-surfaced roads.” Truckloads of day laborers from Greenville were hauled more than 35 miles over the new roads.

One of the most perceptive and articulate expressions of mechanization and modernization of agriculture and their effects on those tied to the plantation was written by David Cohn just as the process began to accelerate. Having visited the Percy family’s Trail Lake plantation in 1940 and returned a decade later, Cohn knew that a “mechanical revolution” was “changing . . . the shape and flavor of the plantation landscape” forever.

When mechanization of the Delta agriculture has been completed, out into the unknown there will go about 70 percent of those presently upon the land; over 200,000 persons.

As they go, the old-time plantation goes. Under mechanization the fields march from horizon to horizon unbroken by cabins, churches, gardens, and cowsheds. Scattered cabins and other structures give way to small villages as in European agriculture. Workers move to and from the fields on the self-propelled vehicles that are their tools.

The only serious flaw in Cohn’s prophecy is that he greatly overestimated the number of persons who would remain in the Delta’s plantation agriculture.