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WHO WAS “FOREST MAN?”

SOURCES OF MIGRATION TO THE PLAINS

JOHN C. HUDSON

One of the points of high drama in Walter Prescott Webb's *The Great Plains* is his description of forest man's entry into the grasslands:

Let us visualize the American approach to the Great Plains by imagining ourselves standing on the dividing line between the timber and plain . . . As we gaze northward we see on the right side the forested and well-watered country and on the left side the arid, treeless plain. On the right we see a nation of people coming slowly but persistently through the forests, felling trees, building cabins, making rail fences, . . . advancing shoulder to shoulder, pushing the natives westward toward the open country.¹

Similar descriptions of the moment of contact of settlers with the Plains are found elsewhere in the literature on grassland pi-

oneering, and in each instance they convey the likely sense of awe that forest man felt when he first glimpsed the “unbroken sea of grass.”² Webb exactly described his mythical observer's vantage point—the intersection of the 31st parallel and the much-maligned 98th meridian, which, by my calculation, affixes the moment of truth approximately fifty miles north of Austin, Texas. James Malin seems to have regarded Webb's description as applying to the Missouri-Kansas border. Other dramatizations of the first encounter are set against the wooded fringes of the Grand Prairie of Illinois or the entry into the grassy Pennyroyal uplands of Kentucky, where, lacking an English word to designate grasslands, settlers referred to the area as “the barrens.”³ Still other stage settings for the first encounter would include a crossing of northwestern Minnesota's forested moraines; here, where the prairie-forest ecotone is narrowest, the traveler emerges suddenly upon the flat Red River valley, to remain in a largely grassland environment clear to the Rocky Mountains.

All of these locales are perfectly valid for the purposes of describing the encounter, but their variety also suggests that “forest man” was not the embodiment of a single group of

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[GPQ 6 (Spring 1986): 69–83.]

people at a single point in time. Many people, from a wide variety of backgrounds, crossed the prairie-forest border. The problem of adaptation to semiarid grassland environments by people accustomed to living in woodlands may be seen in sharper focus by examining in some detail the origins of those who made the move. We know the approximate range of conditions to which adaptation had to be made, but we need to know more about the various starting points of those involved in order to gain a clearer impression of the process.

The term *forest man* was used consistently by Malin. Walter Kollmorgen used *woodsman*, while Webb himself wrote of *timber dwellers* and reserved the term *woodland* to label the aboriginal culture areas of pre-European, eastern North America.⁴ Regardless of the label, the intent in affixing it remains clear in the writings of those who have described the process of adaptation (or lack thereof). Forest man was of European origin, although not of either Spanish or French heritage: the Spanish moved into the Plains from the south and west, while the French, for all practical purposes, never moved into the Plains at all. Anglo-Texans do not really fit the image because they approached the Great Plains proper from a starting point that was already within the zone of mixed forest and grass vegetation.

I would thus bound forest man's grassland home on the east and north by the prairie-forest ecotone, on the west by the Rocky Mountains, on the southwest by the Hispano culture of New Mexico, and on the southeast by the pioneer fringe of northward-pushing Texas settlement.⁵ Forest man was most likely of English, Scotch-Irish, or German ancestry and, likely as not, learned the ways of the forest dweller only after crossing the Atlantic. It was the experience of three, four, or more generations in the eastern woodlands that gives meaning to the label, and thus it is appropriate to begin the analysis with a brief survey of westward population movements from the eastern seaboard colonies.

BACKGROUND

Three major population hearths are conventionally recognized: New England (or Yankee, if applied to settlers from New York west); Mid-Atlantic (or Midland), which designates southeastern Pennsylvania, the adjacent fringe of New Jersey, and the extension down the Great Valley into Maryland and Virginia; and the coastal plain and piedmont sections of Virginia itself. Each of these three had a different mix of early settlers and within each there emerged separate systems of political economy and contrasting patterns of folk culture.⁶ Forest man can be thought of as originating in all three areas.

The extent of contact between New Englanders and Midlanders was minimal in the Northeast because the two westward-moving groups were separated by a wide stretch of the Allegheny Plateau considered less favorable for settlement than were lands in either southwestern Pennsylvania or northwestern New York. There was a sharp division even in Ohio, where Yankees settled the Western Reserve and kept to the north of territory already settled by Germans and Scotch-Irish from Pennsylvania. The first real mixture zone appears in northwestern Ohio, but it follows only a narrow corridor west to the southern end of Lake Michigan. There, where the Prairie Peninsula reaches farthest east and surrounds the timbered valleys of the upper Wabash and Illinois rivers, forest man of Midland stock encountered the Yankee and the prairie almost simultaneously (fig. 1). A mixture zone, of nearly equal parts Yankee and Midland, fans out to the west from this point, wedged between clear Yankee dominance to the north and Midland to the south.

This mixture zone might have been broader had it not been for the westward movement of the third group, those from Virginia. The degree of cultural contact between Lowland (coastal and piedmont) Virginians and Upland Southerners (who moved down the Great Valley and into the Appalachians from Pennsylvania) is a matter of debate, but both strains

definitely came together in the Bluegrass region of Kentucky in the late eighteenth century. The Virginia roots of the Bluegrass settlers were soon transplanted to Missouri, first in the Missouri River bottoms and bluffs, creating that outlier of Southern ways still known as "Little Dixie," and later into the surrounding upland prairies of northern and western Missouri, coming to an abrupt halt at the Kansas line.

METHODOLOGY

The foregoing observations bring forest man to the edge of the grasslands, but even this much background requires an explanation of how the generalizations were derived. Despite the attractiveness of various shortcuts, such as use of the 1880 Census data on state of birth for counties, the only satisfactory method of tracing migration patterns is the individ-

ual life-history approach. After some experimentation, I am reasonably sure that a sample of roughly two hundred life histories, such as those published in the numerous county histories that appeared in the 1880s and 1890s, produces a coherent "dot" map of population origins (birthplaces) for a given county. Further experimentation with the method has shown that intermediate residences for some are mirrored in the birthplaces of others (their children or other young members of the initial migration), and thus that birthplaces and birthdates are the essential facts.

County histories have a desirable built-in bias when they are used to trace the origins of cultural influence. Probably the best measure of who the "important" people are in any place is left to the local citizenry. Anyone who paid for a biographical sketch to appear in a county history must have had some measure of self-

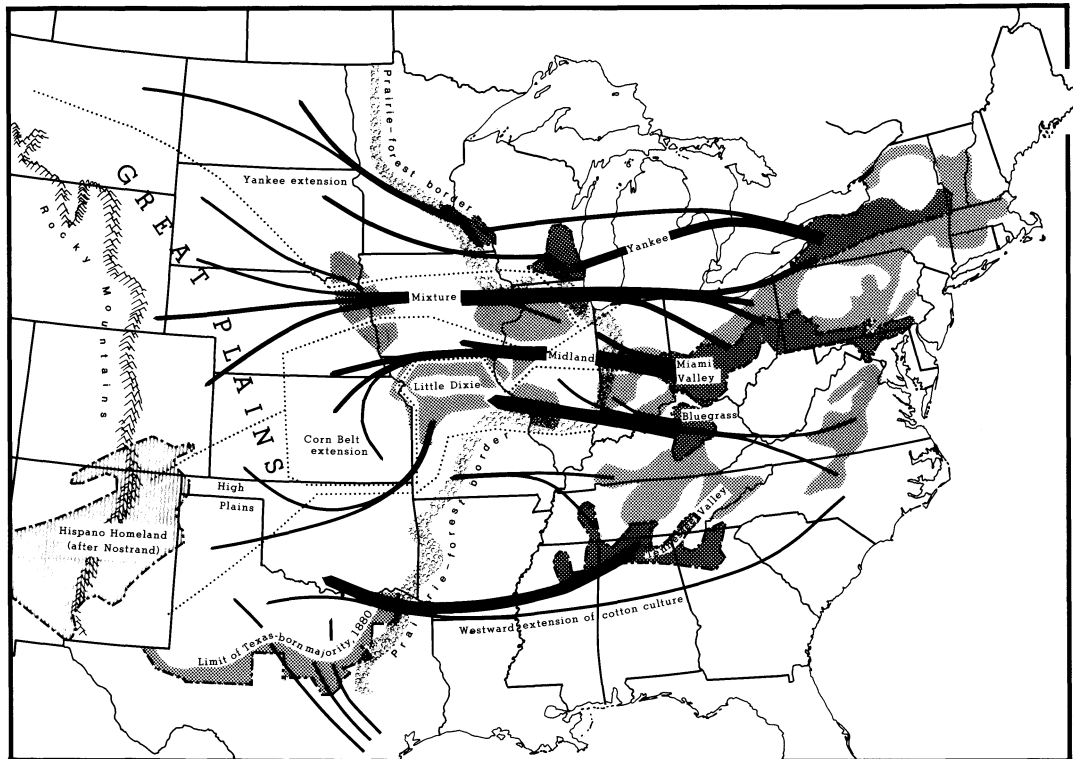


FIG. 1. Population origins in the American grasslands.

esteem—exactly the sort of person who might try to influence others in matters economic, social, or political. On the negative side, there is a problem of uniformity of quality of the histories, with an especially strong contrast between those splendidly produced volumes from the “history factories” of the late nineteenth century and the products of recent years that resemble high school yearbooks. Information furnished by pioneer settlers themselves is scarce in the more recently published volumes, although biographical accounts by their children and grandchildren partially make up for the deficiency. Given a general knowledge of the date and circumstances of early settlement in a county, it is possible to cull enough birthdate/place information to create the pattern of population origins.⁷

Birthplace “dot” maps were produced from the histories for 109 counties or groups of counties in the prairie and Great Plains regions of the United States.⁸ The county maps were then grouped according to similarities in median center of origin, degree of dispersion around the median center, and spatial pattern, resulting in five regional maps (figs. 2–6) of population origins. Each regional dot map shows the birthplaces of approximately two hundred of the earliest settlers in each of the sample counties. Lines connect the median center of origin for a county with an open-square symbol indicating the county’s location in the grassland region. The resulting national-scale view of frontier migration suggests some new hypotheses concerning cultural backgrounds and subsequent grassland adaptations.

REGIONAL PATTERNS

Forest Man as a Yankee. Yankees ventured beyond the Appalachians relatively late, but they pushed west rapidly after 1820 and settled the mixed woodland-prairie belt of northern Illinois and southern Wisconsin by 1840 (fig. 2). Their principal destination was the hardwood forest zone of the lower Great Lakes region (not shown here), but they clearly did

not avoid the prairie fringe to the south. Yankees exploited the respective advantages of the two ecosystems by assembling their farms somewhat irregularly from patches of contiguous prairie and woodland. Counties within this mosaic zone of tall-grass prairies, upland copses, and wooded ravines derived their populations from western New York state, especially the Genesee country and the Holland Purchase.

It took less than a single generation for this group to move west into Minnesota, continuing a generally northward and westward trend, until they outran all but the narrowest of riverine forest strands in eastern Dakota. The rapid advance is explained by the large population of western New York that was willing to move and the absence of any serious obstacles in their path. Yankees were first in this region, although they were soon joined by thousands of Europeans, principally Germans and Norwegians.

The next generation continued the same direction of expansion. The children of the original pioneers from New York, they were born in southern Wisconsin and they became, in turn, the original settlers of northern Dakota in the 1870s and 1880s. Alongside them went the first-generation Norwegian-Americans whose parents had taken land in and surrounding the Driftless Hill region and the first-generation German-Americans born south and east of Lake Winnebago in Wisconsin. The stream of migrants arriving in northern Dakota was thus a different sort of mixture, but the direction of the regional trend in population expansion clearly overwhelmed any tendencies the various ethnic groups may have had to move in different directions. The Yankee-cum-Norwegian and German stream was joined by a substantial Canadian-born component west of the Red River valley. This admixture, in turn, dominated across northern Dakota and northern Montana.⁹

Yankees are found in abundance in every pioneer population from the Great Lakes forests to the Iowa prairies, but as a group they most clearly dominated the hardwood forest

zone and the adjacent prairie fringe. They planted corn within the climatic limits then recognized but were better known for introducing wheat and dairy farming, which were more adapted to the region they dominated. Sorting out the relative importance of environment versus cultural background is necessary if one is to make detailed inferences from such patterns, although it seems reasonable to conclude that the Yankee stream was not confined to any single habitat, nor did its westward advance pause noticeably once the woodlands were left behind.¹⁰

Corn, and the associated meat-animal economy, eventually spread northward into Minnesota and South Dakota from the zone of Midland settlement in Iowa. The relative absence of a meat-animal tradition in Yankee farming practices probably was responsible for the lag, and this, in turn has some further implications. In their region of greatest domi-

nance, Yankees were apt to favor cash-crop farming. This preference could be ascribed to economic and environmental factors but also to habit, originating with the tobacco and wheat culture in Connecticut and New York and later observed in the westward migration of the wheat-specialty zone that went west synchronously with the Yankee frontier. It is worth speculating that the relative popularity of dry farming in the northern Great Plains may have been as much due to the appeal of this adaptation to a group of farmers already oriented to grain cropping but living beyond their familiar environmental niche as it was due to advertising that encouraged adoption of the techniques. Such an interpretation would more clearly define dry farming as an adaptation by suggesting there may have been a complex "need" for it.

The Mixture Zone. A triangular region, beginning with the eastern apex of the Grand

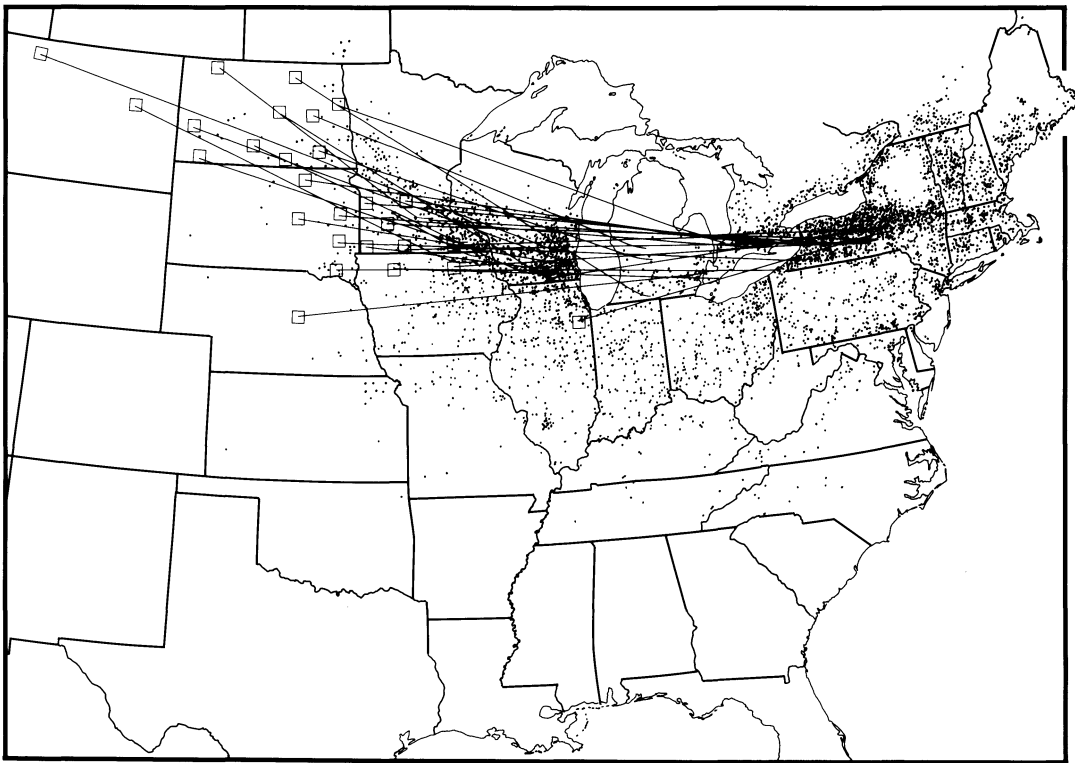


FIG. 2. Yankee origins.

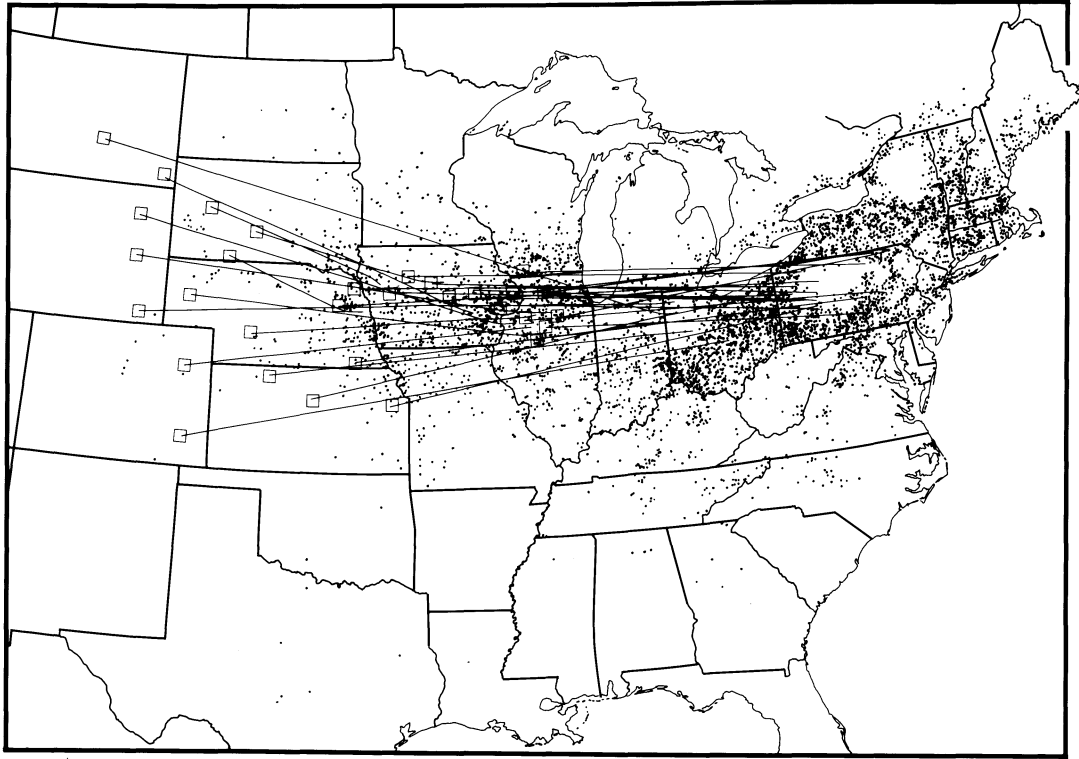


FIG. 3. Mixture of Yankee and Midland origins.

Prairie and stretching west to include everything between the Yellowstone and the Arkansas valleys, appears to have attracted a fairly uniform mixture of settlers of Yankee and Midland origins (fig. 3). There were actually two distinct parts—a somewhat narrower zone across the Illinois and Iowa prairies and a much broader area that included the central portion of the Great Plains. Counties in both parts of this region drew their initial residents in roughly equal numbers from the westward extensions of Yankee and Midland settlement. New England and New York were important, but so were Pennsylvania and southern Ohio. It is important to note that it was the destination-county populations that were mixed, not the ancestry of particular individuals who settled there.

The mixture zone begins on the east at the point where westward Yankee migration caught up with the earlier penetration by those

born in Pennsylvania, southern Ohio, and Indiana. It is tempting to draw conclusions about the coincidence of this Yankee-Midland contact and the beginning of grassland settlement, but probably it was a coincidence, due mainly to the comparative rates of westward spread of the two populations. The implications of the coincidence are nonetheless interesting.

The eastern portion of the mixture zone is the heart of the Middle West, the heart of the Corn Belt. Corn-livestock and cash-grain operations both were established early. The wet prairies were drained, often with Yankee capital, to support the farming system worked out in southeastern Pennsylvania and the Miami valley. Railroads came early to the region, making distant access easier, which further mixed settlers from various origins. The propensity to agricultural innovation seems to have been greater here as well,

explained, perhaps, by the presence of a diversity of casts of mind as well as skills. Manufacturing—especially milling, packing, and implement manufacture—flourished in the small as well as the large cities of the region. Farmsteads were noted for their diversity of buildings, large acreages, and general prosperity. Forest man had no difficulties here, it would seem.

The Great Plains portion of the mixture zone had an even more heterogeneous population. Railroads were partly responsible, but so was the very fact of the central Plains' distant location—equally distant from the several source areas. The long jumps characteristic of plains pioneer settlement are most in evidence here. Cattle and sheep men of Bostonian heritage were scattered among those with similar interests from Pennsylvania or Scotland. There is a stronger evidence of Midland and Virginia heritage in cattle country, the latter probably deriving from the south-to-north growth alignment of the range cattle business itself. Pioneer cattlemen as far north as the Yellowstone valley often had prior Texas residence, and Missouri-born cowboys were found farther north than Missouri-born farmers throughout the Plains.

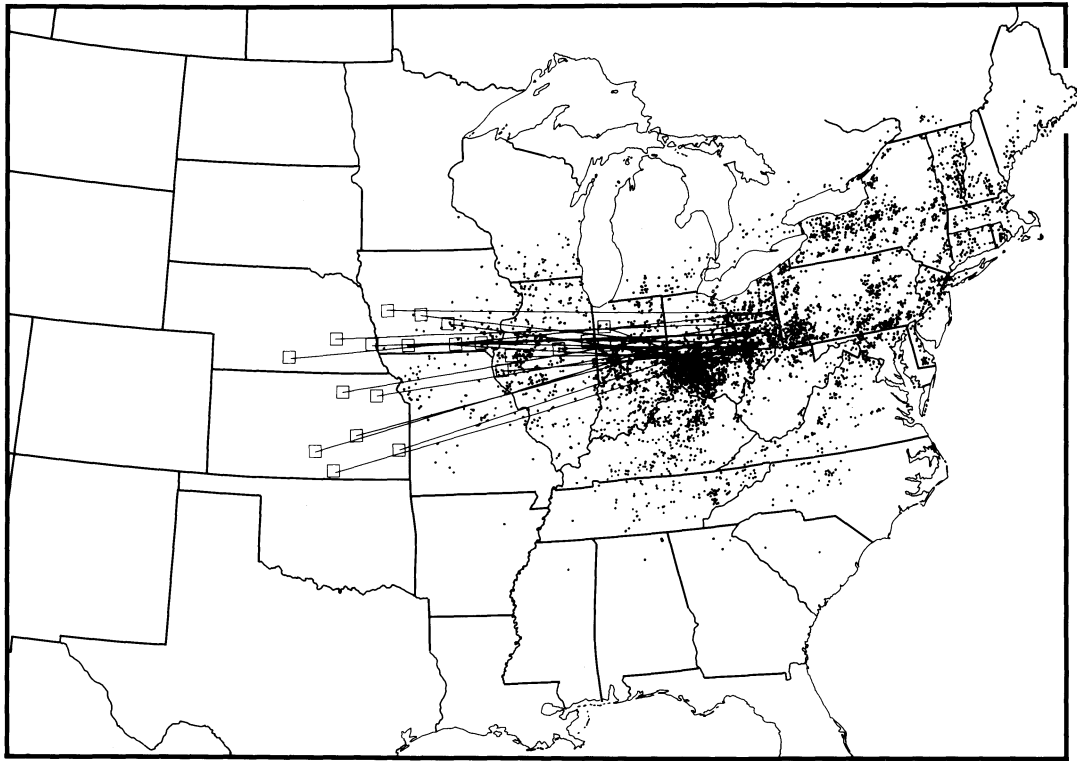
Extensive cropping of dry uplands was delayed longer in the central Plains than elsewhere, achieving a clear identity only during the later era of "suitcase farming."¹¹ The earliest efforts at dry farming in West River South Dakota were made by Iowa-born farmers who generally used their first year's breaking for corn rather than flax (as the Yankees were wont to do), an obvious extension of an old habit to a new habitat.¹² Cash-grain farming never became as well established here as it did to the north or to the south, partly for environmental reasons but also, perhaps, because the early stockraisers made a stronger imprint on regional ways of life. That dry farmers became known as wheat ranchers suggested with whom they stood, in comparison with the sugar-beet growers and others who irrigated.

The western fan of the mixture zone, more

than any other section of the Plains, evolved the sort of landscape that John Wesley Powell advocated as best for the entire region: large stock-raising farms in the dry uplands and smaller irrigation farms in the alluvial bottoms. Those who moved in to raise cash crops with ditch water shared little in common with those already making a living without it. Irrigated farming, despite its economic importance, never eclipsed ranching in the regional consciousness. Perhaps this is why the cowboy legend continues to be groomed so carefully in this section of the Plains—where the "woodsman's assault on the domain of the cattleman" was held in check.

Forest Man from the Corn Belt. Although the history of the Corn Belt's origins remains to be written, it is believed that this system of mixed crop-livestock farming originated in southeastern Pennsylvania among German and Scotch-Irish farmers and was then transplanted, without much modification, to southern Ohio, especially to the Miami valley.¹³ From there, it was taken north and west and, with little or no pause at the prairie margin, spread rapidly across Illinois and Iowa (fig. 4). When Kansas and Nebraska were opened for settlement, the same complex was established there.

The course and timing of the Corn Belt's rapid spread beyond Illinois is a case study in political, environmental, and cultural factors operating largely independently of one another. Midland-stock settlers undoubtedly kept more to the north of Missouri than would have been true had not the Missouri Compromise of 1820 established that state as an extension of slave territory. The Kansas-Nebraska Bill of 1854, which made slavery an open question west of the Missouri border, was passed just as population growth in the Corn Belt extension west of the Miami valley had reached levels that would sustain a new frontier to the west. Given the fact that Missouri was already well settled, and given the tendency for migrants to make several-hundred-mile jumps when they moved, the

FIG. 4. *Midland origins.*

obvious direction of settlement was to skip Missouri and settle in either Kansas or Nebraska. It was a much longer jump than the previous generation of Midlanders had made, but it can be understood, given the circumstances. Thus it was that most Jayhawkers had Ohio, Indiana, or Illinois birthplaces (not New England, as popular accounts often suggest). As a result, the Corn Belt agricultural complex was suddenly projected west of the humid climatic zone.

As James Malin observed, the winter wheat belt of Kansas did not emerge in the early years. Wheat was not added to corn and livestock on a large scale before the 1880s.¹⁴ Although winter wheat had long been part of the Midland agricultural complex in the East, the emergence of wheat as a cash specialty in southern Nebraska and central Kansas coincides with the appearance of a minority, although sizable, Yankee population there

during the 1870s. On the other hand, the habit of growing corn that the Midland-born majority of Kansas and southern Nebraska pioneers brought with them could be used to illustrate a lack of adaptation. Given the long jump to this frontier, however, and also given the early shift to winter wheat, it would seem that adaptation was no slower in coming than could reasonably have been anticipated. Surely it is misleading to compare unfavorably the early corn-livestock farmers of Kansas with the "Turkey Red" Mennonites who happened to arrive from South Russia with an agricultural complex more in harmony with what the environment could support.

Malin also linked the rise of Kansas Populism with this shift in farm practices because it reflected the get-ahead inclinations of a population that characteristically did not wait for overwhelming evidence before seizing new opportunities. Politics did have its ups and

downs on this frontier, as reflected in the biography of one Reno County, Kansas, farmer transplanted from New York: "In politics he was formerly a Republican, but afterward became a supporter of the Greenback Party; later he was identified with the Reform party, or Populists, and is now a Socialist."¹⁵

The zone of Midland dominance in the American grassland illustrates the nature of migration to the western frontier. Northern Missouri, already settled, was skipped over by the westward migrating Midland farmers of southern Ohio who went on to Kansas and Nebraska. Their ancestors, in turn, had taken as long or longer just to spread across Pennsylvania. In this instance, as in many others, it is clear that forest man did not creep out of the woods onto the prairie margins, live there for a generation, and then move to more arid climes. Leapfrogging, as was done across Missouri, was not universal, but it was common and it explains the fact that nearly all of the Midland-dominated section of the prairies, east and west, drew most of its initial population from a single area. That, in turn, suggests why the first agricultural practices were so similar within a region that happens to cross-cut almost twenty inches of the precipitation gradient.

Further westward and southward extension of the Corn Belt complex was checked by climatic limits on corn and by the temporary halt of all migration at the Oklahoma border. The lag was long enough to dictate a new source area for subsequent migration, although to explore its course we must first turn to the fourth regional pattern, that of westward migration from Virginia origins.

Virginia Roots via the Bluegrass of Kentucky. Many of the earliest middle western settlers were born or had lived in the Bluegrass region of Kentucky (the first area of permanent white settlement in that state) before they pushed northward along the tributaries of the Mississippi, Wabash, and Ohio rivers. They were not grassland pioneers because they generally

chose to settle the wooded valleys surrounding major stream courses, but their scattered cabins nonetheless formed the vanguard of permanent settlement bordering the Grand Prairie.¹⁶ This early penetration from Kentucky was later overwhelmed by the influx of Midland and, still later, Yankee settlement in central and northern Illinois, but Kentucky remained the major source of subsequent settlement along the southern prairie margins (fig. 5). The largest share of these Kentuckians had Virginia-born parents and they reflected a cross section of the Old Dominion's population, from Tidewater to the Great Valley.

There was, therefore, a range of opinions on the slavery question among these translocated southerners, especially those who settled Missouri. Extreme polarization on the issue seems to have come well after migration, especially after Missouri was bordered on the north and west by vocal partisans of the abolitionist cause. The course of events between 1860 and 1865 guaranteed that subsequent plains settlement would follow a northern model, but these developments did not prevent the sons and daughters of Missouri from moving west when new opportunities were perceived.

Just as Midlanders had jumped across Missouri to settle Kansas, so did those from the Virginia-rooted portions of Illinois and Missouri jump across eastern and central Kansas to settle the High Plains, especially during the railroad boom of the 1880s. Many who made the run into the Cherokee outlet in 1893 came from the dissected uplands of southern Iowa and northern Missouri. With these developments, the northwestward drift of Virginia's descendants was halted.

Under the influence of Chicago-based railroad companies there emerged a new southwest-trending axis of migration that drew from the Illinois, Iowa and Missouri prairie regions such requisite initial populations as were needed to establish agricultural settlement in western Kansas and the panhandles of Oklahoma and Texas. Sorghums (notably milo and broomcorn) were introduced early on

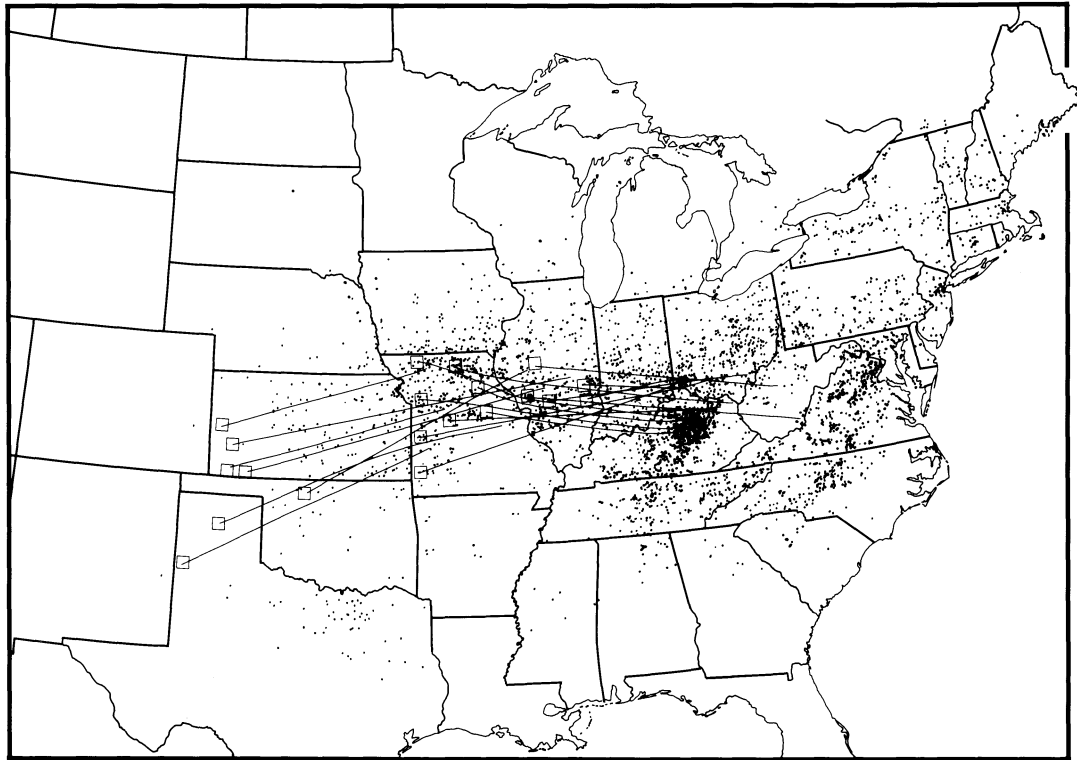


FIG. 5. Virginia roots via bluegrass of Kentucky.

this frontier. Although both crops can be seen as environmental adaptations that were suitable in the semiarid Plains for farmers accustomed to corn culture, the popularity of sorghums probably was dictated more by market demand than by local experimentation. The broomcorn buyers from Detroit who descended upon southwestern Kansas every year surely oversold their schemes, in any case. Events still in the offing would link them to that most disastrous epoch of plains agriculture, the Dust Bowl.

Migration to the Southern Plains. Forest man south of the Kansas-Oklahoma border came to the plains region from areas that had been settled one to three generations earlier as a result of the same westward movement that established Little Dixie at the edge of the southerner's frontier. Missouri was only an

outlier of this spread, however. The main direction of expansion trended southwestward, either following the grain of the Appalachian Mountains or traversing the arc-shaped piedmont region, from Carolina to Georgia (fig. 6).

Early northeast Texas was a cattleman's frontier and it attracted the majority of its settlers from the east, especially the Nashville basin and the middle Tennessee valley, rather than from the initial Texas settlements to the south. Even as late as 1840 there remained an unoccupied zone some eighty-five miles in width separating northeast Texas from settled areas south of the Trinity River.¹⁷

The north Texas prairies are thus differentiated in population origins in two respects: they were neither part of an indigenous, Texas expansion nor were they derived, as the early panhandle communities were, from the south-

ern prairie fringe within the Middle West. The same is true of central Oklahoma's early white population, which seems to have been derived more from the piedmont and the Tennessee valley than from Missouri or Kentucky. Migration to the southern Plains was an east-to-west movement that, in each generation, kept predominantly south of the 36th parallel.

Oklahoma's population is extremely difficult to trace using the methods I have employed, but enough is known of the several "Trail of Tears" forced relocations to reveal that the so-called Five Civilized Tribes were removed from the same areas within the southeastern United States that later provided much of the white population of Oklahoma. This is not difficult to imagine, given the numbers of mixed-bloods who were included among the early settlers of Indian Territory, but it is also true that the same source areas held for subsequent migrations to Oklahoma.

It was, furthermore, the mixed-bloods who first established the cotton/slave-labor complex north of the Red River and who used slaves as cowboys in scattered cattle operations around eastern Oklahoma.¹⁸

The rest of Oklahoma's early population was composed largely of "permit" laborers, white missionaries, teachers, and government officials whose scattered origins had no regional patterns. They made a strong imprint on Oklahoma, but they were not followed by enough others of similar background to offset continued migration from the southeastern states. Similarly, as northeast Texans began to move west their numbers were supplemented by a new in-migration from Tennessee, Alabama, Georgia, and the Carolinas, thus continuing the early trend.¹⁹

Grasslands beyond the 98th meridian were first used as pastures, but land openings in the "big pasture" of western Oklahoma, the break-

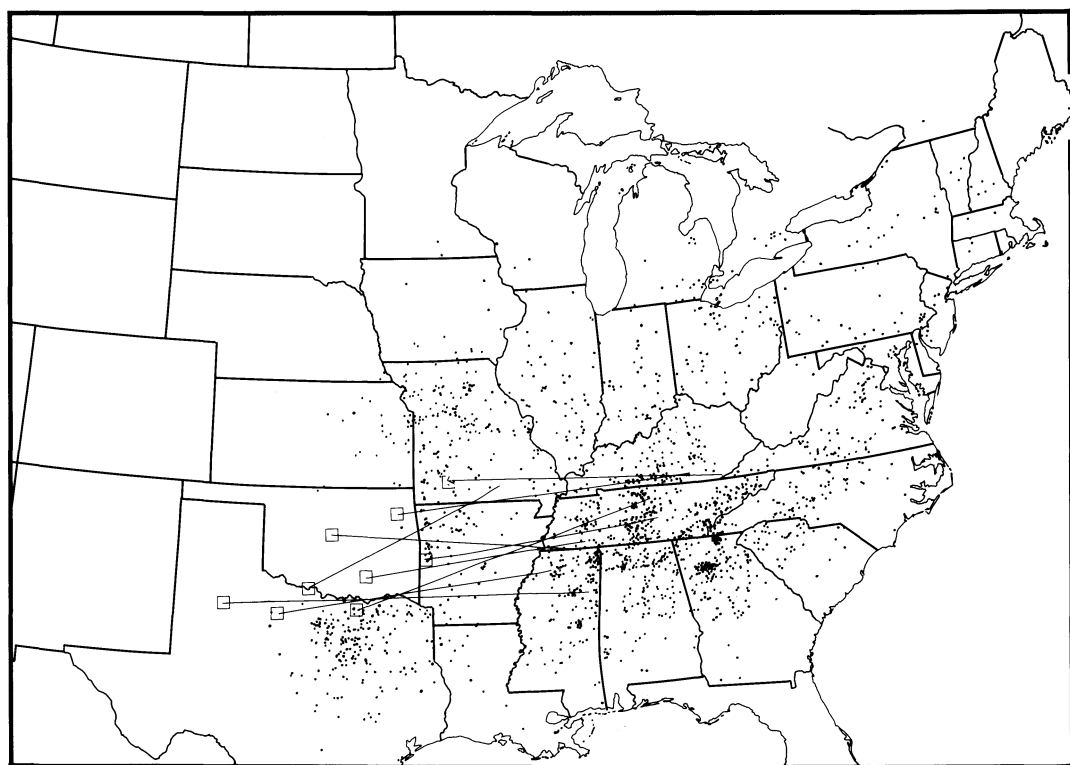


FIG. 6. Migration to the Southern Plains.

up of the large cattle ranches of the Texas panhandle, and a flurry of railroad construction transformed the region into a patchwork of smaller farms specializing in cotton. The rapid rise of cotton in western Oklahoma between 1900 and 1920 is understandable, given the cotton-South origins of those who planted it; but cotton's rapid demise there during the 1930s was unmatched in its severity in any of the older cotton districts of the southeastern states, offering one of the clearest examples to date of forest man's violation of environmental limits.²⁰

FOREST MAN AS A CAPITALIST

If one accepts Donald Worster's view, as set forth with compassion in *Dust Bowl: The Southern Plains in the 1930s*, the whole issue of forest man may seem beside the point.²¹ As I understand Worster's argument, it was the relentless worship of the almighty dollar that gave us the Dust Bowl and similar epochs of human misery on the Plains, not the transfer of unadapted cultural practices from the forest to the prairie. An economic system that demanded ever-greater outputs caused marginal lands to be plowed up, overused, abandoned, and then brought back into cultivation in a never-ending cycle. In such a view, adaptations (such as dry farming) have nothing to do with learning wise use of the land, but rather they are seen merely as further means to serve the ends of increased production.

Worster's perspective has much to recommend it, especially because it forces attention on the dependent, colonial status of the Great Plains in the national and global economy, but I believe that by identifying the capitalist system as the culprit his thesis explains both too little and too much. For example, it becomes more, rather than less, difficult to explain the geography of land-use problems within the Plains, where the economic system is everywhere the same. I would offer a modification, in light of the preceding analysis of migration and settlement, that brings the

economic thesis into sharper focus.

The areas of greatest agricultural instability within the Great Plains share several characteristics: they are within the driest zones of the region, from the central portion to the western third, and therefore they waited longest for initial settlement; by definition they had high rates of population turnover, which meant that their first inhabitants were largely replaced by subsequent migrants in later boom periods; and because these areas were settled relatively late (especially after the magic date of 1890, which supposedly marked the closing of the frontier), early settlement within them bore the unmistakable imprint of early twentieth-century finance capitalism: large-scale holdings devoted to crop monoculture, high ratios of capital to labor in farming, factorylike organization of production, and a general emphasis on the gigantic and the colossal in all things tangible. Not all Great Plains farms of this period were large, of course, but the tenor of those times followed arguments for increasing returns to scale in agriculture, as Worster's account has shown.

Areas sharing these traits include, in addition to the Kansas-Oklahoma-Colorado Dust Bowl, the spring wheat bonanza districts such as Golden Valley and Plentywood in North Dakota-Montana, the post-1900 reservation openings in South Dakota, and the "Wheat Triangle" and Judith Basin districts of Montana. These areas experienced distress in the 1930s for many of the same reasons that Worster and others have found in the southern Plains. Thus, the areas being settled and resettled at that particular stage of American capitalism were to experience problems not observed to nearly the same extent elsewhere in the Great Plains.²²

The first inhabitant of these last new lands came there following the paths I identified earlier, but many of those early inhabitants had moved on before the 1930s. They were replaced by younger arrivals who were born and reared farther west in semiarid areas. For example, Kansas natives were half again as numerous in the 1925 farm population of

Haskell County, Kansas, as they had been two decades before.²³ The early Missouri natives who were most numerous prior to the 1890s depression accounted for less than ten percent of Haskell County's population by 1925. Repeating the earlier Kansas experience, the later arrivals abandoned the mixed farming system that forest man from east of the 98th meridian established; more than 90 percent of Haskell County's cultivated land was in winter wheat when drought and depression came in the 1930s. Two-thirds of those responsible for the shift to wheat monoculture were born and raised in the wheat country of eastern Kansas, many of them no doubt the children of Midland-born farmers who had made the same shift away from mixed farming *after* reaching the Plains. Backgrounds and habits carried west are again in evidence, although there is no forest-prairie transition in the process.

What characterized the 1930s farm population in all the agricultural distress zones of the Plains, then, was not forest man but rather his prairie-born children and grandchildren. "Prairie man" replaced the early, woodland-born farmer in western Kansas, he was first in the trans-Missouri dry-farming districts, and his numbers were swelled in both areas by recent immigrants from the European grasslands. If the 1930s is taken as the test, it is misleading to identify forest man with agricultural maladjustment in the Plains, just as it is wide of the mark to indict capitalism in general for these problems. Those who experienced the worst of times are identifiable as a distinct, later phase of the migration process that happened to coincide with an early twentieth-century wave of economic redevelopment marked by increased land-use intensity throughout the nation.

CONCLUSION

This has been an exercise in population mapping at a national scale. The patterns revealed here give no definitive answers to questions of adaptation; only in-depth studies at a micro-scale can provide such. But a

people's regional heritage is known to be a rich source of hypotheses about subsequent behavior, and thus the patterns revealed at a broad scale can suggest questions that might be overlooked in a more geographically restricted approach.

The three hearth areas of colonial American settlement produced five regional migration patterns that guided forest man to a grassland home. The largest portion of the Great Plains proper was a mixture zone of nearly equal portions Yankee and Midland. Most of the rest of the Plains drew its early settlers from areas traceable back to one or another of the colonial hearths. Heterogeneity in population origins characterized the section of the Plains that has to the greatest extent remained the domain of the stockman and where crop monoculture has been least important. Homogeneity of origins characterized both the spring wheat (Yankee) and winter wheat (Midland) belts as well as the sorghum and cotton specialty areas (southern).

The well-known ecological principal of stability in diversity might suggest why cultural/agricultural heterogeneity and human persistence tended to coincide in the Plains. Diversity in a community of Great Plains farmers would be represented in a richer store of ideas informing agricultural decisions or as a sort of creative tension restraining any single cultural practice from gaining total acceptance. Community diversity may have been the best strategy for coping with the dual pressures of economic demand and environmental limits. This, in turn, suggests the importance of cultural (as opposed to strictly economic or environmental) factors in understanding how agricultural regions evolve.

The major direction of population expansion into the Plains followed a remarkably straight, east-west axis, nearly everywhere perpendicular to the precipitation gradient. Only the role of national politics in the mid-nineteenth century, revolving around disputes between North and South, was enough to disrupt the pattern. Had it not been for these developments, it is likely that the mixture

"fan" of the Plains would have been even more extensive. That, in turn, might have dictated a less well developed regionalization within the Plains: greater local diversity and a broader-ranging mosaic of diverse communities.

Although this study has not focused on the role played by European ethnic groups, there is little evidence that people arriving directly from Europe did much to disrupt the American patterns. Scandinavians and Germans followed Yankee routes in the North, and there was a similar parallelism elsewhere. Only the Russian-Germans, whose migration axis was north-south within the Plains and who thus were found among the early settlers in several areas, seem to have crosscut the trend.

Forest man made westward leaps of hundreds of miles, frequently jumping over an earlier generation who had come from some other region, in order to reach the prairies and plains. These long jumps were not confined to the grassland zone itself, but were launched from New York, Pennsylvania, Ohio, and other eastern states as well. For this reason there were fewer differences in population origins between the subhumid prairies and the semiarid Great Plains than would have been true had migration to the frontier been the sort of incremental westward spread that is sometimes inferred from maps of settlement expansion. The population frontier moved more rapidly in the Plains than it did in the Middle West. Intergenerational population replacement rates simply could not equal this increase in the westering tempo. The population frontier's "reach" back east for sources of immigration was greatest during periods of rapid westward expansion, such as the late-1870s and 1880s. Only when there was a pause, such as in the mid-1890s, did population replacement have a chance to catch up with what the frontier was demanding.

It is thus not surprising that the only Plains areas that were first settled largely by people also born in the grasslands were the post-1900 dry farming districts lying predominantly west of the 100th meridian. Those who broke these new lands were to face problems at least as

severe as any experienced by forest man. It seems pointless to argue that adaptation in the Plains would have come more easily had there been greater pre-adaptation via an extended sojourn in the more humid prairies before moving west. When this did happen, as with the prairie-born generation of Dust Bowl farmers, the evidence suggests negative benefits of prior grassland experience.

NOTES

I am indebted to Professor Leslie Hewes for his comments on an earlier version of the manuscript.

1. Walter Prescott Webb, *The Great Plains* (New York: Ginn, 1931), pp. 140-41.

2. Allan G. Bogue, "The Heirs of James C. Malin: A Grassland Historiography," *Great Plains Quarterly* 1 (1981): 105-107.

3. Carl O. Sauer, "The Barrens of Kentucky," in *Land and Life*, ed. John Leighly (Berkeley: University of California Press, 1967), pp. 23-31.

4. Walter M. Kollmorgen, "The Woodsman's Assault on the Domain of The Cattleman," *Annals of the Association of American Geographers* 59 (1969): 215-39.

5. The Hispano culture area of New Mexico as used here is based on maps in Richard L. Nostrand, "The Hispano Homeland in 1900," *Annals of the Association of American Geographers* 70 (1980): 382-96.

6. The most detailed description of material culture differences is found in Henry Glassie, *Pattern in the Material Folk Culture of the Eastern United States* (Philadelphia: University of Pennsylvania Press, 1968). Patterns of diffusion over the eastern United States are shown in Fred B. Kniffen, "Folk Housing: Key to Diffusion," *Annals of the Association of American Geographers* 55 (1965): 549-77. Westward spread of New England settlement can be inferred from maps in Lois Kimball Mathews, *The Expansion of New England* (New York: Russell and Russell, 1909).

7. There is a fairly strong resemblance between the maps derived from county histories and the detailed state-of-birth data for counties published in the 1880 Census of Population. The relationship can be measured by regressing latitude of median birthplace derived from the county histories against various birth-group components from the census. A single, overall prediction equation is impossible because each state's birthplaces are represented only by the ten most important contributing states. The best-fit prediction equation for latitude of birthplace (y) in Nebraska, for example is y equals 41.44

degrees plus .8983 log (NY plus WI)/(PA plus OH plus IN); r equals .933 with nine observations. The two-letter state abbreviations refer to the numbers born in each state reported living in a county in 1880. For the nine Kansas county histories for which 1880 Census data are available the best prediction equation for birthplace latitude is y equals 39.71 degrees plus .752 log ((OH plus IN plus PA)/(MO plus KY plus TN)); r equals .813. There is no such association for longitude of birthplace, nor would one be expected since the approach taken here focuses on the earliest pioneers in a county and ignores their young children (no one was included in a county sample who was under twenty-one years of age at the time of initial settlement). Therefore, longitude of birthplace derived from the census shows birthplace concentrations predictably westward from those derived from the county histories.

8. Space does not permit a bibliographic listing of the sources used to construct the maps. A complete list with entries grouped by region is available from the author.

9. John C. Hudson, "Migration to an American Frontier," *Annals of the Association of American Geographers* 66 (1976): 242-65; and Hudson, "Cultural Geography and the Upper Great Lakes Region," *Journal of Cultural Geography* 5 (1984): 19-32.

10. Hildegard Binder Johnson, "King Wheat in Southeastern Minnesota: A Case Study in Pioneer Agriculture," *Annals of the Association of American Geographers* 47 (1957): 350-62; and Johnson, "Rational and Ecological Aspects of the Quarter-Section: An Example from Minnesota," *Geographical Review* 47 (1957): 330-48.

11. Leslie Hewes, *The Suitcase Farming Frontier* (Lincoln: University of Nebraska Press, 1974).

12. Jeffrey B. Roet, "Agricultural Settlement on the Dry Farming Frontier, 1900-1920," (Ph.D. diss., Northwestern University, 1982) pp. 146-56. See also Mary Wilma M. Hargreaves, *Dry Farming in the Northern Great Plains, 1900-1925* (Cambridge, Mass.: Harvard University Press, 1957).

13. John Fraser Hart, "The Middle West," *Annals of the Association of American Geographers* 62 (1972): 258-82; Allan G. Bogue, *From Prairie to Corn Belt: Farming on the Illinois and Iowa Prairies in the Nineteenth Century* (Chicago: University of Chicago Press, 1963); and Edward C. Higbee, *American Agriculture: Geography, Resources, Conservation* (New York: John Wiley & Sons, 1958).

14. James C. Malin, *The Grassland of North America: Prolegomena to its History* (Lawrence, Kans.: by author, 1947), pp. 328-29. Even in 1880, however, the outlines of Kansas' winter wheat belt were emerging. Wheat surpassed corn in acreage in

a dozen counties between Abilene and Dodge City; U.S. Census, *Statistics of Agriculture* 1880, Table XI.

15. *A Biographical History of Central Kansas*, 2 (Chicago: Lewis Publishing Co., 1902), p. 813.

16. A recent study of cultural transfer from Kentucky to northern Missouri is Michael J. O'Brien et al., *Grassland, Forest and Historical Settlement* (Lincoln: University of Nebraska Press, 1985).

17. Terry G. Jordan, "Early Northeast Texas and the Evolution of Western Ranching," *Annals of the Association of American Geographers* 67 (1977): 81.

18. Michael F. Doran, "Negro Slaves of the Five Civilized Tribes," *Annals of the Association of American Geographers* 68 (1978): 335-50.

19. A biographical study of the Cherokee Nation near the time of allotment showed Georgia second to Arkansas as the state of nativity, although a majority were of diverse origins; Leslie Hewes, personal communication.

20. John Fraser Hart, "The Demise of King Cotton," *Annals of the Association of American Geographers* 67 (1977), pp. 307-22.

21. Donald Worster, *Dust Bowl: The Southern Plains in the 1930s* (New York: Oxford University Press, 1979).

22. Federal aid per capita in the Great Plains drought area between 1933 and 1936 shows pronounced geographical variations even within areas of roughly similar precipitation. The spring wheat belt of western North Dakota and the winter wheat belt of southwestern Kansas had three times the per capita aid expenditures compared with mixed farming-grazing districts in the same rainfall zone. Central South Dakota's post-1900 dry farming areas were similar. The proportion of real estate taxes that were delinquent in 1933 also tended to be greater in the bonanza wheat areas. See figs. 26 and 29 in *The Future of the Great Plains*, Report of the Great Plains Committee, Washington, D.C., December 1936. The overall intensity of rural relief varied between 13 percent of families in the Corn Belt portion of Nebraska and Kansas to 33 percent of families in eastern Colorado and New Mexico and adjacent portions of Kansas and Texas; *Agricultural Development and Problems of the Missouri Valley*, presentation by the Bureau of Agricultural Economics, U.S. Department of Agriculture, before the Senate Committee on Irrigation and Reclamation, Washington, D.C., 20 September 1945, p. 50.

23. Earl H. Bell, "Culture of a Contemporary Rural Community: Sublette, Kansas," *Rural Life Studies*, no. 2 (Washington, D.C.: U.S. Department of Agriculture, Bureau of Agricultural Economics, September 1942).