

# Some Geographic Views of the Role of Fire in Settlement Processes in the South

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GEOGRAPHERS concerned with fire phenomena usually have become so through either historical-geographical analyses of areas in which their concern was discovery of the processes of vegetative modification, or processes of settlement modification, origination and distribution. In either instance documentary evidence, judiciously interspersed with limited amounts of contemporary field evidence, necessarily has been the principal data-source, since the time-spans involved in gauging the role of fire in human modification of areas place severe limits upon most other sources of geographical quality.

My own interest in fire phenomena is settlement-oriented. In 1957-58 I held a fellowship from the Guggenheim Foundation to support field research on the nature of contemporary plantations in the South. Sometime during the summer of 1957, I accepted an invitation to run a couple of seminars at Louisiana State University on my current research. I arranged about a month of field work to fit around the trip to Baton Rouge. The result was that I had just finished about three weeks of field mapping in the Black Belt of western Alabama when

I reached Baton Rouge. Toward the close of my work in the Black Belt I had developed a sense of uneasiness and serious reservation about the whole notion of that area as a "natural prairie." What I had seen and recorded indicated that—unless suppressed by deliberate human action—the forests of the area tended to spread and to re-establish themselves. The evidence came from landholdings both large and small upon which management was inferior, and these landholdings were situated in a variety of topographic and edaphic settings.

In the L.S.U. seminars I cited the customary sources wherein the Black Belt has been classed as a "prairie" (Fenneman, 1938; Shantz and Zon, 1924). I was not then aware (but should have been) of Roland M. Harper's 1913 monograph on the forests of Alabama, but was aware of Cleland's study challenging the "natural prairie" concept of the Black Belt (Harper, 1943; Cleland, 1920). I cited the latter study in the seminars to indicate that others had serious reservations about the matter, too. I felt the recital of my recently-acquired field evidence was rather compelling and was disappointed when, upon conclusion of the seminars, my "new knowledge" about the Black Belt had engendered not a single ripple among the assembled graduate students and faculty—whereas points dealing with the reorganization of plantation settlements had triggered extended discussions.

I mentioned my disappointment to Professor F. B. Kniffen and then discovered the reason: I had been "upstaged," but hadn't been aware of it. The manuscript of Erhard Rostlund's now-famous *The Myth of the Natural Prairie Belt in Alabama* (Rostlund, 1957), had been sent to the Baton Rouge department and had been reviewed in seminars earlier that same fall! Rostlund, via comparison of an array of field-oriented documentary evidence, has presented a conclusive case for the presence of widely distributed clearings—"savanna," "savannas," "extensive grazing lands," "open spacious plains," "fair meadows," "deserted fields," "large grassy plains"—not only in the Black Belt but literally across the Southeast, when European observers first visited the area. He concluded that the Indians used fire as a land-clearing tool in establishing tracts for cultivation, that they customarily "burned over not only the woodlands but the open tracts as well, which also became favorite hunting grounds; and this burning, to judge from the old reports, was so common and widespread that it is

highly improbable that any large part of the cleared and abandoned land had a chance of reverting to forest." (Rostlund, 1957). Thus, despite a marked decline in the southeastern Indian population which virtually depopulated large segments of the area by 1700, we can understand the persistence into the last century of numerous extensive clearings of Indian origin (Haag, 1955).

Subsequently, in 1957 I engaged in several weeks of field work along the eastern margins of the Attakapas prairies in southern Louisiana. The results, again, led to the postulate of an area that presents the appearance of a prairie in many places only because of fire as an agent in the hands of man. The evidence, again, came from holdings so managed (or mismanaged!) as to be in an incipient forest regrowth state. In terms of settlement, the significance of such a postulate is sweeping. The white pioneers of this area, the Acadians, were poverty stricken and were directed into the margins of the "prairies" by local authorities mainly of necessity—for most of the utilizable lower Mississippi alluvial floodplain had been claimed by 1770. In old Canadian Acadia these people had been mainly farmers, notable for success in reclaiming tidal flats for farming, but they also had engaged in stock raising. The habitat into which they were funneled in southern Louisiana was one in which cattle-raising offered the best immediate chances for economic survival for an impoverished people. Indeed, wild and half-wild cattle were already there. Others were furnished to early Acadian settlers on share-increase bases by Creole French landowners from central Louisiana (Gray, 1941). The indigenous forage of the prairies was dominantly carpetgrass, apparently introduced from tropical America at the time of earliest French settlement; its competitive abilities in association with recurrent fires are well known and need no commentary.

Here, then, was a fire-prepared setting into which a farming people were pushed, and which they utilized in the most logical way: by a herding economy. The *Vacherie* of the old Acadians became the dominant feature of their early cattle industry and the dominant occupation system in settlement of the Attakapas prairies. There appears to be no connecting link between the Acadian cattle-rearing system and any comparable system in France, where open-ranging or rearing of "wild" cattle has been essentially unknown in recent centuries (Post, 1962). Indeed, land-grant systems under Spanish gov-

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ernors in Louisiana made allowances for grants of unusual sizes (for the colonial French) on the prairies, provided the applicants for tracts could demonstrate that each was "the possessor of one hundred head of tame cattle, some horses and sheep, and two slaves to look after them—" (French, 1846-76). "*Vacherie*" headquarters, containing the traditional Acadian house, were built close to wooded spots upon the prairies and the herds ran "*au large*" on the adjacent open prairies (Post, 1962).

In the late winter and spring of 1958 I made several trips into south Alabama, tidewater areas of the Carolinas, and into southern Georgia-north Florida. My attention at the time was focussed upon land management systems on plantation-size holdings, not upon fire use as such. It was not until the subsequent summer that the significance of the newly emergent "woodland plantation," and its frequent dependence on recurrent fires as a management tool, "came through" to me. I was fortunate in obtaining a grant from the Michael Foundation for field work to pursue this settlement type further and from this work came my woodland plantation study in 1963 (Prunty, 1963).

The foregoing experiences have led in recent years to reviews of the considerable literature on initial settlement in the South, with the notion of more carefully assessing the role of fire phenomena therein. Several points have emerged. In due course each (hopefully) will receive detailed examination. For now I suggest them as postulates.

First, there is reason to believe that extensive grassy clearings, perhaps some 30 miles in length, extended southwestward from approximately the present Pennsylvania-Maryland border behind the Blue Ridge, in the Appalachian Valley. This group of clearings could only have been abandoned Indian fields, maintained as such by recurrent fires. When white settlers first reached these clearings, the "tongue" of initial settlement apparently was attracted southward down the Great Valley, by the ease of settling and land development which the clearings provided, instead of westward. Since the main stream of settlement movement for the entire South was via the Appalachian Valley southward to Roanoke, Va., thence through the Roanoke Gap onto the inner Piedmont, thence south and westward across the whole region, the postulate is the fire-maintained Indian old-fields af-

forded a settlement attractant which changed the direction of a westward-coursing "tongue" of population and "channelled" it down the Appalachian Valley.

Another postulate deals with the recurrent clashes between whites and Indians along the frontier on the Atlantic Seaboard and across the South. These conflicts have become part of the national historical liturgy to which all school children are exposed, but *why* such clashes occurred between two populations of exceptionally low densities, scattered about in such vast areas, remains unexplained. The postulate is about as follows: Indian trails were based largely on buffalo migration trails, and the nodes which these trails interconnected were clearings maintained as such by recurrent fires. White frontiersmen, cattlemen and sedentary farmers alike, used Indian trails to penetrate the wilderness, and obviously these trails led to where Indians *were*, not to where they were *not*! At the junctions of trails were clearings, valuable to the Indians both as buffalo hunting areas and for agriculture, and attractive to the white for both agriculture and cattle grazing. Conflicts resulted—the postulate runs—because the whites coveted the clearings: the great "enemy" of the frontiersman was the dense forest.

Scholars interested in settlement processes generally recognize the "woods ranch" as a basic settlement type that preceded the agrarian frontier across most of the South. It is quite evident that maintenance of open woodlands, via recurrent fires, and of old clearings "inherited" from the Indians, was vital to "cowpens" and "cracker" operators of these ranches. It is equally clear that the "piney-woods" cattlemen of the last—and early part of this—century were, occupationally and conceptually, lineal descendents of the colonial woods ranchers. The significance of fire to the piney-woods rancher has received thorough treatment and needs no further emphasis (Stoddard, 1962). But much more obscure is the contribution that these fire-oriented ranchers apparently made to evolution of other, related, settlement systems.

For example, a little-known commercial corn-livestock feeding industry developed in the Asheville Basin of North Carolina by the late 1820's. (The Asheville Basin probably should be recognized as one of the two first American "corn-livestock belts," substantially antedating the modern commercial corn-livestock complex of the

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Middle West; the other such locale is the Lancaster area of southeastern Pennsylvania.) This industry was based first upon cattle—later supplemented by hogs and poultry—driven from Tennessee and Kentucky across the mountains to Asheville and destined for market in Piedmont and seaboard towns and plantations (Sondley, 1930; Burnett, 1946). Feedlots, to accommodate in-transit herds from the west, developed along principal trails and reached an average density of one per three miles on the main east-west road (the Buncombe Turnpike) (Arthur, 1914). By the 1830's several hundred thousand animals, including at least 140,000 hogs, were fed in-transit annually in the Basin. A cash-corn economy to supply the grain needed spread along the Basin's roads and produced grain prices which frequently exceeded 50¢ per bushel. Thus the contention that woodland grazing systems to the west "triggered" the grain complex of the early 19th century in the Basin deserves close attention.

For some time settlement geographers have been puzzled as to the origin of the southern bare-earth house-yard, commonly swept by a brush-broom. On the Piedmont the bare house-yard is found in association with older house-types in rural areas and, still, in older urban residential areas where "formal" yard boundaries of rock or brick are quite frequent. This settlement trait has been much more common, however, on the coastal plains in association with houses both large and modest. To my certain knowledge, several geographers have postulated that the origin of the bare house-yard lies in (1) a cultural transfer via Negro slaves from the Guinea Coast of Africa (where it does occur), or (2) the desire for protection from snakes, or (3) paucity of suitable grasses—until very recently—for lawns under southern summer conditions, or (4) carelessness on the part of homeowners, or (5) inability of indigenous grasses to withstand heavy "foot" traffic about homes. None of these postulates reached a conclusive stage or has been published. In my opinion none of them comes close to the answer, which lies simply in the protection from recurrent ground-fires for the house-site which the bare yard afforded. The bare house-yard, then, is a natural settlement response to experience with ground fires in the forest settings of the coastal plains for almost two centuries. That the bare house-yard should spread to an adjacent area, such as the Piedmont, is no more than a cultural infusion occasioned by population movements.

#### ROLE OF FIRE IN THE SOUTH

Erhard Rostlund, speaking of the "invasion" of the Southeast by buffalo after 1500 A.D., has said that aboriginal deforestation and the custom of burning the woods favored the spread of grasses and pastures, and thereby created a set of conditions which favored dispersal of the buffalo into the region. But he does not believe that pasturage thus created was deliberately *intended* for buffalo (Rostlund, 1960). In the same vein, the Indians certainly did not *intend* to create a suite of ecological conditions via fire that would facilitate invasion and settlement by whites. But that they did do so, thereby creating a variety of settlement alternates in widely distributed sites throughout the South, is quite clear. Their unintentional contributions via fire have at least some effects even today.

Fire phenomena in land occupation and settlement systems are, of course, with us on the contemporary regional scene. There is quite a lesson to be learned from the role of fire in settlement processes. Whether the current occupants of the southern area have "read" the lesson accurately still is, in my opinion, moot. It remains to be seen whether the "ecology of economics" will attempt to contravene the ecology of fire—to the probable detriment of the region's future—or whether economic considerations will be recognized as long-term dependent variables.

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