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# General

## SETTLEMENT FORMS IN THE NORTHWEST CUMBERLAND PLATEAU OF KENTUCKY

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### *Introduction*

The Northwest Cumberland Plateau of Kentucky presents to the geographer an interesting area in which to study both the existing forms of occupance and the sequent occupance of a plateau situated in the Cfb climatic zone. A representative portion of the Plateau was studied during the years 1932-1936. No proof of regionality has been attempted, although an area much larger

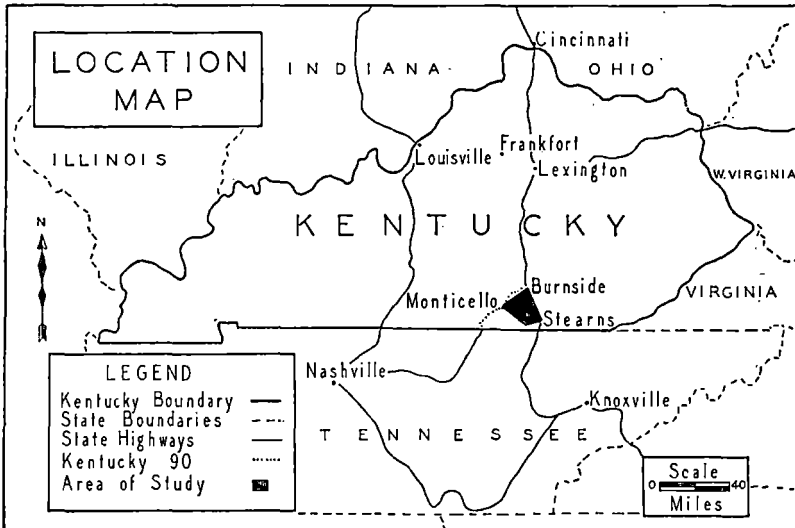


FIGURE 1

than the 1,000 square miles covered in this study has essentially the same natural and physical conditions (Fig. 1). The plateau has been characterized as being in a mature stage of erosion.<sup>1</sup> Near the western edge this is probably true but as one progresses further into the area the surface configuration appears more and

<sup>1</sup>For a more complete description of the fundament see: Wilson, Leonard S., "The Geography of a Part of the Northwest Cumberland Plateau of Kentucky; Part I: Physical Geography." *Pap. Mich. Acad. Sci., Arts, and Letters*, XXIII (1937) 391-405.

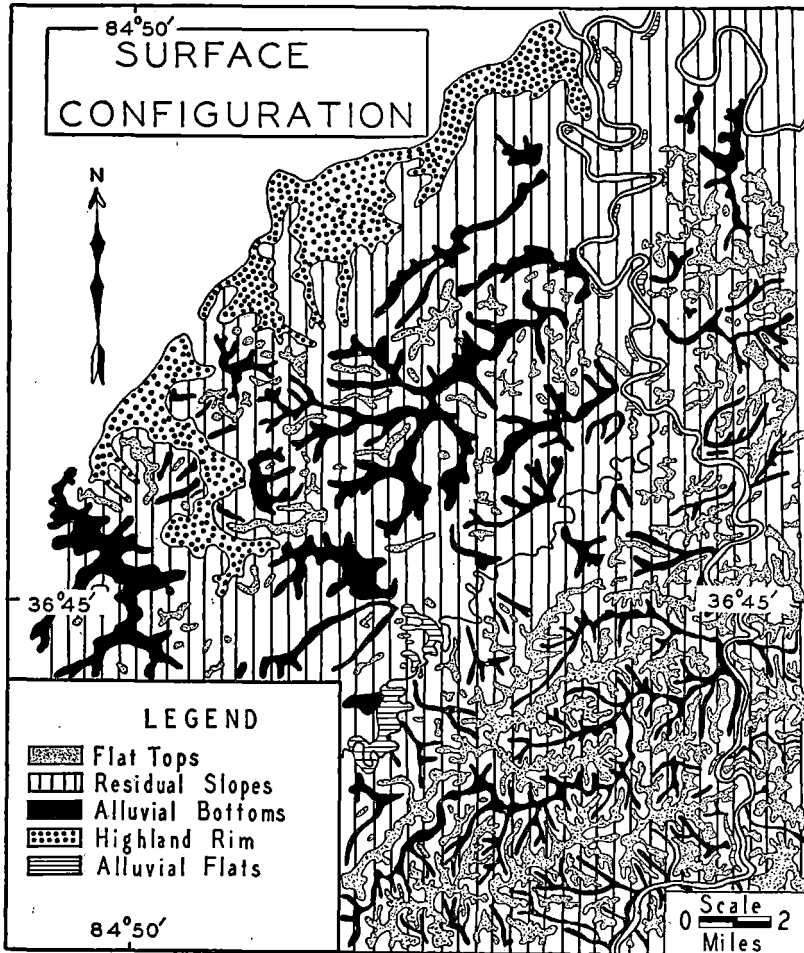


FIGURE 2

more youthful. Several different types of surfaces are related to the surficial rocks, one in particular, the Rockcastle Conglomerate, has acted as a retardant so that youthful flat topped interfluves are separated from narrow youthful valley bottoms by nearly vertical cliffs several hundred feet high (Fig. 2).

The natural vegetation reflects in a broad way the climatic symbols previously mentioned. In detail, however, the various associations of plants are directly related to the surface configuration. On the interfluves, associated with poor, thin, sandy soils, derived from the conglomerate, are the typical mountain flora, composed mostly of coniferous trees and an undergrowth of moun-

tain laurel, blackberry, and similar plants. The valleys are occupied by hardwood, chestnut, chestnut-oak, and yellow poplar being the dominant species. From the combination of regolith and humus material from these vegetation types the soils of the area are derived. The flat-topped interfluves are the site of residual sandy soils, poor in character and highly leached. The valley bottoms reflect two major types of soils, residual and alluvial. These are associated with the limestone deposits which underlie the conglomerate. A heavy red clay soil is the result of these deposits. While not a good agricultural soil, it represents the best residual soil deposits within the area. Along the stream beds, varying in size with the size of each individual stream, are the alluvial soils. These occur in small pockets and are the only soils capable of supporting a continuous agricultural production.

### *Occupance*

Within the area, Indian occupance was limited to transient hunting parties, for the rich natural fauna attracted so many hunting parties that no individual tribe was able to hold possession of it.

European settlers first appeared about 1790 when the Blue Grass region of Kentucky, lying to the north and west, began to be opened up. During this time the famous Wilderness Trail led through the Plateau from the Valley of Virginia to the site of Lexington, by way of Cumberland Gap. This route went by way of the valleys and served as a connecting link between the frontier and the more thickly settled east. Gradually, as the Blue Grass became occupied, families were forced to retrace their steps to the edge of settlement. It was during this latter stage of settlement that the Northwest Cumberland Plateau was occupied.

The early settlers at first were interested only in the production of food for their own requirements. All communities and farms were located on the alluvial lands in the valley bottoms close to the line of communication. A few families attempted to farm the lands on the interfluves but they were so unsuccessful that little land was cleared.

From the time of settlement until the Civil War the primary type of occupance was farming. During this era, communication was by river and most of the few products exported were collected at the town of Burnside and shipped down-stream to Memphis and Nashville. Some lumber and a considerable number of cattle and sheep were sold. Although coal was plentiful, the towns of the south offered a poor market for fuel because of a lack of manufacturing development.

Immediately after the close of the war, railroad lines were constructed through this part of the Plateau and these tended to indicate the present-day problem of the area, namely communication. These roads followed the youthful interfluves and as a

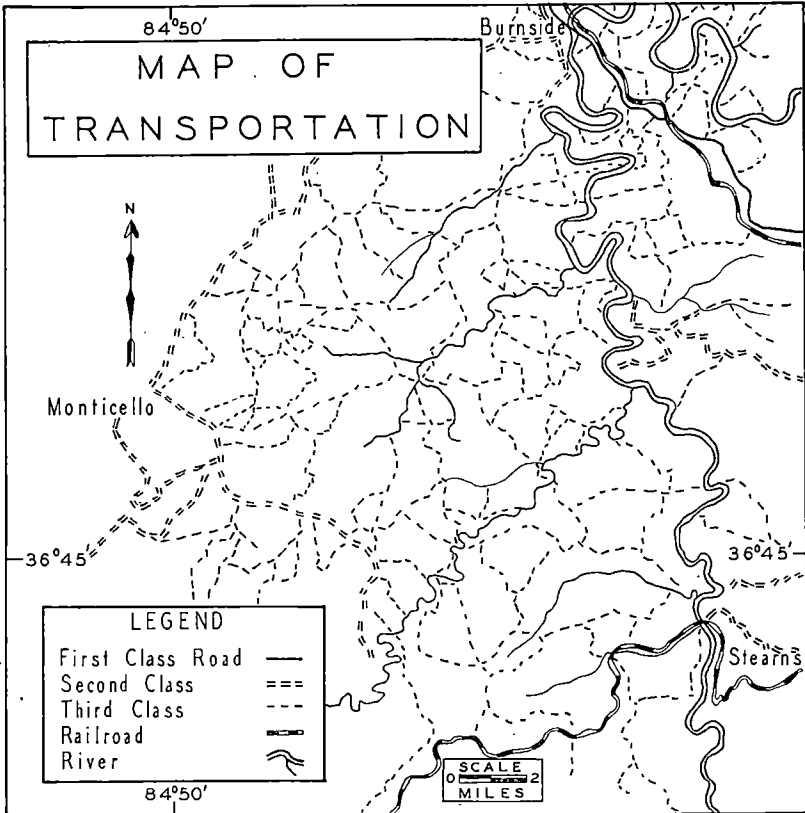


FIGURE 3

result did not pass through any of the agricultural settlements (Fig. 3). They began at this time to be isolated from their natural markets. With the introduction of highways, this isolation has become more severe until at the present time, this is the most isolated section of the United States. The development of railroads also caused a shift in markets from the southern cities to the industrial centers located north of the Plateau. Cincinnati, Columbus, and Dayton, Ohio, as well as Louisville and Lexington, Kentucky, are the chief centers of sale for agriculture of the area. This shift opened coal deposits for exploitation, and today, in addition to agriculture, mining is an important form of occupation. Agriculture, mining and lumber today make up the chief forms of settlement.

Present-day occupation of the Plateau is distributed with reference to the surface configuration (Fig. 4). In the western part small clusters of inhabitants appear concentrated along the valley bot-

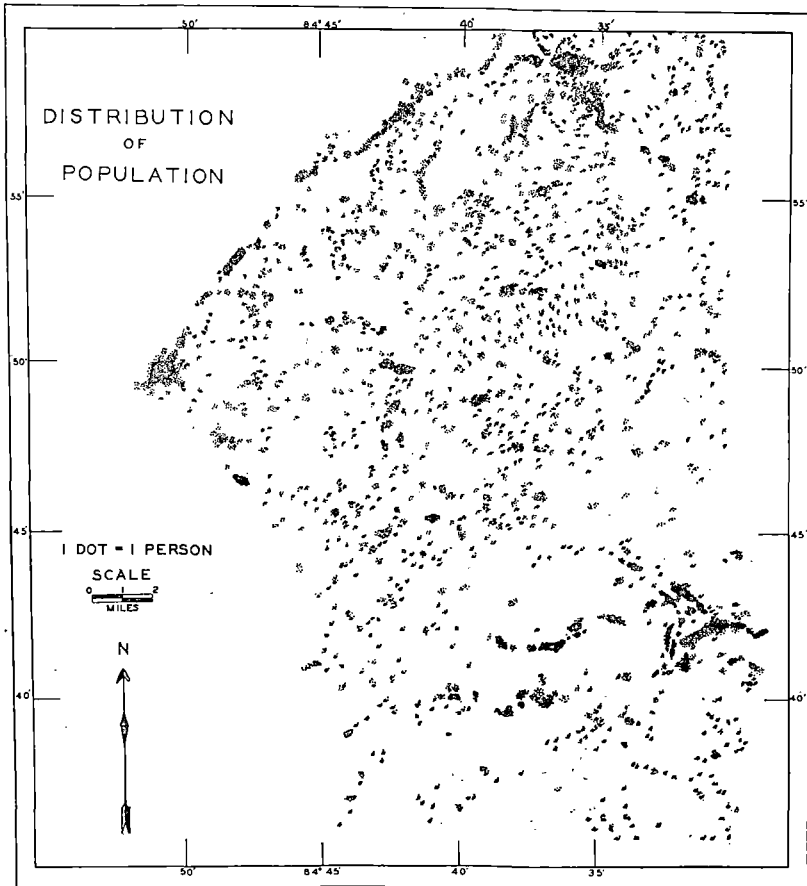


FIGURE 4

toms of the broad maturely eroded limit of the Plateau. In the southeastern part, these same clusters become more pronounced and indicate the location of mining communities. Scattered over the remaining portion are small individual settlers who in general make up the newest occupants and also the poorest from a financial standpoint.

Agriculture, which first began in the valley bottoms, is now in as good a condition as it ever was except that the shift in the location of communication lines increased the isolation of the farmers. In valleys, some of which have been settled for more than 100 years, the yield of crops per acre has not changed materially. One valley, Denney, is representative of all the valley communities. Here may be found the characteristic arrangement

of crops with reference to the surface configuration. At a former date, agriculture expanded from the valley bottoms to the poorer residual soils of the colluvial base and the residual slopes. Within a comparatively short time these were so badly eroded, both sheet and gully erosion being year long processes, that they had to be abandoned. The valley community is, for the most part, settled by descendants of one or two families. Their center of interest is focused upon the store which serves as a post office, store, grist mill, and social center. Their agricultural practices are different from those of the agriculturists on the flat adjoining Highland Rim. Barter is the common means of exchange and a family would be considered fortunate if it was able to spend \$50 a year in cash. There is, however, little public expenditure of money for the support of these persons and in general they are more than able to maintain their standard of living. They appear to be restricted only by the confining conglomerate-topped hills, and because of their small acreage have a small income.

With the coming of the railroad, capital from the outside began to move in, attracted by the reserves of wood and coal. Formerly petroleum was an important influence on the economic life of the people but today the deposits are exhausted, and little if any affect is observable. One company, interested in the exploitation of the forests and coal deposits, controls approximately 300,000 acres in Kentucky and Tennessee. It occupies a part of the area under consideration and is representative of the other mining operations of the Northwest Cumberland Plateau.

The Stearns Coal and Lumber Company of Stearns, Kentucky, was founded in 1900 and today controls 27 mining communities. Transportation was of great importance to the company and the town of Stearns was located in relation to both the surface configuration and the main line of the Southern Railroad. At a point where the Southern Railway passes by the head of one of the larger tributaries to the South Fork of the Cumberland River, the town was established. Connections with the mines located along the sides of the valleys was by way of the stream bed. Here was constructed the Kentucky and Tennessee Railroad which connects all of the smaller mining communities to Stearns. One such settlement, Cooperative, is typical of all of the others. Founded in 1923, in a narrow cove, dominated by the Rockcastle Conglomerate, a combination mining and agricultural existence had enabled the occupants to earn a living. No agricultural produce is shipped out of the settlement, and all of the small gardens, are planted for the use of the individual families. The decline in the demand for coal, since 1929, has increased the importance of the agricultural produce for these families. Nearly all of the inhabitants were attracted to the mining center from other farming coves less than five miles distant. The chief inducement, aside from comparatively high wages, was an increased standard of living, for here, electri-

city, telephones, and especially means of communication with other coves by rail, have changed their mode of living from that of our contemporary ancestors, dwelling under frontier conditions, to a more modern mode of existence. Not only have the old dwellings undergone a change, but the interior furnishings have been radically altered. All of the buildings, both residential and commercial, are owned by the company. It is of interest to note, that in spite of the decline of coal production, the policy of the company in fostering the planting of crops, added to the policy of only collecting rent when the miners are working, has enabled these workers to continue to live on a standard much higher than their former agricultural activities permitted.

The final group of inhabitants are the most unfortunate. They represent a younger group of people who originally lived with their parents in the more prosperous agricultural communities such as the cove settlement of Denney. This group was attracted to the large urban centers such as Chicago and Detroit by the high wages offered in industry. With the increasing severity of the depression in 1930 they began to return to the Plateau in increasing numbers. Upon arriving there they found that the only land available to them was the poor land of the interfluvial areas dominated by the Rockcastle Conglomerate. The variety of crops that can be produced is small. Only a meagre subsistence can be maintained and little hope of betterment by increased agricultural production exists. The settlement of Spann illustrates the paucity of crops grown. In this community the staple produce is corn, augmented by a few fields of beans and oats. Aside from these fields a living must be gained by raising razor-back hogs and hunting. In contrast to the valley community of Denney, which exports a surplus of corn and peas as well as tobacco, no produce is offered for sale. These settlers, living close to the main lines of communication, are today and will continue to be in the future, the problem group of the area.

### *Conclusion*

In conclusion, three types of settlement have been presented which are representative of the occupance of the Northwest Cumberland Plateau. Those living in the valleys lacking coal illustrate the most stable type of community. Their mode of existence has altered but little since the pioneer stage. They can continue to live as they have in the past and their present distribution coincides closely with the desirable limits of agriculture in the region. The second group of settlements are closely associated with the present known deposits of commercial coal. They represent the most prosperous group. However, this can only be considered as a temporary form. The final and most recent group of settlements are also the most deplorable. Their relationship with



the fundament is unsatisfactory today, and will continue to be so because of the inherent infertility of the lands.

The future of the area appears to lie in the field of forestry. The government has recognized this fact and is actively engaged in developing the rich scenic and historical interests by establishing the Cumberland National Forest. Apparently, all of the interfluvial areas should be rededicated to forestry, leaving small isolated agricultural settlements in the valleys of the Plateau.

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## INDIVIDUALISM AND COLLECTIVISM IN NATURE

WM. CARPENTER MACCARTY, SR., M.D. D.Sc.

*Mayo Foundation*

I have chosen my subject for two reasons. The words individualism and collectivism are used very commonly by sociologists, socialists, news-commentators, political leaders, and general conversationalists. I have spent my life studying these phenomena in nature, especially in the evolution and behavior of many higher forms of life. In my opinion biologists who have thoughtfully observed these natural phenomena should be greater authorities, and have a better point of view, than most sociologists. I am not a sociologist; I am not a politician or a political economist. I certainly have no political ambitions but I do have a great sympathy for leaders of all groups, who are trying sincerely to solve man's sociological and economic problems.

My subject forms merely a skeleton around which I hope to build a constructive criticism, using the word criticism in the sense of Victor Hugo, who said it is "to stimulate, to press, to chide, to awaken, to suggest and, to inspire." I particularly wish to awaken a sense of justice, to suggest more careful thought before speaking and writing, and to inspire decency and accuracy in American journalism, politics, and general thought.

We are living in an age of very dangerous and wasteful misunderstanding. The resultant confusion, emotional irritability, and tragedy are due, probably, to a universal prevalence of ignorance, ungentlemanliness, and the very common unsportsman-like behavior of leaders and followers. We are suffering from unscientific philosophical immaturity, prematurity of loud expression, and the inadequacy and indefiniteness of words.

I wish to call your attention to three quotations which have been picked at random from two leading and popularly read publications. These quotations are quite characteristic of usual thought in popular writings, lectures, conversations, and discussions. They represent the kinds of thoughts and expressions which create popular opinion and, control our destinies in democratic countries.