THE MARKET FACTOR: ITS EFFECT ON CULTURAL LANDSCAPES

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The geographer, in his task of showing cause and effect relationships, is frequently handicapped by the great many variables which confront him. Because this is the case, a clear-cut illustration of the effect of just one explanatory factor is of particular value to him. Such a segregation of just one factor may frequently be achieved by comparative regional studies as the following, in which the Grand Prairie of Central Illinois[1] is compared to the Racine-Kenosha Prairie of Southeastern Wisconsin[2], with a view toward showing the importance of the locational or market factor.

The Racine-Kenosha Prairie, because it stood out originally as an island of grassland within an oak forest, may well be considered to be an "outlier" of the greater prairie realm of the United States of which the Grand Prairie is a portion. A number of cultural landscape features which these two regions have in common attests to the results of this similarity of natural vegetation. Perhaps most conspicuous is their general treelessness, a fact brought into sharp relief by reason of the hedge-like rows of planted trees found along the highways and field boundaries or grouped about farmsteads and in settlements. This lack of trees has also made large fields, adhering to rectangular lines of the original survey, landscape features common to both regions. Similarly, in both regions there is a regular, almost geometrical, spacing of farmsteads and roads.

This similarity of natural vegetation was also mainly responsible for the similarity of soils between the two regions. In both are found the deep, rich prairie soils of the Carrington and Clarion series.

These like soils and like vegetational conditions suggest like climates, and this is basically the fact, for both are included within Koeppen's Dfa type of climate. The Grand Prairie, being farther south, has slightly higher means—in annual temperature, in July temperatures, and in annual rainfall. However, in spite of these differences, it is signficant to notice that the climate in the Racine-Kenosha Prairie is just about as suitable for corn growth as that of the Grand Prairie. Indeed, in the year 1935 the corn yield per acre in the Racine-Kenosha Prairie was greater than that of the Grand Prairie. One may safely conclude that any crop that may be grown successfully in one region can successfully be grown in the other.

Both regions were overridden by the ice of the Wisconsin stage of glaciation and were left with similar drift coverings, thick heavy clays derived from shale bedrock. The normal slumping of this clay drift, particularly in the marginal moraines, left both regions with very similar subdued topography featured by low relative relief, and smooth, flowing contours, so that distant views within them are apt to be monotonous. Neither area has been greatly affected by stream erosion, although both contain some extremely youthful valleys. This combination of clay drift, low relief, and undeveloped drainage lines has made poor drainage a feature of both regions and was one of the most serious problems encountered when they were first developed for agriculture. At present, drainage ditches, canalized streams, and the less-conspicuous tile drains are landscape features common to both.

In addition to these physical similarities, it is important to note that both areas were settled by similar stocks of people, people originating from New York and New England, who entered the Middle West via the Great Lakes. Because of the problems associated with settling in prairies, both of these areas were settled later than adjacent wooded areas. It is not until the decade 1850-1860 that they were reasonably well occupied.

The similarity in the physical environment and cultural backgrounds of the peoples of these two regions has resulted in a number of common cultural landscape features, certain of which have been enumerated thus far. However, these areas differ materially in the manner that they are utilized agriculturally. These

TABLE I.—COMPARATIVE AGRICULTURAL STATISTICS

Item	Champaign Co.[a]	Yorkville Twp.[b] Racine Co.
1. Per cent of total area in farms	92	87
2. Average size of farms (acres)	179.6	90.7
3. Per cent of farmland in crops	83	65
4. Per cent of farmland in pasture	14	24
5. Per cent of farmland in woodland pasture	4	4
6. Per cent of cropland in corn	48	33
7. Per cent of cropland in cash grains[c]	60	12
8. Per cent of corn harvested for grain	99	29
9. Per cent of cropland in oats	21	22
10. Per cent of cropland in all hay	6	29
11. Number of dairy cows per 100 acres cropland	3.4	18.3
12. Number of livestock units per square mile	61.9	126.6

[a] From United States Census of Agriculture: 1935.
[b] From Walter H. Ebling, Agricultural Statistician, Wisconsin Department of Agriculture and Markets: 1935.
[c] Corn for grain, soybeans, wheat.

differences in human use are brought out by the following table in which Champaign County has been selected as representative of conditions in the Grand Prairie, and Yorkville Township, Racine County, has been selected as representative of the Racine-Kenosha Prairie.

It can be noticed in the above table that in only three items are the statistics alike. These are Item 1, which reflects the suitability of both environments for agriculture, Item 5, which reflects a common prairie character, and finally, Item 9, which reflects the general requirement for a feed grain. All other items are in contrast, and all of them bring out the fact that the basic agricultural economies of these two regions differ markedly. Probably the two most significant of all are Items 8 and 11 which indicate that one region is an area of commercial grain farming, while the other is a region of dairy farming. The importance of commercial grain production in the Grand Prairie is also brought out by Item 7, while the importance of dairying in the Racine-Kenosha Prairie is indicated by Item 10. The other items in the table also indicate this fundamental difference, although not to quite as great a degree as those already suggested.

In addition to the difference between their land utilization landscapes, there are other cultural contrasts between the two regions. Associated with the dairying interests of the Wisconsin region are the large red barns, the tall cylindrical silos, the ample barnyards, and the milk houses of the farmsteads, the milk trucks of the highways, and the milk-receiving plants of the villages. Indicative of the interest in corn production in the Illinois region are the corncribs of the farmsteads, the dried corn stalks that stand in the fields most of the year, and the tall grain elevators of the villages.

It is thus evident that though the Racine-Kenosha Prairie is like the Grand Prairie physically, economically it is like Southeastern Wisconsin, so that all its significant cultural features are related to the dairying industry, even though they are set in an environment like that of Central Illinois. To account for this apparent lack of coincidence between the environment and man's use of the area, we must turn to the locational or market factor. Whereas the Racine-Kenosha Prairie is but forty miles from Chicago, twenty miles from Milwaukee, and only five miles from the cities of Kenosha and Racine, the Grand Prairie is, in general, too far away from large metropolitan districts to make milk shipping worthwhile, and so less perishable commodities must be produced. In recent years, the extension into the Racine-Kenosha region of truck farming agriculture, featuring cabbage, onion, and sugar beet production, further emphasizes the growing marketing opportunities of the area.

[1] Basic material taken from: Poggi, Edith M., "The Prairie Province of Illinois", *Illinois Studies in Social Sciences*, Vol. 19, No. 3.
[2] Basic material taken from: Booth, Alfred W., *The Geography of the Southeastern Dairy Region of Wisconsin*, unpublished PhD thesis, University of Wisconsin, 1936.