OCCUPANCE OF THE MISSISSIPPI BORDER OF SOUTHERN ILLINOIS

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The Terrain

About six miles below the Kaskaskie cutoff the Mississippi River abruptly swings from the left to the right side of its steep walled valley trough, and there it remains for the next fifty miles of its course. At this point the river is deflected sharply to the right to form the Cape Girardeau bend, below which it traverses a narrow six-mile channel through the hills to enter the broad alluvial plain below. This portion of the valley trough is the lower southern segment of the Mississippi border, one of the geographic sections of the southern district of Southern Illinois.

Physiographically, the southern district of Illinois is essentially that portion of the state south of the glacial boundary where the Ozark Plateau, the Interior Low Plateau, and the Coastal Plain provinces center. Geographically, the Mississippi border is a valley trough conspicuously incised in the eastern margin of the Salem Plateau. The Fountain Bluff bend is the only part of the trough eroded in the Shawnee Hills. The valley trough, which is here about six miles wide, describes a broad flat arc to the east. Since the river follows the right wall of the valley, which is the inside of the arc, the left or Illinois side of the valley is a broad alluvial bottom with a fall of about 0.4 foot per mile. Steep sided valley walls rising to a maximum of about 350 feet above the alluvial floor sharply delimit the segment.

The river itself, which varies in width from half a mile to 1¼ miles, is about 20 feet below the alluvial floor except at flood stage. Damaging floods occur in this segment of the valley about every seven years. The highest portion of the valley floor is the natural levee along the river upon which artificial levees have been constructed to protect the bottom lands from all but the most severe floods. From the natural levee the wide alluvial valley floor slopes gently toward the valley wall, forming swamps and poorly drained forested depressions adjacent to the steep valley wall. Drainage ditches have been constructed in an attempt to reclaim the poorly drained alluvial land for agriculture. Big Muddy River, the only tributary of any significance, enters the valley trough from the northeast, and pursues a meandering course through the lowland along the left valley wall for about 15 miles before entering the Mississippi through the Grand Tower chute. Although this is the widest part of the entire segment, Fountain Bluff, a forest covered remnant of the Shaw-

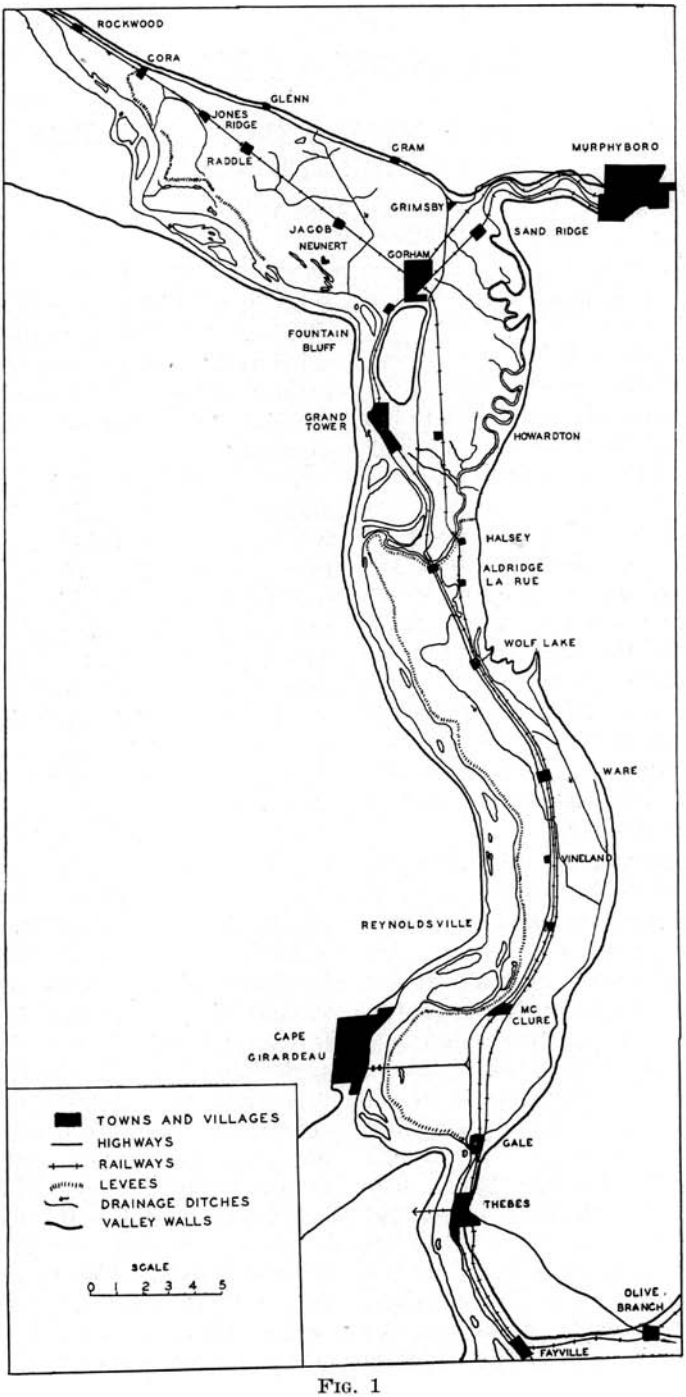
ROCKWOOD
CORA
GLENN
JONES RIDGE
RADDLE
GRAM
MURPHYBORO
GRIMSBY
SAND RIDGE
JACOB
NEUNERT
GORHAM
FOUNTAIN BLUFF
GRAND TOWER
HOWARDTON
HALSEY
ALDRIDGE
LA RUE
WOLF LAKE
WARE
WINELAND
REYNOLDSVILLE
MC CLURE
CAPE GIRARDEAU
GALE
THEBES
OLIVE BRANCH
FAYVILLE
TOWNS AND VILLAGES
HIGHWAYS
RAILWAYS
LEVEES
DRAINAGE DITCHES
VALLEY WALLS
SCALE
0 1 2 3 4 5

FIG. 1

nee Hills three miles long and 1½ miles wide, rises above the alluvial floor at the river's edge (fig. 1). Although physically similar throughout, Big Muddy River conveniently divides the segment at the point where it crosses the valley bottom. Above are the Fountain Bluff and Oakwood bottoms, whereas below the Big Muddy are the Union bottoms, Cape Girardeau bend, and the Thebes narrows.

Cultural Patterns

Although corridor-like in its physical qualities, this segment of the Mississippi border is primarily a commercial agrarian ribbon penetrating a subsistence hills land, and is secondarily a corridor.

Corridor Qualities

The corridor qualities of the southern segment of the Mississippi border are best exemplified by the nature of the several patterns of transportation that occupy the valley trough. Water, rail, and highway routes parallel one another up and down the valley essentially from East St. Louis to Cairo. Barge transportation of bulky non-perishable freight on the river is undoubtedly the outstanding corridor quality since it is a portion of a major national route. Water transportation is of no major significance to the segment itself, although there are numerous landings along the waterfront. The railroads and the highways are better prepared to serve the agrarian valley floor.

Of the several railroads that serve the valley only one, the Missouri Pacific, traverses the entire segment on its way from East St. Louis to Cairo. From one end of the other this railroad right-of-way occupies a well-graded mid-position on the wide valley bottom. The Illinois Central and a branch of the Missouri Pacific enter the valley trough through the valley of the Big Muddy (fig. 1). The Missouri Pacific joins directly with the valley route whereas the Illinois Central crosses the valley floor to the waterfront, traversing the narrow terrace between Fountain Bluff and the river through Grand Tower where the rail pattern makes contact with river navigation. Below the Big Muddy River the Illinois Central parallels the Missouri Pacific railroad down the center of the valley bottom to the narrows. There the Illinois Central follows the waterfront, whereas the Missouri Pacific describes two arcs through the hills, one above and one below Thebes, where they join in a Y and cross the Mississippi on the only railroad bridge in the entire segment. For the last three miles the Missouri Pacific follows the waterfront as does the Chicago and Eastern Illinois which comes in over the Illinois Central tracks from the south to make contact with the waterfront.

The major highways form a similar pattern, making use of the same physical feature. The major highway, State Route 3 from Cairo to East St. Louis, traverses the entire segment. South of the Big Muddy River the highway and the two railroads follow the same route up the center of the alluvial valley floor. North of the Big Muddy where the railroads separate, the highway continues on a straight course up the valley along the eastern edge of Fountain Bluff directly to the valley

wall which it follows for the rest of the distance. State Route 146 from Cape Girardeau, Missouri, to Murphysboro crosses the Mississippi on a toll bridge and joins State Route 3 which it follows to the mouth of the Big Muddy valley where it leaves the valley. Innumerable short unimproved roads, chiefly levee and trans-valley routes, complete the pattern of transportation.

Settlements

Within the segment are 20 towns and villages which vary in population from ten to 1,043. With the exception of two small villages all are on the railroad, indicating the commercial nature of the valley bottom agriculture. There are several railroad stations not connected with villages. Only four of the towns and villages are incorporated. Grand Tower with a population of 1,043 is the largest and Rockwood with only 246 is the smallest. Thebes, population 730 and the second largest town, like Grand Tower is a railroad town on the waterfront. Unlike Grand Tower, Thebes occupies the hills on the narrows at the lower end of the segment. Gorham, population 595, is a railroad junction. McClure, population 450, is the largest unincorporated village. The other fifteen villages are mere hamlets consisting only of the necessary function of a commercial agrarian area. Only three of this group have a population of 100 and more, and the largest, Gale, is only 200. Nine of the twenty towns and villages have post offices and only two, Grand Tower and Gorham, have banking facilities. One little hamlet, Neunert, with a population of 31, occupies a site on the valley floor untouched by railroad, hardsurfaced highway, or river transportation.

Agrarian Patterns

As the little market towns arranged at regular intervals along the railroads attest, commercial grain farming is the dominant economy of this segment of the Mississippi border. The deep alluvial soil of the valley floor is the basic natural environmental item upon which this type of productive occupance is based. Recent alluvium and the prairie soils of the recent Wisconsin drift are the only types of areas in Illinois capable of withstanding the drain of continuous commercial grain cropping. Thus the entire segment is one continuous ribbon of commercial grain farming, varying from place to place only in intensity and arrangement of details. Corn rotated with winter wheat constitute the basis of production, with alfalfa and other hay crops to feed the small livestock population a low second. Hogs are the most important animals although a few cows and work animals are kept on each farm. Although most of the farms are mechanized, heavy machinery is not used to the best advantage on poorly drained land. Especially on the smaller farms mules furnish most of the motive power. Much of the valley floor is poorly drained despite drainage ditches, leaving large tracts of tree lined swamps on the lowest portions of the valley floor.

Valley Bottom Sectors

North of Big Muddy River, which conveniently bisects the valley segment at the place where it enters

the Mississippi, are two valley bottom sectors. From Rockwood to the Fountain Bluff bend, which lies directly across the valley bottom from the mouth of the Bid Muddy valley, is the Fountain Bluff bottom. This sector of the valley bottom is approximately sixteen miles long and about six miles wide. Although a levee, some places as far as a mile from the river, encloses the upper half of the sector behind which drainage ditches carry water to the river, large tracts are swamps and marshes.

Approximately half of the bottom land is cultivated. Winter wheat and corn constitute the major crops and are about equal in acreage. The production per acre of both crops is highest here of any place in the valley. The acreage of wheat is a little greater than that of corn. Hay crops and oats form a weak second to corn and wheat and are used as forage for the livestock since much of the grain is sold. Much of the soil is heavy clay which is difficult to cultivate under unfavorable moisture conditions and thus accounts for much unused arable land.

Five small market towns spaced at approximately three mile intervals line the railroad in the center of the valley bottom whereas several more line the highway at the foot of the valley wall. Neunert is the center of a German farming community between the railroad and the river. Gorham or Fordyce at the railroad junction is the largest town in the sector.

From the Fountain Bluff bend to the mouth of the Big Muddy is the Oakwood bottom, a sector about twelve miles long and six miles wide. Because of the position of Fountain Bluff on the waterfront and the relatively high natural levee along the remainder, protecting levees have not been built except to enclose the Big Muddy River on the south. Since settlement is limited to the wide natural levee, the low bottom to the east, through which the Big Muddy meanders and into which the drainage of the sector is ditched, is allowed to flood in periods of danger to cities down-stream. Much of the sector, including Fountain Bluff but excluding the southeastern natural levee, is within the limits of the Shawnee National Forest.

Although less agricultural than any other sector, commercial grain farming of corn and winter wheat predominates in the cultivated portions of the valley bottom. Unlike the Fountain Bluff bottom to the north where wheat was slightly greater in acreage than corn, corn acreage exceeds wheat by about one-third. This is in part due to late floods and the necessity of replanting.

Small market towns are conspicuously absent. Grand Tower, the largest town in the entire valley segment, is an old river-town through which a railroad passes although the highway by-passes it about a mile to the east.

South of the Big Muddy River is the Union Bottom sector which extends for about eighteen miles down the valley where it joins the Cape Girardeau bend, the inside of a sharp four mile bend of the Mississippi. The entire area is enclosed by a levee from the valley bluff south of the Big Muddy to the valley bluff below the Cape Girardeau bend. Almost the entire sector is drained into

a main ditch which parallels the left valley wall on the lowest part of the valley bottom and enters the Mississippi through a small tributary stream at the point where the river approaches the left bluff below the Cape Girardeau bend.

Commercial grain farming dominates the flat alluvial land. Unfenced fields of corn and winter wheat with small areas of hay are characteristic. Hogs are the most important livestock. Small market villages spaced at about three mile intervals line the railroad and the highway which in this sector of the valley traverse the middle of the valley floor.

South of the Cape Girardeau bend the river enters the Thebes narrows, a valley less than three quarters of a mile wide which extends for about six miles through the hills to the broad embayment below. The railroads and highway from the wide alluvial bottom concentrate in the narrow valley, and at Thebes a high level railroad crossing is made at the narrowest point in the valley.

These are the essentials of the occupance of a segment of the Mississippi border. The homogeneous valley trough is the basis upon which the occupance is organized. Problems arising from unwise associations of cultural and natural environmental conditions are varied and conflicting. Commercial grain farming is the major association with the recent alluvial soil, but it has its attendant problems of drainage and flooding. The transportation factors are associated with the well graded and orientated corridor. These are local or at best interregional considerations. Flood control and other problems related directly to the river are intraregional in nature, the solution of which has very far-reaching ramifications.

Thus the southern segment of the Mississippi border is essentially a fifty mile ribbon of commercial grain farming as well as a corridor of secondary consideration associated with a wide alluvial valley bottom which is projected through the hills land of the southern district of Illinois.