

Some Observations Concerning the Historical Geography of Indiana—Part I

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“Every geographical fact should be studied historically and every historical fact should be studied geographically.” It is in an effort to apply this principle to the geography of Indiana that this paper is written.

The geologic and physiographic background. The foundations of the geography of Indiana are to be found in the geologic and physiographic backgrounds of the area which the state occupies.

This area during much of the Paleozoic era of geologic history was occupied by an inland sea. In some 7,000 square miles of what is now the southwestern part of the state, there accumulated in this sea or swamp area great quantities of vegetal matter that later became the coal deposits of the state. Production of coal from this area amounted to over 16,000,000 tons in 1939. Indiana ranks sixth among the coal producing states. It ranks first in the amount of coal produced per man per day. This is partly due to the fact that much of the coal is near the surface, and hence can be mined by the strip method. The number of men employed in Indiana in open pit mining of coal is approximately 25% of all the men so employed in the United States.¹

During the Mississippian Period of the Paleozoic era, in relatively clear waters of portions of this inland sea, large amounts of calcium carbonates accumulated which later became limestone of such purity and of uniformity of hardness, color, texture, and ability to withstand weathering that it has been in much demand for building stone. The area in which this stone was first described was Salem, Indiana, hence it was given the name of Salem Limestone. Large quarries were early developed in the Bedford vicinity for marketing it, hence it is often called by the trade name, “Bedford Limestone.” There are few large cities in the United States that have not used this limestone in at least one building. Many other less valuable limestones accumulated in these inland seas that are used for the foundations of buildings, the making of concrete, cement, and lime, and for road materials. Indiana’s present efficient highway system thus bears some relation to its geological history.

The presence of oil and gas in several parts of the state is due to complicated geologic processes operating through long periods of time. The manufacturing areas of the north central part of the state owe their early development partly to the presence of natural gas in that area.

¹ Minerals Year Book, 1940, p. 791. Dept. of Interior, Bureau of Mines.

Geologic processes and events resulted in the great central part of North America, of which Indiana is a small part, being a great lowland reaching from the Arctic Ocean to the Gulf of Mexico. This lowland permits Indiana to be swept by the cold Arctic breezes from the north and at other times bathed in the warm tropical winds from the south.

The nearly level surface of northern Indiana is due chiefly to the work of glaciers. The great depth of the glacial till furnishes a catchment basin for ground water that insures an adequate supply of good well water for all the farms of the area, a thing that is difficult to obtain in the limestone area of the southern part of the state. The abundance of mineral plant foods in the glacial till has contributed to the fertility of the soil. Outflowing waters from the front of the melting glacier cut broad channels along the Wabash on which a canal could be built to connect the Great Lakes and the Ohio River.

The Great Lakes, themselves, were a gift of the Ice Age. The southward extent of Lake Michigan for more than 300 miles causes all land transportation routes from the northwest to go around it, and hence across Indiana. The ice-made level land of the north permitted the construction of highways and railways at a minimum of cost compared to the rougher and more hilly portions to the south. Multiplicity of routes of travel stimulate competition in rates and furnish accessibility to large areas, all of which items were favorable to Indianians.

Associated with the Lake Michigan shore line is an area of sand dunes, commonly considered worthless land. But here one of the great steel companies saw the possibilities of developing a good harbor. The result is the great steel manufacturing city of Gary which was the beginning of the development of the Calumet District of varied and complex industries.

Climate is an important factor in the production of any crop. However, Indiana would probably have never obtained the important position it holds in the "Corn Belt" states had not the glaciers furnished a favorable surface with valuable soil materials in which grasses and trees could develop a soil profile upon which corn would thrive. What is true for corn is true for all the other crops which have contributed to the economic welfare of the state.

"The Corn Belt is the gift of the Gods—the rain god, the sun god, the wind god, the ice god, and the gods of geology. In the middle of the North American Continent the gods of geology made a wide expanse of land where the rock layers are nearly horizontal. The ice gods levelled the surface with their glaciers, making it ready for the plow, and also making it rich. The wind god accumulated dust through the ages and helped build up a soil. The rain god gives summer showers. The sun god gives summer heat. All this is nature's conspiracy to make men grow corn. Having corn, man feeds it to cattle and hogs and thereby becomes a producer of meat, and Chicago, the economic capital of the Corn Belt becomes the meat capitol of the world."²

² Smith, J. R., and Phillips, M. Ogden, 1940, *North America*, p. 360.

Early explorations. In 1670, Sieur de La Salle with a party of explorers followed the St. Lawrence-Great Lakes route and reached, on December 3, the mouth of the St. Joseph River where it empties into Lake Michigan. They ascended the river, in canoes and spent a night where the city of South Bend now stands. They later portaged to the Illinois via the Kankakee and thence to the Mississippi. "This is the first authenticated record of white men within the area that is now Indiana."³

Most of the explorations of the nations of west central Europe had as their motive the discovery of a northwest passage around the land barrier that blocked their way to the Spice Islands and the fabled wealth of India. When the French first found and entered the broad estuary of the St. Lawrence, their hopes of success in finding the northwest passage must have been greatly heightened. When they entered the broad expanse of waters of the Great Lakes, these hopes were probably further strengthened. Though this route did not lead them to the Indies and its wealth, it did lead them to a region that has since become one without parallel in the world and gave them, for the time, undisputed claim to it. Later when their claims were taken over by the English, this route continued to be a very important connection between the interior of the North American continent and the Atlantic shores and thence with the mother country. Today, the Great Lakes and the lowlands bordering them, together with the Mohawk Lowland, are the routes of the great bulk of traffic, both freight and passenger, between the Atlantic and this great "Inland Empire." Even now this region is being considered worthy of further improvement by the construction of a great waterway canal system at a cost of hundreds of millions of dollars to permit ocean-going vessels to enter and travel the full length of the Great Lakes system. The St. Lawrence valley and the Mohawk lowland furnished the only easy route through the Appalachian barrier into the interior. It was the path of the early explorers, but when time for settlement of the interior arrived, it played no part in the movement of the early settlers into the interior. The reason was the entrance of an opposing human factor more potent than that of the physical factor favoring the use of the route. The human factor was the presence in this lowland path of the very warlike Mohawk and Iroquois Indians who resented the coming of the white man into their territory. The Indians were incited, at first, by the French against the English. Then when the English had driven out the French and were resenting the progress of the colonists, they incited the Indians against the colonists. Hence northern Indiana which would have been the easiest to reach, and which now comprises the most productive and fertile land of the state with most of the large cities, industries, and wealth, was left entirely out of the early settlement activities.

The early settlers and their routes of entrance. Physiographic relationships played an important part in determining who should con-

³ Esarey, Logan, 1924, *A History of Indiana*, vol. I, p. 5.

stitute the early settlers in the state and what routes they should follow to reach it. As the lands to the east of the Appalachian Mountains became settled, some seeking larger and better holdings began to spread across the mountains into the interior. The lowlands to the north occupied by hostile Indians, as stated above, blocked the passage from the northern states of New England and New York. The series of parallel ranges of the Appalachians were in themselves a real barrier. Then added to this was the fact that they were heavily wooded. Hence they became, in real fact, to the traveller seeking a route over them the "Endless Mountains." Any condition that offered a reduction of the difficulty of crossing them was readily taken advantage of. The Potomac, Susquehanna and James river valleys furnished routes leading into the mountains. Along the western slopes the Allegheny and Monongahela rivers with their tributaries spread like a fan from New York into West Virginia, and lead the way to their junction to form the Ohio. Farther south the Great Kanawha lead also to the Ohio. Still farther south near the joint boundary lines of Virginia, Tennessee and Kentucky the Cumberland Gap was a final break through the mountains to the plains of Kentucky. The north-south valleys between the ranges aided movement toward this low gap. All these directed the path of the travellers toward the Ohio River which forms the southern boundary of Indiana. The path of all the people who crossed the Appalachians, therefore, was directed to and down the Ohio toward Indiana.

Another important consideration is the fact that the most northern reach of the Ohio River between its source and mouth is at the eastern boundary of Indiana. From the point at which the Big Miami enters the Ohio the river bends sharply toward the southwest and carries the traveller farther and farther away from the fertile plains which lie to the north to rougher and poorer lands to the southwest. The Whitewater River joins the Miami just before it enters the Ohio. Its valley forms a gateway to the fertile glacial plains to the north. These conditions taken together give to the Whitewater valley a greater significance than its size would warrant. Very early it became the main route of settlers in the eastern part of the state, and for a half century was the most densely populated part of the state. This southeastern part of the state early took on significance in terms of population and industrial development. The settlers were largely composed of people from Pennsylvania and the states to the south who had better access to the routes over the "Endless Mountains." While some from the states farther north filtered through, their numbers were small. If the Mohawk and Erie lowlands had been open, the greater number would undoubtedly have come through that region and the composition would have been to a much larger degree northern people rather than those from the southern states. Also, the state would have been settled in the north first rather than the south.

Organization of territory. The territory of present-day Indiana has passed through several phases of organization. The "King's Proclamation" of 1783 forbade the sale of lands that were not in the drainage

basin of a river flowing directly into the Atlantic Ocean. All other lands were to remain Indian Hunting Grounds.⁴ The Quebec Act of 1774 attached all the lands north of the Ohio River, east of the Mississippi and south of the Great Lakes to Quebec, thus linking the Indiana region with Canada. This is a reflection of the St. Lawrence-Great Lakes Waterway influence as a connecting link with the mother country.

Practically no government existed in the area that is now Indiana until 1778 when it was included by Virginia in the organization of Illinois County. It was in the area ceded by Virginia to the general government in 1783. The Ordinance of 1787 organized the Northwest Territory, the boundaries of which were the Ohio and Mississippi Rivers with Canada on the north and New York and Pennsylvania on the east. The first county organized in Indiana was Knox County, with Vincennes as its nucleus, in 1790. The boundaries were designated as the Great Miami River on the east, the Ohio River to Ft. Massac on the south, the Illinois River and St. Claire Co. on the west and Canada on the north. "This was the first real, organized government on the soil of present-day Indiana."⁵ The fact that nearly the whole of the boundary was river or lake suggests the importance attached at the time to the use of waterways.

Indiana was organized as a Territory on July 4, 1800, with Vincennes as the capital. Its boundaries were Canada on the north, the Mississippi River on the west, the Ohio River on the south, and on the east a line running from opposite the mouth of the Kentucky River to Ft. Recovery and from that point north to Canada. Thus, it included practically all of what is now Indiana, Illinois, Wisconsin, and Michigan. Land sales began in 1801 and settlers came in great numbers by way of the Ohio, and across Kentucky by way of Cumberland Gap, settling along the Ohio and its tributaries from the north. Soon the people at the north, their main settlements about Detroit, began to seek separation on the grounds that they were too remote from the seat of government at Vincennes and were separated from it by hostile Indians. Wayne County, constituting most of what is now Michigan, was organized and Congress granted the separation in January, 1805. Thus Indiana lost nearly one-third of the area of the Territory. Likewise, settlers at Kaskaskia, on the Mississippi, were too remote from the government center at Vincennes to secure aid against Indian raiders and other depredations, hence soon began to clamor for a separate government. The separation act for this area was signed by President Jefferson on February 3, 1809, leaving the boundaries of the Indiana Territory in their present position except for minor alterations.⁶

By 1809 four counties had been organized in the Territory, all bordering on the Ohio River. (Fig. 1.) Two-thirds of the Territory was recognized as Indian Land and all settlements were confined to the southern part of the state and near the Ohio, Wabash, White, and

⁴ Esarey, Logan, 1924, *A History of Indiana*, vol. I, p. 45.

⁵ Esarey, Logan, 1924, *A History of Indiana*, vol. I, p. 153.

⁶ Esarey, Logan, 1924, *The History of Indiana*, vol. I, pp. 178-179.

Whitewater Rivers. The settlers had all either come down the Ohio River or crossed from the Kentucky side. A large number had entered Kentucky by way of Cumberland Gap, many of them from Virginia and the Carolinas. Many settlers from Pennsylvania, also, seeking to avoid the difficulty of crossing the series of wooded parallel ranges of the Appalachians, followed the valleys southward between the ranges to Cumberland Gap, a much longer but less arduous route.

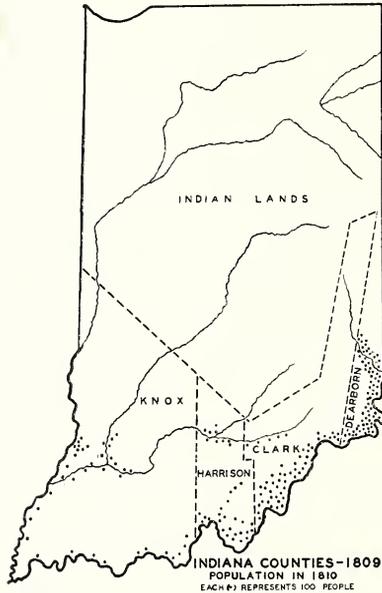


Fig. 1. Indiana counties in 1809 and population in 1810. Each (.) represents 100 people. (County boundaries are by E. V. Shockley in Bowen's *Indiana State Atlas*, p. 8. Population as given in *U. S. Census Bureau Bulletin*, census of 1810.)

The census of 1810 showed a total population of 24,520. The rapid increase in population is indicated by the fact that at the end of the following decade the population had increased to 147,660, an increase of 600 percent. In another ten years the population had increased to 344,508, an increase of 240 percent in the 10 years or over 1,450 percent in 20 years. The eastern part of the state along the Whitewater and Ohio Rivers remained the most populous part. Brookville was for many years the state's most important city. Vincennes, as the capital, was too far on one side of the state to be easily accessible to all, hence an agitation was started to move the capital to a more nearly central location. Corydon was chosen and the capital was moved there in 1813.

By 1814, 13 counties had been organized, 8 bordered on the Ohio River, 2 were in the Whitewater Valley, and 3 were crossed by the White River. The Wabash River formed the western boundary of 3

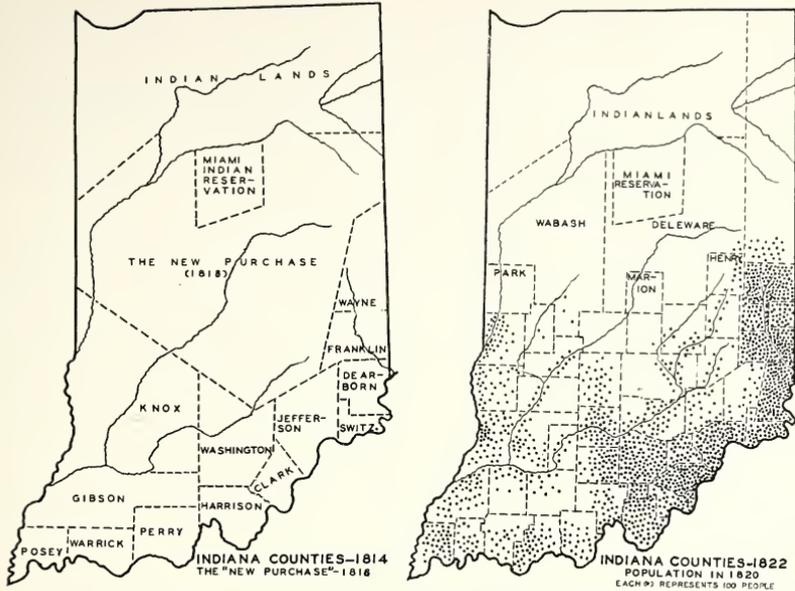


Fig. 2. Indiana counties in 1814 and the "New Purchase" boundaries made in 1818. (County boundaries by E. V. Shockley in Bowen's *Indiana State Atlas*, p. 8.)

Fig. 3. Indiana counties in 1822 and population in 1820. Each (.) represents 100 people. (County boundaries by E. V. Shockley in Bowen's *Indiana State Atlas*, p. 9. Population as given in *U. S. Census Bureau Bulletin*, Census of 1820.

of these counties. (Fig. 2.) All of these facts point to the importance of streams for transportation and communication.

In 1816 Indiana was admitted to statehood. The Indian Lands boundary ran from the western boundary of the state in what is now Vermillion County through Montezuma in Parke County; Gosport, Owen County to Driftwood River east of Brownstown, thence northeastward to Greenville, Ohio. A large tract of the Indian Lands known as the "New Purchase" was obtained in 1818 from the Delaware Indians. (Fig. 2.) The Weas, Kikapoos, and Potawatomes agreed to withdraw to the north of the Wabash.⁷ This movement made a large tract of fertile land available for settlement as soon as the dangers from Indian attacks were removed. These lands were rapidly taken up by settlers.

By 1822 forty-seven counties had been organized. They occupied all the land of the New Purchase and extended to the Wabash. The three northern counties, Wabash, Delaware, and Randolph occupied about one-third of the state but were very sparsely populated. Randolph County reached to the Michigan boundary line. (Fig. 3.) Southward

⁷ Esarey, Logan, 1924, *The History of Indiana*, vol. I, pp. 259-260.

from about the latitude of Marion County, the counties had for the most part assumed their present shapes and extent. The population distribution showed a markedly greater density in the eastern part of the state. The densities along the Ohio and other river valleys were greater than in other portions. Hilly areas were occupied only near the Ohio River and the eastern part of the state. In the areas more remote from the Ohio the hilly lands of the Crawford and Norman Uplands were avoided and settlements were largely confined to the Mitchell Plain and the Scottsburg Lowland.

The increase in population and the spread from the river valleys created a serious problem in transportation. As yet there were only "traces" through the forests to serve as roads. Many projects of roads, railroads, canals and river improvements were beginning to be discussed. The completion and success of the Erie Canal created a great ambition to have canals constructed in the state. Railroads were considered an important adjunct to waterways. But the construction of these, the problems associated with them, and the transition of this frontier state with agriculture as its practically sole sustenance to that of a complex advanced agricultural and industrial member of the United States of today will have to wait for treatment in Part II at a later time.