

UTOPIA ON THE WABASH: THE HARMONIE SOCIETY

By Elizabeth Culiver

GRADE LEVEL: Elementary

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UTOPIA ON THE WABASH
The Harmonie Society

Lesson Plans
by
Libby Culiver

Indiana and the New Nation
Dr. Bigham
February, 1990

Goals and Content

Utopia came to the banks of the Wabash two years before Indiana became a state. At New Harmony, in the heart of the wilderness and within a span of ten years the Rappites (Harmonites) created a Paradise on the banks of the Wabash.

This series of lesson plans are written to be used to teach background information on the Rappites who came to the Indiana Territory from Harmonie, PA to establish their second settlement. They were looking for three things: a land with rich soil, warmer weather and land with access to a waterway. The land that was later to be named New Harmony offered all three.

The lessons begin with Father Rapp's desire for religious freedom which motivated his leaving Germany with a band of followers to settle in America. The lessons culminate with Rapp gathering, again, his band of followers to move and establish yet another settlement, his third and final one, in Economy, PA.

These six lessons will give the students an opportunity to compare and contrast the various aspects of the Rappites of 175 years ago with today, where possible.

Lesson One

Objectives

To compare and contrast the pursuit of religious freedom of the Separatist-German and English.

To compare the doctrines of the Harmonie Society with the Mayflower Compact.

Introduction

Seeking religious freedom a group of German Lutherans left their mother country to establish a new home in America.

Lesson

Using the background information provided, convey to the students the reasons George Rapp left the German Lutheran Church and eventually left his native country of Germany to seek religious freedom in the new land of America.

Using the current Social Studies textbook, compare the reasons Separatist wished to leave the Church of England to seek religious and political freedom to the reasons the Rappites left.

Culminating Activities

Compare and contrast the Mayflower Compact of the English Separatist to the agreement established by George Rapp for the German Separatist.

Background Information
for Lesson 1

In Germany, he had been a Separatist, formally breaking away from the established church in his thirtieth year and beginning to preach in his own house. He preached the basic doctrines of Lutheranism, but he believed that the Lutheran Church in Germany had lost sight of these doctrines in the luxury and confusion of its ceremonies. Ultimately he became convinced that the First Resurrection, promised in the Book of Revelation, would come in his own lifetime. He remained so firmly convinced of this that, on the day of his death in his ninetieth year, he said, "If I did not believe the Lord intended me to present my people to Him on the last day, I would think I was dying."

In 1804, the group of German immigrants came to America, looking for religious freedom. The Rappites, as they were called, had tried to set up their own community in Germany. But this kind of special group was not liked in Germany. So the Rappites fled to America. They had settled in Pennsylvania, not far from Pittsburgh. They had done well there, but they wanted a location close to a river, and one with a better climate. The leader of this group of nearly a thousand people was Father George Rapp. Father Rapp chose a place on the Wabash River in the Indiana Territory.

Father Rapp believed that people could live in perfect harmony. To do this, they had to live together as complete equals. They had to share all work equally. They had to share

all their property equally. Most of all, they had to believe strongly in the religion of Father Rapp. He persuaded his followers to surrender to him and his "associates" all their worldly goods and the products of their labors and to ask in return only meat, clothing, lodging, "and all such instruction in church and school as may be reasonably required."

Shortly before they came to the Wabash country, the Harmonists began to practice celibacy, for which Father Rapp had also found authorization in the Bible. They did not want to bring children into a world that would soon end. Their aims in life called for hard work and brotherly love. Father Rapp, who was a strong leader and a kind man, made sure that each Rappite did his share of the work. Unlike most other pioneers, the Rappites saw no reason to build a better world for the people who would come after them. They believed the world would end during their lifetimes.

Lesson Two

Objectives

Determine the natural resources of land located beside a river.

Learn about the ways in which water can become a working tool for man.

Introduction

Land deposits left from the flooding water of a river yield rich soil for growing crops, provides water for farming and water power.

Lesson

Using the background information discuss the crops grown by the Rappites needed to manufacture the products they sold to sustain their commune and to gain wealth.

Explain the power that can be produced by channeling the waters of a river.

Culminating Activities

Compare and contrast the rich soil of the Nile River in Egypt to the richness of the soil in the lowlands of the Wabash River. Small groups of students can do this by searching for information such as elevation, temperature, longitude and latitude of these two areas. How conducive are these factors in the crop yield? What crops are grown in the Egyptian Nile

Background Information

for Lesson 2

The stagecoach was the most reliable method of personal travel. Although the roads were rough or muddy, and in spite of robbers, the stagecoaches arrived at their stations usually on time. And they ran to many parts of the state where there were no waterways. In the years before 1850, Indiana already had busy transportation on rivers, streams and canals. These methods of transportation were far from perfect, however, the waterways were the Indiana roads. Long distances could be traveled by water. Two major rivers are especially associated with Indiana—the mighty Ohio and the Wabash. The Wabash has an unusual course, flowing northwest, then west, then southwest, and finally south, to make a meandering border between Illinois and Indiana. The Wabash and the Ohio are the only Indiana rivers that are on the U.S. Geological Survey's list of principal rivers of the United States. (Appendix contains the names of the major rivers of the world.)

Before the Harmonists came to Indiana Territory, they had awaited the millennium for eleven years on the banks of Connoquenessing Creek, near Pittsburgh, after emigrating from Wurttemberg in 1803. But the Pennsylvania land was too broken, too cold, and they needed access to a waterway to transport their products to sell in the northern, southern and eastern markets.

River soil? The Wabash River lowlands?

Group or Individual Activity

Use the background information to teach the use of water power for the Rappite sawmill over 150 years ago.

Draw a picture of a new way to use water as a tool for man.

Indiana's climate is mild and does not vary greatly from north to south, the widest difference in mean temperatures in the extremes of the two regions being only ten degree in January and five in July and the altitudes above sea level ranging only from 313 feet in Vanderburgh County to 1,285 feet in Randolph County.

The Nile River

The Nile is the longest river in the world-4,132 miles in length. It has a 1,107,000-square-mile basin. Every year, before the Aswan Dam was built, the Nile River overflowed its banks. Sand and soil carried by the river were spread over the ground. This ground next to the river is called a flood plain. A flood plain has very good soil for plants to grow in. The yearly flood of the Nile gave Egypt rich soil and enough water for farming. This yearly flooding paralleled the happenings in the Wabash lowlands purchased by the Rappites. The Nile was also used as a roadway by which people could trade with one another. It is not surprising that the first great civilizations grew up along the banks of great rivers: the Nile in Egypt and the Ohio and Wabash in Indiana.

Water Power

Rivers and streams can furnish waterpower to run factory machines as was evidenced by the way the Rappites grew from a limited, self-sustaining economy to a small agricultural

and industrial empire. Fully expecting to become a southern Indiana industrial center, they built a three story water-powered merchant mill, a large factory for cotton and woolen goods, two saw mills, an oil and hemp mill, two granaries and a brick-and-stone warehouse. The consumers of the products produced by the Rappites recognized its symbol of the Golden Rose as that of the best quality and workmanship to be had. It was, therefore, of the utmost importance that they be able to transport these much sought after products and the way to do that was by way of the Wabash River. (Appendix contains more information on waterpowered machinery.)

Lesson Three

Objectives

Become acquainted with a communal life style.

Gain an understanding of the life of a Rappite.

Introduction

The structured life led by members of the Society was simple yet purposeful. The children were educated and the boys were trained at age twelve to a specific occupation.

Lesson

Using the background information establish the simplicity of the life of the commune member. Each member had a job to do and was on an equal basis with any and all members.

Culminating Activities

Compare the life style of a Rappite boy to the life of a twentieth century boy. How are boys trained for occupations today as compared to a Rappite boy of the nineteenth century? Make daily journal entries of two or three paragraphs (at least 3 lines per paragraph) pretending you are a Rappite boy. Write your day-to-day activities. Keep a two week journal. Have a second group of students make a daily journal entry of their day-to-day activities. Compare and contrast.

Background Information

for Lesson 3

The Rappites bought 30,000 acres (12,140 hectares) of land in Posey County and moved there in 1815. They believed in what might be called "Christian communism." These hard-working German people transformed the wilderness to a settled community. Because they felt that Father Rapp had been given divine inspiration, they followed his harsh discipline gladly and accomplished almost unbelievable things in clearing land, draining swamps, and constructing large brick houses and public buildings, some of which are still in good condition. They led a quiet, well-ordered life. Each morning they were wakened to the day's labor by the mellow tones of French horns. After the community milk wagon had made its rounds and the chickens, the only domestic creatures that refused to adapt to community ownership, had been fed, the workers marched singing to their allotted tasks in the fields and shops. At nine o'clock they paused for lunch, at noon for dinner, at four for vesperbrot, and at sunset they came home for supper. Sometimes the band played while they worked in the fields, and in the shops fresh flowers decorated their work benches. Yet over this bucolic paradise there lay a solemn air. Travelers who passed through New Harmony between the years 1814 and 1825 repeated over and over the same observations. The Harmonists, they said, seldom conversed in the streets, and they never laughed. They loved music, but music seemed to be

the only sound that ever broke the silence of the town. They refused to discuss their religion and were not cordial to strangers. In fact, most of them could not speak English. Rappite men possessed skills in every trade needed to build and operate a nineteenth century town. These skills were passed down by way of an apprenticeship program. Between the ages of twelve and fourteen, when a child had completed the required schooling, she/he was assigned to a tradesman. The apprenticeship usually lasted approximately ten years at which time the student was considered skilled in that trade. The Harmonist parochial school on Tavern Street anticipated free tax-supported public schools in Indiana and most of the rest of the nation by nearly half a century.

Women of the frontier in the early nineteenth century had very little, if any, voice in government. The Harmonists women members, however, had the same rights as the men. They were equal in property ownership with the men; had an equal vote during elections; had full ownership of their own bodies; had a right to leave the society; and had the right to divorce their spouse if they so chose. Women were assured of schooling and vocational training. They had the opportunity and were encouraged to participate in discussions.

The style of the Harmonists dress was much like the Amish of present day. Rappite men had long hair and dressed in plain blue or brown frock coats, trousers and shoes. Rappite women wore white caps, cloth gowns, a checkered neckerchief and aprons.

Lesson Four

Objectives

Become acquainted with the construction of Harmonie, IN.

Become acquainted with the layout of a self-sufficient community.

Introduction

Two major factors influenced the layout of the Shappite community. These two factors were the Wabash River and the church.

Lesson

Using the background information recreate the community and the construction of the buildings that, in part, are still a part of the present day community of New Harmony, Indiana.

Culminating Activity

In small groups of four or five students design a town that is self-sufficient. Include all aspects of community life such as church, school, housing, hospitals, fire and police departments, libraries, etc. Be sure to include ways to store and sell the goods your community produces.

Background Information

for Lesson 4

Surrounding the church which stood in the middle of the community were the dormitories and a score of houses for individual families. Father Rapp's house also was among these dwellings. Each dwelling had a fence, stable, and a garden.

The houses and dormitories were insulated against heat and cold with soft bricks and with slabs of wood wrapped in clay and straw, known as "Dutch biscuits." The same stove heated the first and second floors by means of a flue on the second floor, and the buildings were rudimentarily air-conditioned by tunnels into the cellars. They were so firmly mortised and tenoned by square pegs driven into round holes that they could not sag or lean. The timbers that went into the houses were cut in standard sizes at a central sawmill and numbered with an adz, so that they were interchangeable, and by this convenient uniformity of materials the Harmonists pointed the way toward modern prefabrication.

The buildings were a triumph of construction. The larger of the two brick-and-stone granaries, the dam, the dye house, part of Father Rapp's house, a score of the other houses, and two of the dormitories are still standing after a century and a half. The dormitories of brick, each large enough to house about sixty people, each with

a kitchen and a community room.

The houses the workers lived in were a striking contrast to the Hoosier backwoodsmen's pitiful, dark "log-holes," as one early traveler called the pioneers' cabins. The streets of the Harmonists' society were broad and clean, shaded by Lombardy poplars and mulberries; the hillsides surrounding their village were covered with vineyards and orchards; and great flocks of Merino sheep grazed in their pastures. By the ingenious invention of a movable greenhouse set on grooved tracks, which made it possible to cover large plants in inclement weather but also to expose them fully to the summer sun when desirable, they even raised such exotic fruits as figs, lemons, and oranges in the variable Indiana climate.

On the outskirts of the town were the two granaries; a water mill and dam; a textile mill; a dye house; two sawmills, a hemp and oil mill; two large distilleries; and a brewery, in which the pump was operated by a large dog walking on a treadmill.

Lesson Five

Objectives

Become acquainted with the political influence of the Rappites.
To gain knowledge about Frederick Rapp, the adopted son of George Rapp.

Introduction

Good leadership is recognized. This leadership can be sought out by the general population in the election process. Political leaders assist their communities, state and country.

Lesson

Using the background information introduce the students to Frederick Rapp, the adopted son of the leader of the Harmonists. Acquaint them with the several ways Frederick contributed to the statehood of Indiana.

Culminating Activity

Contrast the life of Frederick Rapp to that of a politician of today such as Dan Quayle, senator of Indiana and Vice President of the United States.

Background Information

for Lesson 5

Much of the credit for the wealth of the Harmonist Society goes to Frederick Reichert (later Frederick Rapp, adopted by George Rapp). Frederick was an intelligent, well-educated man who understood the many facets of the business world. He understood both the communal managerial areas as well as the role of a business representative for the Society outside the commune. An indication that the Harmonist Society was interested in seeing the Wabash lowland area grow into a thriving community is the generosity of their donation of a hundred acres of land in 1817 for the site of the new seat of county government at a place called Springfield ten miles away. Frederick offered to build a court house on this site and consequently his proposal was accepted by the commission.

Soon after completing their move to Indiana, the leaders of the Harmonists took definite steps to obtain a division of Gibson and Posey Counties, as well as to establish a road tax.

Frederick attended the Indiana Constitutional Convention and was elected as the single representative to serve Gibson County in 1816. He was a member of the convention when it met under the famous elm tree on June 10, 1816, at Corydon, IN, and framed the first constitution of Indiana.

In 1820, he supported the strong statements against slavery

in the constitution.

Frederick's experience in designing and laying out the town of Harmonie served him well when he was named one of eight appointed to select the location site for the capital.

His common sense was evident in selecting the capital at almost the center of the state. The site was an uninhabited and uncontroversial parcel of land that was to become our capital city called Indianapolis. He drew up layout plans of the new capital city and submitted them to the committee. This early map of Indianapolis projected its development along the lines of Washington, D.C. and that may have influenced the final design of the state capital.

Frederick Rapp served as president to one of the first banks in Indiana named the Farmers Bank of Harmonie. Its success was due to the virtuous management of its president, Frederick Rapp, who personally signed all notes and kept it free of political involvement that plagued bank establishments such as the corrupt state-chartered bank of Vincennes.

Lesson Six

Objectives

Students will learn the reasons Father Rapp decided to move his commune for the third and last time.

To introduce students to the buyer of Harmonie, Indiana from the Rappites.

Introduction

A growing community provides new jobs to replace the jobs that come to an end. The Rappite Community was a closed community and when they completed the construction that was necessary, the one thousand membership became idle and restless. Father Rapp gave the members a directive from God which was to move back to Pennsylvania and build a new community.

Lesson

Read the Angels Footprints with the students. Share the background information. Assist students' understanding that there were several reasons Father Rapp felt it necessary to move back to the more tolerable people of the state that believed in "Brotherly Love". Other reasons that were instrumental in the decision to move were: 1.) The community was in place, there was very little on-going building to be done which meant some members were idle. 2.) The neighbors were suspicious

of the commune members and their comfortable lives. Many of the neighbors lived a very poor existence during these hard times.

Culminating Activities

Using the layout of the community from Lesson 4, brainstorm ideas of how to keep their community growing. What new jobs can be created which could mean attracting new businesses into the community? Report these ideas and make a list of possibilities.

Plan a field trip to New Harmony by contacting:

Historic New Harmony, Inc.

344 West Church Street

P.O. Box 579

New Harmony, IN 47631

The third week of April are Trade Days. This is a wonderful opportunity for students to see and experience the trades of the Eighteenth Century.

Background Information

Lesson 6

The ongoing training of skilled tradesmen assured the Society of remaining independent of outside goods and assistance in building and maintaining Harmonie.

But by 1822, their town built and finished, their labors had become so light that the only occasion when they were all called out at once was "in the event of sudden bad weather, when the hay or corn is out, but not carried."

Perhaps it was the increase of the Harmonists' leisure that brought an angel to Father Rapp. The angel appeared to Father Rapp and instructed him to move the Society out of Indiana and back to Pennsylvania. The slab of concrete where the angel stood had naked human footprints which Father Rapp showed the people as proof of his meeting with Gabriel. Today's tourist in the town on occasion are still shown the old footprints and told the tale.

New Harmony was a profitable agricultural community, but the leaders had cherished visions of an industrial enterprise and now they realized such a venture would be more profitable in the East; furthermore, Frederick Rapp was beginning to dream of high finance, of trafficking in money as well as goods. The West was not altogether what they had expected.

Robert Owen

The man who bought New Harmony, lock, stock, barrel, and alleged angel footprints, was Robert Owen, the British

industrialist and reformer who had made a fortune in the textile business. He too was a chiliast of sorts, like Rapp, but whereas Rapp waited for the millennium, Owen announced that he was bringing a millennium to Indiana himself. At New Lanark, in Scotland, he had established a school to reform the character of the working class and had long preached his doctrine that man is not responsible for his acts and can be saved from ignorance and poverty only by the improvement of his surroundings. Owen regarded all religions as "superstitions," and by 1825 his public attacks on organized faiths of all kinds had lost for him much of his influence and popularity in the British Isles, and he was ready to seek fresh fields for his Utopian projects. When he was approached by George Rapp's agent in Scotland as a prospective buyer of the town on the Wabash, the agent was astonished by Owen's immediate interest. Where George Rapp, believing that the "last day" was at hand, built New Harmony as if it were going to endure forever, Robert Owen, convinced that a new world was just beginning, erected nothing permanent on the banks of the Wabash. What one sees of old New Harmony today is the work of the Germans; there is not a single visible structure left that was created in Owenite days. The hopes of Father Rapp and Robert Owen were never fully realized at New Harmony, but similar desires for a better life inspire their heirs, the people of Indiana, who strive to preserve and extend the bless-

ings of their state and their nation.

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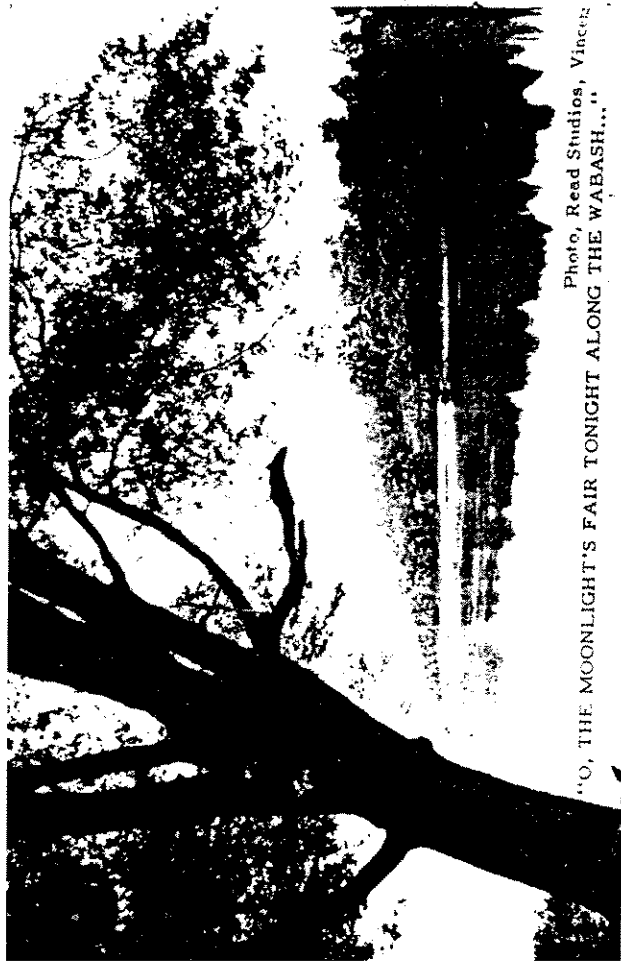
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APPENDIX



"O, THE MOONLIGHT'S FAIR TONIGHT ALONG THE WABASH..."
 Photo, Reed Studios, Vincennes

Mt. Vernon, Ind., because of its strategic location with respect to the surrounding oil fields, is the biggest inland waterway shipping terminal of petroleum.



GEORGE ROGERS CLARK swept up the WABASH River to conquer Vincennes.

INDIANA



KENTUCKY

OHIO RIVER

THE WABASH

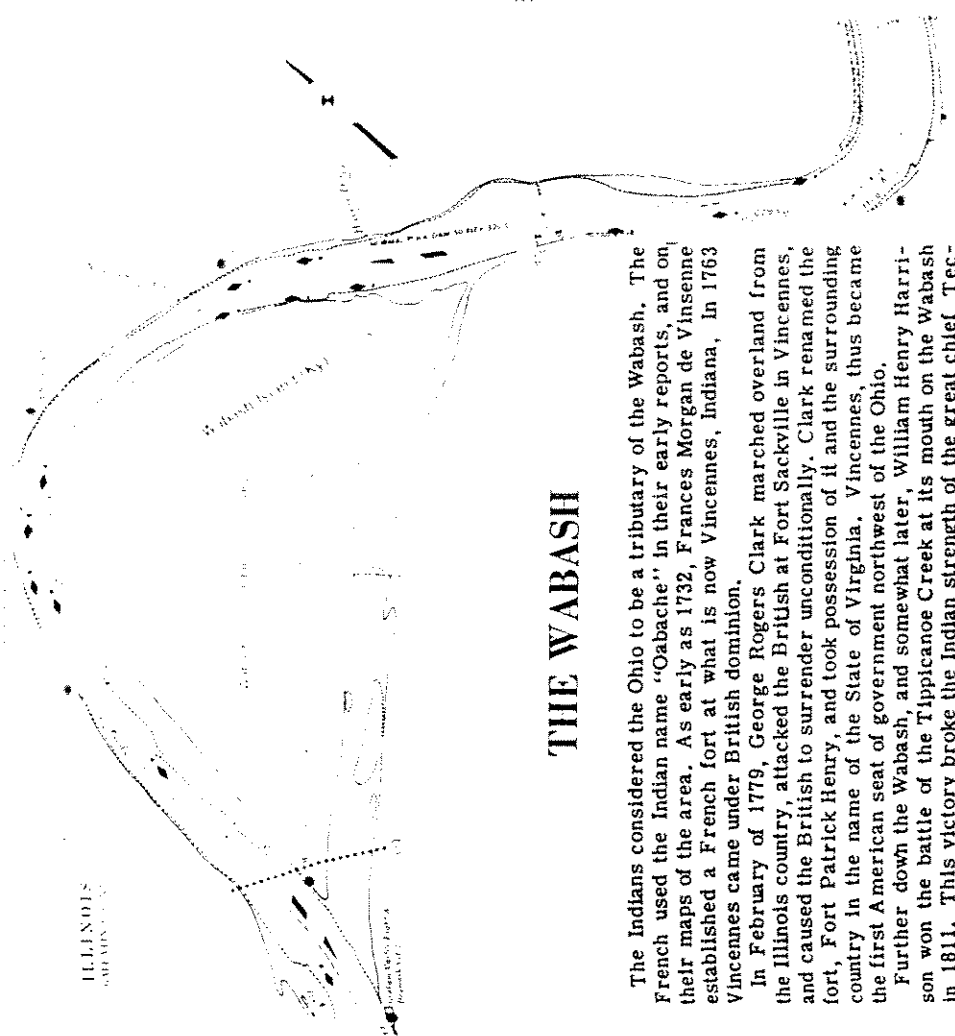
The Indians considered the Ohio to be a tributary of the Wabash. The French used the Indian name "Oabache" in their early reports, and on their maps of the area. As early as 1732, Frances Morgan de Vincennes established a French fort at what is now Vincennes, Indiana. In 1763 Vincennes came under British dominion.

In February of 1779, George Rogers Clark marched overland from the Illinois country, attacked the British at Fort Sackville in Vincennes, and caused the British to surrender unconditionally. Clark renamed the fort, Fort Patrick Henry, and took possession of it and the surrounding country in the name of the State of Virginia. Vincennes, thus became the first American seat of government northwest of the Ohio.

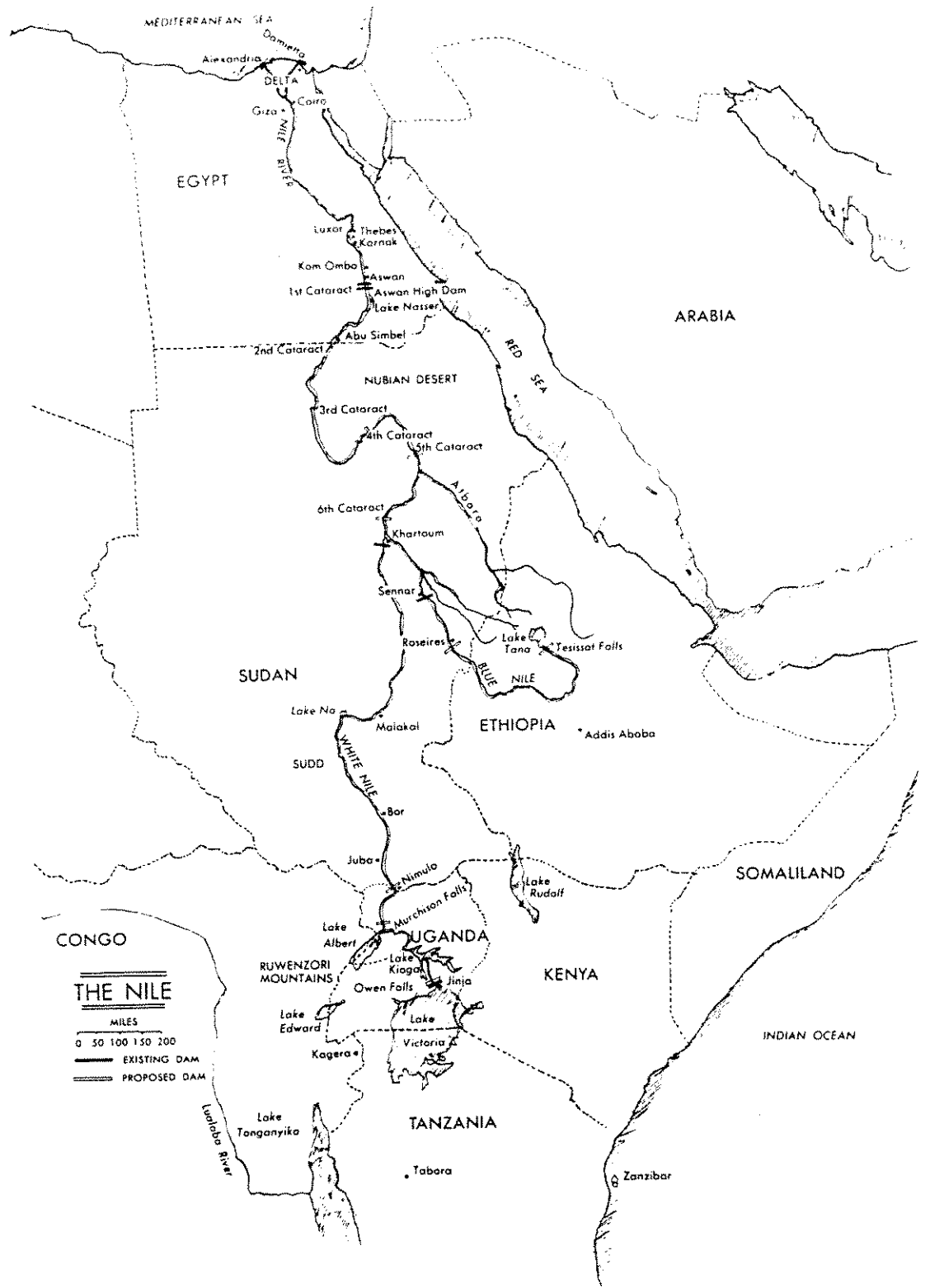
Further down the Wabash, and somewhat later, William Henry Harrison won the battle of the Tippicanoe Creek at its mouth on the Wabash in 1811. This victory broke the Indian strength of the great chief, Tecumseh, and led Harrison to the White House thirty years later.

New Harmony and other gallant experiments in community living were pioneered on the banks of the Wabash. Eugene V. Debs, great organizer of labor was a product of the Wabash River - a native of Terre Haute.

In 1823, the first steamboat on the Wabash went as far as Terre Haute. Thereafter, a flourishing steamboat trade developed and continued on the river. Today, however, the Wabash is no longer navigated except by small boats and ferries.



LINCOLN MEMORIAL BRIDGE OVER THE WABASH AT VINCENNES.



CONGO

THE NILE

MILES

0 50 100 150 200

— EXISTING DAM

— PROPOSED DAM

Lualaba River

RUWENZORI MOUNTAINS

Lake Albert

Lake Edward

Kagera

Lake Tanganyika

TANZANIA

Tabara

UGANDA

Lake Kioga

Owen Falls

Lake Victoria

Jinja

Murchison Falls

KENYA

Lake Rudolf

Lake Tana

Testisat Falls

White Nile

Blue Nile

ARABIA

SOMALILAND

INDIAN OCEAN

Zanzibar

MEDITERRANEAN SEA

Alexandria

DELTA

Giza

EGYPT

Luxor

Thebes

Kom Ombo

1st Cataract

2nd Cataract

3rd Cataract

4th Cataract

5th Cataract

6th Cataract

Khartoum

Sennar

Roseires

Lake Na

Malakal

SUDD

Bar

Juba

Nimulo

Lake Albert

Lake Edward

Kagera

Lake Tanganyika

Lake Victoria

Jinja

Owen Falls

Lake Kioga

Murchison Falls

Lake Rudolf

Lake Tana

Testisat Falls

White Nile

Blue Nile

Aswan High Dam

Lake Nasser

Abu Simbel

NUBIAN DESERT

RED SEA

ALBANY

BLUE NILE

ETHIOPIA

Addis Ababa

SUDAN

Khartoum

Sennar

Roseires

Lake Na

Malakal

SUDD

Bar

Juba

Nimulo

Lake Albert

Lake Edward

Kagera

Lake Tanganyika

Lake Victoria

Jinja

Owen Falls

Lake Kioga

RED SEA

ALBANY

BLUE NILE

ETHIOPIA

Addis Ababa

SUDAN

Khartoum

Sennar

Roseires

Lake Na

Malakal

SUDD

Bar

Juba

Nimulo

Lake Albert

Lake Edward

Kagera

Lake Tanganyika

Lake Victoria

Jinja

Owen Falls

Lake Kioga

ARABIA

SOMALILAND

INDIAN OCEAN

Zanzibar

Kinds of rivers

All rivers have small beginnings. The most usual source of a river is a spring, from which water bubbles up out of the ground. Some rivers flow out of lakes, which are themselves fed by springs. Streams in mountainous areas are fed by the melting of winter snows or of glaciers – rivers of slowly-moving ice.

Rivers rise on high ground, flowing down on either side of ridges to sea level. The point at which the direction of flow changes is called the watershed. A large river has many smaller streams, called tributaries, flowing into it. The whole complex is a river system, and the area which is drained by this system is the river basin.

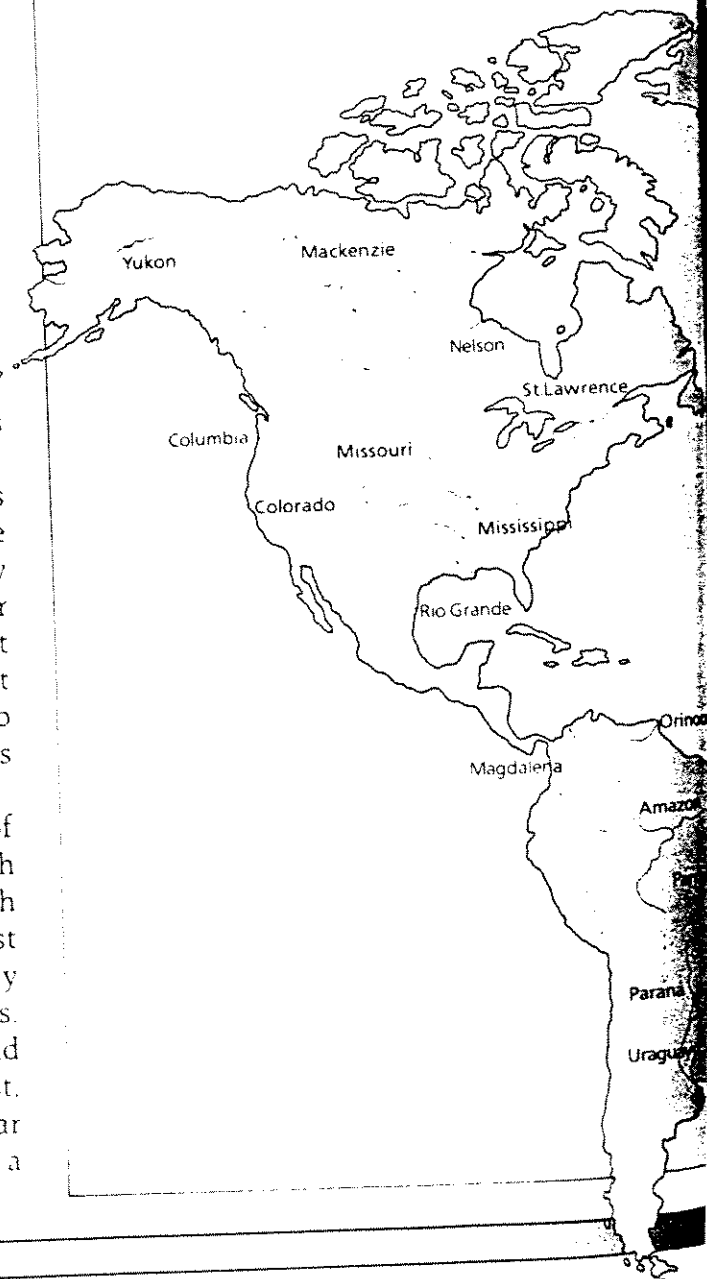
Rivers vary in type according to the terrain through which they flow. In mountainous regions, such as Norway, the rivers are fast-flowing torrents. In flat lands the rivers flow more slowly. The majority of rivers end their course in the sea, but some, such as the Volga which ends in the Caspian Sea, flow into landlocked lakes.

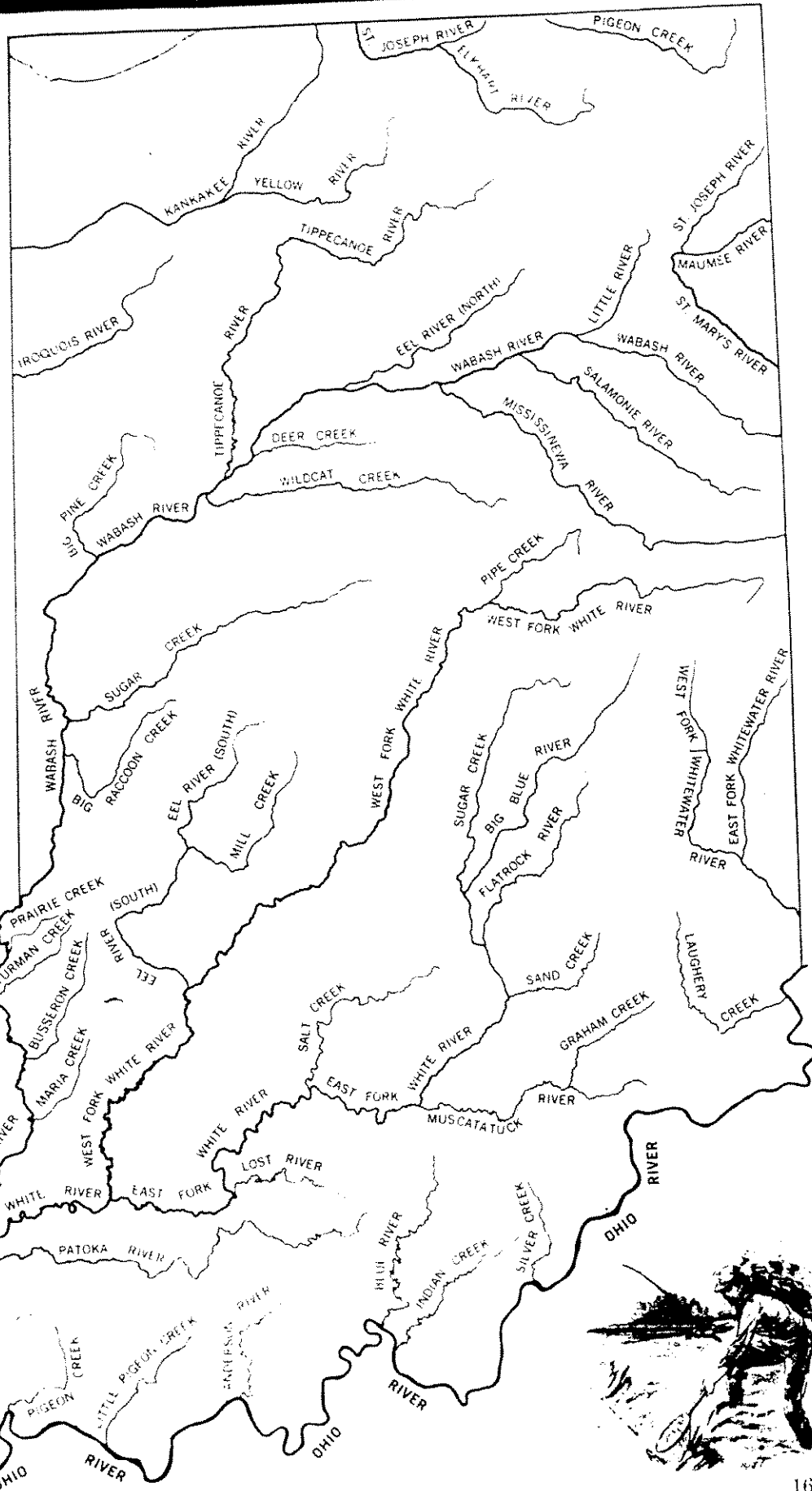
The section of a river where it enters the sea is called its estuary, and the water there is a mixture of fresh and salt water. The length of an estuary depends on the flatness of the ground at the river mouth and the rise and fall of the tide at that point. If the land is very flat the river may split into a number of smaller channels on its way to the sea, forming a delta – named because its shape is like that of the Greek letter Δ (delta).

In some areas, such as the central part of Australia, rain occurs for only a short time each year, and in some years may not fall at all. In such areas the rivers flow only after the rains. The rest of the time the riverbeds are dry. Such dry riverbeds are known as arroyos in the Americas, wadis in the Sahara and southwestern Asia, and nullahs in the Indian subcontinent. By contrast, in cold regions where snow and ice lie all year round, a mass of ice may move slowly down a valley to form a glacier.

Major rivers of the world

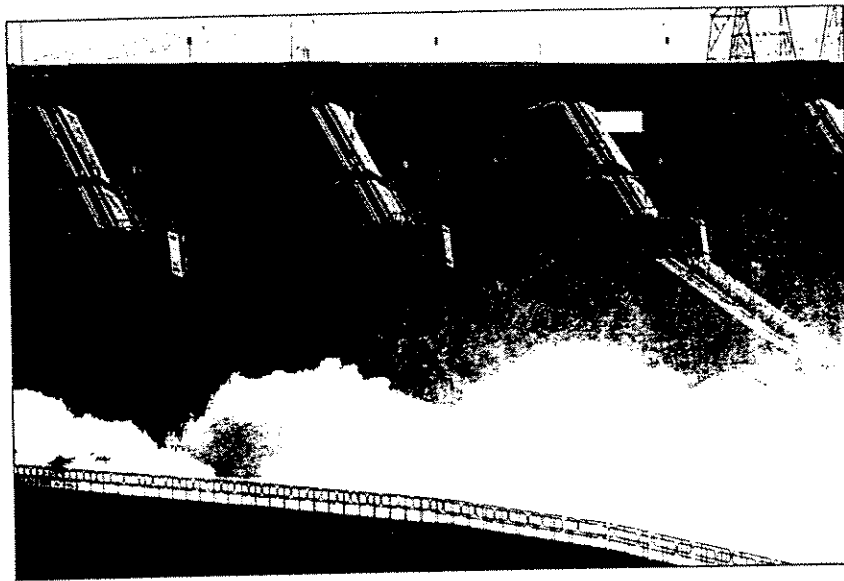
The largest river system in the world, when measured both by the size of the area it drains and by the volume of water it discharges into the sea, is the Amazon. The Nile is the longest river in the world with a length of 4,145 miles (6,670 km) but the Amazon is almost as long at 4,000 miles





The water rushing into the spillway of the Itaipu Dam in Brazil suggests the enormous power of water. After passing through the turbine, the water still has tremendous force. Spillways are constructed to control and channel this force, which otherwise could erode away the base of the dam. Spillways are also used to divert floodwaters, which could destroy the dam.

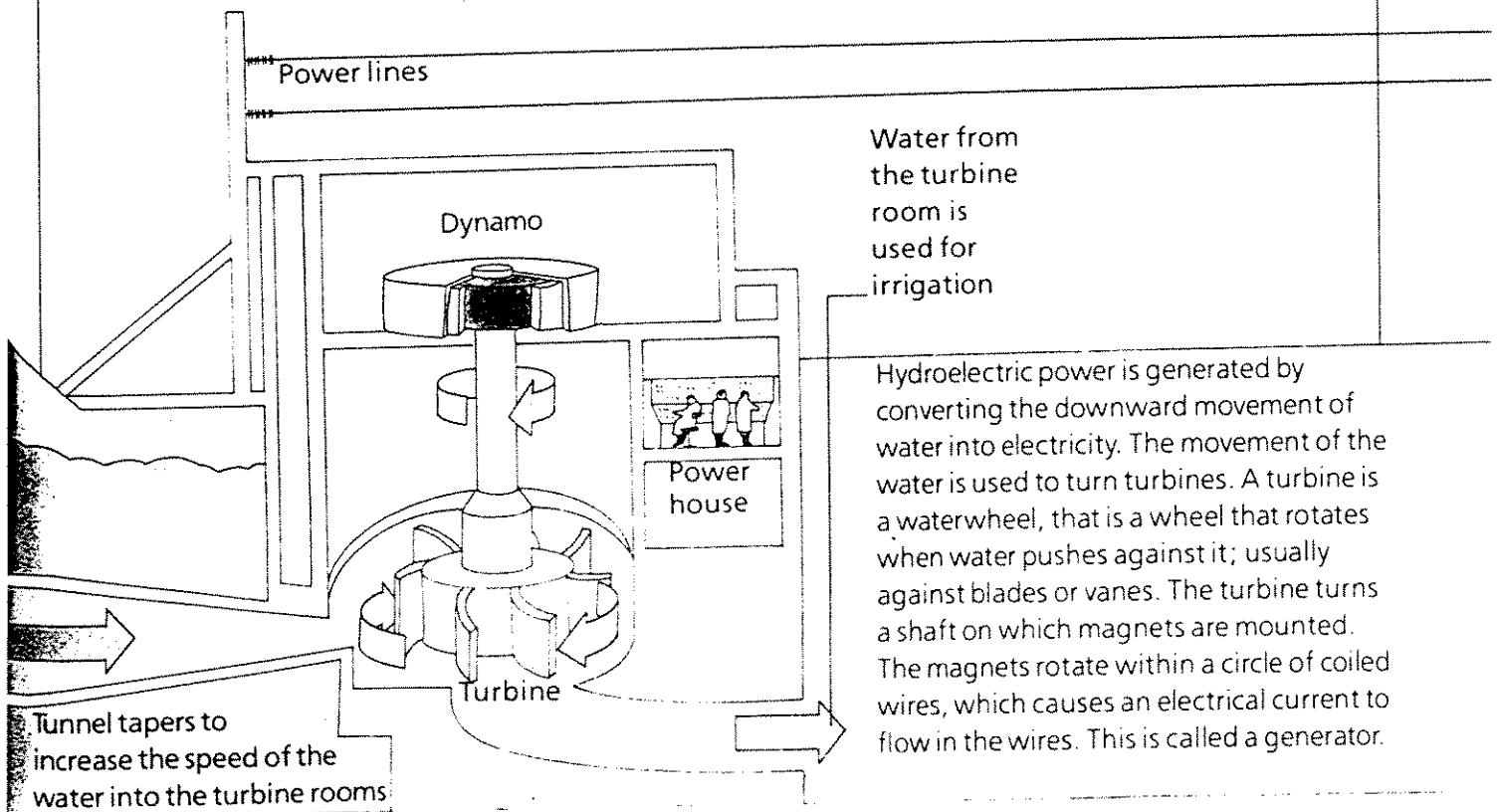
The Itaipu Dam is the largest producer of hydroelectricity in the world.



Water is a cheap, renewable form of energy. The initial cost of building a dam and power station is high but the source of energy is free.

Countries with high mountains that have a plentiful rainfall, for example Norway, are ideal for hydroelectric generation. With the development of

multi-use dams, for example for irrigation as well, hydroelectric power has become practicable elsewhere. Major dams are being built in many countries.



Hydroelectric power is generated by converting the downward movement of water into electricity. The movement of the water is used to turn turbines. A turbine is a waterwheel, that is a wheel that rotates when water pushes against it; usually against blades or vanes. The turbine turns a shaft on which magnets are mounted. The magnets rotate within a circle of coiled wires, which causes an electrical current to flow in the wires. This is called a generator.

(6,437 km). The third longest river is the Mississippi-Missouri system (3,860 miles or 6,210 km) which is also the longest on the North American continent. The Chang Jiang (Yangtze) of China is the longest river in Asia and the fourth longest in the world. The second longest river in Africa is the Zaire which is the tenth longest

in the world but the second largest in terms of basin size and the volume of water it discharges. The longest river in Europe is the Russian river the Volga (2,290 miles or 3,690 km) but it is only the sixteenth longest in the world. The shortest river in the world is the D River in Oregon, which is a mere 440 ft (134 m) long. It connects a lake with the ocean.



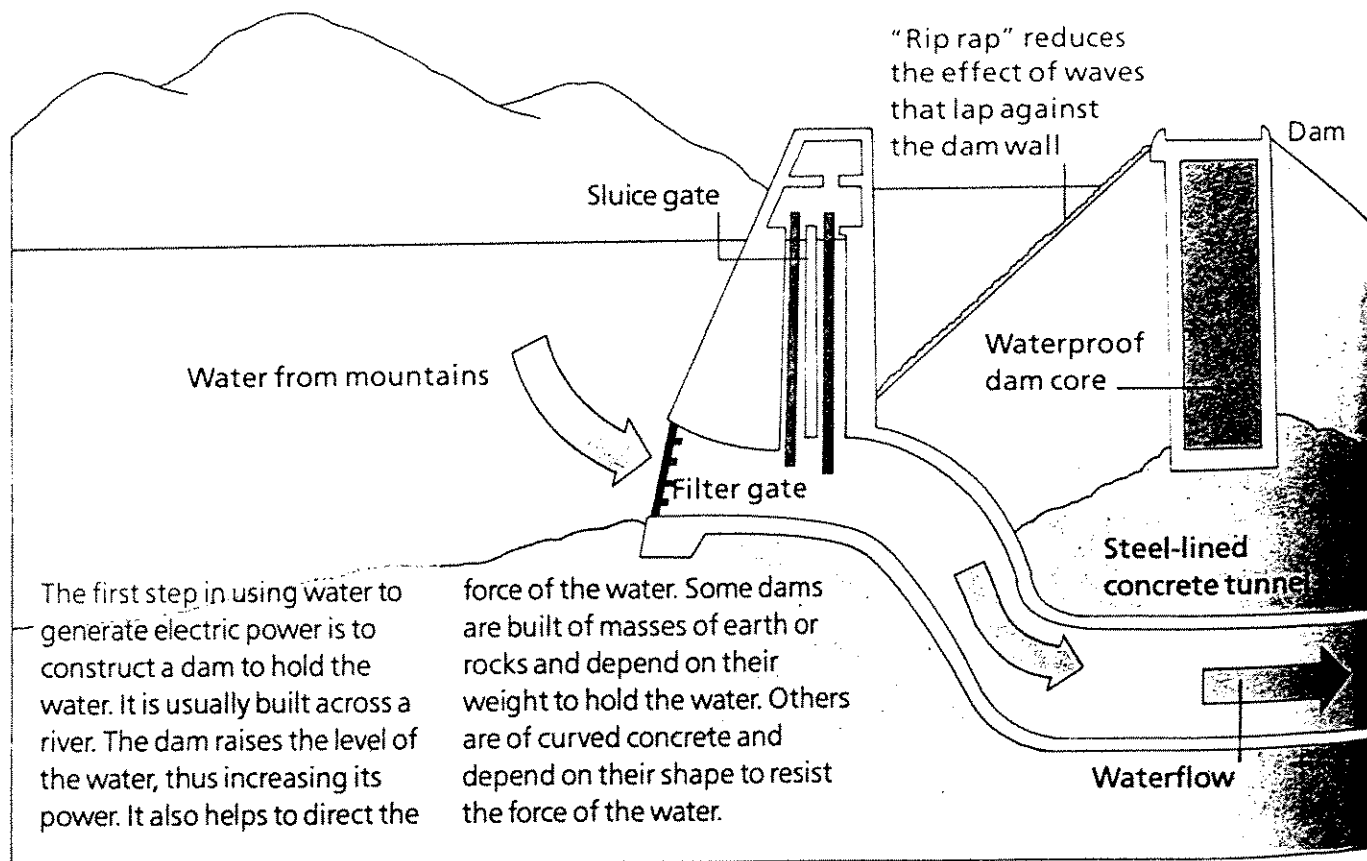
Power from rivers

The flow of water downhill provides a valuable source of energy, and one that cannot be used up like coal, oil, or nuclear fuels. The first use of rivers to provide power was to drive waterwheels. The earliest water wheels were used for milling corn, and the buildings in which this work was done were known as watermills. When the Industrial Revolution began in the 1700s, the first factories were established along river banks where there was a source of power.

There are two kinds of waterwheels. The earliest had blades that dipped into the water, and turned the wheel as the stream flowed along underneath it. This undershot wheel was not very efficient. Later the overshot wheel was developed. It has scooplike buckets around it, and water flows into these buckets over the top of the

wheel. The weight of the water in the buckets helps the force of the stream to turn the wheel. The overshot wheel is about 80% efficient, but to use it a fall of water is necessary. This is usually achieved by damming the river to create a millpond, from which the water flows. Another advantage of the millpond is that it delivers the water to the wheel at a constant rate.

Today, hydroelectric systems use the power of rivers to produce electricity. They are most often found in places where the rivers flow steeply downhill and so produce ample power. Huge dams are built, creating giant reservoirs, and the waterwheels used, called turbines, mostly lie horizontally. Norway, where the rivers flow very steeply indeed, is able to produce almost all its electricity from hydroelectric systems.



Places of Interest in Indiana

Battle Ground
scene of the Battle of Tippecanoe

Bloomington
Indiana Museum of Art
Indiana University
Indiana University Museum

Brookville
Whitewater Canal

Corydon
2nd territorial capitol and
1st state capitol

Crawfordsville
home of Henry S. Lane
home of Lew Wallace

Evansville
Mesker Zoo
Museum of Arts and Sciences

Fort Wayne
Fort Wayne Art Museum
grave of Johnny Appleseed

Fountain City
home of Levi Coffin

Greenfield
home of James Whitcomb Riley

Hanover
Hanover College, Geology Museum

Indianapolis
Children's Museum
Clowes Hall, home of the Indianap-
olis Symphony Orchestra and the
Metropolitan Opera National Com-
pany

Herron Museum of Art
home of President
Benjamin Harrison
Indiana Historical Society Library
Indiana Soldiers' and Sailors'
Monument

Indiana State Capitol
Indiana State Museum
Indianapolis Motor Speedway,
home of the 500-mile race
Lockerbie home of
James Whitcomb Riley
World War Memorial Plaza

2. Lafayette
Lafayette Art Center
Purdue University

13. Lincoln City
Nancy Hanks Lincoln
State Memorial

14. Madison
home of James Lanier

15. Mishawaka
Mishawaka Children's Museum

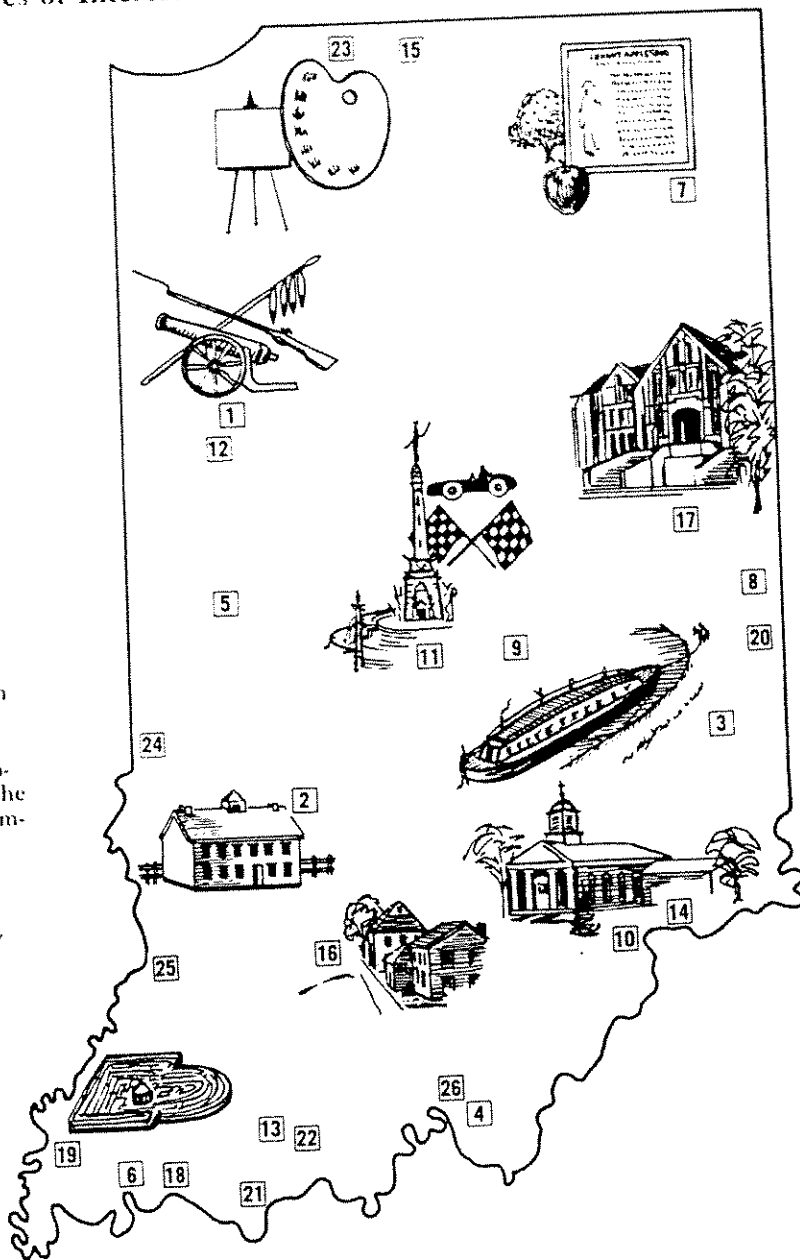
16. Mitchell
restored pioneer village

17. Muncie
Ball State Teachers' Art Gallery
Ball State University

18. Newburgh
Angel Mounds

19. New Harmony
New Harmony National
Historic Landmark

20. Richmond
Art Association of Richmond
(art gallery)



- Joseph Moore Museum
of Earlham College
- 21. Rockport**
Lincoln pioneer village
- 22. Santa Claus**
home of Toy Village
- 23. South Bend**
University of Notre Dame
Art Gallery
South Bend Art Center
- 24. Terre Haute**
Indiana State University
Sheldon Swope Art Gallery
- 25. Vincennes**
1st territorial capitol building
George Rogers Clark Memorial
home of William Henry Harrison
- 26. Wyandotte**
Wyandotte Cave

Indiana State Song

Paul Dresser's "On the Banks of the Wabash, Far Away" was adopted as the state song by the 1913 General Assembly (Indiana Code 1-2-6).

On The Banks Of The Wabash, Far Away

Words and Music by
PAUL DRESSER

Andante espressivo

mf

The piano introduction consists of two staves of music. The right hand features a melodic line with eighth and sixteenth notes, while the left hand provides a harmonic accompaniment with chords and moving bass lines.

p

Round my In - di - an - a home - stead wave the corn - field, In the
Ma - ny years have passed since I strolled by the riv - er, Arm in

The first line of the song features a vocal melody on a treble clef staff and a piano accompaniment on a grand staff. The lyrics are written below the vocal line.

dis - tance loom the wood - lands clear and cool. Of - ten
arm with sweet - heart Ma - ry by my side. It was

The second line of the song continues the vocal melody and piano accompaniment. The lyrics are written below the vocal line.

times my thoughts re-vert to scenes of child-hood, Where I first re-ceived my les-sons, na-ture's
there I tried to tell her that I loved her, It was there I begged of her to be my

school. _____ But one thing there is mis-sing in the pic-ture, With-
bride. _____ Long years have passed since I strolled thro' the church-yard, She's

-out her face it seems so in-com-plete. _____ I long to see my moth-er in the
sleep-ing there my an-gel Ma-ry, dear. _____ I loved her but she thought I did-n't

door-way, As she stood there years a-go, her boy to greet! _____
mean it, Still I'd give my fu-ture were she on-ly here. _____

REFRAIN

Oh, the moon - light's fair to-night a-long the Wa-bash, From the

mp

This system contains the first two lines of musical notation. The top line is the vocal melody, and the bottom two lines are the piano accompaniment. The piano part features a steady eighth-note accompaniment in the right hand and a more active bass line in the left hand. The dynamic marking *mp* is placed below the piano part.

fields there comes the breath of new mown hay. Thro' the

This system contains the second two lines of musical notation. The vocal line continues with a long note on the word 'hay' before moving to 'Thro' the'. The piano accompaniment continues with similar rhythmic patterns.

syc - a-mores the can - die lights are gleam - ing. On the

This system contains the third two lines of musical notation. The vocal line has a long note on 'ing' before moving to 'On the'. The piano accompaniment continues with similar rhythmic patterns.

banks of the Wa - bash, far a - way.

This system contains the final two lines of musical notation. The vocal line has a long note on 'way' before the system ends. The piano accompaniment concludes with a final chord.

Indiana State Poem

I N D I A N A

God crowned her hills with beauty,
Gave her lakes and winding streams,
Then He edged them all with woodlands
As the settings for our dreams.
Lovely are her moonlit rivers,
Shadowed by the sycamores,
Where the fragrant winds of Summer
Play along the willowed shores.
I must roam those wooded hillsides,
I must heed the native call,
For a Pagan voice within me
Seems to answer to it all.
I must walk where squirrels scamper
Down a rustic old rail fence,
Where a choir of birds is singing
In the woodland ... green and dense.
I must learn more of my homeland
For it's paradise to me,
There's no haven quite as peaceful,
There's no place I'd rather be.
Indiana ... is a garden
Where the seeds of peace have grown,
Where each tree, and vine, and flower
Has a beauty ... all its own.
Lovely are the fields and meadows,
That reach out to hills that rise
Where the dreamy Wabash River
Wanders on ... through paradise.

The poem "Indiana" by Arthur Franklin Mapes of Kendallville, Indiana, was adopted as the state poem by the 1963 General Assembly (Indiana Code 1-2-5).

Historic New Harmony Inc.

NEW HARMONY

BACKGROUND INFORMATION

New Harmony is a small historic community with a charm that has always attracted and captivated the most discriminating visitors. For the past two years, the town has been attracting national attention as the site of an ambitious restoration and revitalization effort aimed at preserving a fascinating past and building a bright future.

New Harmony was founded 1814 -- when Indiana was still a territory and Chicago an outpost -- by the Harmony Society, a small band of separatists from the Lutheran Church in Germany. In ten years, this devout and brotherly group created a uniquely civilized and prosperous town in the wilderness, a community hailed as "that Wonder of the West". Graceful and sturdy structures from this period remain to tell the fascinating story of these skilled and dedicated first settlers.

Robert Owen, the Welsh - born Scottish industrialist and social reformer, purchased New Harmony in 1825 as the site for a utopian community. Owen brought to New Harmony scientists and educators who made the community an American intellectual center for years to come.

Today, the twelve-point Historic New Harmony Tour enables visitors to experience this lovely community at their own pace. The exhibition buildings and historic sites of the tour trace New Harmony's story from its early years as a uniquely cosmopolitan frontier town to its modern re-emergence as a cultural center. Between stops along the tour route, visitors are free to enjoy parks, sites of religious significance, shops in the turn-of-century commercial district, historic architecture and the natural beauty that surrounds it all.

- 2 -

TOUR PROMOTION INFORMATION BACKGROUND

Further information can be obtained at Visitor Reception (North and Arthur Sts.) Open daily from 9AM to 5PM (812-682-4474). Master Tour tickets are available here, \$4.00 for adults, \$2.00 for students. Docents describe appropriate history, architecture and restoration techniques at each site. Tours begin at the new Atheneum and Theatrum, presently under construction. The Atheneum was designed by the distinguished New York architect, Richard Meier. Other sites on the Master Tour include: David Lentz House - A Harmonist frame residence c. 1820, restored and furnished with Harmonist artifacts by the Colonial Dames of America; Early Squared Log Structures - buildings re-erected on this site to reestablish the character of the early Harmonist streetscape, 1814-19; Fauntleroy House - Harmonist frame residence c. 1820, enlarged and modified c. 1840. Maintained with Owen period furnishings by the State of Indiana; Workingmen's Institute - Built 1893. Houses library, art gallery and museum. Murphy Auditorium - Built 1913, restored and renovated 1975. Film shown 10AM and 2PM daily: "New Harmony: An Example and a Beacon". Kepler House - c. 1820, Harmonist frame residence - Geology Museum; 1830 Owen House - Restored example of English architectural style. Museum of decorative arts, 1830-1840; John Beal House - c. 1829, Unique Piza construction (form of wattle and daub). Later residence of Charles W. Slater, printer and publisher (Printing Museum). Thrall's Opera House and Theatre Complex - Three buildings pertaining to present and former theatre arts in New Harmony -1) Second Harmonist Cooper Shop - c. 1819 - Theatre Museum, Harmonist frame, 2) Theatre Barn - Built 1975 using tradi-

-3-

TOUR PROMOTION INFORMATION BACKGROUND

tional barn building techniques. Scene and costume shop for New Harmony Theatre Company. 3) Thrall's Opera House - Harmonist brick Dormitory #4 c. 1824, converted 1856 to theatre, restyled 1888 and restored in 1957. Maintained by State of Indiana. Solomon Wolf House - 1823 - Harmonist brick residence. Houses electronic scale model of New Harmony in 1824. The sights and sounds of a typical day of the period through modern audio-visual techniques. Dormitory #2 and Kitchen - 1822. Community building during Harmonist period, later Owen period Pestalozzian school. Museum maintained by State of Indiana. Kitchen - 1822, restored by the Robert Lee Blaffer Trust.

Other sites of interest:

Labyrinth - Similar to the original Harmonist pleasure garden maze. Open daily. Free.

Roofless Church - An interdenominational facility designed by Architect Philip Johnson. Houses bronze sculpture by Jacques Lipchitz. Open Daily 8AM - 10PM. Free.

Harmonist Burial Ground - Originally site of Harmonist apple orchard. Bounded by a recently restored brick wall, built in 1874 of bricks from the Harmonist church. Here, 230 members of the Harmony Society lie buried in unmarked graves. Also contains pre-historic Indian burial mounds. (c. 800 A.D.) Open daily. Free. Maintained by Department of Natural Resources, State of Indiana.

\$18-Million Effort Revives A Onetime Utopia in Indiana

By WILLIAM E. FARRELL
Special to The New York Times

NEW HARMONY, Ind.— Helen Elliott, a retired school teacher whose voice and movement belie that she was a child when the 20th century was born, sat in a corner of her large living room surrounded by books and periodicals and talked about utopia.

Every now and then, she stole a glance through a big wood-framed window, looked past her rambling, yellow scrollwork porch (the style could be called steamboat gothic) and stared at the children playing across the street in a schoolyard carpeted with autumn leaves.

"This is one serene place," Miss Elliott said. Flickering rays of late afternoon sunlight dappled her spectacles and she moved her head slightly to avoid them.

'A Living Memorial'

"I've seen the whole New Harmony story," she said. "From the time when we were sinking almost to oblivion. After the coming of automobiles the business life died on the vine. I've hoped for better days and I think they've come. We are concentrating now on a living memorial."

Like a large number of the 971 residents of this town nestled in undulant terrain along the Wabash River in southwestern Indiana, Miss Elliott is steeped in its rich and colorful history.

rate attempts to establish utopian communities.

And although both attempts at community socialization and perfection have long since vanished, the two experiments have left their traces in the buildings and artifacts of New Harmony and in the minds of many of the town's residents, some of them descendants of the utopians.

For the last year or so, with some objections from those fearful of change, the town has been shaken from its bucolic torpor with the onset of an extraordinary \$18-million effort to accent New Harmony's history and to celebrate its intellectual contributions to the nation.

Impressive Contributions

For a place whose population never exceeded 1,000 those contributions are impressive.

Among other things, the 160-year-old town boasts the following firsts: America's first kindergarten, first trade school, first free coed public school system, first women's club, first free library. In addition, it was the home of the nation's first geological survey, an important development in the opening up of the West, and one New Harmonyite, Robert Dale Owen, drafted the legislation creating the Smithsonian Institution.

The restoration is being jointly funded by the state of Indiana, private philanthropists and foundations.

credentials include consulting and planning for the Ford Foundation's United Nations development on the East Side of Manhattan.

For the last year or more, Mr. Schwarz, who lives in Connecticut, has spent a good deal of time here familiarizing himself with the town's history. Equally important, he has spent time familiarizing himself with the townspeople and some of their qualms about the rapid changes that have taken place.

Eye for the Historical

Underneath his veneer of calm, Mr. Schwarz is a tortured perfectionist with a connoisseur's eye. He can look at a ratty, worn building that appears to be a candidate for a wrecker's ball and spot history beneath the detritus.

It is such buildings as these, dating back to the early 19th century, that are being carefully restored, along with the Victorian dwellings.

"This isn't to be a museum," Mr. Schwarz said on a tour of the town the other day. "It's a living community." The over-all restoration plan calls for providing for as many jobs in the area as possible and to allow New Harmony to function as a nineteenth-seventies town that is compatible with its history.

The town was founded in 1814 as Harmonie by a group of German Lutheran separatists from Württemberg, Germany, led by a man called

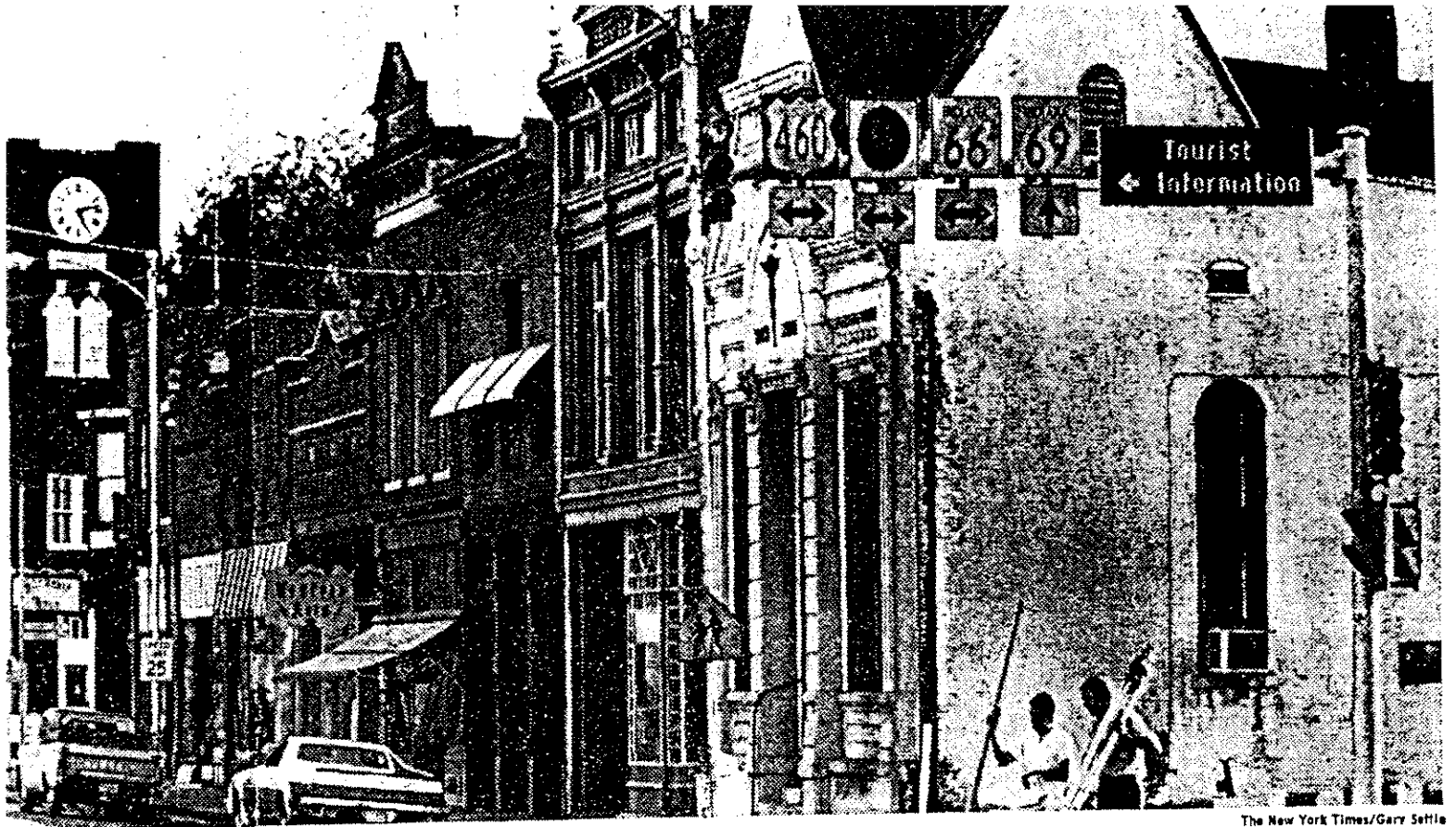


Surveyors crossing

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The New York Times/Gary Settle

Surveyors crossing Main Street in New Harmony, a 160-year-old town on the Wabash River in Indiana that is the site of a restoration project

A Onetime Utopia Is Revived in Indiana

Continued From Page 33

the second coming of Christ would occur within their lifetime.

They were celibate, lived under a harsh regimen of work and denial, and willingly subordinated themselves to the commands of Father Rapp—a controversial figure who was said by some to have castrated fatally his own son because the youth had violated the Harmonist sex taboo by impregnating his wife.

Ironically for a sect whose focus was other-worldly, the Harmonists prospered as distillers, brewers, builders and producers of food. They drove tough bargains with their non-Harmonist neighbors, revered the dollar and were insular and, sometimes, inhospitable.

They became known as Rappites, a term used as a perjorative by often jealous neighbors whose material gains could not match theirs.

It is now generally recognized that within the confines of their own special community the Harmonists were fine builders and musicians. Several early Harmonist brick houses that have been restored are the utmost in simplicity—devoid of front

Relocated to Pennsylvania

In 1825, the Harmonists relocated to a new community they created in Pennsylvania called Economy, where the sect finally died out by 1906. The reasons for the move are uncertain although some historians say it was because the followers of Father Rapp had grown too prosperous in their leader's eyes and were becoming susceptible to the easy life.

The community was sold to a different type of utopian visionary—Robert Owen, a Welsh industrialist, who named it New Harmony. Owen was an incurable optimist who believed that religion was an impediment to true happiness and that the key to an earthly Elysium was education.

The Owenite movement attracted a fontloose array of intellectuals who argued and wrote but unfortunately were bereft of the essential talents of husbandry possessed by the Harmonists.

While the monographs and sermons mounted, the hogs invaded the vegetables and the utopia flopped within two years. Owen returned to England and was a founder of the British Labor movement.

But the Owenites experimented freely with education and their ideas gained acceptance over the years in many areas of education. In addition, the elder Owen's progeny and his grandsons contributed much to the sciences in early America.

Backwater for Many Years

The town was a hotbed of scientific experiments for a long time after the utopias had been interred. Then for many years it slept, in some measure forgetting its past.

At some point in the nineteen-forties the seeds for today's full-scale restoration were sown by Mrs. Jane Owen, the wife of a descendant of Robert Owen. Mrs. Owen, a Texan, began buying old buildings and restoring them piecemeal.

Like others interviewed, she said that there was "an aura" about the town, something intangible but nevertheless real that made it special.

"I did this work because I couldn't help it," Mrs. Owen said in an interview. "It's an important part of American history and just couldn't go down the Wabash."

"There is an aura," she said. "My emotions and my mind never really came together until I visited New Harmony. Long live small towns."

There is a new inn, furnished in the Harmonist style, which is simple and warm and peaceful.

There are two good restaurants serving homemade food in tasteful surroundings. At present, Mrs. Owen is the private employer in New Harmony.

Mr. Schwarz and others involved in the restoring, landscaping and building envision as many as 200,000 tourists visiting the area by 1977, a prospect that disturbs some but not all of New Harmony's residents.

"We think it's wonderful," said Dorothy Donald, a retired college teacher. "We want people to come and visit us," said her sister, Mildred.

Looking back on the town's free-wheeling traditions and willingness to experiment, Miss Mildred Donald, who is in her late 70's, said: "We haven't had any adjustment to make to the times. We've always had people who lived the way they wanted to. Why Harry Slater [a long deceased printer and newspaper man] had long hair to his shoulders."

"Whatever you do, don't make derogatory remarks about that magic word—Utopia," Dorothy Donald said.

dreds of other villages abutting on farm land and meadows—was the scene in the 19th century of two dispa-

painstaking detail by a group called Historic New Harmony, Inc., under the direction of Ralph G. Schwarz, whose

The 18th-century, who never exceeded 920, were Chliasts or Millenialists, who believed
Continued on Page 37, Column 4



Ralph G. Schwarz of Historic New Harmony, Inc., is directing the restoration. He is shown talking with Helen Elliott, a retired schoolteacher, on the porch of her home. Miss Elliott is steeped in the history of New Harmony's utopian enterprises.

HISTORIC NEW HARMONY INC.
New Harmony, Indiana 47631

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