

TRAVELS IN NORTH AMERICA

Sabbatical Report
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Mt. San Antonio College
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INTRODUCTION

The objective of my one-semester sabbatical leave was to enhance my pedagogic skills for the Area Studies of North America Travel class.

During the spring semester 1988, I embarked upon a three month trip of 14,323 miles that covered 28 states, and 5 provinces. During the trip I took 1296 color slides and collected many brochures, maps, pamphlets, and geographical samples which will be used in classroom presentations and be made available to all interested colleagues.

The purpose of the trip was to visit regions of the United States and Canada that I had not previously traveled.

Because the trip was begun in late winter, the itinerary was planned to begin in the warmer southern states and to move into the more northern areas as the spring season progressed.

My wife and I rented a 23 foot motor home and began our travels by visiting Arizona, Texas, and Louisiana, before turning north up the Mississippi River Valley. When reaching central Missouri, we turned eastward through the heartland, New England, and into the Maritime Provinces of Canada. From the Maritime

Provinces, we traveled down the St. Lawrence River through the Provinces of Quebec and Ontario before re-entering the United States in upper Michigan where I continued my studies of the American heartland.

From the heartland we traveled westward through the north central U.S. and then southwestward to re-enter California through the Donner Pass.

The following journal is a record of what I experienced and learned during the sabbatical trip.

CALIFORNIA

In the spring the great desert east of Los Angeles is abloom with vibrant blossoms. The Ocatillo and the sage are bursts of scarlet and yellow scattered among the tamarisk trees and the palo verdes.

The desert is also blooming with wind powered electricity. In the pass, near Palm Desert where wind is a constant factor, giant pinwheels rotate in the steady breeze to produce electricity.

Farther east, Indio is the distribution point for the dates, grapefruit and melons grown in the fertile Coachella Valley. After Indio the land begins to rise into the Chuckwalla Mountains, cresting at Chiraico Summit.

ARIZONA

The Colorado River marks the boundary between the California Desert and the beginning of the Saguaro and Cholla cactuses of Arizona. The Saguaros stand as corrugated sentinals, truncated trees with apparent whimsical natures. Everywhere are the deceptive Chollas, their furry blond halos are, in reality, monster thorns.

Just east of the river is the wide spot in the road called Quartsite. In early February it is the

gathering spot of the rock hounds, gem collectors and sales people - three quarters of a million strong - who swell this tiny desert community in the annual Quartsite POW-WOW.

Before the pow-wow Quartsite's claim to fame had been the site of Hi Jolly's grave. Hi Jolly was an Arab (Haiji Ali) who came to the desert with the camel corps that was recruited by the US Army for desert patrol in 1855. The camels were a successful venture but the Civil War interrupted their usefulness and the corps was disbanded in 1864. Hi Jolly was Quartsite's most exotic citizen. His grave is a pyramid just north of the road.

Just west of Phoenix, Highway 85 turns south off the I-10 at Buckeye through the red fields being readied for the crops of Pima Cotton. Dust devils whirl the freshly plowed soil.

The flat begins to rise into the rugged hills, vistas of "Arizona Highways". The little town of Ajo has a white-washed Spanish colonial church as the centerpiece of its plaza but the dominant feature of the area is the Phelps Dodge smelter and the mountains of gray, green and red slag.

Almost at the Mexican border is the Organ Pipe National Park. The visitor's center has a wildlife exhibit and a nature path. Birds are the most obvious

of the desert creatures. Quail families are permanent residents of the park. Screech owls and tiny elf owls share the holes the Sonoran desert woodpecker makes in the Saguaro for nests. The Saguaro forms a protective scab around the area and inside the hole so after the plant dies (they may live as long as 200 years and grow 50 feet tall) the inner casing formed by the plant for protection resists decay longer than the rest of the plant and this boot-shaped casing is often found where the saguaro had been.

The Saguaros begin to thin out as the road runs east into the Papago Indian reservation. Most of the villages are single-story, concrete and stucco homes; drab and impoverished. An occasional ramuda, a woven branch corral for the animals, is still in use and there is a large residential school complete with football field and grandstand visible from the highway.

The Kitt Peak Astronomical Observatory overlooks the reservation and Highway 86 from the southern towering mountains, a perfect spot to observe the desert thick stars.

Two not-to-be-missed spots while visiting the Tucson area are the Arizona Sonoran Museum in the Saguaro National Monument and the dramatic Mission San Xavier del Bac.

The mission stands stark and white against the blue Arizonan sky. It ministers to the needs of the Papagos whose simple cemetery, with its personally decorated memorials draped in tinsel and adorned with plastic flowers, is in sharp contrast to the imposing colonial structure of the mission.

Not all the memorials are in the cemeteries. Dotting the sides of the highway through the reservation are white wooden crosses and occasional small shrines.

The Arizona Sonoran Museum is about 16 miles west of Tucson in the hills. A nature walk points out the flora of the desert. There are natural-looking environments that house the animals of the region but the highpoint (or rather, lowpoint) is the underground walk that has glass in the walls of the burrows and dens of the creatures. A button turns on a light for a quick glimpse of life in the den. Tiny vampire bats, napping upside-down, blink briefly in the intruding light.

Continuing east on I-10, Texas canyon is an abrupt change in the landscape near the town of Wilcox. Huge boulders of a granitic outcropping line the freeway. Eroded by wind and water they appear to have been perched there in precarious confusion by some playful giant-child.

NEW MEXICO

This route was once the Butterfield Stage Route to California. Its semi-circular path through Texas from Missouri was called the Ox Bow route and chosen because it would be usable all year round.

In September of 1858 John Butterfield began his cross-country stages over the 2800 miles to San Francisco. Five miles per hour, day and night, with fresh horses every ten miles, the trip was completed in less than 25 days. The approaching Civil War added to the perils of the southern route and by 1861 it was abandoned in favor of a more direct connection through Salt Lake City.

Deming, New Mexico was once a stop along the Stage Route. There isn't much more today.

Las Cruces is a larger New Mexican town in the valley of the Rio Grande and on its bluffs to the east is the New Mexico State University.

TEXAS

The interstate continues down the Rio Grande Valley to El Paso, Texas.

North of the freeway are the suburbs of a busy and growing city and off to the south across the river is the sister city of Juarez with its block house

architecture, brilliant house colors and unpaved streets. The contrast between the two sides is sharp.

El Paso del Norte was the original Mexican town, now Juarez. The gold rush in California, which established the need for the two Texas trails, the Upper Road and the Lower Road which met in El Paso (the Santa Fe-Chihuahua trail also crossed here) created a need for an American settlement across the river from El Paso del Norte. This settlement was first called Magoffinsville, then Franklin and finally borrowed its neighbor's name. Fort Bliss protects the pass today as it did a hundred years ago when the road to the north was far more dangerous.

Comanches and Mescalero Apaches from New Mexico were a constant threat to the travelers along these routes so the American government sought to build a fort between San Antonio and Fort Bliss. The site chosen was in a box canyon where the river was named the Limpia, "clean" - a good recommendation for this hot and dusty land 150 miles southeast of Bliss. In 1854 the new fort was named for Jefferson Davis, then Secretary of War and soon to be President of the Confederacy.

The major objective for the troops stationed at Fort Davis was to escort the wagon trains on their way to California along the San Antonio- El Paso road.

The eighth infantry kept at this task until the beginning of the Civil War when the troops were recalled and the Confederates took over the posts.

The US Army re-garrisoned the fort two years after the end of the war. It was one of the first forts to have black troops. Henry Flipper, who was the first black graduate of the Academy at West Point was stationed here. These black troops were active in the Apache Wars with Chief Victorio and later Geronimo in Arizona.

Fort Davis today is a national historic site. Among the ruined foundations there are restored buildings with period furniture, a museum with artifacts and historical vignettes. There is also a slide and audio presentation to help explain the fort's varied history.

The McDonald Observatory, run by the University of Texas, is located in the Davis Mountains just north of the Fort. The visitor's center offers audio-visual programs on stars and planets, and has guided tours of the facility. While the observatory's 107 inch telescope is for astronomers only, the guests at the evening programs have an opportunity to view the stars through eight and fourteen inch scopes. A notable exhibit at the visitor's center is the Davis Mountain

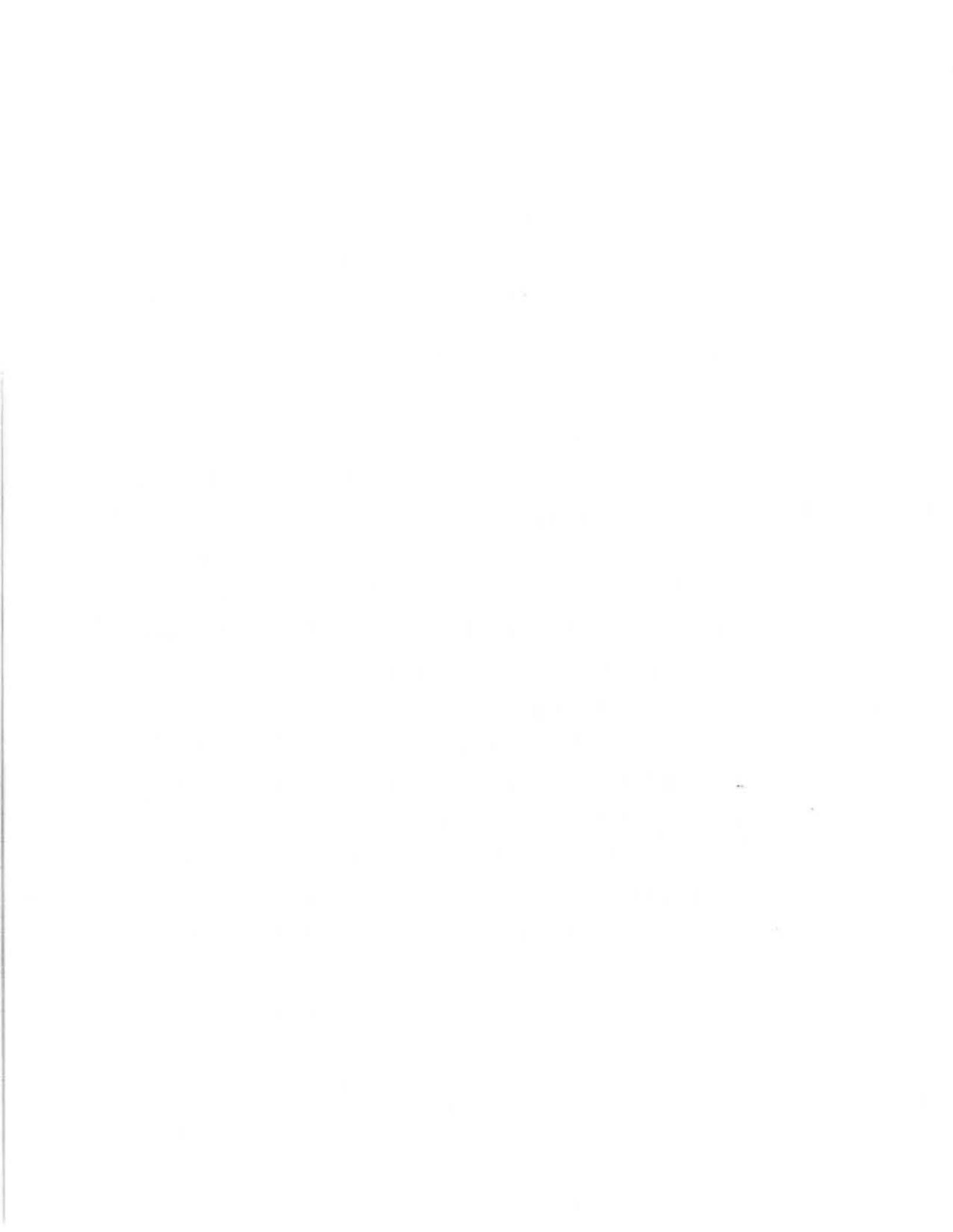
Meteorite. Discovered in 1903 it is about the size of a steamer trunk.

Just south of Fort Davis is the Chihuahuan Desert Research Center, a non-profit organization dedicated to the study of the local desert. The Center offers walks through a thirty acre arboretum and nature trails designed to teach field trip groups about the flora and fauna of this, the second largest desert in the United States.

South of Fort Davis on the Rio Grande is a small settlement of Lajitas. Lajitas claims the best rock bottom ford of the river between El Paso and Del Rio to the east. "Black Jack" Pershing stopped here while he was chasing Pancho Villa.

Today a Mexican national in a small row boat ferries passengers from and to Mexico. Mexicans come over to shop at the Trading Post which has been in business since the turn of the century. It is also the home of Clay Henry who will drink any brand of beer bought for him. That isn't particularly amazing except that Clay Henry is a goat; a big, black billy with a twinkle in his eye and a taste for beer. (Well, there isn't much else happening around Lajitas.)

Seventy-five species of animals, sixty-five types of reptiles and amphibians and at least 400 different birds have been identified as living or migrating



through the Big Bend Area of South Texas. Turkey buzzards soar above the craggy rocks, road runners scamper across the highways and desert mule deer graze unconcerned about the watching hikers.

The Rio Grande borders the southern end of the park of 118 miles while it carves its way through three massive canyons revealing the ancient geology of the area.

Chisos Apaches ranged through these rocky outcroppings. The Mescaleros were the last Indians to live in the region.

At the corner of the Big Bend is Boquillas Canyon, the last major canyon downstream before the river becomes identified as "Wild and Scenic" for 127 miles. This appellation is to guarantee its protection from future development.

At the canyon there is a half mile climb up to the observation point and another half mile or so to get down to the water and the view of the canyon. The hike is over rocks that have washed down from every mountain range that the river has passed through; geology on the move. There are small forests of bamboo in the desert sand on the edge of the river. Indian metates, bowls carved into the rock for grinding meal, are near the cave holes.

At the northeastern edge of the park is a fossil exhibit of the pre-history of the area. From the top of the walk twenty million years of erosion are visible in what would look to the uninitiated as simple desert landscape. This vast desert was an ocean one hundred million years ago and a mere sixty-five million years ago the Big Bend Pterodactyl stretched its wings to their fifty foot span and flew over the local dinosaurs.

Thousands of years after the dinosaurs but when the land was still green, ancient indians lived around Seminole Canyon on the Pecos River. They left their prints and their important thoughts painted on the walls of the canyon where the Pecos meets the Rio Grande.

Later groups living in harsher times painted their icons over the ancient drawings. Some have the look of the Hopi Graphic art. (These indians sprayed around their hands to leave a negative impression on the wall just as the primitive people did in caves in Spain.) Later the Spanish, the soldiers, the cowboys, the '49ers, the pioneers, and the Southern Pacific railway builders, sojourners from China, used the canyon and the surrounding plateaus as base camp. They knew that except for a handful of wells that there is no water "West of the Pecos". Those hearty pioneers who crossed

this barren land on foot following wagons and pipe dreams command a respect from today's traveler.

Today the Arimistad reservoir is an inland sea bulging the Rio Grande east of Seminole Canyon, 67,000 acres of water storage shared by the United States and Mexico.

As the road heads east gradually, almost imperceptibly at first, the land begins to green. The deathly gray of the badlands takes on a faint hue of sage brush and grass; the trees get closer together; there is a brightening in the architecture; instead of the occasional stray there are groups of cows, sheep or goats; and then, startingly, a rainbird spraying a vast expanse of lawn. It is civilization and a steady water supply. It is San Antonio.

The importance of water in the desert cannot be overestimated. The Spanish established five missions along the banks of the San Antonio River all within several miles of each other at the site of a Coahuiltecan indian village in central Tejas (from a Spanish word meaning friendly). This was Spain's stronghold in Texas and a prize objective of any group wishing to control the area.

San Jose, the queen of the missions, still is a functioning Catholic church, well maintained and restored as necessary, but its sister mission San

Antonio de Valero (1718) had fallen into ruins and was used as a fortress by Travis, Bowie, Crockett and the 187 Texans who defended it against General Santa Ana's 5000 soldiers from February 23 to March 6, 1836. Known as the Alamo it is now a shrine of the Texas Republic and an important tourist and educational spot.

The Alamo and its resounding cry is such a big part of American History that it is a surprise to find the actual building is so small. Somehow one wants it to be as big as the cry itself because so many men died gallant but futile deaths. Santa Ana's carelessness probably had more to do with the formation of the Republic of Texas than did the dying at the Alamo, (but it's not the kind of thing one mentions in Texas).

Americans arrived with Stephan Austin in 1821 and continue to arrive today as tourists or conventioneers. In the early part of this century there was a plan to cover over the river where it runs through town and let it become a sewer. Fortunately for San Antonio and her future visitors some citizen groups challenged city hall and the sewer became the Paseo del Rio. The river's banks were concreted in to avoid further flooding and planted with tropical trees and flowering bushes. Restaurants and sidewalk cafes line the water's edge. Bridges arch over the colorful barges that carry passengers on a 1.75 mile river ride loop.

The Paseo is a prime tourist attraction which has helped to spruce up the rest of the aging area.

La Villita was the original village, its historical buildings have been restored and filled with novelty shops. The Hilton and the Hyatt anchor the ends of the Paseo and the area is filled with well dressed Americans with plastic badges that announce their convention affiliation.

Restoration is a popular hobby and money consumer in San Antonio. The King William Street district of Victorian mansions, which were built by German settlers and had fallen into ruin, are being carefully and lovingly restored by hardworking San Antonians. Their efforts and their investments can be appreciated by a drive on the tree shaded streets.

Away from the downtown area San Antonio fragments into suburban residential areas with business districts and commercial centers tied to the rest of the city by freeways.

Northwest of San Antonio Interstate 10 reaches into the hill country on the Edwards Plateau. Rolling hills of oak-grass association leads to the small community of Fredricksburg, population 7000. Fredricksburg was first settled by German farmers in 1846. The leaders made a peace treaty with the Comanches and began to develop. Today the signs on the stores say

"Willkommen" and look like something out of Germany's Black Forest. One local biergarten offers a lunch of German bratwurst sausage, pinto beans and corn bread; an interesting juxtaposition of cultures.

There are several tiny stone houses still in use in Fredricksburg. They were built shortly after the early settlement began for use when the farmers and their families would come in off the farm for Saturday shopping and Sunday church. Perhaps they could be called "weekend cottages" although it sounds somewhat frivolous for sturdy German farmers.

A banner over Main Street announced the Easter Fires Celebration and Pageant coming up. A Fredricksburg tradition, it reenacts the story told by a pioneer mother to comfort the fears of her children who were watching the bonfires surrounding the little community. In fact, they were the fires of the Comanches who were waiting for the results of the treaty parley. The mother told her frightened "kinder" that the Easter rabbit was building them to boil water for his traditional eggs. Fortunately the indians agreed to peace with the settlers and the fires rekindled today represent the traditional recollections of the beginnings of Fredricksburg.

East of Fredricksburg is the Lyndon Baines Johnson ranch along the Pedernales River. The hills are gently

rolling, spring peaches coming into bloom and huge pecan trees (the state tree of Texas) shelter grazing cattle.

The ranch offers bus tours up to the farm house area that can't be seen from the highway.

The visitors' center has exhibits of the history of the area and the Johnsons in particular. (LBJ's grandfather was one of the first Texas cattle drovers.)

The Red Bud tree dots the landscape with its brilliant deep plum colored blossoms as the road flows east through scenic country past Johnson City and Dripping Springs (pop. 600) on its way to Austin, the state capital.

Austin, located on another Colorado river, is modern, small, clean, cool, with an ambiance of Boulder, Colorado or Seattle. It is a college town for the University of Texas Longhorns. There are many condos with contemporary architecture built along greenbelts. The stately capitol and the public buildings are constructed of the local red stone.

Near Lockhart which is just southeast of Austin and in the middle of a farming community, oil wells begin to appear. That may help to explain the prosperous look of the neighborhood.

Farther south, east of San Antonio is the small town of Gonzales. It is known as the Lexington of

Texas because here it was that the first shot of the Texas Revolution was fired. In a story bursting with patriotism and a considerable amount of bravado, the Gonzales citizens defied the Army of Mexico.

The Mexicans had loaned a small brass cannon to the local citizens to defend themselves against the Tawakonis Indians, but with the revolution approaching the Mexicans wanted it back. Santa Anna sent a detachment to retrieve the cannon. A Gonzales leader, Joseph Clements, faced the soldiers stating, "I cannot, nor do I desire to deliver up the cannon..."

The next time Santa Anna sent a hundred and fifty armed soldiers but the Gonzales contingent was ready. The cannon was loaded with pieces of chain and scraps of metal. Two of the women had sewn a banner emblazoned with a black star, the outline of the cannon and the challenge "Come and Take it". At the shot of the cannon the Mexicans broke and ran leaving one dead and the first "battle" won by the Texans, October 2, 1835.

Stephen Austin arrived to assume the leadership of the gathering volunteers who marched to San Antonio and drove the Mexicans out; but not for long. Santa Anna's returning army besieged the small contingent left to guard the Alamo. Answering Travis' frantic call for assistance, thirty-two men marched to the mission

fortress, broke through the Mexican lines to die with the defenders of the Alamo.

The Chamber of Commerce and the Historical Society of Gonzales are housed in the 1885 town jail. Three stories of iron cages complete with a gallows are grim reminders of frontier justice and even more frightening was the fact that this medieval-looking fortress was in use until 1975.

In front of the jail is the plaza with a monument and statue to Independence. Turn of the century mansions claim imposing corner lots. The early settlers grew rich on the agriculture.

Today Gonzales boasts of being first in the state in egg production, chickens, turkeys, and beef calves. Pecans and grain are also important to the agribusiness.

South of Gonzales is the even smaller community of Goliad (pop. 2000) Here the Texas troops lost a valiant battle with the Mexicans after the fall of the Alamo. They lay down their arms and were imprisoned in the chapel of the Presidio La Bahia. (Built by the Spanish in 1749 to protect the Franciscan mission Nuestra Senora del Espiritu Santo de Zuniga across the river and up the hill.)

In the Presidio museum is a copy of a first person account of the Goliad Massacre. A young German told

how, after surrendering and being locked in the chapel for a week, the prisoners were taken from the building, divided into three groups and marched off in different directions.

"At the time," he wrote, "None of us took notice that we weren't carrying any personal effects."

They thought that perhaps they were to march to the gulf for boats for New Orleans. When they halted and were ordered to kneel they thought it just intimidation but when they heard distant fire from the direction the others had marched, they suddenly understood their fate.

While some ran and escaped through the San Antonio River in all the confusion and others feigned death, when the smoke cleared 342 men were dead. It was Palm Sunday, March 27, 1836. Coincidentally, Palm Sunday, 1988 was also March 27. Special ceremonies are held annually for these victims of General Santa Anna.

Another general of Mexico, one with a more positive image, was born at the Presidio in 1829; General Ignacio Zaragoza, who led the Mexicans in defense of the village of Puebla against the overwhelming French army on Cinco de Mayo, the fifth of May, 1862. Apparently these French troops, besides planning the conquest of Mexico, were anticipating marching into Texas to establish an aid and supply line to help the

Confederate Army in the U.S. Civil War. So Zaragoza's intervention was a benefit for both countries, the United States and Mexico. An imposing statue of Zaragoza commemorates his birthplace in front of the Presidio.

Padre Island, south of Corpus Christi, Texas is a one hundred mile plus sand dune barrier island that protects the mainland from the pounding of storms, waves and tides. It is also a wildlife sanctuary. All visitors to the area are requested to look out for the endangered Kemp's Ridley sea turtle and report any sightings. The island is a protected nesting area for these endangered species.

There are 350 different types of birds that are native to the island and it is also the wintering area for many migrant birds.

The most dramatic resident of the park is the Great Blue Heron who stands 3-4 feet tall when he isn't extending his snake-like neck to look over the sea grasses at the encroaching humans. Perched on his skinny legs, he stands along the sand or in the dunes. The locals say that the bird likes to follow the surf fishermen for hand outs. (It beats hunting!) It is possible to walk within ten feet of one of these birds before it becomes annoyed with the intrusion. Then the blacked tipped wings stroke the sea breezes, its rust

brown drumsticks are tucked under the gray body, the S shaped neck compacted for aerodynamics and with the head feathers trailing like a wind sock, the Great Blue Heron effortlessly floats off over the sea leaving the amazed humans behind, earthbound.

North of Padre Island is the Aransas National Wildlife Refuge. Established in 1937 to protect the wildlife of the Texas coast, it is the winter home of the endangered Whooping Crane. In 1941 there were only fifteen birds left in the world but through careful protection their numbers have grown to 132 at the last count. From November to March they can be observed in the preserve, especially from the tower near the visitors' center. There are telescopes attached to the tower railing that the ranger focuses on the cranes. (There are egrets and pelicans that the uneducated mistake for the cranes but once an expert points out the black head on these graceful five foot tall birds, then it is hard to miss them.)

There are all day boat trips out of nearby Rockport that will take visitors in for a closer view of the cranes.

While one is engrossed in peering through binoculars it is wise to remember to check around the ankles. This is also a popular area for huge rattlesnakes and alligators.

The 350 different bird species that are attracted to the Aransas come because the strong winds from the gulf formed the tidal marshes in among the salt tolerant grasses. Mild winters and rich seas of crabs, worms, assorted insects and water bugs make this an excellent place to stop on the journey north.

The Wildlife Interpretive Center is open daily 8-4:30 to answer questions. The displays of the animals give the visitor excellent examples of what to look for in the refuge. Especially dramatic are the alligator and the rattlesnake.

In the 54,000 acres the refuge occupies are stands of twisted Live oaks and Blackjack oaks bent by the prevailing winds.

The Johnson Space Center in Houston is set in a garden of wide lawns, graceful trees and vibrant azaleas. It is where the astronauts are selected and trained and where the space missions are planned.

The tour of the facility is free (tax dollars notwithstanding) It begins by going directly to the visitors' center in Building Two to register for and get tickets to visit the Mission Control Center. (tours usually run every hour) In the visitors' observation area of the Mission control the host provides a slide show to explain the function of the control room and the various aspects of the space

program. Most visitors leave commenting that it was so much smaller than it appears on television during a launch.

While waiting for the Mission Control tour, visitors walk through a space lab and shuttle training modules, or explore the museum that begins with early rockets and encompasses the ongoing program in time-line and exhibits.

The astronauts brought back 800 pounds of moon rocks. Many are still being studied by the astro-geologists but there is a display complete enough to satisfy the most curious of visitors.

The space center is located on the southeast corner of Houston.

On the northeast corner is the San Jacinto Battlefield Park where the last battle of the fight for Texan independence was fought.

Santa Anna and his army, resting on a warm Texas afternoon (even in March the days are hot and humid) were patching, cleaning and doing what soldiers need to do while anticipating the next battle when they were surprised by the army of Texas led by Sam Houston. The Mexicans were routed, General Santa Anna captured, and the Independence of Texas secured.

There was a ten year period before Texas joined the Union.

Now the battlefield is remembered by a huge tower 570 feet high, with an elevator up to an interior observation room. The battleship TEXAS is anchored nearby at the end of a reflecting basin.

Port Arthur on the eastern edge of Texas has as its motto, "We Oil the World". The air smells of petrochemicals and oil. Nearly a million barrels of crude oil are refined here daily. Refineries line the bayous where tankers fill their holds. A Soviet tanker, low in the water, the red and gold hammer and sickle gleaming from its funnel, its name emblazoned in cyrillic letters, slid down the channel next to Highway 87.

There are several kitchen middens in the marshlands south of Port Arthur attributed to the prehistoric indians. The later indians were the Atakapa (a Choctaw word meaning man eater).

Nowadays the biggest man eaters seem to be the local mosquitos although visitors are reminded to be watchful of the alligators and not to tease them. The refuge has one of the most dense populations of alligators in Texas. Campers are advised to carry flashlights to watch for cottonmouth water moccasins who like to rest on the warm pavement in the evenings.

It is said that this area was a popular place for pirates in the 17th and 18th centuries. Jean Lafitte



was the most famous of the pirates but there were many others. Later, during the Civil War, the Union Navy tried to invade Texas with twenty ships and 5000 men. A mere forty-two Confederates soldiers with six cannon and the high ground destroyed three gunboats, capturing two; killed sixty-five Union troops and took 315 prisoners without suffering a casualty. The rest of the Union boats retreated to New Orleans.

The Texans have several historical monuments to remember this successful conflict.

LOUISIANA

The Cajuns of southern Louisiana have made great contributions to the special blend that is that state.

Arriving in the 1750's, these French settlers driven from Nova Scotia (then called Acadia - hence their derived name) settled along the banks of the Bayou Teche (which means snake in the local indian dialect). Their boats came up the bayou and they disembarked at St. Martinsville.

One of the many great oak trees in the region is just at the boat dock and it is said that this was the place where Henry Wadworth Longfellow's poetic heroine Evangeline met up with her lover Gabriel only to find that he had married another.

The poem was based on the story of Emmeline Labiche and Louis Arceneaux. Emmeline, mad with grief, died of a broken heart and is said to be buried in the side yard of the St. Martin de Tours Church, the mother church of the Cajuns. There is a much photographed statue of Evangeline in the graveyard.

Of more important historic interest is the Acadian House in the Longfellow-Evangeline State Commemorative Area. It is a 157 acre park of indigenous oaks hundreds of years old, and of flourishing azaleas in wild burst of purple and pink.

The two story home built in the early 1800's is structured of slave-made bricks and pegged timbers, walled with mud and moss (called bousillage) plastered between cypress beams. It is furnished with period pieces and cared for by guides who beautifully express their Cajun history.

Some of the Cajuns still speak their special French but many have lost the language as it was submerged in English as they became a minority in their own land. French does remain in the names of people and places in the idioms and on menus.

A common and popular way to experience another culture is through its food and Cajun cooking has its special flavor; hot and spicy. Cajun restaurants are everywhere in this neighborhood. One of the finest and

most widely known is Mulates. It is a casual roadhouse with wooden floors, tree trunk beams and a ceiling plastered with business cards. The food is at once wholesome, ethnic and gourmet. File gumbo, jambalaya, etouffee and crawfish are some of the specialities. There is live and lively music daily and dancing for those who know the steps and for those who wish to learn. It is a continuing festival of Cajun treats.

The local markets hold more treats. Boudin is a sausage descended from a Christmas dish in France by way of Acadia. It is available in supermarket meat sections or in speciality stores. Using everything of the pig but the squeal, mixed with rice and spice, it is ready to heat for a hearty lunch or supper.

Boudin Blanc is milder than the Boudin Rouge (which is thickened with blood) but, milder in Cajun terms is a relative thing. Cajun mild means the eyes water, the nose sniffs, the tongue tingles, a cheery glow spreads throughout the chest. It seemed unnecessary to challenge the items labeled HOT or X*HOT.

Much of the hot comes from nearby Avery Island south of New Iberia. Here, since the mid 1800's, four generations of McIlhenny family have been brewing TABASCO, a potent capsicum pepper sauce. Brief tours are available of the bottling plant that supplies the world with the hot sauce.

In a cooler vein are the stately plantation homes that are open for visitors to experience the ante-bellum grandeur of the old south. New Iberia and Franklin offer many of these early 19th century homes on tours. To walk under the majestic oaks that line the drives is to be transported to another time when Spanish, French and Acadian blended along the bayous.

These settlers lined Bayou La Fourche on the eastern edge of Cajun country with their plantations and towns. They used the water as their line of communication and still call the Bayou "The Longest Street in the World". There are still many areas where boats are better than cars for transportation.

Morgan City, on the Atchafalaya basin, is where the first offshore oil rig was drilled.

Sea food and oil are so important to Morgan City that every Labor Day the citizens celebrate the Shrimp and Petroleum Festival with the blessing of the fleet and the crowning of royalty.

Crawfish, tender little crustaceans with a sweet and mild texture and flavor, are raised in what appears to be rice paddies filled with water and conical wire baskets. A successful crawfish grower can make 800 dollars a day in a good season. There are 92,000 acres of Louisiana that are used for raising crawfish.

Catfish are also raised in controlled ponds. The fish is mild and sweet and served everywhere; deep-fat fried and crunchy, broiled and sweet or peppered hot.

New Orleans is the queen city of the Mississippi River delta, but there was little to recommend this place when the brothers d'Iberville and de Bienville founded the settlement of Nouvelle Orleans in 1718: Insects, floods and disease and no one but French prisoners for laborers. Then, for all their efforts, by 1762 the area was given to Spain.

With the Spanish came the sugar industry and the understanding that in a hot climate one needs a cool patio. The interior courtyards of the French Quarter that are today's expensive dining spots are descendants of the Spanish.

Control of the area returned to the French just in time to be sold to the United States.

The Louisiana Purchase of 1803 not only doubled the size of the United States but it gave the U.S. that special Creole city, New Orleans. It was like nothing the Americans had seen before.

Creole (Criollo in Spanish) meant the people born in America. In New Orleans it meant the French. Creole culture is one based on the old country but adapted to the new.

Creole society did not accept the American arrivals so the new settlers began building their homes on the "other" side of the canal. This section of wide lots, huge homes and thickly grown yards is now known as the Garden District and is a posh place to live. The St. Charles trolley takes visitors throughout the district and offers the bonus of experiencing one of the world's historic trolley lines.

The Mardi Gras parade, synonymous with New Orleans, began in 1857. It was one of the first activities revived after the Civil War and has been in boisterous continuation ever since.

More seriously, New Orleans is the largest city in the state, has better than a half dozen universities, and is one of the busiest ports in the United States.

Northwest of New Orleans, along the Great River Road that zigzags back and forth across the Mississippi, are many grand plantation homes available for viewing. (Some cater to overnight guests.)

Inland, west of the river, is the oldest settlement still inhabited in the Louisiana Purchase; Natchitoches (pronounced NAK a tush).

The town's name was from the local Indians who lived in the region when Louis Juchereau de St. Denis arrived in 1714. This was where the Red River reached

the highest point of navigation due to a huge log blockage that stopped the boats.

The river, as rivers will do, changed course and left the town, which had been quite prosperous, on an ox-bow lake. This happens when a river cuts off one of its meandering curves by heading straight through to the next curve. The locals dammed the lake to produce the 32 mile Cane River Lake and the town retreated to a quiet backwater center for agriculture.

Three years after the French claimed the area the Spanish missionaries and soldiers founded the mission Los Adaes and the Presidio Nuestra Senora del Pilar de Los Adaes. The capital of Spanish Texas was in Natchitoches until it was moved to San Antonio de Bexar. The town was an important jumping-off place for Texas settlers and for the men who led the Texas Revolution.

In 1844 the U.S. Army set up camp for the war with Mexico.

In April 1864 there was a Civil War battle and the Federal troops captured Nachitoches. Fortunately they did not harm the city although they did burn a neighboring community of Grand Ecore four miles north.

There are many homes and buildings in town dating from before the war, some even date back to the late 1700's.

South of Natchitoches are another half-dozen homes that can be visited. Most of them are constructed with slave-made brick, cypress and the bousillage of mud and Spanish moss.

An added attraction in the spring is the display of azaleas, wisteria and flowering dogwood trees. The homes are opened for special tours in October and the town has a major festival at Christmas when a fireworks display is offered. The French never accepted July 4th as a day of major importance but the Christmas fireworks are said to be spectacular.

North central Louisiana has pulp and paper mills and plywood factories so the highway thickens with logging trucks through the Kisatchie National Forest of pines, liquid ambers and dogwoods.

Dairy cattle, horse breeding farms and orchards add variety to the scenery.

ARKANSAS

In south central Arkansas the Louisiana pines give way to deciduous forests of lighter green.

To the west of the small town of Prescott on highway 301 is the only diamond mine in the Americas.

In 1906 an owner of a cow pasture near Murfreesboro found a couple of shiny pebbles after a rainstorm.

Sent to Little Rock, they were declared to be fine quality diamonds as good as anything in South Africa.

It was the beginning of a rush and of a wild story that sounds like a Hollywood script; collusion, dishonesty, arson, bribery, con artists selling crystals as diamonds, 60,000 real diamonds - the biggest yet found weighed in at 40 carats uncut, and an old widow who refused to let the land be worked because it wasn't in the stars.

In 1972 the state of Arkansas bought the property for \$750,000, turned it into a state park and opened it up to the public. Every month they plow up the forty acre field with a bulldozer giving it a look of World War I trenches in France.

For a three dollar entrance fee anyone can spend the day with hand tools (power tools not permitted) digging and hoping. Shovels and sieves can be rented at the park headquarters.

The visitors' center also has a display on the geology of the area that caused such an unusual occurrence. Besides diamonds there are agates, garnets, amethysts, quartz, calcite, peridots, opals and jasper.

Hunters take their gleanings from the field to the ranger who divides the stones up as to their classifications. If diamonds are found, and there are a few found almost everyday, the center will assess and

certify them and put them in velvet cushioned boxes. (The odds are similar to playing the lottery but it's a lot more educational.)

North of the diamond crater are the Ouachita Mountains, first sighted by Hernando De Soto in 1541.

Rainwater seeps into the mountains, taking 4000 years to reach deep into the earth's crust where it is heated and returned to the surface in hot springs long touted for their medicinal benefits. It is said that the indians called this region neutral ground so that everyone could enjoy the waters.

In 1832 this became the first Federal Reserve. There are forty-seven springs that burble out almost a million gallons a day. In 1921 Hot Springs became a National Park.

Farther north the Petit Jean Mountain rises out of the Arkansas River Valley, a strange mesa outcropping between the Ouachitas and the Ozarks.

It is named for the story of a young Parisian girl who disguised herself as a cabin boy to follow the man she loved on his explorations of French Louisiana. It is said that she died of a strange disease and was buried on the mountain.

At the east end of the mesa, overlooking the river there is a small mound of stones surrounded by a Victorian "widow's walk" iron fence. The mound appears

to be a grave and it might as well be that of Little John the cabin "boy".

The mesa is scored on all sides with rugged palisades and here the Cedar Falls tumbles from Lake Roosevelt.

This tall pine forest was the first of Arkansas' state parks. It was set up by the CCC in the 1930's and has the rough-hewn Forest Service look of that era.

Off the mountain, heading east, the land flattens to prairie. In the center of the state is the capital city of Little Rock. With a population of 150,000 it is a compact town facing North Little Rock across the Arkansas river. The Quapaw Quarter is the preserved area of Victorian Homes and museums east of the capitol. Arkansas comes from a Quapaw word that means "downstream people".

Pre-dating the Quapaws and other modern indians were the mound builders of the Mississippi River Valley. Little is known about them other than the fact that they abandoned their mound construction long before any European observers arrived.

Toltec Mounds Archeological Site is fifteen miles southeast of Little Rock. It was occupied from about 700 to 950 A.D. and is one of the larger mound sites in the lower Mississippi River Valley. It was originally named for the Toltecs of Mexico because it was thought

that the North American Indians never had a culture as sophisticated as these mounds indicate. Archeological research now gives the credit to the local pre-historic people. This group of indians is known as the Plum Bayou Group and the rangers would like the name of the mound site changed to reflect the change in thinking.

It is apparent that the Plum Bayou indians were hunters, gathers and growers of grain, squash and corn.

Astronomical observations can be taken from the mounds. The soltices and equanoxes line up neatly still.

The mounds seem to have been a center of indian life for outlying groups who may have made pilgrimages to the site. There are funeral mounds as well as kitchen middens.

The visitors' center has many artifacts and displays. There is an audio-visual program also.

East of Little Rock, the prairie farmers grow rice and soybeans and minnows in huge flooded paddies. There are also catfish farms where these favorites are grown to be served with hushpuppies, coleslaw and French fries.

In early April the rice farmers begin to plow their fields into contour paddies. Using laser beams to guide their furrows they scientifically, with input

from the latest in modern computers, lay out the field to maximize yield.

Still, every penny is watched and, unlike some of the rice farmers in Louisiana who plant their crops from airplanes, the Arkansas farmers plant from tractors and hire cropdusters to fertilize the sprouts.

Swooping just feet above the ground, periously close to wires and trees, yellow bi-planes dart about like dragonflies.

At around four dollars an acre, a good duster can gross \$100,000 for five months of dangerous work.

Taxes and prices in Arkansas are low but so is the income for most of the citizens. Some people work for less than minimum wage and there is up to 30% unemployment in some counties. The rise and fall of the petroleum industry affects all of the state.

Peach trees in neat rows line the hillside of Crowley's Ridge, an unusual land formation in the far east of the state near the Mississippi River.

The ridge, named after an early settler, is a product of erosion. First deposits were from the ancient Gulf of Mexico when Arkansas was a seashore. Then the melting runoff from the northern ice sheets erroded the valleys on both sides of the ridge and finally, the western winds piled up Loess, windblown

soil. This fertile, sandy soil is also subject to erosion.

On this ridge are trees that grow no where else in the surrounding land. There are even unique species of vertebrates.

The Indians used the area because of the springs and the good clay for pottery and the settlers found in it fertile farm land high above the spring floods of the river valleys.

Part of the Louisiana Purchase of 1803, Arkansas became a territory in 1819 and a state in 1836. The surveyors' mark for the Louisiana Purchase is in east Arkansas and can be visited as a national monument.

TENNESSEE

What is probably the world's longest running practical joke is played out daily in Memphis, Tennessee.

In the 1920's some employees of the Peabody Hotel in downtown Memphis thought that it would be funny to put some live but clipped-wing ducks into the fountain in the lobby of this elegant hotel. The ducks are still there, at least their descendants are.

Every morning at 11:00 the ducks leave their penthouse quarters and take the elevator down to the lobby where a red carpet is rolled out to the fountain.

With the musical accompaniment of a John Phillip Sousa march and to the delight of the tourists and hotel guests, the ducks waddle their way to the fountain where they splash until five o'clock. Then it's back to the elevator and a return ride to the penthouse.

It is said that the Mississippi River Delta begins in the lobby of the Peabody Hotel. It may have something to do with the dampness of the ducks.

Outside the hotel Memphis had made great strides in making the rest of the city a tourist attraction, too.

All within comfortable walking distance are the high-rise buildings, the cotton exchanges on Front Street, (Half of the U.S. cotton crop goes through Memphis.), Beale Street and Pee Wee's Saloon where W.C. Handy "gave birth to the blues" in the early 1900's. Quiet during the day the Street lights up at night.

On Mud Island, a sand bar in the river under the bluffs, there is a day's worth of attractions.

The Mississippi River Museum tells the story of the river. There is a five block long replica of the river with all its bends and twists that is a popular place for children to splash while they discover its geography. There is a full size model of a steam boat, circa 1870 and the Memphis Belle, the first B-17 to complete 25 missions during World War II.

Boat rides are available from Mud Island.

The Memphis Zoo, Aquarium, and the Art Museum are located in Overton Park in the city center. Nearby Overton Square has shops and restaurants that serve the speciality of Memphis, barbecued meats.

Memphis also is home to several medical research centers and hospitals, notably Danny Thomas' St. Jude.

Memphis is a very complete small city whose leaders have made a special effort to make it an attractive place to visit.

In the days before steam power, river boats floated down the river to New Orleans carrying goods for distant ports. To get back upstream the rivermen had to walk. It is over 400 miles from Natchez to Nashville on the Natchez Trace, the trail the rivermen took. The western spur of the Trace carried walkers to Memphis (which was known then as the Chickasaw Bluffs) and on up into Kentucky.

This path was used by Andrew Jackson's Tennessee Volunteers in 1815 on their way home from the Battle of New Orleans. It is rumored that one of the Volunteers gave a pecan tree seed to a settler to plant. Someone did plant a seed because the pecan is not native to the area and just off the trace there is a pecan tree over a hundred feet tall with a trunk more than 18 feet around. It still bears some nuts each year.

It is one of the few trees to survive the farming of the early settlers who populated the land. With no knowledge of erosion or land management they denuded the land in a hundred years of farming leaving it the most desolate land of Tennessee.

In the 1930's the U.S. Department of Agriculture resettled the remaining farmers and using "New Deal" programs reforested the badly damaged land. Using proper conservation techniques they returned life to the land. Now the forest floor is thick with leaves, dogwoods blossom throughout the woods and the fast growing pines are harvested and replanted for wood production. Most importantly, it is an example of how the land must be cared for to keep it viable for future generations.

Along the landscaped interstate east towards Nashville the flowering red bud trees are dollops of raspberry sherbet against the spring green of the new leaves and the deep green of the conifers.

Twenty miles south of Nashville is Franklin, a small town with a quaint main square that is topped by a statue of a Confederate soldier. It is a memorial to the 8000 men killed and wounded, November 30, 1864. This five hour battle towards the end of the war was a futile effort by the Confederates to relieve Nashville.

Now the road to Nashville is lined with elaborate, even ostentatious mansions, one of which is the state governor's.

The dominant architecture of Nashville is Greek Revival to the point that there is even a full-size replica of the Parthenon in the city park. The capitol, high on one of Nashville's hills, echoes the style.

The city is built between the Tennessee and Cumberland Rivers. There has been a great deal of effort and money spent to keep up the old buildings while creating a modern city. The streets are narrow downtown around the capitol, making driving an adventure.

Country music dominates the city but there is more to Nashville than country hype.

East of town is the Hermitage, Andrew Jackson's home. Open to view daily it offers tours escorted by Tennessee Matrons in period costumes.

The Hermitage was built in 1819 and rebuilt after an 1834 fire. Today it displays the family's original furniture. The dining room is set with the family silver as if they would soon be in for a meal. The hostess points out that sugar was so valuable that it was kept, wrapped in its blue conical packages, under lock and key.

Thomas Sully, the artist who engraved the president's portrait for the twenty dollar bill, has several paintings of the president on display in the home.

Of special interest are the original wallpapers upstairs. Long before the continuous roll was invented, wallpaper was printed in three foot squares. The overlaps and pattern blends were subtly constructed.

The garden especially designed for Rachel Jackson by an English gardener shares its irises and fragrant lilacs in the spring. Near the tomb of the Jacksons is the grave of Uncle Albert. "A faithful servant to the General" is carved on his stone.

The log house where the family lived before the main home was built is in the rear of the grounds.

Jackson retired here in 1837. His family continued to live at the Hermitage after his death.

For 99 years it has been a museum of the 7th president of the United States.

Northwest of Nashville is the Land Between the Lakes, an area shared by Tennessee and Kentucky. It is the result of the Tennessee Valley Authority project that began in FDR's time to alliviate the flooding of the Tennessee and the Cumberland rivers, to develop hydro-electric power, and to put the depression

unemployed to work. Today fishing, recreation, camping, mining and forestry are important.

The Golden Pond visitors' center has a living history farm of the 1800's. At the Empire farm there are demonstrations of woolen production from shearing to loom.

The road to Missouri cuts through the western point of Kentucky and the very muddy southern tip of Illinois. Here the Ohio and Mississippi rivers flow together. The concrete overlook is built like a ship and there is a strong feeling of history as the rivers merge. This is also the site of Fort Defiance, a Union post during the Civil War built to command the confluence of these great rivers.

The little town of Cairo (KAY ro) huddles on the muddy alluvial deposits of the two rivers waiting for rising water so it can slam shut the steel doors in the dikes that protect it.

MISSOURI

Just west of the Mississippi River is the historic city of Cape Girardeau, French in origin but Victorian in architecture. Like St. Genevieve (the first settlement in Missouri) which is further north, the town's economy is tied to the river as well as its

tourist attractions, reconstructions, antiques, restaurants and picturesque scenes.

Northeast of the town of Cape Girardeau is the monument to the Trail of Tears. This was the route the Cherokees walked in the winter of 1838-39 on their way to the Indian Territory (later Oklahoma). It was when gold was discovered on their land in Southern Appalachia that the U.S. government forced them to sell their lands and move west.

There is also a monument to Father Jacques Marquette. This amazing French Jesuit Missionary, fluent in languages of the Indians of the upper peninsula of Michigan, was sent, in 1673, by Governor Frontenac of Canada along with Louis Joliet, a fur trapper, to search for a water route to the Pacific.

Armed with a peace pipe that the Indian tribes honored, he and the handful of Frenchmen paddled and carried canoes through Wisconsin to the Mississippi. Traveling as far south as the mouth of the Arkansas River and hearing that there were Spanish farther south, who he felt were more dangerous than the Indians, he turned north again to report his findings. He is buried on the upper peninsula of Michigan just west of the town of St. Ignace.

In the center of St. Louis next to the Mississippi River is the Gateway Arch. Towering 630 feet above the

city, the arch commemorates the westward expansion. Capsulated elevator cars carry passengers up to viewing windows at the top of the arch. (interesting, but not recommended for either the claustrophobic or the acrophobic.) Underground, below the arch is the Museum of Western Expansion. Dioramas and artifacts dramatize the road west.

The 91 acre site is called the Jefferson National Expansion Memorial and includes River Boat restaurants along the water's edge.

North of St. Louis American history and literature come together in the little town of Hannibal, Mo. It is right on the river where the bluffs drop down to the water and a bridge crosses to Illinois. Mark Twain's (Samuel Clemens) boyhood home with its fence, ready for whitewashing, was the model for Tom Sawyer's home with Aunt Polly.

Across the cobbled street is Becky Thatcher's home. The drug store, Judge Clemens offices, and assorted buildings have windowed viewing spots with sound track explanations.

Painted white with green trim, all the buildings look as if they have just been sketched by Norman Rockwell and, in fact, he contributed sixteen of his original paintings of his illustrations of the books to

the museum. Everything is free but the museum requests a donation to help continue the preservation.

ILLINOIS

Glaciers scoured central Illinois flat and then left behind rich soil as they retreated. Today huge farms used this heritage to produce wheat, soybeans, oats, and corn for the nation and the world. Vegetables and fruits, rye and barley are also important crops. It is the second biggest hog producing state and is first in coal mining.

On this flat prairie just north of Springfield is the community of New Salem.

The village is reconstructed to the period 1831 to 1837 when Abraham Lincoln lived and worked here as a clerk in the post office and was a law student at night.

The cooperage where he lived is the only original building but the reconstructed houses are authentic and furnished with period furniture, dishes, and tools. They are staffed with costumed volunteers who work as quilters, weavers, and coopers making barrels.

This living history lesson is a popular field trip for the local school children.

Just south is the capital of Illinois; Springfield.

It is a small town of 100,000 people, reflective of its Lincoln history.

The Lincoln sites are preserved in a walking mall around the Lincoln home. The streets are crushed rock and the sidewalks wooden. The area is lighted with gas lamps. The visitors' center had a twelve minute presentation about the visit to the home, as well as memorabilia and displays.

Lincoln's original law office is across the street from the old capitol building where one of his handwritten drafts of the Gettysburg Address is displayed.

Lincoln, his wife Mary Todd and three of their four children are buried at Oak Ridge Cemetery just north of Springfield.

Decatur also holds places of interest to Lincoln scholars as do many of the roads and towns through this area of central Illinois.

INDIANA

Indianapolis has the distinction of being the largest city in the United States without water for transportation nearby. It wasn't for lack of trying but the White River, even with canals, proved too shallow and too soft-banked to be practicable.

In 1847 railroads solved the transportation problem and the capital city began to grow. The boom came with the automobile manufacturers and, the most successful advertising gimmick of all time, the auto race.

The huge two and one half mile track for the Indy 500 mile race was constructed in 1911. A museum houses winning cars as well as an old car exhibit. There are tour busses that drive visitors around the track when it isn't being readied or used for the race cars.

The capitol building, built in 1878, is being dwarfed by the surrounding high rise and encroaching parking structures. The new sports stadium is almost next door and the whole area is belted with freeways.

McCormick's Creek, near the university town of Bloomington, is a rugged natural area of limestone and waterfalls. At one time it was the hunting grounds of the Miami Indians. Now it is a state park and the rangers lead nature walks explaining the local flora and fauna. Some of the local fauna need no introduction. They introduce themselves. The red raccoons have discovered the joys of marshmallows and potato chips and pester campers for handouts.

Southwest on the Wasbash River (the indian word for white, originally spelled Ouabache by the French) is the quiet, historic town of Vincennes.

Founded in 1732 by French settlers but ceded to Britain in the Treaty of Paris, thirty years later, it was a French settlement with the British Fort Sackville commanding the river when the American Revolution began.

Because the Americans were struggling against the Redcoats in the east, there was little or no support for the patriots in the west. The settlers were pleading for help. The British were buying American scalps from the indians and even supplying the scalping knives.

In 1779, George Rogers Clark, the older brother of William Clark of Lewis and Clark fame, who was a hard drinking Virginian and had been a neighbor of Thomas Jefferson, was living in Kentucky.

He had only limited encouragement from the government when he gathered a rag-tag army and led them over the cold, soggy Wabash flood plain in winter to surprise and capture Fort Sackville. This action removed the threat from the west and doubled the size of America's land. The Northwest Territory later became the states of Indiana, Illinois, Michigan, Ohio, Wisconsin and Minnesota.

Clark paid his soldiers' expenses out of his own pocket, which he never recovered from the government. He spent the rest of his life in poverty and obscurity.

Today the National Park Service supervises a marble memorial to him at the site of Fort Sackville on the banks of the Wabash.

Also in the town of Vincennes is the first territorial capitol, several building from the French and, even older, is the Sonotabac Indian Mound and Museum.

Adjacent to the grounds of Vincennes University is Grouseland, the home of William Henry Harrison when he served as Governor of the Indiana Territory.

Leading an army from nearby Fort Knox he set out to drive Tecumseh and the Shawnee from treaty lands. Successful at the battle of Tippecanoe in northern Indiana, he acquired his nickname which he would later use in his presidential campaign. "Tippecanoe and Tyler, too!"

As the 9th president of the United States, Harrison has the distinction of serving the shortest time. Just a month after his inauguration he died of pneumonia.

Harrison's father Benjamin, had been a signer of the Declaration of Independence and his grandson, also named Benjamin, was the 23rd president of the United States, separating Cleveland's two terms.

Farther south on the Wabash, a wide, fast moving river that no longer carries barge traffic because of

railroad competition, is the historic community of New Harmony (population 900).

This was first settled by a communal religious colony in 1814. It was led by a German, George Rapp, who was seeking religious freedom and a utopia. In twelve years he sold out to another utopia commune, this time a philosophical one. This society also failed but the buildings and homes are preserved. A large museum designed in modern architecture explains the early communes. There is a non-sectarian church, interesting in that it has no roof but does have a shelter over a Jacques Lipchitz sculpture. The rest of the community has maintained its early rural look.

East of the confluence of the Wabash and the Ohio is the port city of Evansville. Its riverfront area has fine exhibits of Victorian homes and it supports an excellent waterfront museum.

There are dioramas of the riverfront at the turn of the century, a pioneer living area, a railroad display, a natural history exhibit, a hands-on science display presented by Alcoa, a planetarium and an art gallery with a wide assortment of paintings and featuring American 19th and early 20th century artists including a Georgia O'Keefe.

Just east of Evansville is Newburgh. Its huge mansions overlooking the Ohio also overlook the

Newburgh Lock and Dam, one of many dams on the Ohio to regulate the flood and speed of the river.

These dams are not designed for hydroelectric power. Power comes from energy plants that burn coal, an example is at Rockport, right on the river.

Abraham Lincoln grew up on his family's farm just west of the Ohio, on Little Pigeon Creek, near the present day town of Lincoln City. Abe farmed here with his father Thomas, growing wheat, corn, flax, cotton, and a vegetable garden.

His mother, Nancy Hanks, died two years after the family had moved to Indiana when Abe was only nine years old. Her grave site is on the hill above the farm.

The Lincoln family moved to Illinois when Abe was twenty-one.

The National Park Service runs the museum and directs a summertime living history nearby. College students spend the summer living a 19th century farm life. They live in log cabins, farm the land with the same crops the Lincoln family grew and share their experiences with the visitors.

KENTUCKY

In 1778 George Rogers Clark established the first permanent settlement at the Falls of the Ohio. He

named it Louisville after Louis XVI of France in gratitude for the aid the French gave the Americans during the Revolution. (The nearby county of Bourbon and the town of Paris were named for the same reason. The local corn whiskey was named for the county, not for the royal house of France. Louisville produces half of the world's Bourbon.)

It was necessary to portage around the Ohio Falls to continue river travel thus Louisville had ready-made job opportunities. With the advent of steamboats on the river it became necessary to build locks and in 1830 the locks were opened in the Portland Canal. River traffic then became possible from Pittsburg, PA to New Orleans.

Louisville is internationally known for its May "Run for the Roses". The Kentucky Derby at Churchill Downs, a Victorian racetrack built in 1875, is the oldest continuously held horse race in America. It is a coveted championship in the world of horse racing and one third of the Triple Crown.

At Louisville the river turns south for another loop and at the bottom of the loop is Fort Knox. Established in 1918 it is the home of the U.S. Army Armor School and the George Patton Museum of Cavalry and Armor. A vast display of tanks, dioramas of tank

engagements, military history and personal mementos of the career of General Patton is housed on the base.

Not open to the public, but visible from the freeway just south of the museum, is the huge bunker armory that houses much of the U.S. gold reserve. The Bullion Depository, built in 1937, is bomb proof. (or at least it was in 1937!)

Farther south is the little city of Elizabethtown where Thomas Lincoln lived and worked. He proposed to a local girl named Sarah Bush but she refused him and he turned to Nancy Hanks. In 1808 Thomas bought the Sinking Spring Farm just south of town and this is where his first son was born. Their little log cabin, now a national shrine, is enclosed in an all encompassing Neo-Grecian structure. It stands on a hill on Thomas Lincoln's farm just above the spring.

After Nancy's untimely death in Indiana, Thomas went back to Elizabethtown to find Sarah who was now a widow with three children. This time she accepted and became step-mother to a future president.

In the same year that the Lincolns moved to Indiana the Mammoth Caves in Kentucky opened for visitors. Now there are 325 miles of explored cave passages and the geologists feel there must be at least 600 miles in all.



Quickly moving rivers cut the caves leaving little time for the water to seep down through the limestone. As a result there is very little of the spectacular stalactites and stalagmites that make other caves so dramatic.

Brown furry bats each the size of a silver dollar rest on the cave roof tops. Long legged crickets with feelers three times their body length wait in the crevasses until it is time to crawl up the cracks to, as the ranger calls it, "the great salad bar above".

A new organism to the caves is the algae that grows in the warmth of the cave lights. This must be removed from time to time with chlorine bleach because it threatens the eco-system of the caves.

As the river drained downward through the rocks it created five levels of caves, all of which can be explored with guided tours, but at various times of the year. (Reservations for specific tours can be made with Ticketron up to eight weeks in advance for the busy summer months.)

The cave water drains into the Green River on the west side of the park. The opening can be seen from the cruise boat, Miss Green River, that plies the river for one hour trips from the ferry crossing. (For travelers continuing on to Brownsville there is a

three-car, paddled wheeled, cable ferry that takes a few minutes to cross the narrow river.)

Danville, on the road to Lexington, was the capital of the Kentucky district of Virginia. The Kentucky constitution was adopted here in 1792 but then the capital was moved to Frankfort.

Near Danville is the Old Fort Harrod State Park which is on the site of Harrodsburg, the first permanent settlement of the English west of the Allegheny Mountains.

Northeast of Harrodsburg is the historical site of a Shaker Village. Established here in 1805, the Pleasant Hill Community, was a communal religious group with its roots in England. Led to America by Mother Ann Lee in 1774, the first community was set up in New York. Shakers were an offshoot of the Quakers, and called the Shaking Quakers because they danced and sang with such religious fervor that they began to shake.

They were successful leaders in agricultural advancements, their furniture is still famous for its utilitarian simplicity, and they had a reputation for honesty and quality of workmanship.

There are only a few Shakers still alive. The last of the Pleasant Hill Shakers died in 1923 but it wasn't until 1961 that the present society was formed to preserve and protect the Shaker buildings. Now the

village is staffed with costumed characters who guide tours, offer buggy and wagon rides and put on performances of Shaker music. There is also a restaurant (advanced reservations necessary) that serves simple Shaker meals.

For those without Shaker reservations there is a spot farther east in the Kentucky River canyon called Murphy's at the River.

"Rustic Charm" defines this wood cabin that clings to the road on the bank of the river. Catfish and Kentucky Ham are specialities, but the salad bar is the real treat. Sweet and sour kraut, marinated cauliflower, corn piccallili, spiced apple butter, watermelon rind pickles, and a dozen other home-made side dishes add real southern character to the meal.

In another rugged canyon of the Kentucky River is the little town of Frankfort. It was chosen as the site for the state capitol in 1792 because it was between the rival cities of Louisville and Lexington.

Lexington is the center of the Bluegrass Country, named for the special grasses that grow in the area and, if not continually mowed, bloom with a blue blossom in May. Everywhere are the rolling hills, park-like grassy lawns, wooden fences with horizontal boards painted white or black, and famous racehorses in the paddocks.

The Kentucky Horse Park in Lexington demonstrates the life style of the Bluegrass horse farms. It is a former stud farm and now houses a museum of the horse.

The Museum is a must. One doesn't need to like horses to be facinated with the place. The museum is a time-line of history with the horse as the theme and man's relationship with the horse as food, worker, pleasure animal and friend.

Artifacts, dioramas and information are carefully displayed with a background sound system that moves the visitor along through the scenes with the sounds of galloping horses, clashing swords, medieval jousting, ballads, the clop and the creak of the westward wagons, the bustle of an 1890's street. It is worth going through twice.

Some race horses go to stud when they retire, some are put out to pasture but John Henry and some of his racing companions are at this farm and are walked out twice a day to be introduced to the visitors.

Another daily program describes the various breeds with appropriately costumed riders.

There is a ferrier's shed where, every day, the ferrier shoes three of the 100 plus horses who live on the farm and answers questions when his work is done.

Draft horses pull tour wagons around the farm and there are always riders putting horses through their dressage paces in the center rings.

The rolling hills continue through more horse country and cattle, sheep and tobacco lands as well. Mary Todd Lincoln grew up in Lexington and her home is open to view.

Highway 68 north of Lexington on the way to the Ohio River, was first cut by buffalo and indians headed for Blue Lick Springs. Here was the last battle of the Revolutionary War in Kentucky. In 1782 the British and Indians outnumbering the Kentucky Volunteers three to one, ambushed them at Blue Lick. The battle lasted fifteen minutes. The dead are remembered at this spot by a granite marker.

OHIO

North of Lexington the Ohio River still moves along carrying barges but the water is blue-green not yet carrying all the silt that gives it its characteristic brown.

Two million years ago the silt was carried by the glacier of the last ice age. Two-thirds of Ohio was covered and when the ice retreated it left rich farmland for agriculture production. The non-glaciated land in the southeast corner of the state missed out on

this rich land and grows a mixed forest on thin soil. The economy of today continues to reflect this difference.

Satellite photos (ERTS) of southeast Ohio reveal the obvious differences between the glaciated and unglaciated regions and clearly show where an ancient river used to flow. This river, the Teays, flowed across Ohio to the Mississippi until it was blocked by the encroaching ice. These massive changes helped form the Scioto and Ohio river valleys of today.

Highway 23 north to Chillicothe from Portsmouth is a major transportation artery for the communities that have developed in the Scioto valley.

The hills around Chillicothe are terminal moraines of the Illinoian and Wisconsin glaciers and mark the eastern edge of the Great Plains. The Allegheny escarpment is the beginning of the Appalachian Plateaus.

Because this land is less fertile for farming it is cheaper and therefore appeals to the younger sons of Amish families who farm the more fertile lands closer to Cleveland. The young are now moving south.

Yellow road signs with a horse and buggy silhouette warn the modern drivers to watch for slow moving Amish vehicles on the highways.

While 18th century tasks keep the Amish women home, the men and boys are frequently in town to buy and sell, to visit, and occasionally have a meal in the local restaurants.

A place to have a meal or to spend the night in Marietta, Ohio is the restored Hotel Lafayette whose most famous guest was the Marquis, hence the name.

Marietta, the first permanent settlement in Ohio, was named for Marie Antoinette, in appreciation for the French effort in the Revolutionary War. (It is curious that more of these towns weren't renamed after the French Revolution, this one especially.)

The Ohio River Museum in Marietta, describes the history of the river and of its steamboats.

WEST VIRGINIA

A large bridge crosses the Ohio River into West Virginia where the highway begins to undulate across the ridges and valleys of the Appalachian Plateaus like a piece of ribbon candy.

Along this ribbon, in one of the downward curves, is the city of Clarksburg, the birthplace of Confederate General "Stonewall" Jackson. Ironically, his birthplace was the headquarters of Union Army General McClellan until the Battle of Bull Run.

Throughout the war Clarksburg served as a supply depot for the Federal Army.

At the northeastern corner of West Virginia is Harper's Ferry, one of the state's Civil War battle sites.

Here at the confluence of the Shenendoah and Potomac Rivers, Robert Harper ferried travelers across the rivers until a bridge was built in the mid 1700's. The Baltimore and Ohio Railroad tracks lead to Washington, D.C.

This site was chosen as one of the two rifle manufacturing locations in the U.S., the other being Springfield Rifles in Massachusetts. Here (in 1796) was developed the standardization of interchangeable replacement parts and the use of lathes that could turn out a rifle stock in nine minutes.

Thousands of rifles were stored in the Harper's Ferry arsenal. These were the target of the militant abolitionist John Brown when he and a small band attacked by surprise and overcame the arsenal in October 1859.

Brown anticipated a slave uprising that he would lead and arm with the rifles but Colonel Robert E. Lee of the United States Army, commanding a contingent of marines from Washington, recaptured the arsenal. John

Brown and six of his band were hanged for treason.
(And his body lies "moulderin' in the grave".)

In the ensuing war Harper's Ferry became an emotional and political objective for both sides even though it wasn't militarily strategic.

At the beginning of the conflict a small Union garrison burned and abandoned the arsenal to avoid having the supplies captured by Virginians. Later the fleeing Confederates burned the rest of the town. The Union troops returned, but in a subsequent battle General "Stonewall" Jackson captured almost 13,000 prisoners before he joined up with General Lee at the Battle of Antietam just up the Potomac River.

The town could not survive the destruction of its industry, martial law and the ravages of war. Today just 400 people live in Harper's Ferry.

It has been reconstructed by the National Park Service. There is a blacksmith, a pharmacy, a store and tavern.

Living history programs are conducted in the summer.

The B and O Railroad still runs on the lines it built to compete with the Chesapeake and Ohio canal. Remnants of the canal can be seen along the road but the mules that pulled the boats simply could not match

the railroad's efficiency and here, as in many other places, the race was to the swift.

Also important to the war effort was the town of Grafton, just east of Clarksburg, because it was on the Baltimore and Ohio Railway.

Grafton is also on the Tygart River which runs north to the Monongahela. This long valley was the scene of much Civil War activity. The first land battle was fought at Philippi and the first Union soldier killed by Confederates is buried at Grafton. (June 3, 1861)

Across the Tygart River at Philippi is a covered wooden bridge built in 1852 and used by both Confederate and Union troops to cross the rapid water. It is still in use today by all but the tallest trucks.

A Vietnam Memorial is just at the bridge on the east side of the river in a National Cemetery.

On a happier note, Grafton also holds the International Mothers' Day Shrine. Here the observance was originated by Anna Jarvis, a Grafton citizen. She chose the second Sunday in May and began the custom of wearing a carnation. The first service, May 10, 1908, at Andrews Methodist Episcopal Church in Grafton, honored her mother's memory. In 1915 President Wilson proclaimed Mothers' Day an annual national observance.

The Tygart Valley alternately widens and narrows. There are good white water stretches for river runners.

There is good farming land in the broad valleys as the road twists and winds its way over the Alleghany Mountains and the Shenendoahs to drop into the Shenendoah Valley of Virginia.

VIRGINIA

The Shenendoah Valley was a rich provider for the Confederate Armies and a corridor to the north.

In 1864 Union General Phillip Sheridan and his troops laid waste to most of the valley; burning, killing livestock and destroying anything that would give support to the Confederates.

Today the valley is again prosperous, rich and growing. It is sheltered by the Blue Ridge Mountains to the east. Along the top of the mountains is the Appalachian Trail and the highway through the Shenendoah National Forest.

Staunton, in the central south of the valley, is the birthplace of Woodrow Wilson (1856), the 8th Virginian to be president.

Because Staunton had been bypassed during the Civil War, it can now boast of one of the finest collections of antebellum architecture in Virginia.

In the northern end of the Shenendoah valley the little town of New Market was the site of one of the last skirmishes in the Civil War. Here young boys of

the Virginia Military Institute were called upon to attack a Union battery. They were successful at a terrible cost. Of the 225 boys involved in the engagement almost a quarter were killed or wounded.

In the eastern foothills of the Blue Ridge Mountains is the town of Charlottesville.

Here is the home of Thomas Jefferson, "Monticello". Jefferson spent fifty-six years here, building, inventing, gardening, writing and helping his neighbors.

Jefferson created the University of Virginia in Charlottesville just down the hill from Monticello which he could see from his home. He designed the buildings after classical architecture that he had seen in Europe. He planned curriculum, hired faculty, bought library books. It opened in 1825, a year before his death. It was one of his proudest achievements. He had it recorded on his grave marker along with his writing of the Declaration of Independence and the "statue of Virginia for religious freedom". His presidency wasn't mentioned.

James Monroe lived "next door" on 500 acres that Jefferson selected for him. Jefferson had his gardeners landscape Monroe's "Ashlawn Highland". (It is also open to view.)

Today a third neighbor is Michie Tavern. Opened in 1784 to provide for travelers, it still provides lunch for visitors. A traditional Virginian meal of fried chicken, black-eyes peas, tomatoes stewed with bread, cole slaw, corn bread and biscuits is served on a pewter plate. Ice tea comes in a tin cup. Waitresses in colonial garb bring seconds for the gluttons.

The tavern also functions as a museum of colonial treasures. Rooms in the tavern are set up as if the people had just stepped out for a moment. Recorded messages describe many of the museum pieces. There is a grist mill next door complete with a water wheel and working parts.

In Charlottesville there is a memorial to George Rogers Clark, the hero of the Northwest Territories. He and his brother William were born nearby. (Jefferson had first asked George to lead the expedition through the Louisiana Purchase, and then turned to William when George refused.)

WASHINGTON, D.C.

A major component in a visit to Washington D.C. is to explore the museums of the Smithsonian.

The new Aero Space Museum has the Voyager, Rutan's around the world non-stop aircraft and the human-powered, Gossamer Condor, two of the latest in

imaginative flying machines. Also one can find the traditional Wright Brothers craft, the Spirit of St. Louis and assorted space vehicles.

The Balloon exhibit explains this pioneering field of flight with actual models of balloons in motion.

In the American History Museum are exhibits of: growth through mechanical means, trains, cars, farm machinery, bridge building, mine tunnels, boats, machinery, engines, clocks, the history of dentistry, a Foucault Pendulum measuring the turn of the earth.

The original Star Spangled Banner that flew over Fort McHenry, Baltimore while Francis Scott Key was confined on a British ship in the harbor creating his famous poem, hangs on the museum's wall overlooking all of the myriad exhibits.

The quiet halls of the National Art Gallery are hung with a variety of paintings including an extensive display of impressionists. Cool patios of palm and fern offer contemplative rest spots.

The Asian and African Museums are underground behind the castle.

Along the Mall, between the White House and the Lincoln Memorial, is the Vietnam Memorial, an emotion evoking black wall of names. Americans remember friends and loved ones with flowers and name rubbings taken from the wall.

MARYLAND

Greenbelt, just outside of the capital, is a suburban community developed in the 30's as a government project. It was landscaped around a stream with a large federal park at its center. Schools were placed where the city noises wouldn't interfere with learning. Gardening plots were made available to residents on the edges of the greenbelt. Much of the rural area has been built up since the original plan but the heavily wooded park is still at the center, offering hiking trails, nature programs, picnic areas and camp sites.

Frederick, Maryland was settled by German farmers in the early 1700's. During the Civil War it was occupied by both sides several times. It was here that the poet John Greenleaf Whittier described Barbara Fritchie as the woman who shouted out her window at the marching Confederates to "Shoot, if you must, this old gray head, but spare your country's flag."

Today it is a manufacturing and trade center for the surrounding farmlands.

PENNSYLVANIA

North of Frederick is the battlefield of Gettysburg and still farther north is the town of Carlisle where, in 1879, the Carlisle Indian School was begun.

In its thirty-nine year history over 6000 Indian children from all the tribes of America attended. Its most famous student was the Olympic athlete, Jim Thorpe. He won the pentathlon and the decathlon in the 1912 Olympic Games.

Still farther north is Harrisburg, the capital city on the Susquehanna. It was chosen as the capital in 1810. It sits where the Susquehanna cuts through the Appalachian range and where the Juniata, which drains Western Pennsylvania, joins up. The major highways now branch out from Harrisburg like spokes on a Conastoga Wagon.

There are grandiose homes that line the east bank of the river facing the sunset as does the capitol. A local says that in the last twenty years there has been a great deal of improvement and urban renewal in the slums that surround the capitol. More comfortable suburbs extend up the eastern valley.

Harrisburg had originally been known as Louisborg for the King of France during the revolution. (Another in what may be called a French gratitude town) But the name was changed when John Harris refused to sell any land to the legislature until it recognized his family as pioneer developers of the town.

Just east of Harrisburg on the river is the Three Mile Island Nuclear Energy generator which recently

spewed radioactivity material into the surrounding communities.

Far more pleasant is the town of Hershey which sends the fragrance of chocolate and roasted almonds over its neat homes. The little town is illuminated by Hershey Kisses, street lamp shades shaped like the familiar dollops of chocolate. Some are silver with the Hershey banner floating from the top and some are painted rich milk chocolate brown.

The homes in Hershey are uniformly tidy. Citizens brag that there isn't a cleaner town in America. Taxes are low, the fire department and other public services are almost totally financed by Hershey and have the finest equipment money can buy.

Milton Hershey, the Henry Ford of the candy world, brought the expensive luxury of chocolate to the common man. Hershey was also a far-seeing, inovative philanthropist. When his idea of milk chocolate using distant cocoa beans and local creamery milk made him an extraordinarily rich man, he spent a great deal of money to build comfortable single family homes for his employees.

In later years, he and his wife who could not have children of their own, endowed a school for orphans. It is now a school for children who are not being cared for properly by at least one parent.

The Milton Hershey Medical Research Hospital is considered to be one of the finest hospitals in the world and entices many respected physicians to its site.

Chocolate World is the Hershey visitors' center. It explains the making of chocolate candies. The public health department will no longer allow tours so there is a free, eleven minute ride through a simulated factory. There is also an amusement area for children and a cafeteria where chocolate is served for dessert in every imaginable form.

(Dentists in Hershey tell children that it's O.K. to eat candy if they remember to brush afterwards!)

Milton Hershey was raised as a Mennonite, a religious sect that believes in simple living and hard work. Many Mennonites and their parent sect, the Amish, live just to the southeast of Hershey, in Lancaster County. The town of Lancaster is the tourist center of the Pennsylvania Dutch Country (Dutch is a corruption of Deutsch which means German) along Highway 30.

Originating in Switzerland in 1690, the first Amish came to America in 1728. They are now found in twenty-three states. Lancaster County is well known as the land of the Pennsylvania Dutch but there are actually more Amish and Mennonites farming in Ohio.

These people lead a 17th century life. No modern conveniences are allowed. There is no electricity or plumbing in their homes. They have window shades but no curtains. There are no pictures decorating their walls.

They travel about the countryside in black spring buggies drawn by smartly prancing ponies. The young people have "courting buggies" to use on Saturdays. These are open to the fresh air and watchful eyes.

Six draft horses teamed together will pull the plows that break the soil.

The Mennonite women may have a print in their cotton dresses but not the Amish. All the women wear their uncut hair tucked under their white organdy prayer cap which they may cover with a scarf or shawl. The men wear blue denim. The married men grow beards but no mustaches. (mustaches and buttons signify military to these people who are pacifists.) The children dress in smaller versions of the same costumes.

Amish children go to school until the 8th grade. German is spoken in schools and at home. Their English is spoken with a quiet lilt.

The Amish do not want their pictures taken because their religion forbids it. But there is no restriction

about good eating and Amish kitchens are rich and abundant.

Throughout the countryside in the little villages are many restaurants where the food will be tasty and filling. Chicken pie, Lancaster sausage, cup cheese and scrapple, sticky buns and fasnachts and Shoo-Fly pie are the specialities.

Another group seeking to practice religion, in America, according to their own convictions, settled in nearby Ephrata in 1732. They were Seventh Day German Baptists who lived semi-monastic lives in a cloister. The group lasted almost 200 years. Their buildings have been restored and are available for touring.

The German Moravian Church established a community a few miles from Ephrata in 1743 and named it for its hometown in the old country, Lititz. A famous Swiss, by way of California, is buried in its Moravian cemetery. Captain Johann A. Sutter lived in Lititz while he was petitioning Congress to try to keep title to his Mexican land grant in Sacramento.

More communities of Amish are scattered throughout the state. North of Harrisburg in the valley of the West Branch of the Susquehanna River the farms are plowed by teams of horses. The women tend the gardens and the houses. Clothes lines flap in the breeze

loaded with plain colored dresses and aprons and lots of denim-blue shirts.

The Amish farmers bring their produce to the Wednesday morning market in Lewisburg. There are homemade preserves, horseradish, and vegetable soups for sale.

A young man with a twinkle in his eye, a full black beard and a flat skimmer straw hat sells bread, Shoo Fly pie, sticky buns and whoopie pies.

In the Chinese Food Booth in the market there is a young girl, her hair neatly tucked into her white prayer cap, black stockings and sturdy black shoes peeking out from under her plain skirt, who folds Won Tons and Egg Rolls to be deep fat fried for the customers. (Amish are permitted to work for others even though they use modern technology.)

Lewisburg is in the heart of Union County. It was developed during the 1820's and 30's when the Federal style of architecture was in vogue. Lewisburg is a museum of its most successful times when the railroads and canals moved goods and passengers through town bound for New York, Philadelphia and Baltimore. But the town couldn't overcome the post Civil War depression and now its Federalist Revival, Victorian Gingerbread and Italianate homes stand as memories to another time.

German and English buggy makers were more successful in nearby Mifflinburg where there was a post war buggy boom. At one time there were twenty different buggy manufacturers in town. They lasted until the automobile reduced their need.

NEW YORK

Another post Civil War industry continues to thrive north of Lewisburg just across the state line into New York, in the town of Corning.

The Corning museum of glass houses over 20,000 glass treasures dating back to Egyptian and Roman times.

There are Tiffany lamps and a Tiffany stained glass wall of hollyhocks and pastoral lake.

There is a timeline of the history and use of glass.

The hall of science and industry has a "hands on" exhibit that demonstrates the principles of light reflection with laser beams colored with neon.

The principle of reflective internal light, the containing of light in an object, is demonstrated with lasers in an understandable way. Laser light is seen to reflect off the inside of a glass cylinder remaining within the cylinder. To use this principle, glass

cylinders were made extremely thin and flexible and the science of fibre optics was born.

For all the modern and advanced ways glass is being used, the finest is still in the old way of heating, turning, blowing and shaping a lump of molten glass into a work of art.

The craftsmen at the Stuben glass factory work at shaping, polishing and grinding treasures for sale in the store. The prices begin in the hundreds of dollars and go quickly up to the thousands. (A lot of money to spend on something breakable!)

Elmira, just twenty miles from Corning, is where Mark Twain (Samuel Clemens) is buried. His wife grew up here and the Clemens family used to vacation on her sister's farm. Twain wrote Huckleberry Finn as well as some of his other works in Elmira.

Moving slowly, very slowly between Lake Erie and Lake Ontario are the Niagara Falls. In 12,000 years they have moved seven miles south due to erosion at about an inch a year. It will be some time before the falls are reduced to white water rapids.

This is the site of the first hydro-electrical generating plants in 1895. Modern plants now generate enough power for a city the size of Chicago. One half to three quarters of the water is diverted for power but it is done at night so as not to diminish the



appearance of the falls. Still, 700,000 gallons crash over the edge every second.

In the 1750's the French and British fought over French Fort Niagara with the British holding the fort until 1796 when they withdrew into Canada. It was fifteen years after the end of the American Revolution.

The Seneca Indians were the first inhabitants of the area. They were one of the tribes of the Iroquois Nation. The others were the Mohawks, Onondagas, Oneidas, Cayugas and Tuscaroras. The indians lived in the beautiful valleys of the Finger Lakes District.

Most of the indians were driven out of their homeland by revolutionary war soldiers who feared the indians would join with the British.

Those indians who remained were later to move on when rich industrialists began building summer homes along the lakes.

Cornell University is at the southern tip of Lake Cayuga, high on the hills above the town of Ithaca.

At Seneca Falls at the northern end of the lake, Elizabeth Cady Stanton and Susan B. Anthony began the Women's Rights Movement in 1848.

Down the Mohawk Valley flows the river that is one third of the Erie Canal water system. The canal was completed in 1825 linking Albany and Buffalo.

The Mohawk River Canal flows into the brown Hudson River at the city of Troy, just north of Albany.

Albany is the capital city of New York with all the bustling traffic of the bigger city down the river.

Albany is the second oldest city in the United States. It was chartered in 1686. The Nelson Rockefeller Empire State Plaza with towering high rise buildings and a massive sculpture garden is across from the capitol overlooking the Hudson and a pretzle of freeway interchanges.

North up the Hudson from Albany and Troy is Saratoga National Historical Park. Here the Americans under the command of General Benedict Arnold, defeated the British led by General John Burgoyne.

The fierce attack by Arnold and the Americans exhausted the British who were forced to retreat up the river to a hill overlooking the town of Saratoga. There is a monument on the hill marking where "Gentleman Johnny" Burgoyne surrendered 6000 men and weapons.

This defeat was decisive because it broke the British plan to cut New England off from the other "rebels" and because it encouraged France to enter the war in support of the Americans.

Burgoyne and his army had marched south from Montreal in order to join up with Howe's forces in New York, in their plan to isolate New England.

They drove the Americans and General St. Clair out of Fort Ticonderoga but it was their only successful attack.

Fort Ticonderoga had originally been French but it was taken by the British in 1759. Later, in 1775, Ethan Allen, Benedict Arnold and the Green Mountain Boys captured the Fort by surprise attack. (more than a year before the Declaration of Independence)

By holding the fort and the pass between Lake Champlain and Lake George, the Americans were able to contain the British in Canada until Burgoyne's attack in July 1777.

As the Americans retreated from Fort Ticonderoga, the Green Mountain Boys, Colonel Seth Warner and Nathan Hale and the New Hampshire Continental Regiment harrassed the British so effectively at the Battle of Hubbardton, Vermont, that it allowed the Americans time to escape south where they were able to regroup for the finale at Saratoga.

The Green Mountain Boys also prevented the British from capturing American military stores at Bennington, Vermont, just east of Saratoga. The lack of supplies was a major cause for the British defeat. Their lines

of communication were being eroded as the army moved down the river valley farther and farther from its base of support.

VERMONT

While the Green Mountain Boys were battling the British at Hubbardton, the Vermont Constitutional Convention was meeting to create the "Free and Independent State of Vermont". It was named after the Green Mountains, the major geological feature of the state, and in honor of the brave Green Mountain Boys.

Vermont was to stay an independent republic for fourteen years until it became the 14th state, in 1791.

The Vermont Constitution was the first in the country to forbid slavery and to offer universal suffrage for all men of the state. Property ownership was not a requirement as it was in so many other states.

The Town Meeting, held the first Tuesday in March, is a Vermont tradition, the purest form of democracy. The citizens gather at the town hall to elect officials, pass laws, approve budgets, and decide local business.

This grass roots democracy is supervised from the golden-domed capitol in the snug little town of Montpelier nestled in the Winooski River Valley.

Today these notches and hollows are quiet. (unless it is fall color time for tourists or ski season).

Dairy cows and sheep roam the pastures.

The rocky foundation underlying 70% of the state, is responsible for a large marble products industry.

Dairy products, especially cheese; unique wools and maple syrup are also important industries of Vermont.

It takes forty gallons of maple tree sap to make one gallon of syrup. The sap is drained, drop by drop, from maple trees that are at least forty years old and a foot thick. The sap must be gathered in the cold of February and March before the trees bud. Sugar from budded trees is bitter and unusable. Maple syrup is understandably expensive.

Another expensive treatment is being added to the cost of maple products. One of the many tragedies of acid rain is that it is damaging the sugar maples. It destroys the leaves, erodes the bark, debilitates and finally, kills the trees.

New Brunswick Canadian chemists are working to find the chemicals depleted by the acid rain and replace them through fertilization.

Over fishing and dam building were responsible for almost eliminating the Atlantic Salmon from local waters. The White River Bethel Fish Hatchery is helping salmon return to the rivers and streams.

NEW HAMPSHIRE

The Connecticut River is the dividing boundary between the States of Vermont and New Hampshire.

New Hampshire is 86% forested and its underlying foundation provides granite for building blocks.

New Hampshire prides itself on being the first colony to have an independent government. New Hampshire delegates cast the vote that ratified the United States Constitution and it has always held the first presidential primary. "As New Hampshire goes so goes the nation" may or may not prove true again this election year but it does give more publicity to a small state than would otherwise be warranted.

New Hampshire has just eighteen miles of coastline along the sea but glaciers scoured out countless lakes. The largest is seventy-two square mile Lake Winnepesaukee, southeast of the White Mountains.

MAINE

While New Hampshire has a mere eighteen miles of coast, Maine's famous seashore winds for 3500 miles along the edge of the Atlantic. It is dotted with picturesque light houses, fishing harbors, quaint villages and lobster pounds.

A pound (a compound for gathered lobsters) is a restaurant where patrons can select a live lobster for

their meal. Once picked, it is weighed, wrapped in a fish net bag and carried outside to be popped into sea water that is boiling in wood-stoked caldrons.

Twenty minutes later, now bright red, it is delivered to the table to be cracked and dunked in drawn butter. At about \$5.50 per live pound, lobstering helps to bring in some of the fishing industry's annual \$50,000,000. Potatoes; baked, fried or in salad, accompany the lobster.

Potatoes are the largest land crop after the forest industry, making Maine one of the three top states in potato production. Pulp and paper products and lumbering are the backbone of the state's industry. Wooden ship building was important all along the coast. Today it is centered in Bath where there is a museum of sailing ships.

Maine's major mountains are named for Henry Wadsworth Longfellow (born in Portland, 1807) but he is more associated with Acadia (Acadie in French) and his romantic poem Evangeline.

Acadia National Park is on a collection of islands south of Bangor. Mt. Cadillac in the park, is the highest point on the Atlantic Coast at 1500 feet. The small town of Bar Harbor is a fishing port and summer resort.

Not all the French who were expelled from Acadia by the British in 1755 left. Many French names can be found on business enterprises and mailboxes in Maine. There are 95,000 French speaking Maine citizens. Many French-Canadian workers take part in the potato crop production of the Aroostook Valley.

NEW BRUNSWICK

The Maritime Provinces of Canada share with Maine a history, a coast line and the rolling plains and valleys. Here are hay farms, dairying and blueberry bogs. The noticeable differences when crossing the border are the long O in Canadian-English speech and French as well as English on all street signs. (French speakers are 35% of New Brunswick's population)

The first French settlement in 1604, on the border near Calais, Maine is now an international historical site as is Campebello, the summer home of Franklin D. Roosevelt, which is just inside the New Brunswick border.

The Treaty of Utrecht that ended the French and Indian Wars in 1713 gave Britain parts of Acadia.

The British demanded loyalty from the catholic, French citizens but loyalty meant a change of religion as well as a political change.

Many French moved south to Louisiana in an effort to maintain their customs and religion. Others moved to outlying islands in the Gulf of St. Lawrence and to the northern peninsulas.

The British moved into the Acadian village on the St. John River. There was a rapid increase in population when the American Revolution drove thousands of Loyalists out of the colonies and into British territories. In 1783 St. John became an overnight boom town.

Today St. John is a large port city where the river joins the bay. Farther north up the valley the river is dammed for hydro-electric power. The very English-looking capital city of Fredericton is located on the river in the center of the province.

The river valley continues north along the Maine border to Quebec. Forests of pulp trees line TransCanada Highway 2. There are rolling hills with farming.

At Grand Falls in the very north of the province, the river drops 70 feet in the St. John River Gorge. There are paths that lead from the bridge that crosses the gorge to the falls and down into the gorge itself.

Nearby Edmundston with a population of 12,000 is the center for the wood products of the region.

After sixty years of the New Brunswick-Maine border dispute, the local inhabitants began to talk of independence. They created a flag and call this area the Republic of Madawaska, after one of the local counties. Every summer they hold a festival to honor their "Republic". The border dispute was settled in 1842.

NOVA SCOTIA

Acadia came under British rule in 1713 but it was not until the French were driven off that Scot Highlanders began to arrive in large numbers. They occupied abandoned farms in the land now called New Scotland (Nova Scotia).

Truro in the center of Nova Scotia, was once a thriving Acadian farming community. It was the French custom to design land parcels so that every farm had water frontage. Even though those farmers left their land in 1755, today's maps still reflect their plans. The southern shore of the Bay of Fundy has close parallel lines of roads marking the old plots.

The eastern arm of the Bay of Fundy is known for its famous tidal bore. Twice daily this bore, which is the forewave of the intrushing tide, races up the bay into the Salmon River near Truro. Because the long narrow channel of the bay closes down towards the upper

end, the extremes of tidal change are more pronounced than a latitude of forty-four degrees would warrant. The tidal bore may appear only a few inches high or it can be several feet, depending on the time of year which relates to the alignment of the celestial bodies. Generally the time for the highest bore is during a full moon in August.

Nova Scotia, like New Brunswick, experienced a population explosion with the arrival of Loyalists fleeing the American Revolution. In 1783 Loyalists founded the town of Shelburne and suddenly there were 10,000 new residents. It was bigger than Montreal or Quebec. But there wasn't enough land for all, so many Loyalists found homes elsewhere in Canada. Today the population is less than 3000.

Some of the Loyalists were free blacks and some of the new arrivals were slaves. Blacks also arrived in Nova Scotia via "Underground Railway" before and during the American Civil War.

Dartmouth across the bay from the capital city of Halifax has a museum dedicated to the history of the black citizens of Canada's Maritime Provinces.

PRINCE EDWARD ISLAND

The Micmac Indians called the island, "Land Cradled on the Water". Today's residents call it P.E.I.

According to the indians it was made from the red clay left over after the earth was created. They said the Great Spirit visited the island every summer.

It is still a popular summer resort because of its many smooth sandy beaches.

In Charlottetown, the capital, the townsfolk put on a summer production of Anne of Green Gables. It is based on the novel written at the turn of the century by Lucy Maud Montgomery, a local resident. A children's classic still read in schools world wide, it is P.E.I.'s most famous story.

Post cards show the house Lucy Maud Montgomery grew up in which was the prototype for Green Gables, and paperback copies of her books line the shelves of Woolworths on Queen Street. (Woolworths is easy to find, just around the corner from Prince Street, George Street and King.) Prince Edward Island is much like Britain both physically and culturally. The neighborhoods look like Scotland and the climate is similar.

The tourist season is only two months long and the rest of the islanders' time is devoted to farming. The red clay soil is especially good for potatoes. Turnips, grain, hay, cattle, sheep, poultry and pigs are also important.

This rich farming land attracted Acadians, Scots, Loyalists and Irish.

P.E.I. hosted the convention that created the Dominion of Canada, a country from coast to coast, in 1867. But it didn't join until 1873. It is still not quite joined to the rest of Canada.

It takes at least an hour each way to get to the island. The ferry from Nova Scotia begins running May 1st of each year and stops usually before December. The ferry from New Brunswick runs all year but the winter schedule depends on weather and ice breakers. Public officials are talking about a tunnel and bridge but until then P.E.I will remain an island on the edge of the 20th century.

QUEBEC

The Maine-Maritime similarities disappear when the crest of the hill is reached at Riviere du Loup and the road descends to the St. Lawrence River valley. This wide river is bright blue as it flows past chains of rugged mountains on either side.

Narrow French farm fields line the banks in elongated strips, their ends touching the river.

Upstream the valley narrows as the river flows between abrupt escarpments. Cape Diamond stands 104 meters above the river. Jacques Cartier named it, Cap

Diamant, in 1535. In 1608 Samuel de Champlain realised the importance of this strategic site and established a trading post. It was the beginning of the city of Quebec.

A fort was built on the top of Cap Diamant to command the river and Quebec City began growing as the capital of New France.

Because of its commanding position, the British tried to take the city by military action. The first attack in 1690 was repulsed as were later attempts. French soldiers on the high cliffs held off sporadic British attacks for sixty years until 1759 when troops successfully scaled the cliffs and captured the fort.

In 1763 the area was ceded to Britain as the victor of the French and Indian Wars but Quebec City has never come close to being anything but French in custom and language.

Today, although Canada is officially bi-lingual, the road signs in Quebec are in French only. There are pictograph highway signs for the non-French speaker. The government buildings are labeled in English as is the military base in the old fort on the top of the cliffs. And, in these places, the red and white Maple Leaf flag of Canada snaps smartly in the crisp breeze. Elsewhere in town the blue and white fleur-de-lis city flag flies.

A friendly "Bon jour" is usually enough for a shopkeeper, clerk, gas station attendant, or taxi cab driver to respond in accented or limited English or find someone who can help. The visitor doesn't need to speak French but must recognize that it is the local language. To demand in a loud voice, "Doesn't anyone here talk English?" is a good way to be ignored.

The architecture, the wrought iron fences, and narrow streets indicate a sisterly relationship with the southern French city of New Orleans, Louisiana. Horse carts carry tourists up and down the steep cobble-stoned streets through the gates in the city walls, around the citadel and government buildings and by fragrant restaurants.

Occasionally the whiff of fresh garlic in butter sauce has caused the tourist to abandon the carriage for lobster bisque, fresh salmon or Gaspé crab. Again, an attempt to speak French improves the service.

As the river narrows towards southern Quebec Province it becomes more constrained and formal reflecting the great city of Montreal.

Modern, glassy, highrise; heavy industry and shipping; multi-storied apartments; criss-crossing concrete pilings of freeways describe a pulsating, vibrant, cosmopolitan urban center of three million people.



The careful visitor can find, tucked in among all the newness, Le Vieux Montreal along the waterfront. Here, in the old part of town, is The Basilique de Notre Dame de Montreal on the Place d'Armes. The church is one of the largest in North America. Inside there are three tiers of balconies. The blue and gold wall behind the altar reaches to the ceiling and the church is illuminated with sunlight through stained glass windows.

Cartier and Champlain explored here at the confluence of the St. Lawrence and the Ottawa Rivers but the city was not founded until 1642.

The British took over in 1763. In November of 1775 the Americans captured the city hoping for French-Canadian support. They held it for seven months, retreating when more British troops arrived.

ONTARIO

The parliamentary buildings in the capital city of Ottawa just west of Montreal, are castle-like and capped with pointed spires of green copper. From the highest elevation in the city they command the Ottawa River as it rushes by to join the St. Lawrence.

Ottawa, named for the local indians, had been a roistering lumber town when Queen Victoria picked it to be the capital. She had tired of the bickering between

the major Canadian cities as to which would be the capital and chose Ottawa from water color paintings she had seen.

Ottawa, for all of its parliamentary and political trappings doesn't seem to take itself too seriously. On a warm spring day there are more cyclists, joggers, strollers and tulips than there are businesslike officials. (The tulips are descendants of those presented by Queen Juliana of the Netherlands who lived here for five years during World War II. Her second daughter was born here. In tulip season 1988, her first daughter, now Queen Beatrix, visited Ottawa, which she remembered fondly from her childhood.)

Up the Ottawa River the Rapides de Joaquins near the city of Pembroke have been conquered by a hydro-electric dam as have many places along the rivers of eastern Canada. It is one of the many industries along the river. Lumbering, pulp and paper, dairy cattle and grains are also of major importance.

As the Trans-Canada Highway, the southern route, pulls away from the river it comes to a rise in the land. This sub-region is a geological outcropping of rocks that contain many minerals.

The Sudbury sub-region mines about 85% of the world's nickel. There is also gold, silver, copper, cobalt and iron.

The trucks and trains that transport the riches to distant ports shake the soft soil of this land north of Lake Huron. But all this vibration doesn't faze the residents of the beaver ponds that line the wet places near the railbeds and highways.

Seemingly oblivious to the distractions about them, chubby beavers build great log booms, gnaw branches from trees that grow near their ponds, surface dive like Olympic swimmers and occasionally slap the water with their broad tails when curious humans get too close.

The streams also support spawning smelt, sucker fish and Coho salmon which migrate from Lake Huron.

The Ojibway Indians used to portage their canoes around rapids on the St. Mary's River which fall twenty-one feet between Lake Superior and Lake Huron at the present day city of Sault Ste. Marie.

In 1797 the Northwest Fur Company built a lock to circumnavigate the falls which was used until the war of 1812. The present Canadian locks were built in 1895 and still serve as an important link to international trade. There are boat trips that will take visitors through the locks and for a close up look at the rapids.

The locks are a part of the St. Lawrence Seaway. Completed in 1959, the Seaway reaches almost 4000 kilometers into the heart of North America.

MICHIGAN

Across the St. Mary's River is the city of Sault Ste. Marie, Michigan. On both sides of the river the twin cities and locks are referred to as "The Soo".

The four locks on the American side were built in 1914, 1919, 1943, and 1968 to accommodate the increasingly larger ships that ply the waters as long as winter ice allows.

Constructed and operated by the Army Corp of Engineers, the locks are continually busy. They are also an educational lesson for school children and other visitors.

The visitors' center shows a twenty-five minute film on the geology, history and the geography of the Great Lakes system. It explains how the natural water bodies and all the connecting canals and locks which make up the waterway can transport goods from the heartland of America to the Atlantic Ocean and beyond.

In addition to the film there is a topographical map and a demonstration model of how a lock works. There are historical photographic displays of the building of the locks.

Outside there are three observation towers along the locks that allow visitors to watch the huge ships which use these water elevators.

The ships are called either "Lakers", ones that stay in the fresh water exclusively or "Salties", ocean going ships.

There is no need for locks where Lake Michigan and Lake Huron link together at the straits of Mackinac (pronounced MACK ih naw). Forty miles long, the straits are only five miles across at the narrowest point.

In the straits is Mackinac Island. It is three miles long and two miles wide and accessible by ferry.

It is a charming locale for summer holidays with Victorian hotels, tourist homes, and quiet streets with no motor vehicles allowed.

Locals and tourists get around by bicycles, horse drawn carriages and wagons, or by walking. (Visitors may bring their own bikes for an extra \$3.00 round trip.)

This island, a beehive of tourist activity in mid-summer, has an intriguing history due to its strategic location in the straits.

The British-built fort of 1780 is preserved on a hilltop overlooking the harbor and is peopled with costumed characters during the busy summer.

The British didn't give the fort up until long after the Revolutionary War. It then became the headquarters for John Jacob Astor's American Fur Company. It was the rendezvous point for trappers and Indians who gathered here to exchange furs for supplies.

The Indian House, a dormitory, constructed in 1838, now houses an Indian museum.

Indians still live on the island. They are some of the 200 or so hearty souls who "winter over". Summer employees and many citizens leave when the season ends. Most of the horses are sent to warmer climates. For those who stay the snow mobile replaces four-footed summer transportation. In January, old Christmas trees line the path across the ice to the upper peninsula town of St. Ignace.

St. Ignace was founded by Father Marquette in 1671. He was buried here after his exhausting explorations of the Mississippi Basin. Now St. Ignace is the entrance to the Upper Peninsula at the northern end of the Mackinac Bridge.

This is one of the five largest suspension bridges in the world. It was completed in the late 1950's. Before the bridge linked the two parts of Michigan there were frequent lines of up to twenty-three miles of motor vehicles waiting for ferries.

The U.P. (a local abbreviation for the Upper Peninsula) is part of Michigan because of a compromise. When Michigan wanted statehood in 1835 it also wanted Toledo and the rich strip of land around it. Ohio was adamant and, finally, the Toledo Wars (which had been fought with words not guns), ended with Michigan receiving statehood by giving up their claims to Toledo and accepting the U.P. as compensation.

After statehood it was discovered that the U.P. held copper, gold, silver and other valuable minerals as well as stands of hardwood. Today it is a rich vacationland for winter snow advocates and summer fishermen.

The Indians knew of the riches long before the arrival of Europeans. They mined the copper of the U.P. forests.

WISCONSIN

Archeologists have discovered that the Copper Culture people left burial sites, 4500 years ago, along the shores of the Green Bay of Lake Michigan in the town of present-day Oconto, Wisconsin. Copper was used for hunting tools.

Lumbering had once been the main industry of Oconto. There is still some paper production.

Farther south was the first permanent settlement in Wisconsin. French missionaries began Green Bay in 1669. Later fur traders and soldiers arrived. In 1850 Otto Tank, a Norwegian, Moravian missionary arrived with fifty families, enough money to buy prime riverland, and capital to begin lumbering and steel industries.

Cheese made from rich Wisconsin milk from Holstein-Friesian cows is another major industry. Many small cheese factories dot the land surrounding Green Bay. Visitors may watch workers stirring curds and whey. Then they can sample and purchase cheese in an adjacent company store.

Another segment of the economy is the Green Bay Packer football team, the oldest team in the National Football League. It is owned by the citizens of Green Bay. No other team belongs to its fans and they are enthusiastic owners! The stadium and the Hall of Fame are on cross streets named for football heroes. Even the surrounding fields turn out in Packer colors, alfalfa green and daisy yellow.

Throughout Wisconsin farms with red barns, white houses, and green pastures filled with black and white cows cover the countryside looking prosperous and comfortable.

Between the farms are stands of trees for pulp and paper production.

Appleton, on the north end of Lake Winnebago where the Fox River Rapids are located, boasts that it was the first city in the U.S. to generate electricity with water power. Their hydro-electric plant was begun in 1882.

It wasn't enough of an attraction, though, to keep Ehrich Weiss in his boyhood home. In 1886, when he was twelve, he ran away from Appleton to join the circus. Changing his name to Harry Houdini, he spent the rest of his life amazing audiences with his daring and imaginative escapades.

Other imaginative creators are the Experimental Aircraft pilots and designers who meet every mid-summer along the shores of Lake Winnebago at Oshkosh.

Here improbable, innovative and imaginative designs challenge the theory of flight. Thousands converge at the EAA Air Museum for the International Fly-In.

The museum is open year round. Displayed inside are: the world's smallest twin engine plane, aircraft that are solar powered, ultra-lights, barnstormers, aerobatic planes, futuristic and antique aircraft, and a "baby bi-plane" which has a seemingly impossible wing span of only seven feet.

There are also "do it yourself" aircraft that come in kits for the enthusiast to put together in backyard, basement, or patio.

The Winnebago Indians, whose name graces Oshkosh's lake, called the Wisconsin River "A Path of a Giant Serpent". Now twenty-seven dams control the flow of this serpent as it winds through the center of the state and on west to the Mississippi River.

The edge of the last glacier stopped half way down the state leaving eskers and terminal moraines of rolling hills. An ancient ocean floor deposited layers of sandstone. Some parts of the floor were tilted by the flow of the ocean currents.

When the melting glacier formed rivers of runoff, the Wisconsin Dells were formed. The Wisconsin River cut through the soft sandstone to depths of one hundred and fifty feet for fifteen miles, leaving fantastic cliffs, scenic outcroppings and dramatic pilings of sandstone stacks.

Fortunately for future generations the last family to own the Dells donated the land to the University of Wisconsin to preserve and protect its natural state.

Boats are allowed on the river. Tourist boats cruise the tannic waters, brown from northern swamps, stopping for walks on tidy paths through fern grottos and creek canyons.

The Dells are the primary attraction of Wisconsin. Tourist activities; water slides, wax museums, curio shops and all the attendant hyperbole surround the Dells but are not allowed to intrude into the quiet waters.

Tourist hype got an alliterative workout just down the road in Baraboo when the five Ringling Brothers from Germany began their "Classic and Comic Concert Company" in 1882.

Within a few years they had added a menagerie including a "Hideous Hyena" billed as "The Mammoth, Midnight Marauding, Man-Eating Monstrosity".

Circus World Museum in Baraboo continues the tradition.

In the Baraboo Range of rolling hills is the Ice Age National Scientific Reserve where scientists work to explain the glacially developed landscape at Devil's Lake State Park.

This lovely spring-fed lake was popular with the ancient indian tribes who built effigy mounds on the surrounding hills. Near the park headquarters are the mounded shapes of lynx and bear formed by ancient artists as totems or offerings.

More mounds were found where the Wisconsin flows into the Mississippi. At this location, in 1673, Marquette and Joliet discovered the "Father of Waters"

for the French. Here Prairie du Chien, named for an Indian chief, was begun on a flood plain as the second settlement of Wisconsin.

First it was a fur trading post, then French, British, and American forts occupied the site. (Jefferson Davis and Zachary Taylor were both stationed here).

The Villa Louis, a Victorian Mansion was built on top of a Hopewell Indian mound. It was the social center for a growing community and the home of the Dousman Family whose wealth stemmed from the John Jacob Astor American Fur Company. Today the house stands as a museum, but alone in the former town.

In 1973 the residents began, literally, pulling up stakes. Homes, stores, the whole community moved to higher ground at the insistence of the Mississippi River Flood Control Project. The paved streets and posted street signs remain but the lots have gone to grass and the area is now used as a riverside park when the water is at a safe level.

There are many islands which are barriers to navigation in this region. The east channel that flows along Prairie du Chien's banks is now used exclusively by pleasure boaters while industrial barges and push boats use the west channel below the high cliffs of Iowa.

IOWA

On the cliffs overlooking the river are so many effigy mounds that the National Park Service included them into a park in 1949. Much of the archeological work was begun in the late 1800's by scientists who saw the need to understand and protect the mounds.

At the visitors' center there is a museum and a fifteen minute historical film.

There is a strenuous hiking trail up the cliffs to the mounds. There are 191 known mounds in the park, mostly conical or linear shaped but twenty-nine are in the shapes of birds or bears.

The first Indians to use this part of Iowa probably migrated into the area following the last ice age about 12,000 years ago. In the Mississippi River Valley 2,500 years ago, mounds were being made by the Red Ochre People who used copper for jewelry.

The next mounds appear to have been made by the Hopewell Indians, a pre-historic culture dating from about 100 B.C. to 600 A.D.

The effigy builders came later. They used copper for tools. They didn't include many artifacts or offerings with their buried dead, making the archeologists' task more difficult.

About 1300 or 1400 A.D. the effigy builders were supplanted by the ancestors of modern Indians of the Oneota Culture.

Below the cliffs is the Great River Road. It leads to McGregor, where Iowa's largest grain terminal on the river stores corn and other agricultural products to be loaded into barges for export.

Lock #10 at Gutenberg steps the barges down to the next section of the river. One boat can push twice as many barges as the locks can hold so they must go through in two lockings.

Not all the corn floats downriver to others. Iowa's corn-fed pork and beef are some of the world's best. Tender to the fork even after being grilled (There are no steak knives in Iowa!) these meats are the prime entree in Iowa's restaurants.

The Amana Colonies of central Iowa have several of these fine restaurants specializing in German meals; spicy bratwurst, tasty knockwurst, hot and vinegary potato salad, saurkraut, and pork chops that are an inch thick, three inches across and butter tender.

The Colonies were settled in the Iowa River Valley just east of Iowa City in the 1850's. A communal religious group from Germany, they came to America to escape religious persecution. Originally settling in

Buffalo, New York, they moved south when Buffalo became too cosmopolitan and crowded for their liking.

The little villages are anything but crowded today. About 700 people are still active in the church although the communal life of shared meals, group directed work loads and collective incomes is a memory.

The Colonies have been a joint stock corporation, with the Amana Society members as the stockholders, since 1932.

Best known for the Amana Refrigerators and microwave ovens, they also produce woolens and high quality furniture of walnut and cherry woods.

Not all of the industries in the villages belong to the Amana Society but they conform to the style of the colony. The villages cater to tourists without being "Touristy". Bakery products, locally brewed beer, fruit wines (berry, rhubarb, dandelion and red clover) and hand crafts are for sale.

The Amana Colonies are not related to the Amish but are often mistaken for them. There is an Amish area to the south in Kalona.

Just east of the Colony Villages is the birthplace and boyhood home of Herbert Hoover. It is a National Historical Site that houses his presidential papers and a museum. The cottage where he was born and the Quaker

meeting house he attended are here. Hoover and his wife are buried on the site.

Iowa City is the location of the University of Iowa. It has a medical center that is well recognized.

The industrial and commercial life of eastern Iowa is farther north. Cedar Rapids on the Cedar River is a bustling manufacturing city. Almost \$500,000,000 worth of cereal is exported annually.

Up the river is Cedar Falls, a milling center and home to the University of Northern Iowa.

Its companion city is Waterloo which has 150 different industries including the John Deere Tractor Works.

The familiar green and yellow of John Deere farm equipment is seen everywhere in the fields of America. John Deere was the first to invent a steel plow that could turn prairie sod that was too tough for the old iron plows. (An original John Deere plow is in the Smithsonian Museum in Washington.)

The tractors continue to plow the rolling hills of eastern Iowa even as the land flattens out in the center of the state.

Just south of the Minnesota state line is the little town of Mason City. There is something familiar about the town. It is the boyhood home of Meredith .

Wilson and the model for River City in the musical "The Music Man".

MINNESOTA

Directly north of Mason City is another novel setting. Sauk Centre, Minnesota was the home of Sinclair Lewis. The main highway into town is labeled "The Original Main Street" and it crosses Sinclair Lewis Avenue.

Lewis was America's first Nobel Prize winner for literature.

Minneapolis and St. Paul are on either side of the Mississippi where the St. Anthony locks lift river traffic more than forty-nine feet.

Here at the junction of the Mississippi and the Minnesota rivers is Fort Snelling, built in 1825 as the most northern military outpost in the northwest. With lumberjacks and rivermen the area needed a fort to keep the peace.

A squatters' settlement under the leadership of "Pig's Eye" Parrant, a colorful French-Canadian trader, was begun near the fort in 1840 and was named for its leader. Later a priest encouraged the residents to change the name to his patron saint. They agreed. It was just as well that the names were changed, Minneapolis-Pig's Eye would have been a little too

colorful for the now sophisticated twin cities of Minnesota.

Another Minnesota name change occurred in 1832. The Ojibway Indians called a small lake in the far north, Lake Omushkos which means Elk Lake. The French translation of Elk Lake is Lac La Biche. But Henry Schoolcraft, who had been searching for the headwaters of the Mississippi, changed Elk Lake to Lake Itasca, proclaiming it the true source of the river. Although it sounds like an Indian word he created it from letters of the Latin words, ver-ITAS CA-put meaning truth and head. At the northern end of this peaceful lake a small stream, ankle deep and eighteen feet wide, bubbles over rocks as it begins its journey to New Orleans 2,552 miles away.

Besides the headwaters of the Mississippi, Minnesota also claims the beginnings of the St. Lawrence and the Red River of the North which empties into Hudson Bay.

NORTH DAKOTA

The Red River is part of the boundary between Minnesota and the Dakotas. The valley of the Red River is miles wide, gently sloping and rich with dark chernozem soils. The valley was once the bed of a post glacial lake.

Moorhead, Minnesota and Fargo, North Dakota guard either side of the Red River. Fargo was named for William Fargo of the Wells Fargo Express Company.

The main east-west highway climbs up out of Fargo onto the Missouri Plateau towards a city named for another 19th century notable. Bismarck was named to honor the Chancellor of Germany in the hope that his countrymen would invest in the territory.

Bismarck is the state capital and had been the capital of the Dakota Territory but later conflict over the site of the capital caused such bitterness that the Dakota Territory, north and south, became separate states when admitted to the Union in 1889.

On Bismarck's capitol grounds is a statue to the Bird Woman of the Shoshones who guided Lewis and Clark on their 1804 expedition to explore the Louisiana Purchase. Her name is spelled Sakakawea on her statue which is the local Mandan Indian pronunciation of her Shoshone name. It is more familiarly spelled Sakajawea. With her baby in a sling over her shoulder she stands facing northwest toward her homeland.

Nearby is the North Dakota Heritage Center. It is as fine a museum as can be found anywhere. The land, the animals, the Indians, the settlers are displayed in dioramas.

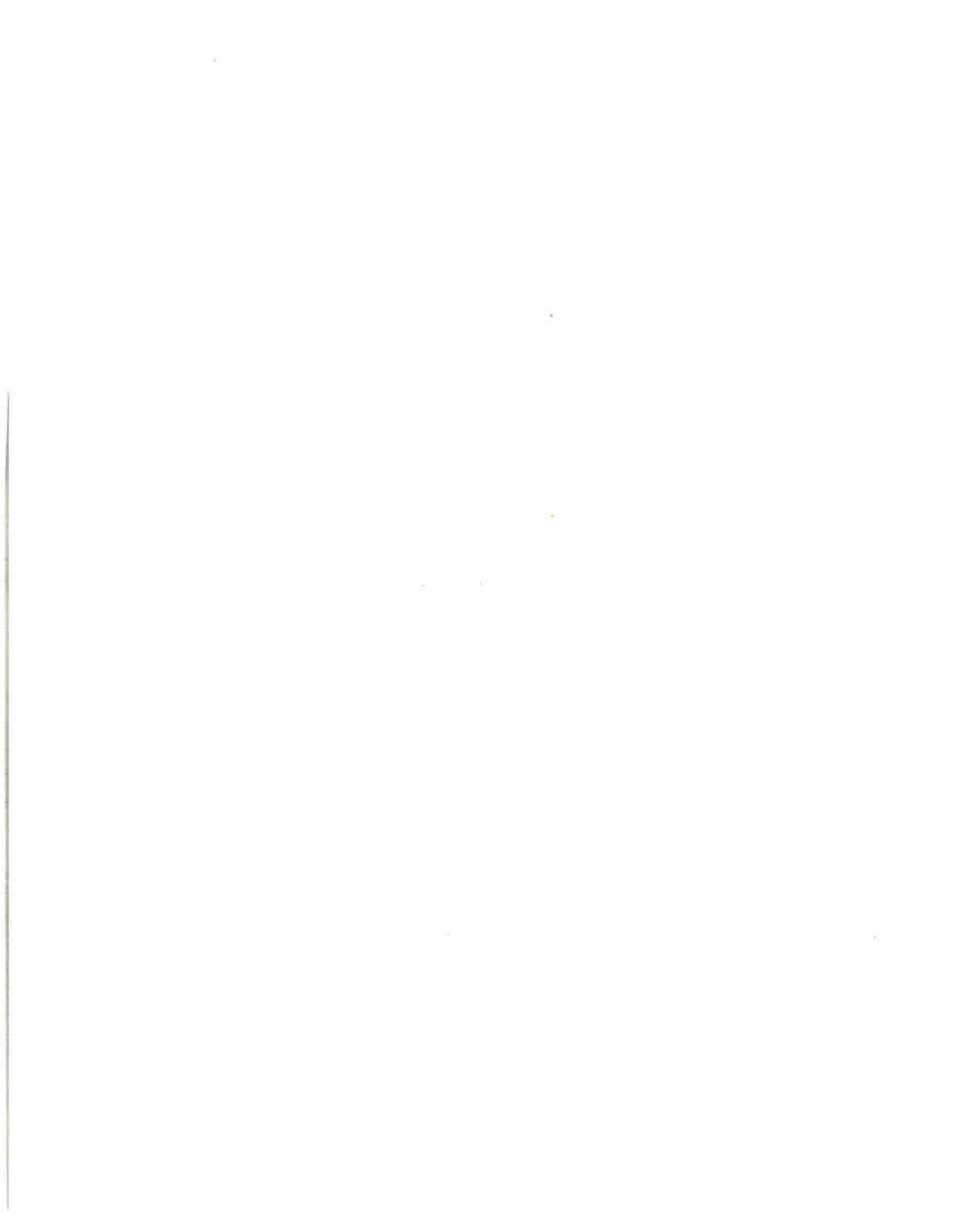
Press buttons and the Canada geese flying over a grizzly bear and a howling wolf begin to honk their reassuring calls to each other; Shirley Temple sings "The Good Ship Lollypop" over scenes of the depression farms and the CCC camps; Rousing political speeches argue various opinions in a display of campaign posters and buttons.

A homesteader's cabin, hardly adequate for moderate climates certainly a weak shelter from a North Dakota winter, overlooks a small graveyard dusted with an evening snowfall.

The stark photography of the late 1800's left no room for glamourizing the harsh realities of frontier life. Walls hang with excerpts from diaries and letters written home.

Across the Missouri is the town of Mandan. Just south of the town is Fort Abraham Lincoln where Lt. Col. George Custer marched with the 7th Cavalry for their final conflict at the Little Big Horn, 400 miles west. Reconstructed block houses command the view from the cliffs above the fort where foundations are all that remain.

Near the visitors' center is a reconstructed Mandan Slant Village. Heavy logs hold up the reed and packed earth walls. They are sturdy homes. In the visitors' center one of these homes is furnished according to



Indian custom. There are dioramas explaining Mandan life; the Lewis and Clark expedition which camped nearby in the winter of 1804-05; and the ill-fated 7th Cavalry's last campaign.

West of Mandan the North Dakota prairie continues to roll, climbing ever gently towards the Rockies. Grazing lands, grains, and grasslands continue for the western half of the state.

There is no truth to the rumor that the telephone pole is the state tree of North Dakota, actually the state's tree is the American Elm, but it probably should be the cottonwood.

This lovely tree lines edges of creeks and waterways as a beacon for travelers. Shimmering green leaves provide shade and shelter. Corregated bark, split by expanding growth, offers travel paths for insects and birds.

Near the North Dakota-Montana border is land the Sioux called Mako Shika, "Land That is No Good". The soldiers called it "Hell With the Fires Put Out" and today it is known as the Badlands. It is the location of the Theodore Roosevelt National Park established in 1947.

Erosion caused by the Little Missouri River has made ragged cliffs and buttes of the grasslands.

Along the river's banks are stands of huge cottonwoods grown tall in spite of the local beavers who have gnawed smaller trees to pointed stumps that protect the bank like North Vietnamese "pungee" sticks.

The ranger says beavers continually try to dam the river, but it continues to flow past their lodges on its banks.

Theodore Roosevelt came to North Dakota to shoot buffalo but stayed on to become a partner in a ranch and to discover the importance of conservation.

As president, Roosevelt established the U.S. Forest Service. In 1906 he proclaimed eighteen national monuments. He obtained Congressional approval for five national parks and fifty-five wildlife refuges and he set aside lands to be protected as national forests.

In 1956 buffalo (American Bison) were re-introduced to the park and now, with no natural enemies, they roam freely, stopping traffic on the park's roads. They cruise through campsites on their way to the river, scratching their itchy hides on fence posts, road signs, junipers, and cottonwoods. Bits of their wiry hair are left like Christmas tinsel wherever they have passed.

The solitary males stand off from the herd in spring while calving takes place. In summer when it is time for mating the bulls begin to re-establish dominance.

There are about 300 bison at present. The park can support 200 to 500. Every few years there is a round-up to thin the herd.

Elk were re-introduced to the park in 1985.

There are 150 different species of birds including the wild turkey whose gobbling calls can be heard on the evening breeze and whose three-inch long tracks can be found in the mud of the river.

Songs of meadowlarks, red winged black birds, nuthatches, sparrows, orioles and robins add to the music of the park.

Throughout the park are prairie dog towns. There are hundreds of little mounds of dirt where prairie dogs (ground squirrels that bark) push up soil when they are excavating their homes.

Prairie dogs dig themselves two living rooms, one is a spare in anticipation of flooding. They also have a listening room which is just underground near the exit hole.

They pop out to forage, getting all their food and moisture from prairie grasses.

Sentries watch for danger and chirp out calls to warn others. The cries increase in frequency and volume with the approach of danger. The sentry gives one last hysterical shriek and a gymnastic leap before he dives into the safety of his burrow.

Spring babies have to learn how to sit up on their haunches with both forepaws in front of their chest. It is not an inherited talent, they topple over frequently. They do inherit a bright-eyed curiosity.

Prairie dogs can be nuisances as well as charming entertainers. They often push burrows up through the asphalt which keeps rangers busy patching roads and, given the opportunity, they play havoc with fields and gardens.

Nature trails throughout the park explain the local geology. This area has the largest lignite coal deposit in North America. Lignite is the softest coal. It runs in layers throughout the sedimentary soil. Grassfires and lightening have caused the lignite to burn and smolder underground. As the coal burns it heats and bakes the gray clay into hard red brick called scoria. This brick resists erosion and thereby forms caps on the buttes and cliffs.

Gray bands in the sediment are layers of ancient volcanic ash blown east from eruptions in the Rockies.

MONTANA

As settlers continued their relentless push west into Indian territory, the clash of cultures, the need for land, the spirit of manifest destiny, the

missionary fervor pre-determined a final conflict if not the site.

The site became the hills above the valley of the Little Bighorn River.

It was "Custer's Last Stand" but more importantly it was the last stand of the free ranging Indians. The annihilation of the 7th Cavalry Regiment on June 25, 1876 was a Pyrrhic victory for the Sioux and Cheyenne. Within a few years they would be subjugated and confined to reservations.

When news of the battle reached the east coast during the great centennial celebrations the public, their patriotism already stirred, reacted in horror and outrage. It was the excuse the government needed to flood the west with troops to solve the "Indian Problem" once and for all.

There had been more than 400 treaties signed with the Indians and broken by both sides but finally, in 1868, the Fort Laramie Treaty assured the Indians possession of the land west of the Missouri, their sacred Black Hills, and hunting rights in land still undecided.

For about eight years both sides were peaceful but then rumors began that there was gold in the Black Hills. It was George Custer who was sent to investigate. When rumors proved true the rush was on.

Then neither treaty nor the U.S. Army could keep the miners out.

The Indians were furious. The Bozeman Trail cut through their land. The gold seekers were carving up their sacred hills. The raids were on again.

In December of 1875 the government ordered the tribes to return to their reservations or face military reprisals.

The following summer General Alfred Terry with an army that included Custer and the 7th Cavalry marched from Fort Lincoln at Mandan to search for recalcitrant Indians.

Today the Little Bighorn Valley lies quiet, green and self-sufficient along the banks of the tree-lined river. It is Crow Indian land, as it has been since before Custer. Cheyenne and Sioux had pushed the smaller, less aggressive, Crow off the land. (Five Crow warriors were scouts for Custer.)

When the 7th Cavalry approached from the southeast out of the Bighorn Mountains, there were probably 10,000 Indians with an estimated 2000-4000 warriors in the village in the valley. Custer divided his command of about 600 men into three battalions. He retained five companies under his personal command, ordered Major Reno to attack from the south with one company,

and sent Captain Benteen and his company on a scouting mission.

There are many unanswered questions as to what happened that fateful Sunday. It is known that after attacking the overwhelming numbers of Indians, the soldiers were forced to retreat to the rolling hills above the river.

Custer and his battalion of 210 men were cut down in less than an hour. Indians later said it was like a buffalo hunt. They shot at will.

Reno and Benteen, joining up on a higher hill four miles away, were able to defend themselves until General Terry arrived and the Indians pulled back to the Bighorn Mountains.

Today white stone markers show where the bodies were found. Their simple epitaph reads, " U.S. Soldier, 7th Cavalry, Fell Here, June 25, 1876".

Some of the stones are alone, some in twos and threes, others in larger groups, indicating a pocket of resistance.

Of the soldiers in the 7th Cavalry it is of note that more than half were not American born. There were 158 Irish, 150 German, many from a variety of European countries as well as young men from across the country.

The visitors' center museum honors the men who died and the Indians who would die from punitive measures.

The Little Bighorn River is a tributary of the Bighorn River which flows into the Yellowstone and on to the Missouri.

West across Montana the Yellowstone River winds through fertile farmland ever increasing in elevation.

On their return from the Pacific the Lewis and Clark expedition split to explore further territory. Clark led a portion of the group down the Yellowstone River Valley meeting up again with Lewis on the Missouri.

Later the Northern Pacific Railway opened this area in the late 1880's and irrigation from the Yellowstone made it prosper in sugar beets, grain and cattle.

Billings is the railhead to the east and the largest city in Montana. It is also the energy capital of the northern Rockies with oil refining a major industry.

At the town of Livingston the Yellowstone River bends east as it flows out of the rugged mountains to the south.

The Northern Pacific Depot built in 1902 in Livingston now houses a small museum of Indian artifacts and western art. There are bronzes and paintings by Charles M. Russell and Frederic Remington as well as lesser known artists of the old west.

At the turn of the century trains would bring intrepid adventurers to Livingston where they would board stagecoaches for the ride to America's first National Park, Yellowstone, established in 1872.

WYOMING

Just inside the park at Mammoth Hot Springs is old Fort Yellowstone where the army guarded the park from 1886 until the National Park Service was established in 1916.

Magma, molten rock, just under the surface of the Rockies of Wyoming built up such pressure 600,000 years ago, that it caused a massive explosion of over a thousand square miles. The incredible release of molten rock left part of the magma chamber empty like emptying the filling from a cherry pie. The top crust then crashed into the chamber forming the basin or "caldera" of Yellowstone. This "pie" is forty miles long and thirty miles wide.

Today ground water seeps down through cracks in the crust to be heated on the underlying magma, returning to the surface in bubbling hot pools, mud volcanoes, geysers and fumeroles.

New areas continue to bubble to the surface. The Devil's Caldron erupted through the crust in 1959,

dramatic evidence that there is continual change in this dynamic earth.

Evidence of earlier eruptions shows itself in the park in the forms of lava flows, obsidian and basaltic columns.

Volcanic ash covered oak, walnut, dogwood and sycamore forests of Yellowstone 45,000,000 ago as evidenced by fossilized remains. Mineral deposits, leaching into the buried trees, replaced the wood. Erosion revealed their forms. Today fossils of redwood trees, which no longer grow in the park, stand as remembrances of things past.

Vulcanism is not the only process which has shaped Yellowstone.

At least three glaciers have scoured the park corresponding in time with glaciers of Canada and the northern U.S. These were not part of the same ice sheets but climatic conditions were such that they allowed glaciers to form in the Yellowstone Caldera area.

Massive boulders stand alone where they were left by the powerful movement of the ice. These boulders are called glacial erratics.

The fast running Yellowstone River was responsible for carving the V-shaped Grand Canyon of the Yellowstone. Rhyolite in the canyon had been changed

by steam into a soft yellow rock easily eroded and more vibrant in color than its original gray, a boon to geologists and photographers alike.

The animals of the park are also very popular with professional and amateur photographers. Rangers constantly warn visitors to be careful of the large animals; to photograph them with telephoto lenses and to keep their distance. But the urge to get just a little closer for that perfect shot results in many photographers finding themselves running instead of shooting!

Bison, elk and moose are the prevalent large animals. Bears keep much to themselves in the back country now that the policy of no feeding is strictly enforced.

Most of the 2.5 million annual visitors are careful observers who appreciate and protect the park.

IDAHO

The road that leads into Idaho from West Yellowstone runs through Island Park Caldera which is twice as old as the Yellowstone Caldera.

Here on the western side of the Grand Teton Range are the rivers that flow into southern Idaho.

Henry's Fork of the Snake is placid as it meanders out of Henry's Lake. It is popular with fishermen who

stand hip deep in the water as close as they dare to the next fisherman's casting.

Farther south the river plunges over the upper and lower Mesa Falls through a rugged rocky canyon on its way to join the Snake. The two rivers curve out of the Tetons on their combined way to the Snake River Plain where they were tamed by Mormons of Idaho Falls.

The first Mormon settlers came up from Utah to Taylor's Crossing on the Snake. J. M. Taylor ferried miners across the river who were headed for the gold and silver fields of Montana.

The Mormons stayed. They found little more than flat land and sagebrush so with Mormon diligence they dug canals to irrigate the land they cleared.

Now the Snake irrigates more than a million acres of grain, fruit, potatoes, and sugar beets. Many of the Mormon canals are still in use.

Half of the 40,000 people of Idaho Falls are Mormons. A temple is located on the banks of the Snake just north of the falls.

West of Idaho Falls the road leads into the sagebrush and the Idaho National Engineering Laboratory, thousands of acres of land dedicated to nuclear research and development.

Power plants, waste disposal, and ecological studies occupy a force of some 8,000 workers.

There are no living facilities on the site so most employees commute the fifty miles from Idaho Falls.

At the center of all this is the EBR-1, the First Experimental Breeder Reactor.

On December 20, 1951 this plant was the first to produce electrical energy from nuclear power. The first experiment lighted four light bulbs but it was enough to prove that nuclear generated power was a possibility.

The plant went on to demonstrate that Uranium 235 could split Uranium 238 and create Plutonium 239 to be used as a reactor fuel. This process created more energy than it consumed, hence the breeder.

Today 13% of the nation's electrical needs are produced by pressurized and boiling water reactors; ideas pioneered at EBR-1.

Now the small plant (decommissioned in 1964) is a museum and historical monument. Tours are offered to explain the nuclear energy systems and to encourage and reassure visitors about the safety and potential of nuclear power.

Visitors can see the rods, the reactors and the breeding blanket. There is a view into a hot cell through thirty-four layers of leaded glass. The glass plates are separated by sheets of mineral oil to provide more radiation protection. Mechanical hands

which manipulated radioactive material are demonstrated.

The tour offers an unusual opportunity to learn about an intriguing and controversial subject.

On the same road the sagebrush begins to disappear into a sea of black gravel and weirdly shaped rocks.

This land is in the Craters of the Moon National Monument.

In this seventy-five miles of fissured land the earth opened up along a great rift and lava spewed and oozed out over the landscape. Every one of the seven types of lava are in evidence.

Hawaiians, who are experts on lava, call the rocky type "aa" and the ribbony ropy lava "pahoehoe".

There are paths to cinder cones; to tree molds where the lava engulfed living trees and left their fossils; and to lava tubes where hot molten insides of a flow continue to move as the outer shell cools and crusts thereby leaving tunnels and caves.

In all this exotic, contorted blackness, wildflowers flourish and bring spots of color to the lunar-like landscape.

Outside the monument lava beds flow for miles across the Snake River Plain.

Twin Falls is the southern center of agriculture in Magic Valley, a fertile farming community along the

river. Here the river travels through a deep gorge and plunges over falls taller than Niagara. They are roaring falls when the water isn't being diverted for irrigation.

NEVADA

Interstate 80 through northern Nevada follows the Humbolt Trail. Today's traveler who moans about the long stretches of unending highway across Nevada should remember those hearty pioneers whose oxen pulled wagons fifteen miles per day over roadless terrain. Thirst, starvation, cold, disease, accidents, mistakes; it is a wonder that any of them survived the way west.

Tracks left by iron wagon wheels are still visible in rocks near the town of Wells.

At Winnemucca (named for a friendly Paiute chief) wagons forded the Humbolt River. This would be an inconsequential stream east of the Mississippi but here in the west any water, no matter how muddy, is an essential life-sustaining force.

The pioneers followed the curving river until they could transfer their dependence on water to the Truckee River which flows east out of the Sierra Nevada Mountains.

Climbing the steep slopes along the river, pioneers dragged what supplies they could up to the 7,000 foot

pass. But there were still forty, rugged, granite boulder-strewn miles to cover before the Sierra Nevada Mountains reached the Central Valley of California.

CALIFORNIA AGAIN

Today a four lane highway traverses the same route. Ski resorts and mountain cabins dot Donner Pass.

Off the road near Donner Lake is a memorial to all pioneers who braved this crossing. It is especially dedicated to the Donner Party of 1846.

They were dangerously late in the season for crossing the Sierras and then it turned out to be the worst winter in the last hundred years.

When they could go no farther, they cut trees for cabins. The tree stumps were twelve feet high, so deep was the snow.

They were out of food, there was little game available for hunting, and their resorting to cannibalizing the dead made them notorious. The fact that some of them survived at all was amazing.

The museum at the monument has relics and information not only about the Donners but includes Indians, other explorers, mountain men, and railroad crews.

There is a full size wagon loaded as if to travel the pass. One of the Donners' twelve foot tree stumps is on display. A video describes their winter.

The Donner Party, like other pioneers, finally made it to Sutter's fort near Sacramento, where they recuperated before striking out for their final destinations.

Sutter knew that lumber would be needed for construction of shelters for arriving settlers so he established a lumber mill in the hills above Sacramento on the south fork of the American River. A result of this need was the next migration of newcomers to California.

One January morning in 1848, James Marshall, Sutter's foreman on the mill construction project, noticed a shining nugget at the river's edge. Sutter tried, unsuccessfully, to keep the discovery of gold a secret. But within the year the rush of gold seekers swamped the motherlode country. Coloma, the mill site, became the first gold rush town.

The river has changed course since Marshall's discovery but the mill has been reconstructed on its banks according to original plans. The Mormon cabin, the Chinese stores, and many original homes are open to view at the site. The visitors' center re-creates the gold rush story and has as well an outstanding wildlife

display. A statue of James Marshal stands on a nearby hill overlooking the river.

The motherlode country, rolling oak-grassland foothills of the western Sierra Nevadas, is traversed by a winding, narrow highway aptly numbered 49.

South from the Emigrants' Trail near Auburn the road winds past the original discovery spot at Coloma through Placerville, Jackson, Mokelumne Hill to Sonora. Sonora is the major town of the area.

Nearby Columbia is a restored ghost town. It is a living museum. Buildings are carefully furnished. Covered wooden sidewalks lead to stores, saloons and the sheriff's office. There are stagecoach rides into the hills where bandits lurk. The town reflects an earlier time when California was still part of the wild west.

Coulterville and Mariposa are still functioning towns at the south end of Highway 49.

Topping the Sierras above the motherlode, are the massive granite formations in the glacier carved valley of Yosemite.

Continuing south in the mountains are the Sequoia Gigantia, the ancient redwood trees of the southern Sierras which are protected in Sequoia and Kings Canyon Redwood groves. Some of the redwood trees within the groves are the most massive living things on Earth. In

the Sierras, not far from the redwoods, one can find the oldest living things on earth, the Bristlecone Pine.

West of California's rugged boundry is the large, fertile Central Valley where bountiful farms are fed by Sierra runoff.

California's agricultural statistics are overwhelming. It produces more than 40% of America's fresh fruits and vegetables. All of the nation's almonds, artichokes, dates, figs, kiwis, olives, pistachio nuts, pomegranates and prunes are grown in California. More than 80% of the country's apricots, avocados, broccoli, cauliflower, garlic, grapes, lemons, nectarines, and plums are raised in California. Better than half of the carrots, cantaloups, lettuce, peaches, and strawberries grow here.

California is a leader in cotton, hay, sugar beets, and rice. Most of these crops are grown in abundance in the Central Valley.

Supermarkets throughout the United States and Canada stock their springtime shelves with California products. Only asparagus, cabbages and tomatoes were frequent local products.

As California is a leader in diversity of agriculture so it is a leader in diversity of manufacturing, climate, and living styles.

Interstate 5 leaves the southern end of the Central Valley, where oil is another resource, and climbs the broad mountain range that forms the northern boundry of the metropolitan basin of Los Angeles. Here, in this massive urban complex, is a heterogeneous mixture of people, cultures, politics, religions, architecture, landscaping, and foods, that is more pronounced than in other regions of North America.

CONCLUSION

I wish to express how much the travel experience has enriched my knowledge as a classroom instructor. During the trip I was constantly impressed with so many cultural, social, geographical, and historical aspects of the regions visited. To actually be in daily contact with the people of the various regions visited was a tremendous learning experience. Many of my previous attitudes and pre-conceived notions have been favorably modified.

For me, the sabbatical trip was a valuable and irreplaceable experience that I plan to share with my students and colleagues.

From previous experience I have found that the slides I present during lectures enrich and increase my students' knowledge. I now will have many new and up to date slides that will improve my lectures in North American travel.

I have boxes of books, pamphlets, tour books and maps which will be stored in my office for research.

I will share tangible objects with my students to help facilitate their retention of information. During

the sabbatical I collected many specimens which will be part of a hands-on classroom experience.

I feel that my three months of exploration has made me a more productive and viable member of the MSAC community.

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APPENDIX



MT. SAN ANTONIO

COMMUNITY COLLEGE DISTRICT

1100 NORTH GRAND AVENUE • WALNUT, CALIFORNIA 91789
(714) 594-5611



December 21, 1986

To: The Salary and Leaves Committee

From: Richard Zinsley, Instructor, Aeronautics and Transportation

Subject: Sabbatical Leave Proposal with Recommended Modifications

Proposal

I wish to embark upon a travel sabbatical during the spring semester, 1988. The purpose is to enhance my pedagogic skills in the Area Studies of North America Travel class. The class covers all regions of the United States and Canada. It is essential for me to research those regions in order to be most productive in my classroom presentations. I have visited many of the other regions but I am limited when presenting materials regarding the central continent and the eastern provinces of Canada.

I am committed to visiting the states and areas as indicated on the attached map and outlined in the itinerary. My pre-trip research has led me to select this route as the best way to explore areas that will be new to me. I will travel by automobile in order to absorb as much of the countries' details as possible. I am beginning in the south and returning north to experience optimum weather conditions. The itinerary lists the highlights I plan to see but I look forward to the serendipitous findings that always enhance my travels and enrich my classroom presentations.

In my previous travels I have compiled many color slides which I use to augment my lectures. Because of student questions regarding scenery, climate, tourism, and recreation, I have found this technique to be quite effective, and intend to take many more slides during my sabbatical trip. My detailed notebook of historical, cultural, and recreational places of interest will serve as a reference to answer students' frequent questions.

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page 2

My students always comment favorably on the value of my travels and slides to their learning. They feel it helps them to understand more clearly and to get a better picture of an area. I frequently receive post cards from former students who are visiting areas studied in class. Many students tell me that they are taking the class because of the recommendations of others.

My format for keeping a log of my observations and findings during my travels will be to keep a daily record in a notebook which will be typed upon my return and will form the basis for my lectures and the narration of my slides. This final copy will be in my office for student referral. I will have an expandable file to hold brochures, maps, pamphlets, and books I acquire en route.

In my office I have a shelf dedicated to three-dimensional objects I have collected to enhance the students' understanding of the subject matter taught. These objects are shared in class at the appropriate time and are on permanent display for all visitors. I am looking forward to adding items to this shelf.

The Audio-Visual Department of the library has duplicated, catalogued, and made available, my slides for use by interested faculty members. I will make this new set and my journal available for duplication also.

As I have in the past, I will share my new information gained with my MSAC colleagues by presenting my slides at a convenient date and time upon my return. Carter Doran and Richard Raynard are some of the MSAC personnel outside of my department who have also enjoyed my slides from previous trips.

I am enclosing a class outline highlighting areas of study that will benefit from the proposed trip as well as the planned itinerary and map.

TIMELINE AND ITINERARY

This will be a driving tour of the United States and Canada with special emphasis on the Heartland, the Mississippi and Ohio River Valleys, the northeastern United States, and the Maritime provinces of Canada; areas I have not previously visited.

Between the special points of interest I will explore local areas that will supplement my North American Travel Course of Study.

WEEK 1

CALIFORNIA
ARIZONA
NEW MEXICO
TEXAS

The tour will begin through the Southwest with emphasis on the indian culture of Southern Arizona and New Mexico. I will explore the area of Historical San Antonio; the Alamo, the multi-cultural aspects of a city that has lived under five flags. In the hill country north of San Antonio are lakes and caverns as well as the capital city of Austin. I will investigate the wildlife sanctuaries of Padre Island National Seashore near Corpus Christi.

WEEK 2

TEXAS
LOUISIANA

The primary attraction in Houston, the country's sixth largest city is the Johnson Space Center and the aerospace industry. The shipping industry will also be explored. In southern Louisiana I will visit St. Martinville and Lafayette in the heart of Cajun Country in order to understand what I will find as the beginning of the story of the Cajun people when I visit the Acadian country of the Canadian northeast. Also in the rice belt I want to see the salt domes of Avery Island. To add to my previous knowledge of the Mississippi River I will explore the bayou country and the delta. I will travel north up the river through the capital of Baton Rouge, visiting anti-bellum mansions and historical spots, and the oldest permanent settlement in the Louisiana Purchase, Natchitoches.

WEEK 3

ARKANSAS
TENNESSEE
MISSOURI

In Arkansas I hope to seek out the diamond mines and hot springs south of the Ouachita National Forest. Through the capital of Little Rock and east to Memphis I plan to explore the Natchez Trace and the Tennessee River. The primary attraction in Nashville is Andrew Jackson's home, the Hermitage. I will visit the environmental center in the Land Between the Lakes in the Tennessee Valley Project. I will return to the Mississippi and continue north to St. Louis, the gateway to the west, rich in history of the Westward movement to California and the territorial expansion of the United States.

WEEK 4

MISSOURI
ILLINOIS
INDIANA
KENTUCKY

I will continue up the Mississippi to Hannibal to visit Mark Twain Country, the heart of Americana. I will travel across central Illinois, the Land of Lincoln, visiting historical sites connected with the sixteenth president. Through southern Indiana to visit the capital at Indianapolis and the University at Bloomington. Within a hundred mile radius of Louisville, the port city on the Ohio River, are the attractions of Fort Knox, the Mammoth Caves, Bluegrass country, Daniel Boone National Forest and many Lincoln monuments.

WEEK 5

OHIO
WEST VIRGINIA
VIRGINIA
WASHINGTON,
D.C.

Continuing along the Ohio River I will cross into West Virginia to explore the Appalachian Mountain societies, the history of the early pioneers and sites of Civil War activities. The first stop after crossing the mountains will be at Monticello, Thomas Jefferson's home. I will visit the Shenandoah Valley before arriving in the nation's capital to explore the history and the monuments with special emphasis on the Smithsonian Institution.

WEEK 6
PENNSYLVANIA
NEW YORK
VERMONT
NEW HAMPSHIRE

I will drive north through central Pennsylvania into the fingerlake district of central New York, then east to the capital, Albany on the Hudson River, then north through Revolutionary Battle sites to the Adirondacks and Fort Ticonderoga. I will then drive east along the Appalachian Trail through central Vermont and New Hampshire.

WEEK 7
MAINE
NOVA SCOTIA
PRINCE EDWARD
ISLAND

Next I travel across the Longfellow Mountains that form the backbone of Maine to the rocky coast where the fishing industry thrives and to study the history of sailing ships from Down Easters to the Clippers. Then into the Maritime Provinces of Canada to inquire about the original French Acadians who were expelled by the British in the mid eighteenth century and transplanted to Southern Louisiana and became the ancestors of the present-day Cajuns.

WEEK 8
NEW BRUNSWICK
QUEBEC

I will travel north up the Trans-Canada Highway to the major cities on the Saint Lawrence River for their historical and cultural significance.

WEEK 9
ONTARIO
MICHIGAN

I will then travel up along the Ottawa River to observe the rapids near the city of Pembroke not far from the Algonquin Provincial Park. Of special interest are the locks on the Soo Canal that allow ships to travel between Lakes Superior and Huron. Return to the United States in the Upper Peninsula area of Michigan.

WEEK 10
WISCONSIN
MINNESOTA

I will return through the dairyland of Wisconsin, to the Mississippi River and then head north to explore the indian caverns, bluffs and mounds and the wildlife refuges, then into Minnesota at St. Paul to continue north to the lake area that constitutes the headwaters of the Mississippi River.

WEEK 11

NORTH DAKOTA
MONTANA
WYOMING

West across North Dakota to the Missouri River at the capital city of Bismark to study the Mandan Indian sites with reference to the Lewis and Clark Expedition. Continuing into Montana to explore the Custer Battlefield and the surrounding Indian country. I will explore the geological extravaganza of Yellowstone National Park.

WEEK 12

IDAHO
OREGON
NEVADA
CALIFORNIA

Heading west across Idaho I will travel along the Snake River one of our few remaining wild rivers, and will stop to see the Craters of the Moon before heading into eastern Oregon. I will turn south, heading back into California at the historic Donner Pass, to retrace some of the trails of the early settlers. South through the mountain areas of California to explore the hidden communities of the Mother Lode Gold Rush Country before returning home.

MT. SAN ANTONIO COLLEGE
Salary and Leaves Committee

RECEIVED
NOV 24 1986
HUMAN RESOURCES OFFICE

APPLICATION FOR SABBATICAL LEAVE

Name of Applicant Richard Zinsley

Address 1616 Kanola Rd., La Habra Hts., CA 90631

Employed at Mt. San Antonio College beginning January 1, 1968

Dates of last sabbatical leave:

From None To _____

Department Aeronautics & Trans. Division Industrial Studies

Length of sabbatical leave requested: Purpose of sabbatical leave:

One semester Fall _____ Spring _____

Study _____ Project _____

Two Semesters _____

Travel Combination (specify) _____

NOTE: Sabbatical periods are limited to contractual dates of the academic year.

Effective dates for proposed sabbatical leave:

From February, 1988 To June, 1988

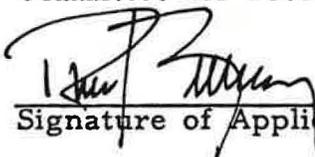
and (if taken over a two school year period)

From _____ To _____

Attach a comprehensive, written statement of the proposed sabbatical activity(ies) including a description of the nature of the activity(ies), a timeline of the activity(ies), an itinerary, if applicable, the proposed research design and method(s) of investigation, if applicable.

Attach a statement of the anticipated value and benefit of the proposed sabbatical activity(ies) to the applicant, his/her department or service area, and the College.

Any change or modification of the proposed sabbatical activity(ies) as evaluated and approved by the Salary and Leaves Committee must be submitted to the Committee for reconsideration.



Signature of Applicant

November, 15, 1986

Date

APPLICATION FOR SABBATICAL LEAVE

Page 2

Applicant's Name Richard Zinsley

THE ACKNOWLEDGMENT SIGNATURES REFLECT AWARENESS OF THE SABBATICAL PLAN FOR THE PURPOSE OF PERSONNEL REPLACEMENT. COMMENTS REQUESTED ALLOW FOR RECOMMENDATIONS PERTAINING TO THE VALUE OF THE SABBATICAL LEAVE PLAN TO THE COLLEGE.

APPLICANTS MUST OBTAIN THE SIGNATURES OF ACKNOWLEDGMENT PRIOR TO SUBMITTING APPLICATION TO THE SALARY AND LEAVES COMMITTEE.

ACKNOWLEDGMENT BY THE DEPARTMENT/DIVISION

Signature of Department Chairperson *Wayne J. Lutz* Date 11-18-86

Comments:

Signature of Division Dean *Lawrence E. Schmitt* Date 11-21-86

Comments:

ACKNOWLEDGMENT BY THE OFFICE OF INSTRUCTION

Signature of Asst. Superintendent/Vice President, Instructional & Student Services *J. K. Rajewski* Date 11-24-86

Comments:

NOTE: DIVISION DEANS ARE REQUESTED TO SUBMIT A STATEMENT OF RECOMMENDATION REGARDING THE VALUE OF THE SABBATICAL PLAN TO THE COLLEGE, DIVISION/DEPARTMENT, AND INDIVIDUAL, IN CONSULTATION WITH THE APPROPRIATE DEPARTMENT CHAIRPERSON.

FINAL ACTION BY THE SALARY AND LEAVES COMMITTEE:

 x Recommend approval to the Board of Trustees

 Not recommend approval to the Board of Trustees

Walter W. Collins 1/87
Signature - Chairperson, Salary and Leaves Comm. Date

John O. Randall 2/11/87
Signature - Authorized Agent of the Board Date

December 4, 1986

SUBJECT: Sabbatical Leave Request (R. Zinsley)

TO: Lawrence Schrock, Division Dean
Industrial Studies

In reference to W. Collins' letter dated November 26 (REF: Salary and Leaves Committee request for a statement regarding the sabbatical leave request of Richard Zinsley), the following is submitted. As Chairman, Aeronautics & Transportation, I am fully in favor of the sabbatical leave request of Mr. Zinsley. Of course, his outstanding talents in the classroom will be very much missed, but we will formulate a plan to temporarily replace him within budgetary constraints. As to the benefits to the college, it is to be noted that Mr. Zinsley has repeatedly utilized summer recess to broaden his classroom knowledge by international travel related to his courses. However, his planned tour of the United States itself, so essential to TRVL 25 (North American Travel) and related courses remains incomplete. This sabbatical leave will afford him the opportunity for this major undertaking.

I have personally observed Mr. Zinsley in the classroom environment and have been approached by his students. Students in our Travel program are obviously enhanced by the personalized approach that Richard Zinsley brings to the classroom as the direct result of his thoroughly researched travels. His slides capture the atmosphere of his travels and greatly enhance the students' understanding of the geographic and cultural variations throughout the world. Most students note Mr. Zinsley's detailed understanding of the geographic regions studied and his vast (and unique) slide collection.

Without reservation, I recommend the approval of this sabbatical leave request for Spring 88.

Respectfully submitted,



Wayne J. Lutz
Chairman
Aeronautics & Transportation

Vertical text on the left margin, possibly a page number or reference.

MT. SAN ANTONIO

COMMUNITY COLLEGE DISTRICT

1100 NORTH GRAND AVENUE • WALNUT, CALIFORNIA 91789
(714) 594-5611



December 17, 1986

TO: Walter W. Collins
Director, Personnel

FROM: Lawrence E. Schrock
Dean, Industrial Studies Division

RE: SABBATICAL LEAVE REQUEST OF RICHARD P. ZINSLEY

As Division Dean of Industrial Studies, I am very supportive of the Sabbatical Leave requested by Mr. Richard P. Zinsley. He has repeatedly utilized his summer and vacation times to broaden his knowledge through local and international travel which relates to his courses. His collection of slides, materials, and information are used effectively in his classes.

LES:aer

A handwritten signature in cursive script, appearing to read "LES", is written over the typed name "LES:aer".