

INDIANS

Of The

LAKE MEAD

COUNTRY

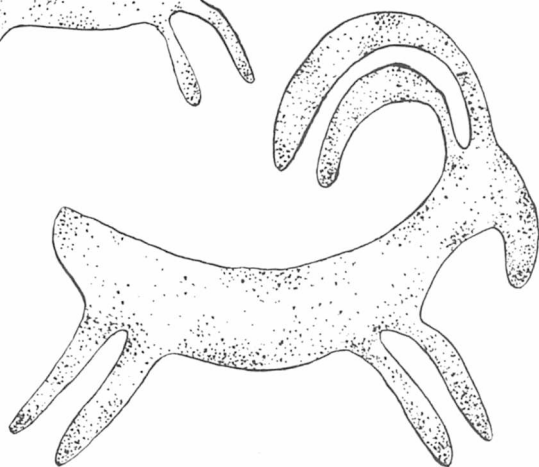
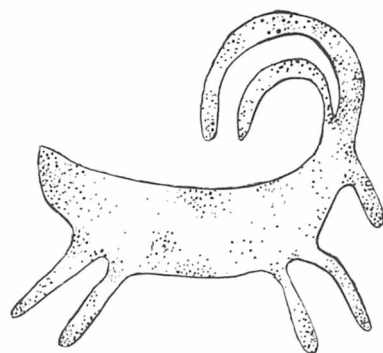
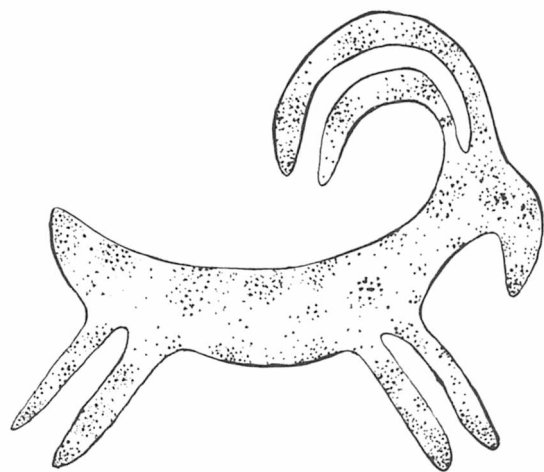


COVER PHOTO

The Lost City Painting
In the National Park Service Headquarters Building
Boulder City

L. A. Ramsey, 1937

**Indians
of
the Lake Mead Country**



INDIANS

Of The LAKE MEAD COUNTRY

by
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by
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Southwest Parks and Monuments Association
P.O. Box 1562, Globe, Arizona 85501
1971

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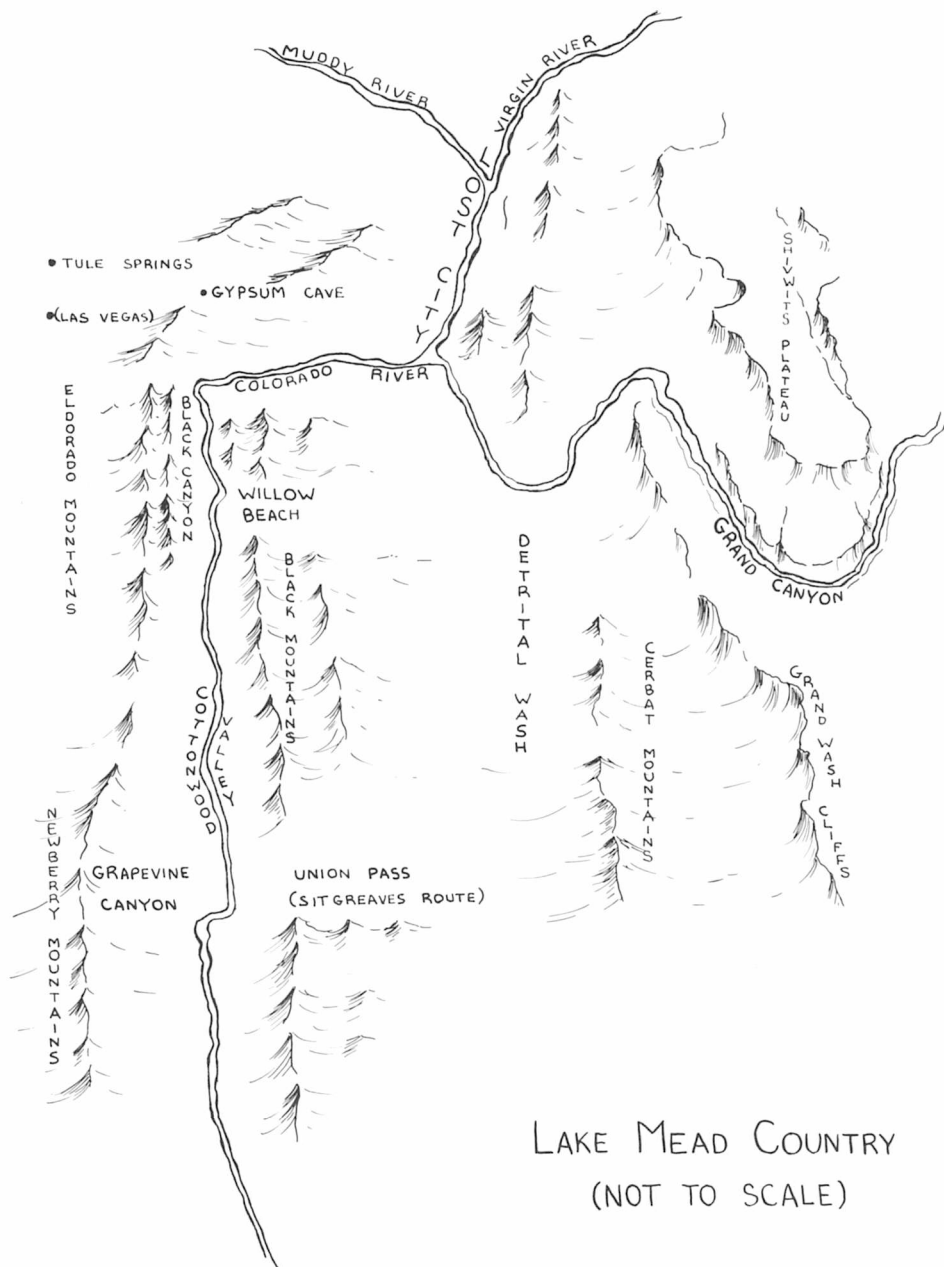
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LAKE MEAD COUNTRY
(NOT TO SCALE)

PREFACE

This booklet attempts to convey something of the way of life of the various groups of Indian people who lived in and around what is now the Lake Mead National Recreation Area. The first section presents a series of vignettes of their everyday life. The second section outlines their history, and provides perspective for understanding the development of their cultures.

Snow, permanent lakes and streams, pine forests, and mammoths seem out of place in our area, yet 12,000 or more years ago such was the scene. During this time in earth history (end of the Pleistocene Epoch or "Ice Age"), great continental glaciers covered much of North America. The climate, even in southern Nevada, was more cool and moist than now.

Gradually the climate warmed, the glaciers retreated, and by perhaps 10,000 years ago, the desert environment emerged. With only minor fluctuations, our surroundings here remained much the same from that time through the present.

This booklet is about the hunters who reached our area at the end of the Ice Age, and their descendants who greeted the first European adventurers just over 100 years ago.

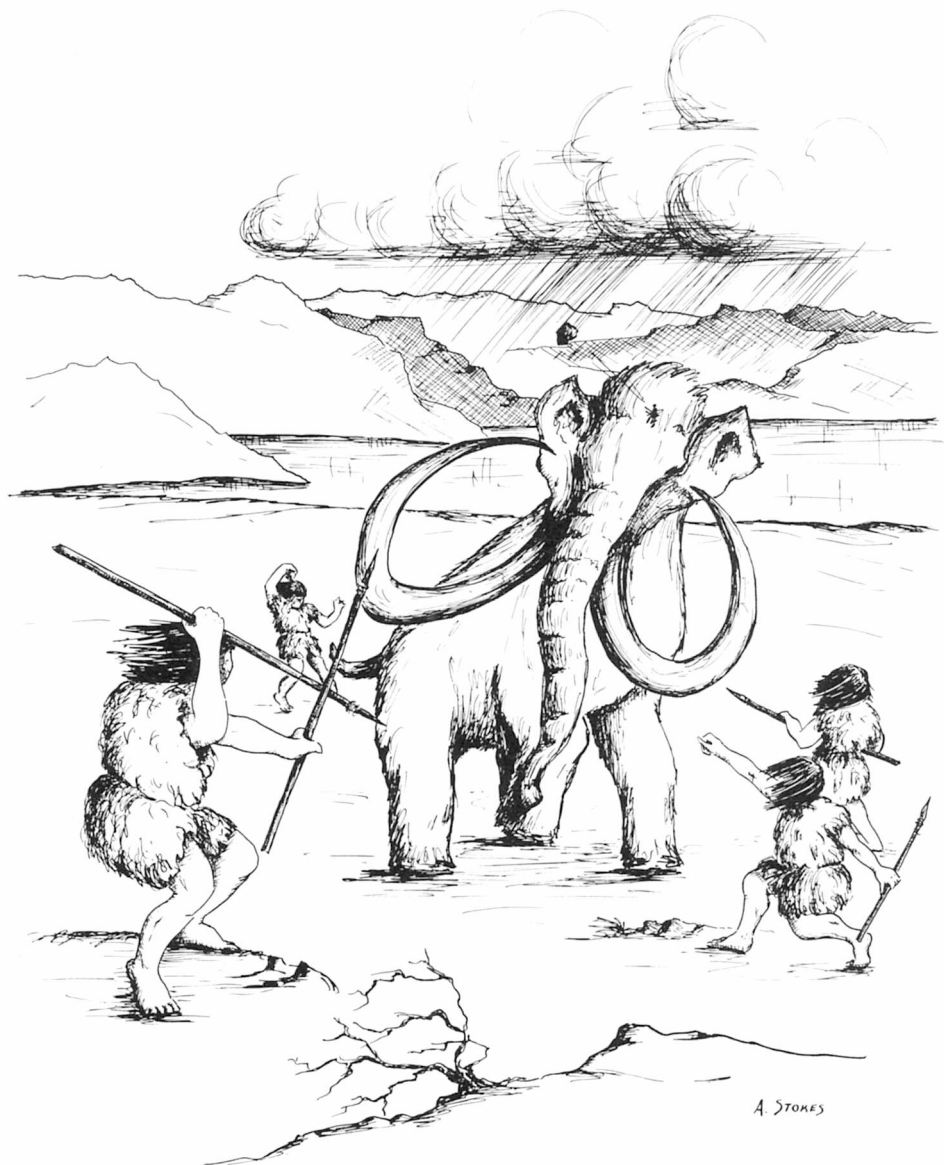
As the mammoths and other Ice Age animals left, the hunters modified their way of life to fit the new desert conditions. They developed a hunting and gathering way of life to take advantage of emerging desert resources. This "Desert Culture" became the base for many later cultures, including the Paiutes who lived here into the historic period.

For a time, farming people lived along the Virgin and Muddy Rivers. From A.D. 400-500 until after A.D. 1100 they raised crops along the rivers, lived in small mud house villages, and then left the area.

Traders camped along the Colorado River in Black Canyon. As middlemen, the Amacava people traded shells from the Pacific Coast for salt, turquoise, and pottery of the inland people.

These and other stories make up our book. Evidence of them lies buried in hundreds of camp and village sites in the Lake Mead National Recreation Area and in the surrounding desert country. Many sites have been discovered and studied. Undoubtedly hundreds more remain unknown. This, then is the story of the mammoth hunters, the traders, the farmers, and wandering gatherers who, each in their turn, lived here and coped with the changing environment.

Come . . . journey back in time . . .



PART I

THE PEOPLE

The Time: 11,000 years ago

The Place: The western shore of an icebound lake in southern Nevada

The Setting: A cold stormy afternoon in late autumn
A light snow is beginning to fall

The huge beast screamed in pain and anger as the heavy rock crashed against its skull. A razor sharp stone point on a crude spear found its mark in the animal's belly, and then another. The ring of hunters moved in on the weakening mammoth. Spear after spear followed, and boulders smashed against its thick hide. One man strayed too close and in a last desperate effort the mammoth hurled him through the air with its trunk, and he fell in a senseless heap. The great animal silently died, and the hunters quickly and efficiently went to work cutting and skinning it with sharp stone blades. The exhausted and cold men eagerly ate morsels of the raw flesh.

In the fading light of late afternoon one hunter trotted away from the kill along the lake shore to find their families. Within a few minutes shouts and laughter filled the air. Soon the women, children, and their hunters were all happily working on the task of skinning and butchering the mammoth. Smoky fires of damp pine cast a glow over the busy scene. Slices of mammoth flesh sizzled over the coals. The unlucky hunter who had been mauled by the mammoth, gradually regained consciousness. Aching and dizzy he pulled himself near a fire, thankful that he was alive and would hunt again. The little band of people scarcely noticed the bitter cold or the snow falling on the frozen lake and woods behind them. Tonight and for many days to come there would be enough to eat.

In the cold dawn light of the following morning, men and women stirred from their robes of mammoth hide. They fanned the glowing coals of last night's fires to life, and added wood. Sleepy children pushed close to the flames, watching their mothers roast bits of meat. The great carcass of the mammoth killed the evening before, lay silhouetted against the reddening eastern sky. Today would be busy as the little band finished their butchering and skinning job. Once a piece of the hide was removed, the women would spend hours scraping and kneading it to make it pliable. Warm shoes and other items would be needed for the long winter months ahead.

During the brief spring and summer, much of the snow would melt, and there would be a chance to gather plant foods. But now they must concentrate all their energy to survive the bitter cold. Even while the work of butchering continued, two men left camp to scout for more animals. Another carefully chipped out points from bits of obsidian which he carried with him, stopping occasionally to warm his fingers from the numbing cold. The points would be fastened to wooden shafts to replace spears broken or lost in yesterday's hunt. A small child played with a few discarded flakes of stone trying to imitate the artisan, but he quickly dropped these when he spied a bit of roasting meat.

As night came, the people huddled closer to the fires. Huge bones now stripped of flesh gleamed in the firelight. Low clouds seemed to blanket the landscape. The men talked of tomorrow's hunt and an old man let his thoughts drift back to hunts of many years past. Children snuggled closer to their mothers as the cry of a wolf pierced the silence beyond the lake. Tomorrow, and the next day, and the next, there would be hard work and danger. Tonight they had fresh meat and the fires were warm. This was a good world. Mother Earth provided all that men could desire. There was wood, and water, and stone for tools, and the mammoth herds would never disappear.

The Time: A.D. 1050

The Place: "Lost City" in the Virgin River Valley, a low terrace overlooking the east bank of the River

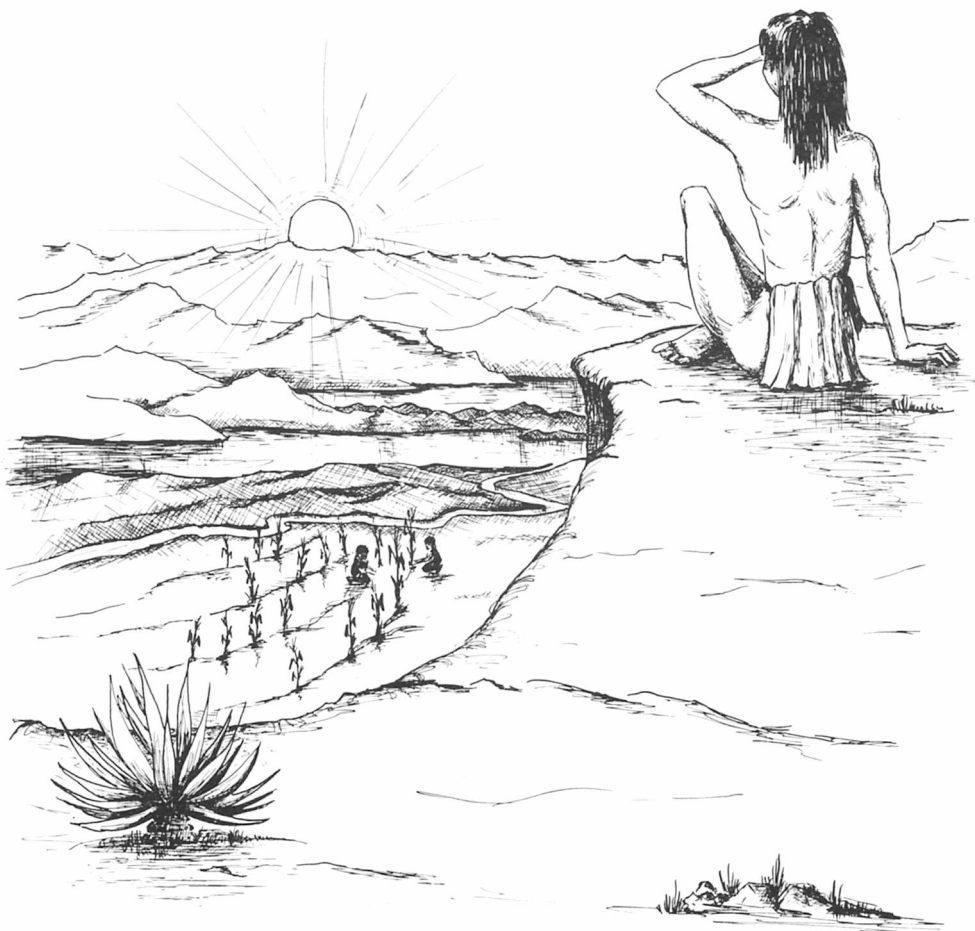
The Setting: A hot autumn afternoon

The boy awoke with a start. The afternoon sun was hot. How long had he slept? He pulled himself up to his elbows and looked out over the river toward the low, westering sun. He had intended to rest only a little while and then return to his work below. But, now — he shaded his eyes and gazed down on the field. His uncle and brother were pulling weeds from the bases of the green corn stalks. From this place on the bluff he could see all the fields of the village stretched along the fertile bottomland between terrace or bluff and the river. They were green now with growing corn plants. Beyond the field where his uncle and brother worked, he could see water in the narrow diversion ditch, glistening silver from the sun. The hills beyond the river faded into afternoon haze and sun glare. The pungent smell of creosotebush caught his nose as he looked lazily toward his village, situated on a somewhat lower part of bluff overlooking the river a few hundred yards away.

Adobe walls of the little houses now glowed golden from rays of the lowering sun. Already curls of smoke drifted skyward from the evening cooking fires as women began preparing evening meals. He could see his sister trudging up the well-worn path from the river to the village with a pottery jar full of cool water balanced on her shoulder.

Fully awake now, he scrambled down the rocky slope. It burned under his feet, and he was glad to reach the cool moist soil of the corn field. His uncle looked sternly at the boy, then smiled to himself as he turned away. The boy silently began pulling weeds, wondering if his uncle would scold him. Nothing happened. The boy disliked the job and was glad the corn would be ready to pick in a few weeks. He wondered how many weeds he had pulled during the long summer. He looked forward to the harvest time. It would mean days of hard work but there would be periods of celebration and dancers and feasting, and no weeds!

He thought back over the summer to spring, when he had helped plant the corn kernels. He watched the men take sharp pointed digging sticks and deftly open deep holes into the ground, drop several kernels in, and quickly



A. STOKES

cover them over. It looked so easy until he tried. The ground resisted his efforts, and he resorted to just carrying a yucca fibre basket of kernels for the men as they planted. He was proud that he had helped build the diversion dams to catch high water of the River during spring. Hauling basketloads of dirt had been backbreaking work, but he and his brother toiled along with the men for many days, diverting precious water into newly planted fields.

The sun dipped near the horizon. His uncle nodded, and the three of them joined other men and boys on the path to the village. The men talked, and the boys jostled each other as they ran ahead. At the top of the trail, the boy and his brother stopped for an instant to gaze at the field of ripening beans and squash. They stopped before reaching their house to watch an old man making arrow points and knife blades. He no longer worked in the fields, but his fingers were still nimble enough to make nearly perfect flaked stone implements. He had several piles of chert, chalcedony, and quartz cores spread on the ground before him. From these he would take a suitable core and strike off a large flake. Then with the end of a deer antler tine, he quickly pressed smaller flakes from the first large flake, dressing it into the desired shape. They often stopped to watch him work, partly because they admired the beautiful turquoise necklace which he usually wore. It had several hundred tiny turquoise beads, none of them larger around than their little fingers. Each was almost perfectly round, and each was smoothed and highly polished. When the old man was younger, he had journeyed many miles to the southwest to a hillside overlooking the Great River to dig out the turquoise for the necklace. Sometimes he wore a necklace made of cut and polished sections of hollow bird bones, but the boys liked the turquoise the most. They watched the old man make several tiny arrow points. He hardly acknowledged their presence, but as they started to leave he smiled and handed one of the small points to each.

When the boy reached his mother's house, he went immediately to the fire. Bits of freshly killed rabbit roasted over the coals. The large smoke blackened vessel, containing corn meal porridge, simmered as the tongues of flame licked around it. He had watched his mother make this pot and other vessels from the river clay. He viewed it with pride and remembered his own clumsy attempt to make a pot, and how the other boys had teased him about doing girls' work. No matter, the big pot contained good porridge, and it had been a long time since the first meal of the day. He noticed the rabbit skin hanging near the corner of his house. Before cold weather set in, his mother

would use it along with others which she had saved, to make warm winter robes. He remembered last winter how his sister had helped cut skins into long strips and twisted them together. Then his mother sewed the strips together, making shaggy looking but warm robes. Two newly made clay cooking pots and a large storage jar stood in the lengthening shadows of the house wall. After drying for a day or two, his mother would bake them in fire until they were hard and would hold water. The storage jar would receive a thin slip of clay and decoration before going into the fire. After firing, its white surface would contrast with the black decoration. The undecorated cooking pots would gradually turn black with use. In a few weeks he would help fill the new storage jar and others like it with dried corn, hopefully enough to last all winter.

His mother appeared at the roof hatchway of their house, and came down the ladder. She smiled at the boy and bent to tend the fire. The rasping of a mano and metate attracted his attention. His sister played with the grinding tools moving the heavy mano, or hand stone, back and forth across the surface of the metate, just as his mother did to grind the corn kernels into meal. He was glad this was woman's work. Again, a feeling of pride came as he remembered that he had spied the mano on the day he went with his mother and sister to the river to pick out a new hand stone from the smooth rocks in the streambed.

His father arrived with a bundle of willow rods which he had cut along the river. He had worked during the day to repair the leaking roof of the family's storage room. It must be ready to protect the harvest. The boy had helped build the room early in the summer and, as with the irrigation project, it had been hard work. He had not been able to move the heavy stones which went into the lower section of the wall, but he had helped carry baskets of adobe or clay to form the bulk of the wall and, also, the smooth floor. He and his brother had also peeled the bark from timbers cut along the river, and then carried them up to the building site. The two largest poles became the main roof supports. Then the men laid smaller poles at right angles over large ones. They put willows and brush over the poles and finally a thick layer of adobe. The hard rain a few days before had washed away the adobe around the roof hatchway, and part of the frame of the opening broke away. His father would repair it tomorrow. The boy liked this room. It was smaller than the other living and storage rooms. He could reach the top of the wall, and pull himself up to the roof without using the notched pole ladder. The ceiling was just high

enough for adults to stand under it, and they could barely stretch out on its floor. The two boys had played in the empty room all summer, but soon it would hold the winter's food.

During the evening meal the parents talked of the day's events. They both lightly complained that there wasn't enough time to do everything during this time of year. The man gestured toward the partially finished square of cotton cloth on the weaving loom near the wall. The boy's mother would fashion the material into a simple wraparound dress for his sister, when his father finished the weaving. It seemed strange to the boy that men did the weaving when women made other parts of clothing, basketry and matting, but he looked forward to the time when he would work at the loom. The cotton, too, would soon be ready for harvesting.

After the meal, his sister proudly showed him the bundle of yucca leaves she had gathered during the day. The strong fibers on the leaves would become string and ropes, and the girl and her mother would make mats and basketry from the leaves themselves.

By the time the family finished eating it was almost dark. The boy liked this time of day. He climbed the pole ladder to the low roof of their house, and stretched out on his belly on the flat surface. He could look over the edge and listen to the group of men joining his father around the dying fire. The night air was warm, as was the adobe roof. Except for the light, there was little need for a fire tonight.

The men talked of hunting and about the crops. The boy's thoughts turned to hunting. After the harvest, many of the men would journey up into the highlands east of their village and hunt deer and bighorn sheep. In two or three years he could hunt up there, too. Now he must be content with hunting rabbits, ground squirrels, and wood rats.

Stars twinkled in the clear black sky. The old man, whom he knew only as the Storyteller, recited a tale about the twin gods and how they outwitted the ogre. He had heard the story many times, but it seemed better tonight, as the flickering fire accentuated the wrinkles on Storyteller's face.

Certainly this was a good world to live in. The earth let them grow corn and beans. The river allowed them to use its water. There would always be rabbits and deer and bighorn sheep to hunt. There would always be cactus with its good fruit for eating, and yucca plants for his sister and mother to use to make baskets and rope and sandals.

There would be coyotes, for this was part of earth's way of balance. Their howling in the distance was the last thing he remembered before drifting off to sleep.

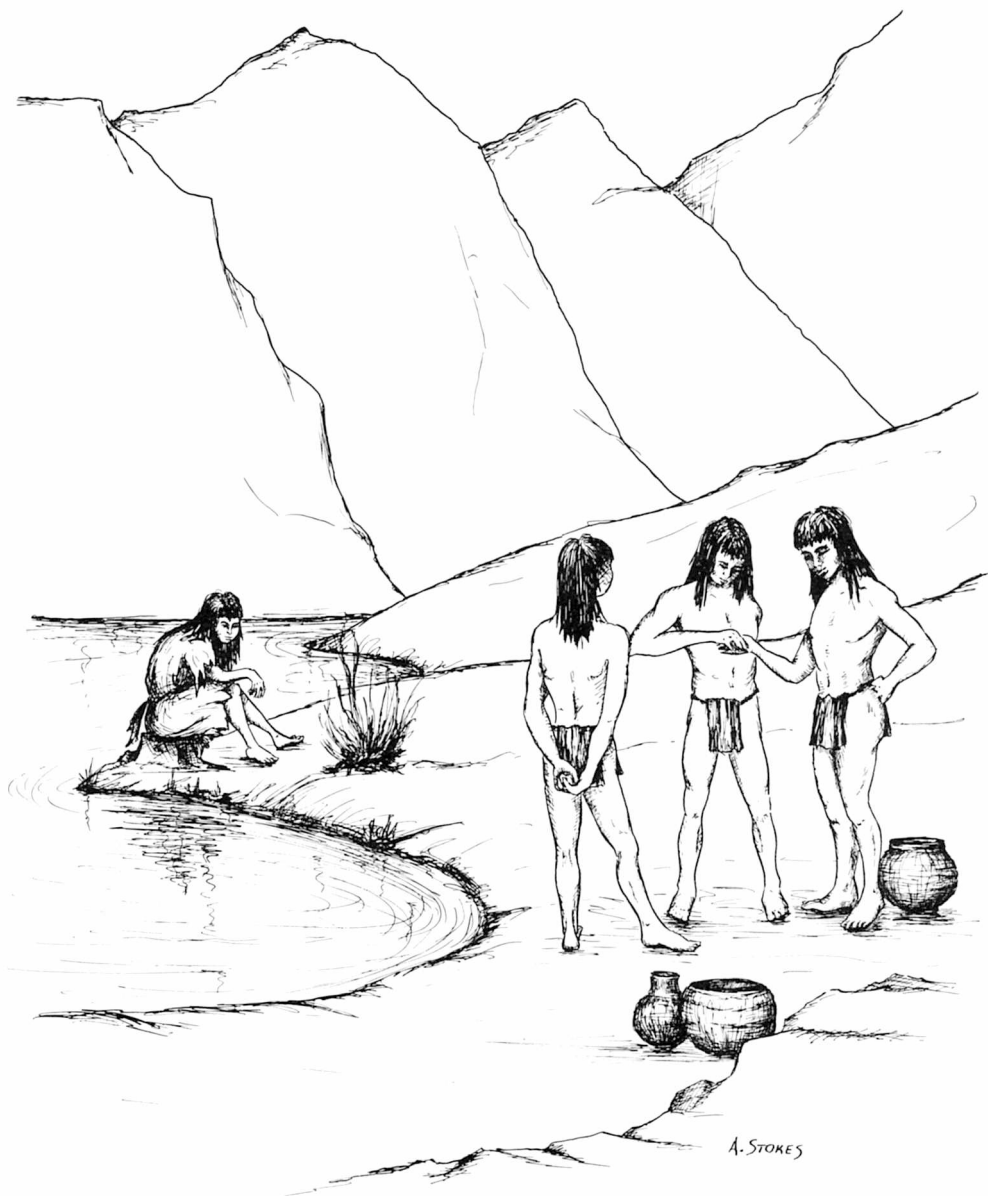
The Time: A.D. 1050

The Place: The bank of the Colorado River in Black Canyon

The Setting: A warm evening in Spring

The voices of the six bronze skinned traders seemed to fill the narrow canyon as they haggled over their merchandise, each trying to get the best bargain. The flickering light of the driftwood fire accentuated their gestures as they went about their business. The girl watched and listened intently. She, of course, could understand her father and uncle, but the other four men — their words seemed so strange and made no sense. How could her father possibly know what these men were saying? He even used some of their odd sounding words. She had heard about people from far off places who spoke differently, but until she came along with her father on this long trip to the Canyon of the Great River, she had never seen anyone but the people of her valley.

She thought back over the trip, the longest she had ever made. They had started 4 days ago from their village and farm fields to the north and east. After reaching the junction of their river and the Great River, they had followed its brown rushing waters until late yesterday afternoon. Then they reached the mouth of a great canyon of black rock which swallowed the waters. She remembered her disappointment when her uncle explained they must leave the river and detour around the head of the canyon. Now they were back in the canyon, and its black walls towered high above them. She was glad that she wouldn't have to carry the pottery jar back, even though it was small and only had salt in it. It still seemed heavy after so long a trip. The two traders from the Cerbat Mountains to the east, had already bargained for it. The other two men, Amacavas, had traveled across the desert to the west bringing seashells, steatite, and asphaltum, to trade for pottery, salt, and turquoise. Her father had told her that the shells were from a great lake far to the west, a lake whose shores seemed to have no end and whose waters tasted of salt. He had never seen it but one of the Amacava traders, whom he had met here last year, had seen it. It was hard to imagine more water anywhere than in the Great River flowing by just beyond the light of the campfire. After the long detour through the desert, it was good to wade in its cool waters this afternoon. She had watched a fish which seemed as big as herself. Her uncle said that people living



on the River miles below actually ate fish! This she could hardly believe — but think how strange their language was!

The men talked quietly now, and from their relaxed expressions she realized the trading had ended. They seemed pleased with their transactions. Now and then they laughed, and she wished she could understand more of the other languages. There would be more trading tomorrow, and she would look for more of the big fish. Her father already had bartered for some of the beautiful shells, and had promised her a necklace of her very own from a few of them. She wouldn't mind helping carry back the shells, even if they were heavy. The trip home would be long and hot, but it would be nice to be back in the village and tell her friends all that she had seen and done. After all, this was a trip that few girls ever experienced. She marveled at how wonderful nature was to provide the variety of things for people to use: the animals for food, like the young bighorn ewe which the men killed today, the beautiful shells for necklaces, the asphaltum to fasten things together, and the clay for pottery. She was glad people had all they needed, and that it would always remain this way.



A. STOKES

The Time: A.D. 1400

The Place: A dry rocky wash overlooking the Colorado River

The Setting: A hot afternoon in early September

Droplets of sweat rolled off the young woman's forehead as the early autumn sun beat down on her. Even in September there was little relief from the merciless desert heat. She paused from her task for a moment and knelt in the shade of the mesquite bush, sipping from the small basketry canteen she carried. The water was warm and tasted like the canteen's pitch lining, but, at least, it wet her dry mouth. She saved enough water for a drink on the way back to camp, which lay beyond the rocky ridge near the river. She was glad her yucca fibre carrying basket was nearly full of the mesquite pods she had been gathering. Her calloused hands ached and the sun seemed so very hot. But this was the time when mesquite pods ripened and they must be here to gather them! Her family had come to this area every season for as long as she could remember. This mesquite grove, and the larger one farther down the wash near their camp, belonged to her family band. Her mother and younger sister worked in that lower grove now, and she would probably meet them on the way back to the camp. A few minutes more of steady work and her basket overflowed with ripe seed pods. She would have to come back several more days to finish harvesting them. Her family could stay here until time to move into the high mountains to harvest piñon nuts. But now she could start back toward camp. She had climbed up over the rocky ridge, a short cut, that morning to get to the grove. Now she would follow the winding course of the wash back. She hadn't brought her sandals, and by now the black volcanic rocks along her morning's route had absorbed enough heat to fry the soles of her feet. The sandy floor of the wash would be somewhat cooler, and she would find an occasional spot of shade in its narrow sections. The basket seemed heavy and she was glad that she would be walking down hill. When she had gone about halfway back, she stopped in the shade of an overhanging rock. From here she could see the Great River in the distance. She ate a small sugary block of mesquite meal which had been prepared the day before, and washed it down with the last of the warm water.

The young woman wondered whether her father and uncle had any luck in hunting today. It would be good to have fresh rabbit or a ground squirrel to go with the mesquite tonight. She wondered what mischief her baby cousin had caused. Grandmother could still manage him most of the time, although she was too old to do much of the food gathering. In a few more seasons the grandmother would be too old to travel — but this was unpleasant to think about.

She picked up the basket and continued down the wash. She soon reached the lower mesquite grove, but her mother and sister had already started for camp. She hurried on, wishing she had saved just a swallow of the water. The camp was not far. Now she could hear happy voices of her sister and father, and the shrill giggle of her little cousin.

She liked this camp spot and the sound of the muddy stream rolling past. Her family's two wickiups or brush shelters stood together as they had in past years. Everyone in camp was busy and happy. As she approached her uncle held up four ground squirrels which he was skinning. They would have at least some fresh meat to go with the mesquite tonight! She also saw several freshly skinned rabbits. This had been a good day. Grandmother smiled at her from the shade of a wickiup, her eyes shining from a leathery, element-wrinkled face. Already a small fire burned, heating smooth river rocks which would be dropped into a waterproof basket for boiling mesquite pods. This was a good time of day, when everyone gathered together. The little band consisted of 8 people, including her aunt, who was really more like a sister, since she was only a few years older than the young woman. They usually gathered food together, but today her aunt had cut and stripped yucca leaves. The carrying baskets were wearing out and would soon need to be replaced. She was glad to see her aunt, and they talked over the day's happenings between long drinks of cool river water. But now it was time to take care of the day's harvest. Tonight they would boil a large batch of mesquite pods for the evening meal, and roast the rabbits and ground squirrels. Only rarely did they have both meat and mesquite so this became a special occasion. All of the females helped prepare mesquite. The gnarled but experienced fingers of the grandmother quickly shelled the hard, inedible seeds from their pea-like pods and dropped the pods into the waiting basket. Occasionally she dropped a shelled pod into the waiting hand

of the brown skinned toddler at her side and these quickly disappeared into his mouth.

The young woman and her mother spread out the day's collection of mesquite to dry. Then, she and her aunt and mother began to pound the whole pods which had dried. These, made into sugary cakes, would sustain them for many days to come. After many seasons of use, the mortar holes in the large rock slab near the river had deepened, and now they were just right to hold a double handful of pods. Preparing the pods was hard but simple work. A handful of pods was dropped into the depression worn into the rock, and then ground into meal with a handstone or pestle. Here the large flat slabs of bedrock offered a source of depressions for grinding. At other sites, suitable mortar stones might have to be laboriously hauled in for miles. The women packed the meal into storage baskets.

In the meantime, Grandmother started the meal of boiled mesquite pods. She added water to the tightly woven pitch-lined basket. Now, by using green sticks as tongs, she deftly maneuvered two or three of the hot river rocks from the glowing bed of mesquite coals. Then she dropped the rocks into the basket. The water hissed as the rocks dropped, and soon began boiling.

The young woman watched for a moment and realized how much harder it was to cook in a basket than in pottery. But the last cooking pot had broken the day they arrived at this spot. It had cracked a few days before and she had mended it with gum from a mesquite bush. This time it shattered beyond repair. Pottery was good to cook in, but difficult to move. It was heavy and broke easily. Grandmother assured them, anyway, that food tasted better when cooked the old way in baskets. Besides, there would be little time in the coming days to make any new pottery vessels.

Her father skewered bits of ground squirrel and rabbit flesh, and placed them over the coals. Her uncle carefully laid out the small skins. Later these and others which they collected, would be woven into warm robes or blankets for winter wear. The little band of people eagerly ate the few bits of meat and mesquite. They had had poor success in gathering the cactus and yucca fruits earlier in the year. They had gathered many agave blooms in the spring, but many nights during the summer they went to sleep hungry and it seemed good to be full.

They talked of their forthcoming journey into the high mountains. As soon as the first good frost occurred on those pine covered slopes, they would begin harvesting piñon nuts, the food on which they depended the most. As they talked, the men mended a long yucca fibre net which they used in the day's hunt. They all looked forward to this mountain trip. It would be cooler and the rabbit robes would be welcome at night. Most important, they would join other people for a few weeks. Each year they met other family groups or bands. The men would go off together to hunt. Sometimes they killed a few antelope — if the power of the shaman, or medicine man, was enough to bring the animals near. Perhaps they would kill a few deer or bighorn sheep. There was never enough meat from these large animals, but even a small bit became a special treat. The skins would make durable winter clothing. As with the meat, there was not enough for everyone to have skin clothing. The women, too, worked together at this time. They would spend hours gathering piñon nuts. The young woman hoped her grandmother's predictions of a full harvest would come true. She remembered the meager crop the year before and the many winter days of hunger that followed. She looked forward to being with other girls her age. She hoped that all of the bands would be together again this year — and the young men! Both grandmother and mother had told her that now she must think of having a husband. Perhaps she would meet someone who . . . Her thoughts were interrupted by her uncle's voice, "Perhaps this year, brother, you will lead the hunts." There was little formality connected with the fall gatherings, but one man, whose ability was acknowledged, acted as an advisor and temporary group leader for the communal hunts. It would be a great honor for her father. It would be good to hear the chants and dances again, too. She wondered if her grandmother had danced when she was young. She glanced at the old lady. In the fading light she could tell that grandmother's thoughts were far off now. Perhaps she remembered a fall gathering of years before.

The young woman still ached from the day's work, but she didn't mind. She had gathered much mesquite and had a full meal. There was little more that she could wish for. As she lay back on the warm sand near the wickiup she was thankful that the earth remained as Wolf and Coyote had put it in order long ago. The cool water of the river and the spring, the cactus fruit,

the yucca, the piñon nuts, the mesquite, and all of the animals, almost always, provided enough to eat. The earth was good, and she was glad that it would never change.



A. STOKES

The Time: November 4, 1851

The Place: The Colorado River near present day Davis Dam

The Setting: Mohave Settlement near the banks of the Colorado River

The young man and his small companion walked along the banks of the muddy river. The little boy uttered a cry of delight when he caught sight of the reed raft on the shore. He ran ahead and put the large humpback sucker, which he was struggling with, on the raft. The man put two squawfish and his bow and arrows on it, and moved the raft into the water. The little boy splashed into the river and was lifted aboard. "Next year you will be big enough to cross the river with a log as the older boys and men do," the man told him. He pushed the raft out into the current, and began swimming strongly toward the opposite bank, pushing his giggling cargo on the raft ahead of him. He was glad the water was still warm and that he would dry quickly once he was out of it. As they neared the far bank they sensed excitement in the settlement. They quickly unloaded their catch and hurried to their home. The man laid the three fish outside the newly constructed earthen winter lodge, and quickly moved over to where the crowd of villagers had gathered. Everyone talked at once, and he couldn't find out what was happening. He saw another young man who had returned a few hours earlier from a sortie against the Halchidhoma people to the south — their constant enemies. He would know, perhaps, if the Halchidhomas were planning an avenging raid. "No," the young warrior explained, "A band of the newcomers who ride animals and carry thunder sticks, is approaching beyond the mountain pass to the east. They were seen yesterday and will reach the Pass by tomorrow." The young man had heard of these outsiders with pale skins. Two of their parties had passed through this area years before his birth. His father had told him about them. They had come in buckskin clothing, carrying their thunder sticks. They had trapped beaver, but strangely wanted only the skins, not the meat. They had traded pieces of brightly colored material for corn and squash which his father had raised. But they couldn't be trusted. They killed several people in another village down river. The young man had never seen any of these pale skinned men, but now more and more reports of them came to his people. Now they were coming here!

By the time he returned to his lodge his wife had begun roasting the fish. He sat down by the fire and watched her preparing corn. This had been a good year for crops. The squash, beans, and corn had all grown well and there was plenty for the winter. Would the pale skins trade for some of the corn or squash?

He strolled along through the settlement (the lodges were scattered out rather than being in a compact village). Normally this time of day would find the people relaxing in small groups, eating, gambling, or gossiping. Life moved at a leisurely, casual pace, especially in years of full harvest. Today, people gathered in small groups and talked in anxious tones. A feeling of tension spread over the settlement. He had promised to help another young man with the tattooing of his arm, because both men and women wore tattoos, but now he had lost interest.

The War Chief strode toward him. The War Chief wanted several of the strongest and fastest young men to climb to the top of the Great Pass early next morning and observe the route of the newcomers, and determine for sure which way they would turn. Would he go? Good, they would leave before dawn.

He returned to his lodge. His wife's smile faded as he told of his mission. Yes, he would be careful. He went inside the lodge and came out with a bundle of arrows. He selected the straightest of the reed shafts and carefully fitted the straightest short wood foreshafts, with their sharp stone points, to them. Then he filled a small pottery canteen with water from a large storage jar. His wife parched some corn for him, and with these preparations he was ready for tomorrow. After a dinner of roast humpback sucker and parched corn, the couple quietly talked before their fire. She would start gathering willows tomorrow so that she could make new breech clouts from the inner bark. This was a good life. The River provided fish and water and soil for their crops. The plants provided material for clothing and shelter. There was time to enjoy life and to be with other people. Would it stay the same?

The young man awoke just as the night sky began to lighten. He gathered up bow and arrows, food, water, and put on his sandals. The sandals seemed strange, as he only wore them when he went away from the River. He joined the other men, and they started the long steady climb up the rocky mountain slope to the east. By the time they reached the top of the Pass the sun was high

in the sky. The cold dawn chill had given way to another warm autumn morning. As they approached the summit of the Pass, they moved out of the sandy wash and climbed into higher rocks overlooking the trail. At the top, they looked back into the Valley of the Great River. Sunlight was beginning to flood the valley. They could see whiffs of smoke drifting upward from the cooking fires. To the east they looked into a broader but dry valley. They just could see a long train of animals and men moving slowly, approaching through the morning haze. They watched for what seemed a long time. The caravan reached the east flank of the Pass and disappeared into a wash leading toward the top. There was no question about its route. The War Chief dispatched a runner back to the settlement. The runner trotted easily down the wash and was soon lost from sight among the boulders and twists. The War Chief suggested they have some of their food and water. It would be a long time until the slow moving party of outsiders reached the top of the Pass.

Later as the men talked, the War Chief raised his hand for silence. The first of the newcomers' animals and some of the pale skinned men themselves came into view a few hundred yards away. In the quiet autumn morning the sounds of their voices encouraging the mules became audible. What was their purpose? They came even closer. The young man fitted an arrow to his bow string and waited . . .

The end of this story is in the Journal of Brevet Captain Lorenzo Sitgreaves, and in the diaries, journals, and records of those who would follow him. It tells the beginning of the end of an era.

As early as the 1500's, outsiders with pale skins from far off lands began probing the Southwest deserts and Pacific coast region. They came, a handful at a time, first the Spaniards, then others. The Spaniards established scattered outposts throughout Arizona and California, but these had little effect on the people in the Lake Mead area.

In the 1820's, adventurers from the young nation to the east, the United States, began exploring the uncharted areas west of its rapidly expanding frontiers. Encouraged by promise of fortunes in furs and the desire to see new country, they entered our area. James Ohio Pattie, Jedediah Smith, and others, traveled along the Colorado and Virgin Rivers. Their encounters, sometimes friendly, sometimes violent, probably had little lasting effect upon the Indian People. The Indians could not imagine what was to follow.

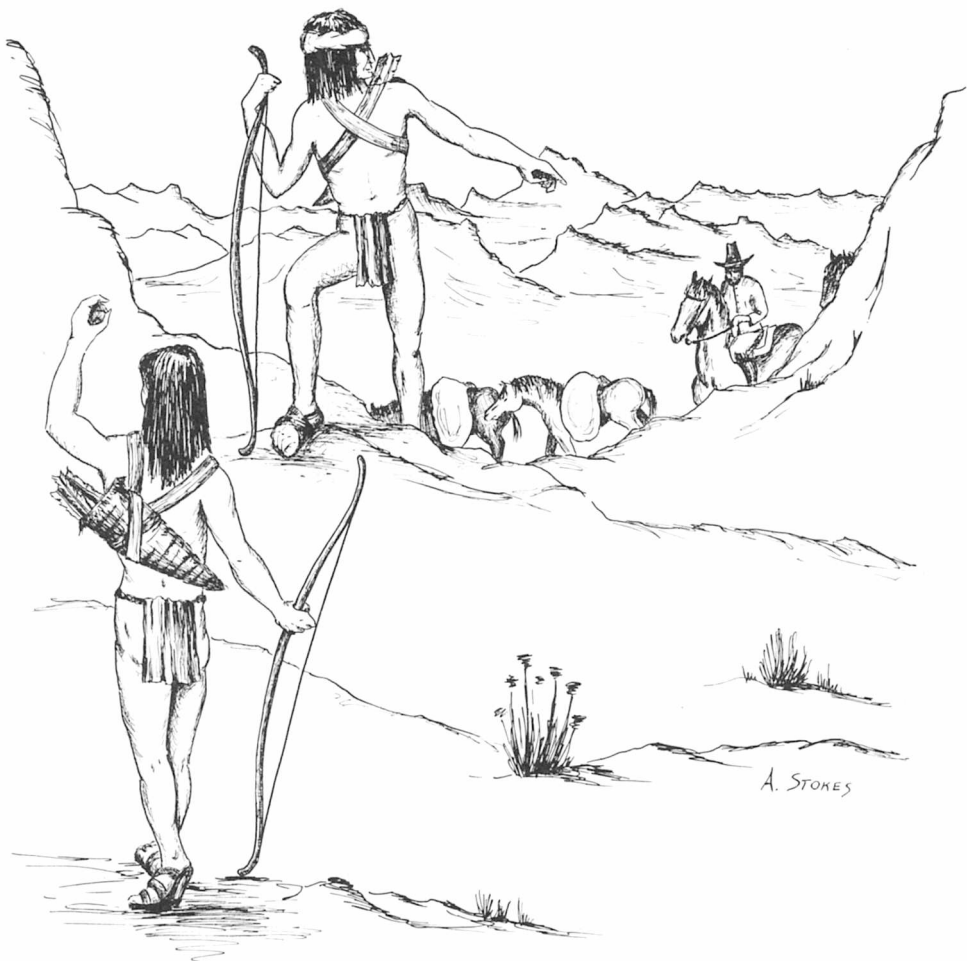
In the 1850's, gold lured thousands into the Rockies and Sierras. Then came more brief encounters with government explorers, Sitgreaves, Beale, Whipple, and Ives. Gold seekers, at first, viewed the great desert as only another obstacle to cross on the way to California gold fields. To many, however, the elusive yellow metal seemed always just over the next mountain, or just beyond the next valley — and they began to pour into the deserts themselves.

They found gold at the mouth of Eldorado Canyon on the Colorado in 1857 and the rush was on! The old way of life of the Shoshoneans, and the casual hunting-farming patterns of the Mohaves, would soon pass into oblivion.

By 1861, over a thousand gold seekers inhabited the Eldorado Area, and small river steamboats ran regularly from the Gulf of California to Eldorado. Treasure hunters found gold in one area after another, and more and more came.

In the 1860's, leaders of the expanding Mormon empire looked westward with a view of increasing commerce and developing a better way for new members to reach the Salt Lake area. The overland route for new converts often led through unsympathetic or hostile gentile settlements, and then across the prairies and the Rockies. It was difficult and dangerous at best. Travel by sea around the tip of South America to the West Coast offered a desirable alternative, if a suitable route from the Pacific Coast to the Salt Lake area could be established. A trail to the Coast would also open the way for exporting from, and importing goods to, the same area. Accordingly, in 1864, Elder Anson Call and his small party established a port on the Colorado River, at what is now Callville Bay, with hopes that steamboats running to Eldorado could come up to the new settlement. Another Mormon group settled in the Virgin and Muddy River Valleys and began farming the same fields used by the Lost City People a thousand years before. The river venture wasn't successful but the farming was, and still more people encroached on the hunting and gathering grounds of the Indian People.

Newcomers settled around the artesian springs at Las Vegas. One by one they took over the desirable camp spots near other springs and rivers. They killed the game, cut the trees, and cleared the bushes which had provided a living for the Paiute People. The newcomers looked down upon them and their simple way of life. In their lust for gold and desire to transform the desert,



they saw the Indians as only another obstacle in their way. With superior numbers, weapons, and technology, they easily overcame the obstacle. By the 1880's, the Paiutes, Mohaves and others, found themselves in the confines of reservations. For the Paiutes, whose existence depended upon roaming over literally hundreds of square miles every year, this spelled the end of their native way of life. The reservations were too small, so they became part time hunters and gatherers or part time workers around the mining settlements. Many existed from the benevolent, but often non-understanding hand of the United States government. The Mohaves and other River Indians could still farm, as their reservations encompassed the River, but their ways changed rapidly too.

In less than 50 years, a cultural development which had evolved and matured for over a thousand years came rapidly and sadly to an end.

PART II

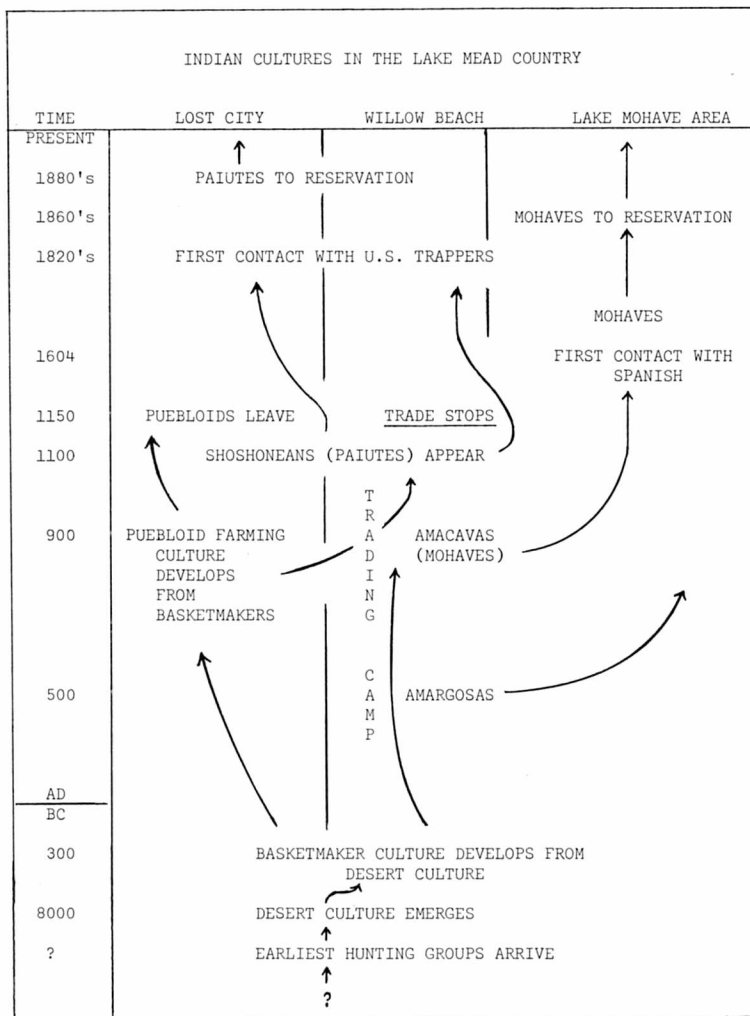
THEIR STORY

The Beginnings

To the casual visitor, the idea that man, or any life for that matter, survived in the barren desert wilderness for centuries without the many conveniences which we enjoy, may seem incredible. Aside from the Arctic, probably no other area offers as great a challenge for survival as the desert. It is an environment of extremes. Summer temperatures soar to 120°, yet snow falls on the higher desert mountains in winter. Rainfall averages less than 5 inches a year, but cloudbursts are not uncommon. Strong winds blow almost constantly. What is remarkable is not the lack of life, but the abundance of life here! A variety of specialized plant and animal life thrives in the desert. Man, too, has managed to live here for several thousand years by meeting the conditions of this environment. All but the earliest people found ways to cope with the desert. The earliest people faced a different environment — an environment which in its way offered an equal challenge.

The story of these and all early people in the new world begins in northeast Asia, some time near the end of the last major Glacial Epoch. At that time groups of hunting people, living in what is now Siberia, began to move slowly eastward. The glaciers, which covered much of northern Europe and North America, had impounded so much water as ice, that sea levels became, at times, much lower than at present. Because of this, a broad land bridge connected North America and Asia. Today with a higher sea level, this “bridge” lies submerged under the shallow Bering Sea. During the glacial period, however, these early hunters lived on, and slowly drifted across, this

INDIAN CULTURES IN THE LAKE MEAD COUNTRY



land mass following game into North America. Then groups gradually moved south. This “migration” was probably not a conscious exploration and may have taken place over hundreds or probably thousands of years. When did it happen? Growing evidence suggests it may have been as early as 30,000–40,000 years ago. Scattered radiocarbon dates of early man sites of this age have been obtained, but for various reasons may or may not be accurate. Most archeologists would acknowledge that man was in the Tule Springs-Lake Mead area by 11,000–13,000 years ago. The continental glaciers did not reach this far south, but their icy breath cooled the climate. These early hunters found the area here much cooler and more moist than at present. Permanent lakes, streams, and springs were common. Vegetation was more lush and winters were long, with much snow. In short, the environment here differed little from that in Canada today.

It was in this setting that our imaginary band of mammoth hunters lived. Beyond the few details in our story, we know little more of their way of life.

The Desert Culture

A NEW PATTERN EMERGES

About 12,000–15,000 years ago, as the glaciers retreated, a gradual warming trend developed. The environment here gradually began taking on its present characteristics. The lakes began drying up. The streams dwindled. Rain came less frequently, and forests disappeared except on high mountains. The mammoths, and other animals adapted to cool moist conditions, disappeared. By about 10,000 years ago, the present desert environment had emerged.

The hunting people here, no longer able to depend on large game, turned to smaller animals. They could still occasionally hunt desert bighorn and mule deer which survived in the higher mountains. Mainly they became dependent on smaller animals such as rabbits, ground squirrels and birds. With a somewhat limited food source, the gathering of wild plant foods assumed new importance. Eventually patterns of movement developed to take advantage of the various plants as they became available seasonally. For example, pine nuts could be harvested in higher mountains in the fall, and big game animals would be hunted. In spring and summer, the people would move back to lowland areas and harvest the fruits of yucca, cactus and other foods.

Archeologists term this new adaptation to the changing environment, the “Desert Culture.” This adaptation became widespread and was the base for development of several distinctive later cultures.

The oldest evidence of man at Gypsum Cave is an early manifestation of the “Desert Culture.” Gypsum Cave lies in a low range of hills about 15 miles east of Las Vegas. The cave itself formed as the result of wet conditions in a limestone formation. Here Dr. M. R. Harrington found evidence that the giant ground sloth and man used the cave at the same time. He found distinctive dart or spear points associated with remains of dung and bones of the extinct

sloths. This material yielded radiocarbon dates of approximately 10,500 years ago, and in an upper layer, a date of 8,500 years ago. Dr. Harrington found evidence, above the sloth layer, of Indian groups who visited Gypsum Cave in more recent times.

The Desert Culture pattern of life spread throughout much of western North America wherever generally arid conditions prevailed. In true desert country, such as the Lake Mead Area, this pattern persisted until after the advent of Europeans. In other less severe climatic areas, variations of this base evolved. For example, several distinctive cultures developed from the Desert Culture with the addition of agriculture, probably from Mexico.

THE BASKETMAKERS

Evidence for early Desert Culture people is scanty in the Lake Mead Country. Dr. Richard Shutler excavated a rock shelter in the Moapa Valley a few miles north of Moapa, Nevada, which may provide some evidence of them. Here he found remains of camps left by different groups of people over a long time span. Radiocarbon dates from the earliest deposits indicated that people first used the rock shelter about 4,000 years ago. Small animal bones and opened carapaces or shells of desert tortoises testify that these early campers hunted small game. The presence in the cave of metates or grinding stones shows that gathering of wild plant food was becoming more important.

Evidence of another hunting and gathering group lay above this earliest layer. Distinctive projectile points relate this group to the Basketmaker Culture. This widespread life pattern apparently developed from the Desert Culture base. Basketmaker Culture extended from northern New Mexico and adjoining parts of Colorado, through northern Arizona, southern Utah, and into southern Nevada. The Basketmakers, so named from their elaborate basketry found in dry caves of the area, spent much of their effort hunting and gathering. In time, farming of corn (maize), an idea with origins to the south, came to be at least as important as hunting and gathering. Archeologists discovered and excavated caves in the Southwest with stone lined storage pits for their crops. The people lived in caves or perhaps temporary shelters and later in pit houses. These Basketmaker People, the earliest group that we presently have evidence for, lived in what is now the Lake Mead National Recreation Area.

The earliest Basketmakers really lived in much the same way as the earlier Desert Culture people. With intimate knowledge of their environment, they exploited a variety of its resources. They still used the atlatl, or spear thrower, for hunting. Their skill at producing all types of basketry and matting from natural plants surpassed even later groups. They fashioned storage and gathering baskets, trays, mats, sandals, hunting nets, and even cooking vessels from plant fibres such as yucca. Some of their baskets were tightly enough made to hold water. By dropping heated stones in these containers they could boil foods.

Little of this perishable material has come to light in the Lake Mead Country, but we can assume the people made baskets here just as did their kin to the east.

Basketmakers lived at a number of locations within our area of interest. These include sites along the lower Virgin and Muddy Rivers, Willow Beach below Hoover Dam, and Gypsum Cave (above the sloth layers). Additional research, no doubt, will locate many additional campsites of the Basketmaker people within our area.

Gradually ideas for a new way of life based on farming filtered in to the Basketmaker People from the east. Old life patterns changed and a new way of meeting conditions of the environment emerged.

THE PUEBLOID FARMERS

For over a thousand years people farmed the fertile bottom lands along the lower Virgin and Muddy Rivers. Their culture flourished for a time and then disappeared. The so-called Lost City ruins are all that remain of their culture. Now many of these ruins lie under the waters of Lake Mead. Who were they? When and why did they leave? For some of the answers, we must first look hundreds of miles to the east. Long before the birth of Christ the idea of farming spread to various groups of people in the Southwest, from its point of origin, probably the Mexican highlands. As the Basketmaker people relied more and more on the idea of farming, old Desert Culture patterns of hunting and gathering and mobility gradually changed to a sedentary farming life. Permanent houses and villages, and a new way of exploiting the environment replaced life patterns of earlier times. Impetus for this development in the northern Southwest, the Pueblo or Anasazi Culture, centered in the Four Corners area, the plateau country where New Mexico, Arizona, Utah, and Colorado share common boundaries. Here, for example, the earlier rock shelters and simple pit houses gave way in the A.D. 1000's to complex multi-storied "apartment" buildings. Arts and crafts reached a high level of sophistication. Population increased. By the twelfth and thirteenth centuries, the Pueblo farming culture reached a climax of territorial expansion.

Descendants of the earliest Basketmaker people, living on the periphery of this development, adopted these innovations more slowly or not at all. As a result, particular architectural styles and artifact forms often appear later in outlying areas than in the center of development. Certain traits or practices were not adopted at all. Basketmakers who lived in southwestern Utah and adjoining parts of Arizona and Nevada typified people who lived away from the Pueblo "Cultural Centers." These people gradually placed more reliance on farming, developed pottery, simple villages, and so on. But they did not, for example, develop or use the special ceremonial structures or elaborate architectural forms of their kin in the Four Corners area. Some of these "Puebloid" or Pueblo-like

people lived in the Virgin and Muddy River Valleys. They were the Lost City People.

Their pattern of living, of course, centered around farming, but they depended upon natural resources as well. What is striking about them and virtually all Indian people, is that they used available resources quite efficiently. Despite lack of advanced technical knowledge, they displayed much ingenuity in devising a variety of tools from simple materials. Stone, clay, wood and plant fibre, bone, and hide provided, often with little modification, material for numerous types of implements.

Wild plants also supplemented the diet of agricultural products. Yucca, agave, cactus, mesquite, piñon and other plants, provided a welcome variety of seeds, nuts, and fruit throughout the year.

Hunting, like gathering, supplemented farming and added welcome changes in the regular diet. These people, by moving up into the mountains bordering their valleys, could find an occasional mule deer or desert bighorn. Hunters easily found smaller animals such as rabbits and ground squirrels in the valleys. In addition, they used the skins and bones for clothing and tools.

Not all resources were close at hand, nor did the people exert all their energy on just survival. They enjoyed, for example, jewelry. They traveled over 60 miles along the banks of the Virgin and Colorado Rivers to reach veins of turquoise in the hills near the site of Hoover Dam. Here they quarried turquoise from exposed veins, and returned home with nodules which could be fashioned into beads, pendants, and other items of jewelry.

The Lost City people took advantage of another natural resource — large deposits of salt along the Virgin River. They mined it by following veins and tunneling when necessary. The tunnel of one mine extended back into the hillside more than 300 feet. The miners carried torches back into the depths of tunnels, removing large nodules of salt with heavy stone mauls. Large deposits of salt are uncommon in the Southwest, so the Lost City people had an important commodity for trade over a wide area.

Shells from the Gulf of California and the Pacific Ocean indicate contacts with people on the California Coast, or more probably, with traders in between. Occurrence of pottery known to have been made in Arizona shows that their commerce also extended south and east. Unfortunately, archeology usually supplies little direct evidence about a people's social-political organization or religious beliefs. By studying accounts of historic Pueblo cultures, however, we

can make a few general guesses about these important aspects of the Lost City people's way of life.

Both the modern Hopi and Zuni Pueblo people have a matrilineal society. That is, property titles, kinship, inheritance, names, etc., are carried on through the women, rather than men as is more common in our culture. Beyond the simple family of a wife, husband, and their children, clans, or extended family groups, become important. These are the children and their children, etc., traced through the female side of the families. Normally, children must marry outside their clan, but they still retain membership in the clan. Residence, too, is matrilineal. After marriage, a man usually will reside with his wife's family. Governmental affairs, normally, are handled by a village council of clan or religious leaders. There is no one "chief" or absolute leader who corresponds to the popular conception of Indian government.

Pueblo religion centered around maintaining the welfare of the Pueblo. A yearly round of religious activities tied in closely with the seasonal cycle of growing crops. Spring planting ceremonies, summer "Rain Dances," autumn harvest ceremonies, Solstice and Equinox observances and others progressed in an orderly fashion year after year. Different religious societies had charge of specific ceremonies, and the lore was passed on from generation to generation. The Pueblo People also had a rich mythology with gods, heroes and villains. Perhaps our Lost City people followed these trends, yet the kiva or ceremonial chamber, so characteristic of Pueblo culture to the east, is absent in the Lost City area. For the present we must be content to just speculate.

Over the years the Basketmakers and their descendants living in the Virgin and Muddy River Valleys developed a specialized way of life based on farming. They used available resources to the limit of their technical ability. They turned oasis-like river valleys into productive farmlands. They continued using resources of the surrounding desert, but to a lesser extent. They based their existence on a balance of sufficient water and an adequate growing season. A slight drop in the amount of available water or change in climate might threaten their farming pattern. This may be a clue as to their eventual withdrawal eastward.

For perhaps a thousand or more years their culture flourished along river banks. Then after about A.D. 1100 there seems to have been a slight decrease in population. They began selecting house sites more carefully — with an eye

toward defense. This appears to have been an era of apprehension, but nothing in the archeological record suggests bloodshed or violence. People began to leave the area: at first a few families, then more and more. By about A.D. 1150 all had abandoned their homeland. Why did they have to leave? The record is not complete. We cannot give a precise answer.

Outsiders appeared around A.D. 1100. Shoshonean speaking people, ancestors of the Paiutes who retained the old Desert Culture way of life, came to the valleys. Perhaps they were there earlier. Presence of their pottery along with Pueblo pottery in the Lost City sites shows there was contact. Was this contact always friendly where trade took place? Did Paiutes harass Pueblos with raids against their fields and villages until the Lost City people withdrew to a few defensive sites and finally retreated to new regions to the east? The latter is an intriguing possibility, but there is no specific evidence to really support it. Perhaps, even though coexistence of these two groups was peaceful, their combined populations may have exceeded their ability to support themselves within the limits of their environment. Perhaps a slight drop in the amount of water available in the rivers made it difficult, if not impossible, to grow crops reliably each year. Loss of productivity and resulting food shortages could have led to inter-village bickering and hostility — another explanation for the defensive locations.

Perhaps, as Archeologist A. H. Schroeder suggests, a farming culture in this desert environment was doomed from the beginning. Even at best the Virgin Valley is marginal for a sedentary farming economy. Intensive use of small plots of riverine soil eventually could have destroyed its productivity. Also, long continued hunting, and cutting of streamside vegetation for fuel and building material, could have upset the ecological balance. Depletion of animal, vegetal and soil resources could have forced the farmers from their homeland by A.D. 1150.

Even with modern technology, present day farmers are discovering that with increased demands, the water table of the area is becoming dangerously low. Natural storage reservoirs do not recharge as fast as water is being tapped through wells in the area. Perhaps modern man will soon be faced with the same problem that faced the Lost City people 800 years ago!

It is also possible that final abandonment came as result of widespread unrest and problems far beyond the confines of the Muddy and Virgin River

Valleys. Archeologists have long been aware that the mid-1100's were a period of general unrest and movement of Pueblo people throughout the Southwest. There may be other possibilities but for now we can only speculate.

The problem as to exactly where the Lost City people went also leaves us without definite answers. We can state without much hesitation that they moved to the east, but beyond that our information is limited.

Other Pueblo farming people continued living in the northern Arizona, southern Utah area, and east into the Four Corners area until the late 1200's. Our Lost City people probably became assimilated by some of these people without leaving any trace. About A.D. 1150 marks the end of our story of the Lost City people, but not the end of our story of the Indian people in our area.

TRADERS OF THE COLORADO

The Pueblo girl and her trip exist in our imagination, but for a thousand years Willow Beach, a campsite on the Colorado River, functioned as a cross-roads for Indian traders who dispersed material to the widespread corners of the Southwest. Pueblويد farmers from the Virgin Valley and Hakatayas from the mountains and desert east of the river, came here to meet other Hakatayas from west of the river, the Amacavas, the middle men who brought seashells and other items which they traded from people on the Pacific Coast.

High water periodically flooded this campsite, separating the various seasonal occupation levels with layers of clean sand. Archeologists excavated many of these campsites before the rising waters of Lake Mohave engulfed them. Layers of waterborn sand preserved the story of 10 centuries of inter-tribal contact and trading.

The gorges of Black Canyon and Boulder Canyon made continuous travel along the Colorado River virtually impossible. Indian travelers moving south along the Virgin and Colorado Rivers found it necessary to leave the Colorado and travel around the Black Mountains, moving up Detrital Wash. Willow Beach was the first spot where it was again practical to reach the river.

The Basketmakers seem to have been the first to camp at Willow Beach. Radiocarbon dates of charcoal from their fires suggest they first camped along the banks of the Colorado River as early as about 250 B.C. During sporadic visits to Willow Beach, which took place during the next 400–500 years, these early Basketmakers occasionally met people from the west, whom archeologists call the Amargosa. They made distinctive projectile points, used roasting pits, and had other traits which distinguished them from the Basketmakers. Then, for a time, the Amargosans became sole users of the Willow Beach campsite. By, perhaps A.D. 750, people from the Lost City area again began to camp at Willow Beach as evidenced by the pottery which they left behind. Other people, too, began camping there. They were part of a separate cultural pattern, the Hakataya of western Arizona.

In our area the Hakataya culture took on two distinctive patterns. The Cerbat Branch, named for the Cerbat Mountains between Kingman and

Hoover Dam, followed pretty much the desert culture pattern of living. They hunted and relied a great deal on seasonal harvest of the various desert plants. The Hakataya people, living along the Lower Colorado, took advantage of the river. In the days before the many dams, the Colorado, like the Nile, seasonally overflowed its banks along its lower course. The brown silt laden flood waters spread over the valleys building up thick layers of moist, fertile topsoil. Hakataya people such as the Amacava, and their descendants the Mohaves, farmed these rich bottomlands. During off seasons they hunted and gathered plant resources in the surrounding desert, like their upland Arizona and southern California kinfolk. The Amacava, the northernmost of the Hakataya People on the Lower Colorado, lived in the Parker-Needles area. In later times, at least, they ranged as far north as Cottonwood Valley. Amacavas traded with people on the Pacific Coast. After about A.D. 900, they often camped at Willow Beach to barter with their cousins from the Cerbat area and the farming people from the Lost City area. As middle men, they traded items from the Pacific coast such as shells, steatites, and asphaltum, for salt and other material from the interior.

After A.D. 1100, as in the Virgin and Muddy River Valleys, the Shoshoneans appeared, leaving their distinctive pottery, projectile points, and other material at the Willow Beach site. About the same time as the arrival of these newcomers, the Lost City People quit coming to Willow Beach. With their source of trade at Willow Beach diminishing, the Amacava also ceased to come here. They continued trading but with groups living farther south. So after about A.D. 1150 the Shoshoneans became the only people frequenting the Willow Beach site. They continued living in this area and areas to the north and south. Lt. Joseph C. Ives had reports of Paiutes living in the Black Canyon area a few miles below Willow Beach during his exploration in 1858.

Let's return to the Amacava and their modern descendants, the Mohaves. The various groups of people living along the lower Colorado, including the Amacava, were related through speaking various Yuman languages, and having similar ways of life. These Hakataya people along the river have also been known, perhaps more commonly, as Yumans. As in other cultures, many details of their daily lives are lost to archeologists, but through detailed accounts of their historic descendants we can draw a fairly complete picture of their existence.

The over-all impression of the Mohave (Amacava) way of life is one of informality, and casualness. True, they farmed, but they lacked the structure and rigidity so characteristic of Lost City people. Perhaps this was partially due to the nature of farming itself. The toil and uncertainty of growing crops under relatively difficult conditions which most Pueblo people faced, required organization and community action. With the Mohaves, farming was relatively easy. Flooding came in May and June. As soon as flood waters receded, the Mohave farmer took his digging stick, opened planting holes, deposited his seeds, and planting was accomplished. Other than occasional weeding, the crops needed no additional attention until the harvest. With warm temperatures crops grew rapidly. The familiar corn, beans and squash were the main produce. These people also grew gourds, tobacco, and sunflowers. Native mesquite and screwbean also grew in the fertile bottomlands, and the people harvested these along with their own crops.

The river also supplied fish, their major source of flesh. Men took native fish with seines, dip nets, and occasionally with hook and line, or bow and arrow. They used all the native species, the large Colorado River squawfish, the humpback sucker and the bonytail. In keeping with their casualness, preparation of the catch was simplicity itself. They either roasted the whole fish, bones, entrails, and all, or it became part of a stew. Hunting had minor importance. The men occasionally hunted small game using bows and arrows, either individually or in drives. Only rarely did they venture into the high desert mountains to hunt deer or bighorn sheep. Food then was abundant and easy to obtain. There were, however, occasional disastrous exceptions. If the river failed to flood, or flooded a second time after the crops were in, the resulting crop failure could mean famine. Limited stores and amounts of wild food sources could be quickly depleted by the relatively dense population.

Loose clan organization existed, but the family-man, wife, and their children, were the basic social unit. They had no tribal or village councils. A hereditary "chief" existed but he had little power or responsibility, and acted in the role of an advisor. The Mohave, however, did have a strong sense of tribal unity.

The one activity which did have a certain amount of organization was war. Mohaves, and indeed all Lower Colorado Yuman People, chronically warred

among themselves. The Mohaves normally fought the Halchidhomas, Maricopas, and Cocopas with their allies the Yumas. Battles often were initiated by men who received visions in dreams, or to revenge the death of a warrior in a previous battle. A war chief led the men into combat. By fighting, a man achieved prestige and honor. Warriors took scalps, although casualties were usually light. They also took prisoners, usually girls and young women. They rarely mistreated captives, who became more or less servants in their captors' households.

Their artifacts and implements indicate a general disinterest in fine workmanship. Implements were made just good enough to serve their purpose and had little decoration. Tools received little maintenance, and were simply discarded when they could no longer perform their intended function. Even though they spent much of their time with the river, the Mohaves had no boats. Occasionally they constructed temporary rafts of tules to ferry goods across the stream. They normally swam back and forth across the river, sometimes using a log for an aid. Huge pots, as much as 3 feet across, with a swimmer pushing them, served as ferries for small children.

Most important life events received little formal attention. No public ceremonies accompanied birth, puberty or marriage. Death, however, was different. They cremated the deceased as soon as possible after death, and all the property including the house was quickly destroyed to erase all reminders of the person. Relatives mourned and abstained from certain foods for four days following a death and performed a public funeral service.

As with other aspects of Mohave Culture, religion had few formal or public activities. The Mohaves placed great emphasis on dreams. A person (usually a man) could achieve certain powers and abilities through dreams. Their pantheon of gods created things and taught the people much, but in a distant time. Mohaves felt no particular closeness to their gods and attempted little communication with them except through dreams. Unlike most farmers, they had no particular god connected with the river or their crops.

For a thousand years or more the Mohaves and other Yuman speaking people along the Lower Colorado River lived their simple and casual way of life, with little change. Even the coming of the Spaniards and the first U.S. Government explorers made little difference. It was only after they were forced

onto a reservation in the late 1800's that their way of life changed. Today most of the 1500 remaining Mohave People still depend on farming, although by different methods, and by growing different crops. As with other native cultures, more and more men find work off the reservation. Young people don't return to it, and gradually the pleasant, unstructured Mohave life way will disappear.

THE GLEANERS

Who were the latecomers who replaced the traders at Willow Beach and the farmers of the Lost City area? Like the Amacavas and their descendants, the Mohaves, they, too, belonged to larger groups of people who spoke similar languages, and more or less shared the same way of life.

Many people who lived in what is now southern Nevada and adjoining sections of Utah, California, and Arizona, spoke languages belonging to the Shoshonean subfamily. The Southern Paiutes lived in our immediate area, and they and their ancestors are part of our story. They were the people who settled in the Lost City area near the end of its occupation by the farmers. They, too, are the people who appear down at Willow Beach about the same time.

Although elementary, their way of life shows a near perfect ecological adaptation to desert environment. The Shoshonean-Paiute way of life was essentially that of the earliest Basketmakers and of the Desert Culture even before, and changed little because the environment changed little. Shoshoneans, then, stood at the end of a 10,000 year old cultural development. They probably had the simplest, least sophisticated culture of any group in North America, *but it did work*.

Because of the extremes and hardships, the numbers of people remained very low. Population density for the entire Great Basin averaged only about one person per 15.6 square miles! It approached about one person per 2-3 square miles in the relatively fertile Owens Valley, and dropped to one person per 30-40 square miles in the Salt Lake Country. Our own Lake Mead area probably had a population density nearer the Salt Lake figure.

The culture was based upon a nomadic existence. The people constantly moved to exploit the scattered resources as they became seasonally harvestable. No one food source could sustain even the small bands on a dependable year around basis, so the people moved, going from one harvest area to another. The simple family remained the basic social unit. There was a loose band organization whereby several families would come together for a few weeks in the fall. Sometimes several related families might also travel together for the entire year. Bands were fluid and their composition might change from year

to year. Little ritual or ceremony accompanied birth, puberty, and death. Marriage also was casual, with two young people just beginning to live together and traveling with parents of one or the other. Sometimes a young person simply had no opportunity to meet a possible spouse, so both forms of plural marriage occurred: polygyny, where a man took more than one wife, and polyandry (the very rare form), where a woman had more than one husband. As in the Arctic, the very old, and occasionally infants, were abandoned, not from cruelty, but for the good of the others. A person unable to support himself without help from others could become a liability in this land of few resources. It was a fact of life that all understood and accepted.

These people had no formal government, or over-all leaders. Each band had a “talker,” who acted as an advisor, and might organize hunts and activities during the fall gathering. He became leader by virtue of respect from others, with little actual authority. In such small numbers was little need for more elaborate organization. Religious beliefs had a simple pattern. In fact, many of their ideas seem a confused mixture of beliefs borrowed from nearby areas. People could become medicine men (shamans) with power acquired in dreams. The twin culture heroes which appear in surrounding areas show up in simple forms. Stories of these two, Wolf and Coyote, relate how they put the world in order, but say little of its creation. About the only rituals these people performed were during the autumn gathering as dances and recitation of various legends.

With minor exceptions, the Shoshonean way of life remained unchanged for centuries. Paiute-Shoshonean people living along the Virgin Valley did farm in the 1800’s. Perhaps they learned farming by association with the Puebloid Lost City people, hundreds of years earlier — the methods seem the same. Why didn’t they become full time farmers? Perhaps after the Puebloids left they realized they couldn’t depend on farming alone for a living. The wisdom of a diversified economy based on hunting and gathering was proven by thousands of years of desert existence.

These people survived not because of great technology, but because they learned to live in harmony or balance with the surroundings, staying within environmental limitations.

EPILOGUE

What happened to the Paiutes, Mohaves and other people in our region after they were confined to reservations? Deprived of their nomadic way of life, the Paiutes continued to glean what they could from the resources within their reservations. Many drifted into nearby ranches or mining camps to work at menial jobs, or unfortunately, just to beg. The accounts of Mormon settlers in the Virgin-Muddy River Valleys show that they had a benevolent attitude toward local natives even though they looked on them as their inferiors. Most newcomers took a less kindly view toward the "Digger" Indians. It was not until 1934 that the United States Government did much to help these people. After that time new "settlements" with decent houses were established. It became possible for Paiute children to attend public schools, and obtain at least some ability to compete in our society. Unlike many native groups, the Paiutes have not tenaciously clung to the old ways. Gradually they are blending into our culture, although it usually is on the bottom of the socio-economic ladder.

The United States Government never made a formal treaty with the Mohaves, but in 1865 it set aside the Colorado River Agency, located on the east bank of the Colorado River near Parker, Arizona. After several additions it now encompasses about a quarter of a million acres. Until a few years ago only Mohaves, and their kin to the west, the Chemehuevis, lived there. They continued farming, although often growing crops introduced by the white man. A few years ago, the Mohaves decided to open up half of their allotment to other tribes in the Colorado River drainage. The government would, in turn, clear the lands and plant the first crop for those who took advantage of the Mohaves' offer. A few Hopi and Navajo people have moved onto the reservation,

and live side by side with their Mohave benefactors. After a hundred or so years of close contact with the whites, most of the old ways have disappeared. Young men find jobs with the railroads or in nearby towns. The Mohave, too, are gradually becoming part of the conquering culture.

No Indians live within the boundaries of the Lake Mead National Recreation Area today. Basketmaker-Puebloid farmers of Lost City left 800 years ago. The northern part of the valley claimed by the Mohaves now lies partly under waters of Lake Mohave behind Davis Dam. The trading camp at Willow Beach also lies under Lake Mohave. Fishermen angle for trout where traders once bargained for salt and pottery. A few Paiutes live in the Moapa River Reservation in the Virgin Valley near Overton, and another handful live on the Shivwits Reservation near St. George, Utah. The Mohaves still live on the river south of our area.

The people are gone but through anthropological and historical research their story remains. Also much physical evidence of their occupation still remains in the Recreation Area. After reading our account of the various people who have come and gone, it must be clear that many gaps remain in our knowledge. Literally hundreds of unexcavated campsites and other habitations in Lake Mead National Recreation Area provide the raw material, which with careful study, will fill in some of the gaps. The story of the Indian People here forms a link with the past, and gives us a better perspective of our own culture. By understanding how cultures developed we often gain deeper insights into our own.

There is, however, a special lesson to be learned from the Indian people who lived in the desert before us. It is a lesson of living within the bounds of our environment; of understanding that man, like all living things, is a part of the environment. People, too, are dependent upon the same resources of air, soil, and water, which sustain all life. Our Indian People survived here under a variety of environment conditions for, perhaps, 13,000 or more years because they maintained a measure of harmony with their surroundings. The story we have traced has been simply the story of how various groups met the conditions of their surroundings and lived without upsetting or degrading the natural balance.

Were they then better conservationists than modern man who is drastically changing and degrading the environment? Probably not, but their numbers and

technology were never sufficient to really upset the natural environment. They exploited natural resources to the limit of their capabilities. Possible exceptions were perhaps the Lost City farmers. They may very well have had to leave the Virgin-Muddy River Valley because they overstepped the limitations of the semi-desert valley floor.

In our reconstructions we put into the minds of our imaginary Indian friends the concepts that nature's resources were limitless and unchanging. We have learned that neither idea was so. Yet modern man continues to operate under the same illusions. With our superior numbers and technology we can quickly change the environment and deplete our resources. We are overstepping our environmental bounds. Only by restoring and maintaining a balance with our environment can we expect as long an existence in the Lake Mead region as the Indians.

APPENDICES

APPENDIX I

How do we Know?

The modern archeologist operates much like a detective in his task of reconstructing the way of life of vanished peoples. In excavating remains of ancient sites, nothing should go unnoticed. Every bit of stone or pottery, bone, etc. will help fill in details as to how the people lived. Did they hunt, or grow crops? What type of housing did they use? The archeologist seeks answers to these and many other questions. Other experts can often provide answers. Botanists, geologists and palynologists can provide information on past environments. By studying pollen, animal bones, and soil types from an excavation, experts can often determine what plants and animals were present and the type of setting in which the soil was deposited. The environment will limit, and to some extent shape the way of life of a group of people. Farming is most profitable in a temperate climate with abundant moisture and a long growing season. Fishing obviously requires adequate water resources, and so on. In this booklet, we have seen how environment affected the people living here, and how different groups responded to and survived in the same environment with different ways of life.

When? — is a question important to archeological research. Archeologists use many techniques to answer this often vital question. Radiocarbon or carbon 14 dating and tree ring dating often provide key information in our general area of interest. These and certain other methods give definite dates to artifacts or ruins. Often, and especially in the Lake Mead area, the archeologist will find nothing that is absolutely datable. Carbon dating, for example, works only on organic material. By “cross dating” however, he often can make accurate

estimates. If, for example, he finds a particular style of pottery vessel in a rock shelter overlooking Lake Mead that is identical to pottery found in a ruin in southwest Utah dated by tree rings to have been inhabited from A.D. 900–1000, he can estimate that the rock shelter was probably occupied at about that same time. Pottery styles, arrowheads, and certain other artifacts went through changes just as automobiles or ladies' fashions change, and, therefore, are often good indicators of time.

Excavation, the careful uncovering, recording, and recovery of the physical remains of a culture is the archeologist's prime source of information. Through this work he "reads" the story of the culture. A habitation site or ruin, which has been vandalized or disturbed is virtually useless as a source of knowledge. Its story is lost. Surveys, the actual locating of sites, are the first step in archeological research. These inventories help the archeologist determine which sites should be excavated and studied in detail. The digging, however, usually amounts to less than half of the archeologist's efforts. Laboratory work of cleaning, cataloging, identifying, and preserving material recovered from digging may take endless hours. The last, but most important, task is to interpret the mass of data, and develop a picture of the way of life of the people themselves.

Archeologists then, through careful work, patience, and help of other anthropologists and scientists, can learn much about the people whom they study. In the Lake Mead country much is known, but many questions about the people who lived here still go unanswered. In this booklet we have not even attempted to ask all of them.

APPENDIX II

Shivwits Plateau — Lower Grand Canyon Area

The western third of the Grand Canyon, and the plateau flanking it to the north, lie within the Lake Mead National Recreation Area, and this area is a part of our story. We have already met the actors, the Pueblويد People and the Paiutes. The Grand Canyon presents a seemingly impenetrable barrier. Few areas of our country are more isolated today than this region. Yet, a thousand years ago, this area served as the home for many people. Here and there they found routes which threaded their way into the depths of the Canyon.

In Whitmore Wash, a broad relatively flat tributary canyon, for example, the Pueblويد People lived and farmed much the same as in other areas. Archeologists found remains of their apartment-like buildings, characteristic pottery fragments and other evidence of occupation at several different locations. Pottery types from Whitmore Wash, which are the same as those from the Lost City area, suggest close contact between the two groups, and contemporary occupation. The occupation in this section of the Grand Canyon is not unique. Explorers and archeologists have located similar evidence throughout virtually the entire length of the Grand Canyon. Why did these people choose such a seemingly difficult environment? It is tempting to suggest it was for reasons of protection and security that these people moved into the Canyon. Perhaps so, yet ecologically much of the Canyon area really suited the Pueblo way of life. First, water, either from the Colorado River or the many tributary creeks, was always available. The alluvium in tributary washes and along the Colorado River itself provided fertile and frequently moist soil for their crops. Climate in the Canyon depths differs considerably from that of the rim. The warmer climate in the depths provided a longer growing season than on the rim, with about the same amount of available moisture. They could obtain most of the plant and animal resources needed to supplement their farming within the Canyon itself, or they could climb to the rim to get those items not available.

This they did on the Shivwits Plateau — the highland area forming the rim north of the great “U” shaped bend of the Colorado before it leaves the Grand Canyon. This high plateau lies at an elevation of about 7,000 feet and is relatively flat. Open stands of Ponderosa Pine, Piñon Pine, and Juniper cover much of it. Today open sagebrush parks break up the stands of timber. Deep canyons, tributary to the Colorado, dissect the Plateau. Several of these have permanent springs at their heads. During the period of occupation, the Pueblid people, in areas such as Whitmore Wash, climbed onto the Shivwits Plateau to hunt mule deer, gather Piñon nuts and other items. Remains of their camps and others cluster around the springs and in other areas of the Plateau.

Not all of the campsites, however, are Pueblid. Different artifact types in some camps indicate the Paiutes and their ancestors also used the Plateau, perhaps on a more permanent basis than the farmers. Some of these people used it until the late 19th Century.

One band played a part in an epic destined to bring them national notoriety. In August of 1869, an exhausted band of 9 men wearily beached their boats at the head of a seemingly impassable rapid on the Colorado River below the Shivwits Plateau. After an incredible 3 month journey, Major John Wesley Powell and his little expedition had floated down the Colorado from Green River, Wyoming to this point. With food supplies nearly gone and with an unknown length of river yet to run, three of Powell’s men elected to climb out of the Canyon and attempt to reach civilization by land. On a fateful August morning the three left the boating party and started the long climb up what came to be known as Separation Canyon. They were experienced mountain men, and well armed, so their safety seemed assured. The story is not completely clear but the three reached the Plateau safely. Here they met a band of Paiute people who at first helped them and were friendly. Then the Indian people began to suspect the three as they told their story of riding down the great Canyon on boats. To the Paiutes this seemed preposterous. Then, after learning of a group of miners who had molested another nearby group of Indians, the Paiutes mistook the three for the miners. Wanting no more trouble, they ambushed and killed them. Ironically, Major Powell and the rest of the

party who stayed with the boats floated to safety at the mouth of the Virgin River several days after the three men started the climb from the River.

The Paiute People continued their hunting and gathering way of life on the Shivwits Plateau until about the turn of the Century. Then Mormons from St. George, 90 miles to the north, began ranching, timbering and other activities there. As in other areas, the old life way of the Paiutes quickly became obliterated. Now, only the meager evidence of their campsites serve as reminders that these people once lived here.

APPENDIX III

Indian Sites of the Lake Mead Area

By now, perhaps, you would like to see some of these areas firsthand. We hope you will do so.

Mohave Valley — Davis Dam

Except that the narrow Lake Mohave has replaced the Colorado River, the area from Davis Dam north into Cottonwood Valley looks much the same as when the Amacavas and later the Mohaves lived in it. The developments at Katherine and Cottonwood Cove give access to this area both by car and boat.

Christmas Tree Pass Area

A well known petroglyph site is in Grapevine Canyon, approximately 5 miles east of Lake Mohave in the Newberry Mountains. Here at the mouth of a narrow section of the Canyon are hundreds of petroglyphs or rock carvings. A permanent spring forms a small oasis at this spot, which is frequented by wild game. Excavations in a small cave, several hundred yards below the petroglyphs and spring, suggest that Amacava people began camping here at least as early as A.D. 1150. You can reach the petroglyphs by a short trail from the Christmas Tree Pass Road.

Many rock shelters and caves in the Christmas Tree Pass area show evidence of Indian occupation.

Willow Beach

Most of the old campsite lies submerged beneath Lake Mohave a few yards north of the present day restaurant and marina complex. Many interesting petroglyphs along the slopes of Black Canyon, about 4 miles below Willow Beach, can be reached by boat.

Virgin Valley — Overton Arm

Many of the old villages of the Lost City people lie below the waters of Lake Mead in the Overton Arm. Because many were excavated before flooding, we have been able to reconstruct part of their story. The farm fields in the valley near present day Overton, Glendale, and Springdale, are the same ones farmed by the Lost City people.

Lost City Museum

The Lost City Museum just south of Overton, Nevada on State Highway 12, has an excellent collection of artifacts made by the Lost City people, Paiutes, and early hunters such as at Gypsum Cave. A typical Lost City Pueblo or village has been excavated and reconstructed. Here you will get a firsthand impression of life in this area as it was with the old farming culture.

Valley of Fire State Park: adjoins the west boundary of the Lake Mead National Recreation Area a few miles south of Overton, Nevada. Indian people frequented this area of vivid red sandstone formations. Atlatl rock has an impressive display of petroglyphs. "Mouse's Tank" preserves the story of a renegade Indian who used this area as a hideout about the turn of the century.

Hundreds of other unmarked sites in the Lake Mead Recreation Area, caves, rock shelters, open camps have evidence of man's occupation here. Because each site holds evidence of the Indian People, it is protected by law. The Federal Antiquities Act of 1906 prohibits unauthorized excavation or disturbance of these sites. We ask that you help us preserve the story of the Indian People by honoring the law. If you observe anyone disturbing or digging in an Indian site, please inform a Park Ranger.

APPENDIX IV

Reading List

We have touched only a few highlights in stories of the Indians of the Lake Mead Area. Perhaps you will want to read more about these people. Much has been written about the Indians. Unfortunately, much of the literature is inaccurate. There are, however, many good general books as well as detailed specific reports. Below are listed a few works which served as references for this booklet. They are accurate and readable, even though several are technical reports. The list is by no means comprehensive, nor does it contain all references consulted. Each of those given has its own extensive bibliography for additional reading.

Aikens, C. Melvin

- 1966 *Kayenta — Virgin Cultural Relationships*. University of Utah Anthropological Papers No. 79, University of Utah Press, Salt Lake.

Castetter, E. F., and W. H. Bell

- 1951 *Yuman Indian Agriculture*. University of New Mexico Press, Albuquerque.

Driver, Harold

- 1964 *Indians of North America*. University of Chicago Press, Chicago. Gives encyclopedic information on all aspects of Indian culture.

Euler, Robert C.

- 1966 *Southern Paiute Ethnohistory*. University of Utah Anthropological Papers No. 78, University of Utah Press, Salt Lake. Has detailed information of Paiute History and way of life.

Forde, C. Daryll

- 1963 *Habitat, Economy and Society*. E. P. Dutton & Company, Inc., N.Y. (Paperback ed. D-110). A classic in anthropological literature describing adaptations of various cultures to their environment. Chapter IV and XII describes adaptation of Yumas and Northern Paiutes (groups related to our Lake Mead People) to the desert and Lower Colorado environments.

Harring, Mark R.

1930 *Archeological Explorations in Southern Nevada*. Southwest Museum Papers #4. Southwest Museum, Los Angeles. Early account by veteran archeologist of this area. Good descriptions of the structures and material recovered.

no date "Ancient Tribes of the Boulder Dam Country." Pamphlet Southwest Museum, Los Angeles. Popular summary of the archeology of our area. Somewhat out of date, especially in regard to the dating of various groups, but still interesting.

Hale, Frank and Robert F. Heizer

1965 *An Introduction to Prehistoric Archeology*. Holt, Rineholt and Winston, N.Y. Introduction to methods and techniques used by archeologists.

Jennings, Jesse D. and Edward Norbeck, eds.

1964 *Prehistoric Man in the New World*. University of Chicago Press, Chicago Comprehensive Survey of Prehistoric Indians in the New World written by a number of specialists. Chapter 3 on Early Man, and Chapter 5 "The Desert West" provide background data for early people in our area.

Kelley, Isabel F.

1964 *Southern Paiute Ethnography*. University of Utah Anthropological Papers No. 69. Has detailed information of Individual Paiute Bands, social organization, subsistence techniques.

Schroeder, Albert H.

1961 *The Archeological Excavations at Willow Beach 1950*. University of Utah Anthropological Papers #50. Salt Lake. Detailed account of the excavations at Willow Beach. Also summarizes and correlates developments of other groups such as the Lost City and Amacava People.

Shutler, Richard, Jr., Mary E. Shutler and James S. Griffith

1961 *Stuart Rockshelter, a Stratified Site in Southern Nevada*. Nevada State Museum Anthropological Papers No. 3, Carson City, State Printing Office. Describes excavations in a rock shelter which had

evidence of many groups using it over a period of hundreds of years. From pre-Basketmaker through late Paiute groups.

- 1961 *Lost City, Pueblo Grande de Nevada*. Nevada State Museum Anthropological Papers No. 5, Carson City, State Printing Office. Detailed information of excavations in the Lost City area. Excellent summary of the Pueblويد cultural development there, and its relation to other nearby cultures including the later Paiute People.

Spencer, Robert F. & Jesse Jennings, *et al*

- 1965 *The Native Americans*. Harper & Row Publishers, N.Y. Excellent general work on American Indians prepared by many specialists. See especially the chapter by William Wallace — "The Mohave Indians of the Lower Colorado" pp. 264–273, and the chapter "The Shoshone of the Great Basin" pp. 273–282 by Omer Stewart.

Underhill, Ruth

- 1953 *Red Man's America*. University of Chicago Press, Chicago. Another excellent general book by a noted anthropologist. See chapters "West Coast Medley" and "Those Who Had Little to Lose."

Wheat, Margaret M.

- 1967 *Survival Arts of the Primitive Paiutes*. University of Nevada Press, Reno. Excellent photographic study of the Northern Paiute People. Although some details of the pattern of life differ from the Southern Paiute, the book gives valuable insight into the rigors of Great Basin Existence.

Wormington, H. M.

- 1957 *Ancient Man in North America*. 4th ed. Denver Museum of Natural History "Popular Series" No. 4. Denver. Summaries of Early Man sites, such as Tule Springs and Gypsum Cave. Excellent, although some ideas and dates have been modified by recent research.
- 1961 *Prehistoric Indians of the Southwest*. Denver Museum of Natural History "Popular Series" No. 7, 5th ed. Good general summary of the Pueblo and other cultural developments in the Southwest.

