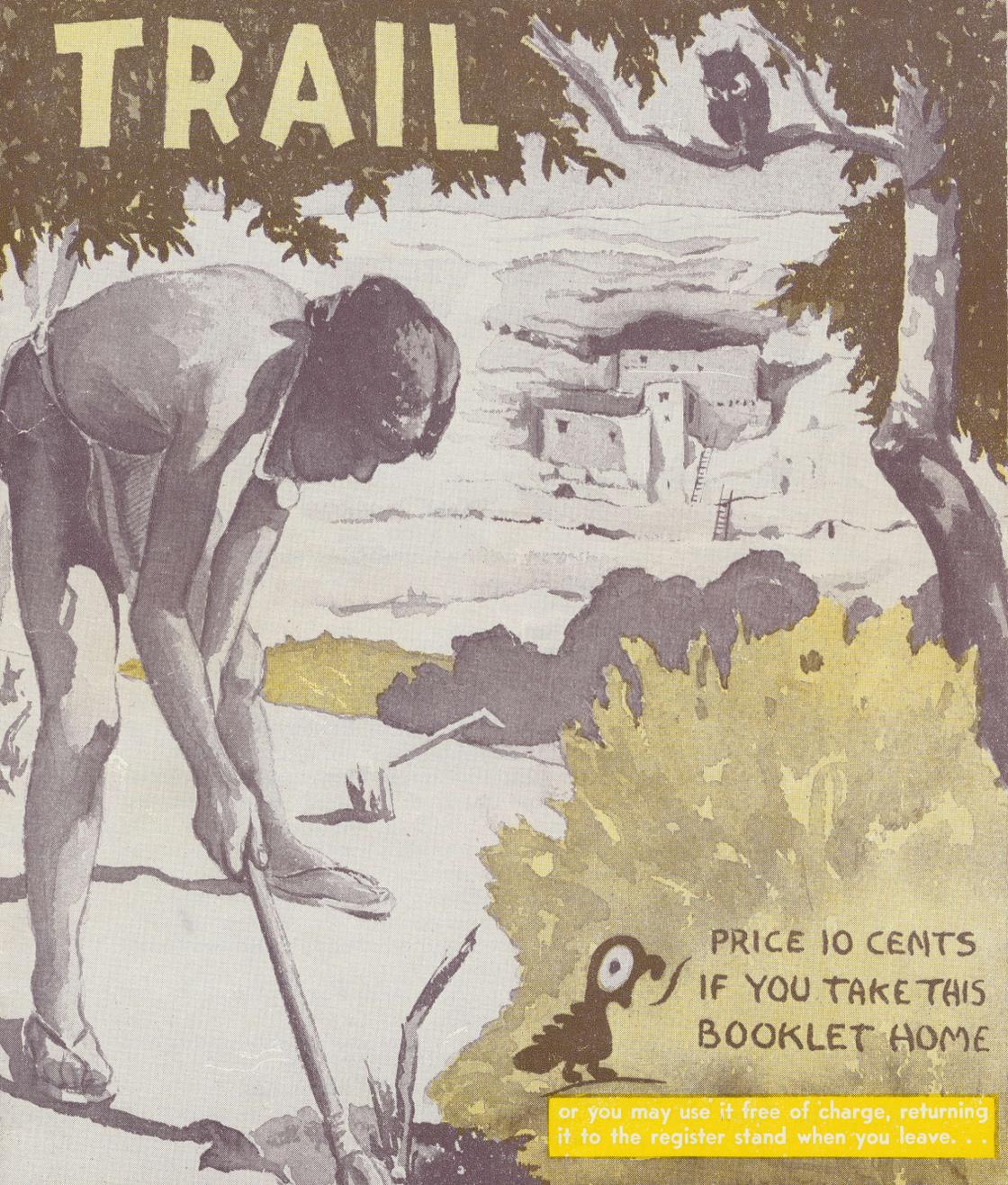


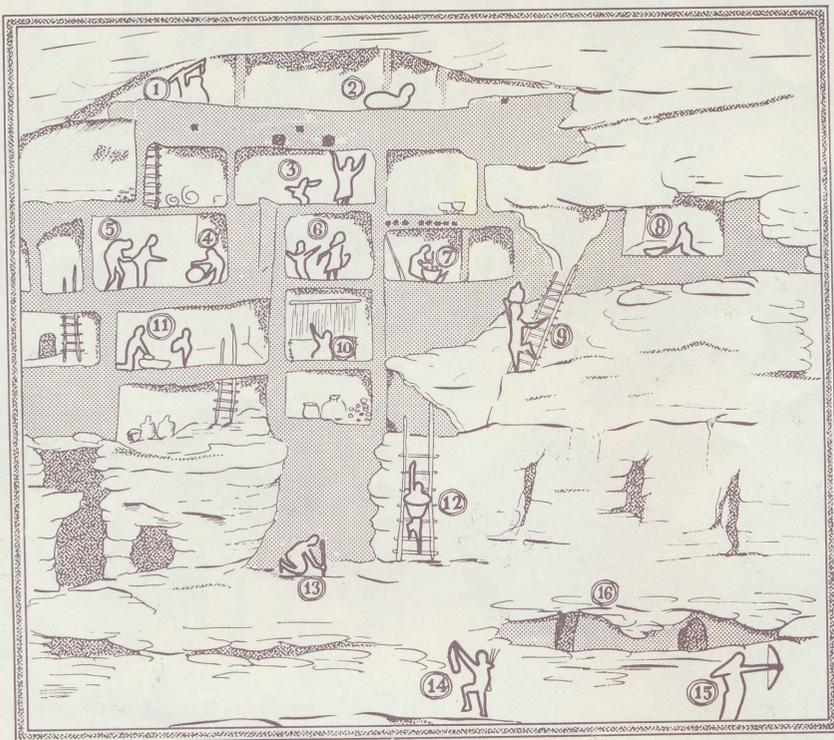
SYCAMORE TRAIL



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MONTÉZUMA CASTLE NATIONAL MONUMENT
5 MILES FROM CAMP VERDE, ARIZONA



THE MODEL

This miniature reconstruction of Montezuma Castle is a cut-away view of a typical scene in, say, 1300 A.D. The diagram and text (below) identify the inhabitants and their occupations for you.

1. Town crier calling from the fifth floor balcony.
2. Woman carrying basket tray.
3. A mother watches her child balancing on the edge of the roof.
4. Woman making a pottery jar from native clay. Her next step will be to fire the vessel.
5. An old man leading his blind wife.
6. Young mother and child. The mother wears a full-length cotton dress which was fashionable in pueblo days.
7. Basket-making was woman's work.
8. Corn was their principal food, and grinding it must have been a never-ending job for the women of the village.
9. This is how water was carried from Beaver Creek to the cliff rooms!
10. Cotton cloth of many intricate weaves was designed and woven by the men of the settlement.
11. Children were taught to help with the daily tasks.
12. Corn was the main crop. At harvest time it was carried up the ladders and stored in rooms and small caves.

13. They had no matches in those days; fires were started with a simple fire drill.
14. A successful hunter returns. The people of Montezuma Castle often enjoyed squirrel and rabbit feasts, or even deer from the distant mountains.
15. They were experts with the bow and arrow, their most important weapon.
16. Small caves like these were walled up and made into storage chambers.

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MONTEZUMA CASTLE

This five-story, 20-room cliff dwelling was named by early pioneers who discovered it about 1865. Montezuma, Aztec emperor of Mexico from 1502-20, never saw or heard of it. Nor is it a "castle." It was used as an apartment house and converted for defense by Pueblo Indians who came into the Verde Valley almost a thousand years ago.

Archeologists have determined, by a study of pottery found here, that construction began about 1100 A.D. Three hundred years later this dwelling, and the entire valley, was abandoned. No one knows why. Possibly the ancient people overfarmed their land, causing it to become infertile. Perhaps it would not produce enough corn, squash and beans, upon which they depended for food. Disease, as a result of poor sanitation, must have taken its toll, and these farmers were no doubt harassed by intertribal warfare. At any rate, the survivors drifted north, eventually to become absorbed by ancestors of the present Hopi and other pueblo tribes. The ruins they left are monuments to their architectural ingenuity.

Montezuma Castle National Monument is one of more than 175 areas administered by the National Park Service, United States Department of the Interior. These superb localities, set aside for their scenic, scientific, historical and archeological values, are yours, part of your heritage as an American citizen. The National Park Service preserves them in their natural, unspoiled condition. Such destructive activities as hunting, grazing, mining and even flower-picking are prohibited. Enjoy by observing. Take only pictures and inspiration; leave only footprints—and good will.

Caution

If you smoke, please be very careful along the trail. A carelessly dropped cigarette stub or match may start a bad fire.

THE SYCAMORE TRAIL

All set? This is your guidebook—follow the numbered stakes. The trail begins and ends at the Model; along it are additional ruins and outstanding natural features. Please do not wander off the trail. The trip will take about half an hour, so let's be off!

1. **NETLEAF HACKBERRY** (*Celtis reticulata*), a member of the Elm family. Early naturalists called it the "unknown tree," probably because it was so commonplace! Its orange berries, which ripen in late summer, are not only consumed by birds and squirrels, but by the Yavapai Indians who grind them into meal and eat it raw.

2. **CREOSOTE BUSH** (*Larrea tridentata*), often erroneously called greasewood. Extremely drought-resistant, it has an extensive root system plus a waxy covering on the leaves to prevent loss of moisture in dry weather. Yellow flowers, beginning in April, are followed by many fuzzy white seed capsules. Indians and oldtimers boiled the leaves and made a strong tea that was used as a remedy for chest colds and sore throats.

3. **VELVET MESQUITE** (*Prosopis juliflora*), an important tree to the ancient Indians. Its seeds are produced in pods similar to string beans. These were, among other things, ground into meal and made into nourishing breadstuffs, something modern Indians still do. Birds and animals eagerly devour Mesquite beans. Atole (ah-TOL-ay), a popular native beverage, is made from cooked and strained beans. The plant is very hardy. If water is scarce the roots keep going down seeking moisture. Some have been known to reach as deep as sixty feet.

4. **CANOTIA** (*Canotia holacantha*), a shrub common on limestone hillsides above the museum. This is an erosion control plant; livestock respect its thorns and rarely eat it. Most of the time it has no leaves; the stems contain chlorophyll, which gives them their green color and helps manufacture plant foods.

5. **LIMESTONE CLIFFS**. The white cliffs overhead are composed of limestone, a rock made up of calcium carbonate. The layered appearance indicates that these beds were deposited as sediments on the bottom of ancient lakes and streams. The Verde Valley was covered by a number of lakes during the Pleistocene period, two million years ago. Because this limestone is brittle and treacherous, climbing along ledges is prohibited.

6. **LOWER RUINS**. ("Castle A"). Behind this stake is a large ground floor room, one of over 40 rooms which made up a six-story cliff dwelling. It was probably started a little earlier than Montezuma Castle, because of nearness to the ground, the water, and the fields. Several hundred years ago, fire burned out ceilings and supports and caused the walls to collapse. Note the old milling stones—trough-shaped metates and small manos—on the floor.

Now climb the ladders to Stake No. 7.

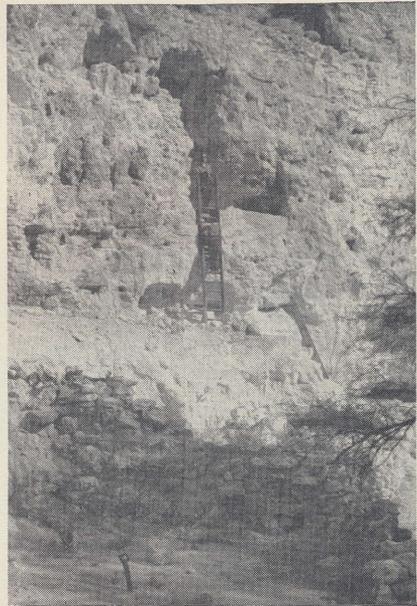


Theoretical reconstruction of "Castle A"

7. **PREHISTORIC ROOM.** Above the door (partially restored) are two holes which the Indians made presumably for smoke from their fires to escape. The odd feature is not that this family had smoke holes, but that in Montezuma Castle, 100 yards away, there were none at all! Yet both dwellings were occupied at the same time, by members of the same community.

8. **BEAM HOLES.** Look up! When the Indians built a ceiling they placed one end of each supporting beam in a hollow in the cliff, then packed mud around it to make it secure. Today, with the beams gone, you can see the round mud sockets into which they fitted. These sockets represent two additional floor levels, the third and fourth stories.

9. **BURIAL CAVE.** Parts of 15 skeletons were found here. The cliff dwellers became crowded for grave space in their cemetery, so they cleaned out old graves to make room for new burials. Surplus scattered bones were dumped in this room.



10. INFANT BURIALS. Fifteen inches below this spot there were found the remains of a tiny baby. Over it was a stone slab. Above the slab was the body of another baby, and above that the mud surface of the floor where people continued to live.

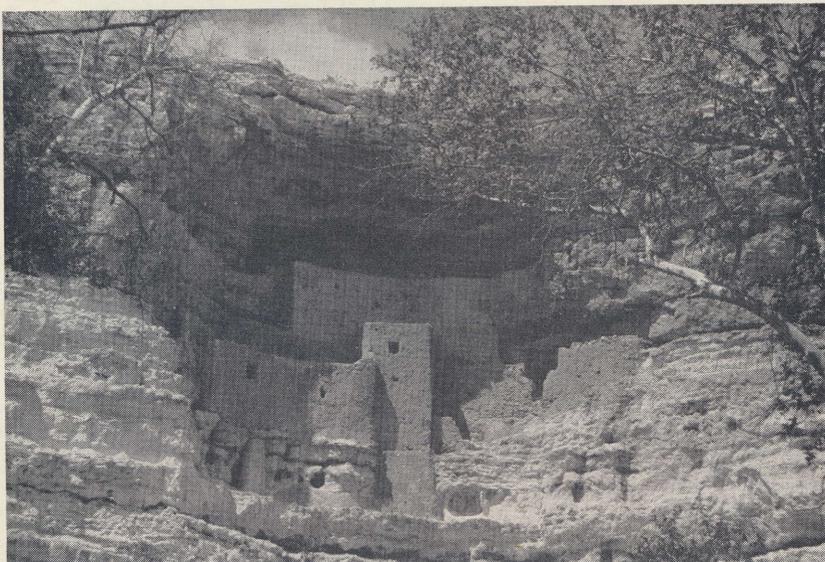
11. STOREHOUSE. See that small cave in the wall just above? That was a storage place for the family on the third floor (we are still on the second floor level.) There was space enough to hold the family's yearly supply of corn.

12. HEATING AND COOKING. The firepit in this room was lined with stones, a common type. Another type, lined only with clay, was just as common but less durable.

13. CEMETERY. Originally the ledge above this marker extended out to form a roof over a row of seven graves. All were sealed by slabs of limestone, and contained parts of 15 skeletons. As old burials were disturbed to make room for new ones, some of the old bones were probably dumped into the cave described under No. 9. Total dead found in this ruin was not even 45, a small



Cist burial of a middle-aged woman, with bowls, ear bobs, beads and thunderbird pendant.





Arizona Sycamore.

percentage of the persons who must have died while the building was occupied. Where are the rest? Nobody knows.

14. **GRAYTHORN** (*Condalia lyciodes*). Birds relish the black fruits found on this shrub in summer. So do the Indians. Yavapais crush the berries, add water, and drink the juice.

15. **ARIZONA SYCAMORE** (*Platanus wrighti*), a relative of the old-world plane-tree. This is the wood that was used as beams and rafters in cliff dwellings. Kept dry, the wood lasts indefinitely. In this vicinity you may see many splendid specimens of it, for this is one of the finest Sycamore groves in the state. Ancestors of some of these trees are still holding up ceilings in Montezuma Castle.

16. **ALGERITA** (*Berberis fremonti*), also known as Desert Holly, a plant of the oak and chaparral country. Indians of today and yesterday have extracted yellow dye from the wood and purple from the berries. Prehistoric people may have used the berries for food.

17. **CATCLAW ACACIA** (*Acacia greggi*). This plant has grasping habits. If you don't believe it, brush your arm or leg against it (at your own risk!). Catclaw is a relative of the mesquite and produces seed pods that were a prehistoric source of food. These pods were pounded to coarse meal and made into porridge or cakes.

18. **SINGLE WHORL BURRO BUSH** (*Hymenoclea monogyra*). In common with the Seepwillow this plant is finding wide use in erosion control. Notice how it is thriving in these sandy areas where little else will grow.

19. **FOUR WING SALT BUSH** (*Atriplex canescens*), often wrongly termed "sagebrush." It is adapted to a wide range of soil and climate and is highly prized as a forage plant. An extensive root system makes the plant remarkably drought resistant.

20. **BEAVER CREEK.** This stream derived its name in the early days when beaver were common along its banks. Now they are rare. Pre-

historic Indians used these waters for domestic purposes as well as irrigation. The creek originates 20 miles northeast of here and empties into the Verde River three miles downstream. Sometimes it goes on a rampage and the floodbank in front of you has been built to check erosion and prevent damage to natural and prehistoric features.

21. **SEEPWILLOW** (*Baccharis glutinosa*), also known as Watermotive. When they wanted to decorate their pottery, Indians made paintbrushes from various parts of this plant. Lately, Seepwillow has come into its own for erosion control. It grows along water courses, and deep spreading roots bind the soil in place.

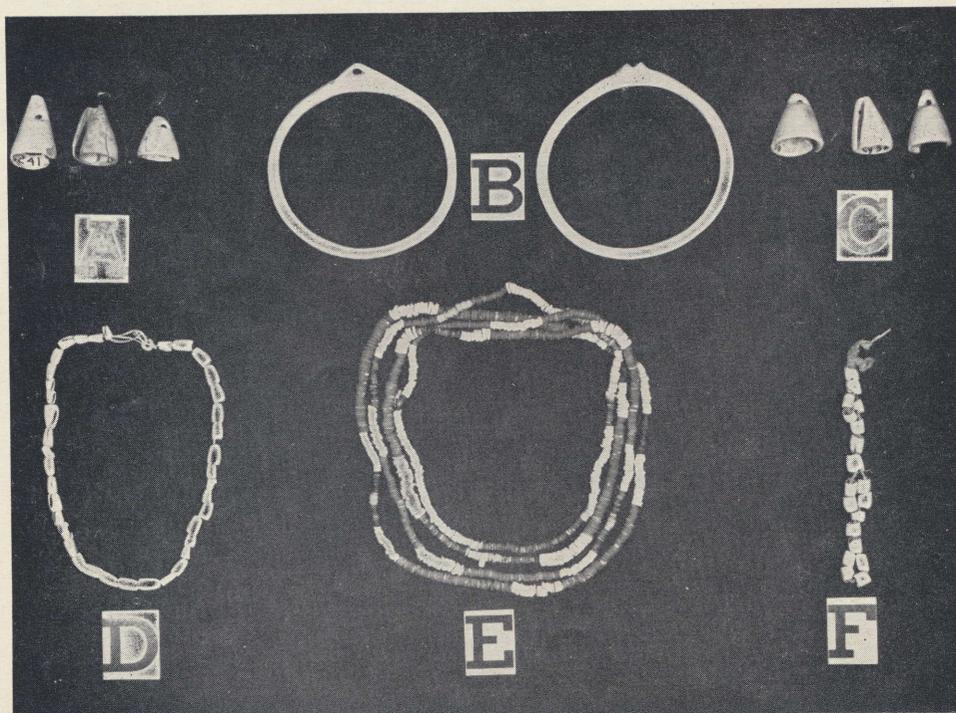
22. **DESERT WILLOW** (*Chilopsis linearis*), not a true willow but a member of the Catalpa family. The strong, straight stems of this tree were used by the builders of Montezuma Castle for thatching ceilings.

23. **VELVET ASH** (*Fraxinus velutina*), one of the most prominent stream-bank and canyon trees of the Southwest. The branch to the left fell over years ago but still carries on, sending up new shoots each season. Ash wood is used in making baseball bats.

24. **INSECTS**. Note the holes and burrows made by worms and bark beetles. Birds like the woodpecker and sapsucker feed on these insects, helping to keep them in check and prevent excessive damage to the forest.

25. **ARIZONA BLACK WALNUT** (*Juglans major*). The individual you see here is immature. Adult trees sometimes reach a height of 50 feet. The nuts are very rich and nourishing and prehistoric Indians used them for food.

Prehistoric Indian shell ornaments



(7)

VEGETATIONAL TYPES	YUCCA-AGAVE-SOTOL	PALO VERDE-SAGUARO-CACTUS		CREOSOTE BUSH	MESQUITE	WILLOW- COTTONWOOD	SALTBUSH
	YUCCAS OCOTILLO TURPENTINE BUSH PRICKLY PEARS FALSE MESQUITE	AGAVES SOTOL	PALO VERDES OCOTILLO PRICKLY PEARS EPHEDRAS JOJOBE	SAGUARO DESERT IRONWOOD CHOLLAS BRITTLE BUSH BUR SAGE	CREOSOTE BUSH BUR SAGE WHITE THORN CAT CLAW	MESQUITE CAT CLAW SALTBUSHES LYCIUMS JUJUBE	WILLOWS COTTONWOOD ARROW WEED BATAMOTE
BASIN-AND-RANGE PROFILE							
LAND FORMS & SOIL CONDITIONS	ERODING MOUNTAIN SLOPE		UPPER BAJADA	LOWER BAJADA	BOTTOM LAND	STREAM CHANNEL	PLAYA
	SHALLOW, ROCKY OR GRAVELLY SOIL WITH GOOD DRAINAGE. NO SUBSURFACE WATER.		COARSE-TEXTURED, ROCKY, WELL-DRAINED SOIL. PARTLY UNDER- LAID BY ROCK BENCH. NO SUBSURFACE WATER.	SANDY AND FINE- TEXTURED SOIL. OFTEN WITH CALICHE HARDPAN. NO SUBSURFACE WATER.	FINE-TEXTURED SOIL WITH POOR DRAINAGE AND LOW SALT CON- TENT. SUBSURFACE WATER AVAILABLE.	SIMILAR TO BOTTOMLAND BUT WITH HIGH SALT CONTENT.	

Chart showing the distribution of Arizona desert plants in relation to varying locations and soil conditions (From "Manual of Southwestern Desert Trees and Shrubs," by Benson and Darrow, by courtesy of University of Arizona.)



*Floor of Room 5 with water jar, firepit, metates and manos
as found in excavation.*

26. **WESTERN SOAPBERRY** (*Sapindus drummondii*). Some specimens produce amber-colored fruit rich in saponin, sometimes used by natives of the Southwest for washing clothes. The fruits are poisonous and in parts of Mexico natives stupefy fish by throwing the crushed fruits into water.

27. **MIMOSA** (*Mimosa biuncifera*) belongs to the same family as mesquite and catclaw, and has just as many thorns. This plant often forms dense, nearly impenetrable thickets which offer food and shelter to wildlife.

28. Back again. Please return this booklet before you go, or you can purchase it by dropping ten cents in the coin-slot of the stand where this booklet was obtained. The museum and library contain additional information on things you have seen. You are welcome to use them, and to consult the Ranger on duty about any questions you may have.

CONSERVATION — CAN A LAYMAN HELP?

If you are interested in the work of the National Park Service and in the cause of conservation in general, you can give active expression of this interest, and lend support by aligning yourself with one of the numerous conservation organizations, which act as spokesman for those who wish our scenic heritage to be kept unimpaired "for the enjoyment of future generations."

Names and addresses of conservation organizations may be obtained from the ranger.

Montezuma Castle National Monument, a unit of the National Park System, is one of 20 areas administered by the General Superintendent, Southwestern National Monuments, National Park Service, Gila Pueblo, Globe, Arizona.

The traveling public is becoming increasingly aware of the National Monuments, which have received less publicity than the great, well-known National Parks, yet which possess extremely interesting features.

Many of these are in the Southwest; we hope you will take the opportunity to visit one or more of them on your trip.

*Administered as a group by the General Superintendent,
Southwestern National Monuments, Gila Pueblo, Globe, Arizona:*

- IN UTAH:** Arches National Monument, Moab
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Rainbow Bridge National Monument (care of Navajo)
- IN NEW MEXICO:** Aztec Ruins National Monument, Aztec
Chaco Canyon National Monument, Bloomfield
El Morro National Monument, El Morro
Gila Cliff Dwellings National Monument (care of General Supt.)
Gran Quivira National Monument, Gran Quivira
- IN ARIZONA:** Canyon de Chelly National Monument, Chinle
Casa Grande National Monument, Coolidge
Chiricahua National Monument, Dos Cabezas
Coronado National Memorial, Star Route, Hereford
Montezuma Castle National Monument, Camp Verde
Navajo National Monument, Tonalca
Sunset Crater National Monument (care of Wupatki)
Tonto National Monument, Roosevelt
Tumacacori National Monument, Tumacacori
Tuzigoot National Monument, Clarkdale
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Grand Canyon National Monument, Grand Canyon
Organ Pipe Cactus National Monument, Ajo
Petrified Forest National Monument, Holbrook
Pipe Spring National Monument, Moccasin
Saguaro National Monument, Rt. 8, Box 350, Tucson
- IN COLORADO:** Black Canyon of the Gunnison National Monument (care of Colorado
National Monument)
Colorado National Monument, Fruita
Great Sand Dunes National Monument, Box 60, Alamosa
Mesa Verde National Park
- IN NEVADA:** Lake Mead National Recreation Area, Boulder City
Lehman Caves National Monument, Baker
- IN NEW MEXICO:** Bandelier National Monument, Santa Fe
Capulin Mountain National Monument, Capulin
Carlsbad Caverns National Park, Carlsbad
White Sands National Monument, Box 231, Alamogordo
- IN OKLAHOMA:** Platt National Park, Sulphur
- IN TEXAS:** Big Bend National Park
- IN UTAH:** Bryce Canyon National Park, Springdale
Capitol Reef National Monument, Torrey
Cedar Breaks National Monument (care of Zion)
Timpanogos Cave National Monument, Pleasant Grove
Zion National Park, Springdale
Zion National Monument (care of Zion)

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The Association lists for sale interesting and excellent publications for adults and children and very many color slides on Southwestern subjects. These make fine gifts for birthdays, parties, and special occasions, and many prove to be of value to children in their school work and hobbies.

May we recommend, for instance, the following items which give additional information on the Southwest?

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| S-201 Montezuma Castle as seen through summer foliage. | |
| S-202 Scale model of Castle with face cut away to show interior. | |
| S-203 Mummies of two young Pueblo Indian boys, on display in Castle Museum. | |
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