

# The Mountains of Arizona

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“MOUNTAINS, mountains, everywhere, Nor any peak to climb” is a paraphrase which might be applied to Arizona. Yet it is hardly a fair statement. Although it's true that all the highest summits may be reached by simply walking uphill, there is no region in the country which offers a greater variety of rock climbing, canyon crawling, acrobatic escalades, and hardware adventures. In fact, to climb all of Arizona's cliffs, towers, buttes, spires, and mesas would take a Methuselan mountaineer centuries to accomplish. He could, too, choose a different type of rock each day of the week and start at the top and climb down quite as often as he does the normal way. For Arizona is a paradoxical land and her mountains are no exception.

Considering the vast size—some 114,000 square miles—the state's topography is surprisingly simple. It has the broad, sweeping, uncluttered lines of the Great-Open-Spaces. Someone once said that you can see farther and see less in Arizona than anywhere else. He was undoubtedly an uninitiated visitor still bemused by massed humanity, but in a sense he was right. For there are only three topographical regions in the entire state, with a couple of sub-regions thrown in for variety.

Nearly the whole northern third of the state is a series of high plateaus, ranging in elevation from 5000 to over 9000 feet. They vary from barren desert in the lower altitudes, through a transition zone of pinyon-juniper woodlands, to extensive forests of pine, fir, spruce, and aspen on the lofty Kaibab, Coconino, and Mogollon plateaus. Here the Colorado River and its tributaries have spent millions of years sculpturing a unique region that extends far northward into Utah. Called the Canyon Country, it exhibits a startling inverted landscape in which the “mountains” have their bases on the plateaus, but extend downward into the earth instead of up in the air. Supreme among these upside-down “ranges” is the Grand Canyon of the Colorado, more than 200 miles long, five to 12 miles wide, and some 5000 feet deep. But throughout northern Arizona the land is cut and broken by subsidiary canyons incised 1000 to 3000 feet below the surface. As a result, the Canyon Country is like no other and few regions in the world are packed with so many erosional wonders. It is a fascinating, brilliant-hued

desert realm of far distances, intricate, twisting gorges, soaring monoliths, and fantastic rock formations.

But there is a paucity of normal, right-side-up mountains, and you can almost count them on your fingers. However, fire as well as water has shaped northern Arizona and there are a half dozen dead volcanoes that rise in grand isolation above the forested Coconino Plateau, 50 miles south of the Grand Canyon. Among these are Bill Williams Mountain, 9341 feet, Sitgreaves Mountain, 9600 feet, and Kendrick Peak, 10,418 feet.

But by far the most impressive is San Francisco Mountain. Visible for more than a hundred miles in all directions, this towering volcanic peak was probably named by Spanish explorers as early as 1540, and has been one of the Southwest's most famous landmarks ever since. From a base some 10 miles in diameter, the mountain sweeps upward in graceful lines more than a mile above the city of Flagstaff, to the south. Its crest consists of a semi-circle of pointed summits around a blasted crater that probably once rose 3000 feet higher. Topping them all are Fremont Peak, 11,940 feet, Agassiz Peak, 12,340 feet, and Humphreys Peak, 12,670 feet,\* the three loftiest points in Arizona. Locally called the San Francisco Peaks, they rise well above timberline and carry considerable snow far into the summer.

All of these northern Arizona volcanoes are a part of the huge two-million-acre area of ancient and recent vulcanism called by geologists the San Franciscan Volcanic Field. It also contains numerous craters, cinder cones, ash deposits, and lava flows. But interesting and scenic as they are, none of them provide any mountaineering in the technical sense. However, Bill Williams and San Francisco mountains have become winter sports centers and the Arizona Ski Bowl, on the west slope of the latter, is well known to Southwestern schussers and slalomists.

To the south, the Coconino Plateau merges with the Mogollon Plateau, which continues in a southeasterly direction. Together they carry an almost unbroken forest of ponderosa pine, 175 miles long and 25 miles wide. Elevations average 6000 to 7500 feet, and Mormon Mountain, Baker Butte, and a few other 8000-foot points are mere rounded humps above the general surface. But near the New Mexican line rise the White Mountains. Here are 800,000 acres of pine, fir, spruce, and aspen forests alternating with high, rolling meadows holding small lakes and dominated by a cluster of lofty summits, which culminates in Baldy Peak, 11,590 feet. The White Mountains are the state's favorite summer playground—ideal country for

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\* U. S. Coast and Geodetic Survey, 1952; supplanting earlier measurements of 12,561 and 12,611.

fishermen, hunters, trail-riders, campers, and hikers. But, once again, the climber finds little to interest him.

There are two other mountainous areas in northern Arizona. In the extreme northeastern corner are the rugged Carrizos, topped by Pastora Peak, 9240 feet, and to the south, along the border of New Mexico, stretch the Chuska and Lukachukai mountains, rising to Roof Butte, 9575 feet, and Matthews Peak, 9403 feet. With rocky crests, deep, sheer-walled canyons, and bold cliffs, this is a spectacular region, until recently remote and little known. However, with the gas, oil, and uranium boom rapidly opening up the Four Corners country, these mountains should become an attractive field for rock climbers. The other section is in the lower desert near the Colorado River in the western part of the state. Here several ranges stand above wide, arid valleys. Highest are the pine-wooded Hualpai Mountains, south of Kingman, with Hualpai Peak, 8420 feet, and the Cerbat Range, further north, rising to Mount Tipton, 7364 feet. The former is a small recreation area, which furnishes some scrambling on granite slabs and domes.

But what about the Inverted Mountains? Strange anomaly! Turn downward from the high plateaus and you enter a different land. On all sides endless varieties of rock formations confront you and every needle, steeple, cliff, and monolith is a challenge. In this rough, upside-down country even explorers and archaeologists are forced to use climbing techniques, and ropes, bolts, and pitons are often standard equipment in reaching some of the ancient, high-perched Indian cliff dwellings. In fact, rock climbing figures in almost all Canyon-Country literature, and there are hair-raising descriptions of cliff-crawling by Major Powell, whose parties were the first to run the Colorado River in boats in 1869 and 1871-72.

Perhaps the best known climbs made by a scientific group were the first ascents of Shiva Temple and Wotans Throne in 1937. The expedition was a biological one, conducted by the American Museum of Natural History, and the successful climbing party was led by Walter A. Wood, Jr. Both of these summits are within the Grand Canyon and, although they soar a vertical mile above the Colorado River, their tops are slightly below the level of the North Rim. So, in each case, the take-off point was higher than the summit gained! (*AJ*, 1938, 3:2, pp. 137-141.)

Another notable first ascent was that of Agathla Peak or Needle by Ray Garner, Herb Conn, and Lee Pedrick, in 1949. This pointed spire at the south entrance to Monument Valley, rises sheer 1255 feet above its sloping base and is an ancient volcanic plug, similar to New Mexico's famous Shiprock. Climbing equipment consisted of 50 pitons, 40 tump-in bolts, 15 karabiners, four 120-foot nylon ropes, and 100 feet of rope slings. The

party accomplished the feat in exactly 24 hours, including a forced bivouac on a ledge below the summit. (*AAJ*, 1950, 7:4, pp. 406-414.)

But, so far, the climbing possibilities of the Canyon Country have barely been touched, and there are literally hundreds of remote, cliff-guarded summits awaiting future conquerors.

The northern plateaus break suddenly to the south and southwest in downward-plunging cliffs, 1000 to 3000 feet high. Called the Mogollon Rim, this impressive and colorful escarpment stretches in an almost unbroken line for a distance of 150 miles, and forms the topographical boundary between northern and central Arizona. South of the Rim to the Gila River, then swinging in a northwesterly direction to the Colorado River, on the California line, is the state's most continuously mountainous area. It is a country of swelling ranges, high mesas, enclosed valleys and basins, and deep, winding canyons, and it varies from desert in the lower elevations to fine coniferous forests on the peaks. The most prominent mountain groups, from east to west, are the Blue Range, Sierra Ancha, Mazatzal, and Bradshaw mountains. But, strangely enough, few summits reach more than 9000 feet and, as in the north, the highest are mostly simple walkups. However, the entire region is exceedingly rugged and offers numerous excellent rock-climbing areas. All of central Arizona is highly mineralized, having three active copper districts and scores of mines and camps, ranging from ghosts to boom towns.

The southern third of the state consists mostly of the huge drainage basin of the Gila River and its tributaries. Here a system of broad, shallow valleys slope gently from an elevation of 100 feet on the Colorado River, south of Yuma, to more than 4000 feet in the southeastern corner. Such a great altitudinal difference gives southern Arizona considerable climatic variation. In the western section are some of the hottest and driest deserts in North America, while the high grasslands and oak woodlands to the east have one of the pleasantest year-round climates in the country.

Throughout the area, north-south-trending mountain ranges separate the valleys. In the western desert they are widely spaced, barren and rocky, and seldom rise over 3500 feet elevation. But the eastern half contains a score of fine ranges with summits 7000 to 10,000 feet altitude. On their lofty backs they carry oases of humid northern climate in startling contrast to the arid valleys below, and each is an isolated world of secluded sylvan canyons, cascading streams, flowery meadows and miles of magnificent evergreen forests. Wildlife and birds are particularly abundant and include many Mexican species, such as the coatimundi, peccary, coppery-tailed trogon and thick-billed parrot. In fact, for the naturalist, nature lover, and outdoor

enthusiast, there are no more attractive places to explore in the United States than these "Sky Islands of Arizona."

Highest are the Pinaleno Mountains, culminating in the rounded, spruce-topped Mount Graham, 10,718 feet. A good motor road ascends from Safford, in the Gila River valley, and for 13 miles parallels the crest at an elevation of over 9000 feet through mountain-forest country that resembles northern Idaho. Further south are the Chiricahua Mountains, rising to 9795 feet. Eighty miles long and 20 miles wide at their broadest point, they contain a rugged wilderness of peaks and canyons, and provide some of the best rock climbing in southern Arizona. On the west slope is Chiricahua National Monument—"The Wonderland of Rocks"—and over the divide, to the east, is Cave Creek Canyon, cut 3000 to 3500 feet deep into salmon-colored lava rock. Here, unclimbed Cathedral Rock, towering 2000 feet above the canyon floor should prove a real workout for an ambitious party.

Other major southern Arizona ranges are the Huachuca Mountains, with Miller Peak, 9445 feet; the Santa Ritas, with Mount Wrightson, 9432 feet; and the Santa Catalinas, rising to Mount Lemmon, 9185 feet. These last mountains stand like a giant wall north of Tucson and are the city's natural air-conditioned penthouse. A paved road climbs to recreation and resort areas among the pines, popular both in summer and for winter snow sports. Further south and west is the aspiring pyramid of Baboquivari Peak, 7864 feet, the one major summit which provides an exhilarating scramble as the easiest way up. (Walter D. Wilcox: "Rambles and Mountain Climbs in Various Parts of the World," *AAJ*, 1946, 6:1.)

Strange as it may seem, the only systematic and organized climbing in Arizona has been in the lower desert mountains of the southwestern corner. Here Castle Dome, the Kofa, Ajo, and other ranges are often visited on week-ends by mountaineers from nearby California, and they offer a wide variety of climbing and exploration possibilities for fall, winter, and spring. Leaders in the area are members of the Desert Peaks Section of the Sierra Club and the Kachina Club of Phoenix. Information about the region, or climbing anywhere in the state, may be obtained from either of these organizations.

So Arizona is a paradoxical land of upside-down mountains, desert peaks, high forests, and wide-sweeping plateaus. It has none of the continent's outstanding ranges, but if you are willing to mix with your climbing a little archaeology, geology, history, photography, botany, or zoology, there are few places in the country more stimulating to explore, or more rewarding.