And finally in its later stages of development, and since the beginning of the eighteenth century, Penobscot art ornamentation, through Iroquoian influence acquired an additional political symbolism. This passed out of memory with the collapse of the Wabanaki confederacy two generations ago and seems to have reached its lowest ebb with the acquisition of modern floral designs, which now retain little or nothing of the earlier therapeutic symbolic association.

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By Leslie Spier

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INTRODUCTION

TERRITORY

The territory of the Havasupai in north-central Arizona comprises the broad drainage area of Cataract Canyon and the bottom of that gorge itself. From the viewpoint of the Havasupai village in the canyon bottom, this drainage area is a high plateau. It extends from the east where the benches of Coconino Basin give toward the Little Colorado River, to the Aubrey Cliffs on the west, these marking the descent toward the Colorado River. The northern edge of the area is the rim and the broken ledges of the Grand Canyon: the southern limit is marked by the heights of the San Francisco Peaks and Bill Williams Mountain, beyond which the country falls away to the south. This forms a winter range some ninety miles by seventy-five.

Cataract Canyon cuts across this plateau from Bill Williams Mountain on the south to the Grand Canyon. Nears its northern end it is, like the Grand Canyon, a double gorge; first a mile wide canyon through the white limestone some twenty-five hundred feet deep, and then a narrower gorge three to five hundred feet deep, winding through the red sandstone in the bottom. The Havasupai village is located about six miles from the mouth of Cataract Canyon at the widest point in its bed where it is a quarter mile across. The bottom lands between the talus slopes are, however, only five hundred acres in extent. In effect the village is shut in on all sides by towering cliffs which can be scaled in but a few places. Northward, the canyon drops away by a series of nearly impassable falls to join the Grand Canyon. Beyond that lies mile on mile of broken ledge and mountain to the northern rim of the Grand Canyon. Egress to the south is by way of its tortuous ramified arms: Hualapai Canyon to the west, Lee Canyon to the east, and several more, Moqui Trail Canyon among them, further north. In effect, traveling to the north is next to impossible, and to the plateau above is so difficult as to make the isolation quite complete.

Several hundred yards above the village, Cataract Creek bursts from the bed of the canyon, gathers rapidly in volume, and rushes as a narrow erratic stream for two and a half miles to plunge in three great falls to the Colorado. This section is an oasis: irrigated fields and orchards stretch between the talus slopes; the stream is bordered by a dense growth of willows and cottonwoods; mesquite and other bushes cover the slopes. The red sandstone benches above this are arid except for a few springs, as is the bed of the canyon above the village. Here grow

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mescal, yucca, and a sparse scrub growth. Still higher is the plateau; at the lower elevations this is covered with sagebrush, chamissa, etc.; at a higher level grow juniper, cedar, and piñon trees; and at the Grand Canyon rim and toward the mountains are pines, spruce, and fir. Water is very scarce on the plateau; springs are found chiefly near the mountains, elsewhere the surface run-off of summer rains and melting snows may be caught behind little dams.

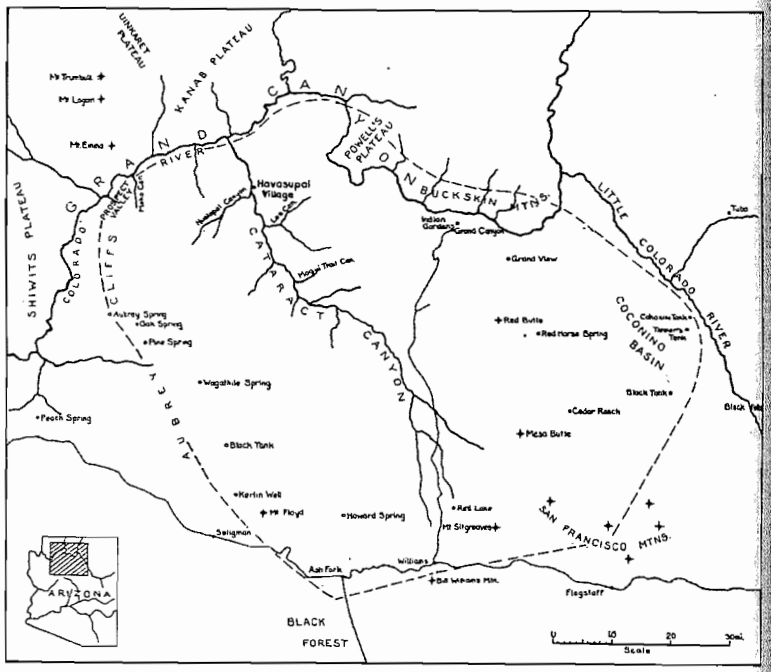

Fig. 1. Territory of the Havasupai.

Precipitation is confined to two periods, the heavy summer rains (July to early October) and the winter snowfall (December and January). Its distribution varies from five to fifteen inches per annum over the greater part of the range to a maximum of twenty-five inches near the mountains in the south. The rains are sudden and torrential and the run-off excessive, the accumulated waters rushing into the lower canyon and producing dangerous flood conditions. I witnessed an unheralded cloudburst in August, 1918, when all the heights spurted torrents upon the village below. Everyone fled to the cliffs; the swollen creek swept

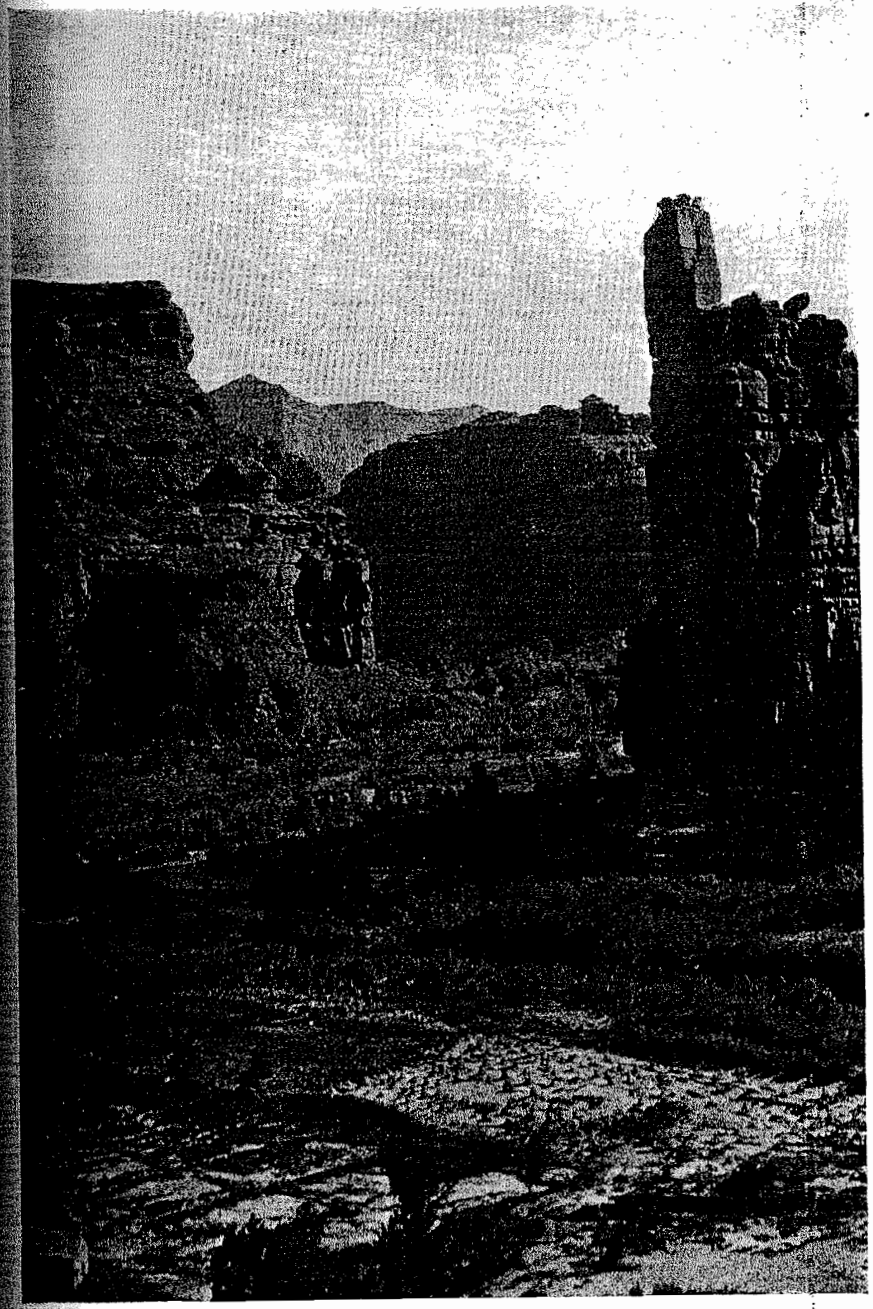

Fig. 2. Havasupai Village in Cataract Canyon. The lower canyon level (red bench) shows in the middle ground, the level of the plateau in the distance.

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away houses and destroyed fields. For a week, during which further storms threatened, no one made more than trifling efforts to restore things to their former condition. The severest flood of recent years was that of January, 1911, when a heavy rain brought down the accumulated snows from the plateau, filling the canyon bed quite to the talus slopes, tearing away a third of the field area, and on its subsidence leaving the creek in a new location.

The prevailing winds are from the southwest. These blow hardest and are most annoying in the spring, on account of dust storms. The temperature on the plateau varies from a midwinter mean of 30° F. to 70° F. in midsummer; that in the canyon is about ten degrees higher the year round. There is sometimes as much as a foot of snow in the canyon bottom, yet snowfalls are infrequent. Despite the fact that it is warmer in the canyon, the Havasupai prefer to spend the winter on the plateau, partly because it is less humid there, but rather more because there is an adequate supply of good firewood, and chiefly because their interest lies in the hunting, seed gathering, and visiting activities of this season.

Beside the village in Cataract Canyon, the Indian Gardens (*kȧθadĕvhĕ'*, coyote tail?) on Bright Angel trail below Grand Canyon station, and perhaps some similar farm lands elsewhere, as at Prospect Valley, the Havasupai consider a large section of the plateau as their proper range. Its limits are approximately as follows. On the north, the benches on the south side of the Grand Canyon, the Buckskin Mountains, and Powell's Plateau: on the east, perhaps Coconino Basin and the plateau west of it; Hawaigȧti'dȧ, a spring perhaps east of Black Tank, and Pŏkȧdespai'ĭvȧ, near Hull Spring (Cedar Ranch) north of the San Francisco peaks, with the whole northern and western slopes of those mountains: on the south, Red Lake at the head of Cataract Canyon, Black (or Kisaha) tank (*hȧwaigĭvĭtĕ'*) north of Seligman, Howard Spring (*nalĭvȧhá*), and at least in recent times they hunted in the vicinity of Ash Fork and perhaps north of the Black Forest. The limits on the west are more difficult to define since they commonly occupied certain localities together with the Walapai, for example, Pine Spring (*hakăsá*, where there were also Paiute living with them about 1860), and Moho Canyon at the northern end of the Aubrey Cliffs. Beyond these points the Havasupai consider themselves well out of their own territory. Prospect Valley and Pine Spring formerly belonged to the Havasupai alone, the Walapai subsequently crowding them out.

It would seem that beyond this range, at least on all save the western side, there was considerable unoccupied territory. Paiute settlements

lay beyond the Grand Canyon, both east of the Uinkaret Mountains and in the Kanab district. The intervening territory is so rugged and the Colorado so difficult to cross that intercourse was at a minimum. The Paiute did cross to the south side, however, in Walapai territory and to the east, where they moved up the Little Colorado. There were no permanent habitations in the vicinity of the Little Colorado (at least as far up as the falls). The Navaho and Hopi settlements are referred to as located at or near Oraibi and the Moencopie Wash. Navaho and Hopi were encountered in this region, however, and occasionally Paiute, who, for instance, were found on the western side of the river in the vicinity of Coconino Basin about 1855.

There is some question as to how early the Navaho appeared west of the Hopi pueblos. A circumstantial account indicates that the Havasupai met them for the first time about 1864. They were encamped on the plateau above the Coconino Basin, and told of other camps on both sides of the Little Colorado, and from the Grand Canyon rim to the San Francisco peaks. They were not acquainted with each other's language; hence, intercourse was carried on by signs and in the Hopi tongue. The Navaho asserted that they were half of a group living far east of Oraibi and had fled to escape capture by the whites. On the other hand, one Navaho insisted that the Havasupai had raided his camp in the Moencopie district. This incident coincides exactly with the recorded activities of Kit Carson. In 1863 he invaded the Navaho country in New Mexico, capturing some 6000, the greater part of the tribe, and moving them to the Bosque Redondo, where they were released in 1867.[1]

It is also evident that there was a considerable stretch of unoccupied territory along the present line of the Santa Fé Railroad. References to the Yavapai and Apache clearly indicate that their camps were well down on the headwaters of the Verde River and its tributaries. The notion has gained currency, however, that the Havasupai once lived about the San Francisco Mountains and along the adjacent sections of the Little Colorado—in fact, that they were found there by the railroad explorers of the last century. For example, Henshaw observes that

> according to tradition, the Havasupai (or more properly a Pueblo clan or tribe that became incorporated with them) formerly built and occupied villages of a permanent character on the Colorado Chiquito east of the San Francisco mountains, where ruins were pointed out to Powell by a Havasupai chief as the former home of his people. As the result of war with tribes farther east, they abandoned these villages and took

[1] *Handbook of American Indians*, II, 41; Lipps, *The Navajos*, 54 et seq. In 1826 Pattie reached "the chief village of the Nabahoes" four days travel up the San Juan River; this was "distant 50 miles from the Rio del Norte." (Pattie, *Personal Narrative*, 139, 144.)

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refuge in the San Francisco mountains, subsequently leaving these for their present abodes. In this connection it is of interest to note that the Cosnino caves on the upper Rio Verde, near the northern edge of Tonto basin, central Arizona, were named from this tribe, because of their supposed early occupancy of them.[1]

It is true that the Indians refer, in a general way to the nearby ruins as theirs, but what they mean is that those structures were built by the *ĭtckayúgá*, their mythological predecessors.

I have examined the reports of the railroad explorers for more tangible evidence. It seems best to give all the references to Indians in the whole district from the crossing of the Little Colorado westward to the Walapai country. At an early date (1604) Oñate crossed this country but found no one from the Hopi to the vicinity of Prescott.[2] Sitgreaves reports that in October, 1851, Leroux found "a large encampment of Yampai or Tonto Indians, on the edge of a deep ravine, through which ran a stream, which he supposed to be the headwaters of the San Francisco" (i.e., the Verde River); this was on the eastern side of the San Francisco Mountains. He did not speak with them. Others, who fled, were found on the northwest slope. The next reference is to a party of Indians discovered somewhere west of the Picacho or at Yampai Canyon; that is, in the Walapai country. Leroux talked with the Yampai and with one called a "Cojnino" (others were seen) at the source of Yampai Creek (Yampai or Truxton Canyons).[3] In the winter of 1853–54 Whipple noted that "Cosninos are said to roam from Sierra Mogoyon to the San Francisco [Rio Verde or the peaks?], and along the valley of the Colorado Chiquito. Their number has been estimated by trappers at ten thousand—probably a great exaggeration."[4] While he found traces of Indians, he did not see any. Beale made two trips across this country. He refers to the Cosnurio caves, named for the Indians who were said to occupy them. In September 1857 he saw fresh Indians tracks at the eastern foot of the San Francisco Mountains; the next signs were encountered at a point perhaps west of Mount Floyd and deserted huts were found at a locality probably north of the Juniper Mountains. He discovered Indian fields at the head of Yampai Creek (?), which he called a Cosmino camp, and Indians and their camps were seen at the mouth of Truxton Canyon (?).[5] It will be noted that he found no traces between the peaks and Mount Floyd; that he saw no Indians after the Little

[1] *Handbook of American Indians*, I, 538. Compare *Annual Report of Smithsonian Institution for 1886*, I, 54.
[2] Bandelier, (a), I, 109.
[3] Sitgreaves, 10, 11, 14, 15, 16; Coues, 323.
[4] Whipple, 82. He saw Yavapai in the western Aquarius Mountains, whence they were said to range to the junction of the Rio Virgen with the Colorado.
[5] Beale, 48, 49, 58, 65, 67, 68, 70.

Colorado crossing until he reached Yampai Creek in Walapai territory, and that he talked with none. On his eastward trip, he was attacked at Truxton Spring or somewhat farther east. Indians were seen in the vicinity of the Coconino caves, and fresh trails were found just west of the Little Colorado.[1] That is, again he saw no Indians between Yampai Canyon and this river. Ives' party visited Cataract Canyon in 1858; his map No. 2 shows a "Yampai Village" there. On his eastward trip in March and April of that year he found a few Hualpais in the vicinity of Truxton Spring; huts and Indians on the trail leading from a point west of Peach Spring toward Diamond Creek; and saw Hualpais at the Creek. Egloffstein found "Yampais" who "did not differ much from the Hualpais in general appearance" at the present village in Cataract Canyon. Ives also found a deserted village, with huts resembling those in Cataract Canyon, at a point on the plateau far north of Pine Spring, probably above Prospect Valley.[2] But he saw no Indians along the entire route from Pine Spring south to Mount Floyd and eastward by Bill Williams Mountain to the San Francisco mountains and beyond to the river.

The upshot of all this is that not one of these explorers establishes the existence of settlements anywhere along this line, although they passed in autumn and spring, the most favorable time to meet even ranging Havasupai. Their identifications are based on hearsay from their guides, and these—Leroux was probably as competent as any—refer to the Indians of the region indifferently as Yampai, Tonto, or Coconino. Add to this that my informants, who were boys at this time, never once referred to occupation of this region except in the mythological migration period, and that Garcés made the difficult descent into Cataract Canyon in 1776 when he would surely have pursued the direct route from the Walapai to the Hopi villages had there been settlements on it.

Linguistic and Other Relations

Linguistically the Havasupai are closely related to the neighboring Walapai. The dialectic difference is slight. These two are classed by Harrington,[3] together with the Yavapai and Tonto, as the eastern division of the Yuman stock.

[1] *Ibid*, 79, 82, 83. Incidentally, I was interested in discovering what impression Beale's dromedaries had made on the Indians. My Havasupai informants had never heard of them, although the Walapai saw them, by Beale's account.
[2] Ives, 97, 100, 101, 108, 110. The name Yampai is employed, as by Garcés, for any indifferent group of central Arizona.
[3] *A Yuma Account of Origins*, 324. Some lexical material collected by Cushing and Mrs. Stevenson is given by Gatschet, (a, c).

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