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RESUME OF GRAND CANYON HISTORY¹

By Frederick S. Dellenbaugh²

Don Lopez de Cardenas, of Coronado's expedition, discovered the Grand Canyon in 1540, as a result of stories told by the Hopi Indians to Don Pedros de Tovar. The old records describe a chasm which seemed to be more than 3 or 4 leagues across in an air line - "que auia mas de tres o quatro leguas por el ayre."

For a long period thereafter the Grand Canyon region and the Colorado River remained practically unknown. It is next recorded as having been seen by two Spanish priests in 1776; Padre Garces, crossing eastward from the lower Colorado to the Hopi towns, halted, he says, "at the sight of the most profound box canyons which ever onward continue, and within these flows the Colorado," and Padre Escalante, who in searching for a place to cross from the north after his failure to proceed westward from Santa Fe to Monterey, finally found the old Ute ford, used by Indians for centuries, near the foot of Glen Canyon (in latitude 37°), and by means of it was able to reach Zuni. The ford then became known as El Vado de los Padres — the Crossing of the Fathers — for long the only known crossing of the Colorado in a distance of several hundred miles.

The first American to visit the region was James O. Pattie, accompanied by his father, They trapped beaver on the lower Colorado in 1825 and '26. In 1826, returning eastward, they traveled for 13 days, following, apparently, the Grand Canyon as well as they could, but unable to reach the river at any point, till at last they arrived at a place where the river "emerges from these horrid mountains." This was the first extended trip on record of any human being along the brink of the Grand Canyon.

The same year that the Patties went to the lower Colorado, 1825, General Ashley, in pursuit of his fur-trading enterprise, attempted to descend Green River from near the present crossing of the Union Pacific Railroad. He was forced after great hardship to give up the effort in the Uinta Valley.

The famous American trapper and pioneer, Jedediah Smith, crossed the river going west in the Mohave Country in 1826 and again in 1827. In this latter year the Patties returned to the lower Colorado and trapped down the river from the mouth of the Gila in dugouts, the first navigators of this portion since Alarcon, of the Coronado expedition, came up in 1840. Quite unexpectedly they made the acquaintance of the great bore at the mouth of the river where they were in waters that Lieutenant Hardy, of the British Navy, had entered the year before.

Other trappers after beaver then followed into the region, and the Government began sending out exploring parties. One of these under Sitgreaves crossed the Colorado in 1851 about 150 miles above Yuma, and three years later another under Whipple, surveying for a railway along the thirty-fifth parallel, crossed a few miles above the mouth of Bill Williams Fork.

When the California gold rush developed, one trail of the Forty-niners led down the Gila and crossed the Colorado at its mouth, and then various activities on the low river began. The first steamboat was brought to the mouth of the Colorado and up it in 1852. It was named the Uncle Sam.

Edward F. Beale, surveying a Government wagon road, crossed and recrossed in 1857 and 1858, near the mouth of Bill Williams Fork, and in January, 1858, the Government exploring expedition under Lieutenant Ives proceeded from the mouth up the river in a small stern-wheel iron steamer, the Explorer, as far as the foot of Black Canyon, whence the ascent was continued in a small boat to the mouth of the Vegas Wash. This was not the first steamer up, however, as Captain Johnson, of a commercial navigation company, had steamed up and passed with his steamboat clear through Black Canyon to its head some days before, mainly to "get ahead" of Ives, who had earlier displeased Johnson. Ives then proceeded overland to the mouth of Diamond Creek and to the Hopi towns via Havasu Canyon.

"It seems intended by nature," says Lieutenant Ives, after vainly trying to reach the rim, "that the Colorado River, along the greater part of its lonely and majestic way, shall be forever unvisited and undisturbed."

This same year of 1858 saw the first recorded crossing of the Colorado from the north, by white men, since Escalante. This was accomplished by Jacob Hamblin, a well-known Mormon, a missionary and Indian agent, from Utah to the Hopi towns. An Indian guided him to the Ute ford (Crossing of the Fathers) and he used it thereafter almost yearly. These Mormons for long years were the only persons besides Navajos and Utes to cross the river anywhere. The ford, known to few, was difficult and dangerous at all times and impossible except at low water.

In 1862 Hamblin went around the Grand Canyon by the west end to the Hopi towns and returned by the Crossing of the Fathers at the east end, practically, as Marble Canyon begins a few miles below. The next year he again went around by the west end to the Hopis, visiting on the way the "hermit" tribe, the Havasupais, in their deep canyon home, being the first white man on record to do so after Lieutenant Ives. The party returned to St. George around the west end of the Grand Canyon. Nobody, as yet, went to the rim and there was no known crossing of the Grand Canyon itself anywhere by white men.

Another attempt to descend Green River from the California Trail (near the present Union Pacific Railroad) was made in 1849, by William Manly and party. They expected to find a shorter and easier road to the California gold fields. After a hard time they emerged into Uinta Valley, where they met the noted Ute chief Waker ("Walker"), who was good to them and urged them not to try to go farther down the river.

In 1867 a man named James White was picked up from a raft near Callville, below the mouth of the Virgin, in an exhausted condition, and those who aided him immediately but erroneously assumed that he had come down through the Grand Canyon, the result of an ignorance as great on their part as on that of White. He knew nothing

¹ Reprint from Grand Canyon Natural History Association Natural History Bulletin No. 2, 1935.

² Explorer, historian, member of Powell's Second Colorado River Expedition, deceased Jan. 29, 1935.

about the interior of the great canyon and mentioned that he had run one big rapid, whereas he should have mentioned big rapids by the dozen.

So nothing was definitely known about the mysterious interior of the Grand Canyon or of the canyons of the Colorado River above as far as the Uinta Valley or Green River until Major John Wesley Powell, one-armed veteran of the Civil War, made his famous passage of all the canyons. He started with nine men and four boats from Green River City, Wyo. (on the Union Pacific Railroad, then the only railway across the continent), on May 24, 1869. One of the men (Goodman) was disheartened and left the party in the Uinta Valley.

The terrifying water-falls and underground passages described by trappers and Indians were not found, but the declivity was often extremely great and continuous (as in Cataract Canyon, where it is continuous for about 20 miles), producing violent cataracts, with huge waves and a water velocity of over 20 miles an hour, frequently studded with giant rocks.

The trip was one of incredible hardship and danger, led by the one-armed major, who had lost his right arm at the Battle of Shiloh. The plunging rapids in the whole length of the journey numbered several hundred to overcome the 6,000 feet difference in altitude between Green River City and the sea. The boats were often upset and the passage of many of the rapids was perilous to a degree. Frequently the party would be forced to embark on long foaming declivities without being able to discover what other, perhaps greater, falls might lie around the precipitously walled bends in front of them.

One of the boats, some of the scientific instruments, and a considerable amount of the food supply were lost in the Canyon of Lodore; and some that was rescued had to be left, as the remaining boats were overloaded. For weeks the clothing of the adventurers was never dry; when they finally entered the mighty depths of the Grand Canyon itself, in August, there was little food remaining.

The sharpest rapids occur in the granite, and the first Granite Gorge, running past the Powell Monument, contains the worst portion of the whole river. When, therefore, another "Granite Gorge" developed below Diamond Creek, the men, stalwart and full of nerve though they were, were disheartened, having become somewhat demoralized by lack of food and tremendous strain. Three of them consequently announced that they would go no further.

This was desertion, but they preferred it to risking the difficulties they saw ahead. They believed they could climb out and reach the well-known Mormon settlements on the north, and they believed a river party would be lost or starve.

"At one time," says Powell in his report, "I almost concluded to leave the river. But for years I have been contemplating this trip. To leave the exploration unfinished, to say that there is a part of the canyon which I can not explore, having already almost accomplished it, is more than I am willing to acknowledge, and I determine to go on . . . For the last time they entreat us not to go on, and tell us that it is madness to set out in this place," - the same appeal that Dunn made to Hawkins, the cook of the party, as Hawkins himself tells it.

William R. Hawkins, writing of this in after years, says the three men had "made up their minds to go, and Dunn said he hated to leave Hall and myself, as we had been together a long time, and that we would perish in the river. (Note the fear of the river which had developed in the minds of at least three.) While we were talking, the major came up to me and laid his left arm (he had no right) across my neck, tears running down his cheeks. By that time the rest of the boys were present, and the major said to me: 'Bill, do you really mean what you say?' (that he would stick to the major on the river). I told him that I did, and he said that if he had one man that would stay with him he would not abandon the river. I just simply said that he did not know his party."

He certainly had reason, with three men about to desert, to believe that others might. The other five were true, however, and it is only just to say that one of the deserters would have stood true also had it not been for his brother, who was determined to leave. They all then drank coffee together. The boat party went on, the deserters climbed out on the north, each party thinking the other party doomed. The deserters would have fared well enough and would have arrived at the Mormon settlements had it not been that the Shewits Indians on the plateau believed, or said later that they believed, that these were miners who had committed depredations on a tribe to the south. The men were therefore killed not far from Mount Dellenbaugh, and their clothing, rifles, and other equipment appropriated.

The place on the river where they left the major is now known as Separation Rapid. The day after they departed Powell and "the faithful five" reached the end of the great chasm without serious mishap. The names of the three deserters have justly been omitted from the roll of honor inscribed on the Powell Monument.

Powell's journal of this famous voyage is one of the most fascinating tales of adventure in literature. A large part of his meager notes having been lost, Powell repeated the trip on a more extensive basis in 1871 and 1872, obtaining then the data on which his report was based. Afterwards Powell became director of the United Geological Survey and of the Bureau of Ethnology, which he established.

PER	EPDCH	NE ARIZONA	SE UTAH	SW COLORADO	NW NEW MEXICO
TERT	EOCENE	Chuska (ss)		Wasatch-San Jose (ss,sh)	Wasatch-San Jose (ss,sh)
	PALEOCENE			Animas (ss) } Nacimiento (sh)	Animas (ss) } Nacimiento (sh)
CRETACEOUS	MONTANAN			McDermott (cgl)	McDermott (cgl)
				Farmington ton.(ss) } Kirtland (sh) } Fruitland (coal,ss-sh)	Farmington ton.(ss) } Kirtland (sh) } Fruitland (coal,ss-sh)
				PicturedCliffs (ss)	Pictured Cliffs (ss)
			Tohatchi (sh)	Lewis (sh)	Lewis (sh)
		Mesaverde (ss)		Mesaverde Cliff House (ss) Menefee (coaly ss,sh) Pt. Lookout (ss)	Mesaverde Cliff House (ss) Menefee (coaly ss,sh) Pt. Lookout (ss)
	COLORADOAN		Mancos (sh)	Mancos Satan tongue U.Mancos (sh) L.Hosta ton. (ss) } Niobrara (lmy sh) Mulatto tongue (sh) Gallup mem. (ss) } Tocito mem. (ss) }	Mancos Satan tongue U.Mancos (sh) L.Hosta ton. (ss) } Niobrara (lmy sh) Mulatto tongue (sh) Gallup mem. (ss) } Tocito mem. (ss) }
				Ferron mem. (ss)	Sanastee mem. (sdy ls)
				L. Mancos mem. (sh)	L. Mancos mem. (sh)
					Greenhorn mem. (ls)
					Graneros mem. (sh)
DAKOTAN	Dakota (ss)	Dakota (ss)	Dakota (ss)	Dakota (ss)	
LOWER ?		Burro Canyon (ss)	Burro Canyon (ss)	Burro Canyon (ss)	
JURASSIC	UPPER	Morrison Brushy Basin mem. (sh) Westwater mem. (ss) Cow Springs (ss) } Recapture m. (sh) } Salt Wash m. (ss)	Morrison Brushy Basin mem. (sh) Westwater mem. (ss) Recapture mem. (sh) Salt Wash mem. (ss)	Morrison Brushy Basin mem. (sh) Westwater mem. (ss) Recapture mem. (sh) Salt Wash mem. (ss)	Morrison Brushy Basin mem. (sh) Westwater mem. (ss) Recapture mem. (sh) Salt Wash mem. (ss)
	MIDDLE	San Rafael Gr. Entrada (ss) Carmel (sh)	San Rafael Gr. Bluff (ss) Summerville (sh) Entrada (ss) Carmel (sh)	San Rafael Gr. Bluff (ss) Jct. Ck. (ss) Summerville (sh) Wanekah (sh) Pony Express (ls)	San Rafael Gr. Bluff (ss) Summerville (sh) Todilto (ls) Entrada (ss) Carmel (sh)
	LOWER	Glen Canyon Gr. Navajo (ss) Kayenta (sh)	Glen Canyon Gr. Navajo (ss) Kayenta (sh)	Glen Canyon Gr. Navajo (ss) Kayenta (sh)	Glen Canyon Gr. Navajo (ss) Kayenta (sh)
TRIASSIC	UPPER	Glen Canyon Gr. Moenave Dinosaur Can. (ss) Springdale (ss) Wingate Lukachuki (ss) Rock Point (ss)	Glen Canyon Gr. Wingate (ss)	Glen Canyon Gr. Wingate (ss)	Glen Canyon Gr. Wingate (ss)
	MIDDLE	Chinle (sh)	Chinle (sh)	Chinle (sh)	Chinle (sh)
	LOWER	Shinarump (cgl)	Shinarump (cgl)	Shinarump (cgl)	Shinarump (cgl)
PERMIAN	OCHOA	Moenkopi (sh)	Moenkopi (sh)	Moenkopi (sh)	Moenkopi (sh)
	GUADALUPE				
	LEONARD	Kaibab (ls) } Hoskinnini (sh) } Coconino (ss) } De Chelly (ss) }	Hoskinnini (sh) } Kaibab (ls) } De Chelly (ss) }		De Chelly (ss)
PENNSYLVANIAN	WOLFCAMP	Organ Rock (sh) Cedar Mesa (ss) Halgaito (sh)	Organ Rock Cedar Mesa (ss) Halgaito (sh)	Cutler (ark,ss)	Cutler (ark,ss) Supai (sh)
	VIRGIL	Supai (sh)	Supai (sh) } U. Hermosa (ls) } Paradox Pinkerton Trail (ls)	U. Hermosa (ls) } Paradox (evap) } Pinkerton Trail (ls)	U. Hermosa (ls) } Paradox (ls) } Pinkerton Trail (ls)
MISS	MISSOURI				
	DES MOINES				
	ATOKA	Naco (ls)	Molas (sh)	Molas (sh)	Molas (sh)
	MORROW				
	CHESTER				
DEVONIAN	MERAMEC		Leadville (ls)	Leadville (ls)	Leadville (ls)
	OSAGE	Redwall (ls)			
CAMBRIAN	KINDERHOOK				
	UPPER	Mar-tin } Tem-ple } Elbert } Ouray (ls) U.Elbert (dol) McCracken m. (ss) Aneth (sh,dol)	Ouray (ls) U.Elbert (dol) McCracken mem. (ss) Aneth (sh,dol)	Ouray (ls) U.Elbert (dol) McCracken mem. (ss) Aneth (sh,dol)	Ouray (ls) U.Elbert (dol) McCracken m. (ss) Aneth (sh,dol)
	MIDDLE				
pre-CAMBRIAN	LOWER				
	UPPER		Lynch (dol)	Ignacio (qtzte) ***	Ignacio (qtzte) ***
	MIDDLE	Tonto group	Bowman (ls) Hartman (ls) Ophir (sh) Tintic (qtzte)		

*** Rico fm. (Transition From Cutler To Hermosa) Not Used In Chart

*** May Be Upper Devonian In Age

NOMENCLATURE CHART OF THE FOUR CORNERS' AREA