

Dr. James couples the lower, or trunk, part of the stream with Monument creek, as if the latter were the main fork. A plate in ~~the~~ Long's Atlas, is entitled "View of the Castle Rock on a Branch of the Arkansas at the base of the Rocky Mountains"; it is an easily recognizable picture of Elephant Rock, near Palmer Lake, (as Prof. W. O. Crosby was first to observe), and is evidently the feature by which it was sought to give the name "Castle Rock creek" to the Fontaine qui Bouille, or Boiling Spring river. While Elephant Rock and Monument creek may have been known by the name, Castle Rock, prior to 1820, that name was not the one ordinarily in use for Fountain creek below the forks, as is abundantly witnessed by old itineraries ~~published~~ other than the one before us, and by old maps and testimony from Indians. Besides the French name, ~~Boiling Spring~~, and the English equivalent Fountain qui Bouille, and its English equivalent, Boiling Spring, and the various Indian names meaning Boiling Water (the Ute name, among these, being, it is said, not the regular word for boiling, but one indicating the turbulence of the water in the springs), the only other name that I have been able to find for Fountain creek, is the Spanish one, Rio del Almagre, which is used on Pike's map, and which, there is evidence to show, was in use far back in the eighteenth century. ~~Almagre~~ ^{Al-} ~~magre~~ means Red Ochre or Red Earth and probably refers to some of the Mesozoic and upper Paleozoic red sandstones, marlites and conglomerates west of Colorado City and in the Sierra de la Ocre. Ocre in fact occurs in these and in a cordon from compact barite to the Sierra de la Ocre.

St. Charles creek was passed on the afternoon of the 19th. Its tributary, Greenhorn creek, is ~~described~~ described as coming from the southeast and passing between the Spanish Peaks, whereas it comes from the southwest and rises at the Greenhorn mountain.* ~~Creek on the~~

*Greenhorn mountain, constituting part of the Wet Mountain range (Sierra Mojada), takes its name, ~~second half of the~~ as does Greenhorn creek, from a noted Comanche chief, ~~who~~ who for years, in the eighteenth century, was the scourge of the Spanish settlements in New Mexico, but who received his quietus in a battle fought ~~in 1779~~ in 1779. H. H. Bancroft states that Lieutenant-colonel Juan Bautista de Anza, who was then political and military governor of New Mexico, in August and September 1779, made a campaign against the Comanches with a force of 645 men, including 85 soldiers and 259 Indians; 200 Yutas and Apaches joined the army as allies on the way. Places passed by the expedition, ~~above~~ ^{above} Taos, ~~are~~ are: Paso de San Bartolomé on the Rio del Norte 15 leagues from its source, (Wagon Wheel Gap?). Ciénega de San Luis (marshes, sometimes lakes, figuring on recent Colorado maps as San Luis Lakes), Arroyo de San Ginés, Aguage de Yutas (Ute creek, east of Blanco Peak?), Rio San Augustin, Lomas Perdidas, Rio Santa Rosa, Sierra de Almagre (Pike's Peak range); and on the return route, Arroyo de Cristo, Rio Dolores (now Rio Trinchera), Rio Culebra, ~~and~~ and Rio Ductil (probably the "Rio del Dotie" of Pike's map 1810, ~~the~~ "Los Datitas or los Lattes" of Farke and Kern's map 1851, "Las Ladillas" of Heaps map 1853, and "Latir creek" of late U.S. General Land Office maps). This campaign resulted in the killing of the great chief, Cuerno Verde, ~~and~~ ^{and} ~~four~~ ^{four} of his leading sub-chiefs, his "high priest" or medicine man, his eldest son, and 32 of his warriors, and in the capture of 30 women and children and 500 horses.

~~earlier~~ ^{earlier} ~~they~~ ^{they} seems to have been made a little below Chico creek, Early on the 20th they passed the mouth of Huerfano creek, of which he writes that, according to the guide, it "is called by the Spaniards Wharf creek, probably from the circumstance of its washing perpendicular precipices of moderate height, which is said to be the case. A party of hunters in the employ of Mr. Chouteau, who were taken prisoners by the Spaniards in the month of May, 1817, were conducted up

this creek to the mountains; thence across the mountains, to Santa Fe".

Dr. James' information about these southern branches of the Arkansas, was evidently derived from Bijeau, who was one of the Chouteau and De Mun party taken prisoners as above mentioned and as will be more particularly narrated in a subsequent chapter. As to the geographical part of it, and in view of considerable looseness in the doctor's geographical statements elsewhere in his Account, there is perhaps some doubt whether it correctly interprets and presents the knowledge that was possessed by his guide, and which the latter had gained ~~much~~ in his beaver-trapping, hunting and trading, during a two years' sojourn in that region. ^{not only the Greenhorn, but} However that may be, all of these branches, flow, in a general way, from the southwest, and it is Cucharas creek, a south fork of Huerfano, ~~which~~ instead of Greenhorn creek, a south fork of St. Charles, that has its sources about the Spanish Peaks, one of its ~~sources~~ partially encircling the West Peak, and another (Wahatoya creek) coming from a quarter between the two peaks and receiving waters from both of them. The Huerfano river takes its name from a conspicuous landmark now known to Americans as the Huerfano Butte, which was long ago dubbed El Huerfano — i.e., The Orphan — by the Spaniards, on account of its abrupt elevation and isolated position. This butte is a typical volcanic neck, ^{of basalt} ~~or plug~~

Near noon camp, which was probably at Kramer creek, across from present Nepesta, a large herd of elk was seen.

Along this part of the Arkansas, Dr. James again observes and mentions the curious conical erosion-forms of the Pierre shale, known as tepee buttes, some of which he has previously noticed about the Pike's Peak observation camp on Fountain creek. He here observes the rocky core as a characteristic feature of these buttes, and writes of it, "The natural mounds of which we speak, appear usually to contain a nucleus of sandstone, which is sometimes laid bare on the summit or on the sides, and sometimes entirely concealed by the accumulated debris resting upon it. This stone often contains petrified remains of marine animals."

Handwritten Note:
Within the past few years, these tepee buttes have been studied by Mr. G. K. Gilbert, of the United States Geological Survey; his briefer account of them is in the Pueblo Folio of the Survey's Geologic Atlas of the United States. The calcareous and chimney-like nature of the core, in a matrix of shale, is due to the former persistence of a small colony of shells, chiefly Lucina occidentalis, at one locality on the sea floor, for a considerable time, during which that floor was being gradually built higher by the deposition of sediment. — F. W. C.

Evening camp was made at some point between ^{The} present Missouri Pacific and A.T. & S.F. railway stations of Olney and Manzanola, ^{and, as it were,} on the north side of the river. In this vicinity, the hunters procured "a wild cat, an old turkey, and five of her chickens". Here also was found the type-specimen of the Arkansas Flycatcher, Tyrannus verticalis Say.

On the 21st, camp was broken at 5 A.M., and after travelling six or eight miles down the river, the party met an Indian and squaw, of a tribe ~~which~~ called ~~was~~ by themselves Kaskaia and known to the French as Bad-hearts. "They were on their way from the Arkansas below, to the mountains near the sources of the Platte, where their nation sometimes resided. ~~which~~ They

informed us that the greater part of six nations of Indians were encamped about thirteen days' journey below us, on the Arkansa. These were the Kaskaia, Shiennes, Arapahoes, Kiawas, the Bald-heads, and a few Shoshones, or Snakes.* These nations, the Kaskaia informed us,

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had been for some time embodied, and had been engaged on a warlike expedition against the Spaniards on Red river, where a battle was fought, in which the Spaniards were defeated with considerable loss.

"We now understood the reason of a fact which had appeared a little remarkable; namely, that we should have traversed so great an extent of Indian country, as we have done since leaving the Pawnees, without meeting a single savage. The bands above enumerated, are supposed to comprise nearly the whole erratic population of the country about the sources of the Platte and Arkansa, and they had all been absent from their usual haunts, on a predatory excursion against the Indians [evidently meaning Spaniards, though perhaps both Spaniards and Pueblo Indians] of New Mexico.

"At our request, the Kaskaia and his squaw returned with us several miles, to point out a place suitable for fording the Arkansa, and to ~~give us any other information or assistance in their power to communicate.~~ Being made to understand ~~that~~ it was the design of some of the party to visit the sources of Red river, he pretended to give us information and advice upon that subject; also to direct us to a place where we might find a mass of rock-salt, which he described as existing on one of the upper branches of Red river.*

*These directions were probably not pretended, but bona fide, and to one of the well-known salines in western Oklahoma. The Canadian was the stream known among the western plains Indians as Red River. A few miles north of Watonga, Okla, at the head of Salt creek, on Cimarron drainage, yet close to the North Fork of the Canadian river, is a strong saline, which is perhaps the one referred to by the Kaskaia.—F. W. C.

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"At ten o'clock we arrived at the ford,* where we halted to make a

*Rocky Ford; near the present town of that name, and near Timpas creek. ~~Williams' Tourists' Map of Colorado, 1877.~~ On Williams' Tourists' Map of Colorado, 1877, the name Rocky Ford does not yet appear, but in the same vicinity, a little above the mouth of Timpas creek, on the south side of the river, is legended, "Point of Rocks" as a station of the A.T. & S.F. Railway. "Timpas" is a word ~~derived from~~ the Shoshonean group of languages, ~~spelling~~ (Comanche, Ute, etc.), and signifies rock.

division of the party, which was here to take place. Our Kaskaia visitor, with his handsome and highly ornamented wife, encamped near us, having erected a little tent covered with skins. They presented us some jerked bison meat, and received in return a little tobacco and other inconsiderable articles. A small looking-glass, which was among the presents given him, he immediately stripped of the frame and covering, and inserted it with some ingenuity into a large billet of wood, on which he began to carve the figure of an alligator. Capt. Bell bought of him the horse which they had led with them, and which, according to their account, had recently been caught from among the wild horses of the prairie. This made some new arrangements of their baggage necessary, and we were surprised to witness the facility and despatch with which the squaw constructed a new pack-saddle. She felled a small ~~small~~ cotton-wood tree, from which she cut two forked sticks. These were soon reduced to the proper dimensions, and adapted to the ends of two flat ~~flat~~ pieces of wood about two feet in length, and designed to fit accurately to the back of the horse, a longitudinal space of a few inches in width being left between them to receive the ridge of the back. The whole was fastened together without nails, pins or mortises, but by a strong covering of dressed horse-hide sewed on wet with fibres of deer's sinew.

"The Indian informed us that he was ~~not~~ "The Calf". He appeared excessively fond of his squaw, and their caresses and endearments, they were at no pains to conceal. It was conjectured by our guide, and afterwards ascertained by the detachment that descended the Arkansas, that this mutually fond couple had married in violation of the laws and usages of their tribe; she being already the wife of another man, had ~~been~~ stolen the horse they sold us, and deserted their band to escape punishment.

"The low grounds on the upper part of the Arkansas, have a sandy soil, and are thinly covered with cotton-wood, intermixed with the aspen poplar (P. tremuloides, Mx.) and a few willows. The undergrowth is scattering and small, consisting principally of the Amorpha fruticosa and a syngeneaceous shrub, probably a veronia. Along the base of the mountains and about this encampment, we observed a small Asclepias, ~~had~~