The name Apache, according to the "Handbook of American Indians," is probably from apach, 'enemy,' the Zuñi name for the Navajo, who were designated Apaches de Ngapijí by the early Spaniards. The Navajo name of partially Apache or Atsabashión blood is complex in origin, as Hodge has demonstrated, in his paper "The Early Navajo and Apache." The American Anthropologist of July 1895 (p. 239) he says: "The Navajo were a composite people even before the eighteenth century; the tribe then embodying remnants of the Athapaskan, a local, Keresan, Zuñi, and possibly other linguistic stocks, in addition to a slight admixture of Aryan."

The common view that the Apaches did not range west of the head region of the Gila so early as 1540, does not seem very well founded. True, the name Apache puts in its first appearance in literature in connection with that region in 1630. But Zuñi tradition says that the pueblo of the Cipias, on the Salt River, was destroyed by the Apaches soon after the murder of Fray Martin de Arvide, enroute thither in February, 1632, indicating a wide distribution of the Apaches in Gila Basin in those years; and for all there is to show to the contrary, such a distribution may have obtained there much earlier. Indeed it seems probable to the present writer that many of the towns of the Gila and Salt valleys west of Coronado's route were desolated much earlier by the same nomadic enemies, or abandoned, owing to persistent Apache harassment.

In his article on the Pimas, in the "Handbook of American Indians," Hodge observes, "The names applied to the Pima by the Apache and some other tribes furnish evidence that they formerly dwelt in adobe houses." We may add that those same names in (p. 243, 253) point to a "living in sand [adobe] houses" contact with the Pimas of the Gila so long ago as when those latter lived in such houses; and as all evidence tends to show that none of the adobe houses of the Gila were occupied so late as the time of Coronado's expedition, we can hardly doubt that the Apaches roamed the district of Chihuahua and parts of the White Mountain region at that time.
Of the ruined large houses of Chichilticalli only the Chichilticalli seems to have been seen in 1539-42 by Marcos de Niza and Coronado; but those of the lower San Pedro, noted by Garcés in 1775, by Pattie half a century later, and by Emory and Johnston in 1846, can hardly have been overlooked by the party of Kelly, King, and Mange, which passed down the San Pedro to the Gila in 1897. And those of the Pueblo Viejo were probably seen by Generales Bironza and Puente as early as 1695, in which year those officers, in their campaign from Fronteras, drove the Apaches northward from the frontier of Sonora "to the Sierra Florida up in the Gila region, where thirty-two were killed and five pieceas de chusma taken." This Sierra Florida was not that of like

Footnote: Bancroft, Works, XV, p. 273: citing as authority, Mange, Historia de la Pimeria, pp. 272-2. The "pieceas de chusma" were captives—women and children.

name near Deming, New Mexico, but was a sierra on the Gila north from Fronteras, hence evidently the Valle de la Florida of Fronteras Valley, the Sierra de Los Pinaleros, culminating in Mount Graham.

Rain, like those of the Florida Valley were noted by Emory and Johnston on San Pedro River, only at their camp of November 5th and 6th, two or three miles from its mouth, as their route did not touch that stream higher up; but such were seen at and above present Mammoth, in 1825, by James O. Pattie, who, in connection with the advance of his father's trapping party up that river on the 29th of March of that year, wrote, "The country presents the aspect of having been once settled at some remote period of the past. Great quantities of broken pottery are scattered over the ground, and there are distinct traces of ditches and stone walls, some of them as high as a man's breast, with very broad foundations."
The destruction of the Chichilticalli and that of the Casa Grande are perhaps of some significance in this connection.

Of the destruction which had been wrought upon the Chichilticalli at an unknown time prior to 1540,—and which must have been chiefly of the roof and by fire, since Castañeda describes the building as "without any roof,"—that observer believed the barbarous nomades of the Pinaleno-Gila district were the authors. [Suppl. — A large part of it but not all — was burned because it was open court and had never had a roof.] Now, while it is almost certain that the destruction of Casa Grande also antedated Coronado's expedition, it is noteworthy that, of the barbarous hunting nomads who effected it, as related by an agricultural tribe whose residence on the Gila probably dates back to the time of its occupancy of the great Casa, the only nation specifically named is the Apache.

Captain Magee, who visited the Casa Grande with Father Kino in 1697, and who, with the latter, interrogated the neighboring Pimas as to the history of this and the other great houses of the Gila-Salado plain, was informed of "bloody wars" which the Casagrandeans had once been waging with the Apaches and 20 tribes confederated with them, which had finally led to the abandonment of the great-house settlements; and concerning Casa Grande he was told that "these wild tribes (Jentiles) had burned it several times." And Seidemair, in 1744, saw, at the distance of "an arquebus-shot" from the Casa Grande itself, "twelve other houses," that had, with the exception of one room, "burned roofs" or "ceilings." Father Ignace Font also, on the occasion of his visit to Casa Grande with Father Garces in 1775, wrote in his diary, under date of October 31, (as translated by Doctor Jones on page 96 of "On the Trail of a Spanish Pioneer"), "There are found no traces of staircases, from which we judged that they were of wood, and were destroyed in the conflagration which the edifice suffered from the Apaches;" and Lieutenant Emory in 1846 ("Notes," Nov. 10) found "the sleepers of the ground floor" of Casa Grande "burnt out of their seats in the wall to the depth of six inches," and that the "whole interior of the house had been burnt out._

See extracts from Magee's Relacion del Estado de la Pimeria, and from Seidemair's Relation, on pages 462 and 459 of Bandelier's Final Report, Part II.

In the villages of the Pueblo de los Muertos group, evidences of destruction by fire have also been recorded by Cushing and others. In the New Voice of December 29, 1898, Mr. Edward Page Cushing, who, under Cushing, had been a member of the Hemenway Southwestern Archeological Expedition of ten years earlier, mentions the finding of the burned ceiling thatch, where the roofs had fallen...
of the reeds preventing decay." It was supposed that the roofs had been set afire by falling upon the hearth-fires burning in the dwellings, and that this was a proof that "the houses were occupied at the time these cities were overthrown" by earthquake, one of which phenomena occurred while the expedition was in camp near Mesa discussing the earthquake theory. But the burning of the roofs may not have been the work of Apache and allied tribes who had driven out the householders and devastated their dwellings, and other establishments.

According to the Hopi legend, "Destruction of Palatkwapi," as per Voth, the Apaches often raided the Patki and Sun clans of the Hopi while those clans had dwelt at Homolobi. This may have been both before and after 1540, (for we notice elsewhere in this Paper, as well as down to about 1700, reasons for thinking that Homolobi was occupied at the time of Coronado's expedition); and on the part of the Apaches it was perhaps only the following up of hostilities against those who had been the ancient and hereditary objects of their aggressions.

And, finally, with all the other causes that have been adduced therefor, it seems difficult to account for the general withdrawal of the great house-building agriculturists from so fertile, well-irrigated country diversified and populous a region as the Gila Valley without assuming the agency of powerful nomadic foes like the Apaches, or at least an important factor in the matter.

It is believed that the above argument for identifying the Indians of Chichiltical with the Apaches, is, on the stronger than that for identifying them with the Sobrups; although it can not be said that either identification can yet be reconciled with all of the known data, and although it is very probable that Sobrups or close Roman relatives of theirs had formed at least part of the population of that district and of the Pueblo Valley general at an earlier period.
In describing the region beyond Chichilticalli, Castañeda says, "All the rest is wilderness, and with great forests of pine. Up to where they begin to branch, the pines are as much as twice or thrice the height of a man. There are nut-pines (piñon trees) in great quantity. There are forests of evergreen oaks, with sweet and wholesome acorns, which afford cakes like confections with dried coriander seeds. It is very sweet, like sugar."

In southeastern Arizona and northwestern New Mexico, it is the evergreen black oak, Quercus emoryi, that yields the sweet acorns most generally eaten by both man and beast; and it was doubtless the Emory Oak that yielded the sweet acorns used in the cakes mentioned by Castañeda. Forests of this live oak (together with Q. chrysolepis, or with piñon or juniper) characterize the lower timber line of the mountains of southern and eastern Arizona, occupying the foothills and lower mountain slopes. According to observations made by Dr. Rutherfurd, the acorns of this oak were in August, at its height, and the Indians found a ready market for them among the people of Tucson, where they command a good price, being either roasted or eaten uncooked. The taste is not unpleasantly astringent. It is said they must be taken immediately after falling from the trees to obtain them in prime condition. (Wheeler's Report for 1876, p. 124.)

In "Mammals of the Mexican Boundary Survey," Dr. W. E. Henshaw describes the acorns of Emory Oak as "sweet and toothsome." He mentions an extensive area of "oak scrub" of this species, at the base of the San Luis Mountains, as a haunt of peccaries; and of the mule deer in Arizona, he says, "It is extravagantly fond of acorns, especially those of the evergreen oaks (Quercus emoryi)."

In his memoir on the Pima Indians, Dr. Russell mentions acorns as being used by the Pimas from the Panagosa, and refers them to Quercus oblongifolia but that species was not used, the Pimas can hardly have failed to avail themselves of the superior quality of acorns of Q. emoryi also. It is possible that acorns of several species were used by the Apache—among others, those of the white oak, Q. gambeli, that yield the White Mountain Apache. The two are near its elevated habitat. In the northeastern states, it is the white oak that have the sweeter acorns, but Q. gambelli is a deciduous oak, and therefore can not be found in the vicinity of Castañeda although it was conspicuous on Coronado's route at Willow Springs (Cooley's Ranch), at an elevation of about 7,500 ft.

In recent times the Apaches have been fond of "sweet cakes made of flour and sugar" (see Overland Monthly, Vol. VI, p. 342); and these seem to have largely, if not wholly, supplanted the acorn sweet cakes, although the Apaches still make use of several ways as foods. At Oracle, Arizona, in 1802 I was told that until but a few years previous these Indians had been in the habit of coming to the northern parts of the Santa Catalina Mountains for acorn harvesting, in years when there was a good acorn crop. The elevation at Oracle is about 5,600 ft. and the oak there are evergreen, and they included, I think, both Q. emoryi and Q. oblongifolia. But much of the oak woodland thereabout had been felled, even at that time, for firewood and to clear the land. According to Dr. Hrdlicka, the Apache "Acorns are used as food but little; those from the scrub oak preferred to others. They are ground mixed with chopped-up boiled meal and scuppernong, a mixture is said to be very good." (Bu. Am. Eth. Bul. 34, p. 259.) The readiness with which, in the eighteenth and nineteenth centuries, wheat and pancoche (Mexican crude sugar) could be plundered from Sonora, and the immense quantities of Indians and sugar in United States government rations, as well as of wheat from the new fields, have doubtless caused a supplanting of some of the good things the Apaches were accustomed to make in the olden times. It is almost incredible that cakes so sweet as to be considered confections and sugar, could have been made of acorn flour only; although it is not impossible, as a mixture of syrup has sometimes been made from sweet acorns. In Castañeda's day,

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the acorn-sweet-cakes of the White Mountain Wilderness Indians may have been made of sweet acorn flour mixed with the fig-like fruit of the Sahuaro, of which latter fruit the San Carlos Apaches still make large use. Says Erdlicka, "Every year...when the fruit of this cactus begins to ripen, many of the Indians move to the locality where the plant is found, remaining there for two or three months until the last of the fruit has matured and been gathered...Large quantities of the luscious fruit are eaten raw on the spot, and what cannot be consumed there is dried in the sun, made into large cakes, and carried home, where it lasts at times for many months." Fruit-sweetened cake called Amaranthus clamidica," was served to the English traveler and botanist, John Bradbury, F.L.S., by the Osages, at the Little Osage village near Fort Osage, in 1811. It was made of persimmon pulp and pounded corn; was cut into square pieces and served in a wooden bowl; and was said to taste like gingerbread. (See his Travels, p. 37.) Some-what similar dainties—both sweet-cakes and puddings—are made by the Klamath Indians, according to Bancroft, out of acorn flour mixed with various kinds of berries. (See his Native Races, I, 339.)

water-cresses in some springs; and there are rose-bushes and pennyroyal and wild marjoram. In the rivers of that wilderness, as in Spain, there are barbels and picone. Gray lions ("leones pardos"—i.e., pumas) were seen."* (The word translated "barbels" is barchos.)

*Here translated from the Spanish text of Castañeda's Relacion, as given on page 450 of the 14th Annual Report of the Bureau of Ethnology.
There were of course no true Barbeles in the White Mountain Wilderness. In the question as to the identity of the fish here so called by Castafeda, the barbeled fish, *Acanthocypris couchii*, which occurs abundantly near Camp Apache, need not be seriously considered, as it is very small (length 4½ inches) and has but very short barbs as compared with the Barbel of Europe. Still less need we consider the catfishes, for these do not at all resemble the Barbel in form or in structure, and are not indigenous to Arizona waters; a single species, *Amia calva*, having been introduced into the Gila River about 1877. (See Jordan and Evermann, *Fishes of North and Middle America*, 1, 140.) There are a number of barbeled fresh-water fishes in Europe, whose nearest American relatives are without barbels or have those organs very small or rudimentary. The Barbel of Spain is a large cyprinid, and the fishes which Castafeda classed as Barbeles in the despoblado grances, were doubtless of the cyprinoid genus, *Gila*, which is without barbels, or feelers, but bears considerable resemblance otherwise to the Barbel of Europe, and which abounds in the rivers of the White Mountain Wilderness. *Gila robusta* attains a length of 16 inches; it inhabits the White Mountain River (being very common at Fort Apache), Salt River, and Ash Creek, as well as the Gila River itself.

As to "picones," according to the Velasquez Spanish Pronouncing Dictionary, the word "picón" is applied, not only to a "small fresh-water fish," but also to "animals with the upper teeth projecting over the under ones," or to "cattle nipping the grass the contrary way for want of teeth." The collective purport of these definitions seems to be, that, as applied to a fish, the name designates one which has the jaws toothless, or has the upper lip hanging over in advance of the lower one; and Castafeda's "picones" therefore were fishes of the Sucker family (*Catostomidae*), of which several genera occur in Arizona, and among them *Catostomus*, *Pantostomus*, *Xyrauchen*, and nominally but doubtfully *Moxostoma*. A *Moxostoma* possibly not distinct from *M. breviceps* (a Pennsylvania species with sharply conic snout,) is known in British America as the "Picconu"; but as to whether this name is of French Canadian origin, and the similarity of "Picconu" and "Picones" (plural), in the related French and Spanish languages, is significant, or whether it is an Indian name and its resemblance to "Picones" a mere coincidence, I have found nothing conclusive. At least two genera of the Sucker family occur in the White Mountain Wilderness: *Catostomus* (Suckers) and *Pantostoma* (Mountain Suckers); the latter replacing *Moxostoma* (genus of the so-called "Red Horse") west of the Atlantic-Pacific divide in the United States generally. Of the former genus, one species, *C. insignis*, is known from the White Mountain Wilderness, having been collected by Doctor Rothrock in Ash Creek in 1874. *Pantostomus arizonae* is recorded from Salt River at Tempe, and *P. clarkii* from the Gila River at Fort Thomas. That one or both of these *Pantostoma* and *Moxostoma* ascend tributaries into the White Mountain Wilderness, may be taken for granted.

"I rested for two days at Chichilticolli," wrote Coronado to Mendoza, "and there was good reason for staying longer, because we found that the horses were becoming so tired; but there was no chance to rest longer, because the food was giving out. I entered the borders of the wilderness region on Saint John's eve." Coronado must have reached Chichilticolli on the evening of June 20th, stopped there the 21st and 22d, and left there on the morning of the 23d.