

## *Correspondences in Archaeological, Genetic and Linguistic Evidence for Apachean History*

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Many efforts to explain the Apachean departure from the Subarctic are either simplistic (involving technological prime-movers) or tautologous (Athapaskan presence is denoted by a certain artifact type or archaeological phase). Using the received wisdom for the history of the Athapaskan language family, we have developed a comprehensive model which situates the Athapaskan homeland in northwestern North America. The White River eruptions at the present-day southern Alaska-Yukon border resulted in two major vectors of dispersal from this homeland: one for the Pacific Coast Athapaskans, who likely began their divergence 1900 years ago and a second involving Canadian Athapaskans and Apacheans, perhaps 1250 years ago. Following Sapir, we claim that the Apachean departure from the Subarctic involved the adoption of a communal bison hunting lifestyle, that it took place along Plains and Foothills routes, and that it involved trade with Plains periphery peoples. This model allows independent testing of implications for the ancestral Apachean population, which we predict: (1) was of small to moderate size; (2) was quite compact in its geographic distribution; and (3) engaged in trade and interaction that facilitated population movements farther southward.

Human biological data provide unambiguous evidence for this hypothesis that Apachean ancestors came from the Subarctic, had a small founding population, and followed a route southward that did not take them through the Great Basin. Both mtDNA haplotype A and AL\*Naskapi incidences confirm a northern origin for all Athapaskan populations. Lower sequence variation for mtDNA haplotype A among Apachean peoples, as well as the characteristics of Athabaskan Severe Combined Immunodeficiency Disorder and Athabaskan Brainstem Dysgenesis Syndrome, imply genetic bottlenecks in the Apachean past. AL\*Naskapi is absent among Numic speakers, but mtDNA haplotypes B and C among Apachean speakers show that gene flow did take place with their immediate, recent neighbours (Puebloan peoples for Navajo, Piman peoples for Apaches).

The hypothesis is also supported by linguistic evidence. In moving southward, Subarctic people would encounter unfamiliar species and material culture, requiring new names. Work on our *Pan-Athapaskan Comparative Lexicon* affirms that Athapaskan speakers rarely borrow terms in such situations, so that neologisms can offer insights into Apachean history. A widely distributed ancestral speech community, extending across significant geographic barriers, ought to result in divergent neologisms. Instead, Apachean dialects consistently share related terms for unfamiliar fauna (e.g., badger, plains bison, wild turkey, lizard), flora (e.g., cactus, maize, tobacco), material culture (e.g., pipes). Data like these indicate that the ancestral Apachean speech community was coherent and did not extend across geographic barriers. Kin terms and bison hunting lifestyle terms provide additional support for the model.

Finally, elements in the archaeological record are compatible with the model. At the time of the 16<sup>th</sup> century Spanish *entrada*, Apachean ancestors traded subsistence and ceremonial products from bison hunting with Plains periphery horticulturalists. This pattern likely

characterized earlier Apachean lifestyles. Because Athapaskan peoples rapidly assimilated the material culture of their immediate neighbours, archaeological evidence is often intractable when used alone to trace ethnic identities. We should expect an Apachean identity to have manifested itself subtly, at the attribute level, rather than in artifact types or entire cultural phases. Some dramatic archaeological exceptions suggest earlier Apachean ancestors took part in large-scale interaction spheres. Pictographs at Grotto Canyon in southern Alberta reveal dancers in unequivocally Southwestern styles. The extraordinarily preserved remains of the Promontory Caves, situated near a zone of cultural interaction at the northeastern periphery of the Great Basin, include dozens of soft-soled moccasins made in styles used by northern Athapaskans, as well as unique Subarctic scraping tools (*chi-thos*). Other unusual moccasin styles at Promontory are identical to coeval specimens in the Ozarks, suggesting that trans-Plains contacts existed. Such archaeological findings are consistent with human migration theory, in which contact is maintained with former homelands and migratory movements take place into regions already known.