# SCIENCE:

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## THE KLAMATH NATION.

### I.—THE COUNTRY AND THE PEOPLE.

"THE Klamath Indians of South-Western Oregon" is the second title of the recently published work, by Albert Samuel Gatschet, which forms, according to its leading title, Vol. II. of "Contributions to North American Ethnology," one of the several series of works issued by the "United States Geographical and Geological Survey of the Rocky Mountain Region, J. W. Powell in Charge." The term "volume," however, is in this case to be understood in a special sense. The work really appears in two substantial tomes in quarto, comprising over seven hundred pages each, and distinguished as Parts I. and II. The too brief "table of contents" informs us that Part I. contains the writer's "letter of transmittal," and an "ethnographic sketch," with "texts," and "grammar;" while Part II. is entirely occupied by the "Dictionary — Klamath-English, and English-Klamath." This curt statement gives but a slight idea of the importance of the work as a contribution of the first order to ethnological science.

The Klamath River rises in the southern interior of Oregon, at a distance of about three hundred miles from the Pacific. First traversing an extensive morass, known as Klamath Marsh, it passes through Upper Klamath Lake, a charmingly picturesque sheet, some twenty-five miles long by five or six miles in breadth; then receiving a tributary from the Lower Klamath Lake, it crosses the State boundary into California, and, after a winding course of two or three hundred miles, falls into the ocean near the north-eastern angle of that State. Several tribes of different lineage and languages dwell, or formerly dwelt, along this stream, and have borne indiscriminately from the river's name (the origin and meaning of which are uncertain) the appellation of Klamath Indians But this designation is more usually restricted to the people who possess the upper waters of the river and the great Klamath Lake, and who, as is the case with many other Indian tribes, have no special distinguishing name for themselves except that of "man,"— in their language, *Maklaks*. Another name which has been given to them is *Lutuami*, meaning Lake Indians, which is in no way distinctive. The author has therefore judiciously decided to retain the usual appellation, "the Klamath Indians," adding the description "of South-western Oregon," to distinguish them from the Californian Klamaths. As these, however, have their proper tribal names of Shasti, Karok, Hupa, and Yurok or Alikwa, it is likely that the designation of Klamath will in time be wholly restricted to the Oregon nation bearing this name.

The title of "nation" is one which, as the author suggests in his "letter of transmittal" to Major Powell, may properly be conferred upon this remarkable people. Their claim to this title does not reside in their numbers, which at present hardly reach nine hundred souls, nor in their territory, though this, even in their diminished reservation, covers fifteen hundred square miles. But they have the distinction, like the Basques of south-western Europe, of composing a separate "stock," possessing a language, a mythology, and a social system peculiar to themselves. Such a stock, inhabiting a compact territory, and having (as the Klamaths had till lately) their own government, may justly claim to be considered a nationality. The claim, however, is in America not so notable as it would be deemed in Europe, where distinct linguistic stocks are so few. Mr. Gatschet gives a list of twenty-two of these stocks, radically distinct in grammar and vocabulary, which have been found in Oregon and California alone. If to these we add the stocks of Washington State and of British Columbia, the number of such aboriginal nations found along the Pacific coast of North America will not be less than twenty-eight, nearly equalling the total number of stocks in Asia and Europe combined. There is reason to believe that a careful study of the immensely varied languages, physical and moral traits, mythologies, and social systems of these twenty-eight primitive nationalities would greatly modify and in some respects transform the sciences of ethnology and linguistics. There have been many partial and fragmentary attempts at such a study, some of them possessing much value. But that of Mr. Gatschet is undoubtedly the fullest and most minutely accurate that has thus far been made of any single stock.

The Klamath country is a region of mountains, lakes, and upland plains, stretching eastwardly into the interior from the lofty "Cascade Range," and elevated from four to seven thousand feet above the level of the sea. The author was naturally reminded of his native Switzerland by the grandeur of the scenery in the western portion of the reservation, "where the towering ridge of the Cascade Mountains and the shining mirrors of the lakes at their feet confront the visitor, surprised to see in both a reproduction of Alpine landscapes in the extreme west of America." It might be added that in the people themselves we recognize the well-known traits of mountaineers, as we trace them from the Scottish Highlands to Montenegro, and from the Caucasus to the Pamir,— the intense local attachment, the spirit of independence, the desperate bravery in the defence of their homes, the frugality, and the strong conservatism.

The Klamath people are divided into two septs, the Klamath Lake tribe, who call themselves Eukshikni ("of the lake") and the Modocs, who twenty years ago acquired a dismal notoriety by the "tragedy of the Lava Beds,"— an event, or series of events, which aroused horror at the time, but in which, according to the judgment of the best-informed historians, including Mr. Gatschet, they were more sinned against than sinning. An eminently fair-minded historical writer, Mr. J. P. Dunn (author of "The Massacres of the Mountains"), in his account of the Modoc outbreak, gives a pithy and graphic description of this sept, in terms which,

with some modification, will apply to the whole nation. "They were a peculiar people; good-natured as a rule, but high-tempered; industrious, and yet as haughty as the laziest Indians on the continent. They had more of that commendable pride which makes men desire to be independent and self-respecting than any of their neighbors. They were inclined to be exclusive in their social relations, but even among themselves there was little merrymaking. They took a more serious view of life and its duties. Stubbornness and strong will were tribal characteristics. In features they were rugged and strong, the cheek-bones large and prominent, the hair thick and coarse, the face heavy and not much wrinkled in old age." Of their congeners, the "Upper Klamaths," the same writer says, "They were a finely formed, energetic, and cleanly race." Mr. Gatschet confirms in general these descriptions, but adds: "The Mongolian features of prognathism and of high cheek-bones are not very marked in this upland race, though more among the Modocs than in the northern branch. If it were not for a somewhat darker complexion and a strange expression of the eye, it would be almost impossible to distinguish many of the Eukshikni men from Americans." Their complexion is so nearly white that "blushing is easily perceptible, though the change in color is not great." The hair is straight and dark; and he remarks, "I did not find it very coarse, though with many Modoc women it is said to be so, and to grow to an extreme length."

It is worthy of note that the complexion and other physical characteristics of the Indians of western America vary in marked connection with the "environment," that is, with the climate, food, and mode of life. The natives of northern British Columbia, the Thlingits (or Thlinkeets) and Haidas, are as light of hue as Europeans. They often have ruddy cheeks, brown or blue eyes, and red or brown and wavy or curly hair. As we pass southward along the coast, successively to the Nootkans, the Chinooks, and the other tribes of southern British Columbia, Washington, Oregon, and northern California, we find the hue of the skin deepening, the eyeballs darkening, and the hair becoming coarser, until at length, under the tropical heats of central and southern California we come to tribes with almost negroid traits. These traits are described by the best authority, Mr. H H. Bancroft, as "a complexion much darker than that of the tribes further north, often very nearly black;" "matted bushy hair;" "a low, retreating forehead, black, deep-set eyes, thick, bushy eyebrows, salient cheek-bones, a nose depressed at the root and somewhat wide spreading at the nostrils, a large mouth, with thick, prominent lips, teeth large and white, but not always regular, and rather large ears." But when we recede from the low, hot, and moist coast to the cool and dry interior uplands, the people, as in the case of the Klamaths, return to the European type. Mr. Gatschet describes particularly the small mouth of the Eukshikni, the good teeth, and the genuine Grecian profile, "the nasal ridge not aquiline but strong, and forming an almost continuous line with the forehead."

The truth is that, as one of the acutest of German anthropologists, Oscar Peschel, in his able and comprehensive treatise on the "Races of Man," has affirmed, all attempts to distinguish the various so-called races by merely physical characteristics, whether of color, hair, or the osseous framework, have proved utterly futile. As regards the shape of the head, on which so much stress has been laid, the view maintained by the late S. G. Morton, that the natives of this continent had a peculiar form of cranium, different from that of any other people, has been shown, first by Sir Daniel Wilson in his "Prehistoric Man," and later by Dr. Virchow, in his recent work, "Crania Ethnica Americana," to be wholly incorrect. Dr. Virchow declares (in his summary read before the Congress of Americanists, at Berlin, in 1888) that he finds dolichocephalic, mesocephalic, and brachycephalic tribes scattered throughout the continent; and he pronounces in positive terms his conviction that "the cephalic index, calculated on measures of the length and breadth of the cranial vault, should not be admitted as a determining proof of the single or diverse origin of populations."

We may confidently anticipate that the series of physical measurements of all the American tribes, which, by a happy thought, Professor Putnam has instituted for the Columbus World's Fair, and on which many observers are now engaged, under the experienced supervision of Dr. Franz Boas, will result in confirming the views of Peschel, Wilson, and Virchow, and establishing the truth that physical characteristics afford no proper tests of racial affinity or diversity. We are thus brought back to the older, and, as time has proved, the infinitely stronger evidences of what may be styled the intellectual characteristics, language and mythology. That these tests sometimes fail, through mixture of stocks and adoption of foreign beliefs, is unquestionable; and we are then left in ethnology, as we are often left in other sciences — astronomy, geology, and physiology, for example — to rely on probabilities. But so far as certainty is attainable, as it often is, it can only be attained through the evidence of these special tests.

The language and mythology of the Klamath nation are of a highly interesting character; but our study of these subjects, with the ample materials and philosophic suggestions furnished by Mr. Gatschet, must be left for other articles.

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## ANOTHER RIVER-PIRATE.

IN *Science*, vol. xiii., 1889, p. 108, under the title of "A River-Pirate." Professor W. M. Davis described a recent case of river capture in south-eastern Pennsylvania, brought about by the backward gnawing of one stream into the drainage area of another. In looking over with him the Doylestown sheet of the Pennsylvania Topographic Survey there were found numerous cases of similar capture, either already accomplished or about to take place, and at his suggestion the writer recently made a visit to the district in question, in the hope of being able to add something more to the history of the rivers of Pennsylvania.

The region of these migrations, Buck County, is situated in the north-eastern part of Pennsylvania (see Fig. 1), and extends for thirty-three miles (in a straight line) along the Delaware River. It is a gently rolling, well-cultivated country, composed of Mesozoic new red sandstones and shales, dipping from 5° to 15° to the north-west, the hard and soft layers of reddish sand and mud alternating. The evidence goes to show that the surface of the country has been reduced by erosion at least 1,000 feet since the time when the beds were laid down, for the upper deposits must have once overspread the gneiss ridge at the northern county line. They still rise nearly to its top, and there is no evidence of a fault, the absence of any trace of it being capable of explanation only on the supposition that extensive erosion has taken place.[1]

[1] 2d Geol. Survey of Penn. 1885.