## SCIENCE

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## THE CHEROKEES IN PRE-COLUMBIAN TIMES.

I.

THE present paper is an attempt by the writer to trace back the history of a single Indian tribe into the prehistoric or mound-building age. For this purpose the Cherokees have been selected, partly because of their isolated position geographically and linguistically, and partly because the data bearing upon the questions that arise in such an investigation are probably more complete than those relating to any other tribe of the mound section.

Although the scope is thus limited, there are certain facts relating to the mound region and the aboriginal inhabitants thereof, considered generally, which must be taken into account in studying the history of any tribe of this region.

The history of the Western Continent is supposed to begin with the discovery by Columbus, all that antedates that event being considered archæologic or prehistoric. While this is correct in the general sense in which it is used, yet the history of the different sections and different tribes begins with the first knowledge of them obtained by Europeans. The border-line, therefore, between the historic and prehistoric eras, varies in date when referred to the different sections and peoples. For example, history tells us nothing of what was transpiring in the area now called Ohio for a hundred hears after Cortez landed in Mexico. If it be possible to ascertain this, it must be sought in the traditions of the aborigines, the ancient monuments, and other prehistoric data of that area.

It is well known that when the various sections of this country were first visited by Europeans, they were found occupied by Indian tribes; while, on the other hand, there is no historical or other evidence, unless it be found in the monuments, that any other race or people than the Indians ever occupied this region. The possibility of an Irish, Welsh, or Northmen pre-Columbian settlement is not at the present time taken into consideration, as it has no bearing on the subject now under discussion. These tribes all belonged relatively to the same state of culture, which was of a grade inferior to that of the more advanced nations of Mexico and Central America.

Though not recorded in written or printed tomes, these aboriginal tribes must have had a history which still lived to some extent in their traditions, languages, customs, arts, beliefs, and relics, when the whites first became acquainted with them. These languages, customs, etc., though belonging to a plane much lower than that which ethnologists will allow us to call civilized, were not the growth of a season or a lifetime, but of centuries. If they exhibit tribal or ethnic

peculiarities, it may be taken for granted that these peculiarities attained their growth subsequent to the separation of the stock into the tribes among which they are found. If they are local or confined to certain geographical areas, it is reasonable to assume that they were adopted by the tribes after reaching these localities. For example: the peculiarities of the civilization of Mexico and Central America, as seen at the time of the discovery of these countries, must be considered indigenous, so long as we are unable to trace them to other sections or other peoples,—a conclusion adopted by leading historians and antiquarians. The same thing is true to a more limited extent in regard to the subdivisions of these comprehensive groups, and affords some basis for estimating the period of occupation.

Those habits, customs, or arts common among savage peoples, of course teach nothing in regard to the occupants of any special locality, except to indicate the culture status. It is therefore to those which are local or ethnic that we must look for guidance in our search.

A second fact relating to the mound region generally is, that the ancient remains found in it, though presenting various types and numerous important differences, probably the result of different local or tribal customs, are evidently the work of peoples in about the same stage of culture. But to this and other general lessons taught by the monuments there will be occasion to call attention further on.

In order to clearly understand the position of the Cherokees' relation to the other tribes in the mound area, we refer briefly to the linguistic distribution of these tribes when they first became known to the whites.

Stretching along the Atlantic coast from the mouth of the St. Lawrence to Pamlico Sound, and extending westward to the Mississippi, was the great Algonquin family, with its numerous divisions and branches. In the midst of this great linguistic sea, occupying most of what is now New York, and extending westward on both sides of the Lakes to Michigan (with a closely allied and also a distant offshootthe latter the Cherokees -in the region of Carolina), was the Huron-Iroquois family, with its various branches. About the head waters of the Mississippi, and reaching westward far out upon the plains and southward to the Arkansas River, was the Dakotan family. Spread over the Gulf States was the Muskokee group. Add to these the vestiges of other stocks found driven, so to speak, into the corners here and there, and we have a condition that could not have been of mushroom growth, but the outcome of centuries. It is quite probable that the family stems migrated from other sections; but the splitting into branches and dialects took place, in part at least, after reaching the area in which these stocks were found. One proof of this is seen in the grouping and geographical distribution of the comprehensive families over the continent.

Judging by the growth of languages in Europe, although the cases are not exactly parallel, centuries must be allowed for this local development. It is said by those best qualified to judge, that the shifting, changing, and tribal development known to have taken place among the Dakotas of the North-west alone must have required three or four centuries in advance of the Columbian discovery. The necessary inference to be drawn from this is, that the tribes, or rather families of tribes, found inhabiting this "mound region" by the first European explorers, had occupied substantially the same area for hundreds of years previous thereto. Not that there was no shifting or changing of positions by tribes, for there can be no doubt that this occurred to a greater or less extent, but that the families or stocks mentioned, or most of them, were in the area included in the eastern half of the United States and Canada (which we designate in a broad sense the "mound region" for centuries preceding the advent of the white man.

The same method of reasoning will apply to some extent to the growth of customs, as this must also have required time. The result of this course of reasoning, which seems to be justified by the facts, is to force us to one of the following conclusions: 1st, That the mound-builders, if a different race or people from the Indians, disappeared from the mound area many centuries before the advent of the whites; or, 2d, That there was an overlapping of the two races, that is to say, they occupied the area jointly for some centuries; or, 3d, That the Indians were the authors of the ancient monuments. As it will be necessary in the course of this investigation to discuss the question of the authorship of some of these antiquities, the decision reached on this subject is important in this connection.

Turning now to the Cherokees, we will proceed with the special object of this paper.

It is conceded that there is no hope of reconstructing a systematic pre-Columbian history of any one of the tribes or peoples of the area under consideration. The utmost that can be expected is, by a careful and thorough correlation of the data, to throw some light into that past which has so long been considered as wrapped in impenetrable mystery. It is by no means probable that as much will be accomplished in regard to the past of the people of this region as has been done for Mexico and Central America, yet it is the belief of the writer that much more is possible in this direction than has generally been supposed.

This tribe was for a long time a puzzling factor to students of ethnology, as they were in doubt whether to consider it an abnormal offshoot from one of the well-known Indian stocks or the remnant of some undetermined or extinct family. It now appears, however, to be the clearly settled opinion of linguists that the language is an offshoot of the Huron-Iroquois stock. This is an important fact in the study of the past, not only of this tribe, but also of the family with which it is connected, as it necessitates looking to the same point for the origin of both.

When the people of this tribe first became known to the Europeans, they were located in the mountainous region including the south east corner of what is now Tennessee, the south-west portion of North Carolina, the north-west part of South Carolina, and a strip along the northern border of Georgia,—a section which they continued to occupy down to a recent date, and where a remnant may still be found.

The first notice of them is found in the chronicles of De Soto's expedition, which speak of them as the "Chelaques" or "Achelaques," words which give more correctly the sound of the name they gave themselves than the modern Anglicized form "Cherokee." These early records locate them about the head waters of the Savannah River. exact route of the Spanish expedition has not been satisfactorily determined; nevertheless it is conceded by those best qualified to decide, that, when De Soto encountered people of this tribe, he was somewhere about the head waters of the Savannah, probably in the north-eastern part of Georgia. It was in this section, presumably in western North Carolina, that John Lederer encountered them during his visit to this part of the continent in 1669-70, for there can be no longer any reasonable doubt that he alludes to them where he speaks of the Indians of the "Apalatian Mountains." Their subsequent history is too well known to require further mention here.

Their relation to the Iroquois indicates a northern rather than a southern or south-western origin. This seems to be confirmed by the few rays of light which tradition, the records, and archæology throw upon their past history. Haywood states, in his "Natural and Aboriginal History of Tennessee," that they "were firmly established on the Tennessee River or Hogohega (the Holston) before the year 1650, and had dominion over all the country on the east side of the Alleghany Mountains, which includes the head waters of the Yadkin, Catawba, Broad River, and the head waters of the Savannah,"-a statement borne out by the fact that as late as 1756, when the English built Fort Dobbs on the Yadkin, not far from Salisbury, they first obtained the privilege of doing so by treaty with Atacullaculla, the Cherokee chief. The same authority states that they formerly had temporary settlements on New River (the Upper Kanawha) and on the head waters of the Holston. In De Lisle's maps, 1700 to 1712, Cherokee villages are located on the extreme head waters of the Holston and Clinch Rivers, as well as on and about the mouth of the Little Tennessee.

Their traditions in regard to their migrations are somewhat confused, and, like all Indian traditions, must be taken only with careful sifting, and where strengthened by corroborative evidence or well-marked indications of being ancient. Yet there is a uniformity in some respects which, independent of other evidence, would justify the assumption that they contain a vein of truth and have some basis of fact.

One of the most important of these is that mentioned by John Haywood in the work above named, in which they claim to have formerly lived in the Ohio valley, and to have constructed the Grave Creek mound and other earthworks in that section. This author's statement is as follows:—

"The Cherokees had an oration in which was contained the history of their migrations, which was lengthy." This related "that they came from the upper part of the Ohio, where they erected the mounds on Grave Creek, and that they removed hither [East Tennessee] from the country where Monticello is situated." This tradition of their migrations was, it seems, preserved and handed down by their official orators, who repeated it annually in public at the national festival of the green-corn dance. Haywood adds, "It is now nearly forgotten;" and Dr. D. G. Brinton informs us, in "The Lenape and their Legends," that he has endeavored in vain to recover some fragments of it from the present residents of the Cherokee nation.

Haywood asserts, probably from original statements made to him, that "before the year 1690 the Cherokees, who were once settled upon the Appomattox River in the neighborhood of Monticello, left their former abodes, and came to the West. The Powhatans are said by their descendants to have once been a part of this nation. The probability is that a migration took place about or soon after the year 1632, when the Virginians suddenly and unexpectedly fell upon the Indians, killing all they could find, cutting up and destroying their crops, and causing great numbers to perish by famine. They came to New River and made a temporary settlement, and also on the head of the Holston."

It is obvious that in this passage the author has given his conclusion based on the "oration" mentioned, connecting with it the historical event of the sudden onslaught by the Virginia settlers upon the Indians, in 1632. That his deduction in this respect is erroneous if intended to apply to the whole tribe, is apparent from the following facts: first, because it is evident that a portion, at least, of the tribe was located in their historic seat, in and about East Tennessee and western North Carolina, when De Soto passed through the northern part of Georgia in 1540, as it is admitted that the "Chelaques" or "Achelaques" mentioned by the chroniclers of his expedition were Cherokees; second, because John Lederer, who visited this region in 1669-70, speaking of the Indians of the "Apalatian Mountains,"-doubtless the Cherokees, as he was at that time somewhere in western North Carolina,—says, in his "Discoveries," "The Indians of these parts are none of those which the English removed from Virginia, but were driven by an enemy from the northwest and invited to fix here by an oracle, as they pretend, above four hundred years ago;" third, from what is shown by the archæologic evidence which will be introduced further on.

The language of Lederer indicates that he had heard substantially the same tradition as that of which Haywood speaks. An important addition, however, is the supposed date of this migration, which this author says was "above four hundred years" preceding the date at which he writes (1671–72), which would place it in the latter part of the thirteenth century. The tradition as given by Haywood brings them from the valley of the Upper Ohio; that by Lederer, from the north west,—a close agreement as to the direction of their former home.

It is doubtful whether any importance is to be attached to Haywood's statement that there was formerly a settlement in the vicinity of Monticello, Va. It is possible, that, during the migration toward the south-east, a party or clan broke off from the main body of the tribe, and settled in that region, where they remained until the general attack by the whites in the early part of the seventeenth century. Mr. Royce, in his paper on the "Cherokee Nation of Indians," in the "Fifth Annual Report of the Bureau of Ethnology,"

gives a tradition preserved among the Mohicans (or Stockbridges) which he suggests may have some bearing on this question. It is that "many thousand moons ago, before the white men came over the great water, the Delawares dwelt along the banks of the river that bears their name. They had enjoyed a long era of peace and prosperity, when the Cherokees, Nanticokes, and some other nation whose name had been forgotten, envying their condition, came from the south with a great army, and made war upon them. vanquished the Delawares, and drove them to an island in the river. The latter sent for assistance to the Mohicans, who promptly came to their relief, and the invaders were in turn defeated with great slaughter, and put to flight. They sued for peace, and it was granted on condition that they should return home and never again make war on the Delawares or their allies. These terms were agreed to, and the Cherokees and Nanticokes ever remained faithful to the conditions of the treaty."

Passing over the improbability that a marauding party forced to fly would stop and sue for peace, the tradition may, after all, have some basis of fact, as there is nothing improbable in the supposition that a band of Cherokees went north from the banks of the Holston or Kanawha as far as the Delaware on a war expedition.

What is supposed to be the earliest notice of this tribe through the settlers of Virginia is that given by the historian Burke. According to this author, Sir William Berkely, governor of that State, sent out in 1667 an expedition consisting of fourteen whites and an equal number of friendly Indians, under command of Capt. Henry Blatt, to explore the mountainous region to the west. After seven days' travel from their point of departure at Appomattox, they reached the foot of the mountains. The first ridge they crossed is described as being neither very high nor steep; but the succeeding ones, according to their statement, "seemed to touch the clouds," and were so steep that an average day's march while passing over them did not exceed three miles. After passing beyond the mountains they came into a level region, through which a stream flowed in a westward course. Following this for a few days, they reached some old fields and recently deserted Indian cabins. Beyond this point their Indian guides refused to proceed, alleging that not far away dwelt a powerful tribe that never suffered strangers who discovered their towns to return alive: consequently the party was forced to return. It is believed by some authorities that the powerful nation alluded to in the narrative of this expedition was the Cherokees.

It is probable that the point reached was what is now Floyd or Montgomery County, and that the Indians so much dreaded were located on New River or the extreme head waters of the Holston.

Another tradition related by Haywood is that one party or band of the tribe came to their mountain home from the neighborhood of Charleston, S.C., and settled south of the Little Tennessee, near what is now the Georgia line. The people of this branch called themselves "Ketawanga," and came last into the country.

Another tradition is, that when they first came into this region they found it uninhabited with the exception of a Creek settlement on the Hiawassee River. Ramsey, upon what authority is not known, says this was a Uchee settlement.

It is apparent that all these traditions, except that relating to a clan from the neighborhood of Charleston, point to some northern locality as the former home of the tribe, and that in this respect they correspond with the linguistic indications. But these do not exhaust the evidence bearing on this question, as there is a tradition of another nation, and in this case one of the best known and most reliable of all Indian traditions, which agrees with the others in this respect. This is the Delaware legend regarding their ancestral home and migrations. The earliest writer who gives a detailed statement of it is the Rev. Charles Beatty, who visited the Delaware settlements in Ohio in 1767. According to this authority, "of old time their people were divided by a river, nine parts of ten passing over the river and one part remaining behind; that they knew not, for certainty, how they came to this continent; but account thus for their first coming into these parts where they are now settled; that a king of their nation, where they formerly lived, far to the west, left his kingdom to his two sons; that the one son making war upon the other, the latter thereupon determined to depart and seek some new habitation; that accordingly he sat out accompanied by a number of his people and that, after wandering to and fro for the space of forty years, they at length came to Delaware River where they settled three hundred and seventy years ago. The way they keep an account of this is by putting a black bead of wampum every year on a belt they keep for that purpose."

The reason for mentioning this brief notice of the tradition, rather than relying entirely on the fuller account given below, is that it mentions a date purporting to be derived from the Indians.

The tradition as given by Heckwelder, who heard it from the Delawares themselves, and had the advantage of their interpretation and comments, is as follows:—

"The Lenni Lenape (according to the tradition handed down to them by their ancestors) resided many hundred years ago in a very distant country in the western part of the American continent. For some reason which I do not find accounted for, they determined on migrating to the eastward, and accordingly set out together in a body. After a very long journey and many nights' encampment by the way, they at length arrived on the Namaesi-Sipu, where they fell in with the Mengwe, who had likewise emigrated from a distant country and had struck upon this river somewhat higher up. Their object was the same with that of the Delawares: they were proceeding on to the eastward until they should find a country that pleased them. The spies which the Lenape had sent forward for the purpose of reconnoitring, had, long before their arrival, discovered that the country east of the Mississippi was inhabited by a very powerful nation, who had many large towns built on the great rivers flowing through their land. Those people (as I was told) called themselves Talligew or Tallegewi. . . . Many wonderful things are told of this famous people. They are said to have been remarkably tall and stout; and there is a tradition that there were giants among them, people of a much larger size than the tallest of the Lenape. It is related that they had built to themselves regular fortifications or intrenchments, from whence they would sally out, but were generally repulsed. I have seen many of the fortifications said to have been built by them, two of which in particular were remarkable. One of them was near the mouth of the River Huron, which empties itself into the Lake St. Clair on the north side of that lake, at the distance of about twenty miles north-east of Detroit. This spot of ground was, in the year 1776, owned and occupied by a Mr. Tucker. The other works, properly intrenchments, being walls or banks of earth regularly thrown up, with a deep ditch on the outside, were on the Huron River, east of the Sandusky, about six or eight miles from Lake Erie. Outside of the gateway of each of these two intrenchments, which lay within a mile of each other, were a number of large flat mounds, in which, the Indian pilot said, were buried hundreds of the slain Tallegwi whom I shall hereafter, with Col. Gibson, call Allegewi. Of these intrenchments, Mr. Abraham Steiner, who was with me at the time when I saw them, gave a very accurate description, which was published at Philadelphia in 1789 or 1790, in some periodical work the name of which I cannot at present remember.

"When the Lenape arrived on the banks of the Mississippi, they sent a message to the Alligewi to request permission to settle themselves in their neighborhood. This was refused them, but they obtained leave to pass through the country and seek a settlement farther to the eastward. They accordingly began to cross the Namaesi-Sipu, when the Allegewi, seeing that their numbers were so very great, and in fact they consisted of many thousands, made a furious attack upon those who had crossed, threatening them all with destruction if they dared to persist in coming over to their side of the river. Fired at the treachery of these people and the great loss of men they had sustained, and, besides, not being prepared for a conflict, the Lenape consulted on what was to be done, - whether to retreat in the best manner they could, or to try their strength and let the enemy see that they were not cowards, but men, and too highminded to suffer themselves to be driven off before they had made a trial of their strength and were convinced that the enemy was too powerful for them. The Mengwe, who had hitherto been satisfied with being spectators from a distance, offered to join them on condition that after conquering the country they should be entitled to share it with them. Their proposal was accepted, and the resolution was taken by the two nations to conquer or die.

"Having thus united their forces, the Lenape and Mengwe declared war against the Alligewi, and great battles were fought, in which many warriors fell on both sides. The enemy fortified their large towns and erected fortifications, especially on large rivers or near lakes, where they were successfully attacked and sometimes stormed by the allies. An engagement took place in which hundreds fell, who were afterwards buried in holes, or laid together in heaps and covered over with earth. No quarter was given, so that the Allegewi at last, finding that their destruction was inevitable if they persisted in their obstinacy, abandoned the country to the conquerors, and fled down the Mississippi River, from whence they never returned.

"The war which was carried on with this nation lasted many years, during which the Lenape lost a great number of their warriors, while the Mengwe would always hang back in the rear, leaving them to face the enemy. In the end the conquerors divided the country between themselves. The Mengwe made choice of the lands in the vicinity of the Great Lakes and on their tributary streams, and the Lenape took possession of the country to the south. For a long period of time, some say many hundred years, the two nations resided peacefully in this country, and increased very fast. Some of their most enterprising huntsmen and warriors crossed the great swamps, and, falling on streams running to the eastward, followed them down to the great bay river (meaning the Susquehanna, which they call the great bay river from where the west branch falls into the main stream), thence into the bay itself, which we call Chesapeake. As they pursued their travels partly by land and partly by water, sometimes near and at other times on the great salt-water lake, as they call the sea, they discovered the great river which we call the Delaware."

If this tradition has any foundation in fact (and it certainly seems to have), there must have been a people to whom the name "Tallegwi" was applied, for on this a large portion of it hangs. Who were they? Is it possible to trace them to any tribe of modern times? The supposition of Col. Gibson mentioned by Heckwelder, that the name survives in "Alleghany," applied to the chief river and mountains of western Pennsylvania, is not generally accepted by linguists of the present day. Heckwelder was of opinion that "Talligewi" was a word foreign to the Algonquin, which was simply adopted by the Delawares. Dr. Brinton says, "It is not necessarily connected with Alleghany, which may be pure Algonquin. He (Heckwelder) says, 'Those people called themselves Talligeu or Talligewi.' The accent as he gives it, 'Talligéwi,' shows that the word is Tallike, with the substantive verb termination, so that Talligewi means 'He is a Tallike' or 'It is of (belongs to) the Tallike'" ("The Lenape and their Legends," p. 320).

Heckwelder's account, no doubt colored to some extent by his own interpretation, varies slightly from the tradition as given in the "Walam Olum." He interprets Namaesi-Sipu by "Mississippi" because of his opinion that the migration was from the west. It is more probable that Mr. Hale is correct in assuming that it was some portion of the great river of the north (the St. Lawrence) which connects together and forms the outlet for the Great Lakes, possibly that portion which connects Lake Huron with Lake Erie. If this supposition be accepted, it would lead to the inference that the Talamatan—the people who joined the Delawares in their war with the Tallegwi—were Hurons or Huron-Iroquois previous to separation. Mr. Hale's views on this question are expressed in the American Antiquarian, April, 1883, as follows:—

"The country from which the Lenape migrated was Shinake, the 'land of fir-trees;' not in the west, but in the far north,—evidently the woody region north of Lake Superior. The people who joined them in the war against the Allighewi (or Tallegwi, as they are called in this record) were the Talamatan, a name meaning 'not of themselves,' whom Mr. Squier identifies with the Hurons, and no doubt correctly, if we understand by this name the Huron-Iroquois people as they existed before their separation. The river which they crossed was the Messeesipe, the 'Great River' beyond which the Tallegwi were found 'possessing the east.' That this river is not the Mississippi is evident from the fact that the works of the mound builders extended far to the westward of the l'atter river, and would have been

encountered by the invading nations if they had approached it from the west long before they had arrived at its banks. The great river was apparently the Upper St Lawrence, and most probably that portion of it which flows from Lake Huron to Lake Erie, and which is commonly known as the Detroit River. Near this river—according to Heckwelder, at a point west of Lake St. Clair, and also at another place just south of Lake Erie—some desperate conflict took place. Hundreds of slain Tallegwi, as he was told, were buried under mounds in that vicinity. This precisely accords with Cusick's statement that 'the people of the great Southern Empire had already penetrated to Lake Erie' at the time the war began. Of course, in coming to the Detroit River from the region north of Lake Superior, the Algonquins would be advancing from the west to the east. . . . The passage already quoted from Cusick's narrative informs us that the contest lasted perhaps one hundred years. In close agreement with this statement, the Delaware record makes it endure during the term of four head chiefs, who in succession presided in the Lenape councils.

The passages of the Delaware record which refer to the Tallegwi, as translated by Dr. Brinton, are as follows:—

"They (the Lenape) separated at Fish River (Nemassipi, sometimes written Mistissippi); the lazy ones remained there.

Cabin-man was chief; the Tallegwi possessed the east.

Strong-Friend was chief; he desired the eastern land.

Some passed on east; the Talega ruler killed some of them.

Some passed on east; the Talega ruler killed some of them All say in unison, 'War, war!'

The Talamatin, friends from the north, come and all go together.

The Sharp-one was chief; he was the pipe-bearer beyond the river.

They rejoiced greatly that they should fight and slay the Talega towns

The Stirrer was chief; the Talega towns were too strong.

The Fire-builder was chief; they all gave to him many towns.

The Breaker-in-pieces was chief; all the Talega go south.

He-has-pleasure was chief; all the people rejoice.

They stay south of the lakes; the Talamatin friends north of the

Further on, and referring to a later period, are the following verses:—

- "14. The Rich-Down-River-Man was chief, at Talega River.
  - 18. Snow-hunter was chief; he went to the north land.
- 19. Look-about was chief; he went to the Talega mountains.
- 20. East-Villager was chief; he was east of Talega.
- 40. At this time whites came on the eastern sea.
- or the bins time winters came on the custoff sea.
- 42. Well-Praised was chief; he fought at the south.
- 43. He fought in the land of the Talega and Koweta.
- 45. White-Horn was chief; he went to the Talega,
- 46. To the Hilini, to the Shawnees, to the Kanawhas."

The reasons for identifying the Tallegwi or Talega of this tradition with the Cherokees, which will be more fully referred to hereafter, are briefly as follows: 1st, The very close agreement in sound between *Tsalake*, the name the Cherokees gave themselves, and *Tallegwi* or *Talega* as given in the tradition; 2d, The fact that the traditions of the Cherokees refer to the region of the Upper Ohio as their former home; 3d, The statement of Bishop Ettwein that the last of the Cherokees were driven from the Upper Ohio about the year 1700 (see Brinton's "Lenape and their Legends," p. 18); 4th, The testimony of the mounds; and,

5th, The apparent identification of the two peoples in the Walam Olum itself in verses 42 and 43, Part V., where it states that

"Well-Praised was chief; he fought at the south. He fought in the land of the Talega and Koweta."

As this part of the record refers to a much later period than that heretofore quoted, a date subsequent to the appearance of the whites on the continent (verse 40, Part V.), there can be no doubt that it alludes to the Tallegwi in their southern home, to which, as stated in verse 59, Part IV., they had been driven. This supposition is apparently confirmed by the fact that it connects with them the Koweta, or Creeks. This, together with the statement that the fighting was at the south, would seem to imply that they were then in their mountain home or historic seat. It is probable, as will be shown hereafter, that where it is stated, in verses 19 and 20, that

"Look-About was chief; he went to the Talega mountains; East-Villager was chief; he was east of Talega,"

their position in the Kanawha valley is referred to, where the evidence indicates that they halted for some time on their way south.

CYRUS THOMAS.

## KILIMA-NJARO.

Dr. Hans Meyer, at a meeting of the Royal Geographical Society, London, on April 12, read a paper on his journey to the summit of Kilima-Njaro. As reported in Nature, after giving a short account of his expedition in 1887, and the discouragements to which he had been subjected on two subsequent efforts to carry out his programme, Dr. Meyer went on to say, that, while the main portion of the caravan encamped in Marangu, he ascended with Herr Purtscheller and eight picked men through the primeval forest to a stream beyond, where he had encamped in the year 1887, at an altitude of 9,200 feet. There their large tent was pitched, straw huts were built for the men, and firewood collected. Accompanied by four men. they travelled for two more days up the broad, grassy, southern slopes of Kilima-Njaro to the fields of rapilli on the plateau between Kibo and Mawenzi, and found there to the south-east of Kibo, under the protection afforded by some blocks of lava. a spot, at an altitude of 14,270 feet, well suited for the erection of their small tent. As soon as the instruments and apparatus had been placed under cover, three of the men returned to the camp on the edge of the forest; and only one, a Pangani negro, Mwini Amani by name, remained to share uncomplainingly their sixteen-days' sojourn on the cold and barren heights. With regard to their maintenance, it had been arranged that every third day four men should come up with provisions from the lower camp in Marangu to the central station on the edge of the forest, and that two of the men stationed there should thence convey the necessary food to them in the upper camp, returning immediately afterwards to their respective starting-places; and this, accordingly, was done. Firewood was supplied by the roots of the low bushes still growing there in a few localities, and their negro fetched a daily supply of water from a spring rising below the camp. In that manner they were enabled, as if from an Alpine Club hut, to carry out a settled programme in the ascent and surveying of the upper heights of Kilima-Njaro. The ice-crowned Kibo towered up steeply another 5,000 feet to the west of their camp, itself at an altitude of 14,300 feet. On Oct. 3 they undertook their first ascent. The previous day they had resolved to make the first attempt, not in the direction chosen by him in 1887, but up a large rib of lava which jutted out to the south-east, and formed the southern boundary of the deepest of the eroded ravines on that side of the mountain.

Their plan of operations, which they succeeded in carrying

out, was to climb this lava-ridge to the snow-line, to begin from its uppermost tongue the scramble over the mantle of ice, and endeavor to reach by the shortest way the peak to the south of the mountain, which appeared to be the highest point. It was not till half-past seven o'clock that they reached the crown of that rib of lava which had been their goal from the very first, and, panting for breath, they began to pick their way over the bowlders and débris covering the steep incline of the ridge. Every ten minutes they had to pause for a few moments to give their lungs and beating hearts a short breathing space; for they had now for some time been above the height of Mont Blanc, and the increasing rarefaction of the atmosphere was making itself gradually felt. At an altitude of 17,220 feet they rested for half an hour. Apparently they had attained an elevation superior to the highest point of Mawenzi, which the rays of the morning sun were painting a ruddy brown. Below them, like so many mole-heaps, lay the hillocks rising from the middle of the saddle. A few roseate cumulus-clouds floated far over the plain, reflecting the reddish-brown laterite soil of the steppe; the lowlands, however, were but dimly visible through the haze of rising vapor. The ice-cap of Kibo was gleaming above their heads, appearing to be almost within reach. Shortly before ten o'clock they stood at its base, at an elevation of 18,270 feet above sea-level. At that point the face of the ice did not ascend, but almost immediately afterwards it rose at an angle of thirty-five degrees; so that, without ice-axes, it would have been absolutely impracticable.

The work of cutting steps in the ice began about half-past ten. Slowly they progressed by the aid of the alpine rope, the brittle and slippery ice necessitating every precaution. made their way across the crevices of one of the glaciers that projected downwards into the valley which they had traversed in the early morning, and took a rest under the shadow of an extremely steep protuberance of the ice-wall at an altitude of 19,000 feet. On recommencing the ascent, the difficulty of breathing became so pronounced that every fifty paces they had to halt for a few seconds, bending their bodies forward, and gasping for breath. The oxygen of the air amounted there, at an elevation of 19,000 feet, to only 40 per cent, and the humidity to 15 per cent, of what it was at sea-level. No wonder that their lungs had such hard work to do. The surface of the ice became increasingly corroded. More and more it took the form which Güssfeldt, speaking of Aconcagua in Chili, called nieve penitente. Honeycombed to a depth of over six feet in the form of rills, teeth, fissures, and pinnacles, the icefield presented the foot of the mountaineer with difficulties akin to that of a "Karrenfeld." They frequently broke through as far as their breasts, causing their strength to diminish with alarming rapidity. And still the highest ridge of ice appeared to be as distant as ever. At last, about two o'clock, after eleven hours' climb, they drew near the summit of the ridge. A few more hasty steps in the most eager anticipation, and then the secret of Kibo lay unveiled before them. Taking in the whole of Upper Kibo, the precipitous walls of a gigantic crater yawned beneath them. The first glance told that the most lofty elevation of Kibo lay to their left, on the southern brim of the crater, and consisted of three pinnacles of rock rising a few feet above the southern slopes of the mantle of ice.

They first reached the summit on Oct. 6, after passing the night below the limits of the ice, in a spot sheltered by overhanging rocks, at an altitude of 15,160 feet,—an elevation corresponding to that of the summit of Monte Rosa. Wrapped up in their skin bags, they sustained with tolerable comfort even the minimum temperature of 12° F., experienced during the night, and were enabled, about three o'clock on the morning of Oct. 6, to start with fresh energy on their difficult enterprise of climbing the summit; and this time Njaro, the spirit of the ice-crowned mountain, was gracious to them: they reached their goal. At a quarter to nine they were already standing on the upper edge of the crater, at the spot from which they had retraced their steps on Oct. 3. Their further progress from this point to the southern brim of the crater, although not easy, did not present any extraordinary difficulty. An hour and a