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Author(s): D. A. Robertson

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XIV.

THE PREHISTORIC INHABITANTS OF THE MISSISSIPPI VALLEY.

PART 1ST—THE MOUND-BUILDERS.

BY D. A. ROBERTSON, of St. Paul, Minn., Fellow of the American Geographical Society.

COMMUNICATED.

Studies, investigations, and explorations prosecuted for more than twenty-five years have resulted in the opinion, that, long before the postcolumbian colonizations of America, the Mississippi valley was inhabited by two distinct and irreconcilable peoples,—one a self-civilizing, the other a self-barbarizing race,—and that the first, a migration from North-western Europe, arrived upon the north-eastern coast of America, above the latitude of 49°; and that the second, a migration from North-eastern Asia, arrived upon the north-western coast of America, north of the same latitude; and that these two streams of migration met in the Mississippi valley, and there encountered each other in irreconcilable conflict, each fighting for territorial mastery; and that this conflict of adverse races was prosecuted for centuries, and finally resulted, several hundred years before the postcolumbian immigrations, in the expulsion and final destruction of the prehistoric self-civilizing people, leaving the self-barbarizing race in possession of the entire country.

There have been found throughout the Mississippi valley two classes of earthworks which contain evidence of diverse origin, one of which is evidently of recent formation. The other class of structures, of much greater magnitude, found in the same localities, bear evidence of greater antiquity. The former embraces the graves and burial-mounds of the existing Indian race, many of which mounds contain numerous human skeletons in a tolerable state of

preservation. The height of these mounds rarely exceeds four or five feet, and, as a general rule, the number of bodies they originally contained was in proportion to their respective dimensions. American archaeologists and the Indians themselves attribute these low and irregular graves or burial-mounds to tribes of Indians, the remnants of which now inhabit the Western frontiers of this country. To the same race are to be assigned, also, the ruins of earth-covered houses on the Missouri, and the rude entrenchments, which rarely attain a height greater than from two and a half to five or six feet, and are found about the sites of old Indian villages. As compared with the numerous and gigantic earthworks of the Mississippi valley, which are attributed by most archaeologists to another and extinct race named "the mound-builders", these Indian remains are too insignificant, and in all respects too rude and dissimilar, to be classed with those of the mound-builders, the remains of whose works are numerous in Ohio, Indiana, Illinois, Wisconsin, Minnesota, Missouri, Arkansas, Kentucky, Tennessee, Mississippi, South Carolina, Georgia, Louisiana, Alabama, Florida, Texas, and Western Dakota, and on Rainy River and Mouse River, north of our boundary line, in Manitoba; and these regions are the most fertile, and the best adapted to the wants of settled, industrious populations, on this continent.

The two classes of earthworks referred to are often confounded by local and superficial observers.

The great mounds and other earthworks of the Upper Mississippi valley closely resemble those of prehistoric Europe; and they are more ancient than those in the Lower Mississippi valley, which more resemble the *teocali* of Mexico. The latter indicate an advance on the Mississippi valley mound-building civilization, and show ethnic unity of development proceeding from the north southward.

Almost all the large sepulchral mounds of the Mississippi valley that have been examined contain evidence that each one has been the tomb of a single person,—perhaps a great chief, priest, or warrior,—and that the earth heaped over his remains was evidently brought from a distance. This is an important archaeological fact, suggesting Asiatic or European descent.

A sepulchral tumulus of the mound-builders, twenty-two feet high by thirty feet base, was opened near Chillicothe, Ohio, which Squier & Davis ("Ancient Monuments of the Mississippi Valley," page 162) describes as "typical", and they add, "It is clear that the tumulus was raised over a single skeleton."

The mound-builders of the Mississippi valley, as of ancient

Europe and Asia, usually deposited a single body (or later an urn containing its ashes) upon the original surface of the ground or in a cist, and erected the monumental mound over it. The size of the mound was in proportion to the dignity and importance of the honored dead.

"When," says Vambéry,* "a chief of distinction [among the Turcomans of Central Asia], one who has earned the title of *botar* (valiant), perishes, it is the practice to throw up over his grave a *joszka* (large mound). To this every good Turcoman is bound to contribute seven shovelfuls of earth; so that these elevations often have a circumference of sixty feet, and a height from twenty to thirty feet.

"In the great plains these mounds are very conspicuous objects. The Turcoman knows them all, and calls them by their names; that is to say, by the names of those that rest below." (Page 373.) The author says in a note on the same page: "This custom existed among the ancient Huns, and it is in use in Hungary even at the present day."

These ancient sepulchral mounds, found in the Old and in the New World, although made only of earth or partly of rudely wrought stone, are evidences of considerable progress in social organization, with established government, under powerful rulers, long ages before the invention of letters or the fabrication of bronze and iron implements. Before the invention of tools for cutting and fashioning wood and stone, there could not have been any distinct mechanic arts, because there were neither carpenters nor stonemasons, nor, therefore, monuments of workmanship or design superior to the mounds and earthworks of the Mississippi valley, commonly attributed to an extinct race of "mound-builders", who, as we know, did not progress beyond the age of hammered copper. It was not until after the invention of cutting implements that earth-mounds were naturally superseded by more imposing monuments of stone, among which are the great pyramids of Egypt, which sprung from the same conception, design, and purpose as the great earth-mounds; both of which classes of structures may, we believe, be traced to a like ethnic origin, to peoples possessing the genius and aptitudes of progressive civilization, requiring only the possession of mechanical

* "Travels in Central Asia", by Armenius Vambéry. Harper Bros., N. Y., 1865. See also "Voyage autour du Caucase," par Frédéric Dubois de Montpoux, Paris, 1839. The Turcomans are of the Ugrian race, of which the Finns are a branch, the White Huns also. The Ugrians were the last mound-building people in Asia and Europe.

implements for that self-imposed indigenous development whence originate the higher mechanic arts. The unity of labor and the patient endurance necessary to accomplish great and laborious public works have never been found self-imposed or indigenous among the tribes of American Indians who have occupied the sites of the ancient mound-builders. The magnitude, systematic construction, great number, and extensive distribution throughout the Mississippi valley of the works attributed to the mound-builders, which extend from Rainy River, in Manitoba, to the Gulf of Mexico, and from near Lake Huron and Lake Erie and the western Alleghany slope to the Missouri and its tributaries, and from the coast-line of South Carolina to Eastern Texas, afford evidence of a very numerous and homogeneous population, and of their migrations and settlements from the north to the south. These extensive remains of the mound-builders cannot be attributed by any satisfactory evidence or argument to the ancestors of our existing Indian tribes, nor to any people found in this country by the pioneers of the present European populations, unless we can assume as a fact that our race of American Indians had lost all knowledge and practice of these ancient industries, organizations, manners, and customs, and had degenerated from a condition of semi-civilization to one of wandering and savage barbarism, long before the arrival of postcolumbian Europeans. No such example of race-degeneracy (purity of race having been preserved) can be found in the whole history of mankind. To show that our present race of Indians are not the descendants of the mound-builders, it is deemed sufficient to refer to the great mounds originally found upon and near the sites of the cities of St. Louis and Cincinnati; the Grave Creek Mound, 70 feet high and 1,000 feet in circumference at the base; and the mound at Miamisburg, Ohio, 68 feet high and 852 feet in circumference. In Ohio alone, 10,000 mounds and 1,500 earth-walled enclosures have been discovered. Who can believe that any people of the same characteristics as our American Indians were the builders of such a gigantic work as "Monk's Mound", at Cahokia; near St. Louis? This mound had a base of six acres, and a summit platform of five acres, was 90 feet high, and contained 2,900,000 cubic feet of clay. And who can believe that our Indians had constructed the earth embankments in Ohio, at Newark and Portsmouth—the latter from fourteen to sixteen miles in extent? or the graded road at Piqua? or the chain of mound signal-stations in Ohio, for instant telegraphing to great distances? or the fortifications and tumuli in the rich valleys of that State? or the great works near Newark, Circleville, and Chillicothe,

which seem to have been great centres of mound-building populations? or the great works throughout the Southern Mississippi valley States, which show progressive change in structure, and indicate an advance in civilization? Many of these Southern tumuli are formed like the *teocali* of Mexico, commonly attributed to the Toltecs. "The mound-builders," says Jas. D. Baldwin, "had a certain degree of civilization which raised them far above the condition of savages. To make such works possible under any circumstances, there must be settled life, with its accumulations and intelligently organized industry." ("Ancient America," by Jas. D. Baldwin, p. 33. Harper Bros., 1872.)

That the mound-builders were not of our Indian races is evidenced not only by the number and magnitude of their gigantic remains, but also by their geometrical structures, which show very considerable engineering experience and mathematical skill. Their works exhibit regular outlines, squares, octagons, circles and ellipses, executed with precision. Many of their squares are exactly 1,080 feet on each side, showing that they had some exact standard of measurement. No such knowledge or skill as this has been found among any tribe of American Indians.*

That our Indians are descendants of the mound-builders has been a favorite theory of Schoolcraft and some other authors who were themselves connected by marriage with Indian tribes; but they have failed to adduce either fact or argument to recommend this hypothesis. Various other theories have been advanced to account for the origin and ethnological relations of the mound-builders, and will be briefly considered.

The pretended relics and inscriptions which have been supposed to indentify them with the Jews, the Phœnicians, and lettered Scandinavians, like the reported plates inscribed with Hebrew characters; the lettered stone of the Grave Creek Mound, and all other reports of letter-inscribed relics said to have been found in the ancient mounds and earthworks of the Mississippi valley, prove to have been fables or frauds. No evidence of ancient letters of any kind has been found in any of the ancient monuments of the Mississippi valley.

Some archæologists assume that the mound-builders were autochthones,—born of the soil. As we remain without a particle of knowledge or evidence upon which to base this supposed law of human genesis, we may refer it to the category of "unknowables". We must seek the origin of the mound-builders elsewhere.

* See Essay of General Force on this subject. Published in Cincinnati, Ohio.

According to another theory, the mound-builders came from Eastern Asia, and first landed on the North Pacific coast, and thence navigated to the Mississippi valley. Were this the fact, traces of their migration would be found from that direction. Their mounds and earthworks would have been scattered all along the route of their migration; for their advance to the interior of this continent would have been necessarily gradual, and dependent upon their increase of population. The eastward extension of their settlements would have required a long period of time. But west of the tributaries of the Missouri and Mississippi, not a trace of the mound-builders can be found; so that they did not come by way of the Pacific coast.

It is equally evident that their immigration was not by way of the Atlantic coast from any point within the present boundaries of the United States, and thence westward to the Mississippi valley, for there is no trace, no monument, indicating this route of their migrations. Failing to find the track of the mound-builders, from either the west or east, from the Pacific or the Atlantic, at any point within the boundaries of the United States, several authors, and among them Foster, in his recent work on "Prehistoric America," assume as the most plausible theory that they migrated to the Mississippi valley by way of Mexico, and came originally from South America.

It is true that the mounds and other structures, the copper and stone weapons, implements, and ornaments, and other remains found in the earthworks of the Mississippi valley mound-builders, resemble like antiquities found in Peru and Yucatan, and indicate a similar original race and civilization. But a close examination of these respective antiquities shows that the supposed South-American or Yucatan progenitors of the mound-builders had attained a much higher degree of civilization, than had the mound-builders of the Mississippi valley. And although they may have been primarily of the same race, and branches of the same original civilization, their separation must have occurred many centuries before the development of their respective civilizations in America. Their migrations to America must have been at different periods, probably many centuries apart, and by entirely different routes. The Toltecs, if of the same race as the mound-builders of the Mississippi Valley, must have been of a more recent period. They may have been descendants, but could not have been ancestors, of the Mississippi valley mound-builders.

The arts of the more recent antecolumbian civiliziers of Peru,

Central America, and Mexico were greatly superior to those of the mound-builders of Mississippi valley. The former had attained the bronze age.

It is an interesting archæological fact, entitled to a passing notice, that hammered copper ornaments and implements have been discovered in Peru, evidently as might be expected, of much greater antiquity than those of bronze. It is an ascertained fact that the ancient civiliziers of South America had attained the age of bronze, and that they perfectly understood the art of alloying tin with copper, and proportions of each metal for all varieties of bronze. This art includes that of smelting and casting metals, and evidences a very high order of primitive civilization. But this was an art our mound-builders did not possess. They were of the period of hammered copper, which, although overlooked by archæologists, must have been the connecting link between the age of polished stone and that of metal-casting, which no doubt preceded the age of bronze. Of this transition we find many evidences in the antiquities of Asia and Egypt. The sudden change from stone to bronze which we find in Europe was, there is every reason to believe, intrusive, of foreign origin, from Asia or Egypt, and not of gradual or indigenous European development. Such sudden transitions, such leaps in the improvement of economic arts, do not occur in the history of civilization. We may therefore decide that the mound-builders of the Mississippi valley could not have lost the art of casting metals. Although they were unable to find in this country tin, an essential component of bronze, they would have made castings of copper if they had previously acquired the art of casting bronze, — a proof that they had not progressed beyond the age of hammered copper.

Nothing in human society is more enduring than the economic arts of primitive civilizations, which always continue in use until superseded by appliances more useful and convenient. The art of both mining copper and hammering it into implements and ornaments did not, among the prehistoric inhabitants of the Mississippi valley, survive the age of the mound-builders. As they had not the art of smelting or casting metals, we may infer, with scientific certainty, that they did not come from any bronze-working people, and that they were not therefore derived from the bronze age of Peru or Central America or Mexico; nor were they, for this reason, emigrants from any bronze-age people of the Old World.

The prehistoric monuments of Central and Western Asia, Africa,

and Europe, traced along their connecting links with the earliest historic ages, show that the Ugrian, Greek, and Scandinavian races were, in their primitive civilization, mound-builders; and through the successive gradations and contents of their sepulchral tumuli we may trace much of their respective fortunes, and, with some degree of exactness, their ethnic affinities, and the tracks and vicissitudes of their colonizations.

We learn from archæological research that there must have been a much larger population in Asia in prehistoric times than in the present age; and that the progenitors of the historical races of Europe and America had their original seats of empire in Central and Northern Asia and Eastern Europe, whence the weaker and less civilized peoples were crowded and driven to the north-east and north-west by the force and pressure of territorial and tribal wars. To escape being enslaved, they were compelled to seek refuge in the more remote and inhospitable lands of extreme North-western Europe and North-eastern Asia. Driven by ambition, or the pressure behind them, both the earlier and later Northmen must have crossed the Atlantic in search of more prosperous and peaceful homes, as in their more recent antecolumbian migrations they colonized Iceland and "old" Greenland. Wandering and fugitive tribes of Northern and North-eastern Asia were crowded eastward towards our North Pacific coast, by which route, as all evidence seems to indicate, came the progenitors of our Indian tribes.

In this prehistoric pressure and conflict of populations, the stronger races of civilizing tendencies, the great mound-building riparian peoples, may be distinctly traced through their sepulchral mounds from the regions around the Black Sea and Caspian, north-eastward, along the rivers of Russia to Finland, and thence to the Scandinavian peninsula and to the British islands; their course thus far pointing towards the extreme north-western coast of America.

Unable to find a track of the mound-builders leading into the Mississippi valley, from South America or Mexico, from the Pacific or the Atlantic coast, within the boundaries of the United States, and rejecting the unsupported hypothesis of autochthonic origin, we can seek only in the north beyond our international boundary for their footprints and landing-places, and thence trace out their route of migration southward. And we believe their very footprints have been found on Rainy River, in the vicinity of our northern boundary line, where have been discovered a number of artificial mounds, from 30 to 40 feet in height and 100 feet and upwards in

diameter. They are covered by a forest of large trees, among which are oak, basswood, elm, ash, and balm of Gilead. These remains indicate the presence there, at a very remote period, of a populous mound-building people. The soil of this region is described by competent authorities as "a rich, dark, sandy loam, mixed with much vegetable decay, and with a subsoil of clay". It is such a region as a sedentary riparian people, depending upon agriculture, the chase, and fisheries, would select for their abode. The late Gov. Simpson (Governor of the Hudson Bay Territory), by whom, about twenty years ago, I was first informed in regard to these mounds, expressed the opinion that they could not have been the work of the predecessors of our Indian race. He has published a description of the Rainy River valley, in which he says: "Is it too much for the eye of philanthropy to discern through the vista of futurity this noble stream, connecting as it does the shores of two spacious lakes, with crowded steamboats on its bosom and populous towns on its borders?" Here, then, in this rich valley, do we find the (at least probable) remains of the first peaceful, populous, and flourishing settlement of the Mississippi valley mound-builders, where they long remained. And whence issued their swarming increase, the main branches of which advanced on streams navigable for their boats, first westward by Rainy River, Winnipeg Lake and River, and Red River to the Assiniboine, and southward up Moose River to its southern bend, which approaches near to the north-western bend of the Missouri River, and thence up the Yellowstone River, in a south-westerly direction, and up the Big Horn and other tributaries of the Yellowstone, in a southerly direction. Along this track we trace their footprints, their characteristic monuments; and in these rich valleys we find evidences of their long-continued residence and great population. And here we find extensive fortifications, indicating that in this region the mound-builders encountered their first intrusive and aggressive enemies in great force. Throughout the region between the Missouri and Big Horn rivers, from the Yellowstone southward, approaching to near the Black Hills country, explorers report the ruins of many mound-cities; but of these antiquities, archæologists have had, until recently, very little intimation, this region having been rarely visited by white men.

The Smithsonian Report for 1870 contains "A Sketch of Ancient Earthworks on the Upper Missouri," by A. Barrandt, civil engineer, of Sioux City, made from personal inspection. According to his account, the mound-antiquities of this region are not inferior in

interest and importance to those of Ohio and the Lower Mississippi valley. He discovered that the mound-builder had made settlements along the streams and valleys of the eastern spurs of the Rocky Mountains, as far west as the 107th meridian. Mr. Barrandt states that he found up the Yellowstone River, about 140 miles from its mouth, an ancient city of mounds, situated on a bluff of about 180 feet in height. The city seemed to have been regularly laid out, the streets regular, and the mounds equidistant from each other. In the south-east quarter of the city, on the widest of the streets, he describes a mound of "colossal" dimensions, sixty-three feet in diameter at the summit, and twenty-seven feet high. He counted the mounds, and found eighty-seven in a good state of preservation, and sixty-three in ruins. On the outskirts of the city, he found elongated mounds, which he believed were designed and used as fortifications. Besides the ruins of other cities in this region, he mentions a work he saw near Clarke's Creek, Dakota, which was a parallelogram, 340 feet long, 190 feet wide, and 25 feet high (the walls being on an average seven feet thick at the summit), besides other extensive works in the vicinity. At another point, near Moreau River, he found a group of mounds the largest he had ever seen. These remains extend from the Yellowstone River to Bonhomme Island, near the present city of Yankton. They exhibit a progressive change of structure and outline from the most simple to the most complicated.

From other sources of information, we trace the outlying settlements of the mound-builders across to the east side of the Missouri and a short distance up the James and Sioux rivers. In this vicinity we lose their track, but soon find it again on the Lower Missouri and along the Mississippi, where, on the site of the city of St. Louis and in its vicinity, we discover that the mound-builders erected some of their largest works, and must have there become a numerous and prosperous people. From this point, we trace their works through Illinois and Indiana to Ohio, where their remains indicate that they became very powerful.

From their original colony on Rainy River, we trace other tracks of their migrations, proceeding directly southward, down the Mississippi River and some of its upper tributaries, including the St. Croix, along which we find at various points mounds and other earthworks, which indicate their former presence. We trace them southward into the State of Wisconsin, where they must have sojourned a long time, cultivating the richest lands of that State, as

well as those across the lakes in the State of Michigan, where they made settlements. In the former State are effigy-mounds, representing on a large scale animals and men, which baffle the conjectures and investigation of archæologists. As we there find no defensive works, we may infer that the Wisconsin mound-builders voluntarily migrated southward, perhaps to unite with the main body of their race; or it may have been for mutual protection, when hard pressed by powerful enemies, probably tribes of Indians from the north. By overwhelming invasions from the north, they were finally driven from Ohio, the chief seat of their empire and centre of their great power and population, and compelled to fly southward, hotly pursued by conquering enemies, as far as the State of Kentucky, "the bloody ground" of prehistoric traditions. There, reinforced probably by Southern Indians, their natural allies against a common foe, they were enabled to escape the fury of their pursuers. These Southern Indians resembled the Puebla Indians of Mexico. They were a sedentary and industrious people of civilizing tendencies, and would naturally find in the mound-builders congenial allies, with whom they could coöperate and mingle. When first visited by our race, these Indians, as the Natchez and cognate tribes, were a partially civilized people; and from a careful study of their characteristics, manners, and works, as observed when they were first visited by modern Europeans, we may reasonably conjecture that this people had absorbed the mound-builders, among the descendants of whom no pure blood remained to perpetuate their race, and maintain and develop their indigenous civilization. Among the Natchez (now an extinct people) were found distinct footprints of the mound-builders.

Tracing the remains of the mound-builders from Ohio southward through Kentucky, to near the Gulf of Mexico, we observe the gradual diminution, both in size and numbers, of their fortifications. Ancient remains in Kentucky, of what seem to have been their temporary fortifications, indicate that the new northern frontier of the mound-builders, after they had been driven from Ohio, passed through that State. When our Indians were first visited by white men, there was an uninhabited zone of the country passing through Kentucky, which separated the Indians of the North from those of the South. This was then called "*the bloody ground*", where, according to their traditions, there had occurred, a long time before the arrival of our own immigrations, great battles, with terrible slaughter,—the most terrible in the traditions of the red men.

Here were probably the last decisive battles, in which the retreating mound-builders, reinforced by Southern tribes, drove back the Northern Indians, who never after crossed this "bloody ground", until the ancient tribal boundaries had been changed by the influence and pressure of postcolumbian colonizations.

To find where, on Lake Superior, the mound-builders must have first mined for copper, by what route they probably came to America, and whence they came, we return to their original colony on Rainy River, where we find that they were on the boat-route of the Hudson Bay Company,—a chain of navigable waters, interrupted only by occasional easy portages, from the Atlantic coast of Labrador, and from James Bay to the Red River of the North (this whole route being north of the international boundary-line), and from Lake Superior by way of Pigeon River to Red River.

Near the mouth of the Pigeon River is Isle Royal, the great copper-bearing island of Lake Superior, where the mound-builders of Rainy River were, it may be reasonably conjectured, the first copper-miners of this region. On Isle Royal, Prof. Whitlesey (see his paper in the Smithsonian collection) found the most extensive known ancient copper-mining excavations, which he attributes to the mound-builders. These excavations covered a surface so large, that the labor on them must have required a very long time and a very large force of workers. Isle Royal is but a short distance from the north shore of Lake Superior and the mouth of the Pigeon River. From these facts, we may certainly infer that these ancient miners came first from the northern side of the lake, and, most probably, from their settlements on Rainy River, if not from more eastern or more northern sites yet to be discovered. For the lack of information in regard to the remains of the mound-builders in the Hudson Bay country, and the navigable boat-routes from the north-eastern coast of Labrador to the Red River of the North and Lake Superior, the attention of students of American archæology has not been turned in that direction to search for prehistoric migrations from Europe. It has been very difficult to obtain information about the Hudson Bay region, as the Hudson Bay Company, which established their first trading-posts at the head of James Bay, desiring to keep a close monopoly of their profitable trade, kept the outside world, as far as possible, ignorant of the geography and resources of that country. In that region, a settled or migratory people would easily obtain abundant subsistence. From the coast of Labrador to the Red River of the North there are many navigable rivers and lakes, abounding

in fish, and the country is well supplied with game, and for vegetation is superior to Northern Scandinavia or the Orkney Islands.

From the Lower St. Lawrence River, the Gulf of St. Lawrence, coast of Labrador, and Hudson Strait, there are several sufficiently direct boat-routes by which the mound-builders could have made voyages to the sites of their settlements on Rainy and Red rivers. Upon these routes the Hudson Bay Company have long transported goods in boats, carrying from eight to ten tons each. This whole country needs more archæological exploration to determine, beyond all question, the route by which the mound-builders came into the Mississippi valley.

My own studies tend to the conclusion that the mound-builders were of the Finnish race, driven by invaders from place to place; that they migrated by stages from Western Scandinavia to Northern Iceland, Northern Scotland, the Orkney and Shetland Isles, and next, by way of Iceland and Greenland, crossed over into Hudson Strait, and found a place of refuge in America. They could have landed in Ungava Bay of Hudson Straits, and thence, by one of several river routes, proceeded *via* James Bay and the English River route to Rainy and Red rivers, where we find many tumuli as the evidence of their former settlements. From James' Bay, they could have reached Lake Superior by a direct and short route *via* Moose and Michipicotan rivers, a route formerly much used for transportation by the Hudson Bay Company. To present as fully as the subject merits, the arguments, facts and authorities in my possession to sustain this hypothesis would occupy too much space in this paper. I can only present quite briefly a few points for the consideration of those interested in this subject. Ethnological and archæological research result in the conclusion that Scandinavia was the land of colonization and migration of successive races, originally driven northward from Asia, and entering Europe by various routes from the Caspian and the Euxine, thereby avoiding conflict with the Phœnicians, Greeks, and Romans, and the barriers to their migrations in that direction. In this pressure of populations on the shores of the Baltic, we discover there first the Lapps, the most ancient inhabitants of which we have any information.

The Lapps, classed with the Ugrian race, are confounded by some ethnologists (as in the "Ethnological Tableau" of Nott & Gliddon, in their "Indigenous Races of the Earth") with the Finns, and represented as of the Finnish type, causing mistakes of identity, like those which occur in this country in describing the intrusive Indian crania found near the surface of American tumuli as the

erania of the original mound-builders. "Ugrian" is the name for the class that contains the Finn and its allied languages, and the men that speak such languages (Latham's "Native Races of the Russian Empire," p. 6), embracing races of quite diverse ethnological characteristics; as, for example, the Magyars, Lapps, Samoyedse, Permians, and many other distinct peoples. The Ugrians, originally occupying the same or proximate regions of Asia and Europe, were early forced generally northward by the pressure of more powerful populations, and are no more to be considered a homogeneous race than are the many alien races of America, which future historians may perhaps class under the general name of Americans. Yet they had much in common. The Ugrians were generally mound-builders, among whom the different branches of the Finns, who settled around the Baltic, were the most numerous and powerful. At the present time Finland contains about a million and a half of pure Finns, until recently serfs of the Russians.

The Finns of the Scandinavian peninsula, and of Denmark, who preserved their freedom have been so generally mixed by intermarriage with the Scandinavians, that only about 9,000 in Sweden and Norway remain to preserve their original characteristics. Sufficient data have been collected for reasonable certainty to show that the Lapps were the occupants of the regions around the Baltic when the Finns arrived there; that Teutonic and Celtic immigrations succeeded those of the Finns; that most of the Celts migrated from thence to the British isles and the regions of South-western Europe, that the Slavic and later Teutonic races were the next invaders of the Baltic regions; that the surviving Finns east of the Baltic and Gulf of Bothnia were conquered and enslaved, and were until the recent emancipation Russian serfs; that the more warlike Finns, after the early invasion, fled over into the Scandinavian peninsula, where they were pursued by the Teutonic invaders, by whom they were driven towards the inhospitable regions of the North Cape, and into the dense forests and strongholds of the mountains between Norway and Sweden, whence for centuries they made predatory incursions against their Teutonic enemies, by way of the sea-coast and rivers, in boats made of willow wicker-work, and covered with hides,—a kind of craft peculiar to the Finns, both light and seaworthy, and easily carried over portages. These wars between the people of Odin and the Finns are celebrated in the traditions and sagas of the Scandinavians. A people capable of so long-continued resistance to such powerful enemies, practised as were the Finns in river

and sea-coast navigation, must have been as able to make the sea-voyages suggested as their stages of migrations as were the Celts in their prehistoric migrations, or the Norsemen in their earlier voyages.

If we can find in the arts, civilizations, tumuli, and crania of the ancient Finns of the Scandinavian and Baltic regions, close correspondences with those of the mound-builders of the Mississippi valley, such identity must surely be accepted as very strong, if not conclusive, evidence of the Finnish descent and original migrations from Scandinavia of the mound-builders. The probable descent of the mound-builders from the Finns is traced in the following identities: They were alike miners of copper, which they cold-hammered into implements, weapons, and ornaments. (Foster in "Prehistoric Races of North America" attempts to show that the mound-builders practised casting copper, not correct.) They were in the polished stone as well as in the hammered-copper age. Their sepulchral tumuli are very much alike in construction and in the interment of the dead. The objects found in them nearly correspond. No figures of gods have been found in them. Such figures have been found in the tumuli of the Teutonic races. The Scandinavian Finns, we have reason to believe, worshipped the sun; the Teutonic Scandinavians did not. The Southern Indians, who, there is reason to believe, absorbed the mound-builders, and retained traces of their arts, customs, and religion, were worshippers of the sun when first visited by post-columbian Europeans. The ancient Finns and mound-builders were alike hand-weavers of cloth, similarly made; they were cultivators of the soil, and likewise partly depended for subsistence upon fishing and the chase. They were both, when undisturbed, stationary, not wandering people: they were both riparian people. They had both like adaptations for social organizations, patient industry, protracted effort, and submission to recognized authority. So far as can be discovered, they were of like or very similar ethnic characteristics. It has been generally conceded that among the Mandan Indians, on the Missouri, before their almost entire extinction by war and small-pox, there were distinct traces of the mound-builders, with whom, it has been conjectured, they had long before been associated and miscegenated. The old Mandans were evidently, in part at least, of a mixed race of white and Indian progenitors, — a fact which has started various speculations in regard to the cause, among others the unsupported theory of Catlin, that Welshmen, under Madoc, had become mixed with them. The old Mandans may be considered as a semi-civilized people, greatly superior to all our

Northern tribes, They were of settled habitations. Among them were found people of fair skins, gray eyes, and *yellow* hair,—atavism from the side of their white ancestors. (The pure type of Finns all have pure yellow hair. Of all the Indians they were the only tribe (such is the result of my researches) that constructed boats of wicker-work covered with hides, like those of the ancient Finns. Although we have not seen any account of such boats among the remains of the mound-builders, this is no reason for believing that they could not have had like boats (the materials of which are quite perishable); and, finding such boats among the Mandans, there is, at least, a fair presumption that they learned to make them from the mound-builders, which will be quite convincing, if an alliance between this people and the Mandans can be reasonably established. But the great decisive fact, which is supplemented by other correspondences that identify the mound-builders with the Finnish race, is the close identity of their respective crania.

The primitive inhabitants of Scandinavia, who preceded the immigration of the Finns, buried their dead in the earth; they did not construct tumuli as did the Finns. The more recent Teutonic migrations buried their dead in stone vaults over which tumuli were raised. The stone vaults were overlaid by stones with runic inscriptions.* This seems to have been an original distinction between the Finnish and Teutonic tumuli. Professor Nilsson assigns to the most ancient colonists of Scandinavia—the Finns—the short or brachycephalic form of crania (found in their tumuli) with prominent parietal tubers and broad and flattened occiput. To this race, he conceives, succeeds another with a cranium of a more brightened oval form and prominent and narrow occiput. The third race, which Scandinavian antiquaries incline to regard as that of the bronze or first metallic period, is characterized by a cranium longer than the first and broader than the second, and marked by greater prominence at the sides. The last, Professor Nilsson considers to have been of Celtic origin. To this succeeded the true Scandinavian race, and the first workers of the native iron ore. † The tumuli of these different races are distinguished by their construction, contents, and respective ages.

There were successive immigrations into Scandinavia of Teutonic races, between which occurred the immigration of the Celts, who

* Sinding's "History of Scandinavia".

† See "Primitive Inhabitants of Scandinavia", by Professor Nilsson, of Lund; and "Archæology and Prehistoric Annals of Scotland", by Professor Daniel Wilson,—a mine of archæological facts.

seem to have remained but a short period and thence migrated to South-western Europe. The last great Teutonic immigration occurred before the Christian era. In Prof. Wilson's *Archæology*, chapter 9, "Crania of the Tumuli", he gives several examples of the crania of the Scottish tumuli, which he says correspond very nearly to the brachycephalic crania of the supposed primeval race (colonists) of Scandinavia, described by Prof. Nilsson as short, with prominent parietal tubers and broad and flattened occiput, which, according to Dr. Thurman, a distinguished English archæologist, is the prevailing form of crania found in the most ancient British tumuli.

All standard authorities, I believe, agree that the crania found in the most ancient mounds of Scandinavia, and other regions about the Baltic, are in their general form brachycephalic, or short-headed, from the forehead to the occiput,—not much longer than the diameter from side to side; and that the crania of the surviving Finns of pure blood are of the same formation.

The authenticated crania of the Mississippi valley mound-builders are also of the brachycephalic form, a typical specimen of which is represented in the "Ancient Monuments of the Mississippi Valley". But few, however, of the mound-builders' crania have been preserved from natural decay, a fact which indicates the remote antiquity of their settlement in the Mississippi valley. The small number preserved, and taken from the mounds with other relics, are, I think, sufficient to lead to a discovery and identity of the race, and to a determination of the probable period of their arrival in America. In "Prehistoric Races of North America" Dr. Foster gives a number of examples of crania taken undoubtedly from Indian graves, of two to two and a half feet high, which he represents as those of the mound-builders. Gen. M. F. Force, of Cincinnati, in his able paper on the mound-builders, has sufficiently shown that Dr. Foster's views on this topic are entirely fallacious.

A reasonable solution of the Mississippi-valley mound-builder's problem depends upon a satisfactory ethnic identity of crania and other relics, and upon the construction of mounds and other works, their localities, and the geographical direction of their progressive development. A more critical and thorough investigation of this subject will probably result in the accepted conclusion, that the progenitors of our mound-builders were a colony of Finns that had migrated from Scandinavia and arrived in this country long before the Christian era.