

Fifty years ago the European student stepped over the boundary line of history, left Herodotus and Tacitus and Egypt and Assyria and Greece behind to dig in caves and find traces of a man, who, it is said, hunted the mammoth in France and saw the woolly rhinoceros in England, but let us repeat it that to get behind the record here, so as to use the word pre-historic, we have only to go back three centuries at most. Then we are in the pre-Columbian darkness.

The great question is - who were the thousands of tribes, with several scores or hundreds of different linguistic stocks, more or less red and more or less alike, that Columbus found? Where did they come from? Did they emigrate hither well equipped with primitive arts, or develop them on the spot? And in answer to the question, when a child asks when it points to a grooved stone axe in a museum, and says, "How old is it?" we can hardly more than say that we do not know. But something has been learned in the last five years. After much digging and searching some lights glimmer on the subject in this eastern part of the United States.

If we can account in any way for the Lenni-Lenape, found here in the Delaware valley, something has been done.

THE LENNI-LENAPE

When we sum up all that we know we find that the Lenni-Lenape or Delaware Indian, found in Manhattan by Hudson in 1609, and here by DeVries and by Campenius in 1631 and 1643, were not very different from other Indians. Though one class of students holds that all Indians belong to one parent stock, another contends for different stocks, both leaving out the Eskimo, as a race apart. We know that Penn found the Lenape here, that they had a confederacy of related tribes, that they were cheated out of lands at Wrightstown, and in consequence helped to massacre and torture our ancestors at Wyoming, under the leadership of a ferocious woman called Queen Esther, and we know now that they were related in language to tribes in the far West, like the Sioux. [*Hummm, wonder where he got this brilliant idea? - WT*]

When we gather their relics we soon come to the end of the list. All the wood and skin and basket work and most of the bone is gone. We have a few chipped blades, grooved stone axes and a curious catalogue of fantastic stones used in religious ceremonies. That is all. And there is nothing to differentiate the collection from the general run of "Indian relics" all over the United States.. We are not dealing, therefore, with an isolated or unique race, but only with one Indian family, whose character is about the same as that of all the others, Mound Builders included. [*Hummm, the blinders must have slid totally over his eyes.- WT*]

MOUNDS

The Lenape built three mounds, six to eight feet high, at Durham, which William Walters ploughed down in 1853-1855. I opened one and saw remains of about 50, not much larger than Christian graves along Saucon creek. There is a row of little ones on Rattlesnake hill, at Durham. One had been described to me near Mahanoy, another near West Chester, and if the so-called "Giant's Grave" in Solebury is not a loam-covered rock, it may be of Lenape make. Without it, however, we now know that they could build mounds like the Ohio tribes, though they very rarely did it.

GRAVES

The first immigrants said that the Lenape buried their dead in the ground, and in the last three years Mr. Ernest Volk has found many such burials at Trenton. Though I have found none I hear of others near Atlantic City and in the white sands at Taylorsville, at Durham, below the Delaware Water Gap and at Minisink. There is a graveyard near Doylestown, according to a writer in "Hazard's Register."

The chief Tamanend it seems was buried on Prospect Hill about 1750. Had the Indians made mounds or marks at their graves, we should find them easier. Had the holes been shallow we should plough up more skeletons. Therefore we are left to suppose either that they buried below plough-depths, that the bones have all decayed, which could hardly be true in all of our soils, or that they cremated the bodies or the bones after drying off the flesh, like the Nanticokes on the east shore of Maryland.

Charles Laubach showed me stones standing at Gallows Hill, near Durham, supposed by him to mark the site of an ancient crematory, and he and I found curious paved areas, suggesting ovens, at Glen Gardner, New Jersey; near Erwinna; on the Hexankopf; and at the Turk dam. There were traces of decomposed animal matter at some of these places, but no human bones; and if corpses or skeletons had been burnt there, where were the teeth? We found charcoal in the chinks between the stones, yet that means little when we realize that underbrush has been burnt and woods fired all over the country, so that you can dig up bits of charcoal in almost any field or grove.

IMPLEMENTS

Arrow-heads ought not to be worth five cents apiece. They are a drug in the market. Together with the other stone tools they have been figured and discussed over and over again. Dr. C. C. Abbott describes the whole range of Lenape stone work in his "Primitive Industry," but other things have been found since the book was written, and I have summed up elsewhere every published account of eye witnesses of the manufacture of chipped blades, showing how the Indian made them, in five ways: (a) by flaking by direct percussion with stone hammers; (b) by indirect percussion, or hammering on punches; (c) by direct pressure with a pointed bone; (d) by impulsive pressure or pressure aided by a blow, and (e), by pressure aided by heat.

There are a few grooved stone axes in Australia and you find grooved hammers in Spain and Italy, but no one has picked up a grooved-axe in Europe. They are scattered all over North and South America, and I saw them in Madrid from Uruguay and the Argentine. About three years ago Mr. Maguire, of Washington, showed that you can easily make one with one of the familiar pitted pebbles - common at Indian village sites - held fast between the thumb and second finger, so as to strike about 100 blows to the minute.

Chipping, polishing and drilling holes with hollow reeds and wet sand cover most of the stone work, and made all the hoes, scrapers, drills, flake knives, teshoas, pestles, mortars, hammerstones, banner-stones and gorgets in every boy's collection, but as we are not trying to exhaust the subject, we will speak of things less known.

SHELL HEAPS

Mounds of oyster and clam shells, mixed with charcoal, rise from the low salt swamps by the sea along the New Jersey coast. Some standing in the water look old, and as if the land must have sunk since they were formed. Theory supposes them to be of great antiquity and made by a race of people who disappeared before the Indian came. Savages eating molluscs at one spot produce such heaps, which I have examined in Maine and Maryland, but not in New Jersey.

Now we know through the ancestors of S. P. Preston, of Lumberville, that the Lenape remnant, in the last century, walked from Bucks county to the Atlantic coast at certain seasons to eat clams and so form shell heaps near New Brunswick. These heaps would grow quickly and whether the Indians and their ancestors made all the deposits along the coast is not certain. If they did we are done with the mystery of the New Jersey shell heaps, and the notion of their immense antiquity.

BLADE MATERIAL

Like all other American Indians, the Lenape were found in the stone age. They could not melt metals. When they used copper they hammered it cold. As in our iron so was their stone, a thing more important to them in the scale of need than railroads, electricity, steamboats, gunpowder or perhaps even printing are to us. For long periods in man's unknown past the crafts of making stone tools outrivalled everything else. Most of the tools were chipped and because not every stone would chip, those that did were hunted and valued.

The Lenape, and all his red kinsfolk, prized the flakable, pointed, smooth-grained jasper. With pointed poles, stone spades, and by means of heat they dug hundreds of holes into a vein of it, which Mr. Berlin, Mr. Laubach and myself discovered three years ago running along the Lehigh hills, from Durham to Reading.

It is worth a half day's (*horseback*) drive from here, or a less journey on a bicycle, to see these pits, some forty feet deep originally, at Vera Cruz and Macungie near Allentown - a sight nearly as astonishing as that of the famous mounds at Newark or Marietta. I have tried to beg men of means in Philadelphia to buy the field that encloses one of these marvels at Vera Cruz before the plough touches it and it is lost, and I have begged lovers of nature to go and see it, but unfortunately in vain.

The Lenape could not have been in this region a week before they began to hunt workable stone. Almost as important as jasper and probably discovered by them in this region before it, was the meta-morphosed slate called argillite. To get it, I discovered in 1892 that they had cut a dozen or more trenches along the hillside at Gaddis' run at Point Pleasant, and worked upon a solid cliff on the Neshaminy.

This new information is not contained in any history. Five years ago no student had thought of aboriginal blade quarries, and the boys who collect arrowheads do not yet know where to look for them. Nevertheless these strange stony pits throw a flood of light upon the past. They show that the Lenape, like all the other Indian, were geologists, and in the shade of the old forest had probably scrutinized the rocks in the Delaware valley as rocks have been

scrutinized by Indians over every acre of ground between Maine and Mississippi.

Be not surprised, therefore, to learn that the Red Man had seen coal, though he did not use it, and could find galena ore and hematite before the white man came. After white blacksmiths had shown the Lenape the use of anthracite coal the latter may have dug some lumps for Peter Keller, at a secret mine somewhere along Tohickon creek, as the story goes.

But, notwithstanding the traditions current in Bucks county, up the Delaware and down the Susquehanna, I do not believe the legend of their coming out of the wood with armfuls of pure lead for bullet-making. Lead, save in the minute films, sometimes picked up in Wisconsin, is not found pure, and galena ore is a very different thing and will not do for bullets until it is smelted, at a temperature of about 1,200 Centigrade.

Any Indian tool made of a stone not indigenous had to be carried from a distance. A farmer near West Chester showed me an arrowhead of volcanic glass or obsidian found in his field, and if his story was true and there was no trick, the Lenape must have got it from Mexico or the Yellowstone Park.

They picked up quartzite at many places on the surface of the seaboard country and mined rhyolite on the southern Susquehanna. I discovered an ancient chert digging in Snyder county, Pennsylvania, and soon found that the Indians had continually used rolled stones on the river beaches, just as I saw there they had chipped jasper pebbles into arrowheads on the Chesapeake shore. Then it was easy to believe as I walked up and down these strands that by following up the desirable pebbles to the parent rock, from which the stream had born and borne them, the inland mines above mentioned were discovered by Indians at a time when the whole country was obscured by forest.

Going up the Delaware stream argillite pebbles cease about Frenchtown, and if you follow them as a dog would a trail, you can walk straight from Bristol to the Indian mine on Gaddis' run. Black chert runs far up the river, and any boy who collects arrowheads can on his holiday help science by tracing northward for these pebbles as far as they will lead him. Somewhere near the Gap of the Delaware or Lehigh, some creek black with them will give him the clue, and he will find the quarry where most of the black arrowheads were worked out of the solid rock.

Perhaps I had better not rouse any boy's curiosity with speculations about soapstone and mica, hematite, lead and precious stones. Let him remember that no one knows much as yet, and that the most wonderful secrets of the old forest lie still buried in the ground, waiting for him or me or anyone who knows how to search.

MAIZE

As far as we now know (*Zea-mais*) maize, as the Arawakas of South America call it - Indian corn - was one of the greatest surprises of the New World. The Spanish discoverers of the 16th century had never seen or heard of it when they found the Indians growing and eating it all over America. There is a story that Rifaud, a Frenchman, found maize in an Egyptian tomb, and it might be true if Dr. Le Plonglon's idea is correct that the Egyptians came from maize-growing

Yucatan; but Candolle, the great Italian botanist, thinks that Rifaud was tricked by an Arab. Soon after the Spaniards took maize to Spain it was growing near Seville in 1524. Then it reached Italy, where the Natives make their polenta mush of it., and to Turkey, Egypt, Hungary, France and Austria. It does not thrive in cloudy England, but Stanley found it in the Congo forest.

In Europe and the Orient not one of the strange names given it refers to America, and few realize that the widespread grain, like the turkey, the potato and the tobacco pipe came from America. What a lavish, noble, poetic plant it is! A little genius or a touch of originality at the World's Fair, at Chicago, would have ordered a whole building to be devoted to the strange history of this beautiful gift of the Red Man to the world.

The Central Americans live on it almost entirely. Every stone pestle and mortar found in the Delaware valley proves no less surely that the Lenape grew it than does their word pone, borrowed into English and meaning corn bread, such as you get in Virginia. There the negroes learned how to make their hoe-and-ash-cakes from Indians, whom they had seen pounding dry or parched grains on stone and cooking the meal and water cakes in the hot embers of open fires.

If you let corn run wild here it will die out, because the grains freeze in winter and therefore Prof. Harschberger, of the University of Pennsylvania, thinks that it came as a wild plant from Mexico, where it might reproduce itself without help. Whatever was done to husband the plant for food up to 1500 the Indians did. The ancient cobs from Peruvian tombs are small, like those from Ohio mounds, and show how cultivation has helped the plant. The Zunis have outdone all other gardeners by producing at least five beautiful colored varieties - yellow, blue, white, red and black - which they make into sacred breads and use in ceremonies, as when they scatter meal on rattlesnakes in the horrible snake dance.

If we could go out into the Mexican wilderness and find the wild plant we should know better what changes cultivation has made, but notwithstanding reports and experiments we are not yet certain that the maize brought by Professor Duges from Mexico in 1888 and planted in Cambridge, Massachusetts, and Philadelphia, which Lumholtz told me he found on the Mexican plateau two years ago, is the true original of the great grain.

The Lenape stored corn in three or four still visible pits near Dyerstown and again, according to W. J. Buck, at a place on the Pennypack. De Soto says that he walked through Indian maize fields three leagues long. La Salle appropriated a lot of maize from an underground cache in an old Illinois village, and our armies destroyed great quantities of stored maize when ravaging Indian towns in the northeast.

To maize we do doubt owe the existence of another series of curious landmarks in Bucks County, as yet unvisited, unmentioned and unheard of. These are the mysterious clearings in original tracts of woodland known as "Indian fields." It is probable that the Lenape, by charring the trunks of blazed and dry trees, and then cutting them down with stone axes, made the old clearings of about seven acres once conspicuous on the river bank above Durham cave. I understand that there is one of these fields very near us on the slope of this mountain.

I saw another on Jericho hill, and one near Mozart. Mr. Laubach has found one on

Buckwampum, and a few individuals at Jamison's Corner have been seen or heard of the ancient opening in the woods on Fish run, hardly half a mile from the toll gate.

We might think that the Lenape had had villages at these spots, but if so more relics would be found. I can find none in the open heath of Buckman & Watson's woodland, west of Wrightstown, one of the most remarkable places in Bucks county. Therefore I cannot agree with the late Josiah B. Smith, of Newtown, who thought it the site of an Indian town, corruptly called Playwicky, in Penn's deed of 1682.

INDIAN VILLAGE SITES

If the Camera Club would take a suggestion, might it not be well to search for the topographical features described in this deed, now hanging in the fire-proof room of the Historical Society of Philadelphia. The parchment is the very beginning of history in Bucks county, and speaks of landmarks that refer back into an unknown time.

A mountain; a place called Mackkeerikitton; a stream called Towsissink; a corner spruce marked with the letter P; a white-oak with another P, by a spring; and a path close by leading to an Indian town called Playwicky. These places marked the upper boundary of the first part of Bucks county that the Indians yielded to the white man. Hence the line from which Marshall and the walkers of 1737 started or ought to have started. Between Wrightstown meeting-house and the Delaware these landmarks existed or still exist. There is a whole lore upon the subject, and strange to say some chance of still finding the white oak with the letter P even yet under its bark, a notable tree in 1682. Could the American Forestry Congress hold a meeting at any more interesting spot?

John Watson, surveyor of Bucks county in 1756, and the late Josiah B. Smith, of Newtown, were the only two persons who, to my knowledge, became fascinated with the puzzle of these lost landmarks. Would that the Camera Club and all who love to turn their backs upon a desk might catch their enthusiasm.

As to Playwicky, a manuscript footnote of John Watson, which Mr. Smith never saw, says that it was near Philip Draket's, below Heaton's mill; in other words, somewhere along Mill creek, in Southampton or Northampton township, below Rocksville, but I looked in vain for the signs of a village where they should have been in that region, and concluded that the hearths and relics of Playwicky lie buried under the leaves of some woodland not yet cleared, or that I have carried away baskets full of chipped stones from the real site without knowing its name.

A map of the lower valley region with the recently discovered village sites marked on it would show that they follow the streams. That they lie often at the mouth of a confluent, on the south-facing slopes, warm in the winter and that there is little use looking for them anywhere else. The larger the stream the larger the village, while the sites at springs are the smallest of all, from which we infer that the village builders entered the country by its streams, reaching last the headwaters or springs. When important trails had been worn through the forest, villages may have sprung up with reference to them, but until that time the stream - itself a natural highway and hunting trail - occasioned the village.

I would divide, therefore, habitation sites in this region into three classes:

- (1) camp sites at springs or on trails, smallest and most modern;
- (2) villages on the larger tributaries of the Delaware, older and larger;
- (3) town on the Delaware proper, oldest and largest of all.

One out of every five farms in the county ought to show a site of the first-class, like that on the old Hansell farm, near Mechanicsville, or that close to Dyerstown, or that on the Montanye farm at Johnsville. The largest village, from which Dr. Michener, of Colmar, must have gathered a bushel of relics, belongs to the second category.

So does that at Dark Hollow, or the other at Graeme Park on the Little Neshaminy, while the last class of forgotten villages runs along the whole Delaware Valley from Trenton to the Lehigh, as for instance at Lower Black's Eddy, Taylorsville, Hall's Island and Gallows Run.

When we have hunted over these sites we have reached the end of our collection of arrowheads and confront a much larger subject. All these remains of one kind and class might be the handiwork of the Lenape. In Europe you would have found on one hand the ruins of a city with coins and iron; on the other the floor of a cave bedded with chipped stone tools, and nearby possibly barrows, cromlecs or dolmens, marking the graves of people who used bronze. Here there is no such variety and distinction.

Everything on the surface repeats itself over and over again and we might be half inclined to refer it all to the Lenape. But was there no man here before William Penn's Indian? A Lenape told the Rev. Charles Beatty, in 1767 that his people had come to the Delaware, according to a bead tally, in 1397. The pointed stick chronicle of the Delaware, preserved by them for centuries and rescued from destruction by Rafinesque and Dr. Brinton, gives about the same date as does a native tradition of the same kind collected by Heckewelder, all of which means that the Lenape only came here when Richard II was ruling in England, but these accounts say that "the pioneer Indians found the country deserted," and this is very important. *[Hummm, I have often wondered where these "painted sticks" disappeared to from the early 1800's that Rafinesque was given, when so much from the same time period has been preserved...perhaps they are on another "plane" with the "golden tablets" that the Angel gave to Joseph Smith. - WT]*

Had no man been here before? Shall we do back over geological epochs until there is no use looking further to find this region (and with it we must infer the whole middle Atlantic coast) untrodden by human foot? There is no way of answering the question without the help of legends. If man was here he left his trace; somewhere he built a fire; somewhere dropped a chip of stone or fragment of bone to tell the tale. And at this point digging has professed to startle us with a new discovery. *[Note: since this article was written, Dr. Kraft has move the time line back further than the time of William Penn, and a rock shelter on the Unami Creek revealed artifacts that date back 9-10,000 years further. - WT]*

THE MAN OF THE TRENTON GRAVELS

It is hard to dig trenches deep enough for the student, and he is lucky when others dig them for him. The Pennsylvania railroad cut an immense pit into a gravel bank behind the city of Trenton, the very sight of which might inspire any one with a love of geology. It is evident that the gravel was washed there, for you can get into the pit and see the same kind of stratified bands that water is seen to make in gutter-sand when you slice it and look at the section. But what kind of a freshet? A freshet that overtopped the State-house at Trenton and foamed against the Point Pleasant hill tops; a roaring deluge filling the whole valley with sand and stones, and caused by one of the wonderful phenomena of the world's history. Geologists say it came from the melting of the great glacier, that continental crust of ice that crossed the valley like a high wall at Belvidere (*Warren County, New Jersey*), ran westward to the Rocky mountains and northward to the Pole. Whatever was originally in this sand, therefore, was as old as the freshet, and when Dr. C. C. Abbott said that he found chipped-tools of stone manufactured by man and since called "turtle-backs," bedded between the layers of gravel in this pit, it surprised the scientific world.

Other students have gone to Trenton again and again and have failed to find a turtle-back in place, and for the last two or three years a fierce dispute has raged between those who assert and those who deny that Dr. Abbott was mistaken. These turtle-backs resemble in shape very ancient chipped-stones found in Europe, and that fact was first recognized when Dr. Abbot found them in 1885; at that time, strange to say, nobody knew that the Lenape and all other modern Indians had continually produced the same kind of chipped-stones.

The new knowledge came from the study of the blade quarries on Gaddis-run, near Point Pleasant, where the Indian had mined masses of native rock, and when chipping it into blades had continually produced "wasters" or failures, half-blocked out pieces that would not thin down. Thousands of these lay scattered about the Gaddis-run mines, made probably in the fifteenth or sixteenth century, rather than ten or twelve thousand years ago. As we soon found that turtle-backs could be picked up at all the village-sites on the Delaware, there was no reason why they could not have been found at the village-site now occupied by Trenton and originally overlying the top of the gravel pit where the first turtle-backs were found.

For these reasons the opponents of Dr. Abbot said that his specimens were not found in place in the gravel, but had slipped down the banks from the Indian layer above; that they were not finished tools of the ancient ice-men, but half-finished castaways of the modern Lenni Lenape. To continually fail to find turtle-backs is negative evidence, yet it grows stronger. Nevertheless, whoever goes to Trenton and pulls another specimen out of the freshly cut bank where there is no down-sliding, will settle the question, but he cannot have too many witnesses.

THE AGE OF RIVER DEPOSITS

Though no more turtle-backs seem to be discovered in the Trenton pits, there are other ways of getting at the truth. If a savage, little better than an ape, sat on the cold river beaches chipping turtle-backs 12,000 years ago, we ought to find his traces somewhere else. [*Wow, love this white mentality of that age "little better than an ape". Sorry, just could not keep my mouth shut - WT*]

There is a sand bank high above the canal at the mouth of Fry's run in Northampton county that by position looks at first sight as old as the Trenton bank, but when Mr. Laubach had shown me chips, charcoal and hammerstones buried deep in it, we learned from Mr. Salisbury, of the New Jersey survey, that it was modern after all. High as it is, the true glacial washings were seen much higher. The river bending sharply there might have overwhelmed the bank, just as when the so-called "punkin" freshet that filled the canal with sand and washed away Whip-poor-will Island, nearby, lapped the bottom of it. The chips, therefore, might have been made by Lenape Indians.

You can find fire sites upon the old surface about two feet below the present bank top on Marshall's Island, and I discovered after digging a deep trench, that there was a lower village layer below the well known surface village at Lower Black's Eddy. But these levels are entirely at the mercy of freshets that build and unbuild banks, and that fact destroys their value as tests of age.

This underplaced village-site at Lower Black's Eddy is the oldest human trace that I have been able to find in the Delaware valley and if I give up the Trenton gravel specimens it is all I have left. Who inhabited it? Was its denizen a predecessor of the Indian, was he the Trenton gravel man himself, or was he only the first Lenape immigrant?

To these questions I can say that no extinct animal bones were found to give a date to the lower hearths. The lower village man made pottery, which the ice men were supposed not to be able to do. He used more argillite than jasper. His arrows and spears were very narrow and long; but that does not seem evidence enough to me to prove, as has been urged, that he was an Eskimo. Until other evidence is in, the reasonable supposition seems that he was the first coming Lenape pioneer in the 15th century.

CAVES

Early man is supposed to have visited habitable caves when he saw them. If so, a cave is a place where you can gather at one spot and with least trouble find traces of every people that inhabited its neighborhood in the past. Visiting it, ancient man left refuse layers on its floor, and you can cut through these culture bands to find, by necessity, the latest on top and the oldest on the bottom.

The late Hillborn T. Cresson said he found a cave on Naaman's creek, containing a series of layers that began with the Indian and went back to the Trenton man, but I have as yet found no such cave anywhere in the eastern United States or Central America. The Indian house, a rock shelter on Tohickon creek, contained only a film of Lenape refuse no older than that seen at any village site.

The cave on the Neshaminy, near Worthington's mill, is a mere chink unfit for habitation like the Doan's cave near Cassidy's rocks on the Tohickon, or the shelter near the Wildonger farm in Tinicum.

Mr. Paret dug bone needles, an argillite blade and the bones of a peccary, bison and giant beaver from Hartman's cave, near Stroudsburg, but was not certain that they were associated

together in the same layer.

The great room at Durham cave, close to the river and easy of access, must needs have contained the whole truth; but to the despair of the students, the Durham Iron Company blasted down its roof and if they did not destroy its floor, covered it with tons of rubbish. I found a bone of the extinct peccary in one of its ceiling crannies, called "Queen Esther's Chamber," but there was no human hearth to associate with it.

On the Schuylkill, the Port Kennedy cave, at which I have worked nearly two months, the most remarkable exposure of sloth, horse, mastodon, peccary and tapir bones in eastern North America would settle the question of human antiquity in the East if contained man, but thus far I have found no trace of his presence there, and much hunting at other places and from many points of view repeats the inference that in Eastern America man's remains are modern when compared with the relics of Europe, and that before the Indian there was no human habitant.

THE LENAPE STONE

The age test of extinct animal bones does not help as much as we might think when we reflect that the word extinct means "not observed by white men for the last 300 years," but in Europe the name like the word "prehistoric," carries us back two millenniums at once. Nevertheless Port Kennedy and other such deposits will help science to learn which of these older animals survived longest and fixed relative dates. Meanwhile we are not sure that a few mammoths, whose bones were found undecomposed on the surface at Big Bone Licks in Kentucky in the last century, did not straggle along into comparatively recent times.

This would be the true meaning of the Lenape Stone which has not yet had its proper hearing before science. Bernard Hansell found, after an interval of nine years, two fragments of a gorget with a picture scratched upon it in Indian style, representing sun, moon, stars and lightning and men fighting the hairy mammoth.

When Colonel Paxson, its present owner, and Captain Bailey presented it to archaeologists and I tried to give the evidence in a pamphlet, objections were urged against it which have succeeded in ruling it out as a record. The chief of these, the one that seems to have prevented further examination, was that urged by Dr. Daniel G. Brinton, who said that the outlines represented a group and that Lenape Indians could not draw groups. That its notion of the brute, human and Divine types placed side by side was above Indian conception; that the lightning was suspicious and the sun with divergent rays doubtful; that the stone lacked the patina of age; that the lines were steel-cut and that a clever fabricator would have used aboriginal tools; to which I answered that we have no adequate library of Lenape pictographs with which to compare this stone, or by which to gauge the Eastern Indians' power of drawing groups, as the modern Sioux draws groups on buffalo robes, fix a limit to his aesthetic conceptions, or make up our minds about lightning and suns with rays.

The patina was gone because Colonel Paxson and I unwittingly washed and scrubbed it off; I cannot believe in the power of discriminating steel-cut lines from lines made from beaver-teeth or arrow-heads in this case. Under the circumstances it is beyond me.

Mr. Wadsworth, lithologist at Cambridge, Massachusetts, agreed with Dr. Brinton about the steel-cut look of the lines, but Mr. Iddings, of the U. S. Coast Survey, said that he did not know whether such discrimination were possible after scrubbing. I agree with him and go perhaps a little farther. After experiments with aboriginal scratching tools, blunt awls and scissors and scrubbing brush and similar pieces of slate, I came to the conclusion that it would be unreasonable to assert that the Lenape stone lines were steel cut.

The mammoth outline has been said to resemble an etching of the same animal found in one of the French caves and published in "Dana's Handbook of Geology," but I do not see the likeness. The stone is unique, and aboriginal drawings of any kind are exceedingly rare. This is against the specimen, though not a final objection. A band of Lenape at the Big-Bone Licks, in Kentucky, when asked the meaning of the mammoth bones lying there, told the Governor of Virginia their legend of a great devastating animal destroyed by lightning. The specimen is too interesting not to compel us to have a theory about it if we believe in its authenticity.

If the Indians did not make the stone, why the lightning? What conceivable connection has lightning with a mammoth in the mind of any possible white fabricator unless he knew this legend, whose relation to the stone, I believe, I was the first to discover? Other evidence has come in for the Lenape stone, and Dr. Brinton's case should not be regarded as complete until he has examined and given an opinion on the three other carved stones found on the Hansell farm.. Are they forgeries, too?

They have not been scrubbed and are ready for the microscope. Will anybody shrug his shoulders and say that Dr. Brinton has settled the question until they are accounted for? Ten years have passed. I have watched and hunted for suspicions in vain, welcoming all criticism and taking all contradiction as a matter of course. To me the stone seems too important to let individual feelings intrude between it and the light. There is no libel in the case; but only the pros and cons that beset the truth.

Provided you are hunting it, consider them all.. Use any words you please, forgery included. No one need look unutterable things. The cool scientific frame of mind let us hold fast upon, as the only frame of mind that prevails here. I was convinced beyond a reasonable doubt ten years ago. And after weighing everything that could be weighed and doubting everything that could be doubted I cannot find the evidence to change my opinion.

- e n d -