

SCIENCE

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BURIAL CUSTOMS OF THE HURONS.¹

THE region to which I desire to carry my audience is one full of historic interest, made doubly so from the fact that Parkman has so frequently referred to this part of North America in his valuable writings, and also from the fact that the early Jesuits first commenced their missionary labors in this district. No matter how one may view or in what light one may regard the work which the Jesuits had undertaken in Christianizing the aborigines, we cannot but admire their great zeal, endurance, and indomitable courage; and students in quest of knowledge concerning the traits of the Indians are deeply indebted to these missionaries for their keen observations and copious notes, which gave us such an insight into the aboriginal manners and customs. The Huron Indians inhabited what is now known as the County of Simcoe, in the Province of Ontario, Canada, situated between two large bodies of water: on the north lies the Georgian Bay, with its 30,000 islands, and on the south the clear crystal waters of Lake Simcoe. The locality was in every way an ideal one for an aboriginal site. The country was well wooded, game was plentiful, large and small lakes abounded, which not only gave a plentiful supply of pure water, but were also full of fish, while small streams flowed in various directions. With such favorable surroundings it is not surprising that the Hurons had remained in the same locality for centuries, and had it not been for their implacable foes, the Iroquois, they might possibly be there yet. But in 1649 their dreaded enemy descended upon them and slaughtered Indian and Jesuit alike, and the few who escaped sought refuge in the islands of Georgian Bay, from whence shortly afterwards they removed to Lorette, near Quebec, where the remnants of that once great tribe can be now found and are known by the name of Wyandots. The County of Simcoe has proved a most prolific field for the archaeologist to work in, and for fifteen years I have devoted much time to the examination of earthworks and to the collecting of relics. I have secured some four thousand objects in stone, shell, bone, pottery, and copper. Many of the specimens deserve to be ranked amongst the finest of the so-called Neolithic period. As reports of the various forts and earthworks which I have surveyed have appeared frequently in public print, I shall not now refer to them; I desire simply to make a few remarks on the burial customs of the Hurons.

Their places of sepulture are of three kinds, — the ossuaries (or depositories of human bones), single graves, and mounds. The ossuaries contain the remains of from a few to several thousand bodies, and it is principally in these that specimens are found. I might say that I opened one of these large pits in South Orillia township and dug through human bones nearly ten feet deep. In order to account for the interment in such large numbers in one spot, it is necessary to explain the custom which resulted in such a practice.

¹ Notes of a paper read before the American Association for the Advancement of Science, at Washington, by Charles A. Hirschfelder, U. S. Vice Consul, Toronto, Canada.

The "Feast of the Dead" was one of the Indians' most solemn and religious rites; when an Indian died, it was the custom from time to time to erect a rough stage, place the body on top, and every eight or ten years collect the remains so placed, scrape the flesh from the recent dead, and bury them in one large hole. The functionaries on whom the duty of scraping devolved were denominated "bone-pickers." As the bodies were cast in promiscuously, it is very difficult to find perfect crania among the bones so deposited. From thirty of these ossuaries I have only succeeded in securing about forty perfect ones. One skull was particularly interesting from the fact that it had been broken through in three separate places, and yet the Indian had lived for years, apparently, as the wounds were completely healed. When one has seen an ossuary it is easy to recognize them whenever one may find them, owing to the circular depression of the surface, which is traceable to the decay of the bones. One singular circumstance in connection with these ossuaries is worthy of mention, and it is that they either contain many relics or are entirely devoid of them.

With regard to the single graves, of which I have opened some 350, I do not suppose there were more than fifty which contained anything but human bones. In certain cases the bodies were in a sitting posture, but usually they were not placed in any particular position. The sepulchral mounds in the United States are usually very large, but the Huron mounds are only three to four feet high and about sixty feet in circumference, and of no regular shape. These contain from six to twelve bodies, placed some two feet apart; differences in the shape of the crania are observable in many of these sepulchral places. This might be accounted for by the practice of attaching prisoners of war to the several tribes, and also by that of occasionally uniting the remains of a shattered tribe with a tribe that had conquered. There is certainly a difference in crania which have been found in the same locality, so that if we were to find the brachycephalic and the dolichocephalic types under the same mound we should in this way be able to account for such an occurrence. Besides, intermarriage among members of the same clan was forbidden by some tribes, so that if a member of the Turtle Clan aspired to the paternity of a Romulus or Remus it behooved him to seek the affections of a lady from some other clan than his own. In a pamphlet sent me by its author, Mr. Lucien Carr of the Peabody Museum, Boston, Mr. Carr gives the mean measurement of sixty-seven crania taken from stone graves in Tennessee: he found five dolichocephalic, eighteen orthocephalic, twenty-nine brachycephalic, and fifteen much flattened. Mr. Carr observes that the measurement of the above mentioned crania (exclusively of the flattened heads) indicates that they belong to the two extremes of classification. The measurements of Mr. Carr correspond with my own experience, for I have observed a considerable diversity in the crania of the ossuaries, mounds, and single graves. The dolichocephalic type is characteristic of the eastern tribes. Crania which have undergone compression when young have a conformation which is as manifest internally as it is by the exterior. It is by many believed that the burial of articles with the dead was a religious act, but

my own observations do not lead me to think that it was necessarily so. We know that the Indians lived strictly up to their belief, and if it had been an act of religion to thus bury articles, I maintain that in each and every grave some articles would be found. But, as I have pointed out, the single graves do not, in many cases, contain anything; and where the large ossuaries have been carefully examined, some of them have not contained a pipe or bead, while a single ossuary in close proximity might contain a thousand articles. Now, my theory is this, if one of these "feasts of the dead" should occur during a propitious season, many articles could be spared, but if a famine stared the Indians in the face, which frequently happened, they would be too poor to spare articles, and it appears to me that the act of burial was not one of religion but an act of respect.

The valuable paper by Mr. Wilson on jade articles, and the theory advanced by Professor Putnam that possibly the jade for making these objects came from China, is one worthy of close investigation, but must at present be referred to with much caution. That the aborigines traded over a vast extent of country is evidenced by the fact that we find southern shells, *pyrula perversa* and other such species, in our most northern graves, while in the South copper implements are found which show by their laminated structure that they are of aboriginal workmanship, and the material is identified as coming from Lake Superior from the large amount of silver it contains.

SPONGE TRADE OF THE BAHAMAS.

A RECENT report by United States Consul McLain of Nassau contains much interesting information about the sponge trade of the Bahama Islands. The vessels used in the sponge trade in those islands are small craft, varying in size from five to twenty-five tons burden, and are either schooner or sloop rigged. They are all built in local shipyards, and their construction and repairs constitute an important business in itself. The frames are generally made of Madeira wood, a hard, tough wood of native growth, the planking and other material being of yellow pine imported from the Southern States. Each vessel carries two or three small open row or scull boats, with a crew of from eight to twelve men. These vessels have an average life of from sixteen to twenty years, undergoing, of course, occasional repairs. It is thought that there are from four hundred and fifty to five hundred of these vessels.

The number of persons engaged in the business of gathering sponges in the Bahamas, handling them, and preparing them in various stages for market, is from five to six thousand, all of whom, except the shipowners, brokers, and shippers, are colored people. Hands employed in clipping, washing, packing, and preparing finally for shipment abroad, get from fifty to seventy five cents per day of ten hours. The amount earned by the men who go fishing for sponges cannot be given, as their pay depends entirely on the number of sponges obtained. The owner of the vessel fits her out at his own expense, and the profits of the voyage are divided up in shares among the owner, the master, and the men. They are never hired by the month, nor do they ever get specified wages. The most that can be said is that the men make a tolerable living, and the sponge fisherman who earns over three hundred dollars a year is the exception. The owners of the vessels, as a rule, have their own shops, from which the vessels are fitted out, and on supplies thus furnished the owner makes a profit in addition to others. The shipowners, generally speaking, find considerable profit in the business, whilst the fishermen, if not able to lay up any money from the pursuit, are yet enabled to rely upon it for a moderate living.

The method of gathering sponges is by means of iron hooks attached to long poles. By using a water-glass the fisherman can readily discover the sponges at the bottom, and then with his pole and hook he will bring up those he may select as fit for his purpose, leaving the smaller ones untouched. Some sponges adhere

firmly to the bed of the sea, while others are not attached at all, these latter being known as "rollers." About ten years ago an attempt was made to introduce dredges; but it was found that their use was likely to ruin the beds, because in passing over the bottom they dislodged and brought up not only the good sponges, but the young and unsalable ones as well, killing the spawn and working great mischief. The ordinary fishermen also made an outcry, declaring that the use of dredges interfered with their rights. An act was passed by the legislature forbidding the use of dredges, and only the pole and hook are now used.

When the sponge-field is reached the vessel anchors, and the men, putting off in the small open boats, do the fishing in the manner above indicated, returning to the vessel before nightfall with their catch. The sponges, when brought to the vessel, are at once spread upon the deck, and are left exposed to the sun for several days, during which time the animal matter that covers the sponge gradually dies. This is a black, gelatinous substance of a very low order of marine life, which during the process of decay emits a most objectionable odor. The vessels visit what is called the "kraal" once a week to land the load from the deck. The kraal is an inclosed pen, fenced in by sticks of wood so as to allow a free circulation of water through it, usually built in a sheltered and shallow bay or cove, on one of the cays near by. The sponges are placed in the kraal and left to be soaked and washed by the action of the water from four to six days, when they are taken out and beaten with sticks until the decayed covering is entirely removed. Having been subjected to this course of exposure, soaking, beating, and washing, the sponges are quite clean, and are taken on board the vessel, packed away in the hold, conveyed to Nassau, and in this condition are sold in the local market.

The average catch per trip cannot be stated, as the cargoes vary greatly in size and value. Of the larger sponges a catch of five thousand, or of the smaller ones seven thousand five hundred, would be considered a fair lot. Occasionally a cargo of from twelve to fifteen thousand large sponges has been brought in, but this success is exceptional. The vessels are provisioned and fitted out, as a rule, for a voyage of about six weeks, and generally from seven to eight voyages are made per annum.

There cannot be said to be any season for sponge-gathering, as it goes on all through the year. A number of vessels are often laid up, however, during August and September, the men being timid and afraid of hurricanes during that period. Of course the quieter the weather and smoother the sea, the better the chances are for making a good catch, as nearly all the work is done in small open boats from ten to twelve feet in length. Much also depends upon the energy and the industry of the crew, and there is luck in finding a locality where the sponges are valuable and abundant.

As to the length of time required for sponges to grow to good marketable size little definite can be said; none of the fishermen are able to tell, though many volunteer opinions that differ widely. It is a matter to be determined by future scientific investigation, but it is believed it will be found that a healthy sponge will reach a marketable size in from twelve to eighteen months under ordinary conditions of growth. No attempts have been made, worthy of mention, to cultivate the sponge in these waters.

The sponges are prepared for export in the following manner. After being bought in the local market they are carted to the shipping yard of the purchaser, where they are cut and trimmed into proper shapes and sizes; they are then washed and thoroughly dried, being generally spread in the sun for that purpose upon canvas or old sails; next they are assorted according to varieties and grades, and then packed by means of hand presses into bales weighing from twenty to a hundred and fifty pounds. Sometimes the sponges are bleached by being passed through a solution of white lime and water, so weak as not to injure the fibre of the sponge. The consul does not know of any process resorted to for coloring the sponges, and few, indeed, are even bleached at present.

When offered for sale in the local market, the sponges are either piled up loose or made into strands or beads of from two to ten sponges each. The best sponges are usually made into strings of from eight to ten sponges each, the price averaging about sixty