

Archaeology :

Indians lived here 5,000 years ago

Archaeological research in the Bonavista Bay area, Newfoundland, has unearthed evidence of Indian settlements dating back 5,000 years. Work has been under-way for three years and Paul Carignon, curator of the Newfoundland Museum, says that hundreds of artefacts have been discovered near Terra Nova National Park, on the northeast coast of Newfoundland.

Research has uncovered evidence of three groups of Indian inhabitants in the area. The earliest are called the Maritime Archaic, because they lived mainly on coastal food sources. They were the first known people to inhabit Newfoundland and groups appear to have migrated into Bonavista Bay by 3,000 B.C.

These Indians are best known for their large cemeteries in the Bonavista Bay area, each cemetery containing large numbers of graves with accompanying grave offerings. The recovered artefacts are all made of stone because the bone and wooden tools used by these Indians did not last in the ground.

Mr. Carrington said they had found spears and knives made of chipped stone, which were used for hunting and butchering seals, whales and other sea mammals. "The knives were of various shapes and undoubtedly some were hafted into bone and wood handles, much like today's steel knives." Ground stone axes attest to

various woodworking activities, including frames for tent structures, firewood and perhaps dugout canoes and carvings. While no cooking or storage vessels were found, this could be because these were made of perishable materials.

Charcoal from cooking fires has been chemically analysed by the radiocarbon method and so far the earliest date obtained is 2,950 B.C. — although Mr. Carignon expects to obtain dates several hundred years earlier. The culture of these Indians went on for centuries in the Bonavista Bay area.

Meanwhile, an entirely different people—the Dorset Eskimo—began to migrate out of the Eastern Arctic and down the Labrador coast. The date of their appearance in Newfoundland is thought to be around 300 to 400 AD. They spread quickly across the coastal areas.

It is not known whether the two groups lived together peacefully or battled. A major Dorset community, dated to 300 AD, has been found on Bonavista Bay. The Dorsets brought a completely new set of tools and hunting equipment with them, a product of their life in the Arctic. They used new styles of point, bone tools and knives to hunt the same animals as the Maritime Arctic. Their stone lamps and cooking vessels were generally rectangular and made of soapstone.

"The appearance of these unique and fascinating people is as much a mystery as their ultimate disappearance," Mr. Carignon commented. After 600 to 700 AD, archaeologists are unable to find any trace of the Dorsets, whose migration to Newfoundland makes the province "the most southern extension for any known Eskimo group in North America."

The final group of natives were the Beothuck Indians. Artefacts from their camps include notched arrowheads, small scrapers used for processing skins and triangularly shaped knives. Like the other two groups, these Indians were coastal oriented. It is not known whether they were descended from the Early Maritime Archaic. Mr. Carignon says: "It is possible that Archaic Indians survived through the Dorset period and with the demise of the Eskimos re-emerged to be known in historic times as Beothuck Indians."

Researchers of a Beothuck burial ground in Bonavista Bay have found red ochre, carved beads, pendants, shell beads, iron nails, remains of a sword and several clay pipes. The pipes, identified as French in origin, date back to 1580 — which makes them the earliest-known pipes yet found in North America. It seems they were obtained from early French fishermen — which is the first indication there has been of contact between these two peoples in Newfoundland.

The Bonavista Bay research was supported by the Museum and the Archaeological Survey of Canada. Artefacts become the property of the museum and go on display once examined and catalogued. Major archaeological research has only been going on for 10 years in Newfoundland and, according to Mr. Carignon, it is "one of the three hottest archaeological areas in Canada." ♦

Rock structure rivals pre-European geometry

Geometry was known and used in Canada at least a century before European man arrived on the North American continent, archaeological theory suggests.

This is deduced from a gigantic rock structure, involving stairways, paths and low walls, found near North Bay in the central Canadian province of Ontario. Built more than 500 years ago, the structure has an elaborate configuration of paths leading up a granite slope. A mound of rocks shaped like a serpent flanks the structure, which covers an area 160 by 165 feet.

Mr. Allen Tyyska, an Ontario government archaeologist, recently told a meeting that wall and path lengths range from six, 12, 24 to 48 feet — a geometric

progression of 1 : 2 : 4 : 8. All walls are six or 12 feet long, said Mr. Tyyska. Corridors and stairways are 24 feet and the serpent-like figure measures 48 feet.

Geometric order and precision are also suggested by two small figures chiselled into the rocky face beside the corridors. One forms an isosceles triangle whose angles all are multiples of 18 degrees. The other calls to mind a human-like figure poised to leap. Mr. Tyyska said the figure has angles all in multiples of 18 degrees.

The archaeologist said blueprints of the rock structure suggested that architects had deliberately used geometric progressions in laying out the entire structure. Studying the blueprints, he found that lines drawn at 18-degree intervals or arcs

coincided with focal points on the structure — the serpent's tail, neck, nose and so on. Indeed, he said, every major point of the structure coincided with the arcs or with triangles and circles geometrically produced by the arcs.

Anticipating objections to his theory, he agreed it might seem surprising to find manifestations of geometrical practice in the prehistoric Canadian shield.

"I suppose many of us are inclined to suspect that the mathematics here described are the projections of a 20th-century mind," he said. "However, I think reflection will confirm the logical necessity that deliberate geometrical thought preceded the building of this structure." ♦