

## HUMAN SKELETAL REMAINS FROM SCOTT SITE, ONTARIO

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## ABSTRACT

The skeletal remains of seven better preserved and eighteen fragmentary skeletons are described as to their metric and epigenetic traits. Sex and age are determined, the latter providing the bases for a relatively young average age at death.

*INTRODUCTION*

To date, the yield at Scott Site of material for the physical anthropologist has been very sparse; however, the scarcity of skeletal finds, in my opinion, should not preclude a short and first-hand description of the bony remains. Further-reaching comparisons are not attempted because of the paucity of data. The archaeological remains have been investigated by R. Vastokas, who has contributed the following archaeological report:

"In the summer of 1966, a team from the Department of Anthropology at Trent University excavated at the Scott Site, a small Woodland fishing station at the confluence of the Trent and Crowe rivers, near Campbellford, Ontario. Most of the assemblage dates from Early Woodland, although there is a traceable development into Middle and Late Woodland times. The availability of some low quality quartzite at the site in addition to its attraction as a good fishing and meeting place may account for the long occupation. Of particular interest are several worked copper tools of the Early Woodland variety.

During the course of the excavation eight burials were uncovered. However, only one of the skeletons was in any sense complete. The others were badly disturbed, crushed, or had been partly removed in the course of cottage building operations. The individual described below had no associated cultural remains and no traceable stratigraphic evidence to indicate its date. However, he was probably buried during Early or Middle Woodland times."

The material consists of 7 or 8 individuals, four adults and three or four children. In addition there are fragmentary remains of at least 18 individuals. Of the better preserved skeletons, only one is complete enough to allow a precise description.

*BURIAL 1 (INDIVIDUAL 1)*

In addition to the data presented in Tables 1 and 2 the following points are emphasized. The skull belongs to a robustly built old male. His neurocranium displayed no anomalous characteristics, such as sutural bones, ossa incae, epipteric or asterionic bones, metopic suture or mandibular, maxillary or palatine torus. Pterion is H-shaped and a single parietal foramen is present on the right side. The foramina supraorbitalia consist of a single notch. The supraorbital border has a single notch on each side. The left infraorbital foramen is single, but of great size (5.0 mm). The right infraorbital region is missing. The supraorbital region is very robust with marked V-shaped brow ridges. The vault as a whole is mesocrane with a weak sagittal ridge and a pronounced occipital angle, showing strongly developed muscle markings. For example, the superior nuchal line extends to the mastoid process with spurs along its ridge, and the well developed supramastoid crest extends to the parietal bone.

The facial region is of considerable relevance in a diagnosis of race (see Howells and Crichton, 1966). Nasion projects in front of the zygo-frontal suture, the curvature of the bony nose is concavo-convex, the nasal bones are hourglass-shaped, and the naso-frontal suture is nearly rectangular. The border to the inferior nasal aperture has two small grooves on each side (fossa prenasalis); in terms of Macalister (1898), it is "bothrocraspedot." The facial region, as a whole, appears rather short and broad. The zygomatic arches extend beyond the cranial vault when

looked at from above and are "phanozygous" (Oetteking, 1957). At the junction between the maxillary and the zygomatic bone there is a strong, downward-projecting zygo-maxillary tubercle. Seen laterally, the anterior surface of the zygoma slopes obliquely downwards to the rear. The degree of prognathism is small, 2.08 (see Anderson, 1968). Viewing the skull from its base, no anomalies could be found; that is, the mastoid process is not notched, the occipital condyles are single.

The mandible is very robust, with strong muscular ridges inside and outside of its angle. The ramus is broad and relatively short, the index of the ramus being 51.3. Both mental and mandibular foramina are single. A mandibular torus is not present.

The maxillary dentition comprises all the teeth except the right, third molar which has been lost premortem. All the teeth have deeply exposed roots due to a reduction of the alveolar border. There is an edge to edge bite with attrition approaching stage 4. The mandibular incisors and possible the right canine (broken at the root) have been lost premortem. The first right molar has an apical abscess which has eaten through the alveolus.

The postcranial skeleton is also quite robust. The body height is estimated at 179.1 + 4.25 cm. (Trotter and Gleser, 1958, for Mongoloids). The septal aperture is absent on the right humerus. The width of the atlas is considerable, which is expected for a male. He appears to be an old adult (approx. 50 yrs) on the basis of arthritic changes which occur on the acetabulum, the auricular surface, and in the vertebrae. The axis shows spondylitic alterations to the caudal direction together with moderate spondylosis of other cervical and thoracic and osteophytosis of all lumbar vertebrae.

#### *BURIAL 4 (INDIVIDUAL 2)*

On the basis of femoral head, greater sciatic notch, a weakly pronounced preauricular sulcus, and length of femur (Anderson, 1968: 42) this individual is a male. The bones are those of an adult before any arthritic changes occurred. Stature is estimated at 172.5 ± 3.8 cm. (Trotter and Gleser, 1958). Measurements are summarized on Table 2.

#### *BURIAL 5 (INDIVIDUAL 3)*

The bones are those of an adult before any arthritic changes developed. Stature is estimated at 168.4 ± 4.6 cm. (Trotter and Gleser, 1958). The measurements of the post-cranial bones are listed in Tables 1 and 2. On the basis of a strong preauricular sulcus, a small circumference and diameter of the head of radius, a small breadth of the coronoid process of the ulna, and a narrow proximal end of tibia, sex is probably female. The right femur has a third trochanter, supporting the observation of Anderson (1968) of a higher frequency of this peculiarity occurring at the right side.

#### *INDIVIDUAL 4*

The remains include only a broken mandible (see Tables 2, 3 and 4). According to a weak development of the gonial angles, the external oblique crest and the mental trigonum, a female sex seems probable. The dentition follows: On the left side the incisors, the canine and the first premolar are lost postmortem while the second premolar and all three molars are intact. On the right side, only the two incisors are missing postmortem; all the other teeth are intact. The molars from the first to the last have a Y5, +5, and +4 pattern on both sides.

A right humerus and a pair of ulnae are presumed to belong to this individual.

#### *CHILDREN*

Further, we have some more remains (mostly teeth) of four children.

Child 1 consists of parts and teeth of upper and lower jaws. The maxillary milk teeth were erupted, but partly (ml m2 c of the left, c of the right) lost after death. As the tooth-germs of permanent dentition (I1 12 upper row on both sides) are in process of development, the age of

this child can be estimated at about 5 years. The germs of P1 M1 M2 are less developed, but present. The frontal bone of this individual does not show a metopic suture.

Child 2 consists of a partly broken left temporal bone including the fossa mandibularis and some milk teeth (upper and lower second molars) and germs of the permanent teeth (upper and lower M1). The age therefore can be approximately 2-3 years.

Child 3. The remains of a very small iliac blade of the left side justify the notion of a third individual. For reasons of size it cannot belong to either child 1 or 2.

Child 4. Based on the size of some post cranial bones there could be another child. However, the possibility that these bones could also belong to Child 3 cannot be ruled out with certainty.

#### *FRAGMENTARY REMAINS*

In addition to the four adult and more or less complete skeletons, a great number of bones were found in broken and shattered condition. It is not possible to estimate the exact number of individuals represented because the relationship of the parts cannot be reconstructed. According to the number of single, clearly identifiable bones there are from the skull:

- 18 mandibular parts, representing as many individuals;
- 7 pieces of the frontal bone;
- 9 right and 8 left parts of the petrous bone;
- 6 parts of the occipital bone;
- 7 maxillary parts (5 right, 2 left side).

Further, there are 66 teeth, partly in jaws, partly isolated.

Of the postcranial skeleton mainly the following bones or fragments were found:

- 5 left and 5 right parts of humeri, plus 6 pieces from the shaft, not accurately identifiable;
- 9 right and 5 left parts of femora plus 9 pieces from the shaft;
- 4 left and 2 right pieces of tibia plus 1 other piece;
- 3 left and 1 right part of clavicular;
- 1 proximal part of a left radius;
- 3 right and 2 left pieces of ulnae, proximal end;
- 11 pelvic parts badly broken.

Clearly distinguishable from these remains by colour (dark brown in contrast to light yellowish) are other pieces. These include parts of two humeri (one right, one left side) and one clavicle (right side). The postcranial fragments cannot be linked together with skull fragments. Of the 66 teeth found, 35 maxillary and 31 mandibular, ten teeth (8 lower molars, 2 upper ones) suffered from caries. Many teeth were fragmented postmortem; therefore the frequency of caries cannot be estimated with any accuracy. One premolar suffered a premortem fracture, and the result was severe attrition on the outer side.

For metric data of all the bigger parts, see Table 3. As to the estimation of age and sex of the bony fragments, considerable care has to be taken not to over-emphasize the personal impression because objective criteria (measurements) are almost absent. Even in those cases in which one or two closely related measurements were taken (e.g., the two diameters of an articular head) the overall size could not be measured. Without this most important proportion, it was difficult to estimate the sex.

Unfortunately, the most reliable bones for determining sex in a skeleton, the hip bones, although preserved, were in a very broken condition. It seemed advisable, therefore, to avoid guess and to give the sex only of those bones which are well preserved. Table 4 gives age and sex determinations based on robusticity, overall size, muscle markings and measurements.

From the broken parts, discrete traits were also observed (for a complete list see Anderson, 1968, p. 22). In all the frontal fragments there are only supraorbital notches (no foramina) present, and no metopic suture. In three larger pieces of the parietal bone there is a parietal foramen in each. About the infraorbital foramen and its condition, no data are available; mandibular and palatine tori are absent.

Of five distal parts of humeri, all show a perforated olecranon fossa. The fragmentary condition of the bony parts prevent any further observations.

Not much can be said about the demography of the Scott Site population, because the relationship of the fragmented parts to each other cannot be ascertained. The occurrence of 3 to 4 children, however, points to a high infant mortality.

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TABLE 1

Cranial measurements	Burial 1 (Individual 1)	
Max. cranial length	190	
Max. cranial breadth	143	
Basion-bregma height	133	
Min. frontal cr. breadth	88	
Max. bizygomatic breadth	149	
Basion-prosthion line	103	
Basion-nasion line	106	
Biasterionic line	131	
Length of for. magnum	38	
Breadth of for. magnum	38	
Max. cranial circumference	534	
Transverse cranial arc	298	
Frontal arc	121	
Parietal arc	116	
Occipital arc	121	
Facial measurements		(Individual 4)
Total facial height	127	
Upper facial height	79	
Nasal height	62	
Nasal breadth	27	
Orbital height	33	
Orbital breadth	43	
Min. nasal breadth	9	
Max. nasal breadth	18	
Length of nasal bones	29	
Interorbital breadth	25	
Maxillo-alveolar length	52	
Maxillo-alveolar breadth	42	
Bigonial diameter	119	108
Height of mand. ramus	78	64
Breadth of mand. ramus	40	37
Symphyseal height	30	35
Indices		
Cranial index	75.3	
Cranial L. - H. - I.	70.0	
Cranial Br. - H. - I.	93.0	
Total Facial I.	85.2	
Upper facial I.	53.0	
Nasal I.	43.5	
Orbital I.	76.7	

TABLE 2

## Postcranial measurements

Atlas	Burial 1 (Individual 1)		Burial 4 (Individual 2)		Burial 5 (Individual 3)		(Individual 4)	
	79.5 right	left	right	left	right	left	right	left
Max. breadth								
<b>Humerus</b>								
Length	358	-	-	-	-	-	-	-
Transverse head diam.	48	-	-	-	-	-	-	-
Sagittal head diam.	48	-	-	-	-	-	-	-
Circumference	152	-	-	-	-	-	-	-
Epicondylic diam.	65	-	-	-	54	-	53	-
<b>Radius</b>								
Length	-	-	-	-	244	-	-	-
Capit. r. diam.	23	-	-	-	21	-	-	-
<b>Ulna</b>								
Max. length	-	-	-	-	-	-	-	-
Physiol. length	-	-	-	-	236	-	221	-
Proc. cor. breadth	-	-	-	-	-	-	-	-
<b>Clavicula</b>								
Length	-	-	-	-	-	-	-	-
Circumference	-	38	-	-	-	-	-	-
<b>Innominate bone</b>								
Acetabular diam.	-	-	51	-	-	-	-	-
Greater sciatic notch breadth	-	-	62	-	-	-	-	-
Greater sciatic notch depth	-	-	42	-	-	-	-	-
<b>Femur</b>								
Max. length	-	-	465	-	-	-	-	-
Epicond. breadth	-	-	82	-	-	-	-	-
Transversal head diam.	-	-	46	-	46	45	-	-
Sagittal head diam.	-	-	45	-	46	-	-	-
Head circumference	-	-	140	-	142	140	-	-
<b>Tibia</b>								



TABLE 4

## Mandible:

No.		
1	adult or older;	male
2	adult or older;	-
3	adult or older;	-
4	adult or older;	-
5	adult or older;	-
6	adult or older;	-
7	adult or older;	-
8	adult or older;	-
9	adult or older;	-
10	-	-
11	juvenile	-
12	adult or older;	-

## Maxillary fragments:

No.		
1	adult or older;	-
2	adult or older;	-
3	adult or older;	-
4	adult or older;	-
5	adult or older;	-
6	adult or older;	-
7	?	-

## Femoral fragments:

No.		
1	adult	; female
2	adult	; -
3	adult	; female
4	adult	; female

## Frontal bone:

No.		
1	adult or older	; -
2	adult	; -
3	?	; -
4	?	; -
5	?	; -
6	juvenile or beginning adult	; -
7	juvenile	; -

## Humeral fragments:

No.		
1	adult, mature	; -
2	adult	; -
3	adult?	; -
4	-	; -
5	-	; -
6	-	; -
7	-	; -
8	adult	; female
9	adult or older	; female
10	adult or older	; male

## Tibial fragments:

No.		
1	adult or mature	; -