

## A Pre-Iroquois Burial Site

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The Bosomworth site in West Gwillimbury Township near Bradford, Ontario was excavated in the autumn of 1958 by the University of Toronto and the Ontario Archaeological Society under the direction of Professor J. Norman Emerson. Two areas were excavated: a pre-Iroquois village site and a cemetery of primary individual shallow pit burials. Excavation of the latter was a salvage operation, the burials having been uncovered in a gravel pit. A preliminary report on the village site (Emerson: 1959) draws attention to the fact that association of the village and burial sites is not yet definite. A detailed report on this site will be done when analysis of material from subsequent excavations is complete.

### SUMMARY OF THE BURIALS:

A minimum number of 24 individuals is represented : 15 adults and 9 infants and children. These individuals have been given consecutive numbers from 1 to 24.

No. 1: A post-adolescent female.

No. 2: A young adult male with multiple fractures of the left facial skeleton, zygomatic arch, and alveolar process. The fracture line runs along the base of the temporal bone and radiates into the parietal bone of the same side.

No. 3: An adult male, the skull of which is illustrated in Figure 1. The left half of the mandible is grossly distorted with loss of the canine, premolar and molar teeth. The alveolar process has been resorbed. There is an irregular antero-posterior narrowing of the ramus, and the condyle is twisted into a semi-circular shape. The arrow points to bony spurs which have formed on the left articular eminence to accommodate the abnormal condyle. The maxillary teeth on that side have overerupted to meet the soft tissue of the lower gum. There is marked dental attrition. The vault of the skull is asymmetrical in shape due to the altered position of the mastication on the injured side. These findings may be explained by postulating a severe blow to the side of the jaw which dislodged the teeth and fractured the ramus longitudinally. Healing has occurred with deformity.

Besides these longstanding changes, there are four areas of localized bone damage on the back of the skull vault, representing blows struck from behind with a sharp pointed weapon. One of these blows produced a depressed fracture of the skull and was no doubt the contributing cause of

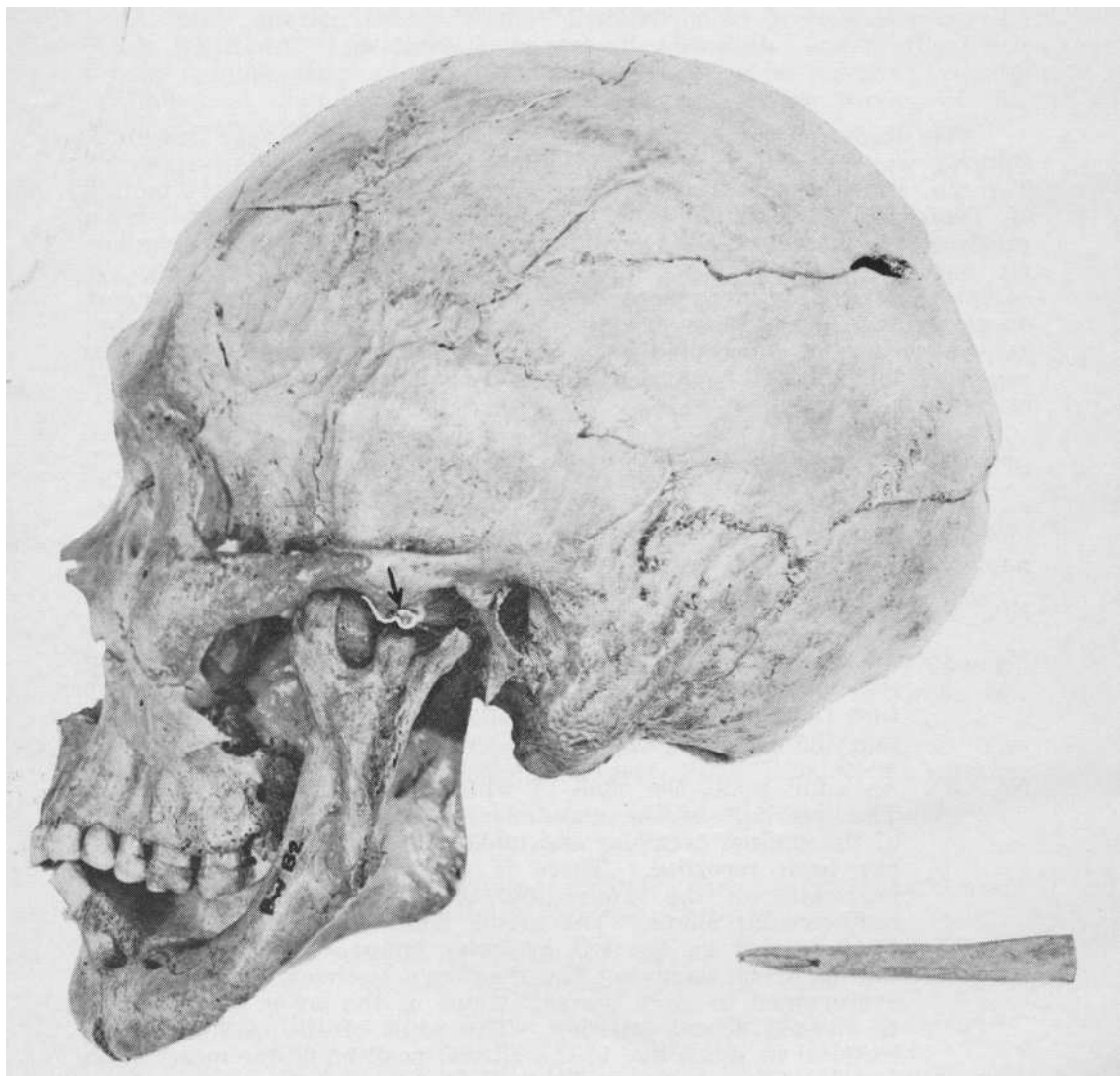


FIGURE 1

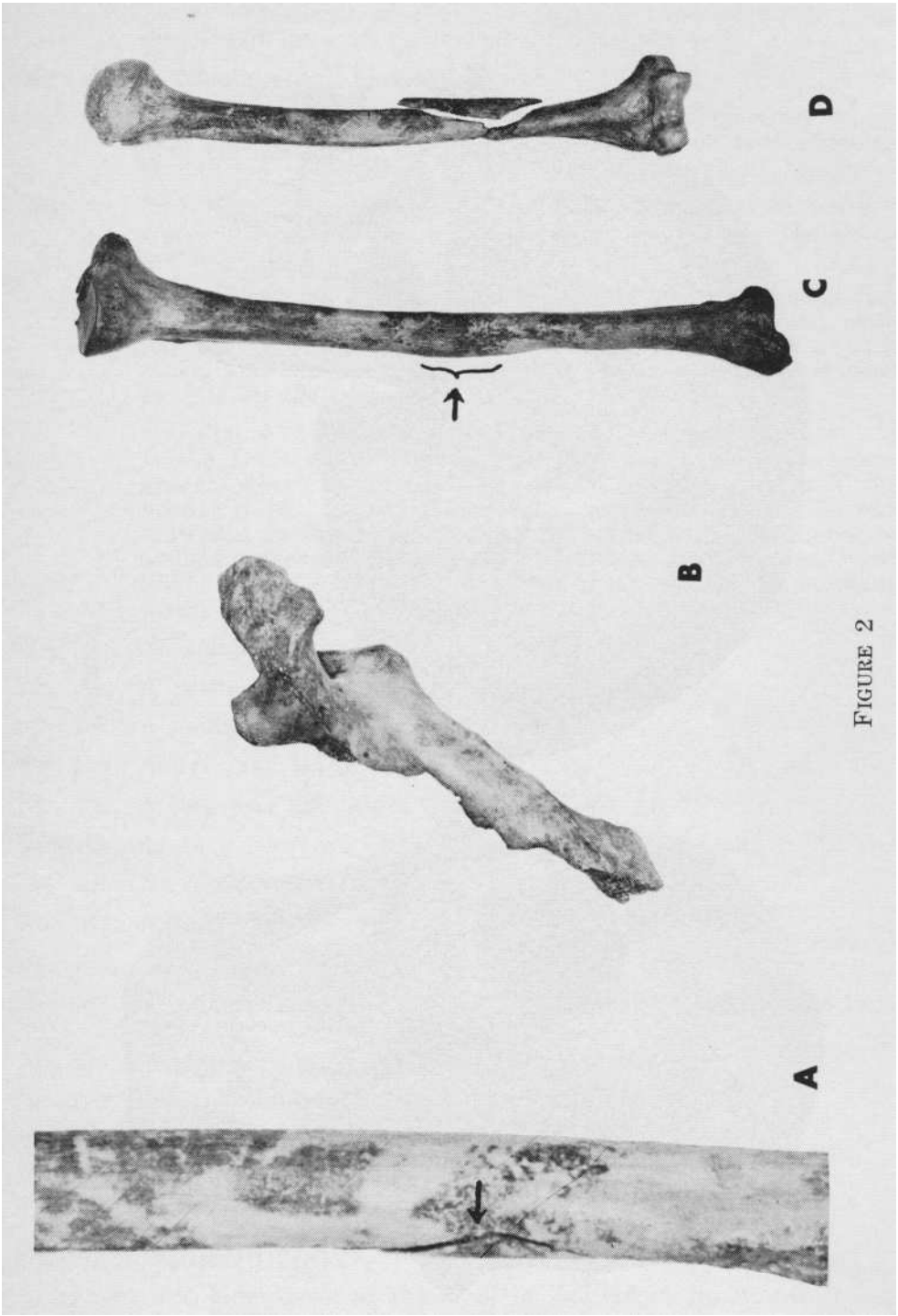


FIGURE 2

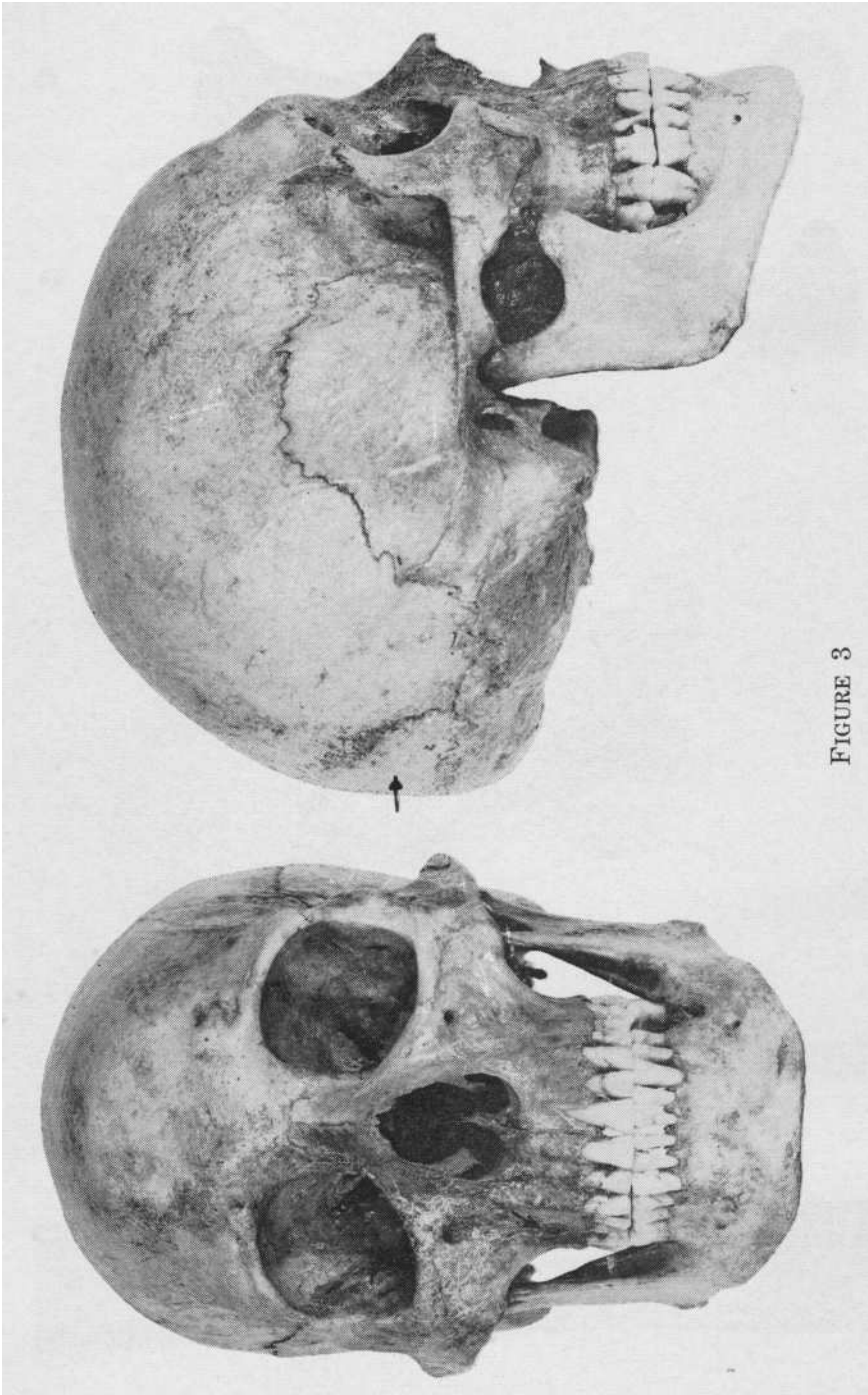


FIGURE 3

- death. The inset of Figure 1 shows a bone projectile point discovered loose in the burial pit near the body.
- No. 4: A female, about 18 years of age.
- No. 5: The pelvis of an adult male included in the pit with Burial No. 4. The iliac crest has been mutilated on both sides as though cut during the clumsy dismemberment of the body.
- No. 6: The flexed intact burial of a very old male with marked osteoarthritis and osteophytosis of the vertebrae. The bones are more fragile than those of the other burials.
- No. 7: The skeleton of a large rugged adult male whose body had been dismembered prior to burial. Limbs, trunk, and skull did not bear their correct anatomical relationship to each other, and the areas of separation of the parts are marked by cuts on the bone.
- Figure 2 illustrates four of the infracranial bones : A is the shaft of the femur. An arrow lies along a conical groove where a projectile point had pierced and split the bone. B is a dorsal view of the right scapula which was mutilated in the amputation of the upper limb. C shows an ossified subperiosteal haematoma on the shaft of the right tibia. D is a spiral fracture of the shaft of the right humerus which appears to have occurred just before burial.
- No. 8: An adult male with slight osteoarthritis.
- No. 9: A postadolescent female.
- No. 10: A young female.
- No. 11: A five year old child.
- No. 12: A one year old infant buried near No. 11.
- Nos. 13 and 14: Newborn "twins" buried in the same pit.
- No. 15: An adult male.
- No. 16: A four year old child.
- No. 17: An adult male with scarred iliac crest.
- No. 18: A young adult female, tightly flexed, with long delicate limb bones.
- No. 19: Fragments of a child buried with No. 17.
- No. 20: Fragments of an infant buried with No. 17.
- No. 21: An adult of undeterminate sex.
- No. 22: The flexed burial of an elderly arthritic female.
- Nos. 23 and 24: Fragments of two infants buried in the same pit.

#### CRANIAL MORPHOLOGY:

Front and side views of the skull of Individual No. 7 are shown in Figure 3. With one exception the other skulls closely resembled

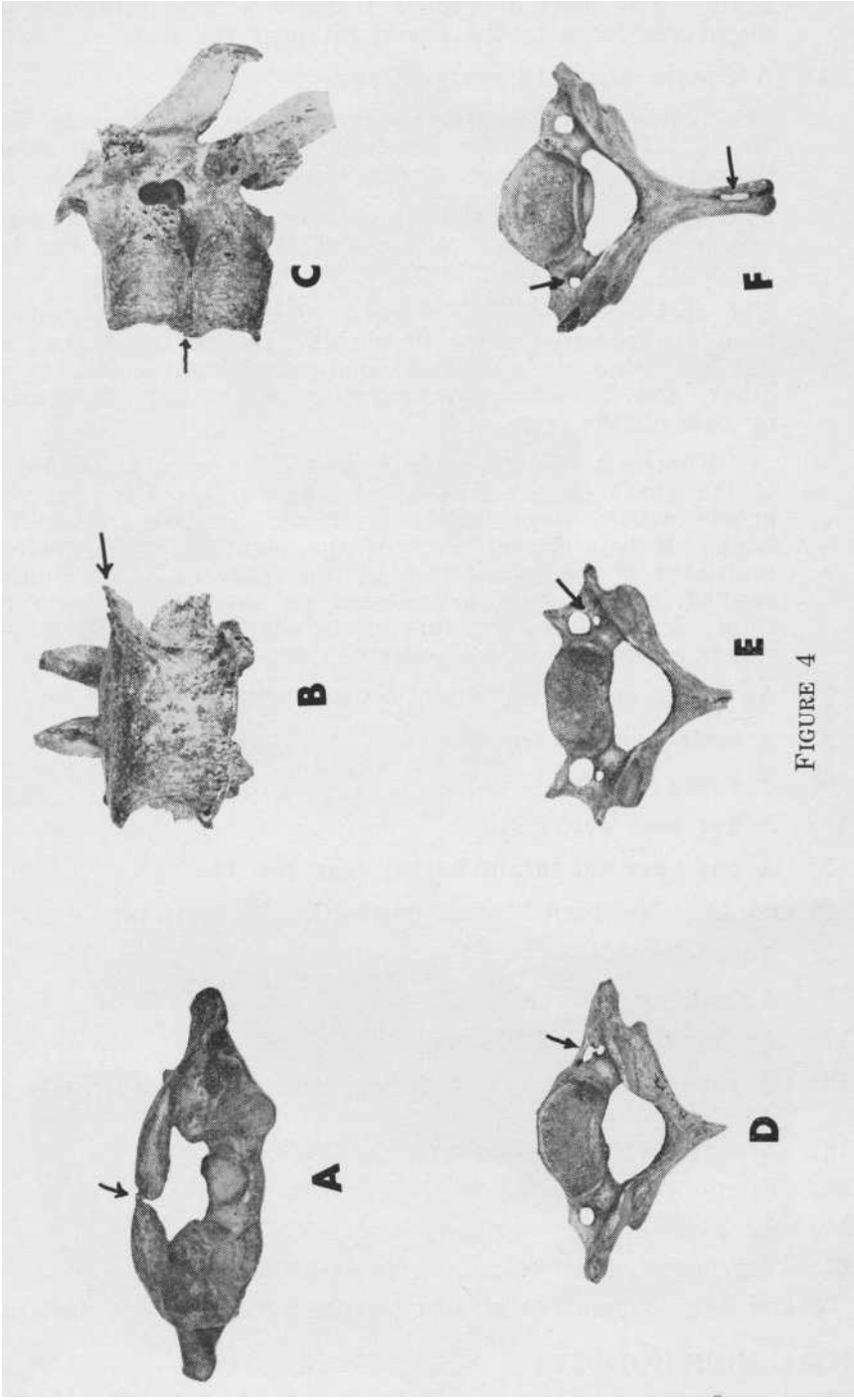


FIGURE 4

this adult male which may be described as typical. It is a large robust skull, long in relation to its breadth, with a prominent mound-shaped occiput, and V-shaped continuous supraorbital ridges. The orbital margins are squared, there are multiple supraorbital foramina, and the nasal margin is sharp and rather narrow. The ramus of the mandible is robust, the chin is of the median form, and there is moderate gonial eversion. An arrow points to an *osinca*, a triangular supernumerary bone derived from the unfused squamous part of the occipital bone. Following are craniometric data: (Measurements are in mm.) :

Maximum length:	198	Cranial Nodule :	161
Maximum breadth :	145	Cranial Index:	73.2
Basion-bregma :	141	Height/Length :	71.2
Auricular height:	117	Height/Breadth:	97.3
Bizygomatic diameter:	144		
Upper Facial Height:	78		
Upper Facial Index:	54.2		
Total Facial Height :	127		
Total Facial Index :	88.2		
Nasal Height:	58		
Nasal Breadth :	26		
Nasal Index:	44.8		
Orbital Height:	38		
Orbital Breadth :	43		
Orbital Index:	88.3		
External Palatine Length :	57		
External Palatine Breadth :	67		
Maxillo-alveolar Index:	118		
Bigonial breadth of mandible:	110		
Height of symphysis:	34		
Minimum ramus breadth :	34		

This skull resembles the most frequently occurring Iroquois cranial type. The skull of Individual No. 2 differs somewhat from this pattern. The vault is slightly smaller and rounder, with no occipital mound. Cranial Index is 79.0. The vault is scaphoid as seen from in front, and the palate is lower and wider.

#### THE INFRACRANIAL SKELETON:

The stature of adult individuals was calculated from the length of long bones (Trotter and Gleser, 1958). Estimates range from 166.7  $\pm$  3.18 cm. (5'4" to 5'6") in female skeleton No. 22 to 177.0  $\pm$  3.18 cm. (5'8" to 5'10") in male skeleton No. 7.

Platymeria and platycnemia are marked, and torsion of the femoral shaft varied from slight to extreme. Squatting facets are present on the talus. The coronoid fossa of the humerus has a septal aperture only in female skeletons.

Certain vertebrae show signs of interesting pathology. Some of these are illustrated in Figure 4.

A : The first cervical vertebra, the atlas, with incomplete fusion of its posterior arch.

- B : Front view of a lumbar vertebra with osteophytosis at the periphery of its body.
- C : Pathological fusion of two adjacent thoracic vertebrae.
- D : The foramen transversarium of a cervical vertebra has become constricted by the ingrowth of bony spicules.
- E : A cervical vertebra in which the foramen transversarium is divided into a large anterior and a smaller posterior compartment.
- F : A cervical vertebra with a constricted left foramen transversarium. Also, a narrow cleft exists between the two halves of the spinous process, due to defective fusion of right and left arches.

#### DENTAL CONDITIONS:

All adult skulls recovered show signs of dental pathology. Caries beginning in pits and fissures on the surface occur in all but three of these dentitions. Marked attrition, premortem tooth loss, and alveolar abscesses are common conditions. There is only slight evidence of periodontal disease.

#### SUMMARY:

A preliminary report is presented of the 24 individual burials at the Bosomworth site. Of interest is the form of burial, the evidences of mutilation, the presence of two possible physical types, and the pathological specimens encountered.

#### LITERATURE CITED:

Emerson, J. N. (1959) The Bosomworth Site. Ontario History, LI :61.

Trotter, M. and G. C. Gleser (1958) A re-evaluation of estimation of stature. Amer. Jour. Phys. Anthrop. 16:79.

#### ACKNOWLEDGEMENTS:

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