

ANTHROPOLOGICAL STUDIES ON TWO SKULLS FROM JORDAN¹

A. THE SKULL PROPER

	<i>Skull A</i>	<i>Skull B</i>
Maximum cranial length	190 mm.	170 mm.
Nasion-inion length	181 "	158 "
Cranial (auricular) height	110 "	106 "
Maximum cranial breadth	137 "	129 "
Least frontal breadth	90 "	85 "
Greatest frontal breadth	109 "	101 "
Bizygomatic breadth	128 "	115 "
Upper facial height	70 "	68 "
Total facial height	120 "	119 "
Interorbital breadth	25 "	20 "
Orbital breadth	40 "	34 "
Orbital height	34 "	32 "
Occipital foramen (length)	34 "	36 "
Occipital foramen (breadth)	31 "	26 "
Cranial capacity	1520 cc.	1055 cc.

B. THE MANDIBLE

Bicondylar breadth	112 mm.	118 mm.
Bigonial breadth	100 "	86 "
Height of ramus	65 "	61 "
Symphyseal height	31 "	34 "
Distance between outer surfaces third molars (skull B distance between second molars)	71 "	51 "
Distance between outer surfaces canines	32 "	26 "
Mandibular angle (between ascending ramus and body)	115°	120°
Distance from fronto-zygomatic suture to pterion	35 mm.	27 mm.
Height of pterion above level of zygomatic arch	42 "	36 "

C. LONG BONES

(only ones listed below were available for study)

	<i>A</i>	<i>B</i>
	<i>Skeleton</i>	<i>Skeleton</i>
Right femur, ² maximum length	459 mm.	410 mm.
Left tibia, ² maximum length	410 "	358 "
Right fibula, ² maximum length	415 "	344 "

¹ These are the skulls of *Hani'* (A) and of the unknown woman (B). See Pl. VII.

² Specimen B, the left femur, right tibia and left fibula were available for study.

C. LONG BONES—(continued)

	<i>A</i> <i>Skeleton</i>	<i>B</i> <i>Skeleton</i>
Right humerus, maximum length	331 mm.	—
Right ulnar, maximum length	284 „	—
Left radius, maximum length	265 „	—
Angle made by axis of head and neck with that of shaft	70°	60°

D. INDICES

Length-breath (cranial index)	72.1%	75.9%
Length-auricular height index	57.6%	62.4%
Breadth-auricular height index	80.3%	82.2%
Cephalic module: $\frac{\text{Max. length} + \text{height} + \text{max. breadth}}{3}$	149	135
Total facial index	93.7%	103.4%
Superior facial index	54.1%	59.1%
Zygomatiko-frontal index	70.3%	73.9%
Zygomatiko-mandibular index	78.1%	74.8%
Orbital index	85.0%	94.1%
Index of the occipital foramen	91.2%	72.2%

Stature is estimated after Wilder (page 147) on the basis that A remnants are of male type while those of B. are typically female.

Male: femur, greatest length $\times 3.66$	= total height
Female: femur, greatest length $\times 3.71$	= total height
Stature: femur from A, 459×3.66	= 167.99 cm.
femur from B, 410×3.71	= 152.11 cm.

E. OBSERVATIONS

Skeleton A:

The skull and long bones were all considerably stained by brown-red earth.

The orbits are parallelogram in outline with the external inferior angle sharply depressed, being approximately 4.0 mm. lower than the inner angle. Supraciliary ridges are very prominent above the medial part of the orbits.

The suture between the two frontal bones is not completely synostosed.

The malar bones are large and very rugged, giving the cheeks great prominence.

The nasal bridge is high, straight and narrow, whole the nasal aperture is pyriform in shape. The anterior nasal spine is prominent.

The suture between the premaxilla and palatine process of the maxilla is not completely obliterated. The greater and lesser palatine foramina open into an upper depression and there are well-marked grooves for the greater palatine arteries.

The mandible is heavy and has very prominent muscular markings. Those for the medial pterygoid muscle and the masseter are especially highly developed.

The genial tubercles are prominent. The mental foramen lies midway between the upper and lower borders of the mandible on a vertical line passing through the second premolar tooth.

The long axis of the mandibular articular facet is transverse on the left and directed backwards and slightly medially on the right side.

The mental tubercle is very well marked and the inferior border of the mandible in this region is sharply everted.

The contour of the dental arcade is such that the canines and incisors lie on a curve which is very slightly convex forward. The premolars and molars are arranged on a very slightly outwardly curved line which diverges from its fellow posteriorly. All the teeth of the lower jaw are present. Dentine shows on the upper aspect of all the lower incisors and to a lesser extent on the canines. There is some wear and bevelling of the upper aspect of the premolars and molars, especially of the left first molar. There is marked crowding of all the teeth, especially of the canines and incisors, with the canines slightly overlapping the lateral incisors.

The occipital process is very prominent and the external occipital crest is moderately marked. The highest nuchal line is faintly marked. The rectus superior oblique insertion is well marked by a sagittal ridge about 1 mm. high and 35 mm. long. There are no Wormian bones. The occipital condyles are of average size and shape.

There is a very marked articular eminence. The supramastoid process is very prominent. The greater wing of the sphenoid bone overlaps the antero-inferior border of the parietal bone over a length of 15 mm.

There is a marked sphenoidal spine.

There is a conspicuous sagittal scar 30 mm. long above the right eye. It is seen as a linear depression of the outer table of the frontal bone. The wound was likely caused by a sharp instrument and sustained in life, for it is healed and there are no ragged edges.

The femur has a marked bowing of the shaft and some flattening on the lower end of the shaft. The head of the femur is massive. All muscular markings are very heavy. The distance from the quadrate tubercle to the most distal part of the head is 85 mm. The articular surface of the head extends a short distance on the neck anteriorly and there is not sharply constricted off anteriorly from the neck.

A study of these bones and the dentition suggests that this is the skeleton of a large, relatively tall, very muscular male between the ages of thirty-five and fifty years.

Skeleton B:

This skull and long bones are white and well preserved.

The orbits are roughly square with rounded corners. The supraciliary ridges are feebly developed.

The nasal bones are small, narrow and straight. The nasal aperture is pyriform in shape. An anterior nasal spine is present.

A slight remnant of the metopic suture persists.

The mandible is relatively small but it has a prominent mental tubercle. The mental

foramen lies at the level of the last premolar tooth. The long axes of the two condyles make a distinct angle of 140° with each other.

The last molars are unerupted. The alveolar processes of the maxilla are absorbed in the region of the second and third molars on the right side and on the left side in the area of the last molar.

All of the teeth are moderately worn.

The occiput is only slightly rounded. There are no special features in this area.

A well-marked temporal line is present.

The greater wing of the sphenoid bone overlaps the parietal bone. This suture is 9 mm. long.

In general the muscular markings are not well developed.

There is a well-marked depression in the head of the femur for the ligament.

There are no special markings on the long bones.

A study of the skull and long bones suggests that this is the skeleton of a female, likely between the ages of thirty-five and fifty years.

F. DISCUSSION

These two skulls are unlike those of the present-day Lebanese (Kappers and Parr 1934, Shanklin 1938).

No attempt will be made to date these skulls, for the skeletal material from al-'Ubad described by Sir Arthur Keith (1927), dating from about the fourth millenium B.C., had an average cranial index of 72.6 and were very similar to skull A with a cranial index of 72.1. The skull measured by Seligman (1917) from Midian (length 190, breadth 135 and cranial index 71.1) is remarkably like skull A both in measurements and in its general appearance (see Seligman, Plate 7).

The tall stature suggests that specimen A belongs to what the author (Shanklin 1946) described as the large variety of the Mediterranean race. Excellent examples of the large variety are the Akeydat (statute 1685) and Maualy (statute 1701) Bedouin in the Syrian desert, whereas the Rwala (statute 1619), Beni Sakhr (1631) and Howeitat (1628) represent the small variety. Differences in size are not reflected in the indices, but in nearly every actual measurement sharp differences in size are noted.

If the smaller skull is, as we suggest, that of a female it is very similar to the series of 70 living Akeydat females reported by Shanklin and Izzeddin (1937).

In conclusion we can state that these two skulls are not unlike those of the Bedouin of today; however, people with skulls having similar characteristics have probably occupied this area for at least five thousand years.

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