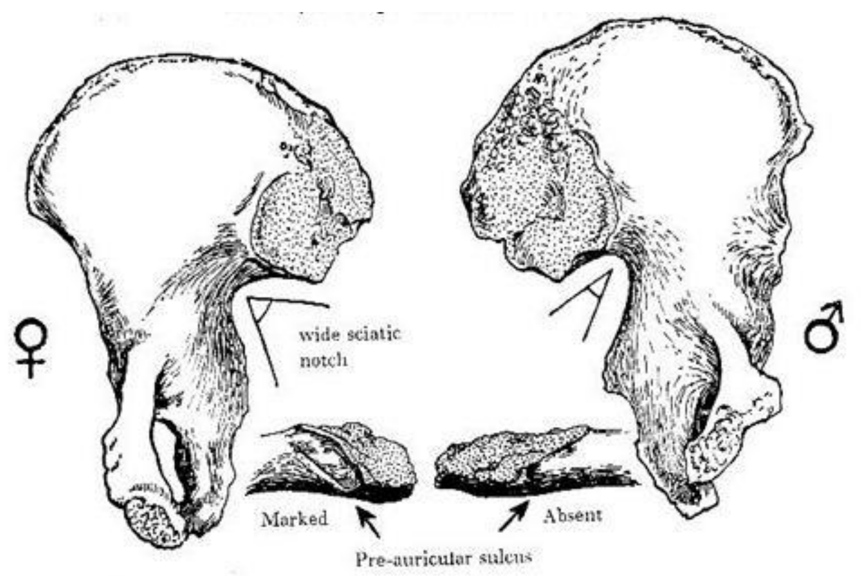
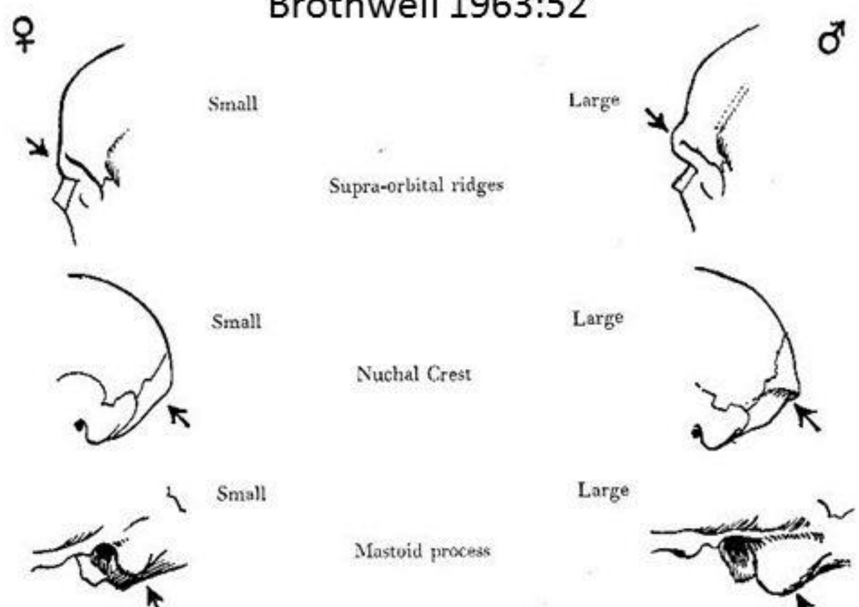
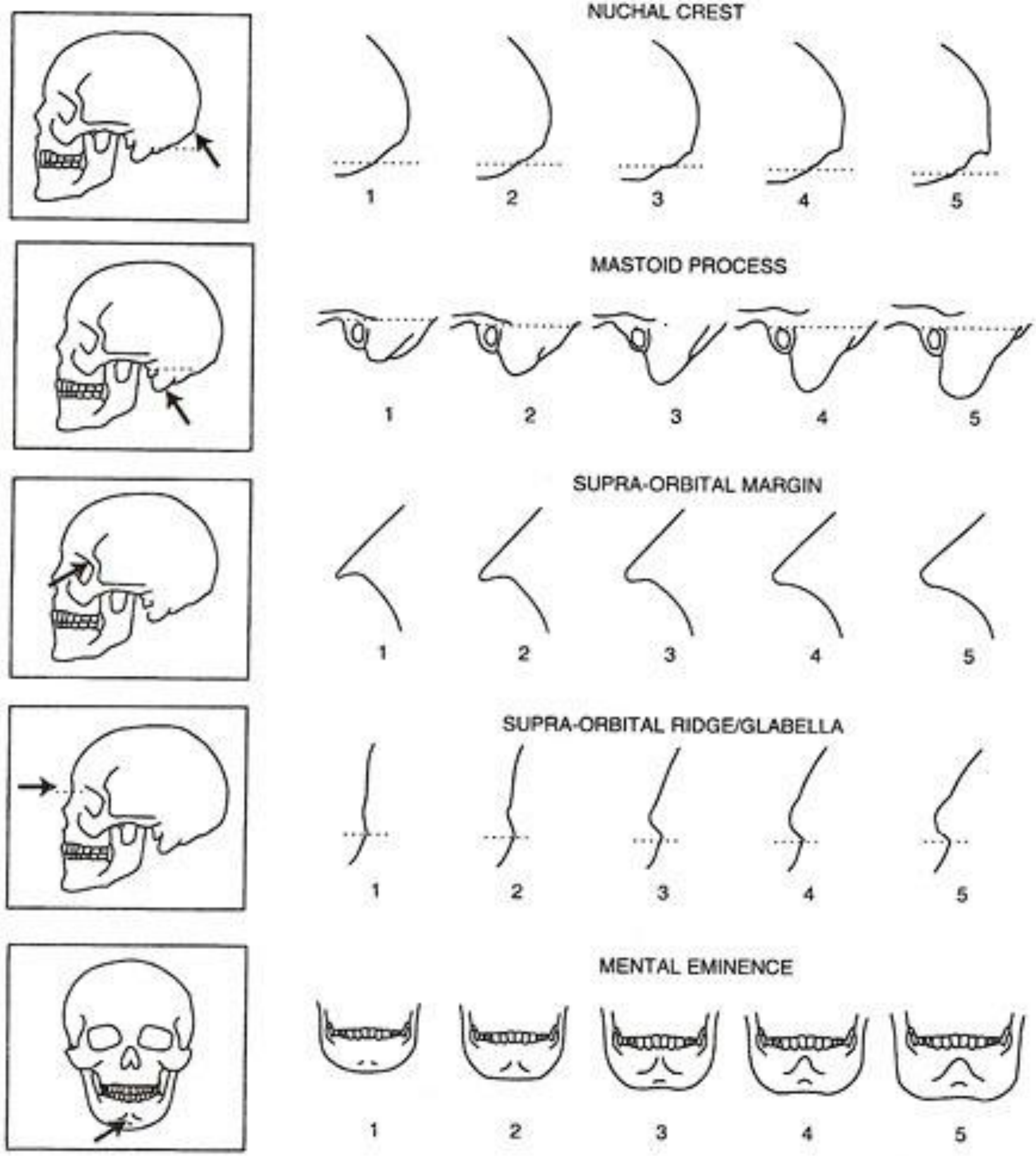
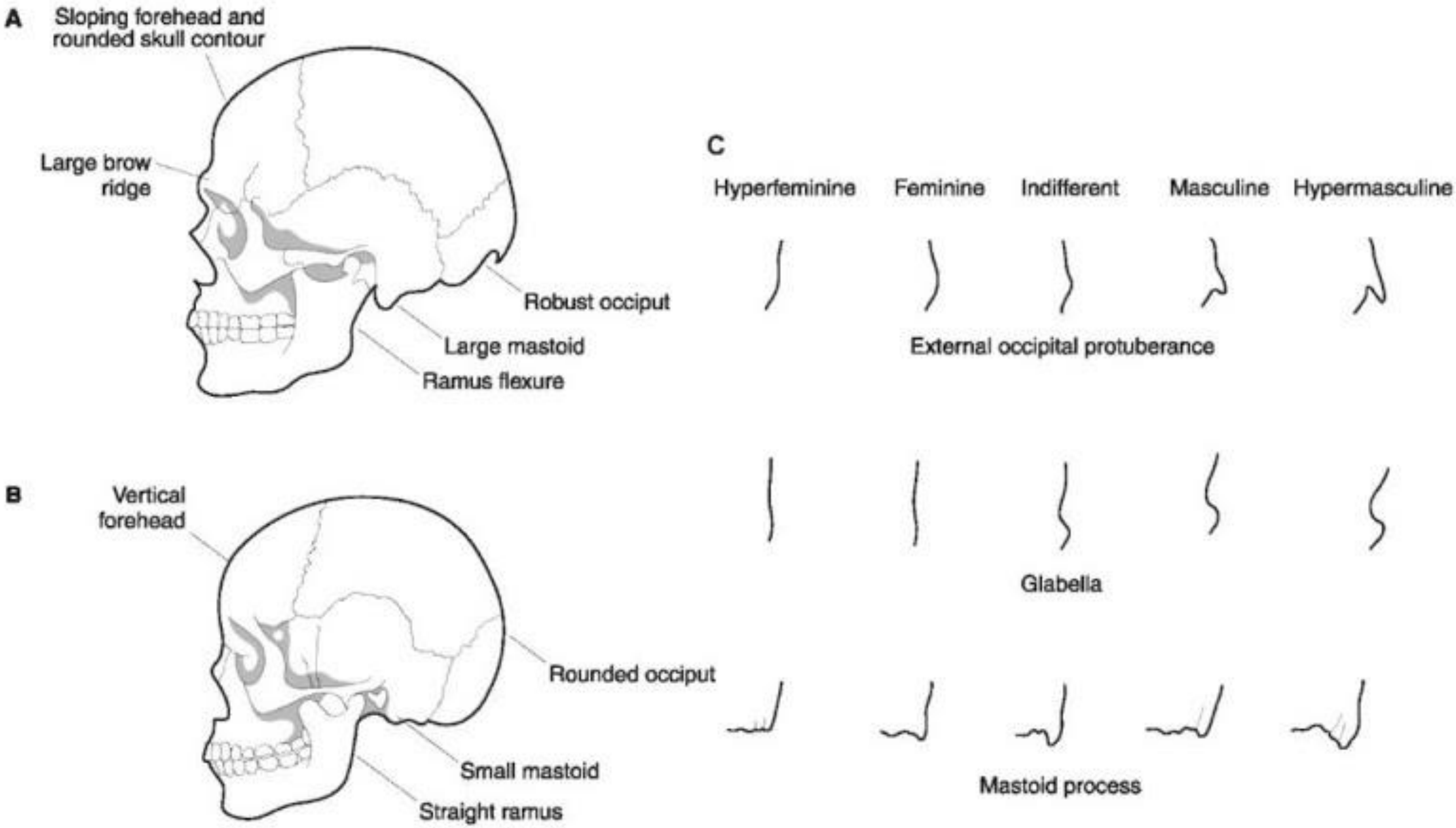
ΥΠΟΛΟΓΙΣΜΟΣ ΦΥΛΟΥ

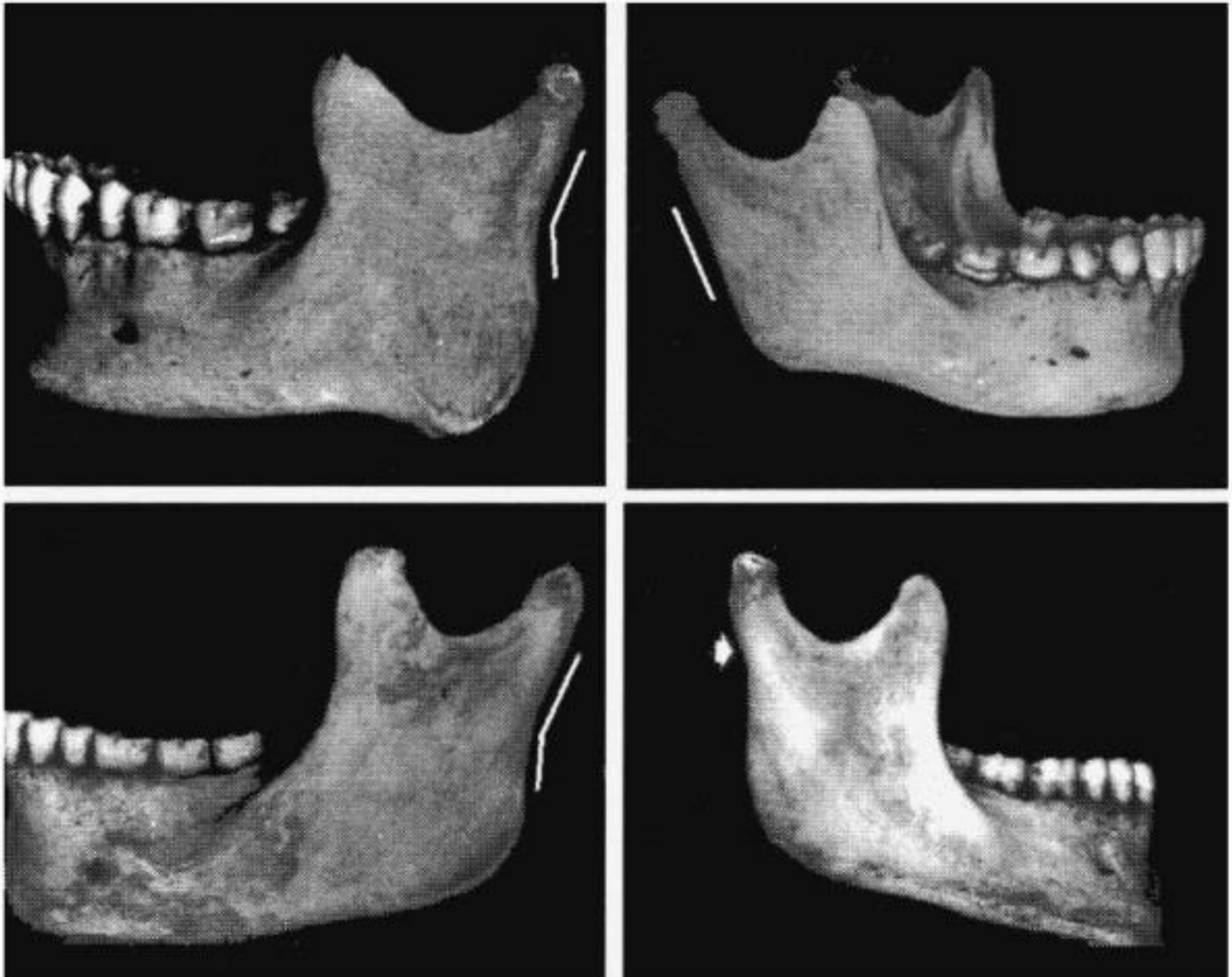


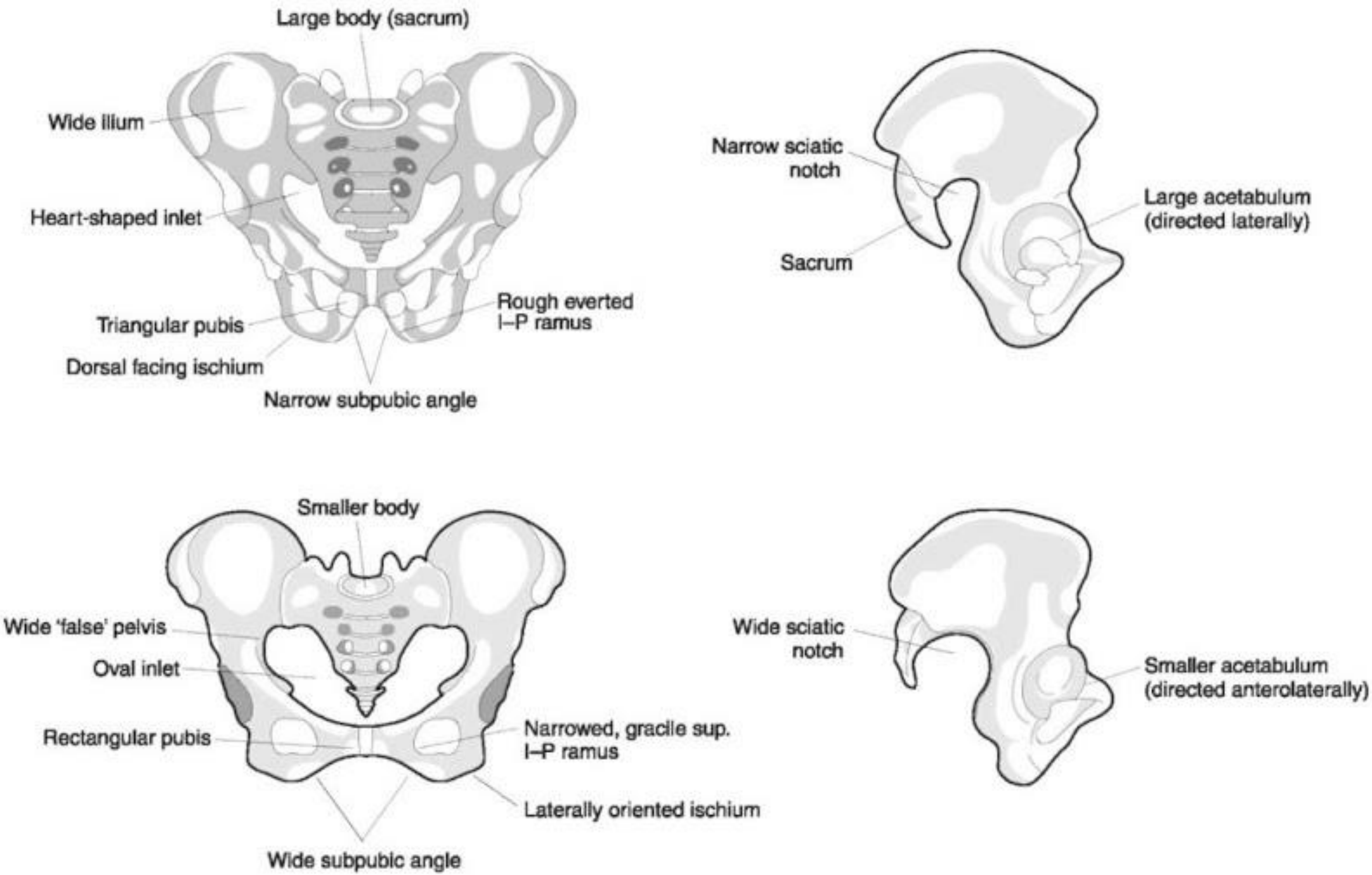
Brothwell 1963:52




NUCHAL CREST
1
2
3
4
5
MASTOID PROCESS
1
2
3
4
5
SUPRA-ORBITAL MARGIN
1
2
3
4
5
SUPRA-ORBITAL RIDGE/GLABELLA
1
2
3
4
5
MENTAL EMINENCE
1
2
3
4
5


A
Sloping forehead and rounded skull contour
Large brow ridge
Robust occiput
Large mastoid
Ramus flexure
B
Vertical forehead
Rounded occiput
Small mastoid
Straight ramus
C
Hyperfeminine
Feminine
Indifferent
Masculine
Hypermasculine
External occipital protuberance
Glabella
Mastoid process





Large body (sacrum)
Wide ilium
Heart-shaped inlet
Triangular pubis
Dorsal facing ischium
Narrow subpubic angle
Rough everted I–P ramus
Narrow sciatic notch
Sacrum
Large acetabulum (directed laterally)
Smaller body
Wide 'false' pelvis
Oval inlet
Rectangular pubis
Wide subpubic angle
Narrowed, gracile sup. I–P ramus
Laterally oriented ischium
Wide sciatic notch
Smaller acetabulum (directed anterolaterally)

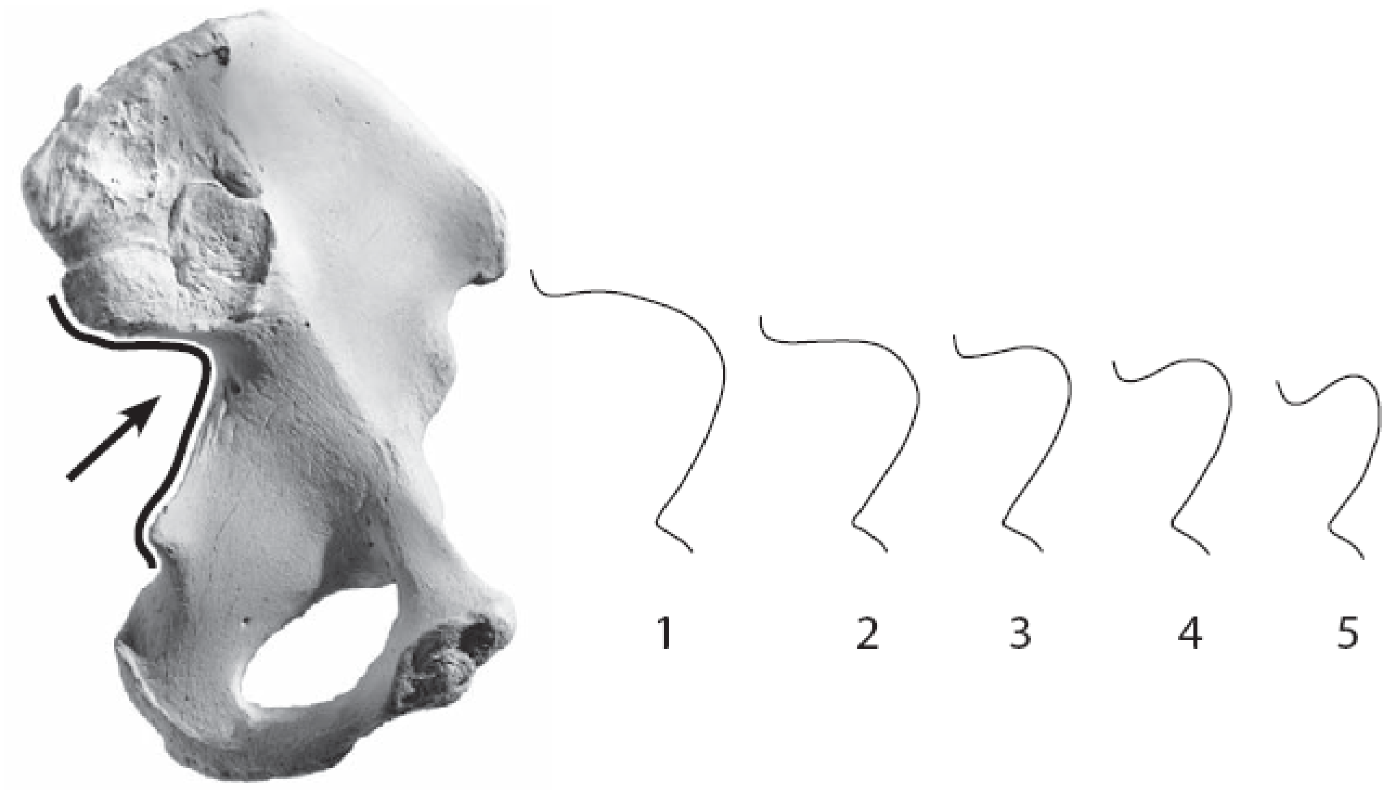


Figure 19.13 Sex differences in the greater sciatic notch, from Walker in Buikstra and Ubelaker's Standards book (1994). The greater sciatic notch tends to be broad in females and narrow in males. These shape differences are not as reliable as those in the subpubic region and should be thought of as secondary indicators. The best results for scoring are obtained by holding the os coxae above this figure so that the greater sciatic notch has the same orientation as the outlines, aligning the straight anterior portion of the notch that terminates at the ischial spine with the right side of the diagram. While holding the bone in this manner, move it to determine the closest match. Ignore any exostoses near the preauricular sulcus and the inferior posterior iliac spine. Configurations more extreme than 1 or 5 should be scored as 1 and 5, respectively. The illustration numbered 1 shows typical female morphology, whereas the higher numbers are male conformations.

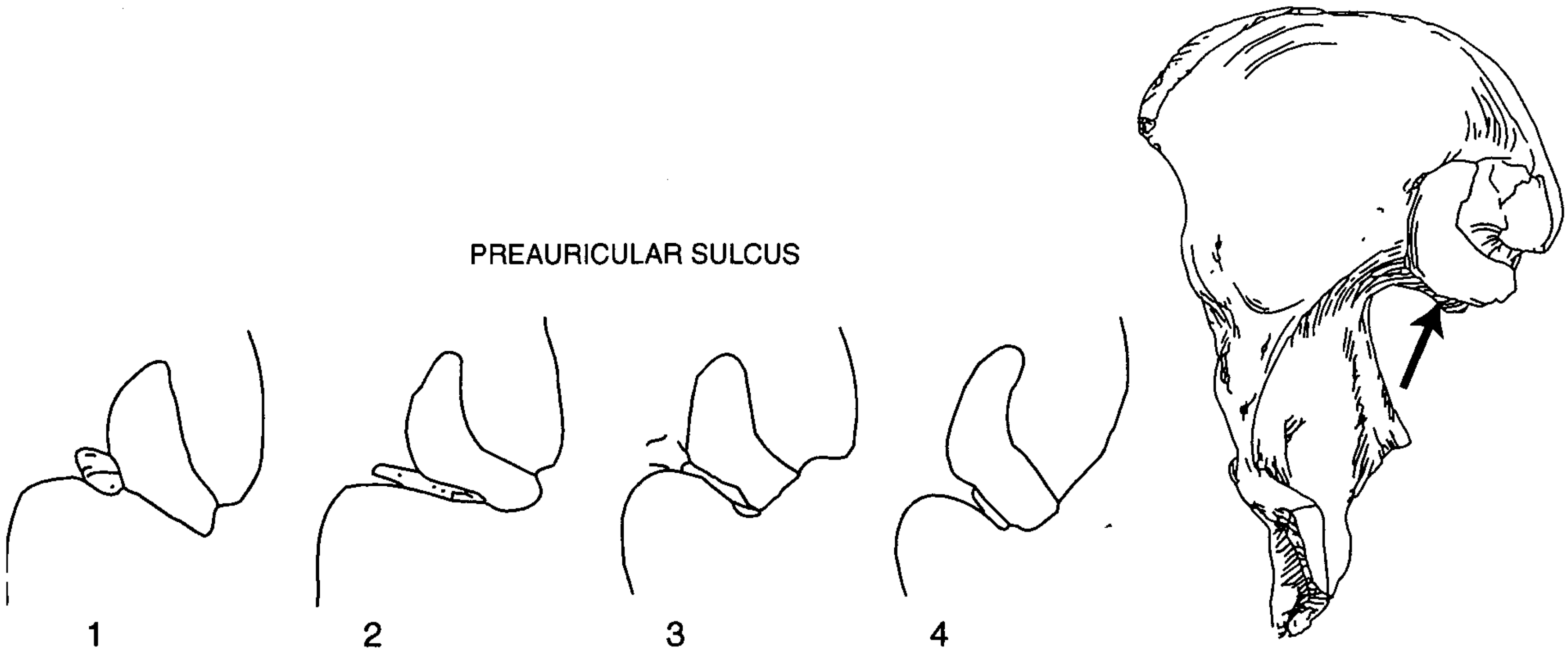


Figure 3. Scoring system for preauricular sulcus. Drawing by P. Walker (after Milner 1992).

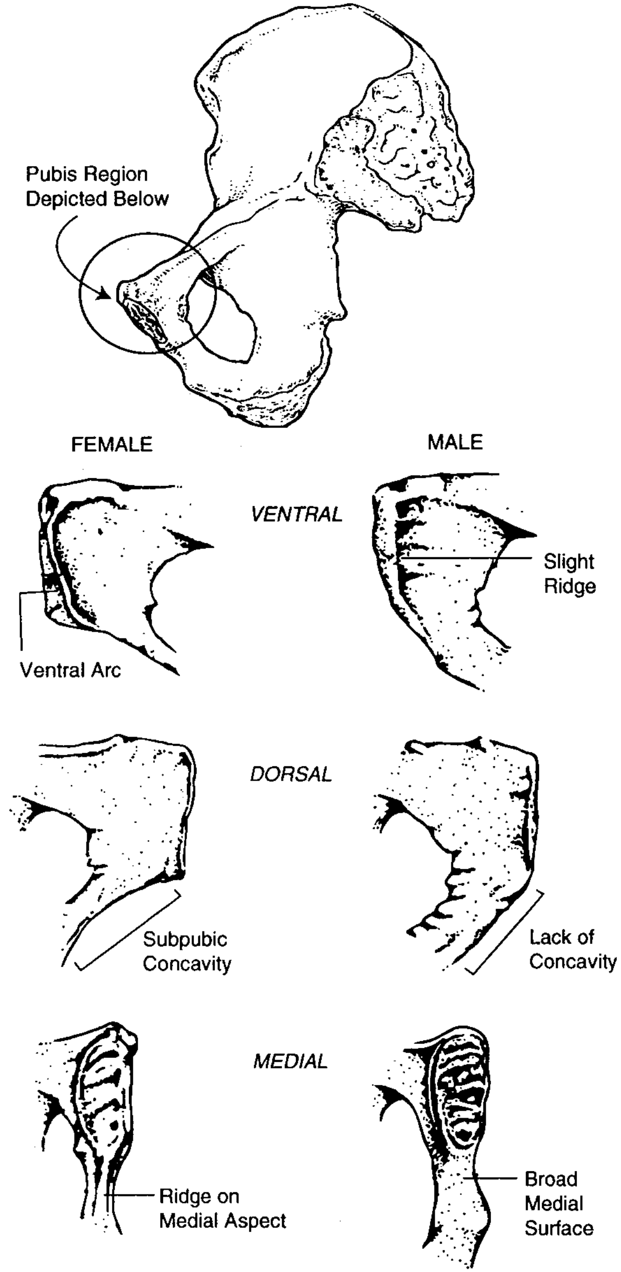


Figure 1. Sex differences in the subpubic region: Phenice's technique for sex determination. Drawing by Zbigniew Jastrzebski (after Buikstra and Mielke 1985; Phenice 1969).

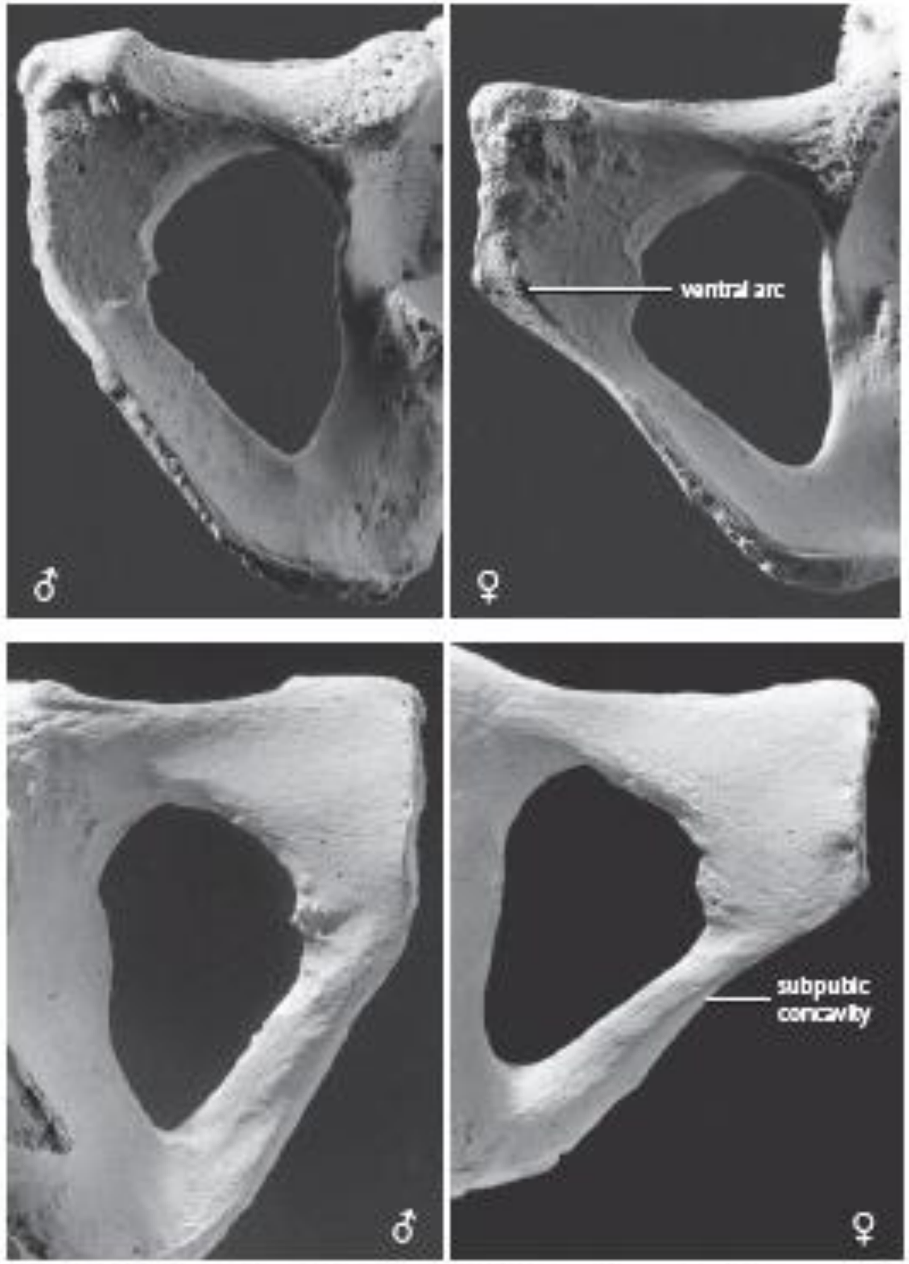


Figure 19.15 (*above and opposite*) The Phenice (1969) technique for sexing the pubic portion of the os coxae from the left side. In each comparison, the male is on the left and the female is on the right. These ossa coxae are the ones illustrated in Figure 19.14. Three-quarters natural size.

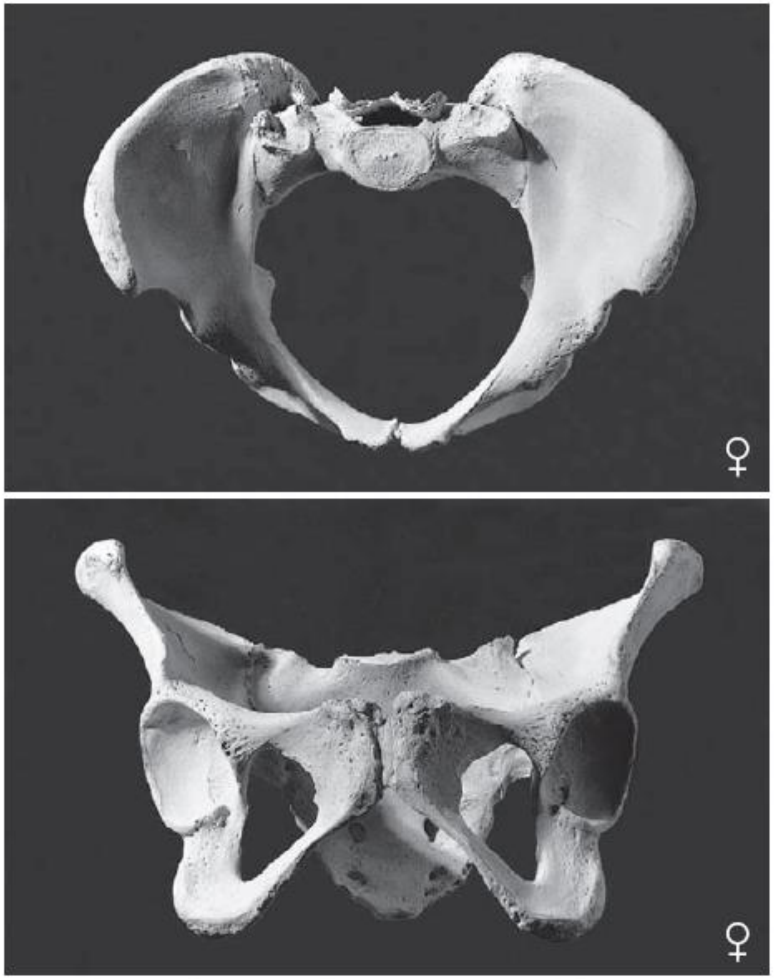
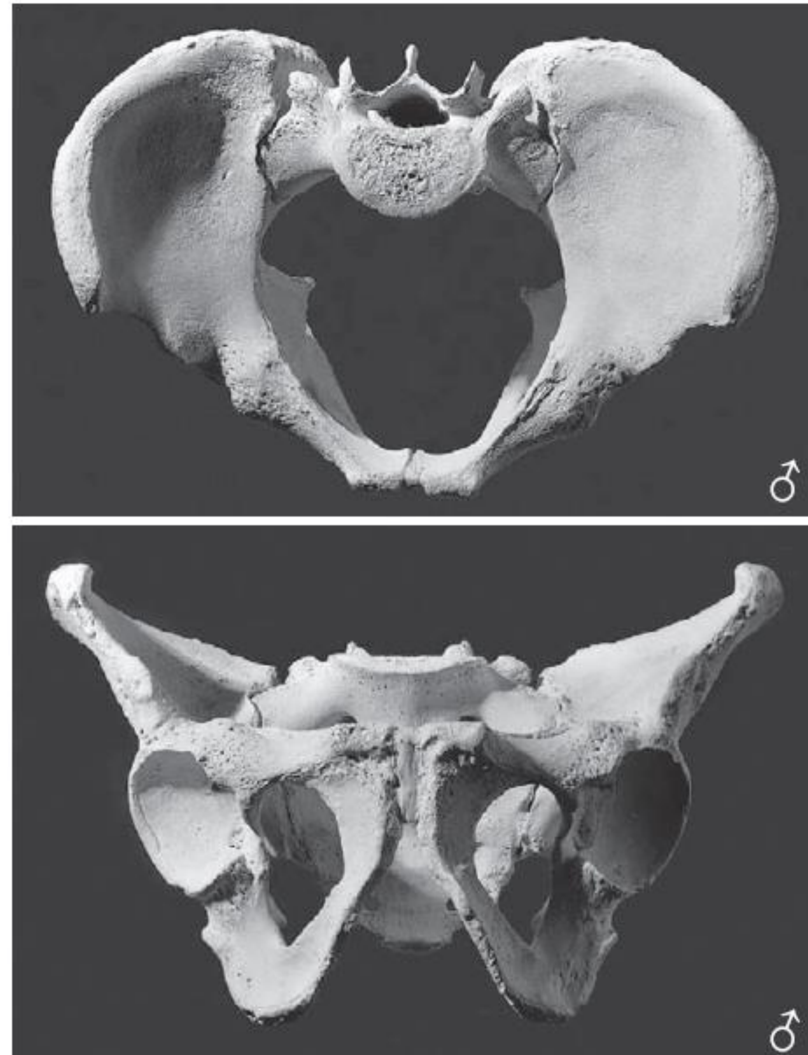


Figure 19.14 Sexual dimorphism in the bony pelvis showing differences in size and shape. Female (*above*); male (*opposite*). One-fourth natural size.



.14 (continued)

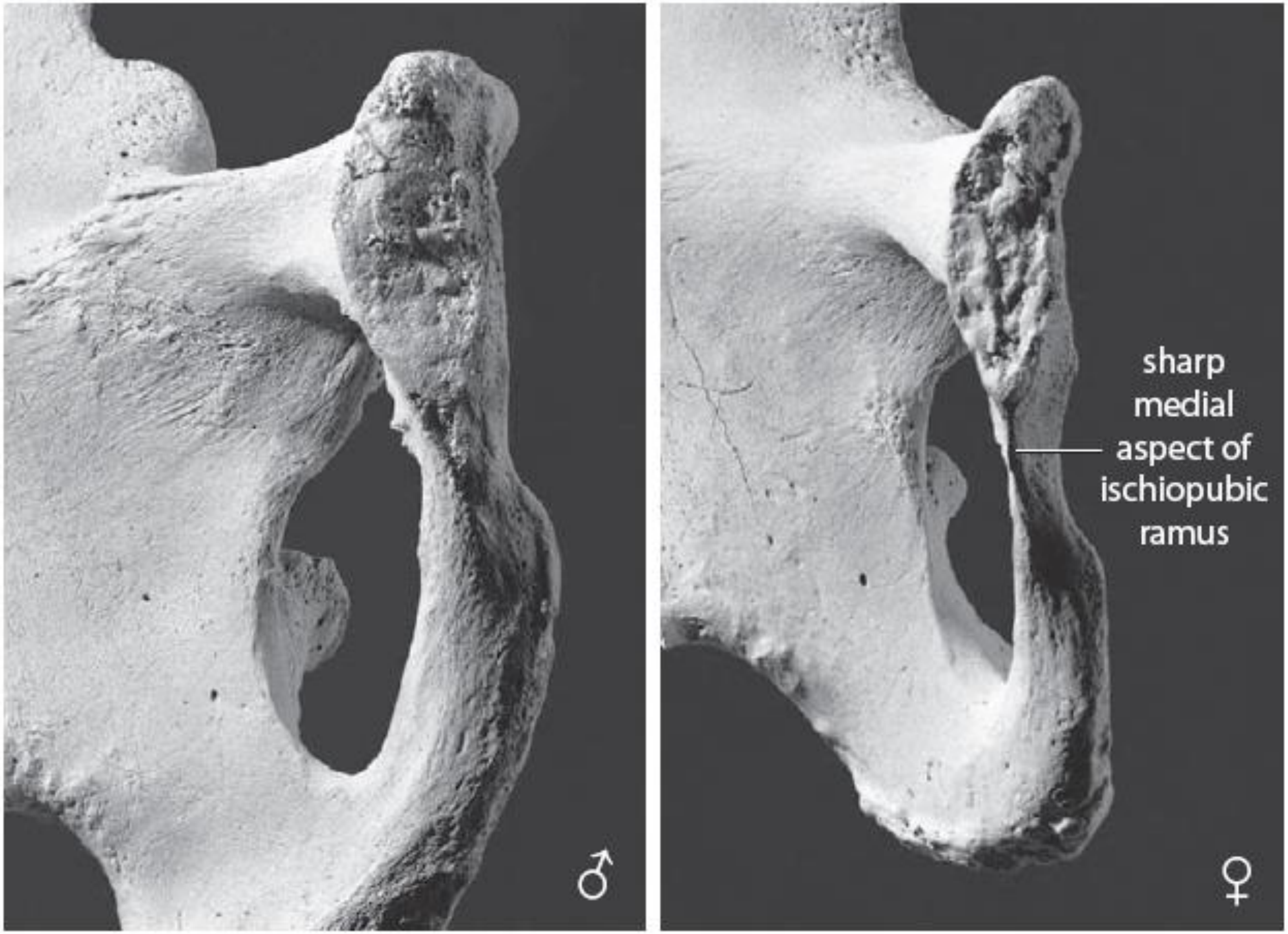


Figure 19.15 (continued)

ΣΤΕΡΝΟ

Σημασία για τον προσδιορισμό του φύλου έχουν οι αναλογίες του μήκους της βάσης σε σχέση με το μήκος του manubrium

Αν η βάση έχει μήκος μεγαλύτερο από το διπλάσιο του manubrium τότε το άτομο πιθανότατα είναι αρσενικό

Αν η βάση έχει μήκος μικρότερο από το διπλάσιο του manubrium τότε το άτομο πιθανότατα είναι θηλυκό

ΩΜΟΠΛΑΤΗ

Σημασία για τον προσδιορισμό του φύλου έχει το μήκος της ωμοπλάτης και το μήκος της ωμογλήνης.

Αν το μήκος της ωμοπλάτης είναι μεγαλύτερο από 170 mm τότε το άτομο πιθανότατα είναι αρσενικό. Αν είναι μικρότερο από 140 mm μάλλον θηλυκό.

Αν το μήκος της ωμογλήνης είναι μεγαλύτερο από 36 mm τότε το άτομο πιθανότατα είναι αρσενικό. Αν είναι μικρότερο από 35 mm μάλλον θηλυκό.

ΒΡΑΧΙΟΝΑΣ - ΚΕΡΚΙΔΑ

Σημασία για τον προσδιορισμό του φύλου έχει η διάμετρος της κεφαλής του βραχιόνιου οστού και η διάμετρος της κεφαλής της κερκίδας

Κεφαλή βραχίονα: Αν η διάμετρος είναι μεγαλύτερη των 47 mm τότε είναι μάλλον αρσενικό άτομο. Αν είναι μικρότερη από 43 mm πιθανόν θηλυκό.

Κεφαλή κερκίδας: Αν η διάμετρος είναι μεγαλύτερη των 24 mm τότε είναι μάλλον αρσενικό άτομο. Αν είναι μικρότερη από 21 mm πιθανόν θηλυκό.

ΜΗΡΟΣ

Σημασία για τον προσδιορισμό του φύλου έχει η διάμετρος της κεφαλής του μηριαίου οστού και η περίμετρος στο μέσον της διάφυσης

Κεφαλή μηρού: Αν η διάμετρος είναι μεγαλύτερη των 47 mm τότε είναι μάλλον αρσενικό άτομο. Αν είναι μικρότερη από 43 mm πιθανόν θηλυκό.

Περίμετρος στο μέσον του οστού: Αν είναι μεγαλύτερη των 81 mm τότε είναι μάλλον αρσενικό άτομο. Αν είναι μικρότερη από 81 mm πιθανόν θηλυκό.

ΥΠΟΛΟΓΙΣΜΟΣ ΗΛΙΚΙΑΣ

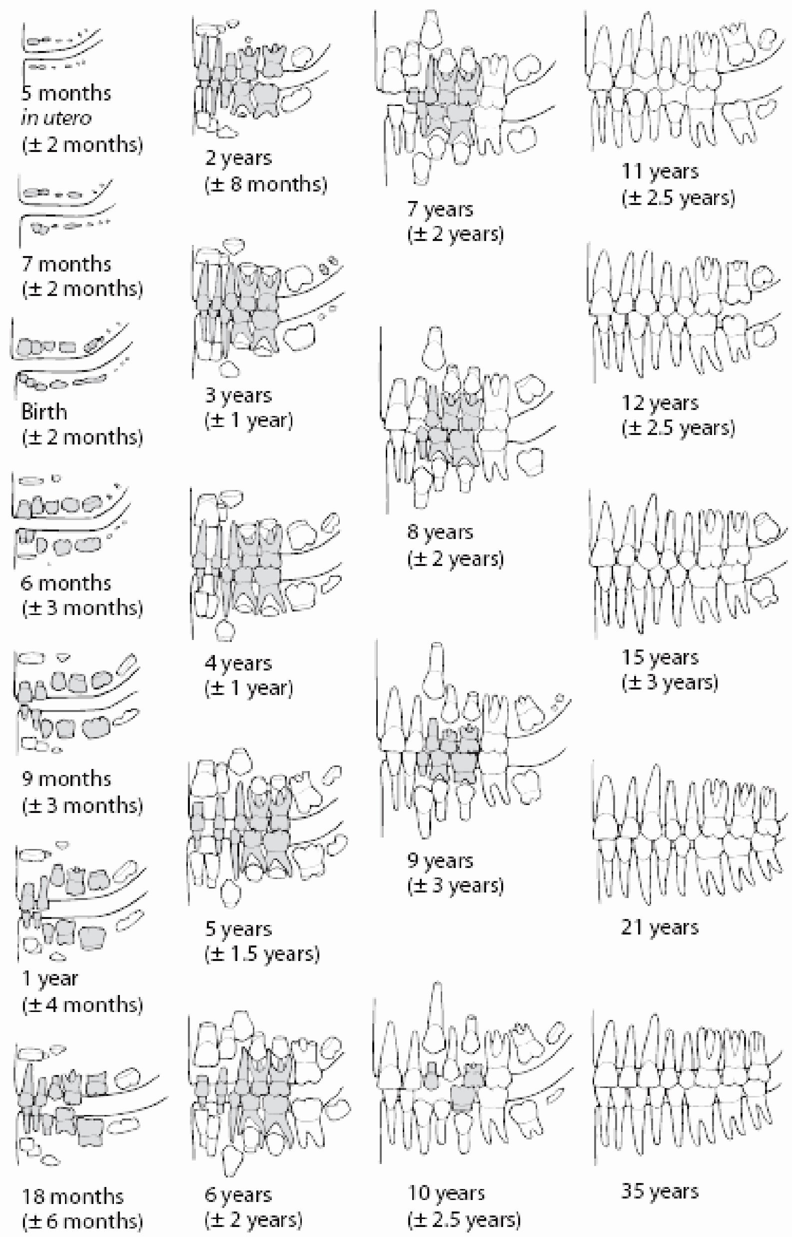


Figure 19.1 Dental development in Native Americans [adapted from Ubelaker (1989); note that data on the deciduous teeth come from non-Native Americans].

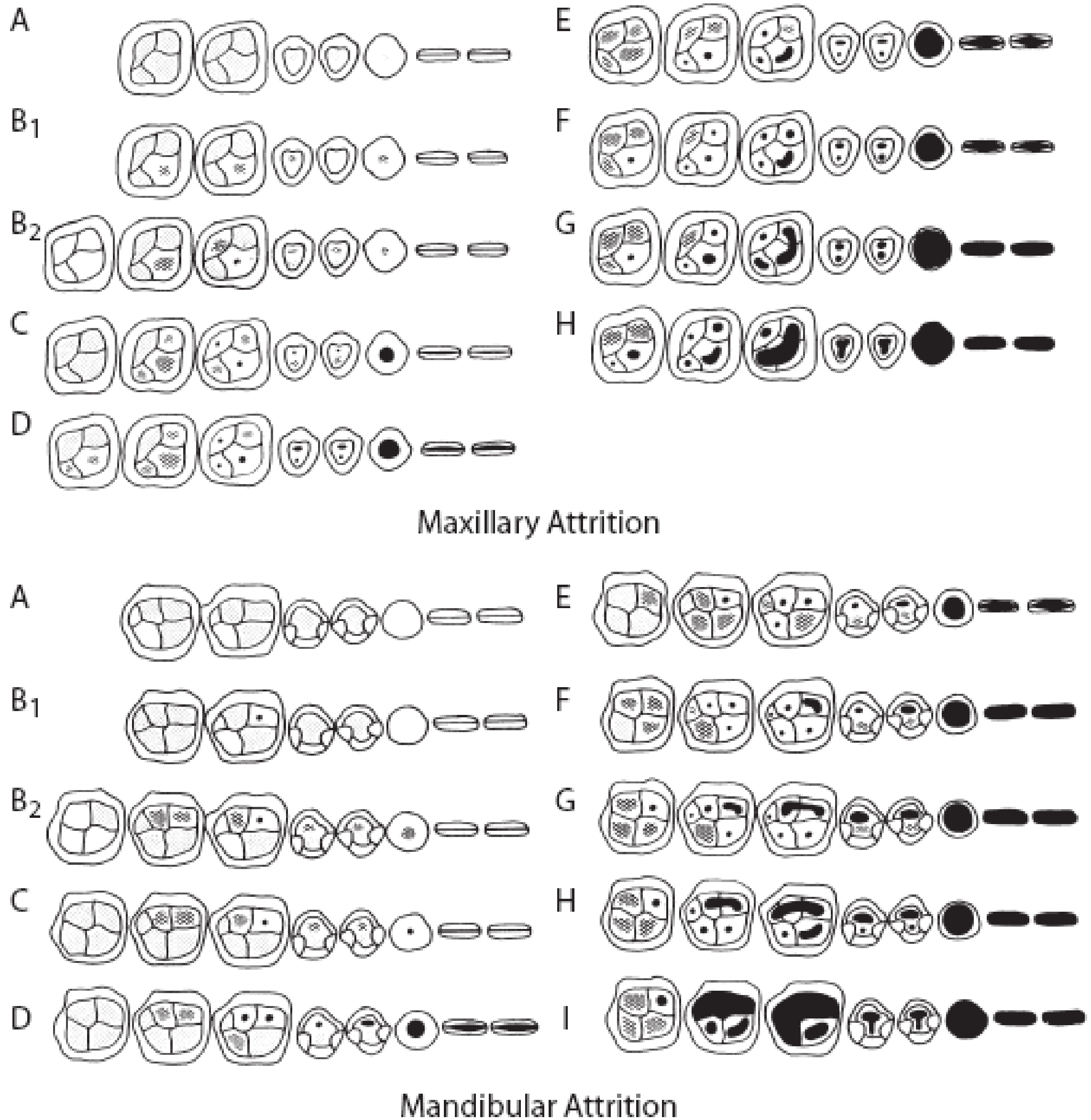
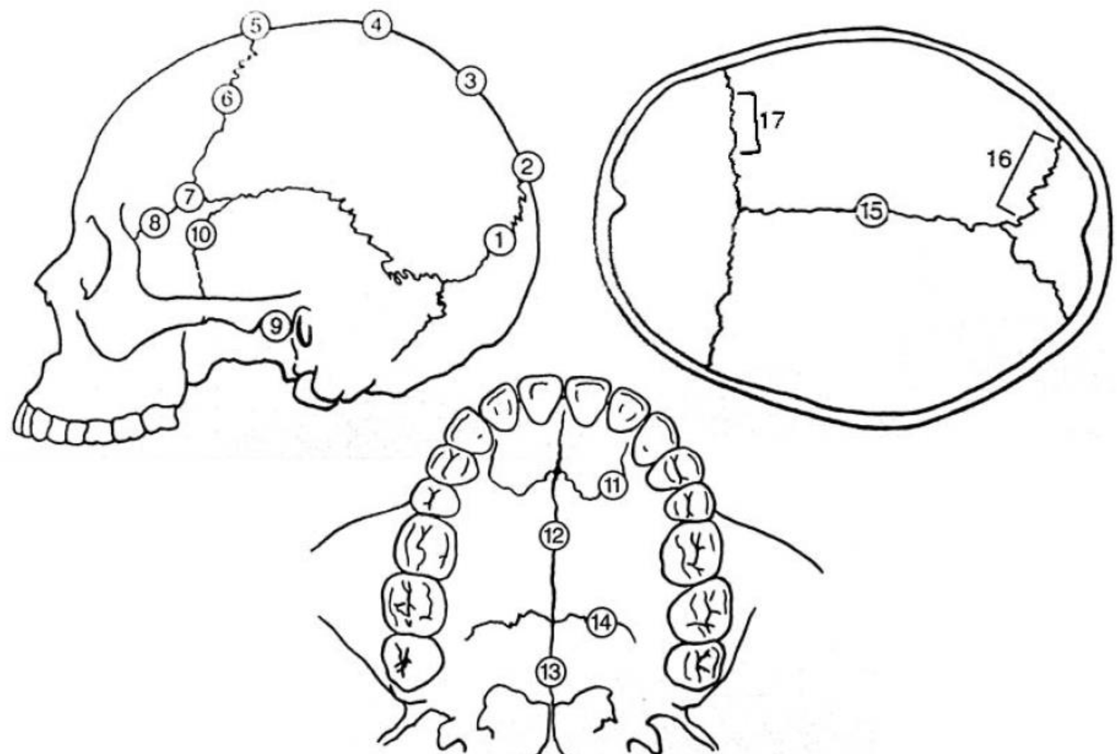
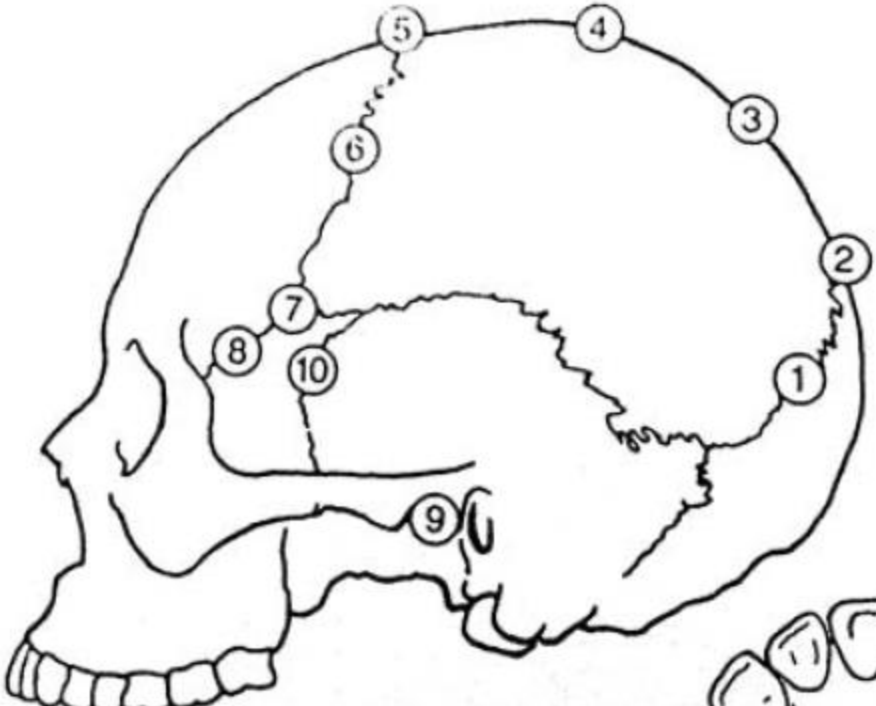


Figure 19.3 Modal tooth-wear patterns of a prehistoric Native American population from Libben, Ohio. Wear is divided into phases for right maxillary (top) and left mandibular (bottom) dentitions. Exposed dentine is shown in black. Age in years for the various phases are as follows: A, 12–18; B_1, 16–20; B_2, 16–20; C, 18–22; D, 20–24; E, 24–30; F, 30–35; G, 35–40; H (maxillary), 40–50; H (mandibular), 40–45; I, 45–55. See Lovejoy (1985) for a full description.

Another method of chronologically aging human skeletal remains is by observing the **cranial suture closure sites**. The human skull has **seventeen unique cranial fusion sites** (Figure 1), that are positioned on **the vault, the lateral-anterior sites, and the maxillary suture**. The seventeen sites are:

1. Midlambdoid
2. Lambda
3. Obelion
4. Anterior sagittal
5. Bregma
6. Midcoronal
7. Pterion
8. Sphenofrontal
9. Inferior sphenotemporal
10.Superior sphenotemporal
11. Incisive suture
12. Anterior median palatine
13. Posterior median palatine
14. Transverse palatine
15. Sagittal (endocranial)
16. Left lambdoidal (endocranial)
17.Left coronal (endocranial)

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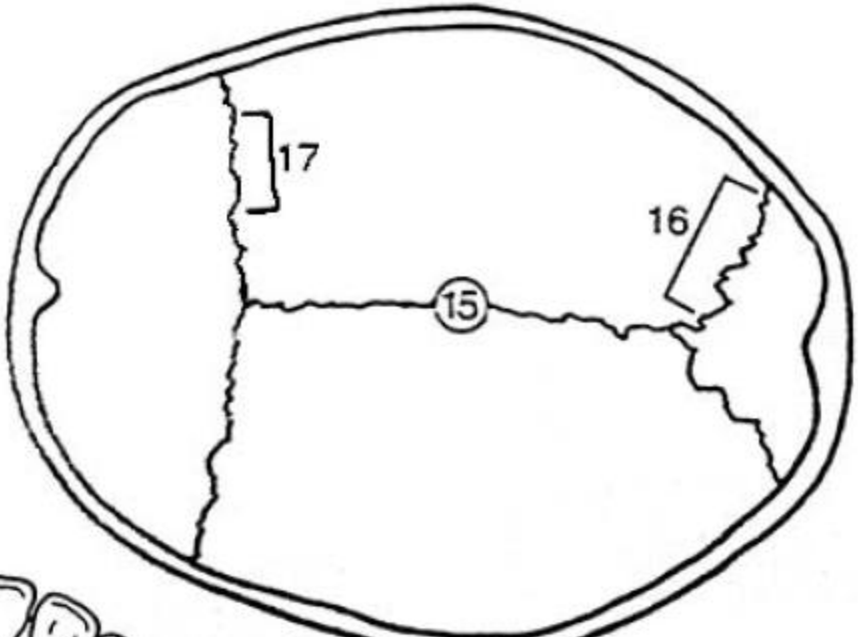
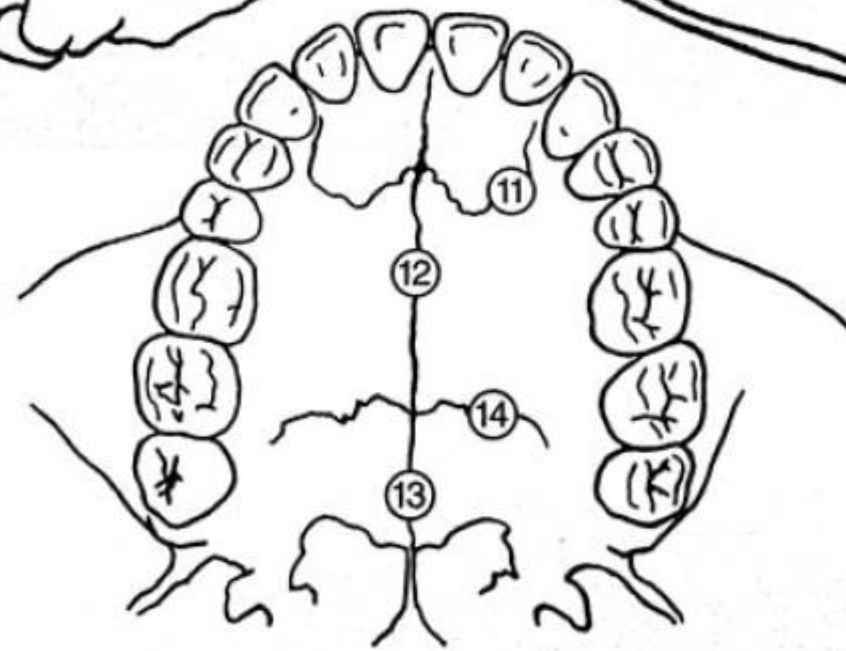
10


15
16
17


11
12
13
14

The first seven fusion sites are on the vault, and the lateral-anterior sites consist of numbers six to ten. **Each suture is usually given a numerical score**, the score of **0-3 is recommended by the Buikstra and Ubelaker standards (1994)**. The Buikstra and Ubelaker (1994) scoring system is as follows;

0 is given when the suture is **open**, meaning there is **no evidence of ectocranial closure**.
1 is given where there is a **minimal closure** of the suture.
2 is given to sutures with evidence of **significant closure**.
3 is given to a **completely obliterated suture** (complete fusion).

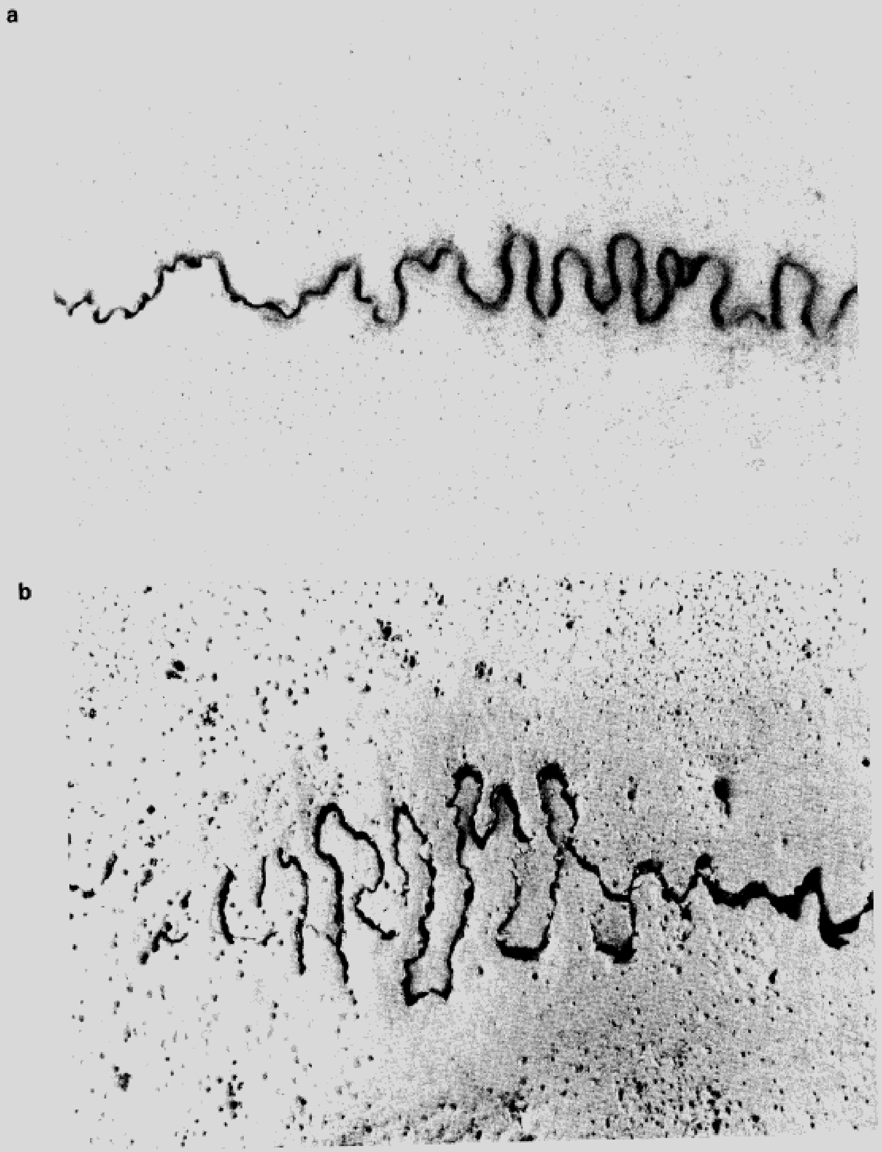


Figure 12a-b. Stages of ectocranial suture closure; a) Open: score = 0; b) Minimal closure: score = 1. Courtesy of P. L. Walker.

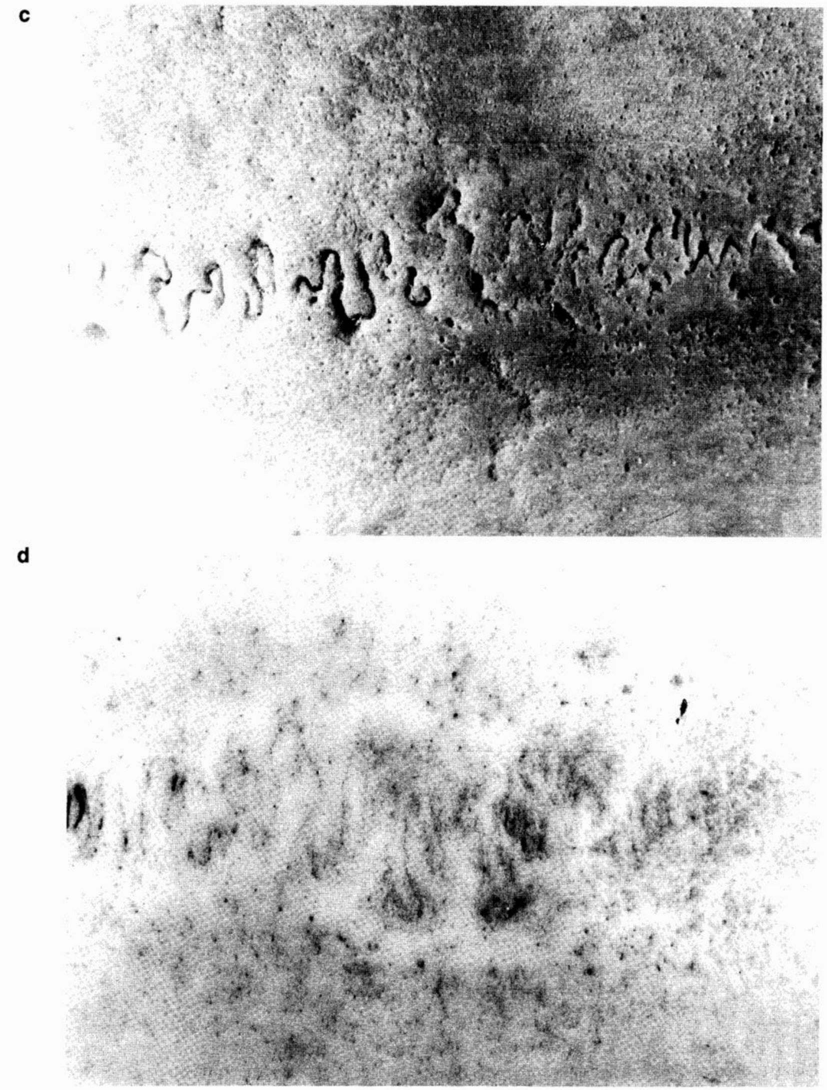


Figure 12c-d. Stages of ectocranial suture closure. c) Significant closure: score = 2; d) Complete obliteration: score = 3. Courtesy of P. L. Walker.

So to attain the age of a skeletal remain you would **total the scores for each grouping of sites**, **vault (1-7) or lateral anterior (6-10)**, and by comparing the scores to the **known composite scores vs. chronological age** of Meindl And Lovejoy, 1985 (Figure 2).

'Vault' Sutural Ages			'Lateral-anterior' Sutural Ages		
Composite Score	*Mean Age*	*Standard Deviation*	*Composite Score*	*Mean Age*	*Standard Deviation*
0	-	-	0	-	-
1-2	30.5	9.6	1	32.0	8.3
3-6	34.7	7.8	2	36.2	6.2
7-11	39.4	9.1	3-5	41.1	10.0
12-15	45.2	12.6	6	43.4	10.7
16-18	48.8	10.5	7-8	45.5	8.9
19-20	51.5	12.6	9-10	51.9	12.5
21	-	-	11-14	56.2	8.5
			15	-	-

I 18–19 years

II 20–21 years

III 22–24 years

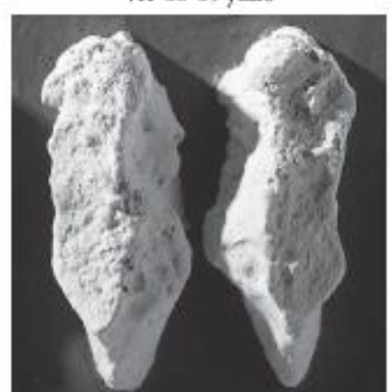
IV 25–26 years

V 27–30 years

VI 30–35 years

VII 35–39 years

VIII 39–44 years



IX 44–50 years

X 50+ years

Figure 19.7 Todd's (1920) ten age phases of pubic symphysis modification in adult white males. Todd's standard specimens are shown here, natural size. The anterosuperior ends of the pubic symphyses are toward the top of the page, and the ventral margins of each symphysis pair are opposed. In the original Todd study, phases were defined according to topography on the symphyseal surface and the nature of the margins of this surface. Note the wider age ranges for the higher stages. For more details on application of the Todd technique, consult the original 1920 publication. Many newer standards have been published since this first attempt to use changes in the topography of the pubic symphysis to age the skeleton, all relying on the bony changes that correlate with age.

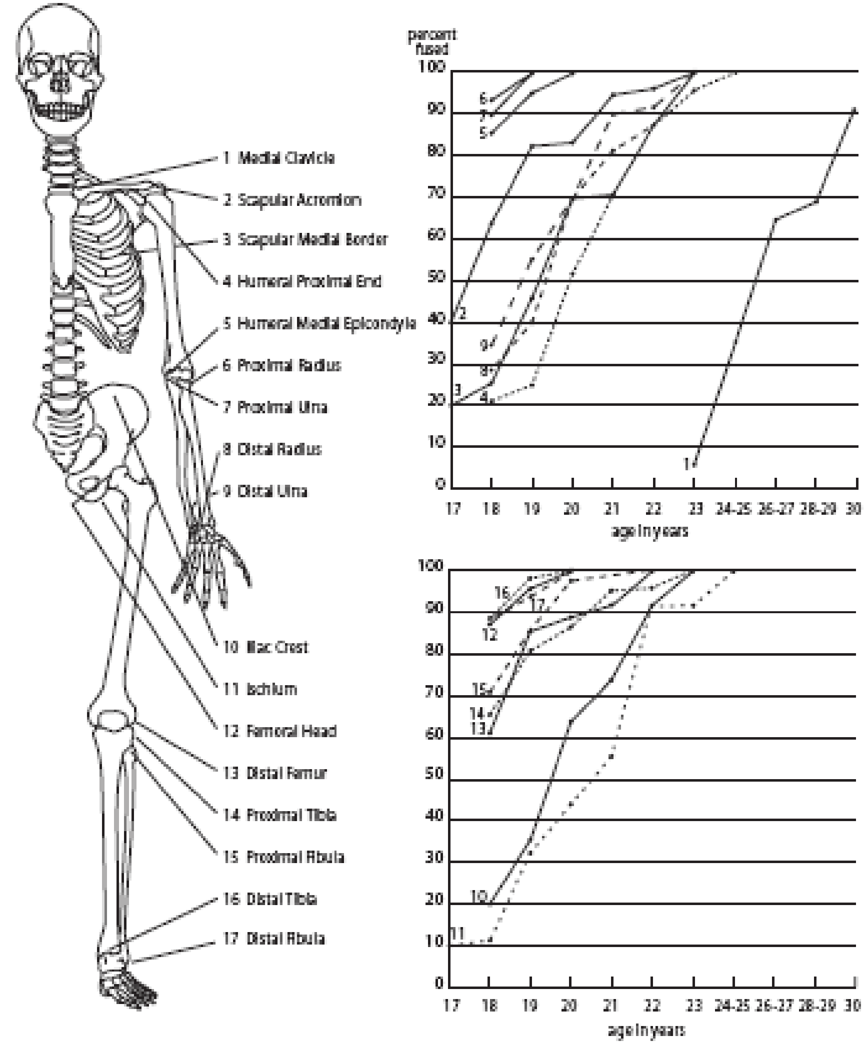


Figure 19.5 Ages of fusion for various male skeletal elements. Data on fusion from McKern and Stewart (1957). These standards, derived from U.S. military personnel who died in the Korean War, show considerable variation in fusion for any given element. For example, in the medial clavicle, McKern and Stewart (1957) found that of 10 individuals aged 17 years, none had fused epiphyses. For the clavicle, the epiphyseal cap begins to unite to the medial end of the clavicle as early as 18 years but can begin to unite at any time between 18 and 25 years. The earliest complete fusion came among some soldiers who died at 23 years, but the study showed that others lived to age 31 before fusion was complete. To use this table, choose a numbered epiphysis from above or below the waist and find its graph to the right of the skeleton. The graph shows what percentage of adult male individuals showed full fusion of each epiphysis at any given age.