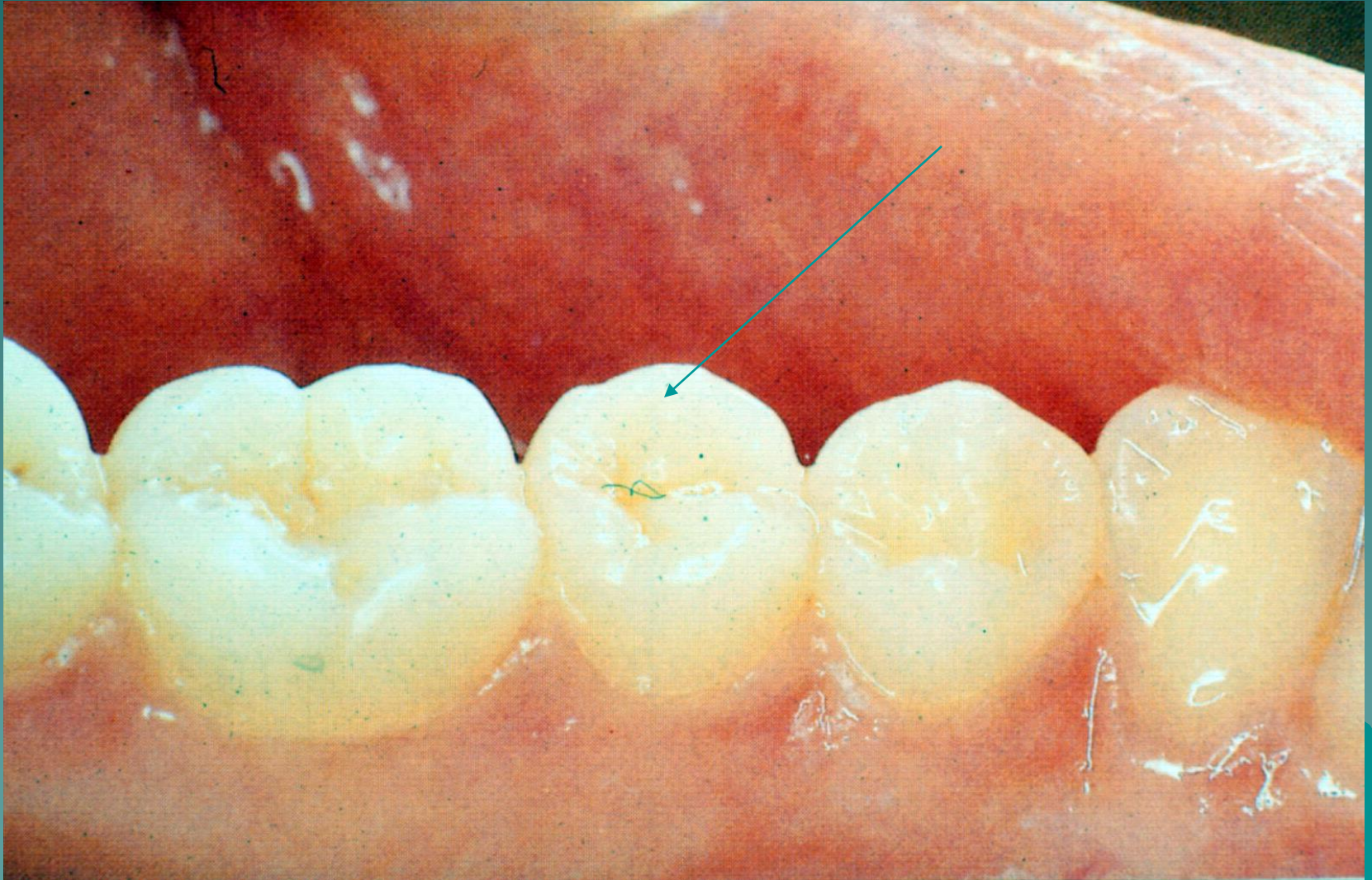


First Man Premolar Cusp Number



2nd Mandibular Premolar



2nd Mn PM Buccal View Same as 1st

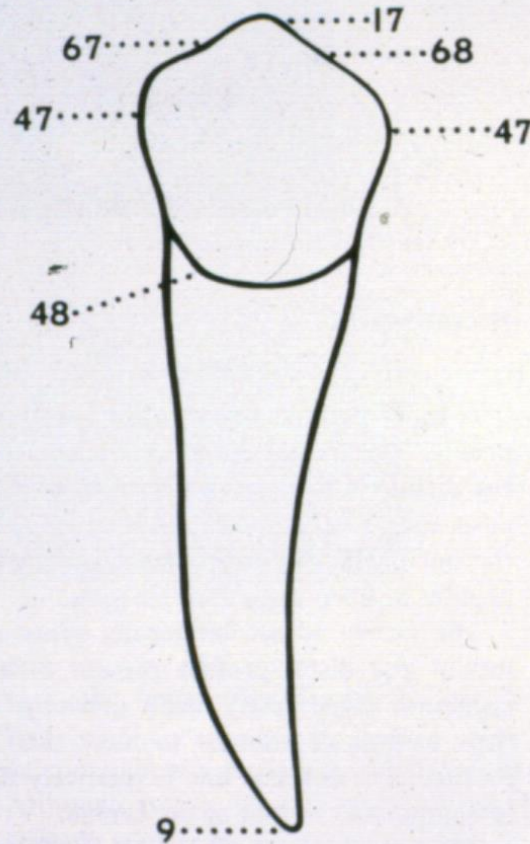
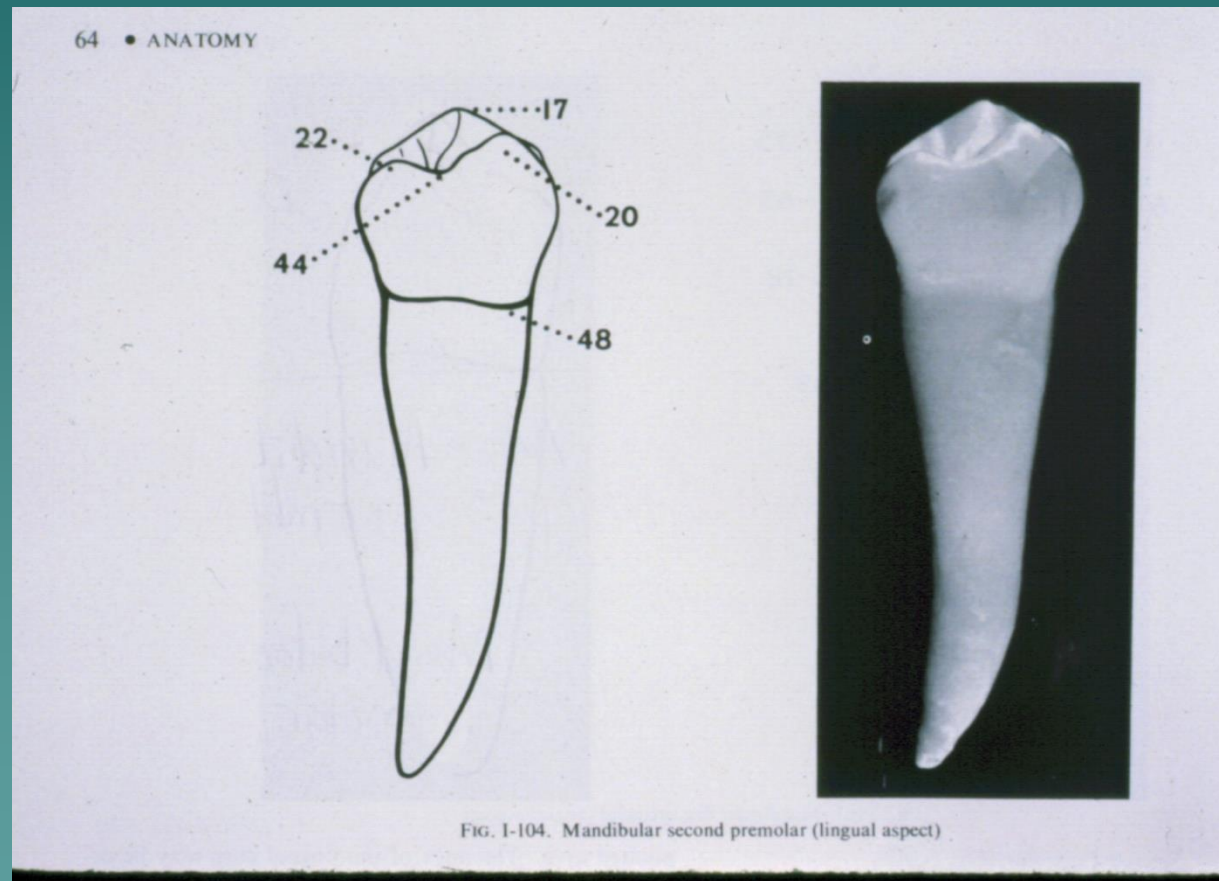


FIG. I-102. Mandibular second premolar (buccal aspect)

2nd Mn PM Lingual View

- ◆ B & L diameters almost equal
- ◆ Main L cusp 20 as high and large as B 17
- ◆ DL cusp 22 smaller



2nd Mn PM Distal View

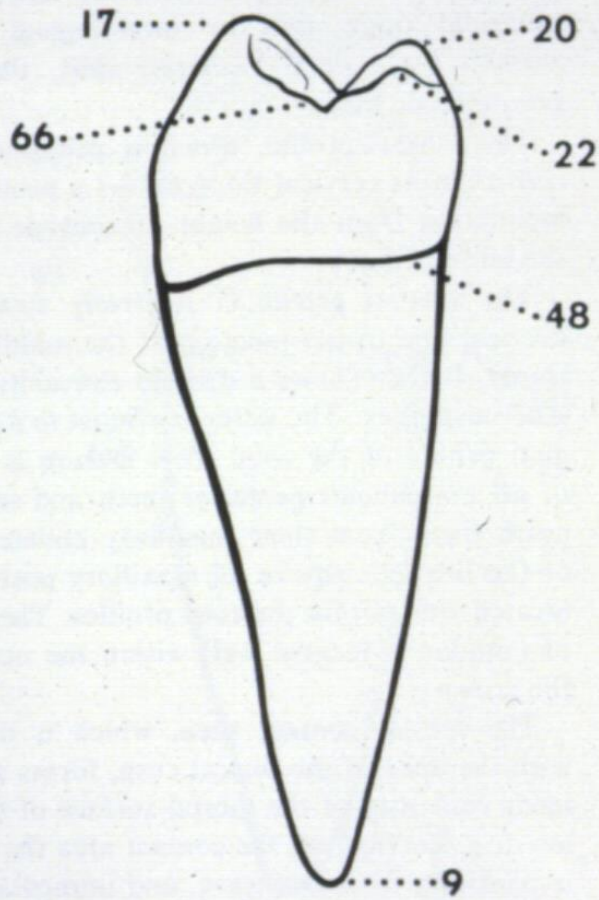
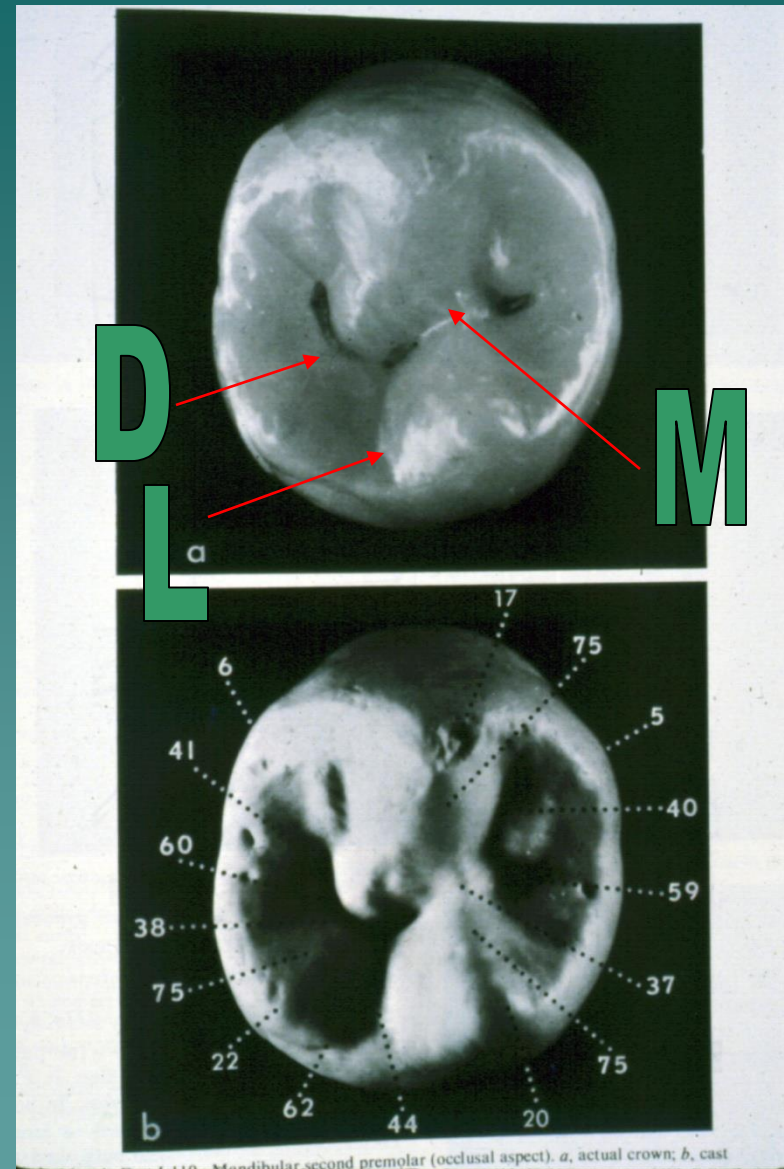


FIG. I-108. Mandibular second premolar (distal aspect)

2nd Mn PM Occlusal

- ◆ Outline nearly square
- ◆ BL and MD nearly =
- ◆ 3 cusps: B 7, ML 20, DL 22
- ◆ M 37, L 44, D 38 grooves form a Y
- ◆ M 59, D 60 fossae have pit and groove



Mn Pm 2 Cusp Number Variation: 2 Rather Than 3 Cusps



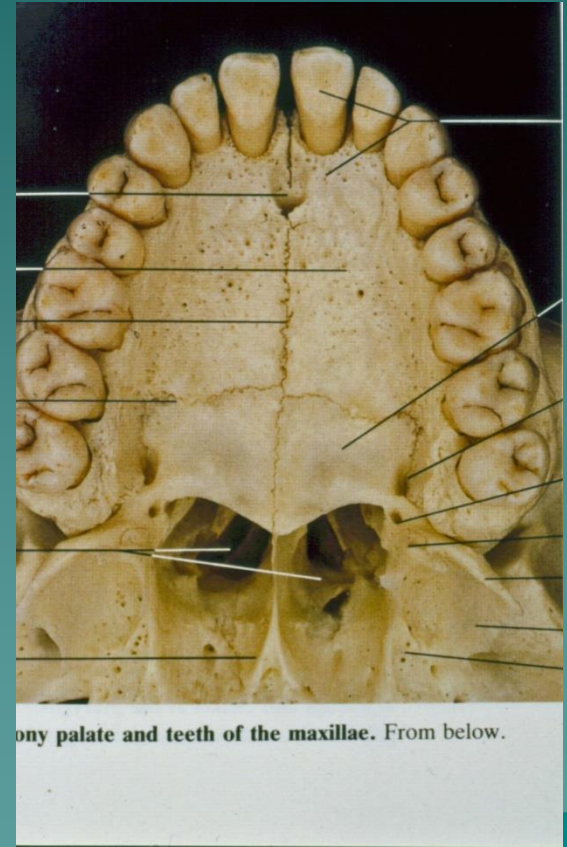




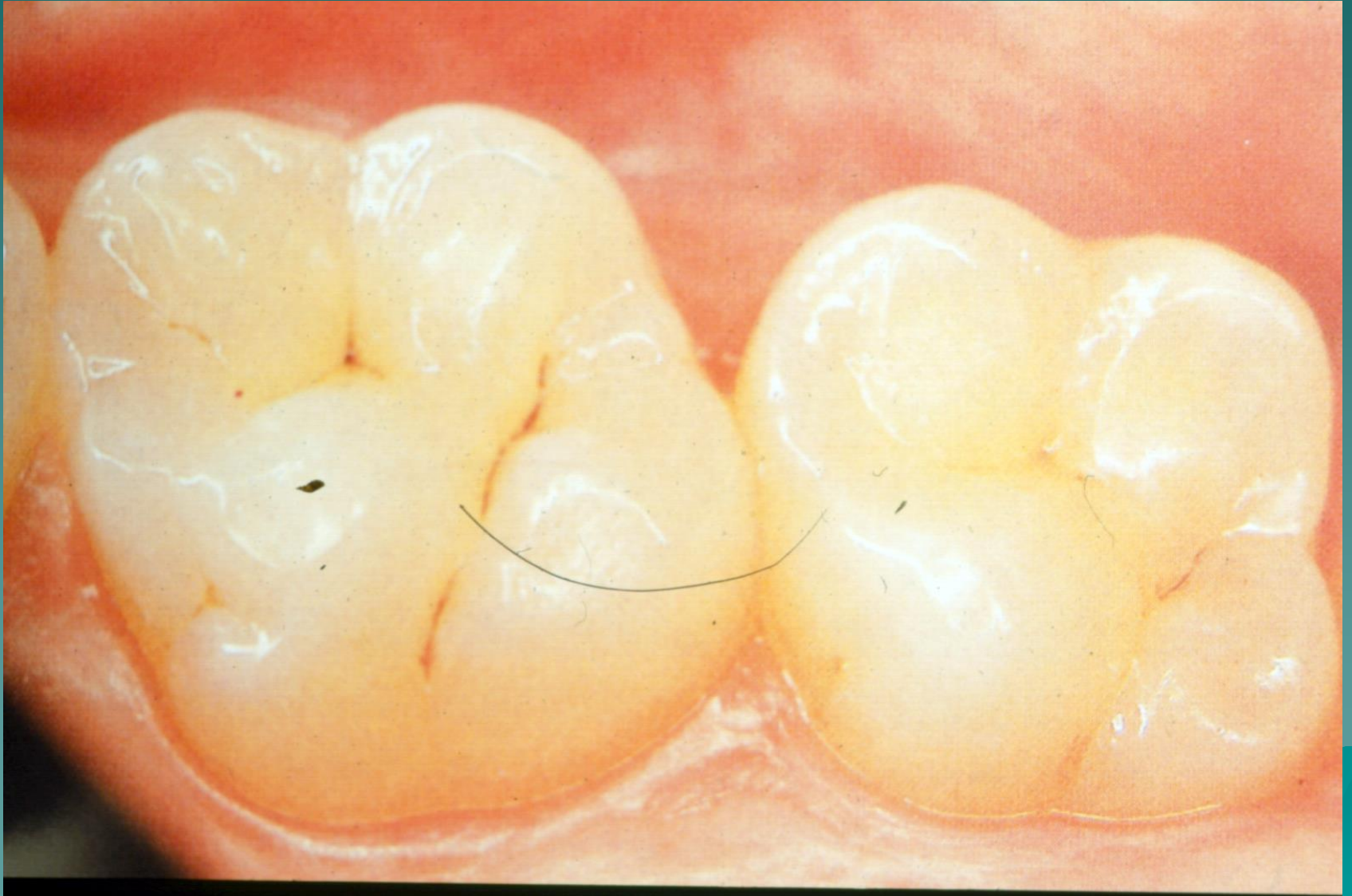


Molars – Class Traits

- ◆ Largest occlusal surfaces
- ◆ All 3 to 5 major cusps
- ◆ Only teeth with 2 Buccal cusps
- ◆ Have 2 or 3 large roots



Maxillary Molars



Max. Molars – Arch Traits

- ◆ 3 roots – 2B and 1L
- ◆ 3 major cusps and one minor (DL minor cusp or absent)
- ◆ Crowns wider BL than MD
- ◆ MB, DB, ML cusps in triangular pattern
- ◆ DB & ML connected by Oblique Ridge (blue line)

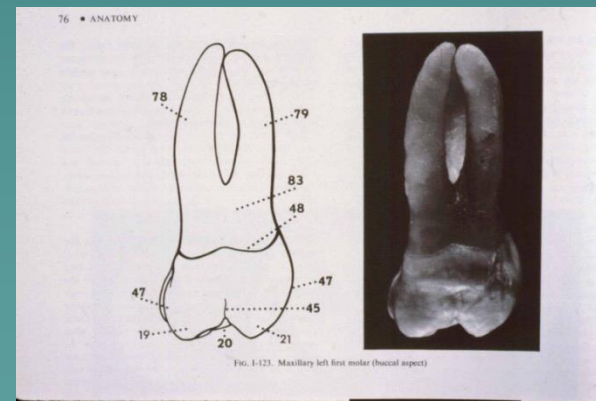
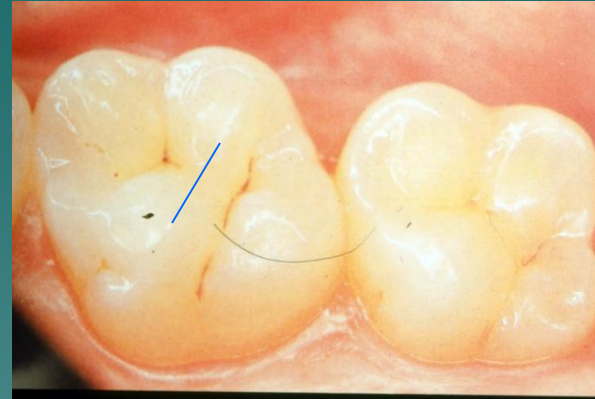
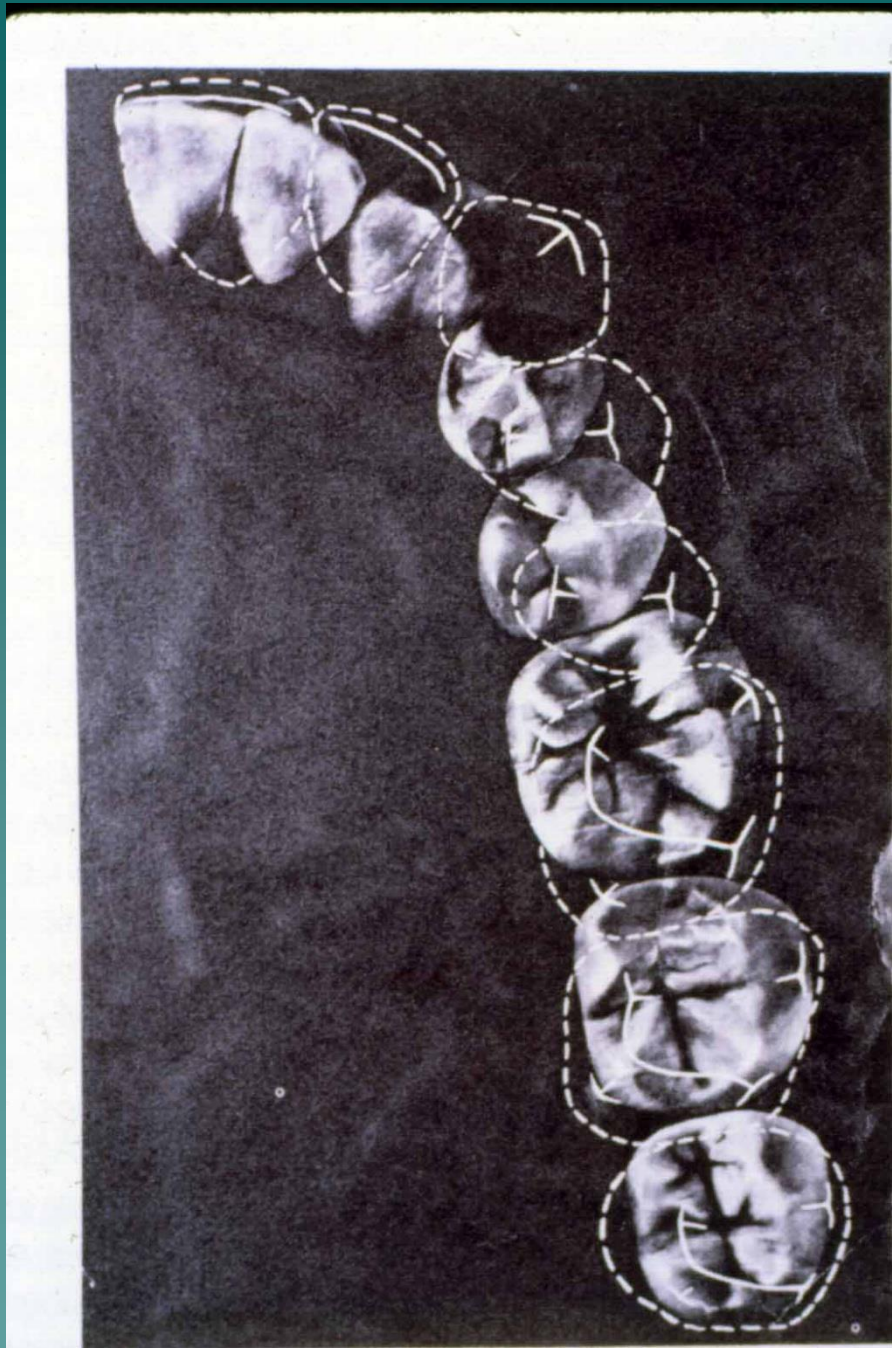
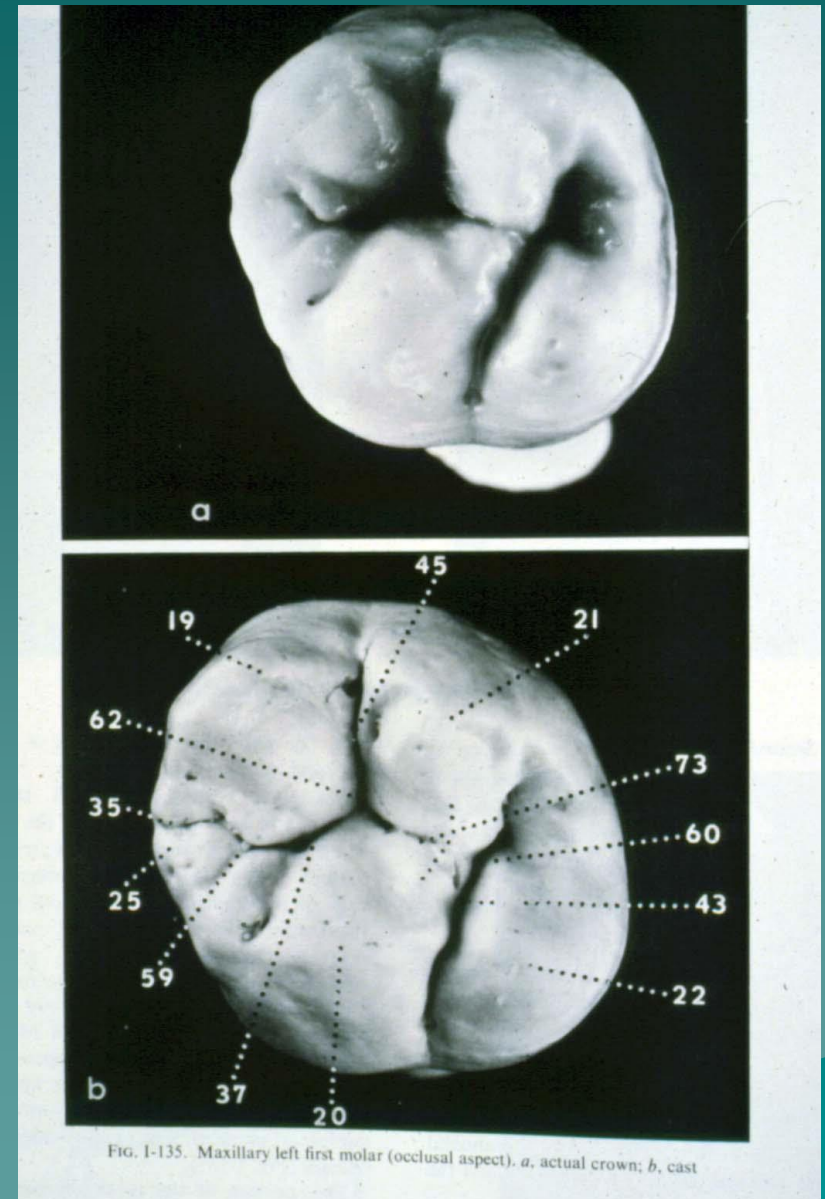


FIG. 1-123. Maxillary left first molar (buccal aspect)



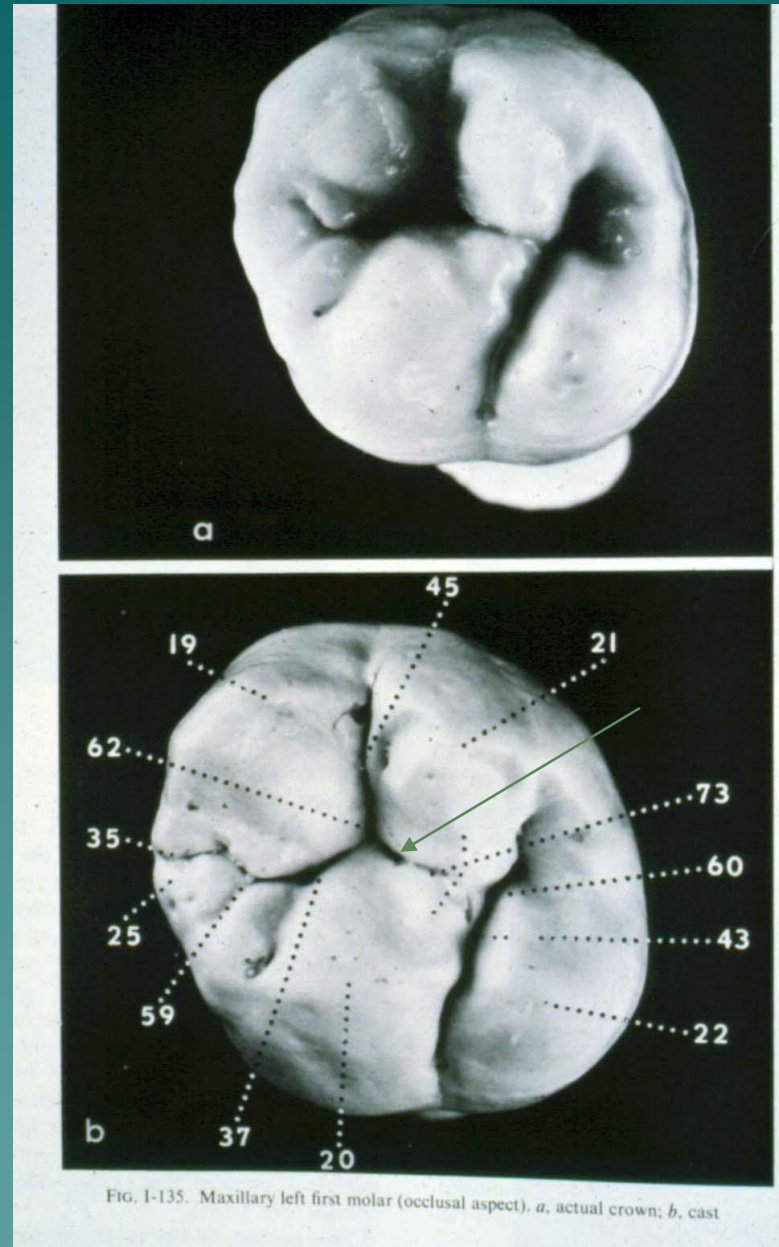
1st Max Molar

- ◆ MB cusp 19
- ◆ ML cusp 20
- ◆ DB cusp 21
- ◆ DL cusp 22
- ◆ Triangular ridges
- ◆ Cusp ridges
- ◆ M marginal ridge
- ◆ D marginal ridge
- ◆ Oblique ridge 73



MX M1

- ◆ Central pit 62
- ◆ M marginal groove 35
- ◆ Mesial groove 37
- ◆ Buccal groove 45
- ◆ Distal groove (red)
- ◆ DL groove 43
- ◆ M triangular fossa
- ◆ D triangular fossa



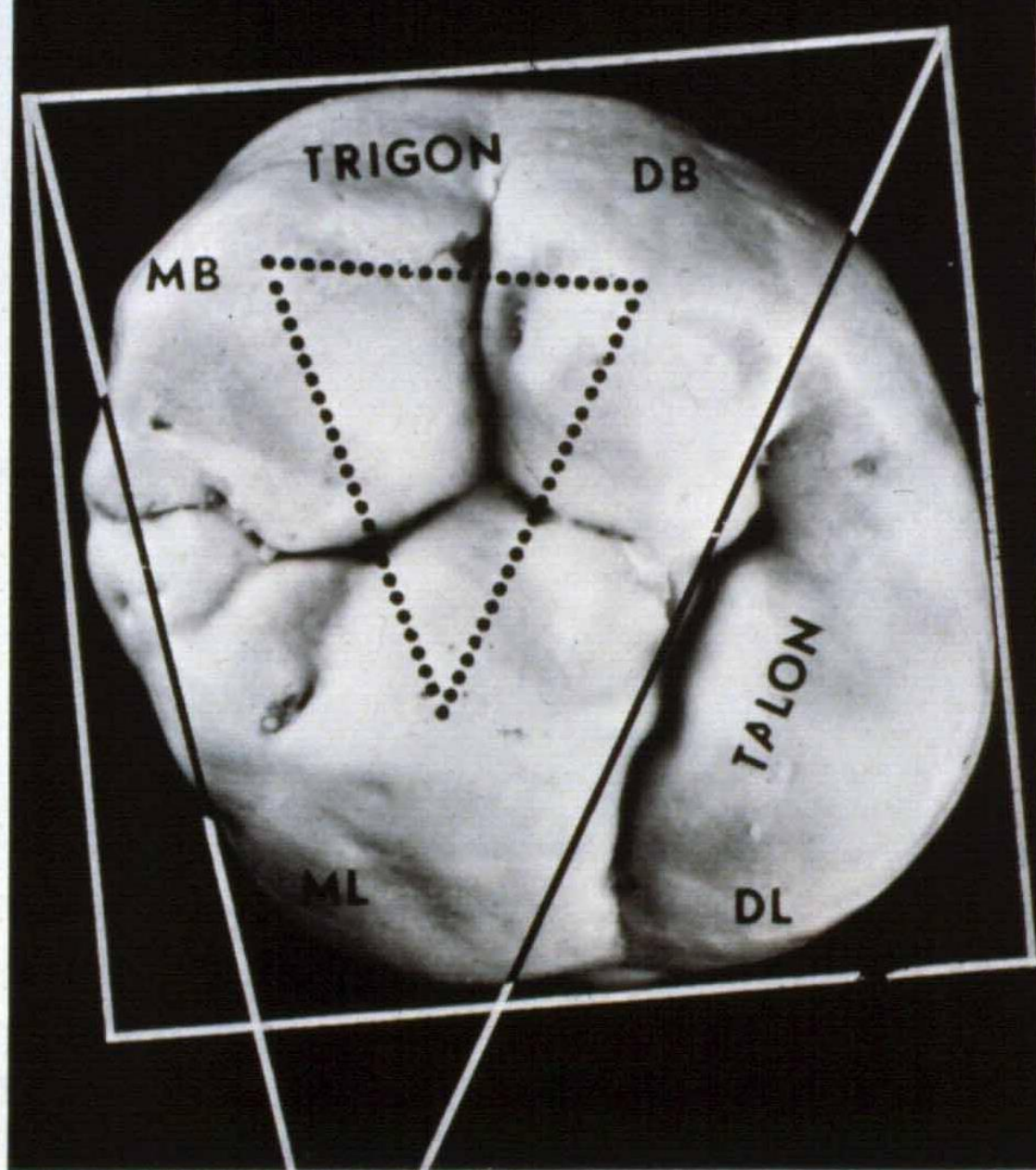
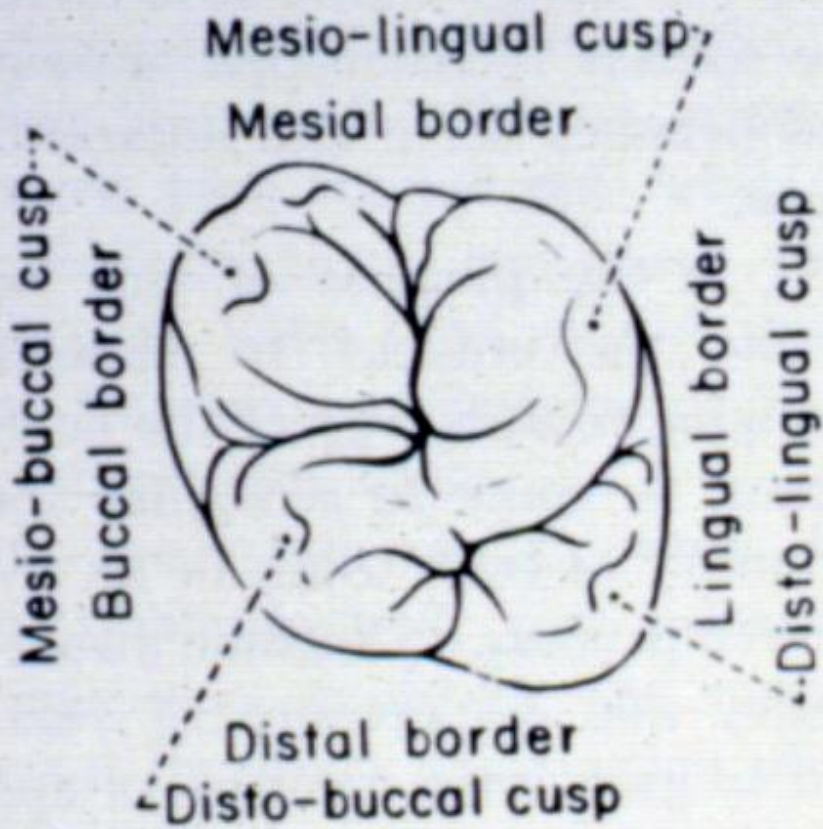


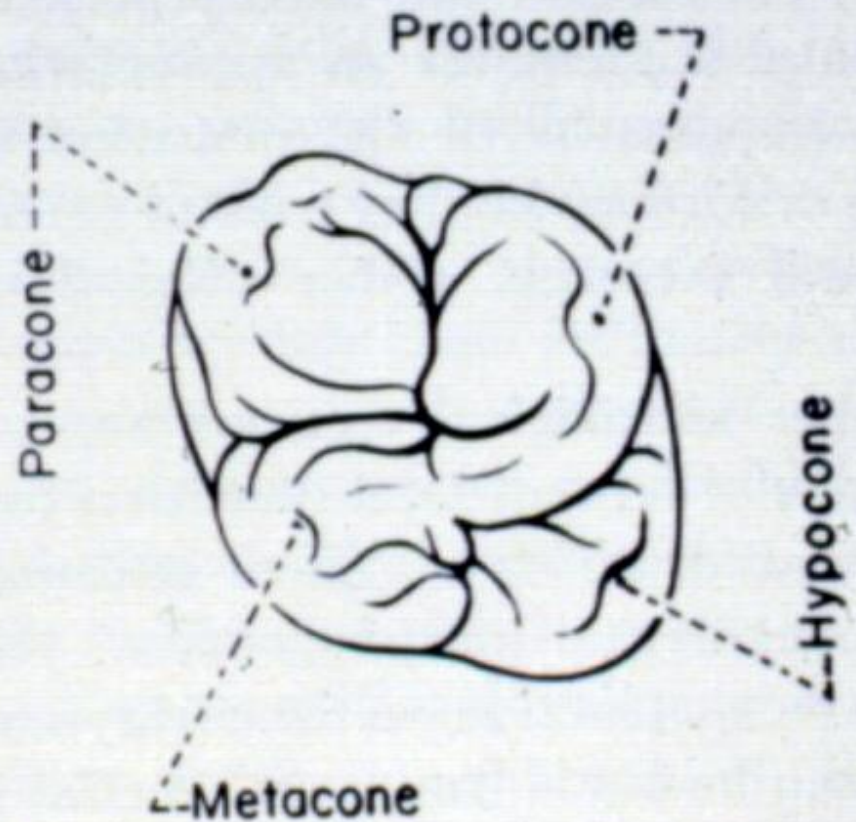
FIG. I-137. Triangular form of trigon and talon, maxillary left first molar (occlusal aspect). *MB*, mesiobuccal; *DB*, distobuccal; *ML*, mesiolingual; *DL*, distolingual.

Upper Right Permanent Molar

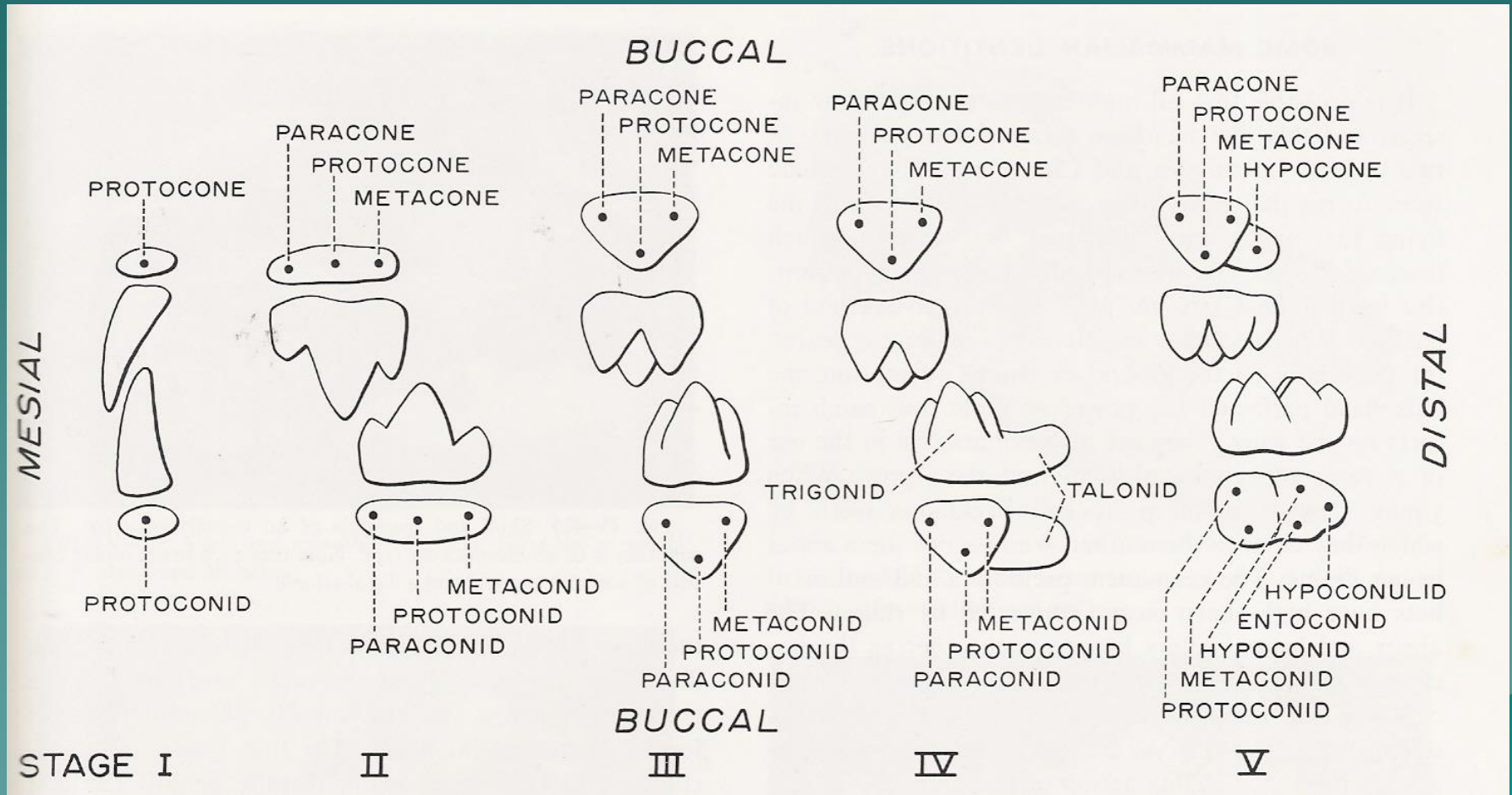
Dental terminology

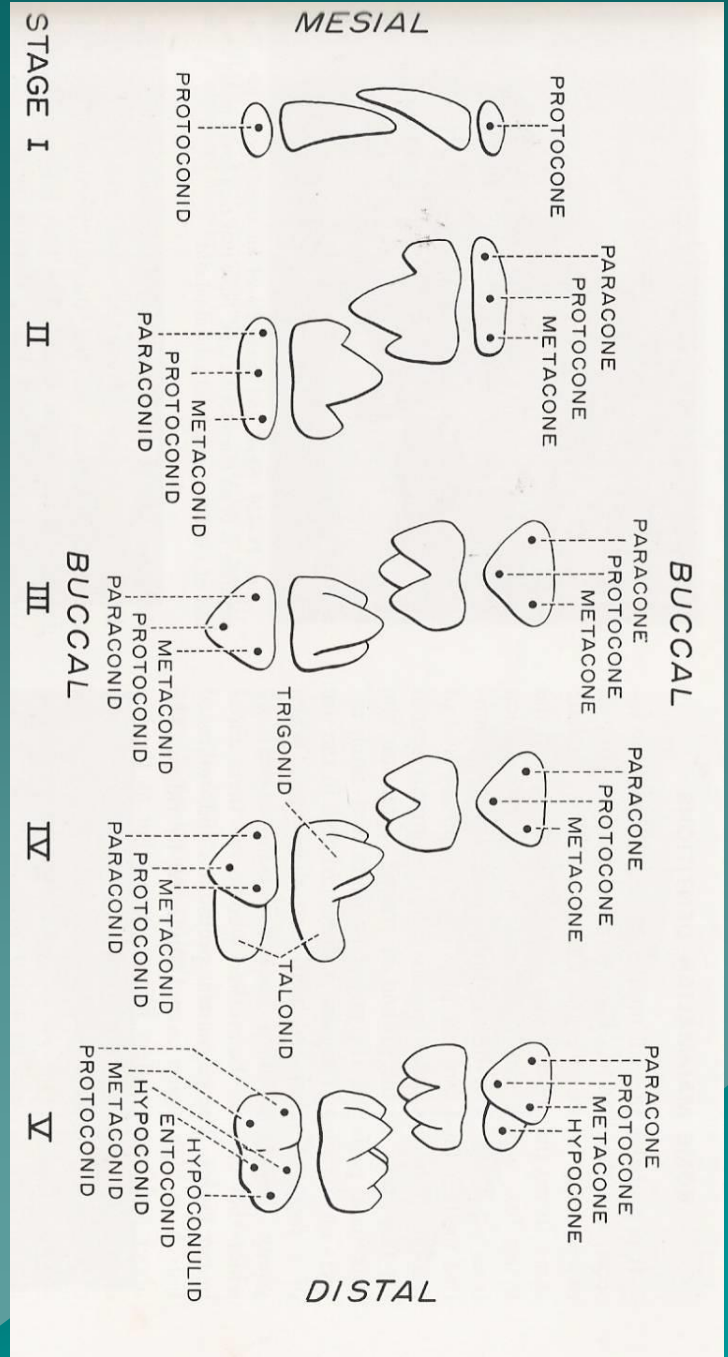
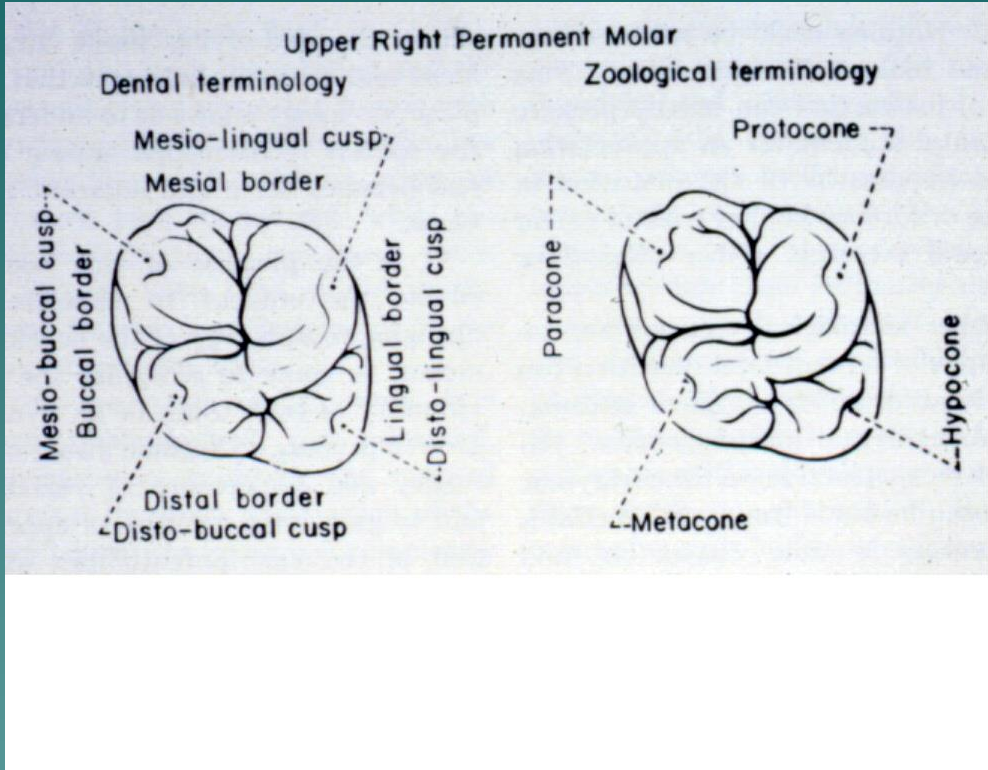


Zoological terminology



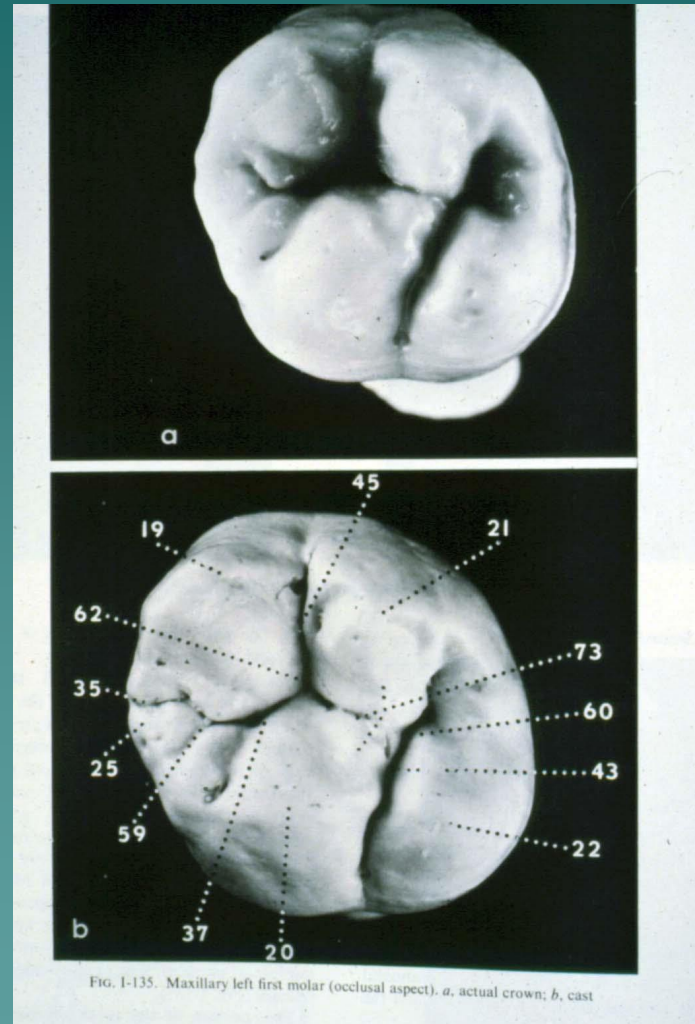
Osborn Theory of Trituberculy





Central Fossa

- ◆ Central pit - 62
- ◆ Buccal groove - 45
- ◆ Dist - Ling groove - 43
- ◆ Mesial groove - 37



Buccal View MX M1

76 • ANATOMY

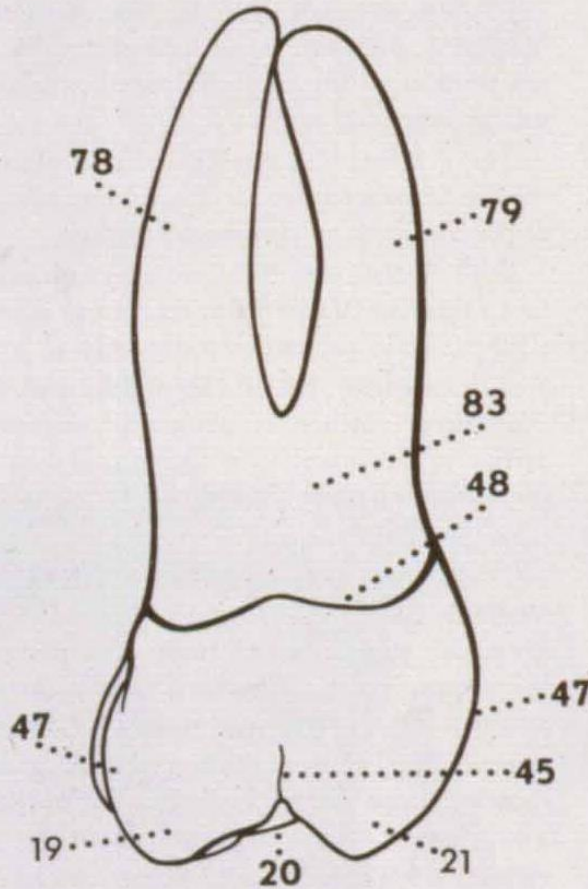


FIG. I-123. Maxillary left first molar (buccal aspect)

Lingual View

78 • ANATOMY

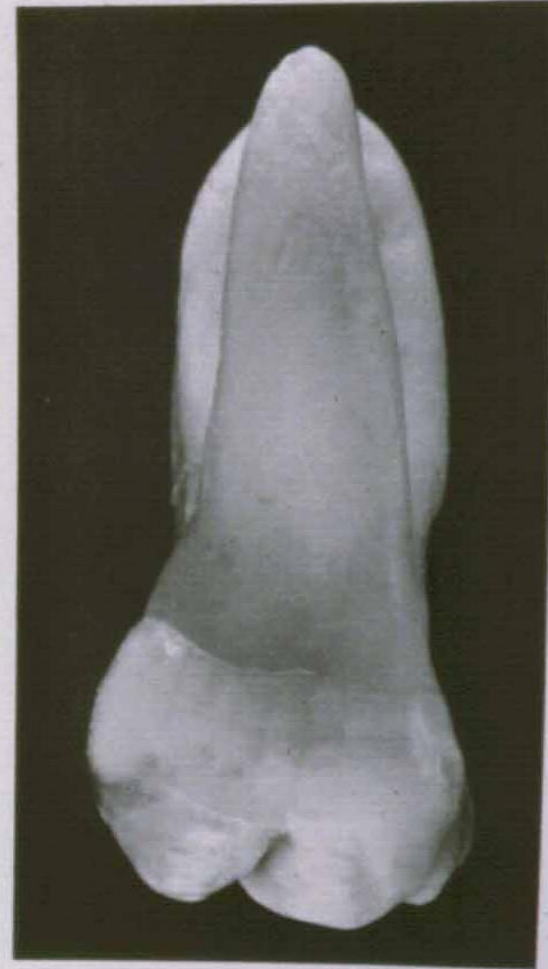
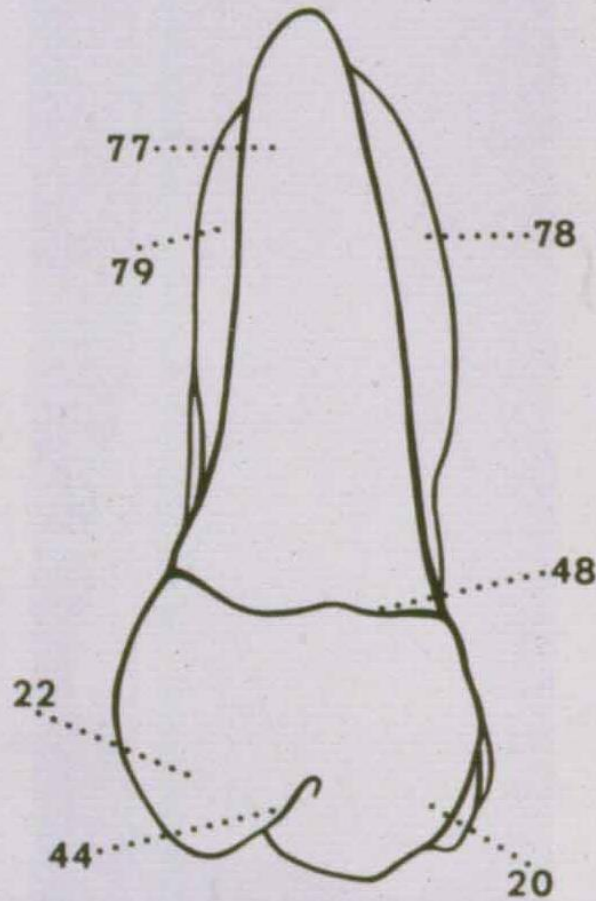
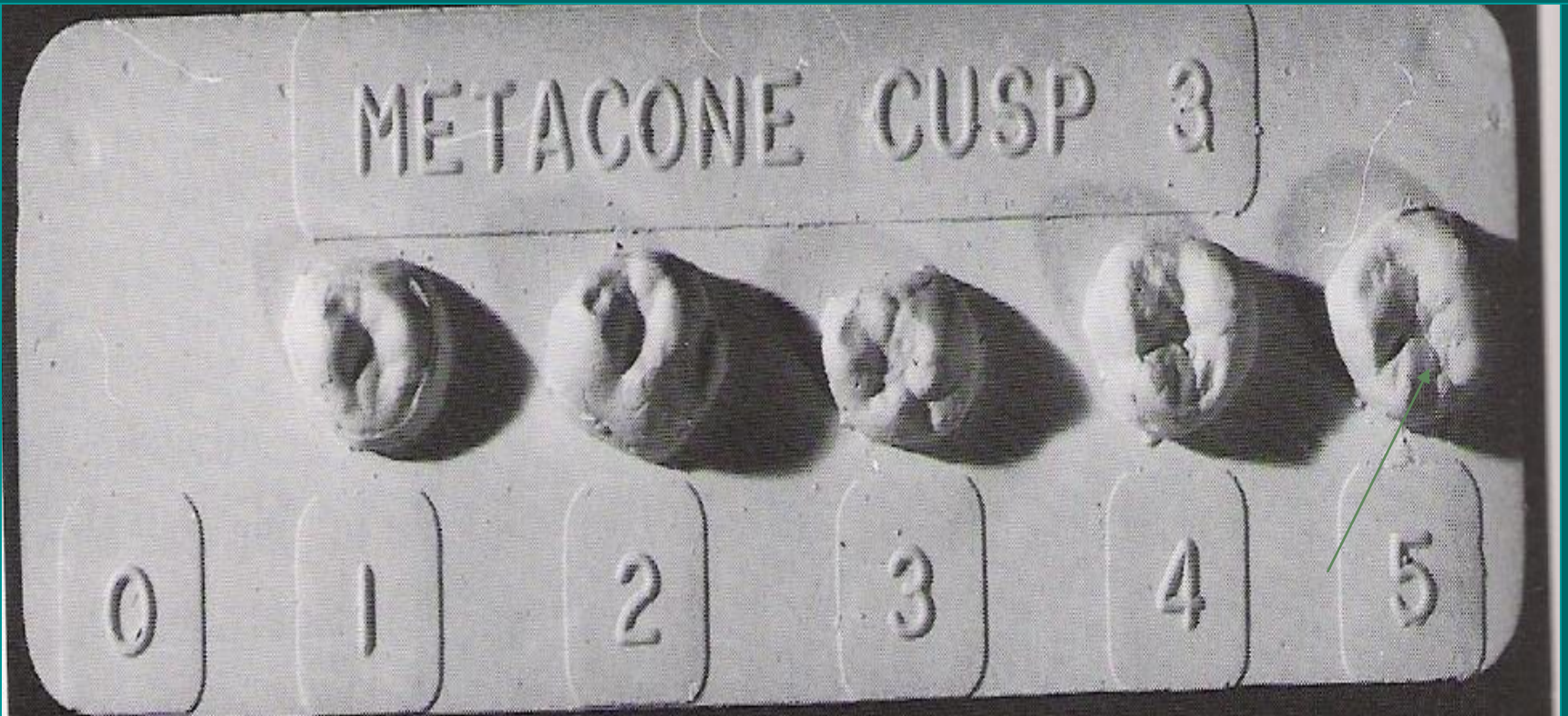


FIG. 1-126. Maxillary left first molar (lingual aspect)

Cusp 3 – Metacone DB cusp

Absent to Very Large



Cusp 4/ Hypocone & Cusp 5

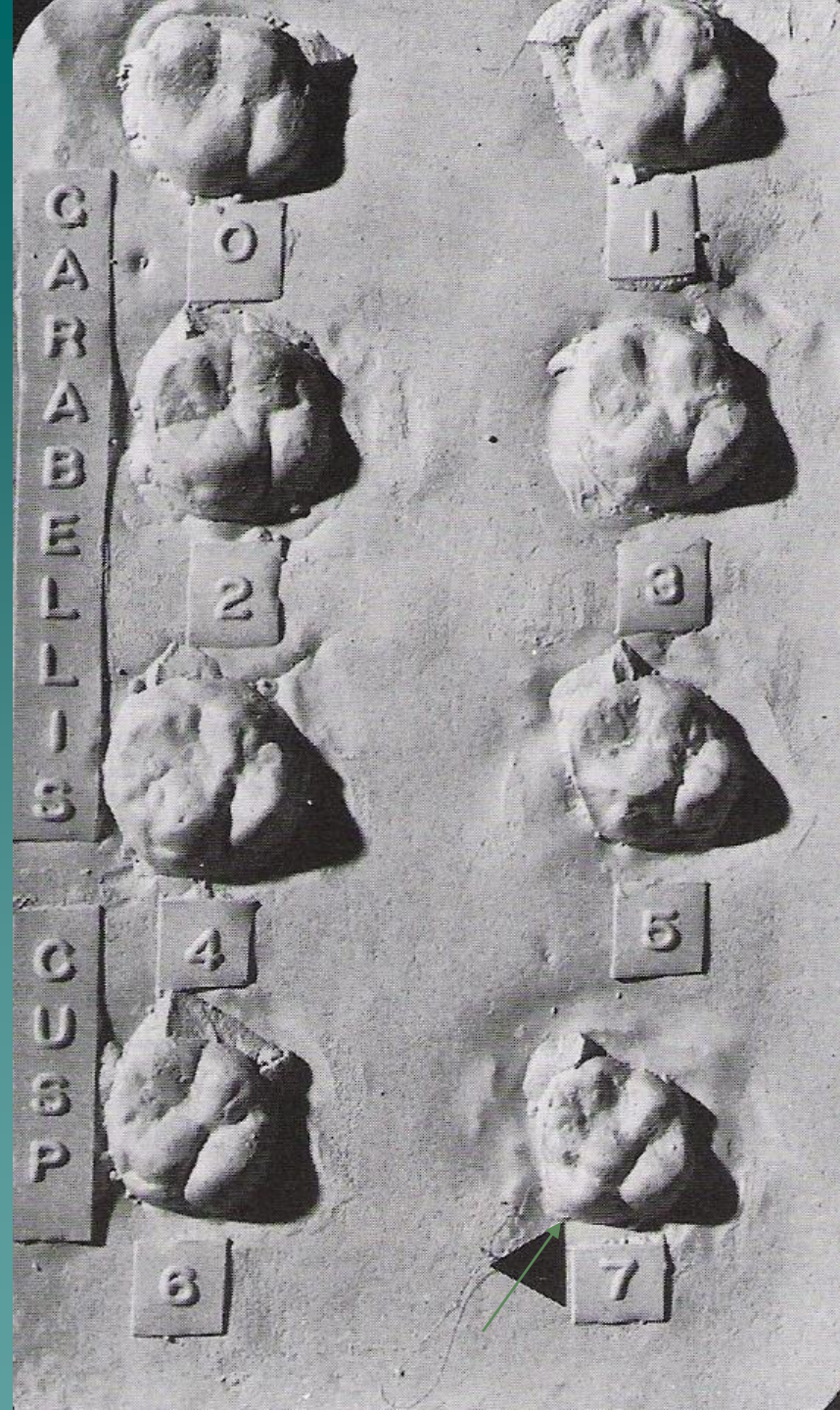


Metaconule Cusp5



Cusp 4

Carabelli Cusp – ML Side





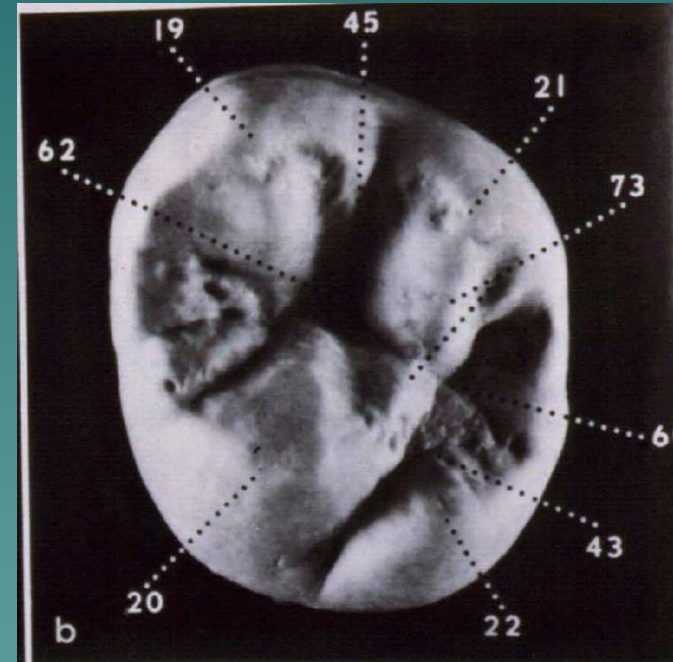
UM1 Carabelli's Trait

Parastyle – MB Side



MX M2

- ◆ DB (21) smaller than 1st
- ◆ Talon (22) reduced in size
- ◆ Variable groove pattern
- ◆ Numerous supplementary grooves



B View MX M2

- ◆ Roots show distal inclination

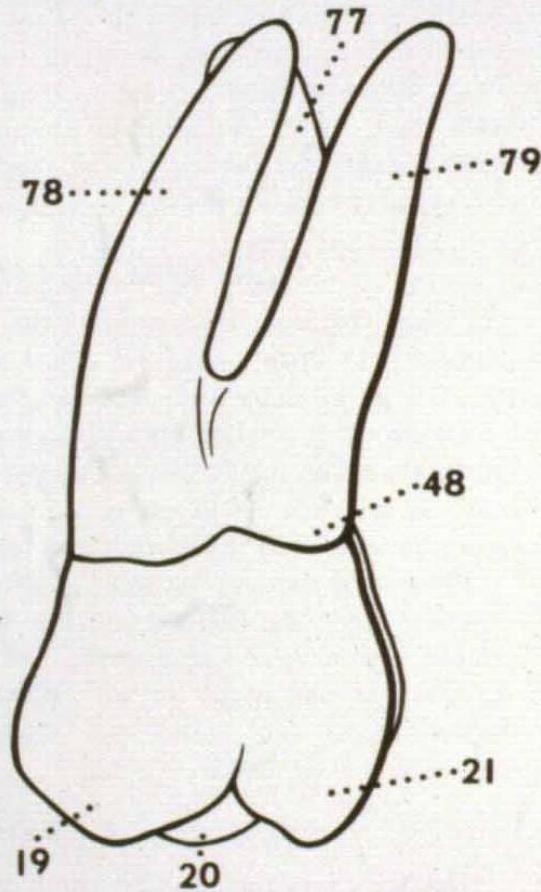
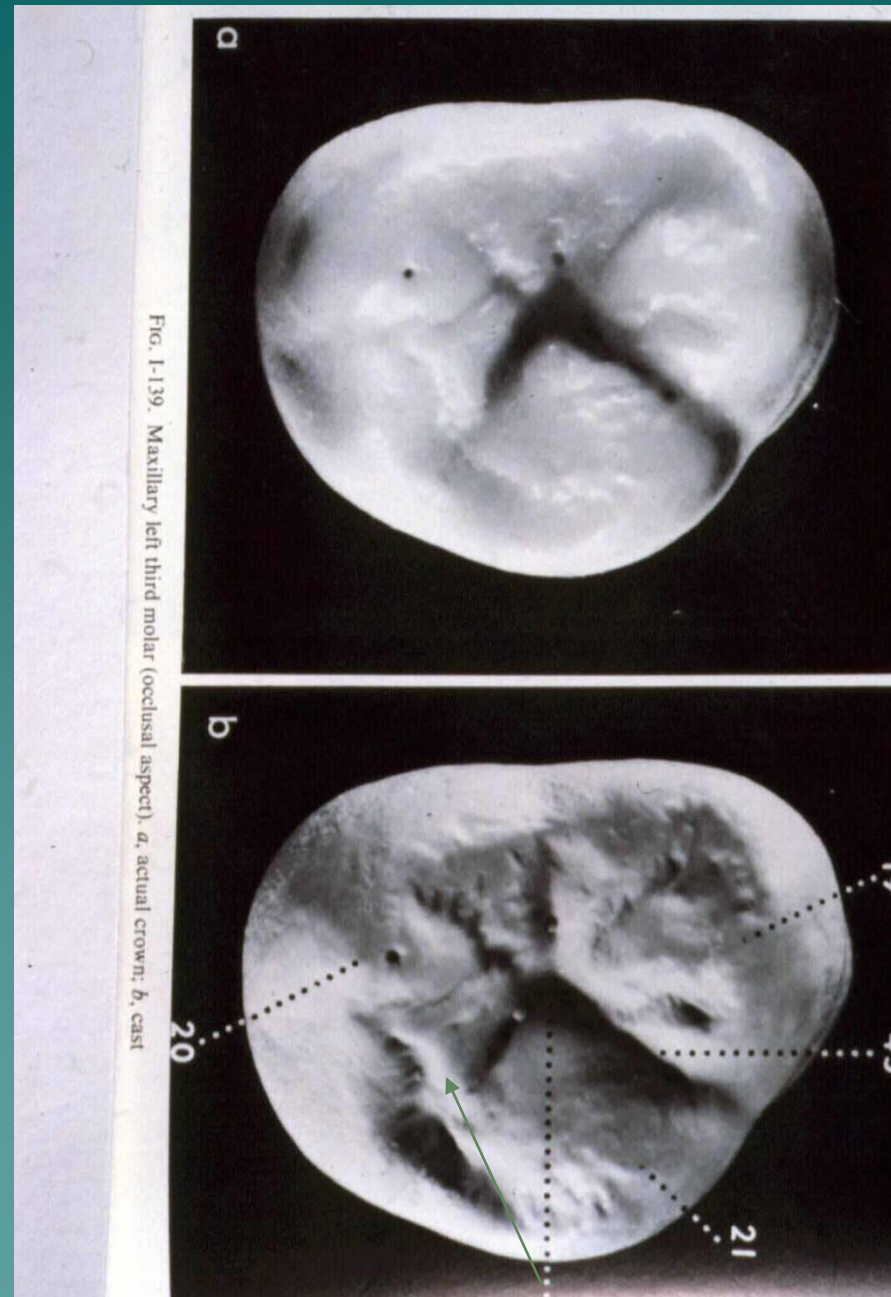


FIG. I-124. Maxillary left second molar (buccal aspect)

MX M3

- ◆ DL generally absent
- ◆ DB minimal size - 21
- ◆ Groove pattern variable
- ◆ Oblique ridge small or absent (red)

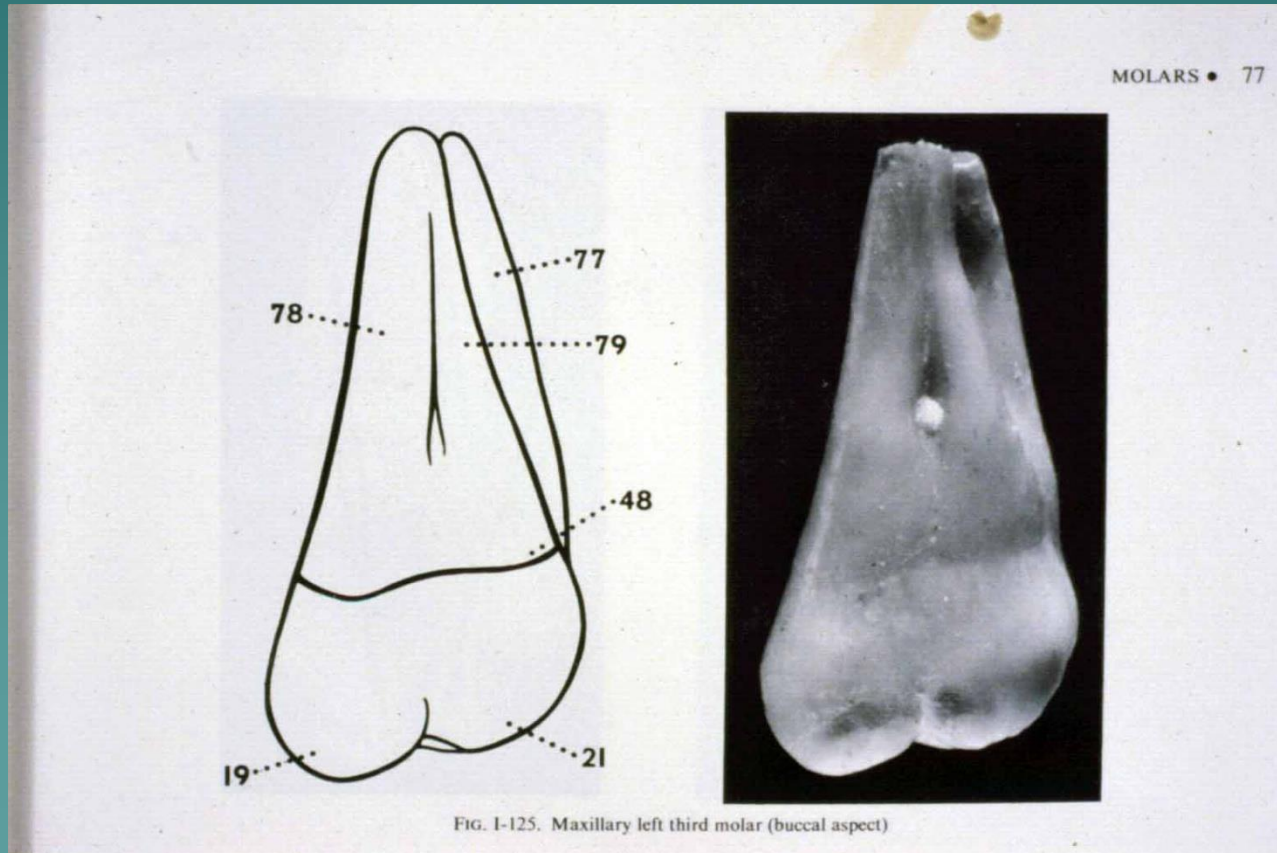


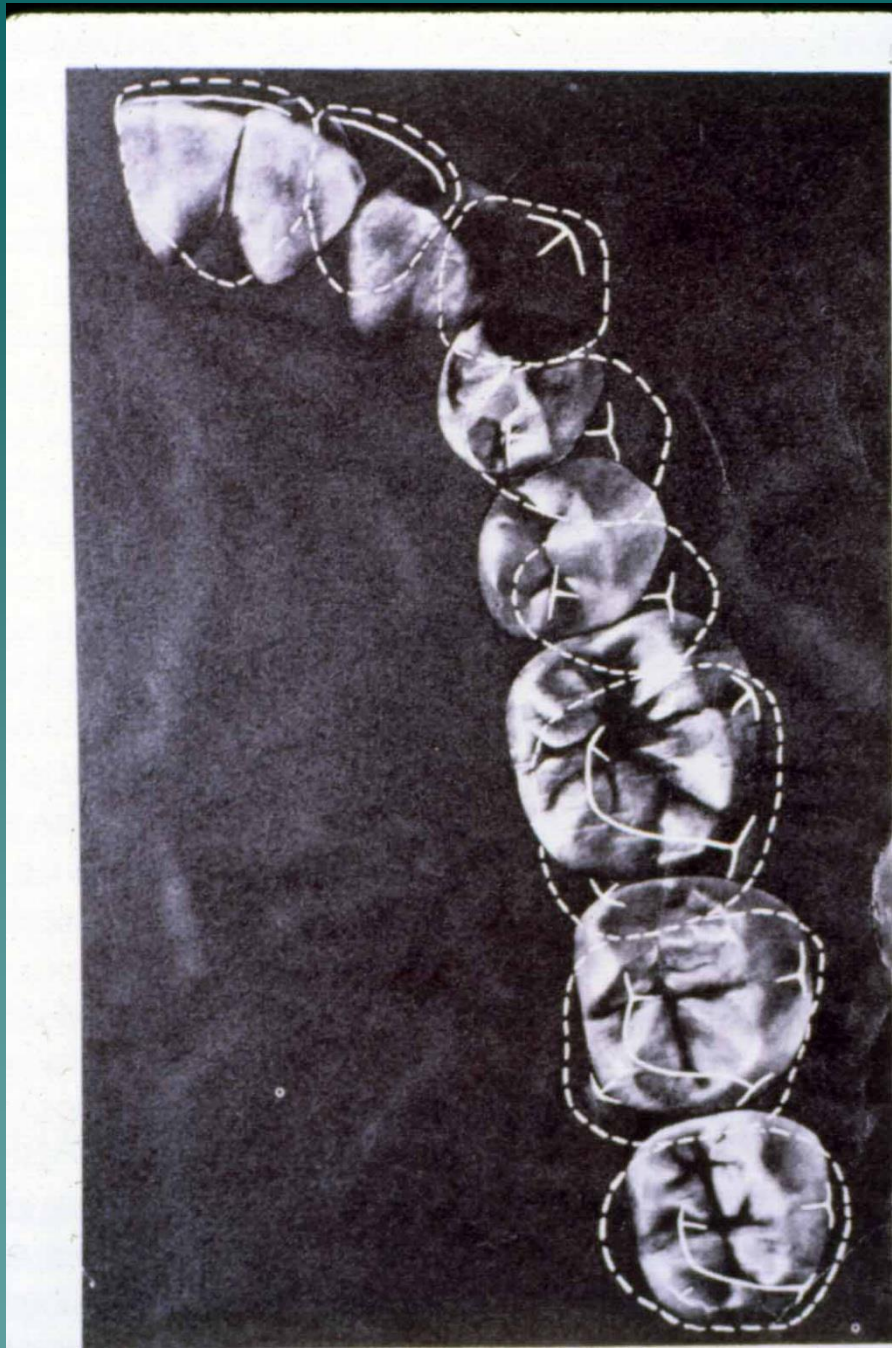
MX M3 B View

- ◆ Roots smallest
- ◆ Generally fused
- ◆ Most distal inclination

19=MB

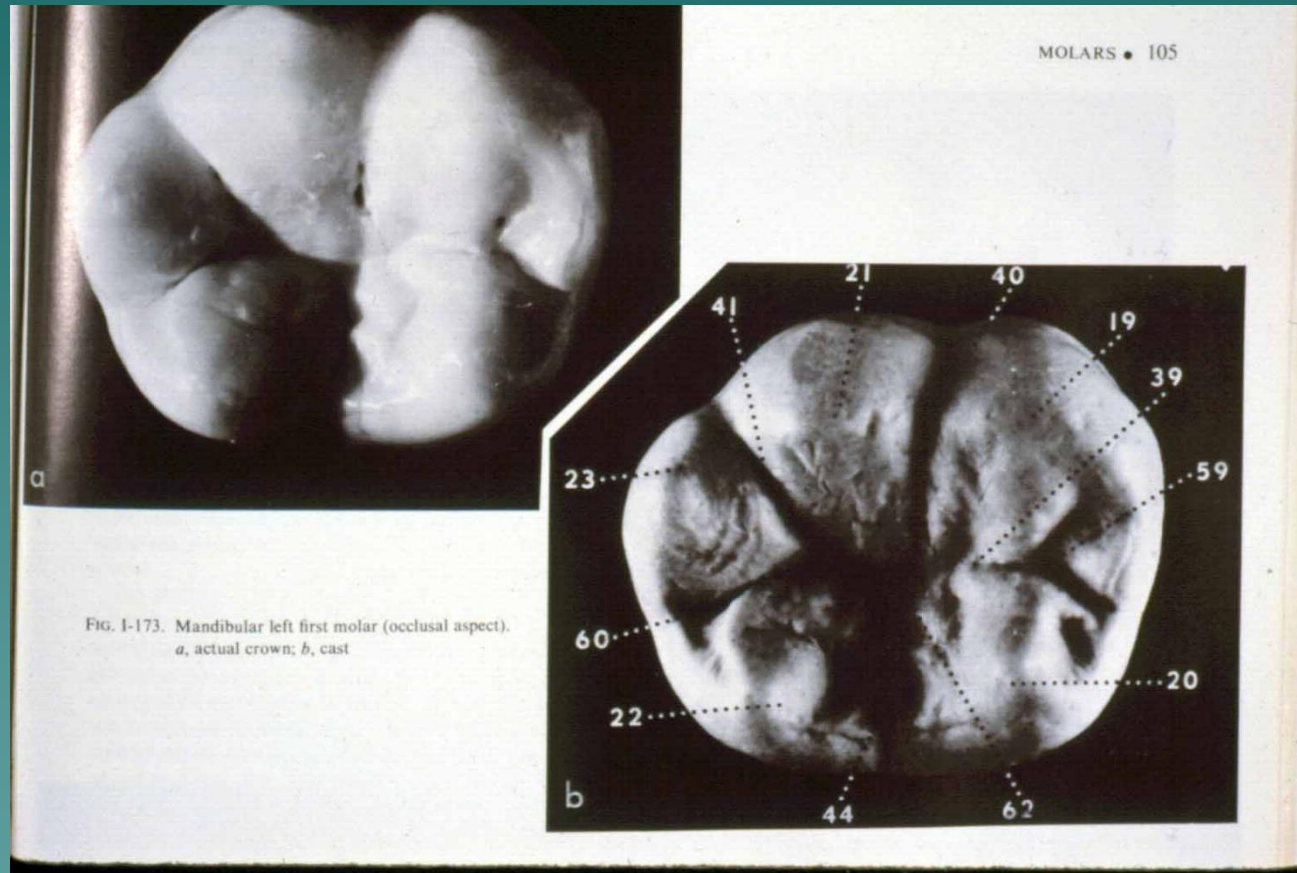
21=DB





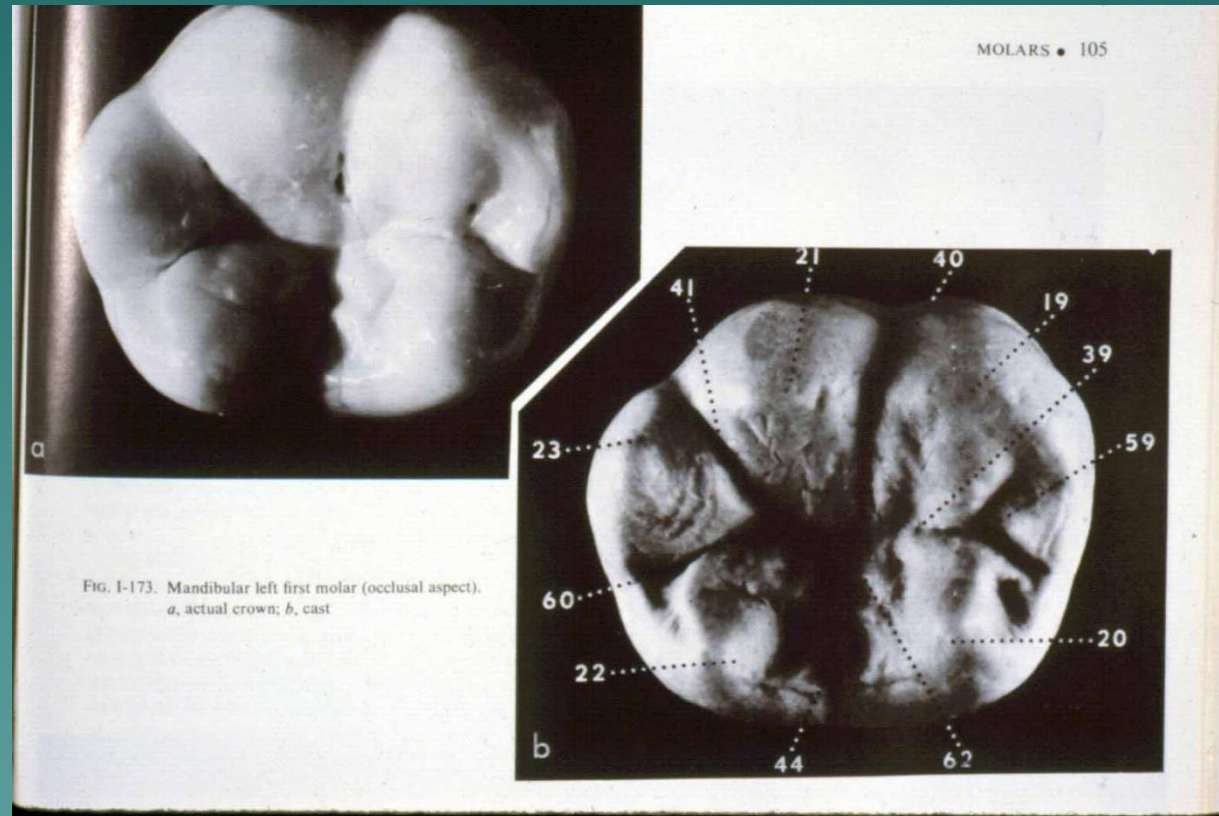
Mn M1 Occlusal Cusps

- ◆ MB – 19
- ◆ ML – 20
- ◆ DB – 21
- ◆ DL – 22
- ◆ D – 23

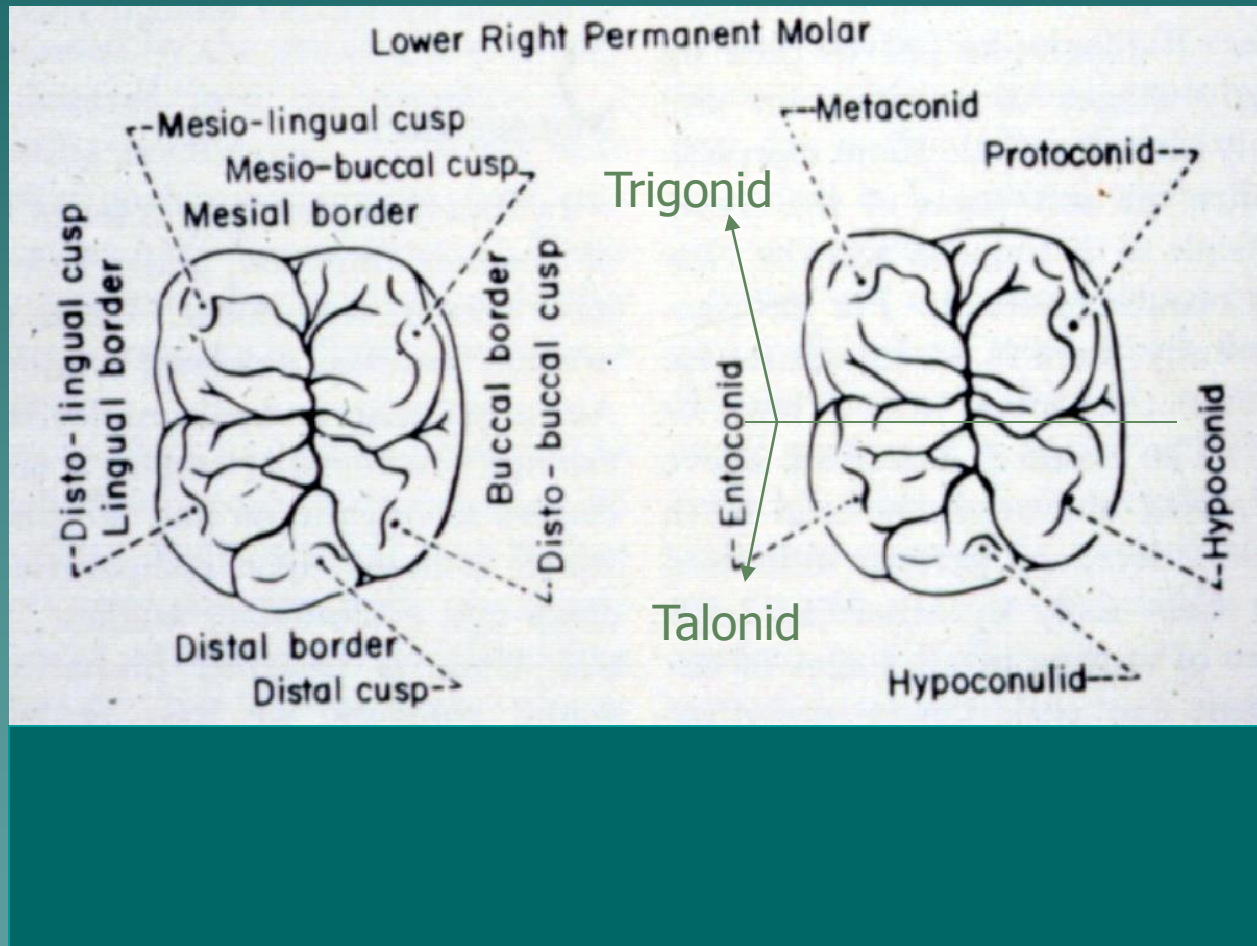


Mn M1 Occlusal Grooves

- ◆ Central – 39
- ◆ Central pit – 62
- ◆ Mesial pit – 59
- ◆ MB groove 40
- ◆ L groove – 44
- ◆ D pit – 60
- ◆ DB groove

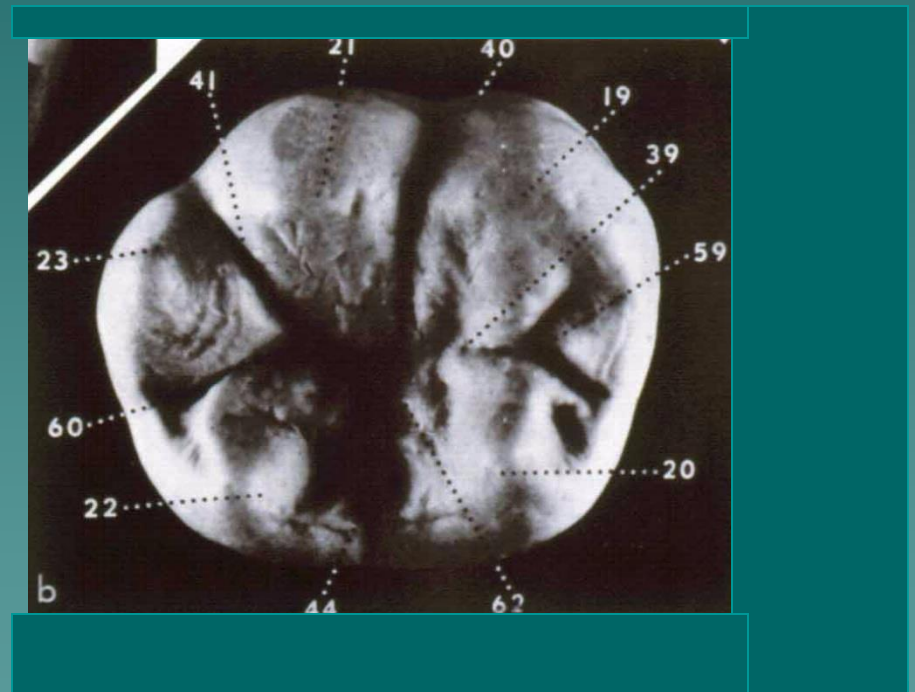


Paleontological Terminology



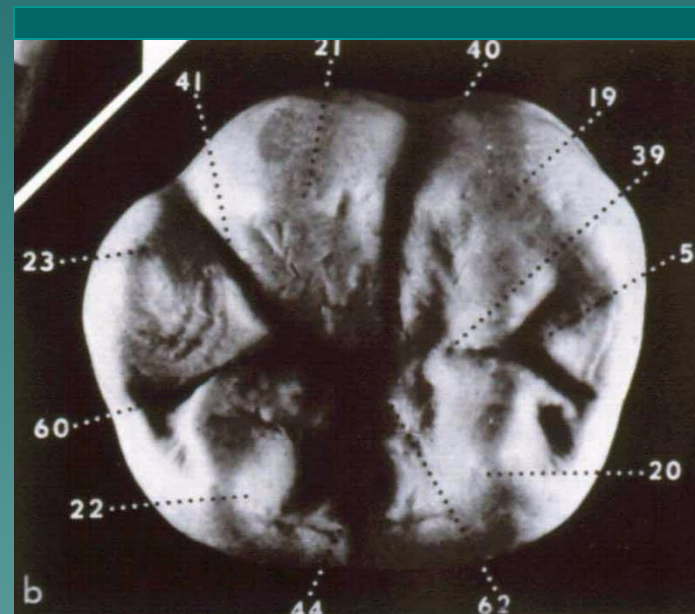
Mn M1 Occlusal View

- ◆ Hexagonal
- ◆ 5 cusps
- ◆ 2 L cusps biggest
- ◆ 3 fossae – central, mesial, distal



Man Molars – Groove Pattern

- ◆ Central groove M-D
- ◆ Intersected by L, MB and DB grooves
- ◆ DB and MB form a Y



Buccal View of Mn M1

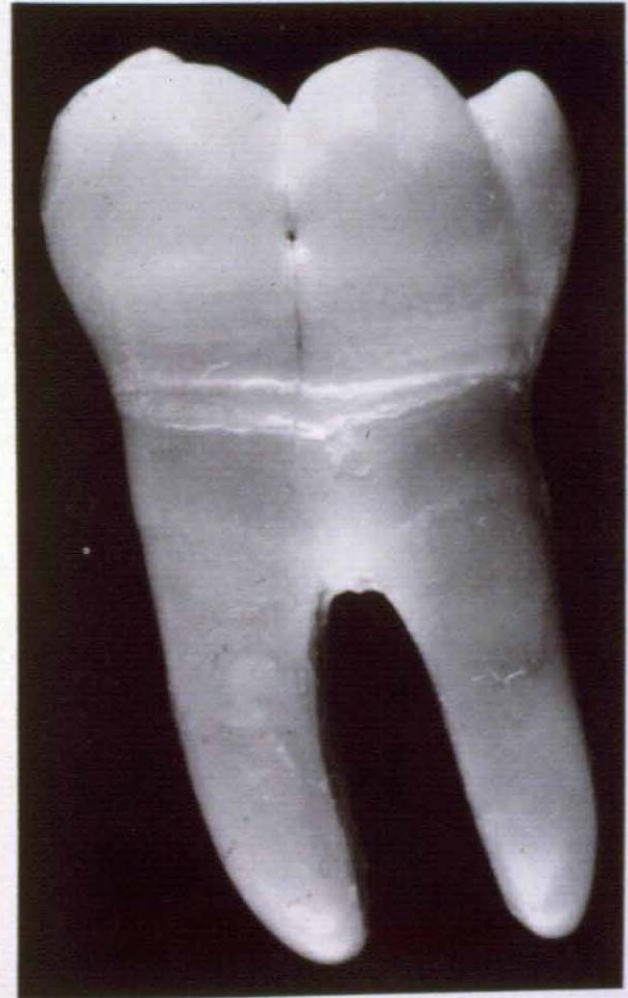
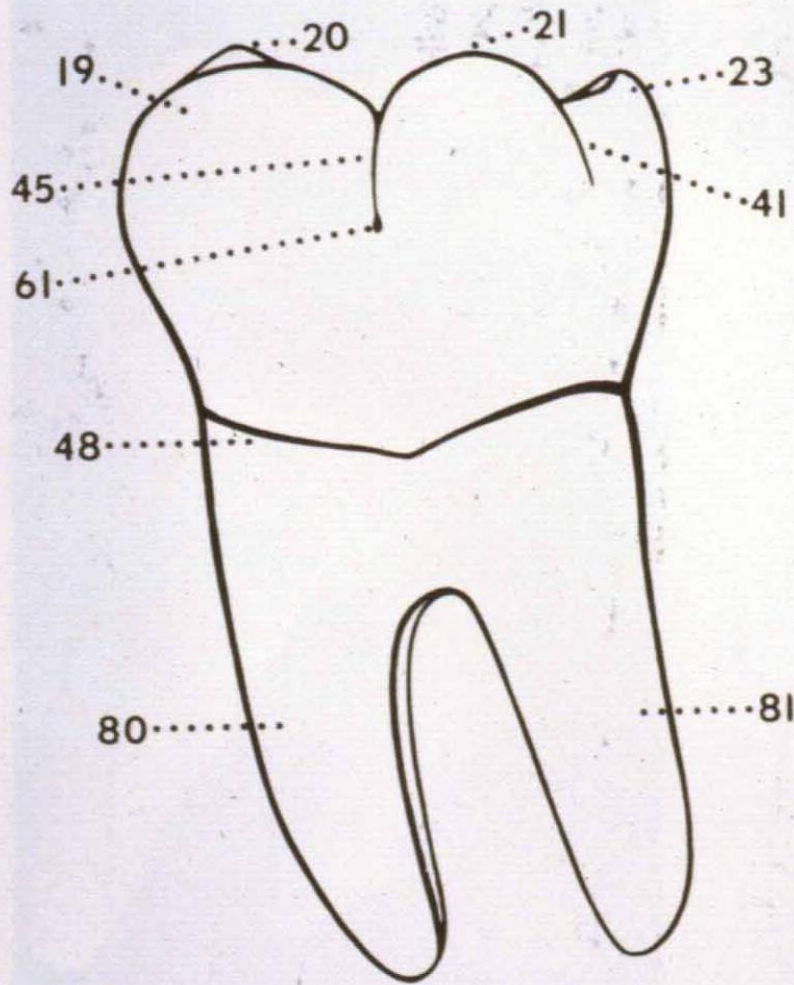


FIG. I-161. Mandibular left first molar (buccal aspect)

Lingual View MN M1

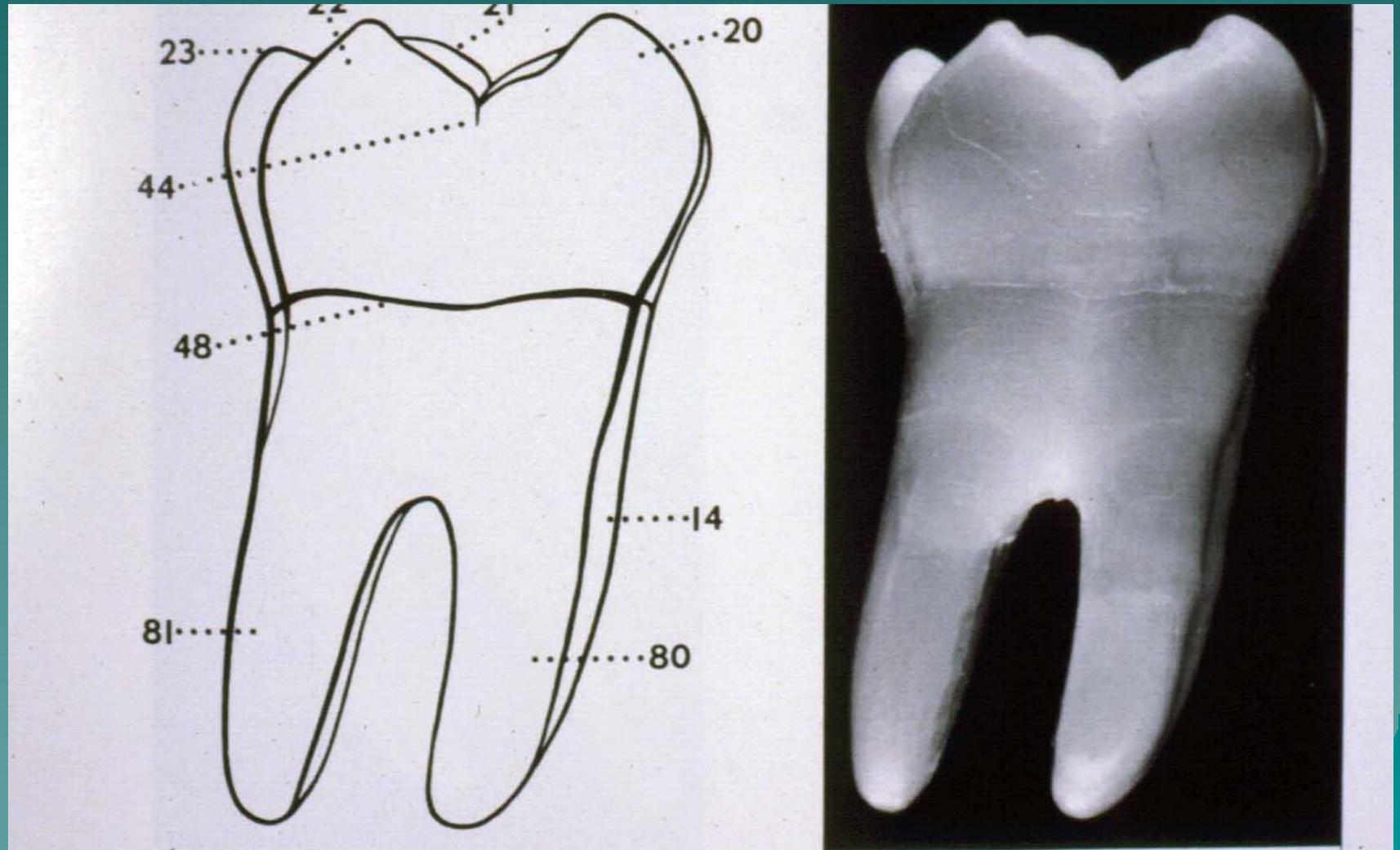
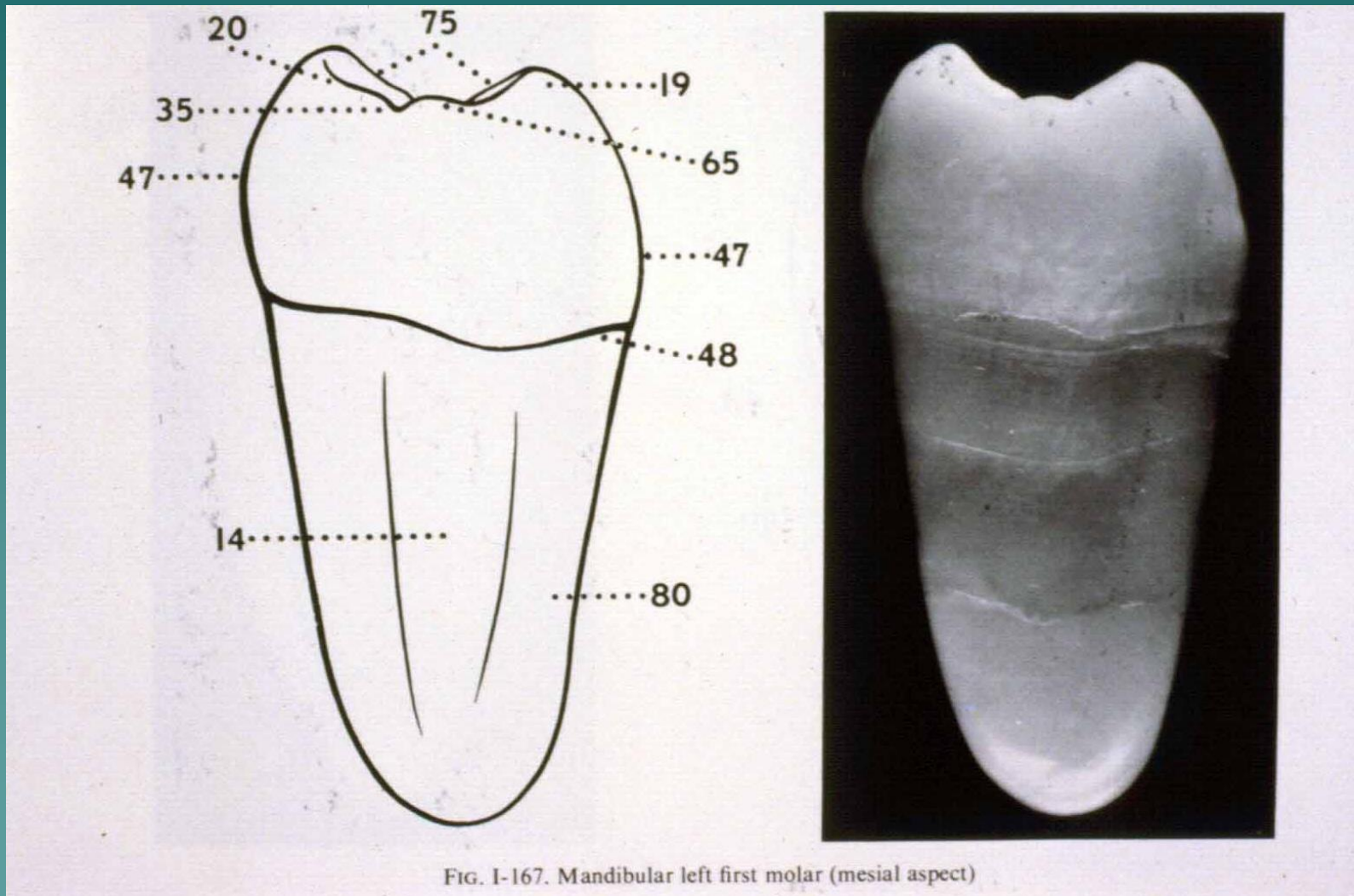


FIG. I-164. Mandibular left first molar (lingual aspect)

Mesial View Mn M1



Distal View Mn M1

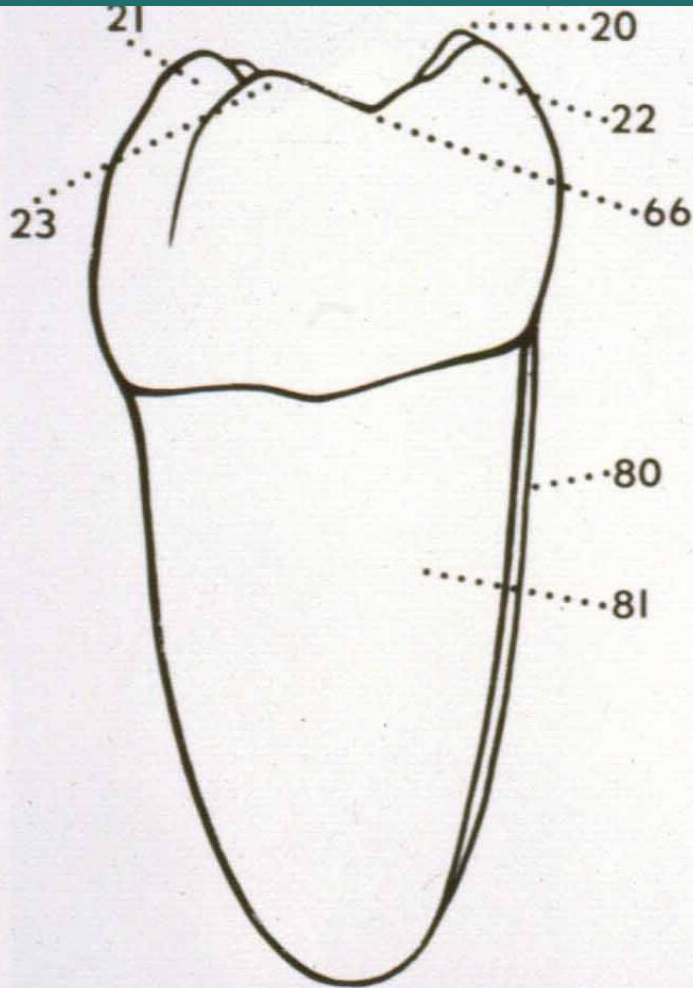
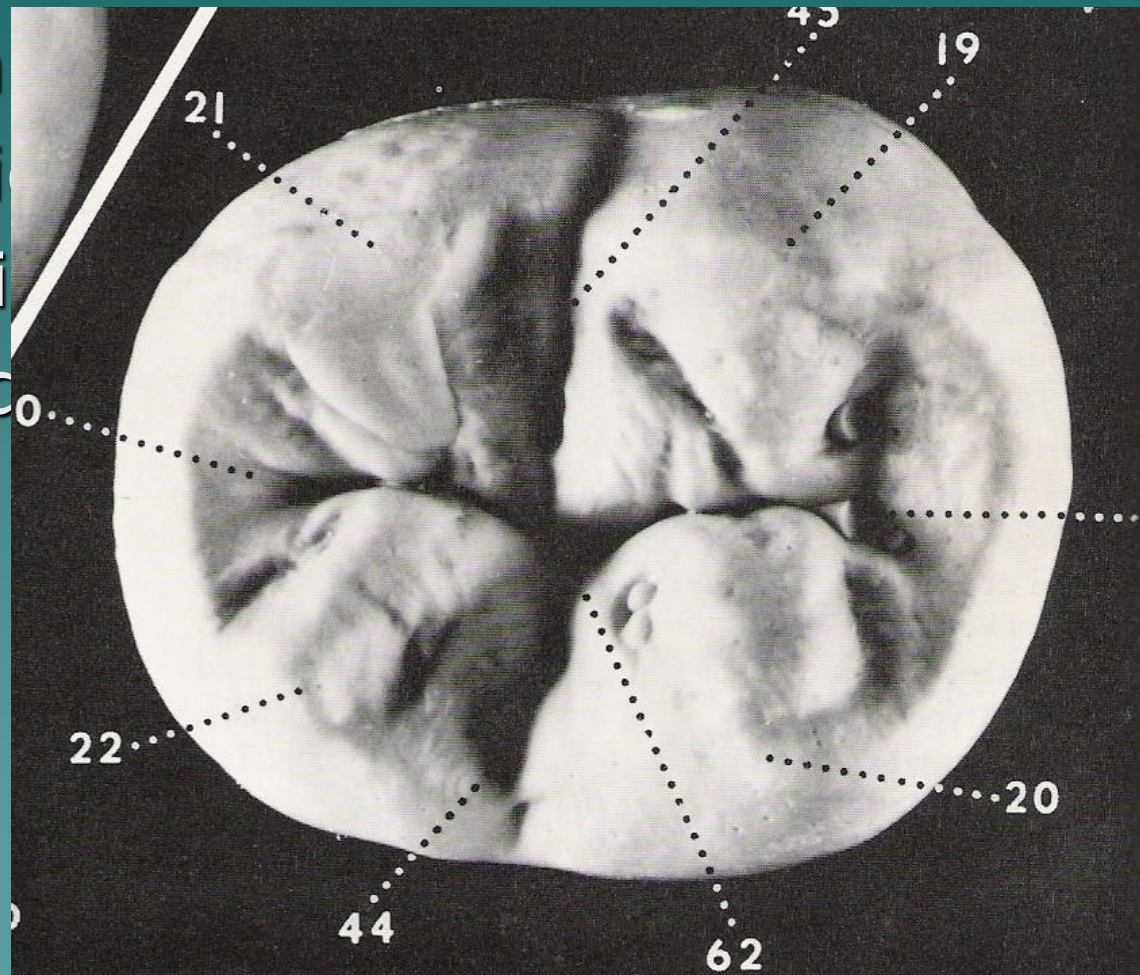


FIG. I-170. Mandibular left first molar (distal aspect)

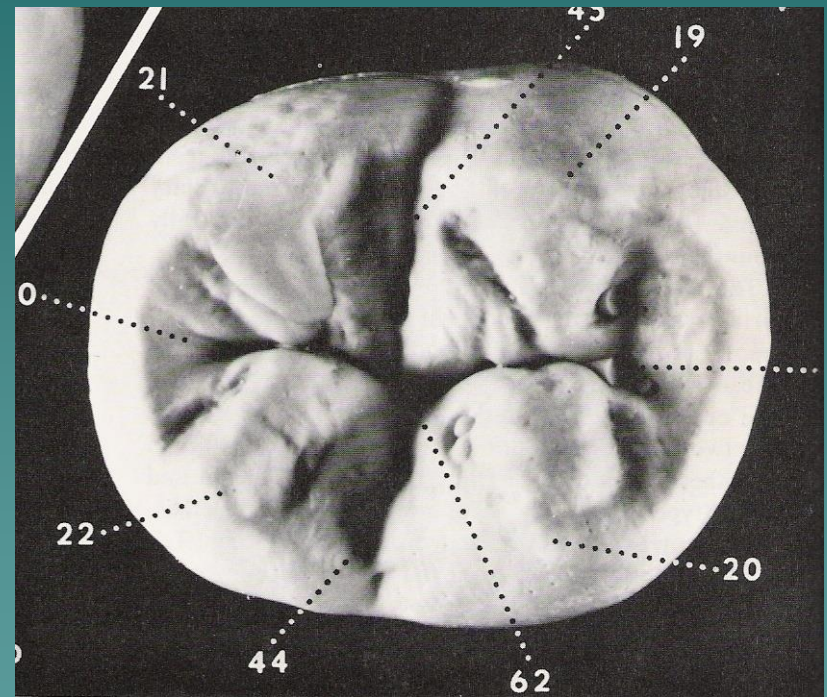
Man Left M2

- ◆ MB 19 protocon
- ◆ DB 21 hypoconi
- ◆ ML 20 metaconi
- ◆ DL 22 entoconico



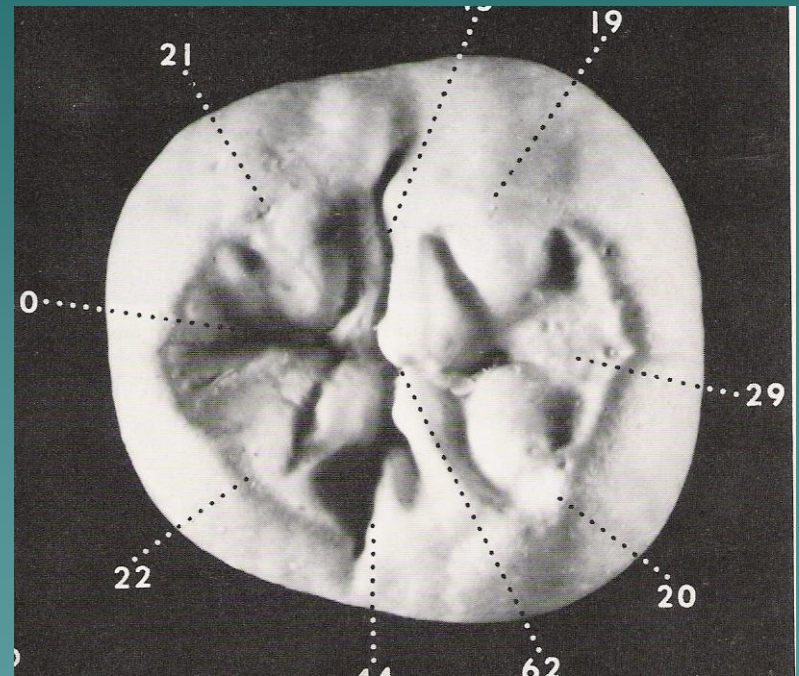
Mn 2nd Molar

- ◆ Rectangular
- ◆ Widest BL diameter
- ◆ Single Buccal Groove
- ◆ 4 cusps
- ◆ Grooves typical 4 + pattern
- ◆ Numerous supplemental grooves



Mn Left 3rd Molar

- ◆ Ovoid
- ◆ M side/Trigonid wider BL than Talonid
- ◆ 4 cusps
- ◆ Irregular groove pattern



Mn Molars Cusps 5 & 6

5

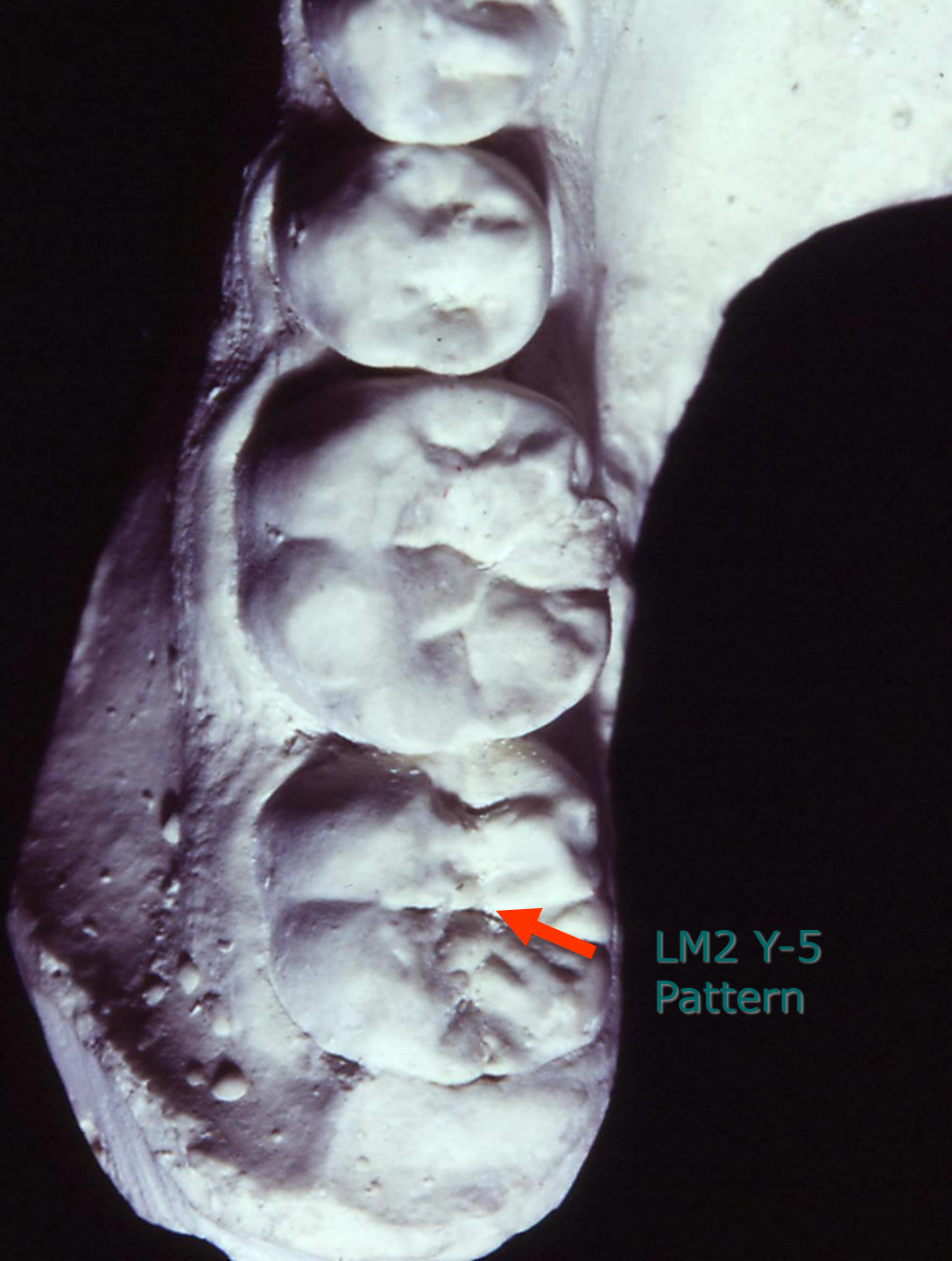


6



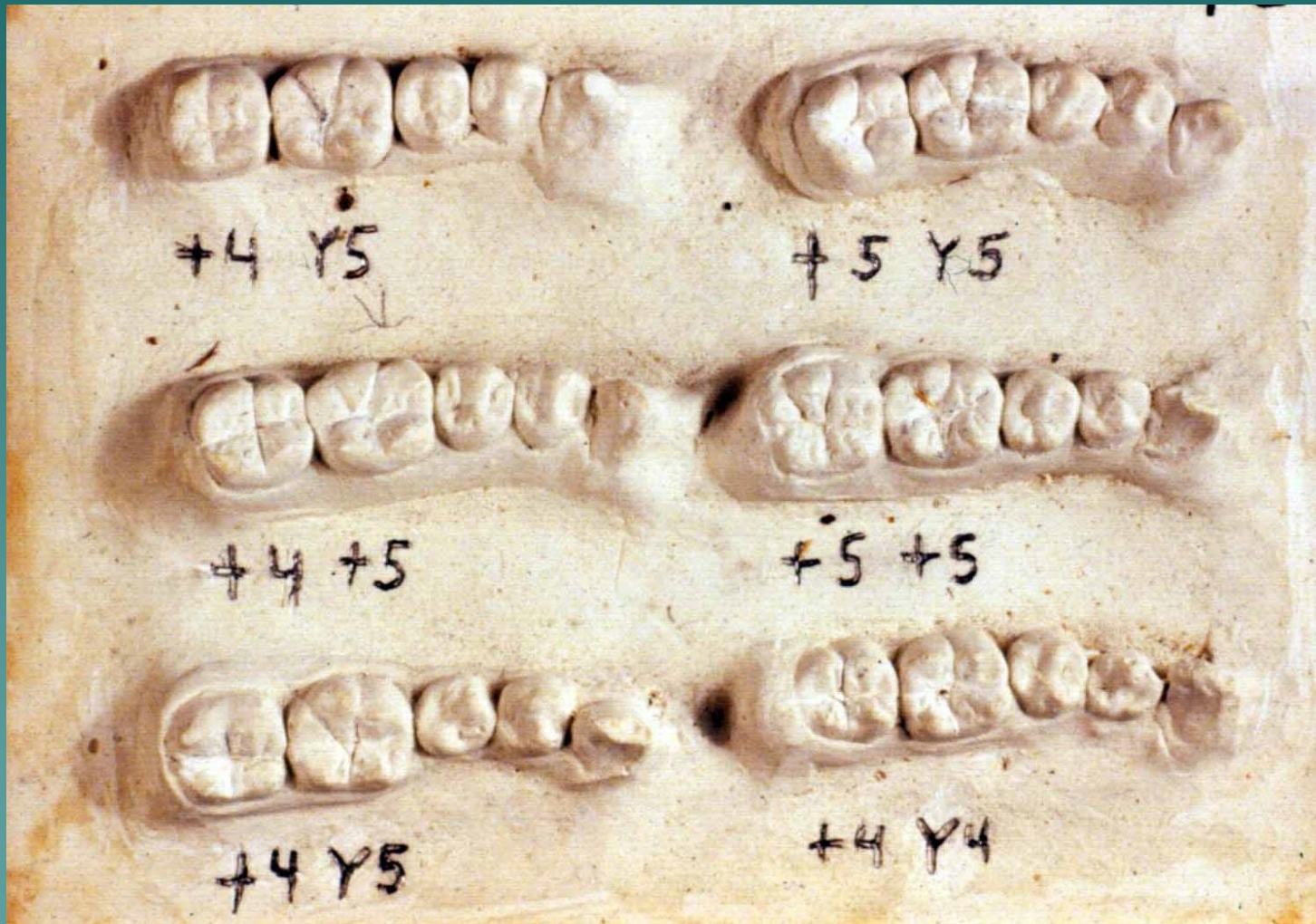
Protostylid & Cusp 7





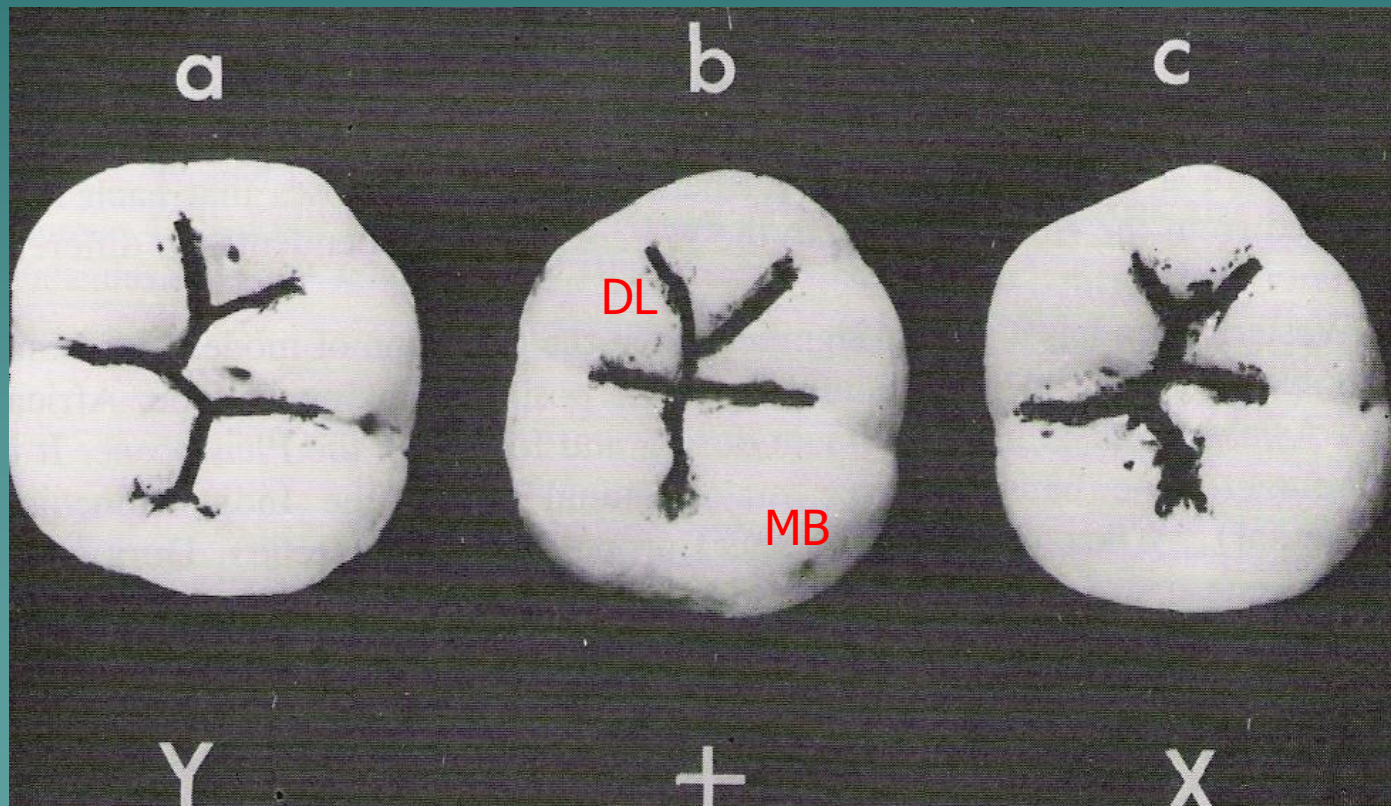
LM2 Y-5
Pattern

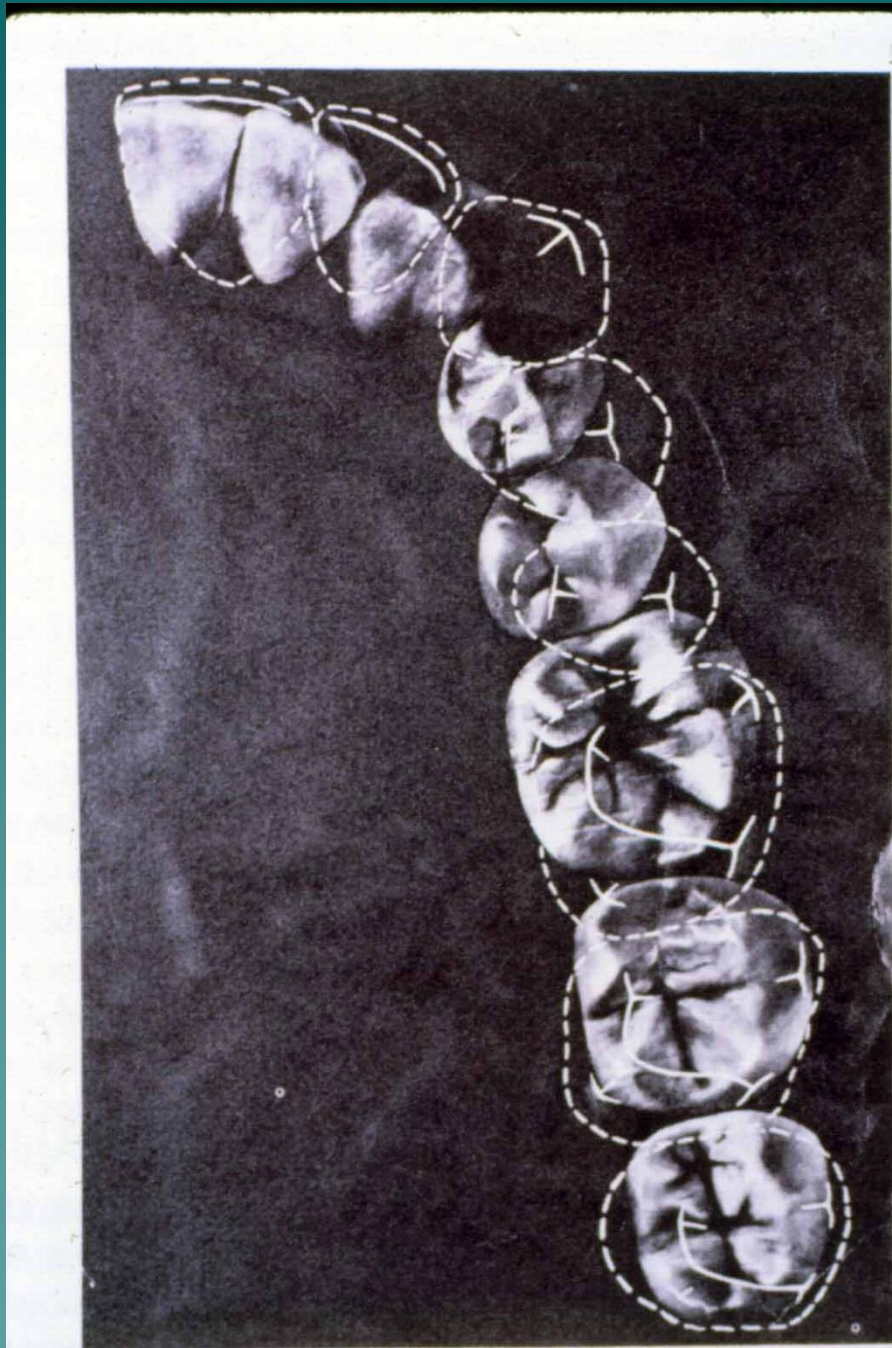
Grove Pattern Y, +, X

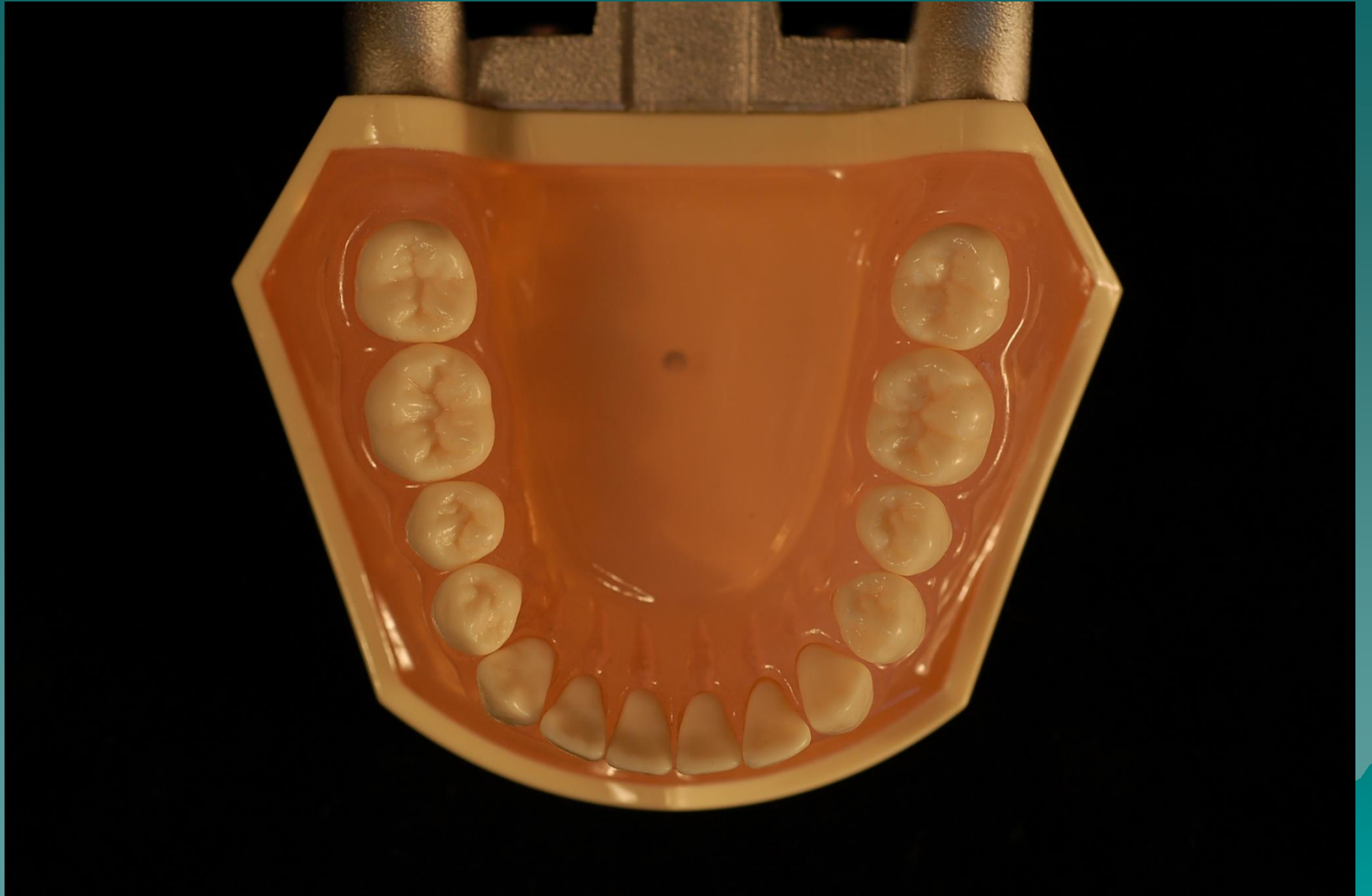


Groove Pattern

- ◆ Y = DB cusp in contact with ML cusp
- ◆ + = MB cusp in contact with DL cusp
- ◆ X = MB and DL have broad contact







Primary Dentition

- ◆ 8 incisors
- ◆ 4 canines
- ◆ 8 molars



Deciduous Maxillary Left Central Incisor

- ◆ 65 M marginal ridge
- ◆ 66 D marginal ridge
- ◆ 26 Lingual fossa

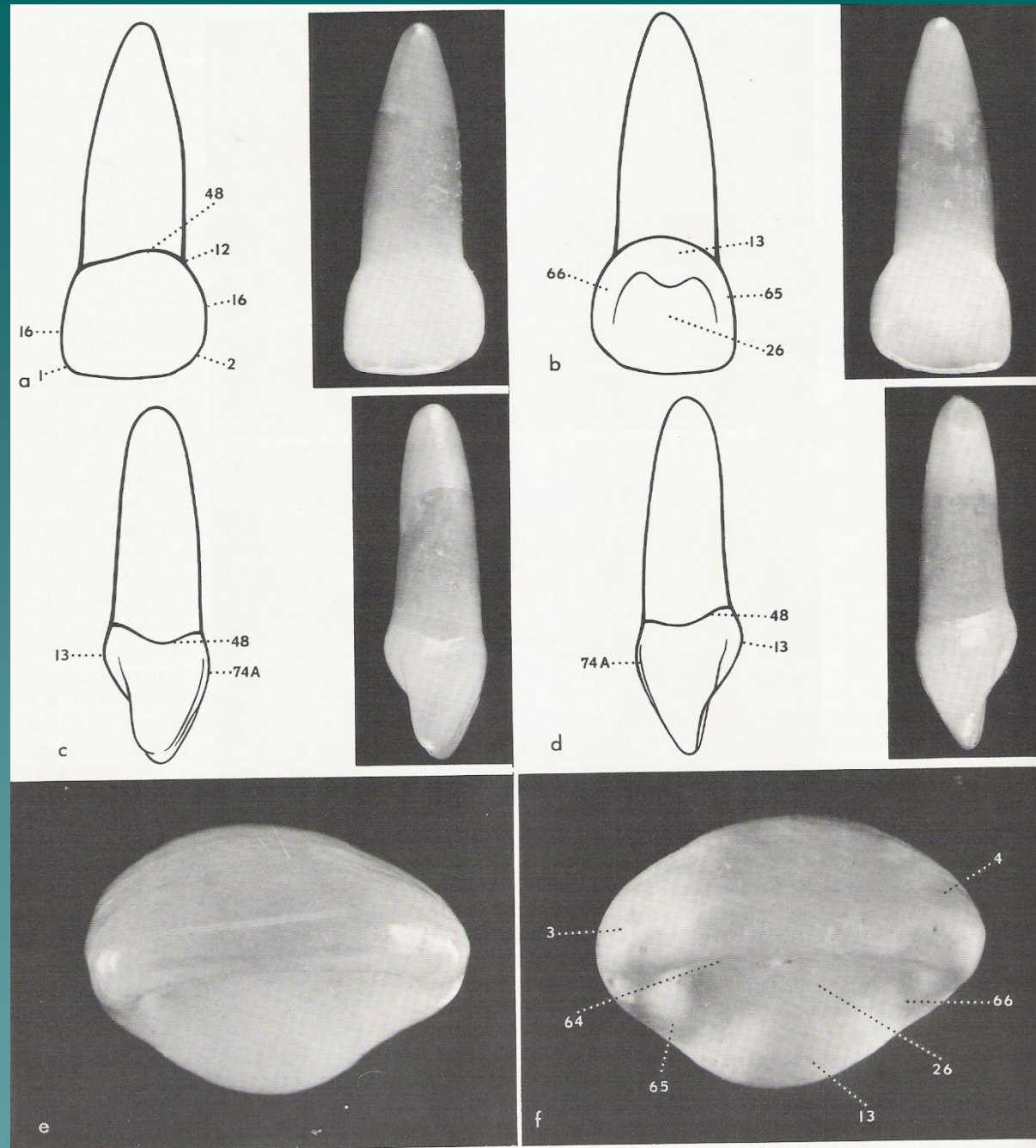


FIG. I-196. Maxillary left central incisor. *a*, labial aspect; *b*, lingual aspect, *c*, mesial aspect; *d*, distal aspect; *e*, incisal aspect (actual crown); *f*, incisal aspect (cast).

Deciduous Maxillary Left Lateral Incisor

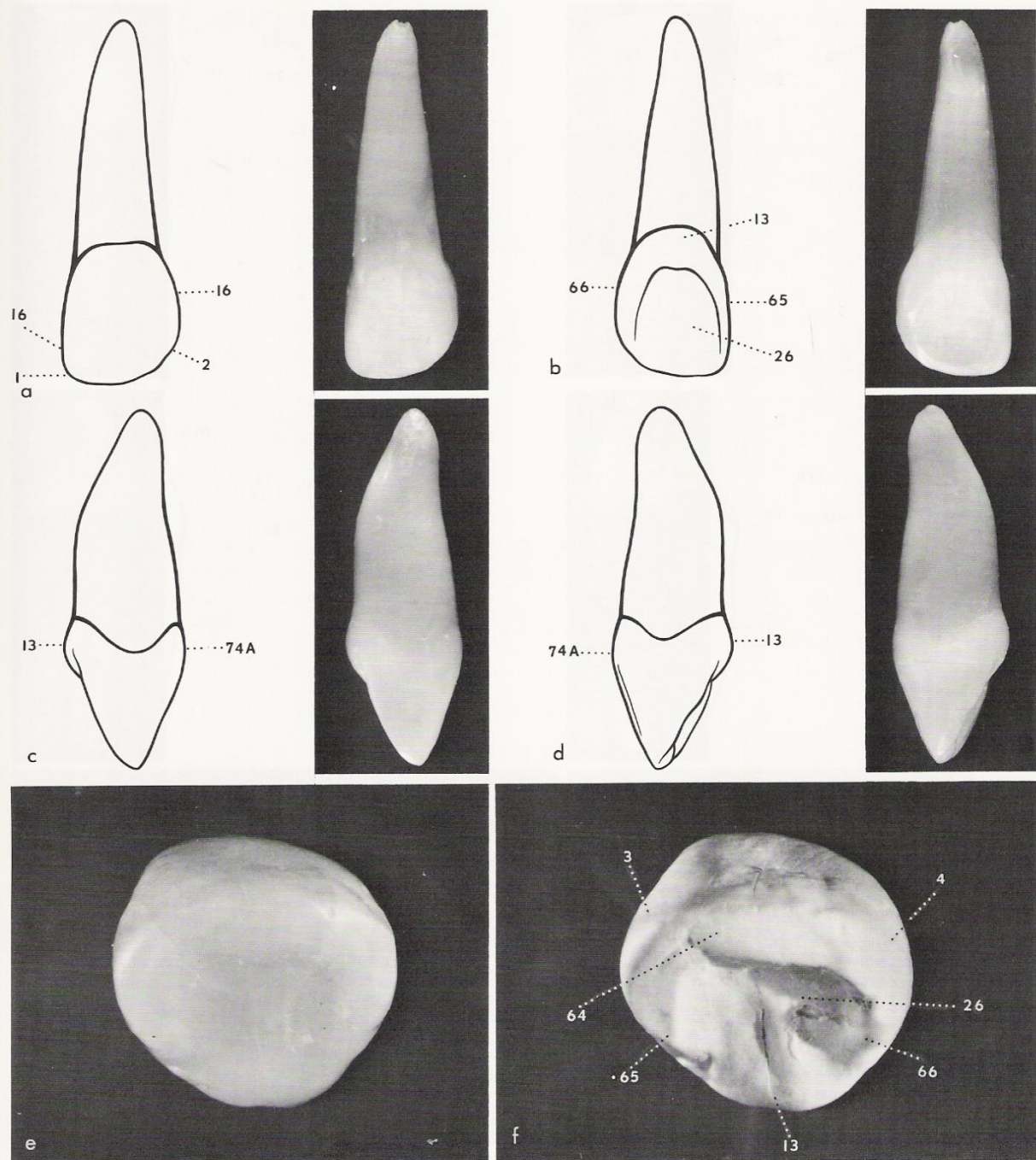


FIG. I-197. Maxillary left lateral incisor. *a*, labial aspect; *b*, lingual aspect; *c*, mesial aspect; *d*, distal aspect; *e*, incisal aspect (actual crown); *f*, incisal aspect (cast).

Deciduous Mandibular Left Central Incisor

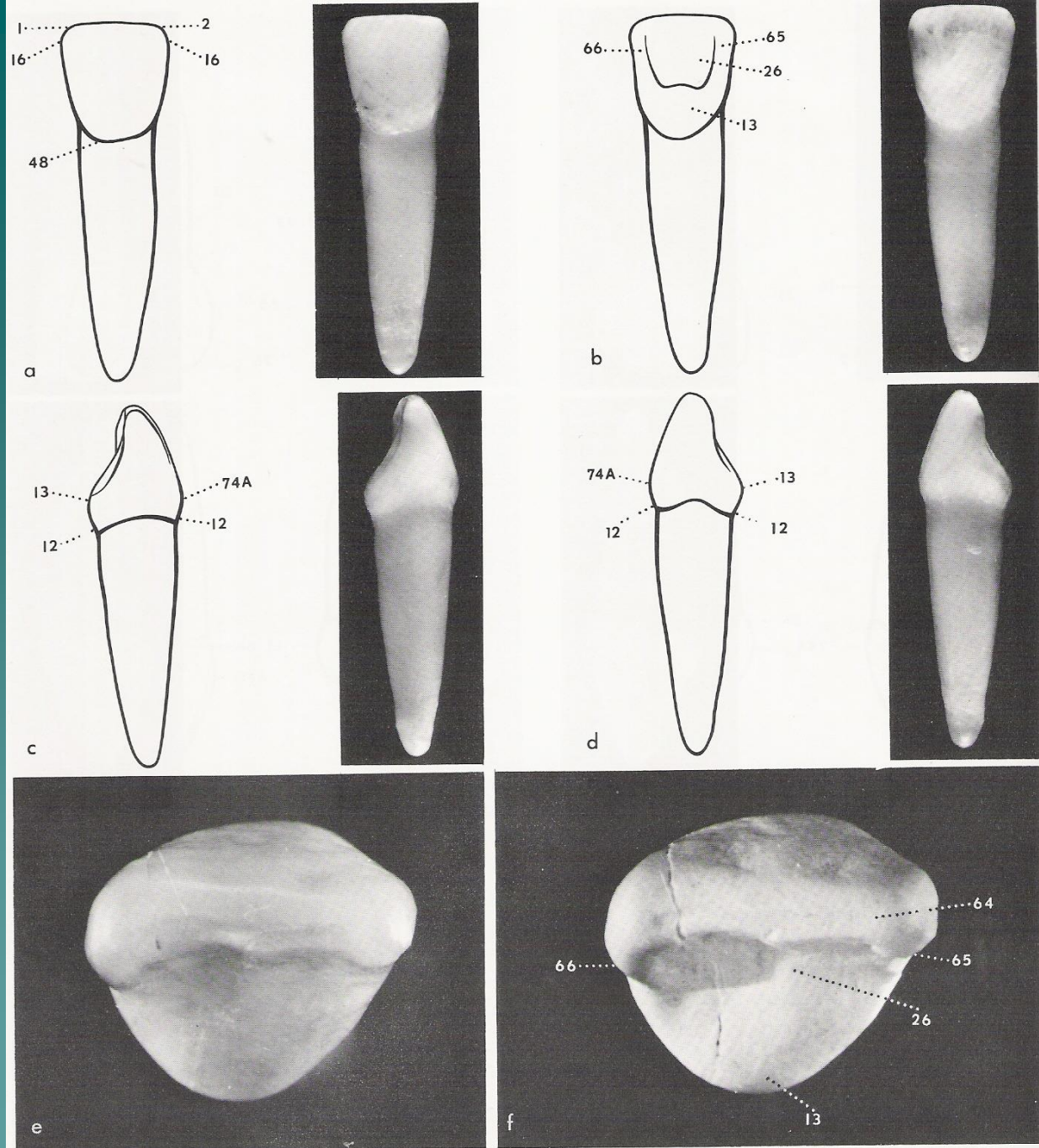


FIG. 1-198. Mandibular left central incisor. *a*, labial aspect; *b*, lingual aspect; *c*, mesial aspect; *d*, distal aspect; *e*, incisal aspect (actual crown); *f*, incisal aspect (cast).

Deciduous Mandibular Left Lateral Incisor

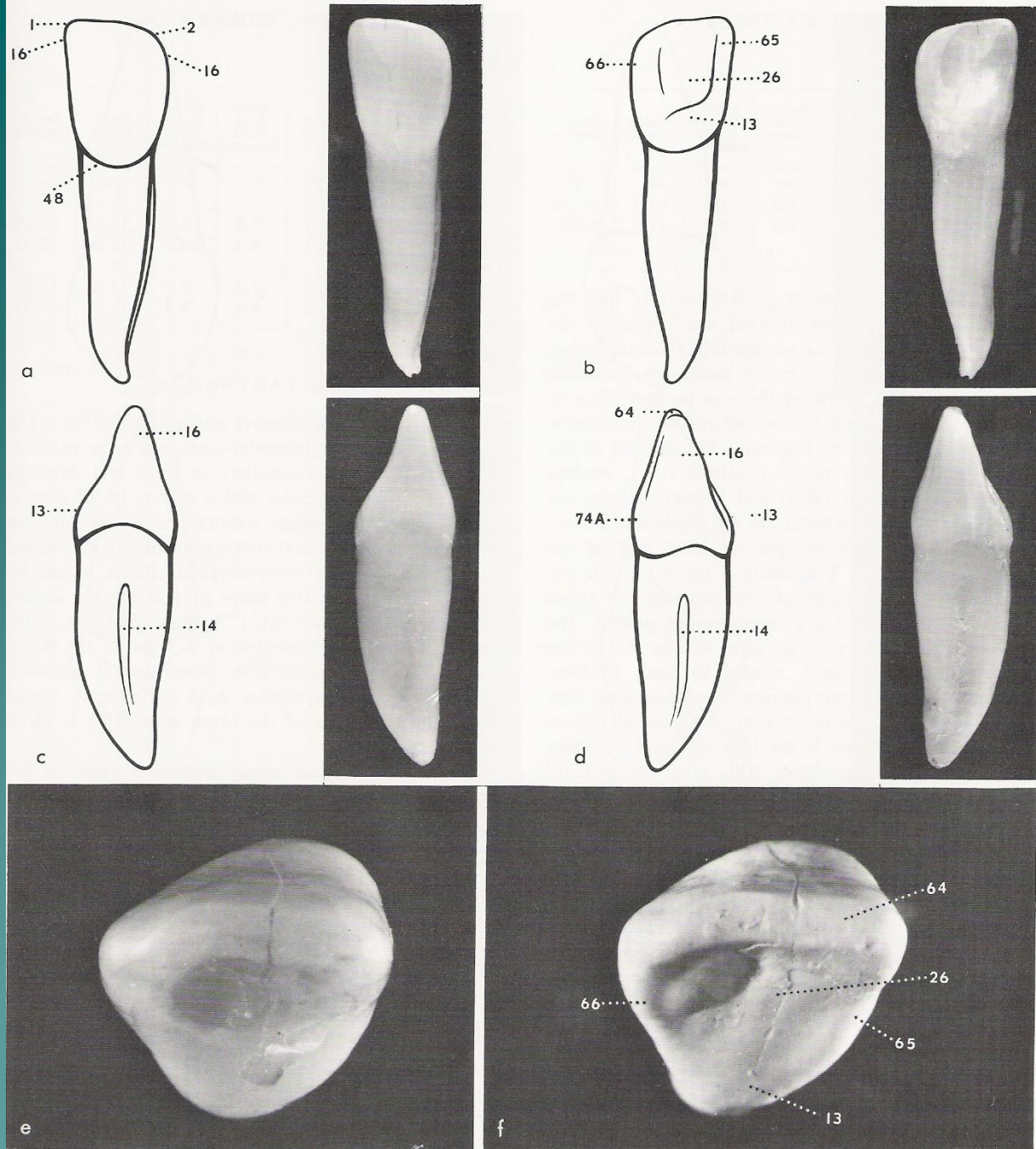
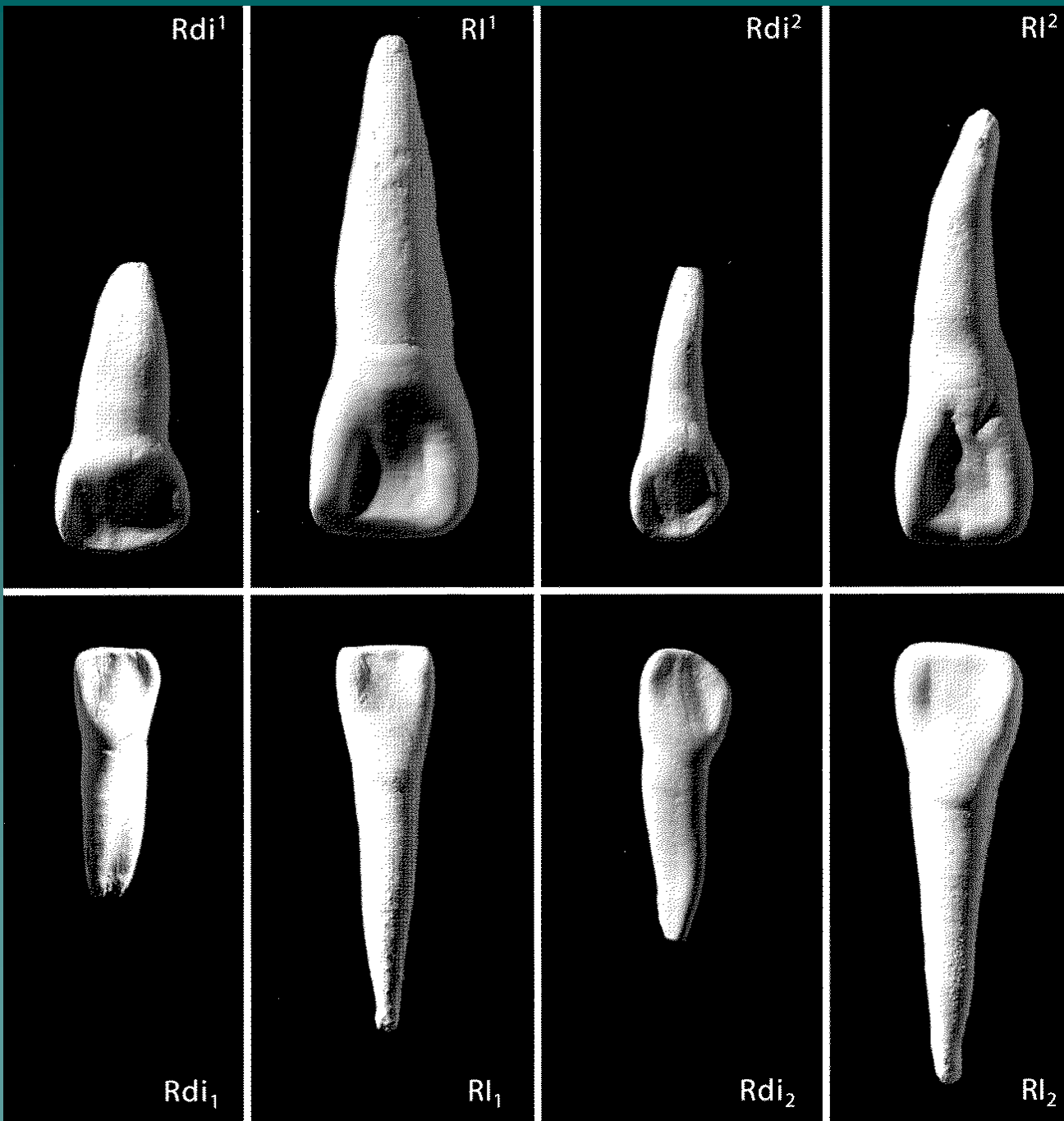


FIG. 1-199. Mandibular left lateral incisor. *a*, labial aspect; *b*, lingual aspect; *c*, mesial aspect; *d*, distal aspect; *e*, incisal aspect (actual crown); *f*, incisal aspect (cast).



Deciduous Maxillary Left Canine

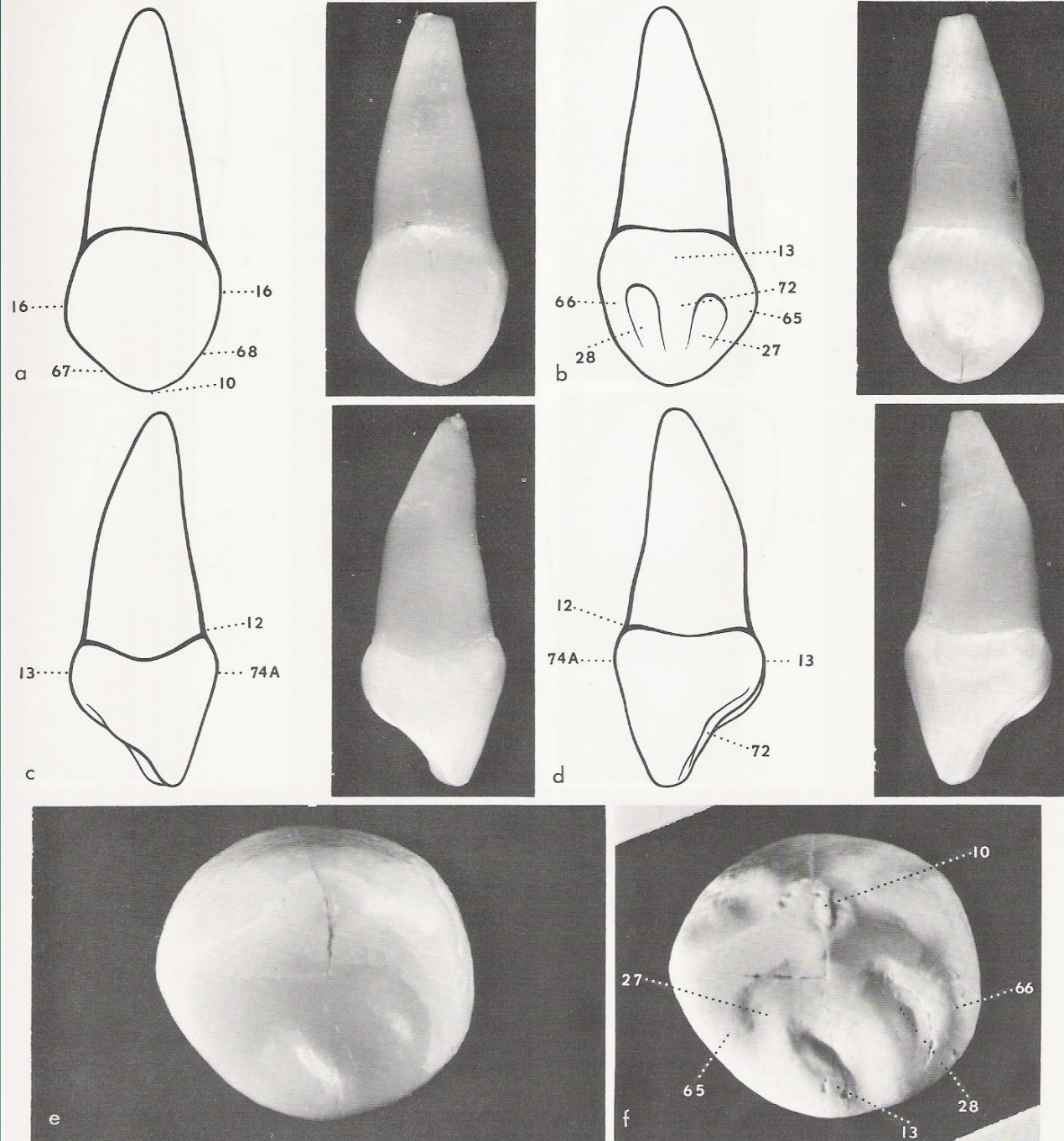


FIG. I-200. Maxillary left canine. *a*, labial aspect; *b*, lingual aspect; *c*, mesial aspect; *d*, distal aspect; *e*, incisal aspect (actual crown); *f*, incisal aspect (cast).

Deciduous Mandibular Right Canine

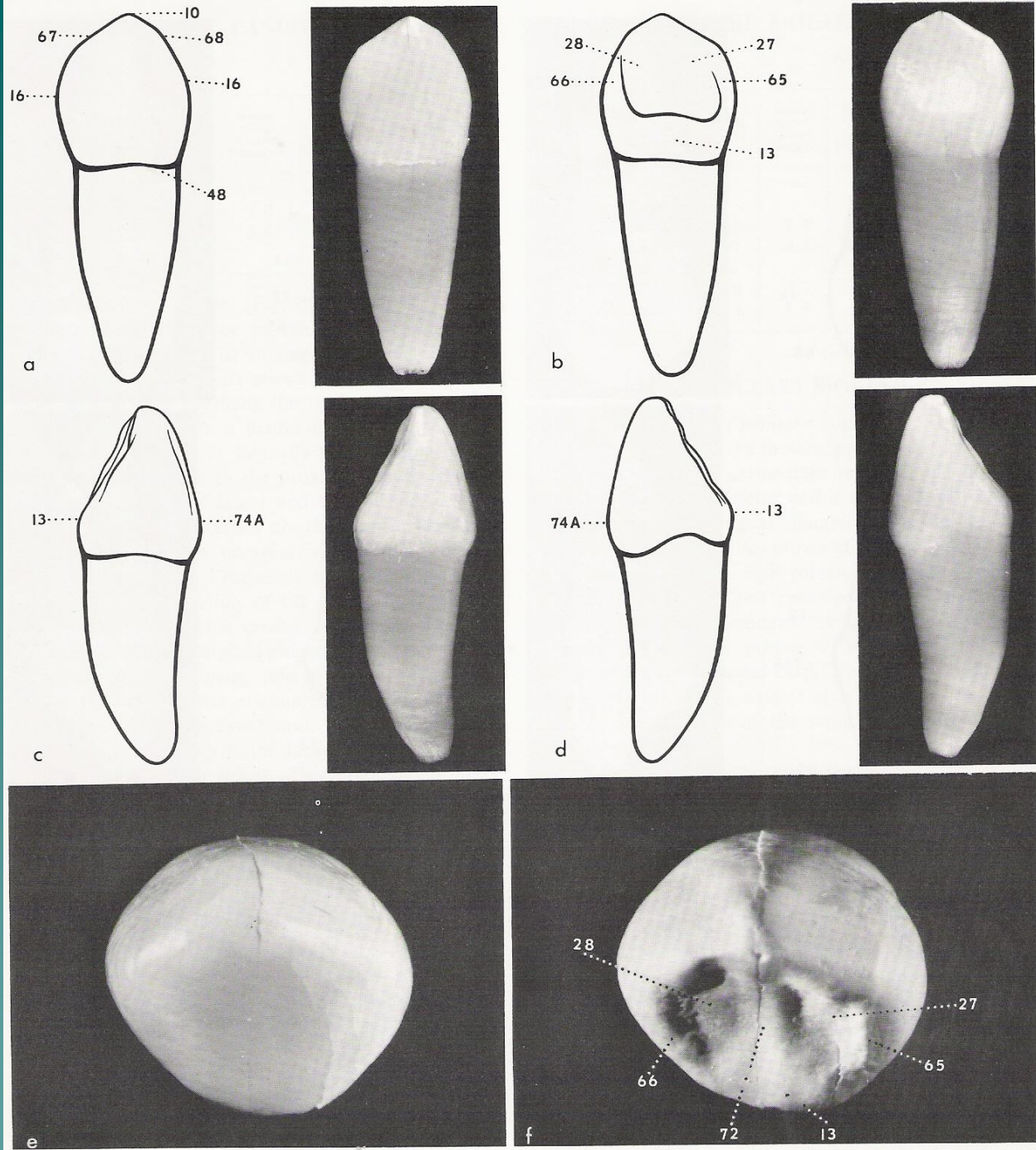
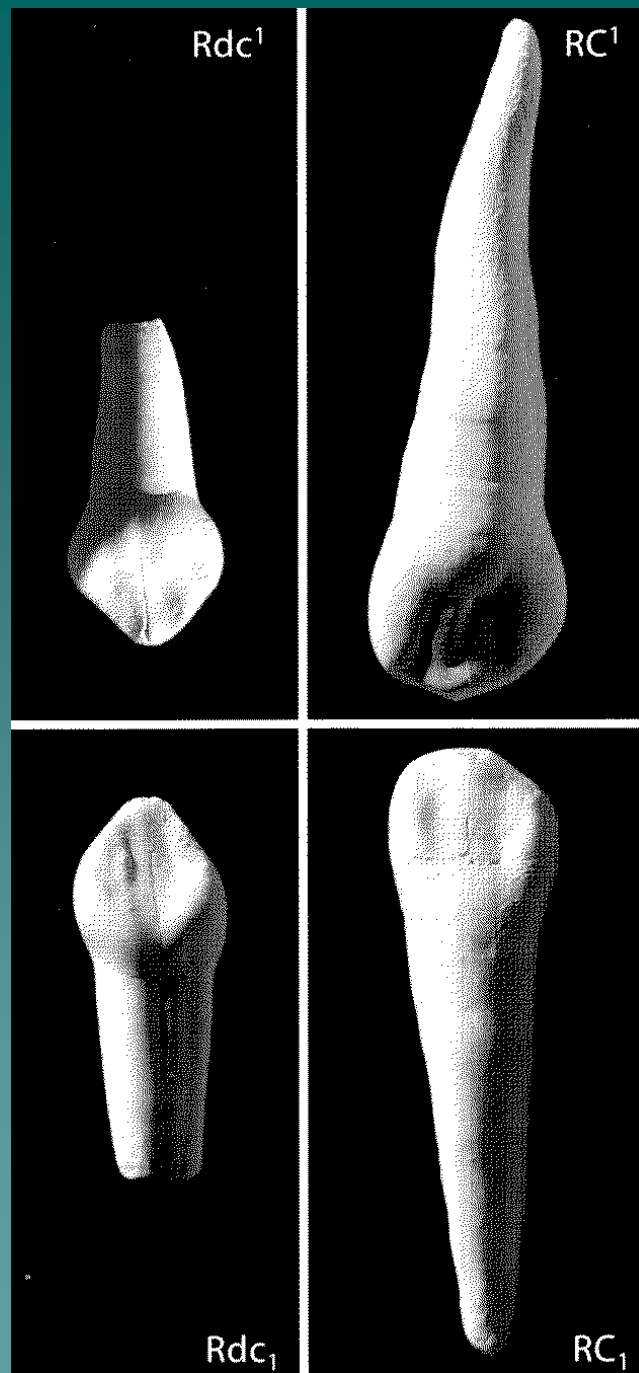


FIG. 1-201. Mandibular right canine. *a*, labial aspect; *b*, lingual aspect; *c*, mesial aspect; *d*, distal aspect; *e*, incisal aspect (actual crown); *f*, incisal aspect (cast).



Deciduous Maxillary Left First Molar

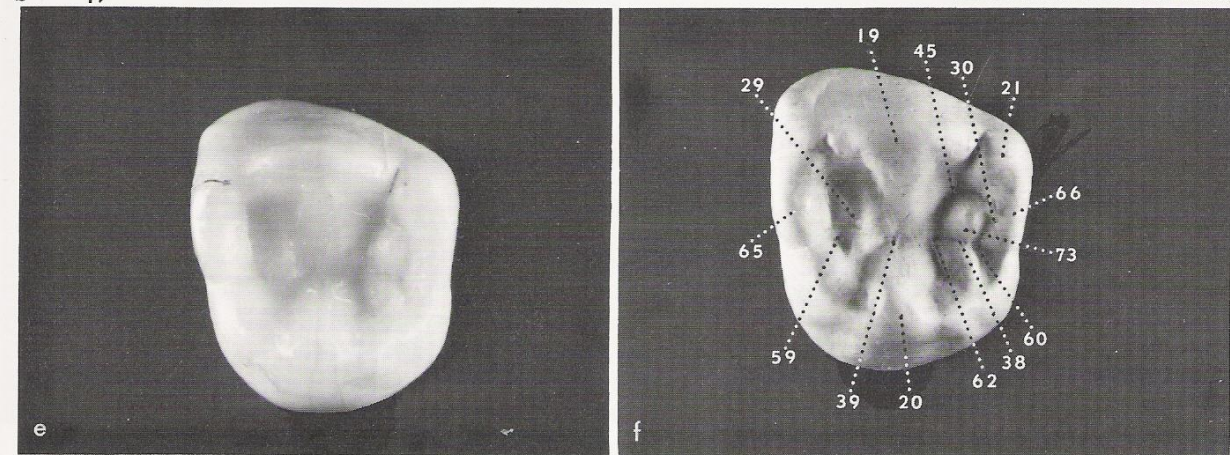
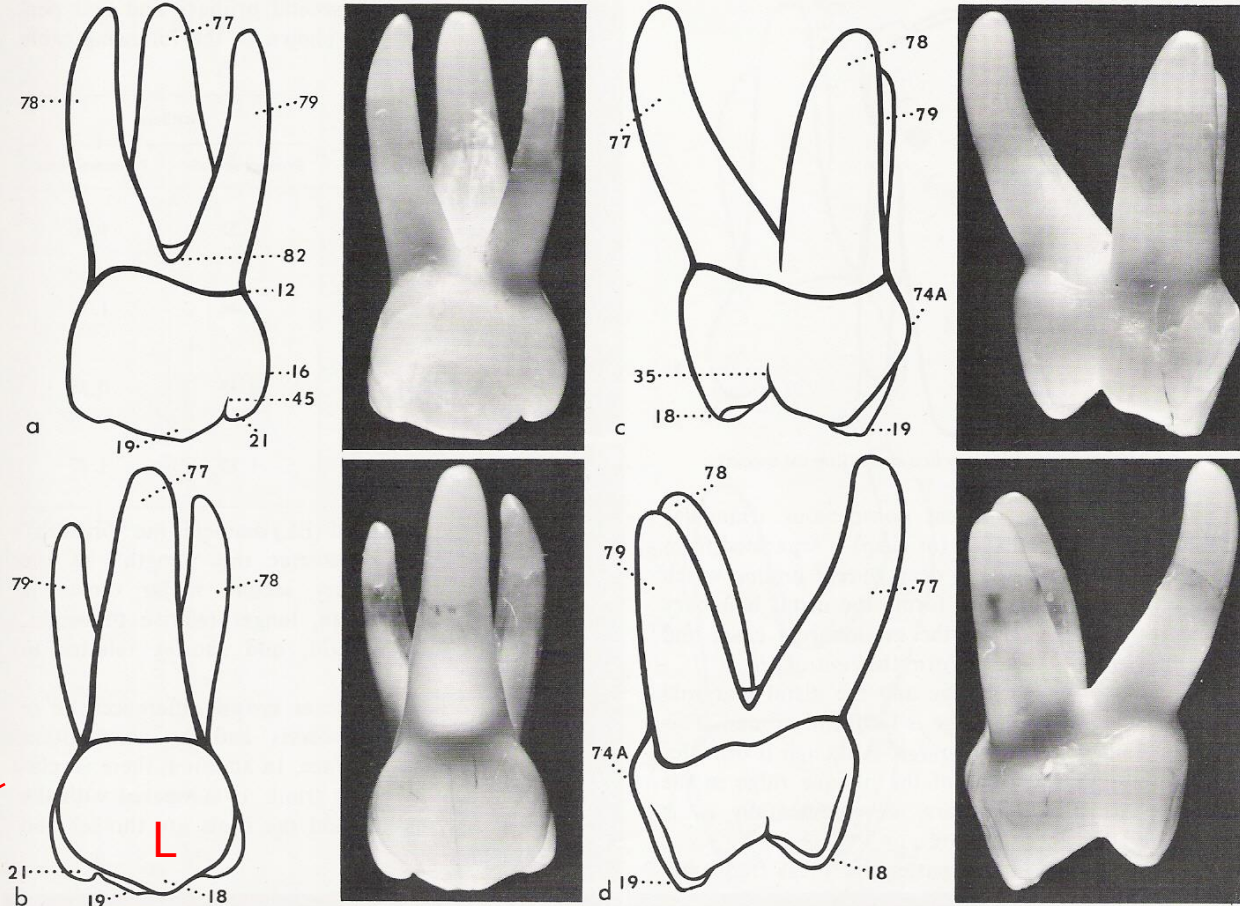


FIG. I-203. Inverted maxillary first molar (lingual aspect).

FIG. I-202. Maxillary left first molar. *a*, buccal aspect; *b*, lingual aspect; *c*, mesial aspect; *d*, distal aspect; *e*, occlusal aspect (actual crown); *f*, occlusal aspect (cast).

Deciduous Maxillary Left Second Molar

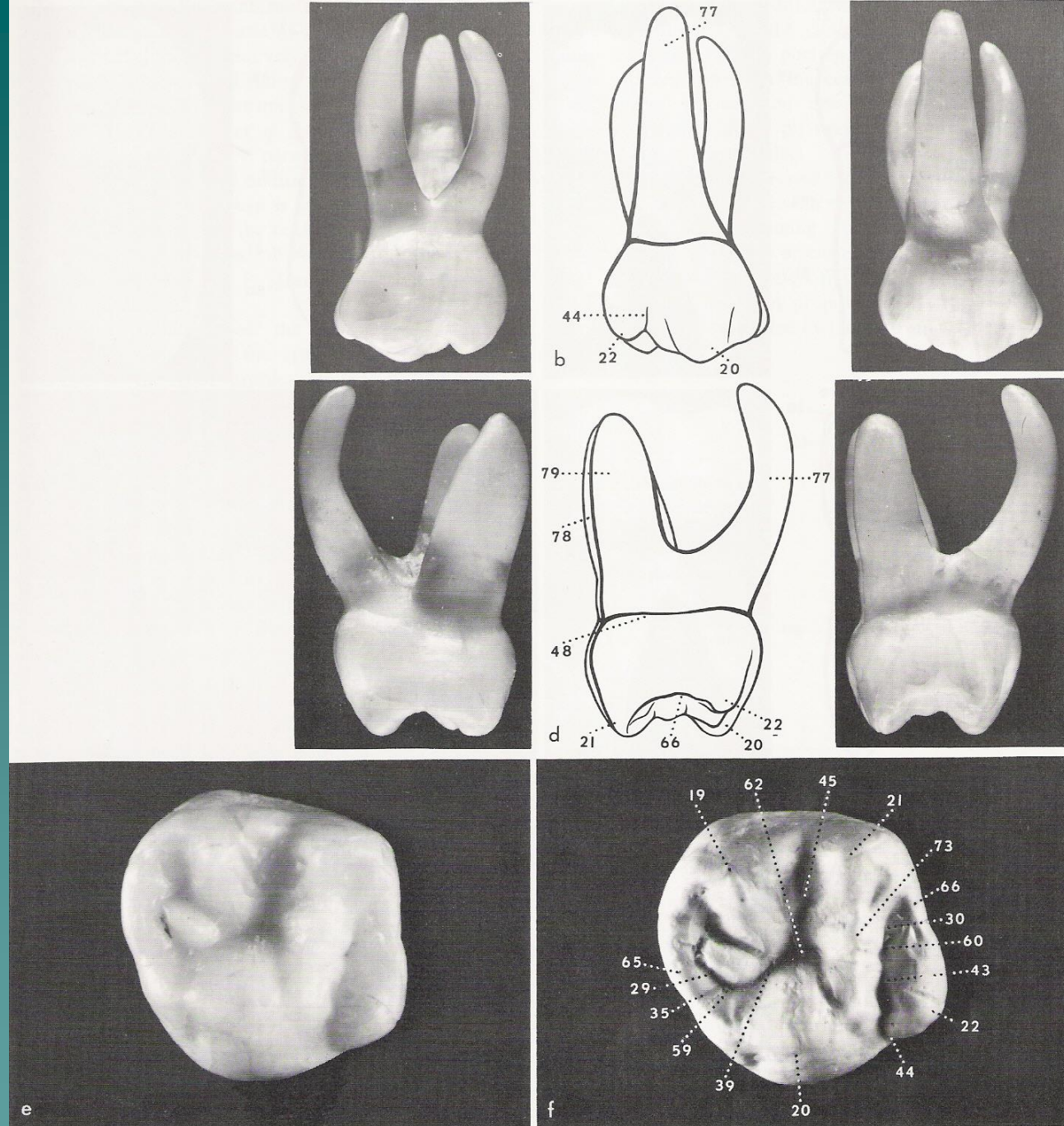


FIG. I-204. Maxillary left second molar. *a*, buccal aspect; *b*, lingual aspect; *c*, mesial aspect; *d*, distal aspect; *e*, occlusal aspect (actual crown); *f*, occlusal aspect (cast).

Deciduous Mandibular Left First Molar

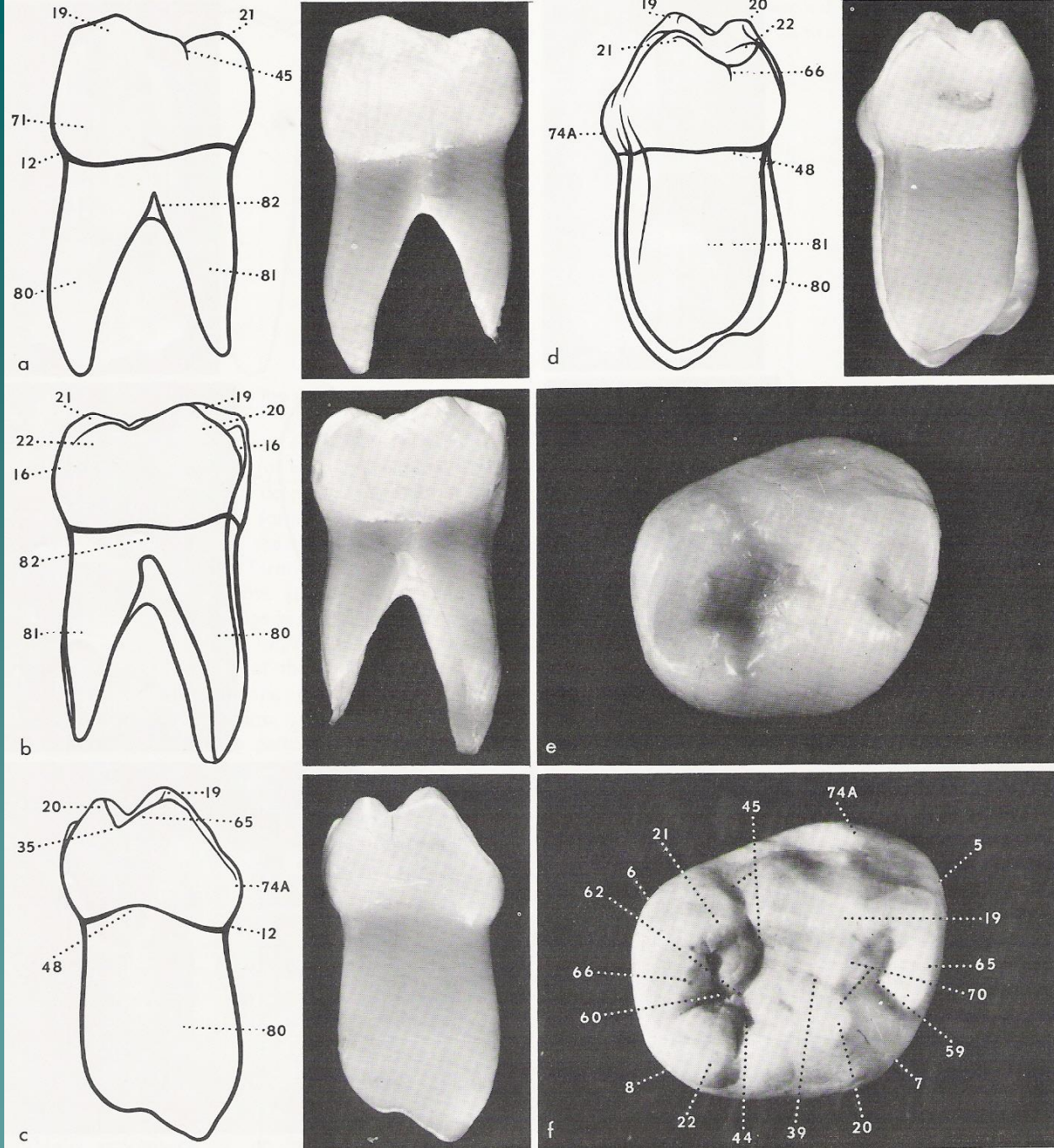


FIG. I-205. Mandibular left first molar. *a*, buccal aspect; *b*, lingual aspect; *c*, mesial aspect; *d*, distal aspect; *e*, occlusal aspect (actual crown); *f*, occlusal aspect (cast).

Deciduous Mandibular Left Second Molar

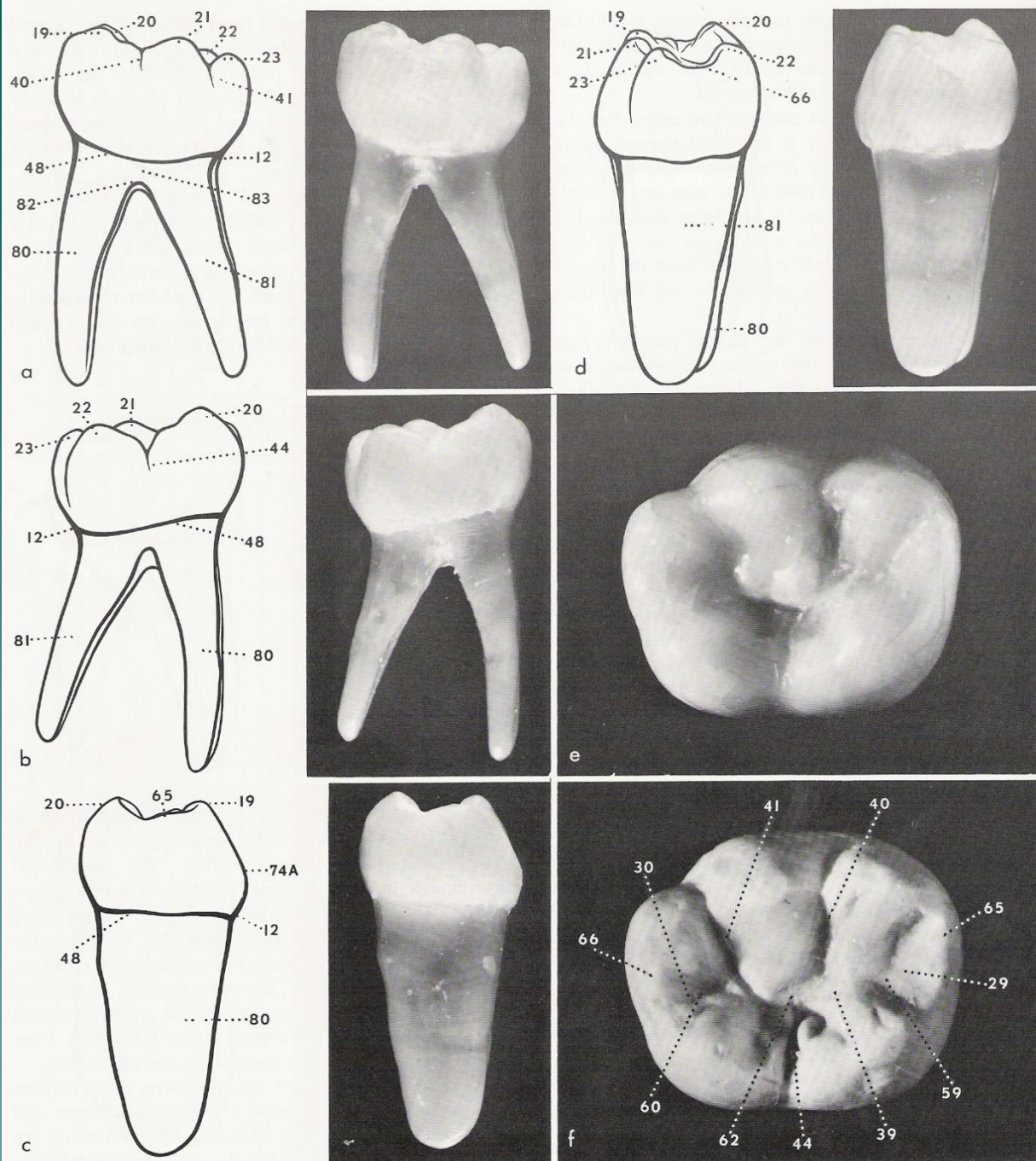
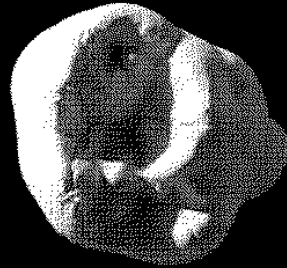


FIG. I-206. Mandibular left second molar. *a*, buccal aspect; *b*, lingual aspect; *c*, mesial aspect; *d*, distal aspect; *e*, occlusal aspect (actual crown); *f*, occlusal aspect (cast).

Rdm²



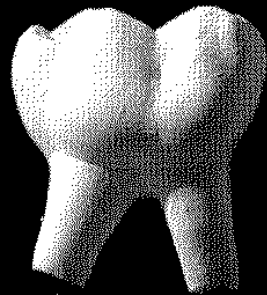
Rdm²



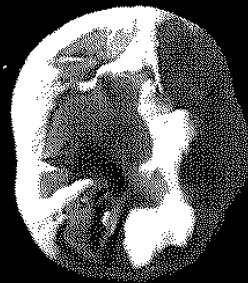
RM²



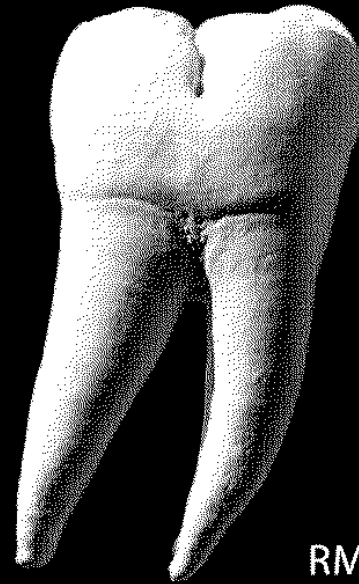
RM²



Rdm₂



Rdm₂



RM₂

RM₂

