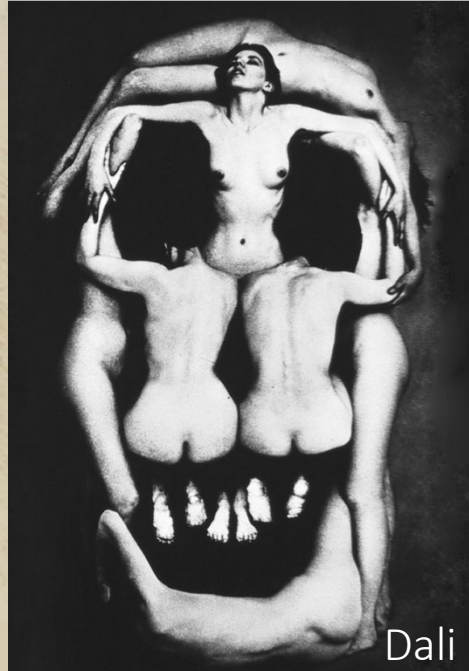


da Vinci



Dali



Cézanne

Schädel: allgemeiner Aufbau.
Os ethmoidale.
Gesichtsschädel: Knochen und Räume.

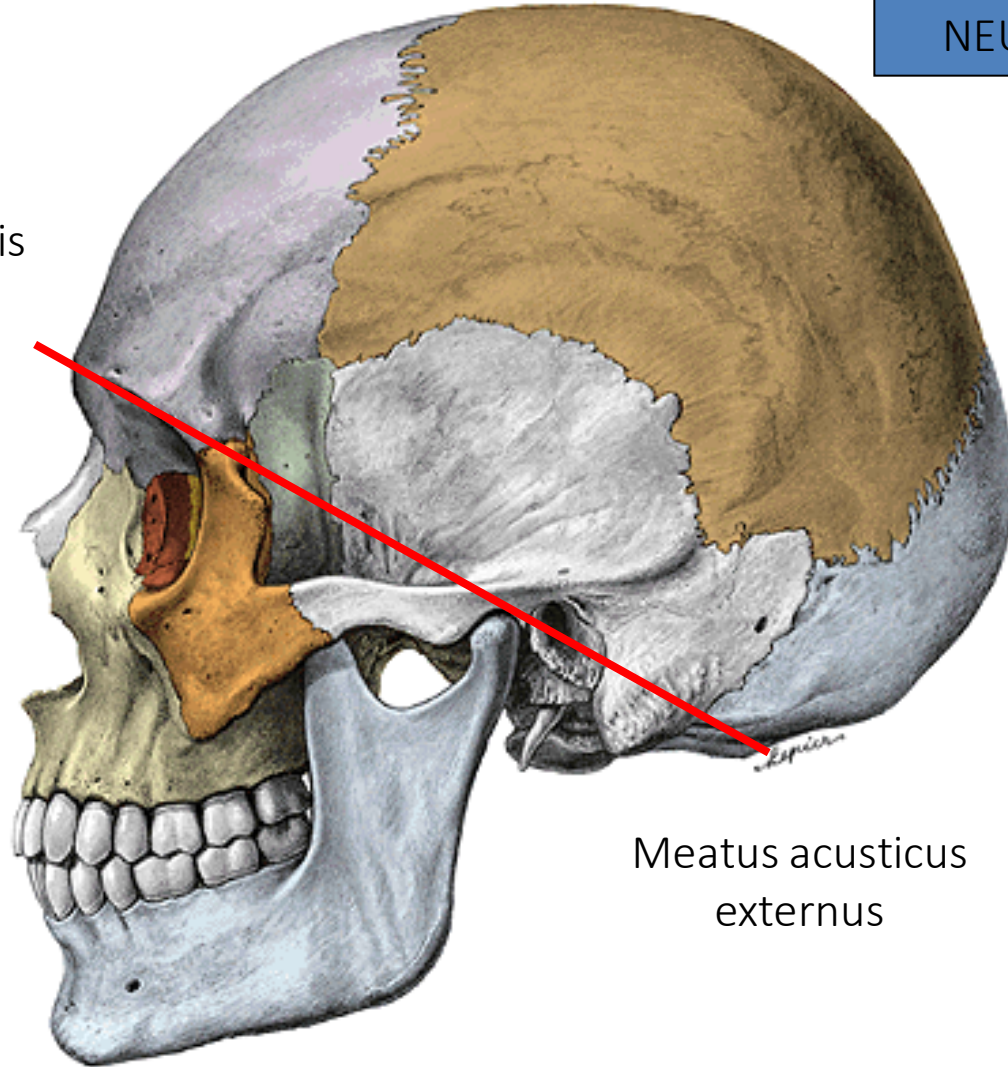
Dr. Emese Pálfi

Semmelweis Universität

Anatomisches, Histologisches und Emryologisches Institut

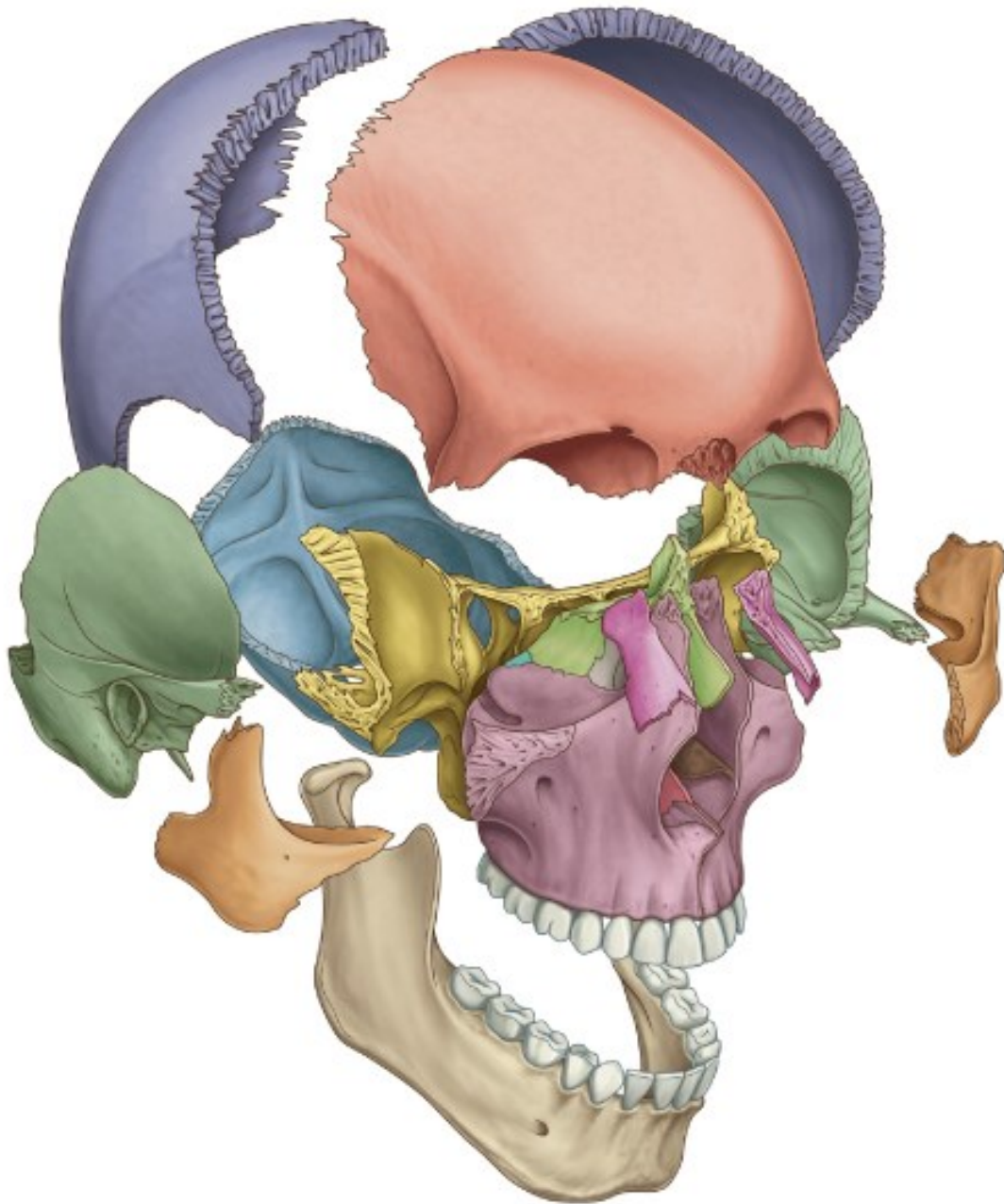
NEUROCRANIUM

Margo
supraorbitalis



Meatus acusticus
externus

VISCEROCRANIUM

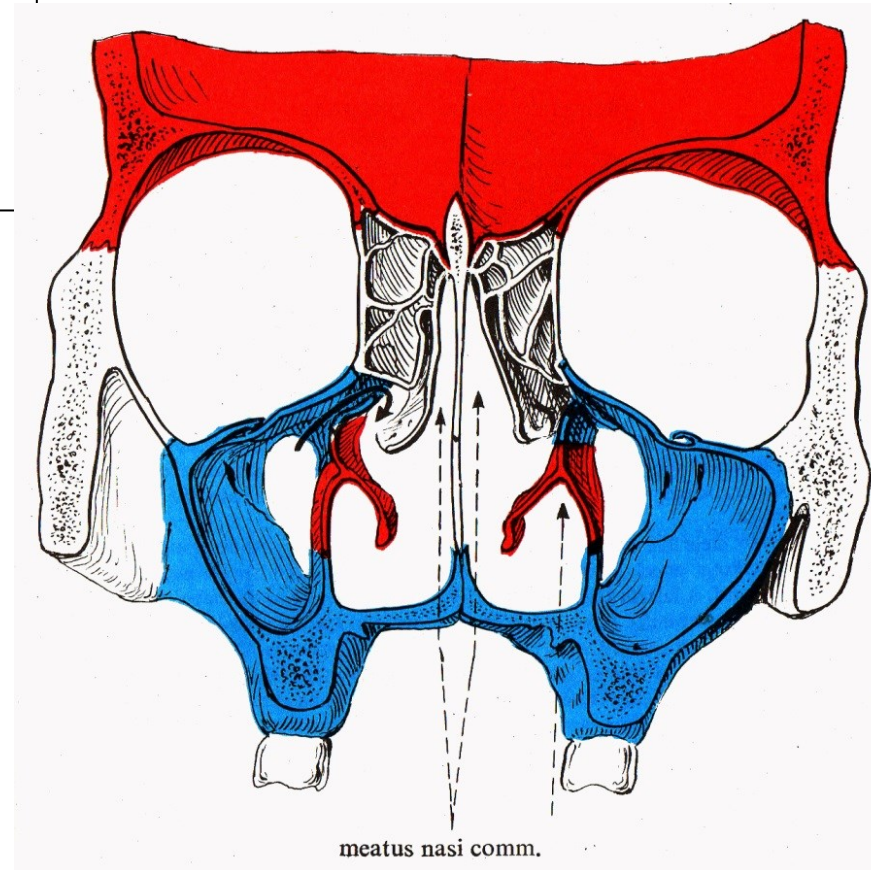
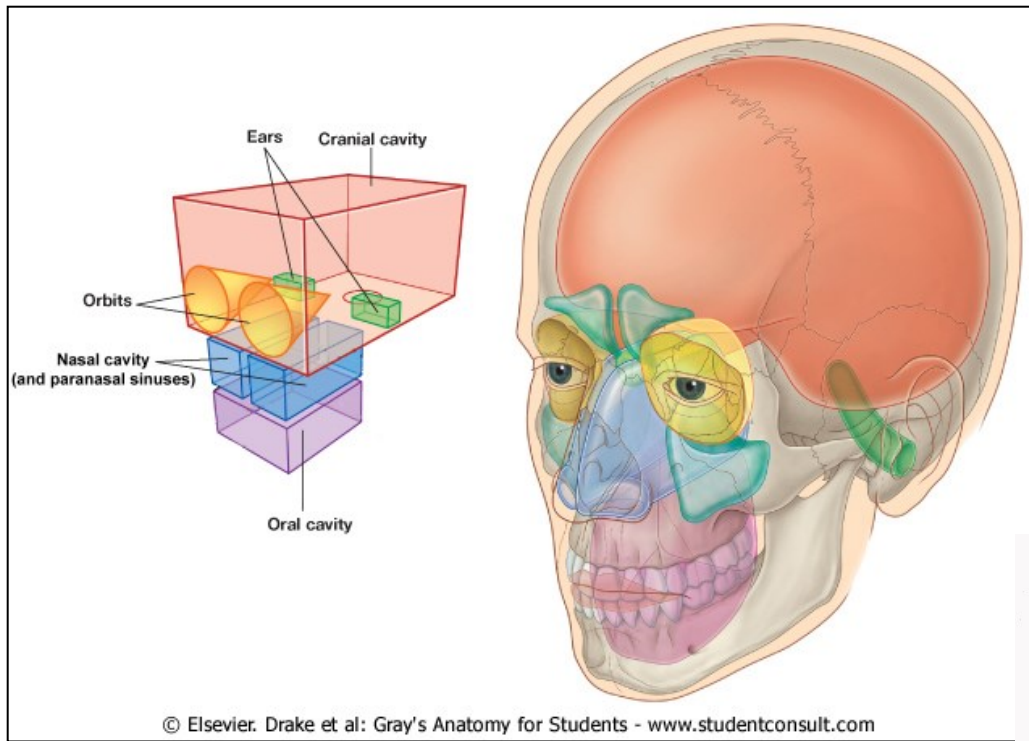


Paarige:

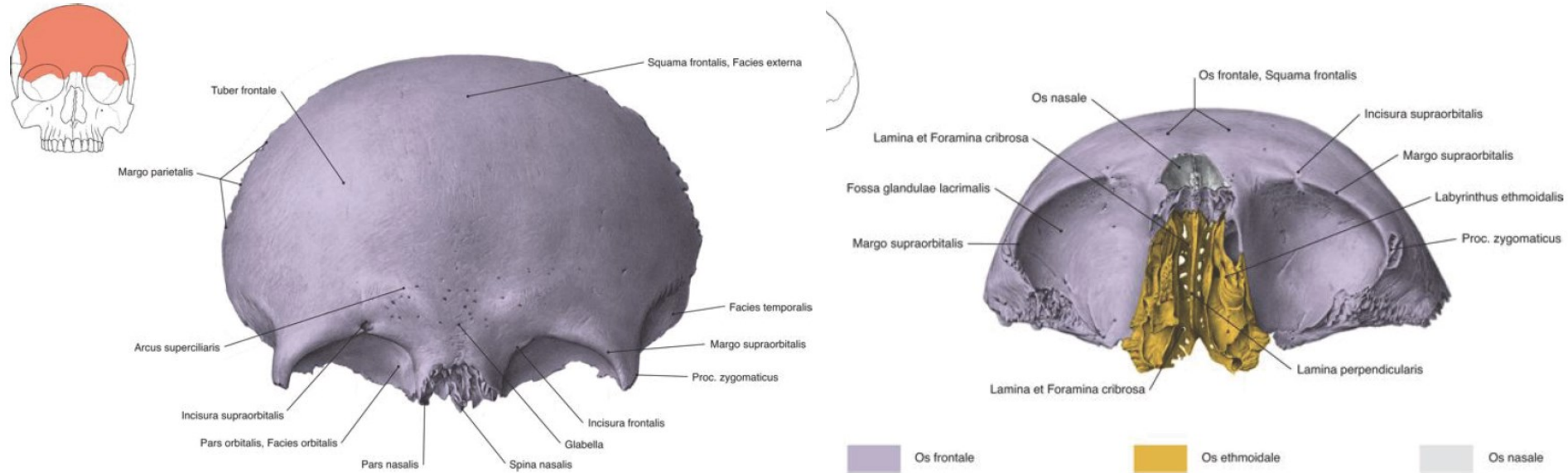
- Os zygomaticum
- Maxilla
- Os nasale
- Os palatinum
- Os lacrimale
- Concha nasalis inferior

Unpaarige:

- Os sphenoidale
 - Os ethmoidale
 - Vomer
- } Bilden die Neurocranium auch!



Os frontale

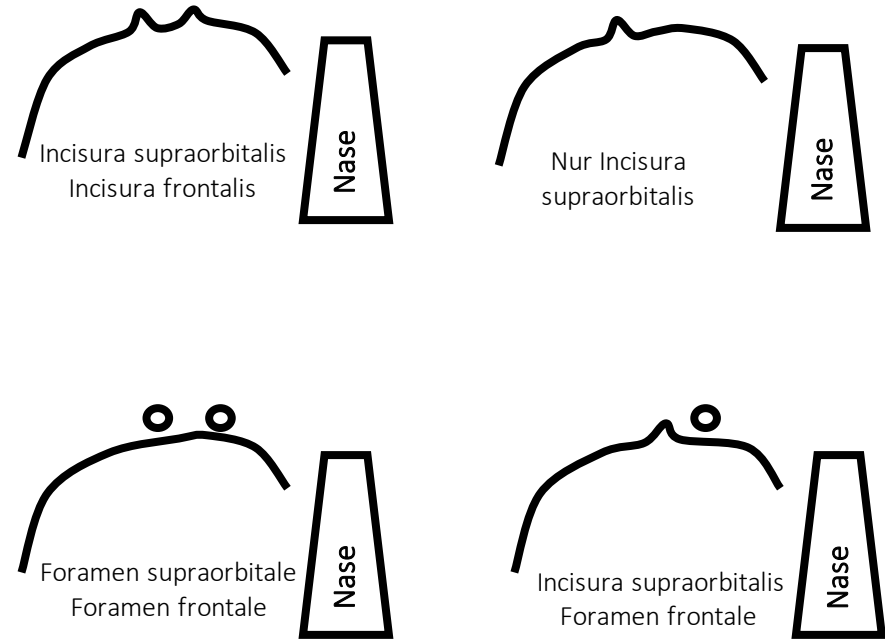


Teilen:

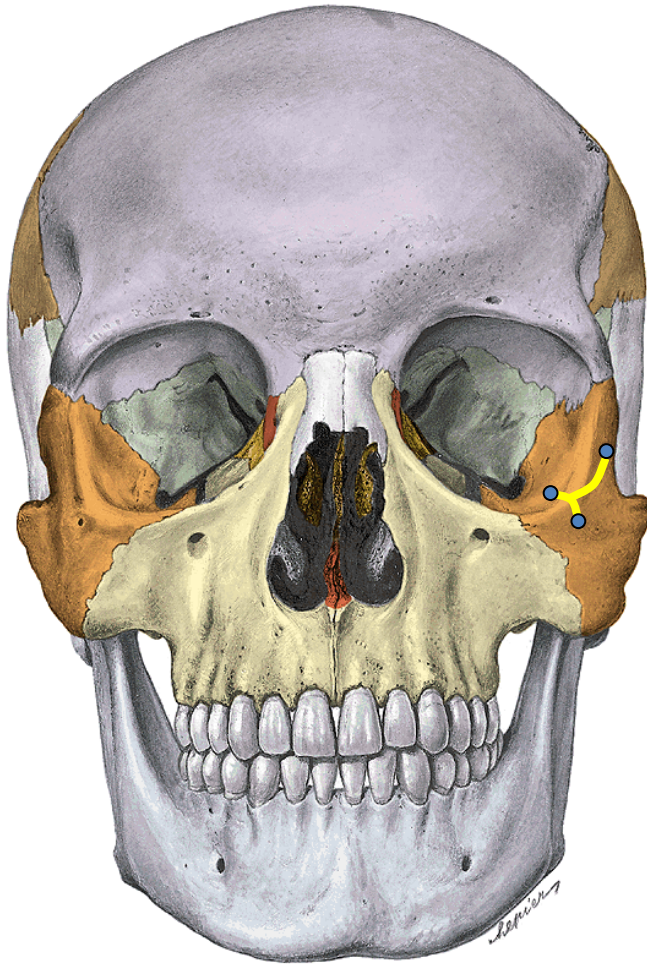
- Squama frontalis
- Pars orbitalis
- Pars nasalis

Höhle:

- Sinus frontalis

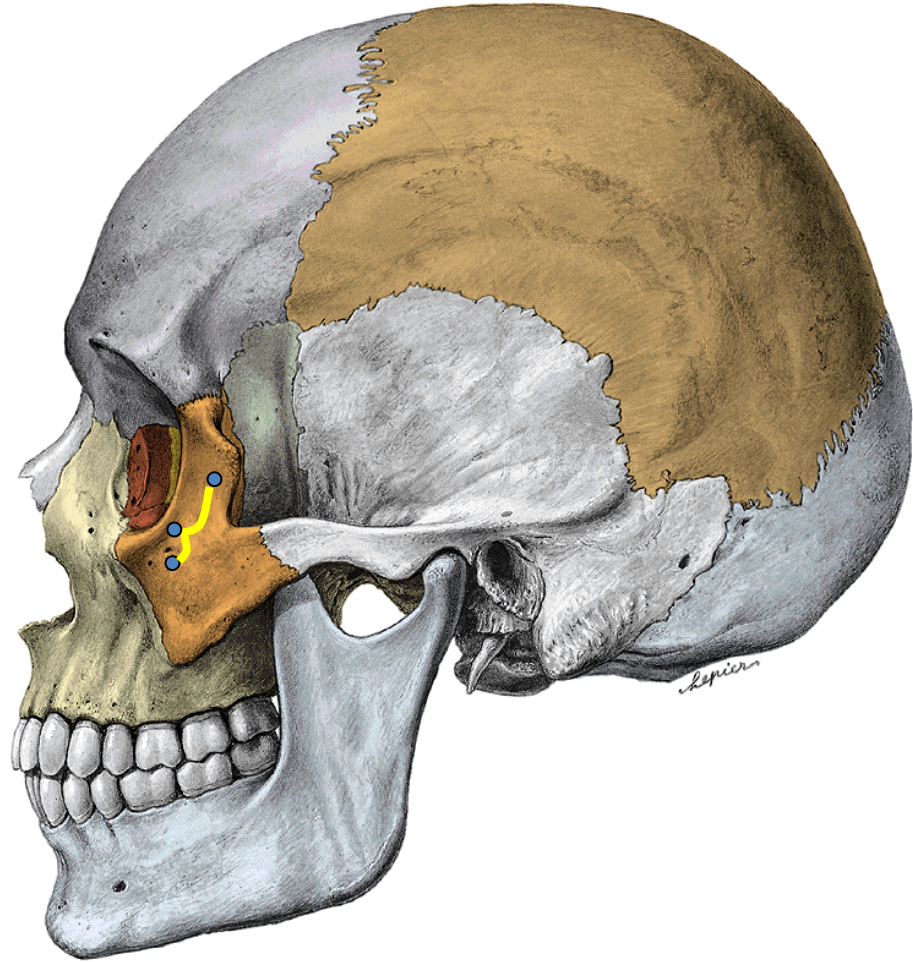


Os zygomaticum



Oberfläche:

- Facies orbitalis
- Facies lateralis
- Facies temporalis



Vortsätze:

- Processus frontalis
- Processus maxillaris
- Processus temporalis

Canalis zygomaticus:

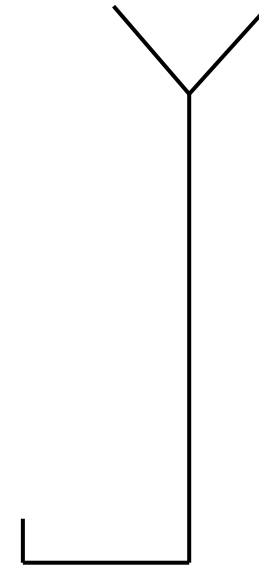
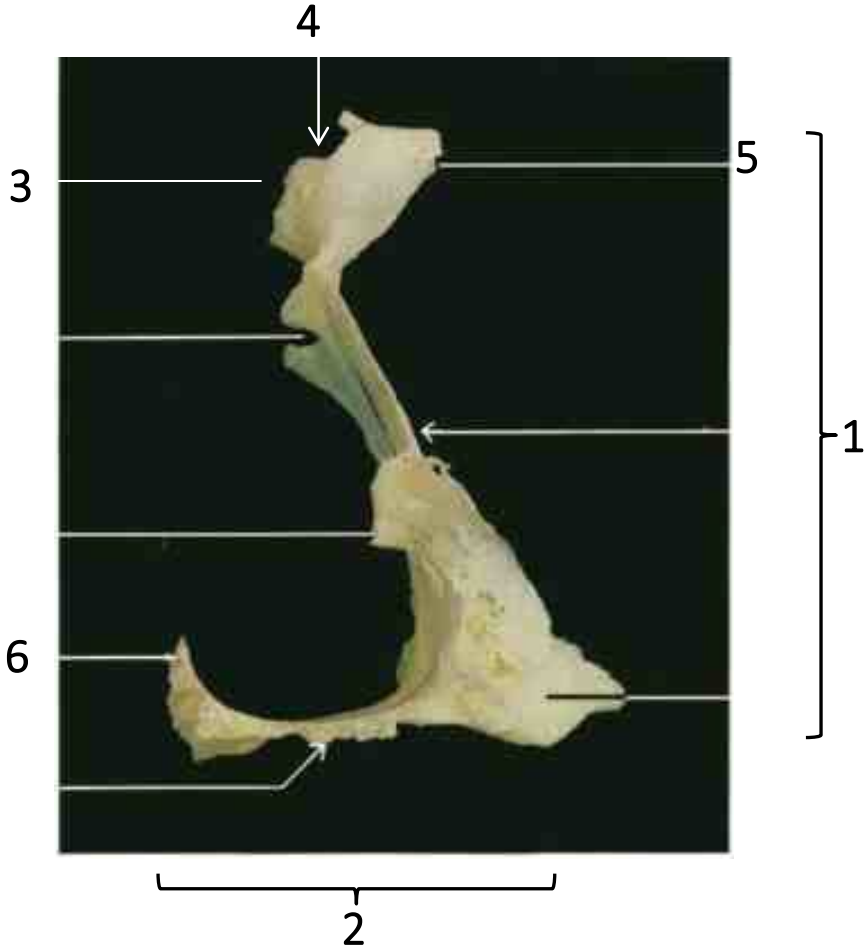
Y förmig

Foramen zygomaticoorbitale

Foramen zygomaticofaciale

Foramen zygomaticotemporale

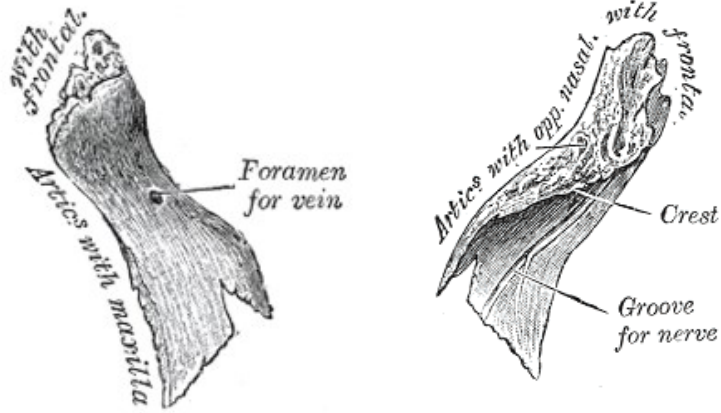
Os palatinum



1. Lamina perpendicularis
2. Lamina horizontalis
3. Processus orbitalis

4. Incisura sphenopalatina
5. Processus sphenoidalis
6. Crista nasalis

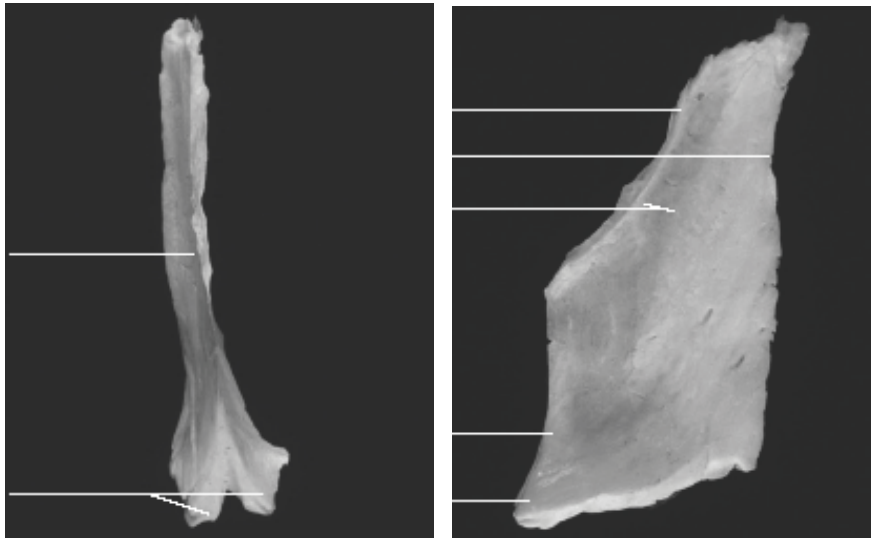
Os nasale



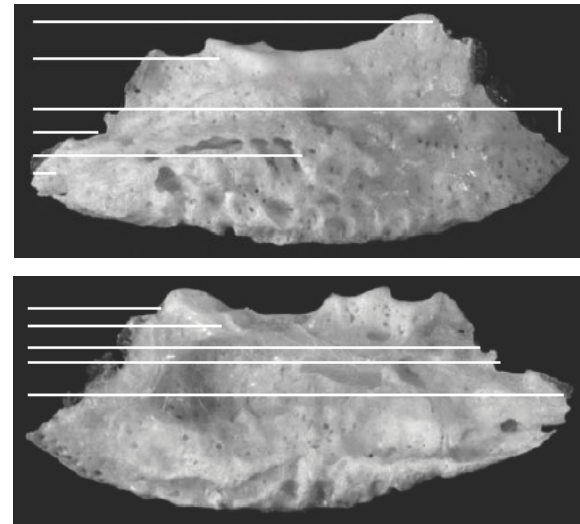
Os lacrimale



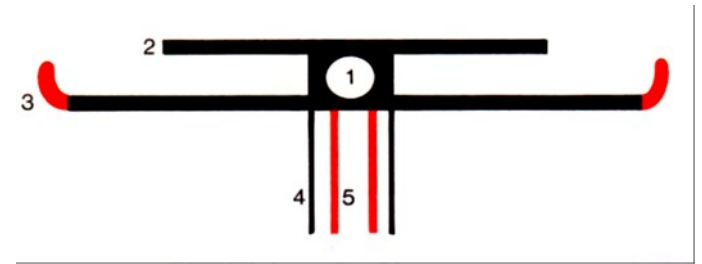
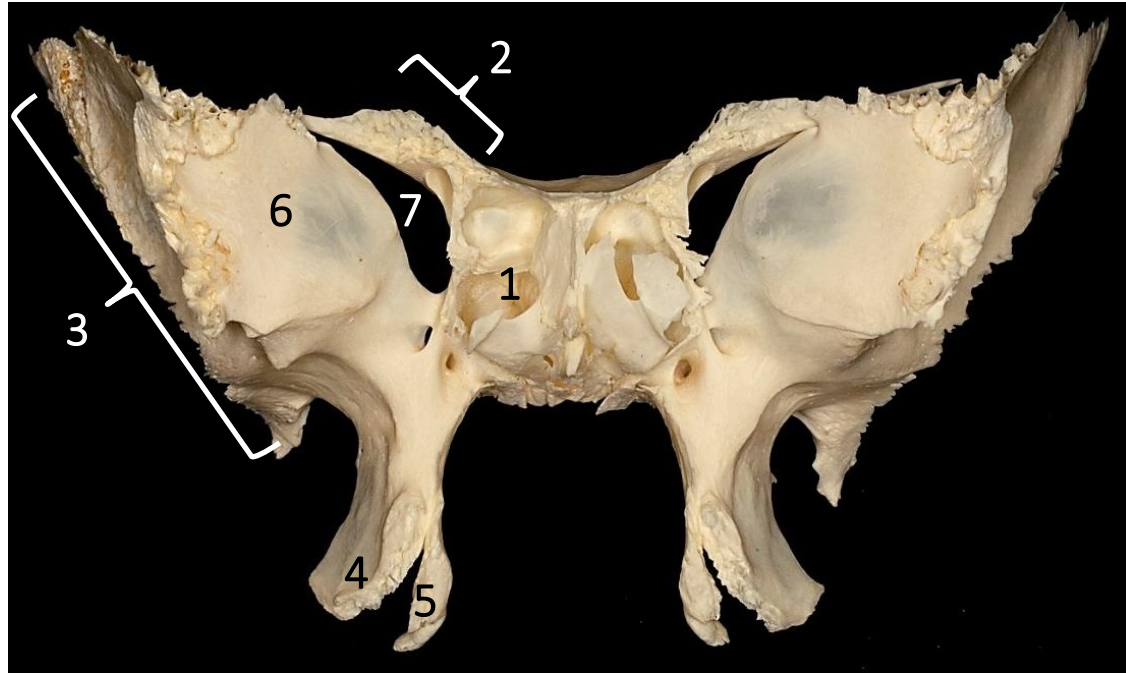
Vomer



Concha nasalis inferior

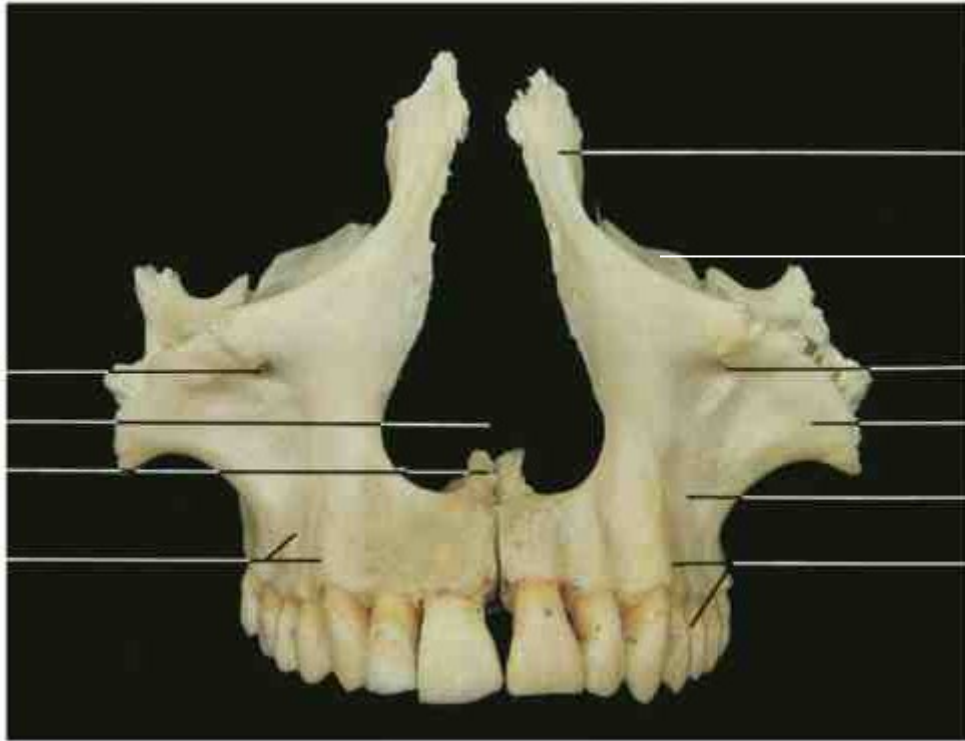


Os sphenoidale

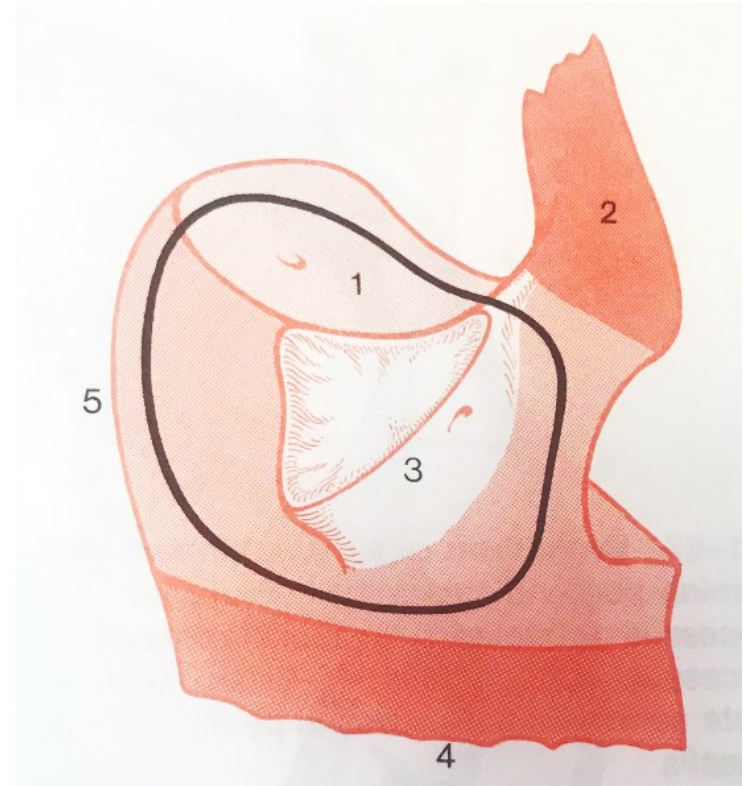


1. Sinus sphenoidalis
2. Ala minor
3. Ala major
4. Processus pterygoideus lamina lat.
5. Processus pterygoideus lamina med.
6. Facies orbitalis
7. Fissura orbitalis sup.

Maxilla



- 2
- 1
- 6 7
- 3
- 4

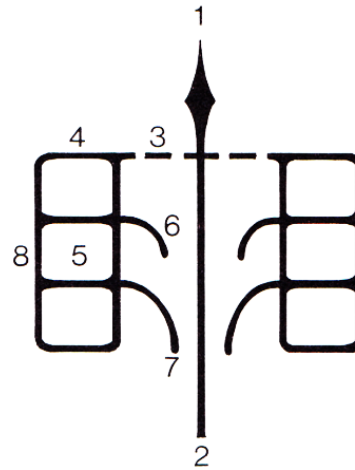


1. Facies orbitalis
2. Processus frontalis
3. Processus zygomaticus
4. Processus alveolaris
5. Tuber maxillae

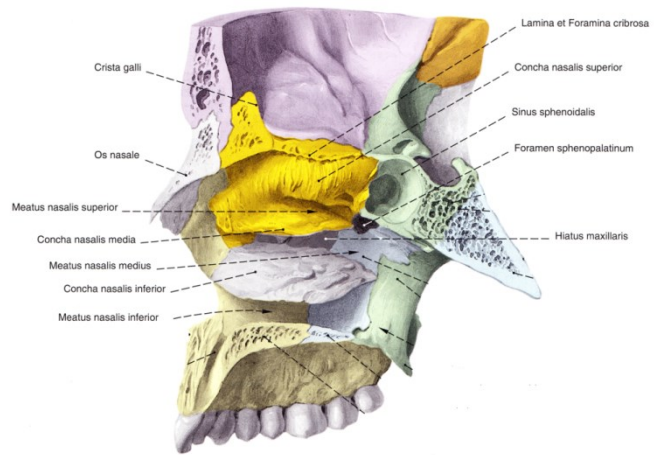
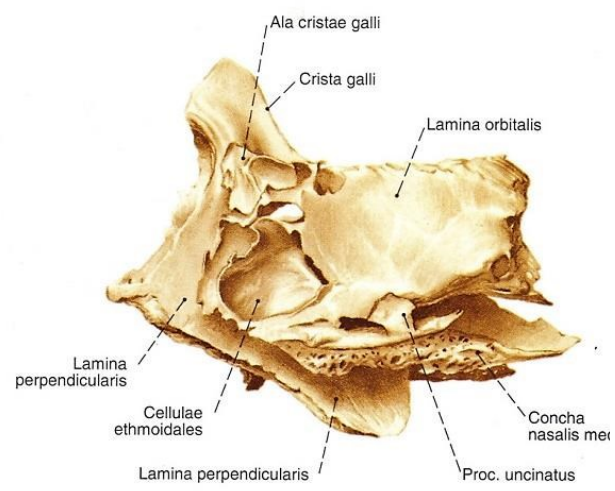
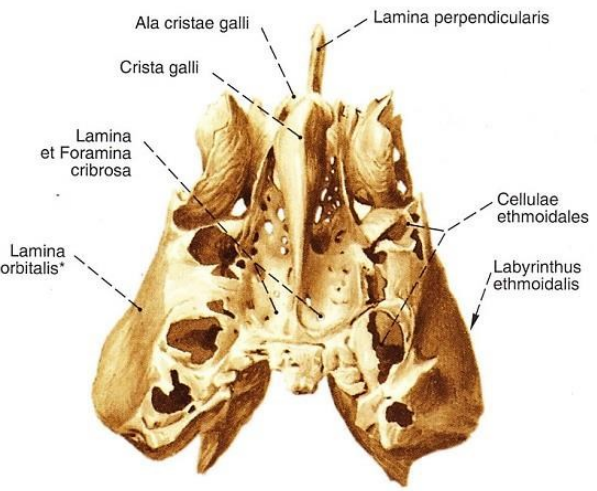
6. Fossa canina
7. Foramen infraorbitale

Processus palatinus

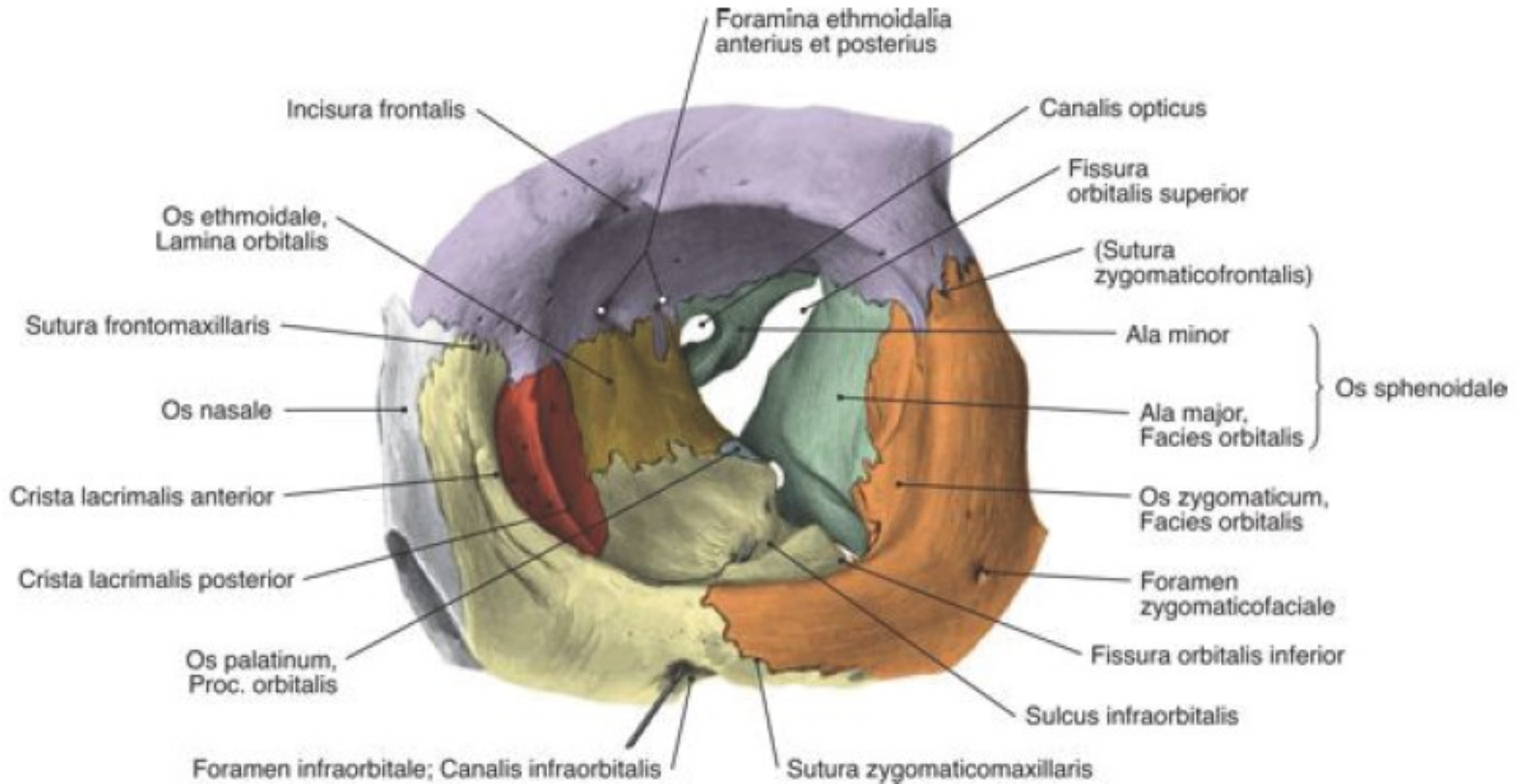
Os ethmoidale



1. Crista galli
2. Lamina perpendicularis
3. Lamina cribrosa
4. Labirynthus ethmoidalis
5. Cellulae ethmoidales
6. Concha nasalis sup.
7. Concha nasalis med.
8. Lamina orbitalis/papiracea



Augenhöhle (*Orbita*)



Os frontale - Facies orbitalis

Os sphenoidale - Ala minor

Os lacrimale

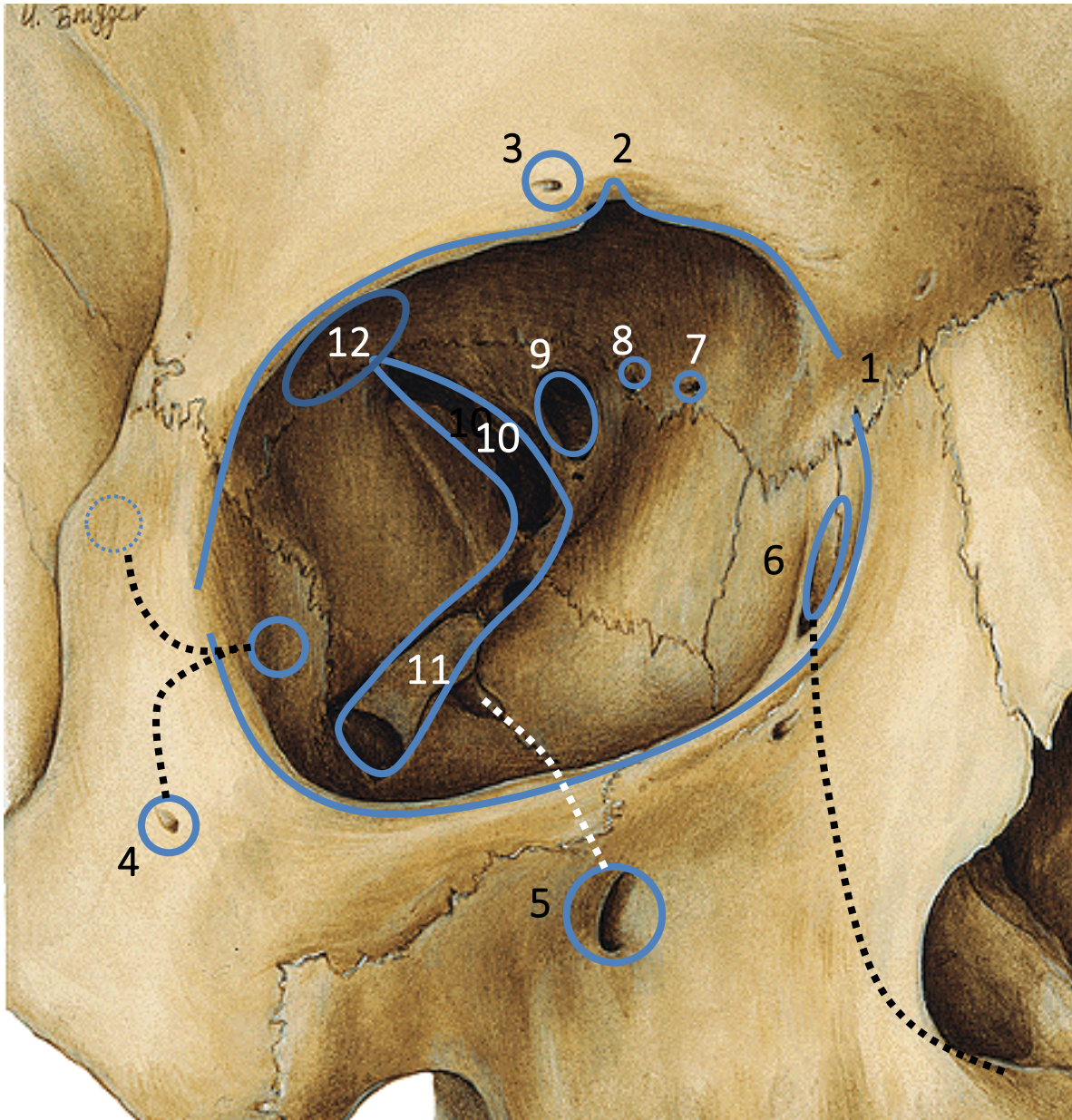
Os ethmoidale - Lam. orbitalis

Os palatinum – Processus orbitalis

Maxilla – Facies orbitalis

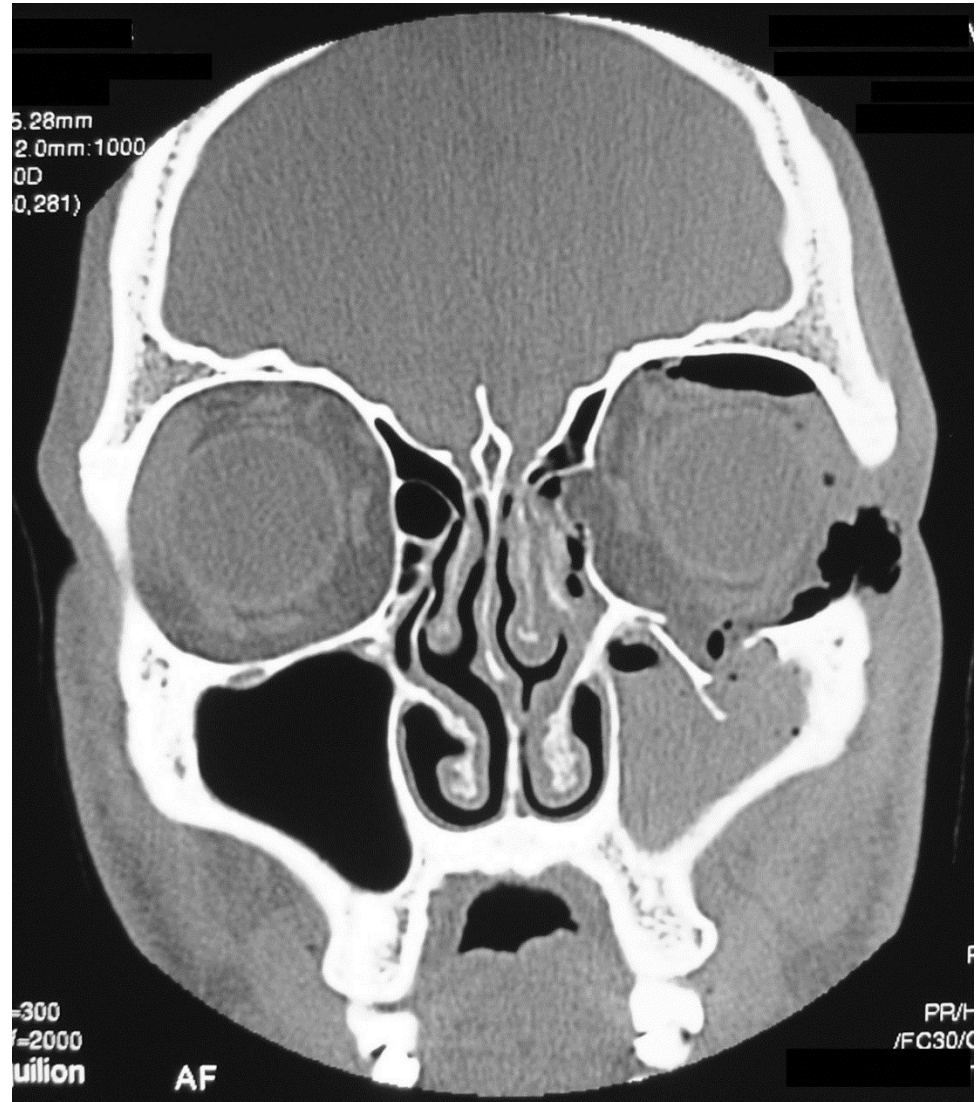
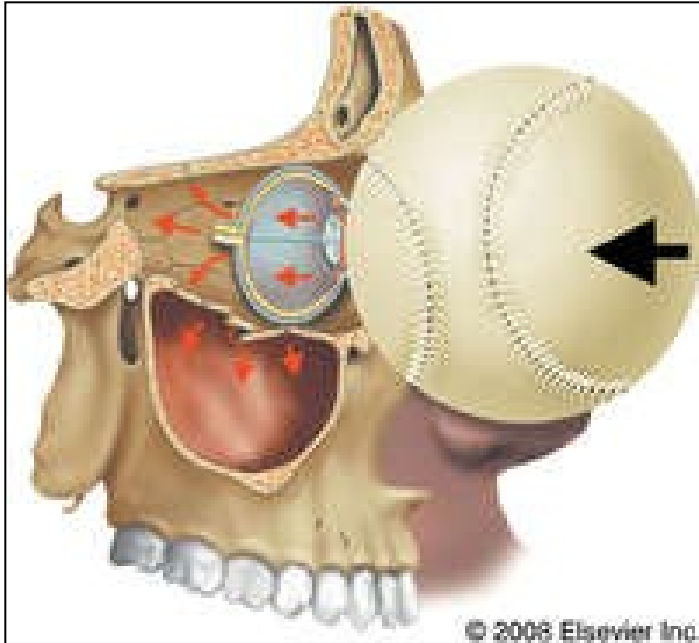
Os sphenoidale - Ala major - Facies orbitalis

Os zygomaticum – Facies orbitalis



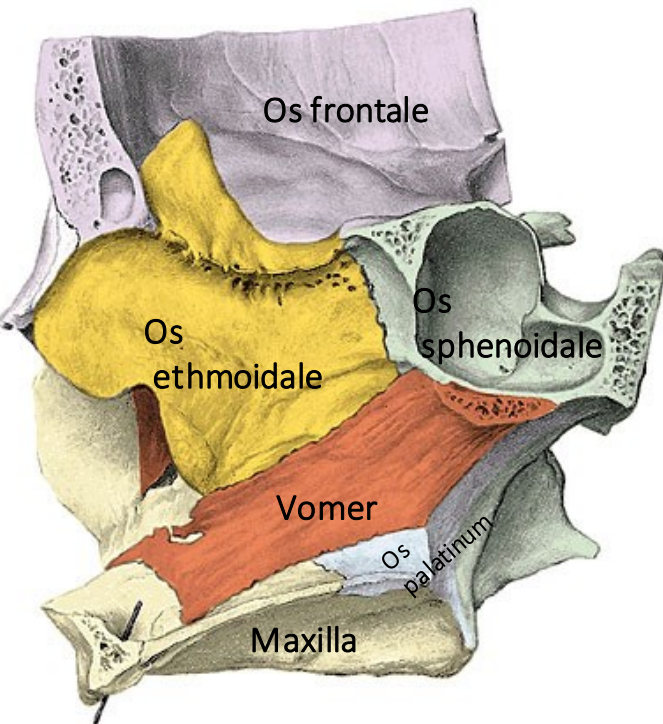
1. Aditus orbitae
2. Incisura frontalis
3. Foramen supraorbitale
4. Foramen zygomaticoorbitale
Foramen zygomaticofaciale
Foramen zygomaticotemporale
Canalis zygomaticus
5. Sulcus/canalis/foramen
infraorbitalis
6. Canalis nasolacrimalis
7. Foramen/canalis ethmoidalis
ant.
8. Foramen/canalis ethmoidalis
post.
9. Canalis opticus
10. Fissura orbitalis sup.
11. Fissura orbitalis inf.
12. Fossa glandulae lacrimalis

Orbitabodenfraktur/Blow-out-fraktur

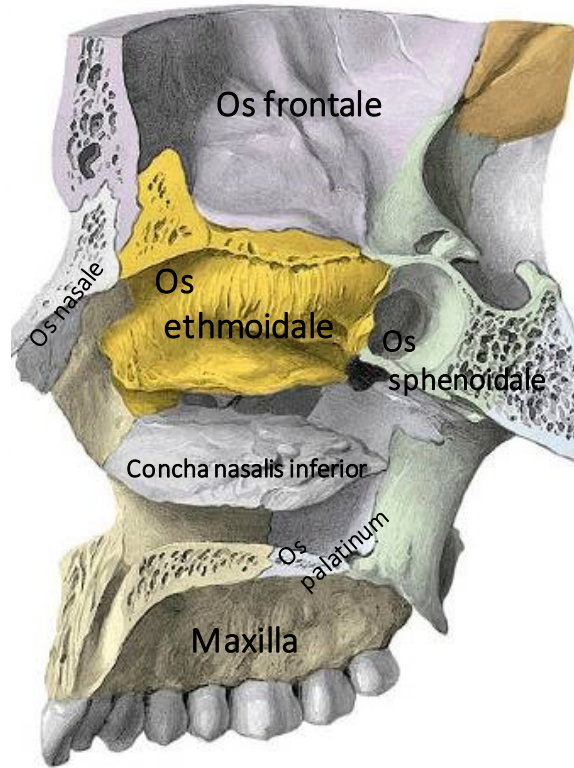


Nasenhöhle (*Cavum nasi*)

Mediale Wand



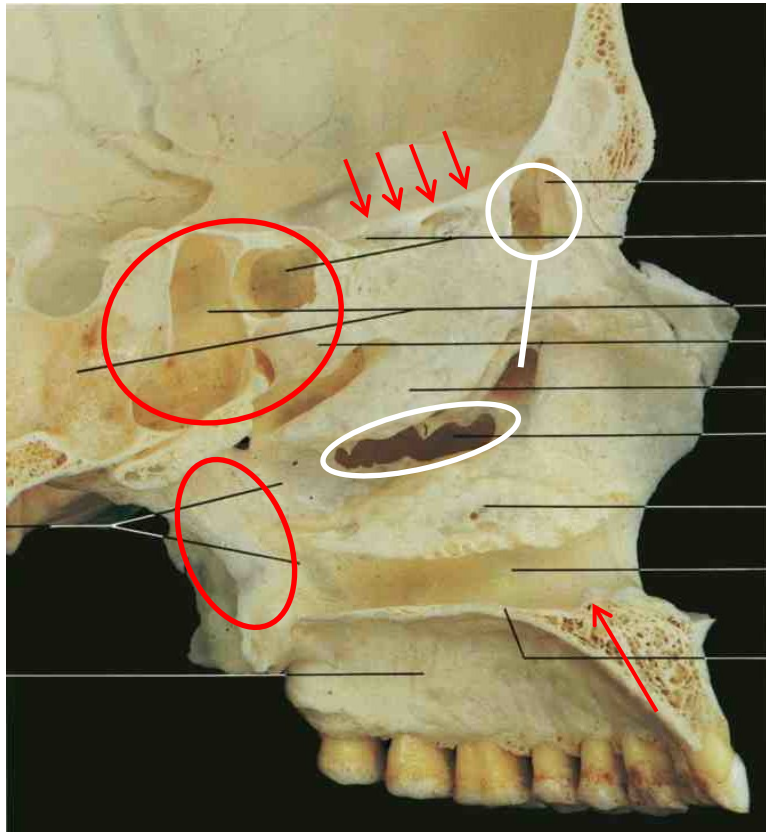
Laterale Wand



Frontale Wand



Nasengänge



Meatus nasi communis

- Apertura piriformis
- Lamina cribrosa
- Canalis incisivus
- Foramen sphenopalatinum
- Apertura sinus sphenoidalis
- Choana

Meatus nasi superior

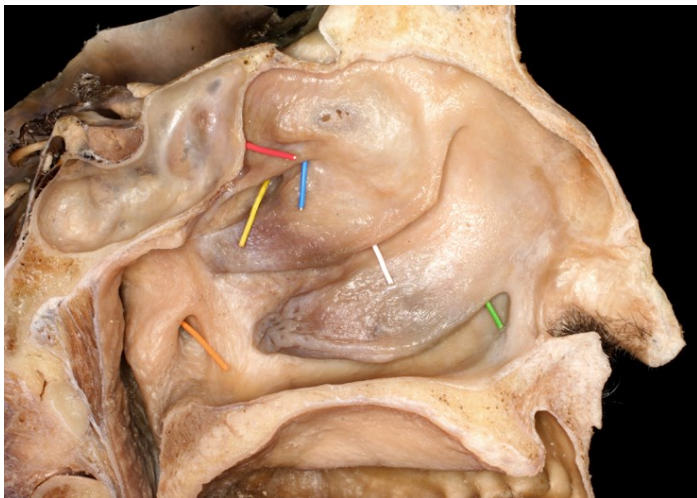
- Cellulae ethmoidales posteriores

Meatus nasi medius

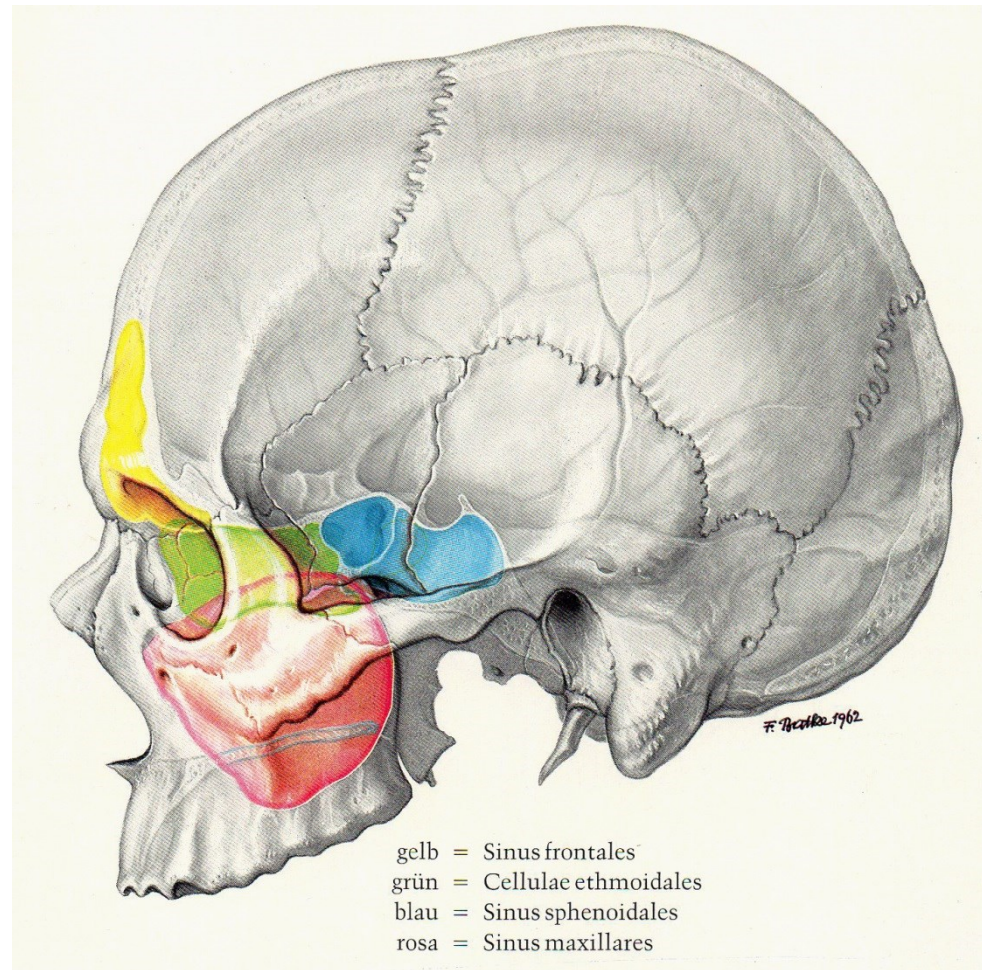
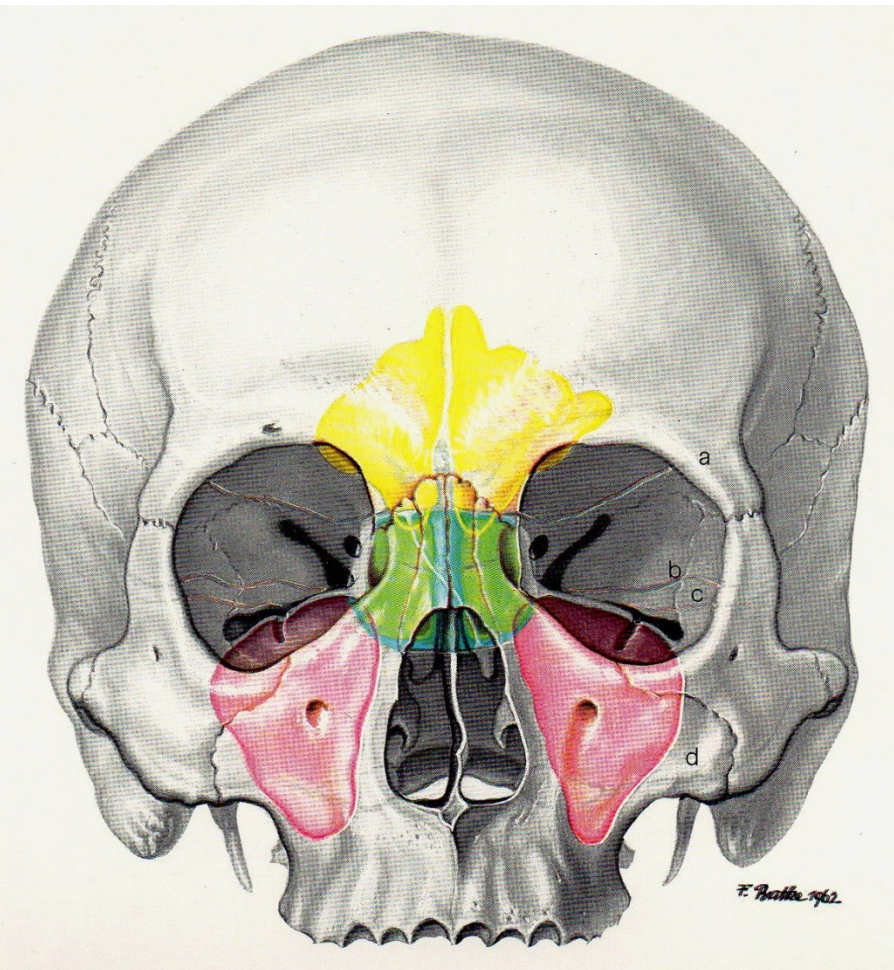
- Cellulae ethmoidales anteriores et mediale
- Hiatus semilunaris:
Infundibulum ethmoidale, Apertura sinus maxillaris

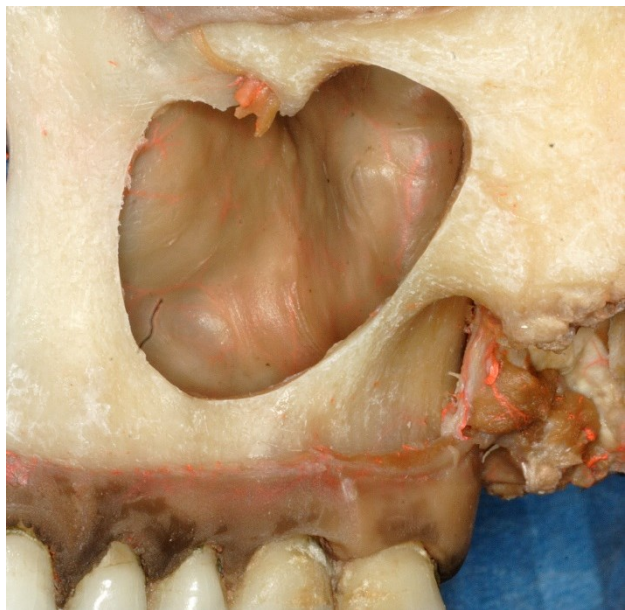
Meatus nasi inferior

- Ductus nasolacrimalis

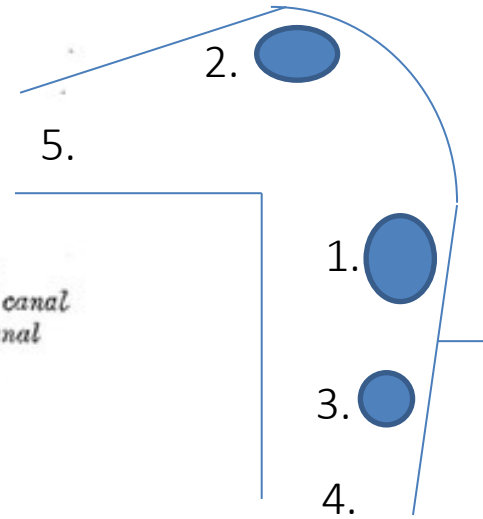
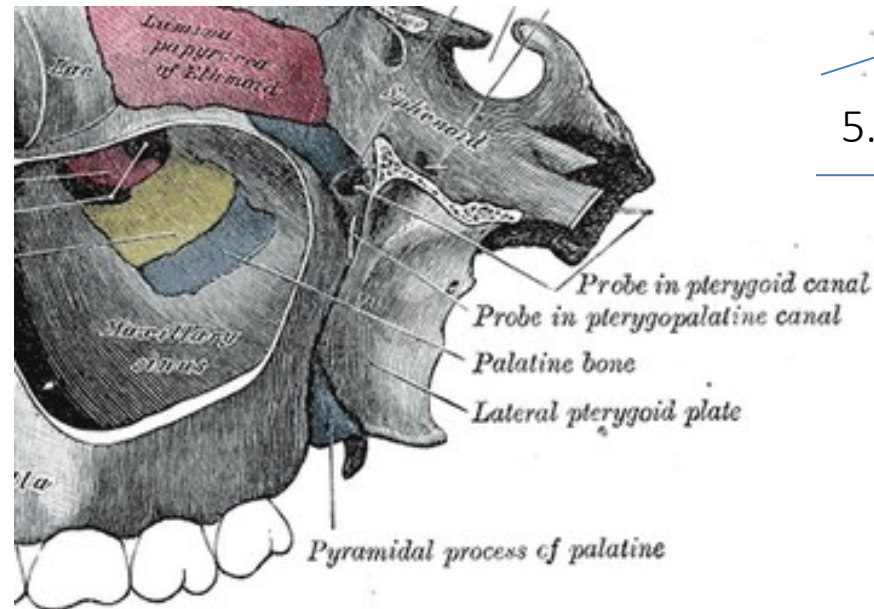
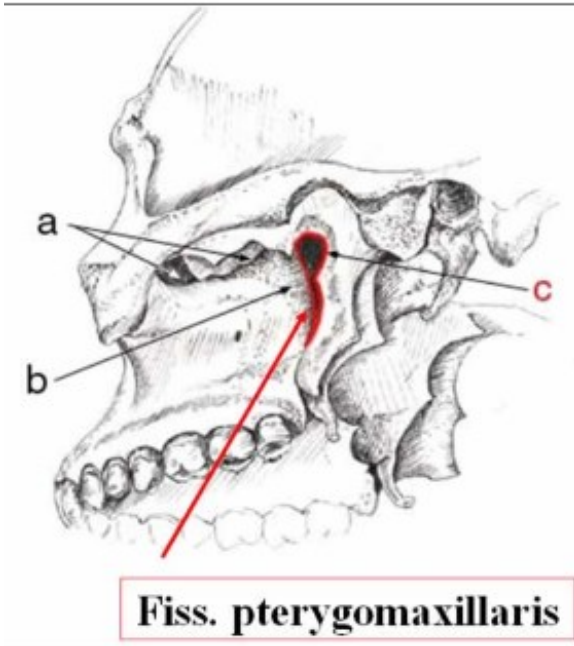


Nasennebenhöhlen (*Sinus paranasales*)





Flügelgaumengrube (*Fossa pterygopalatina*)



- Maxilla
- Os sphenoidale
- Os palatinum

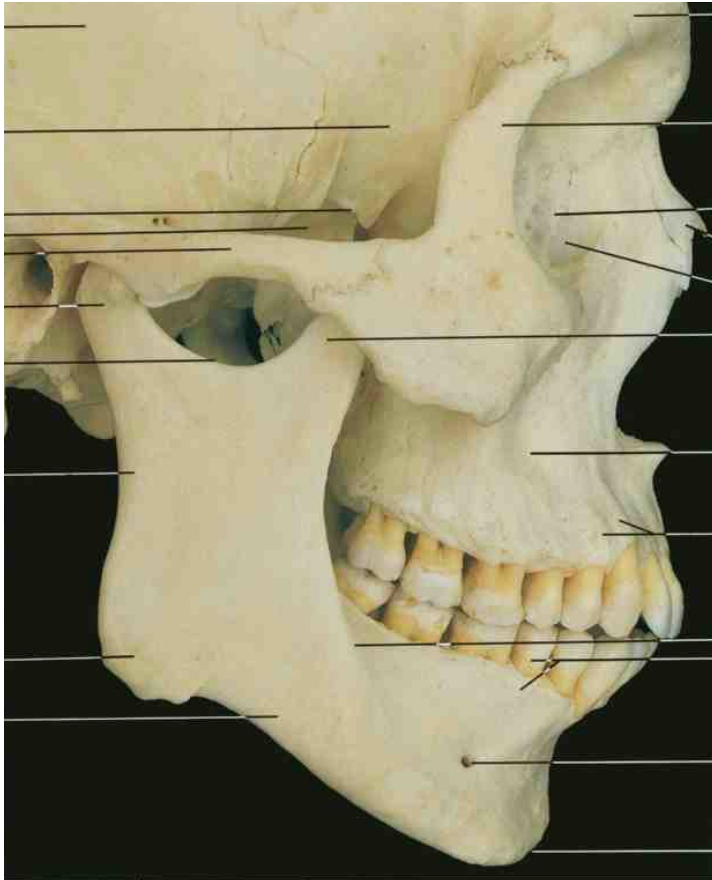
- 1. Foramen rotundum → Fossa crani media
- 2. Foramen sphenopalatinum → Nasenhöhle
- 3. Canalis pterygoideus → Foramen lacerum
- 4. Canalis palatinus major → Mundhöhle
- 5. Fissura orbitalis inf. → Augenhöhle
- Fissura pterygomaxillaris → Fossa infratemporalis

Mundhöhle (*Cavum oris*)

Maxilla

Mandibula

Os palatinum

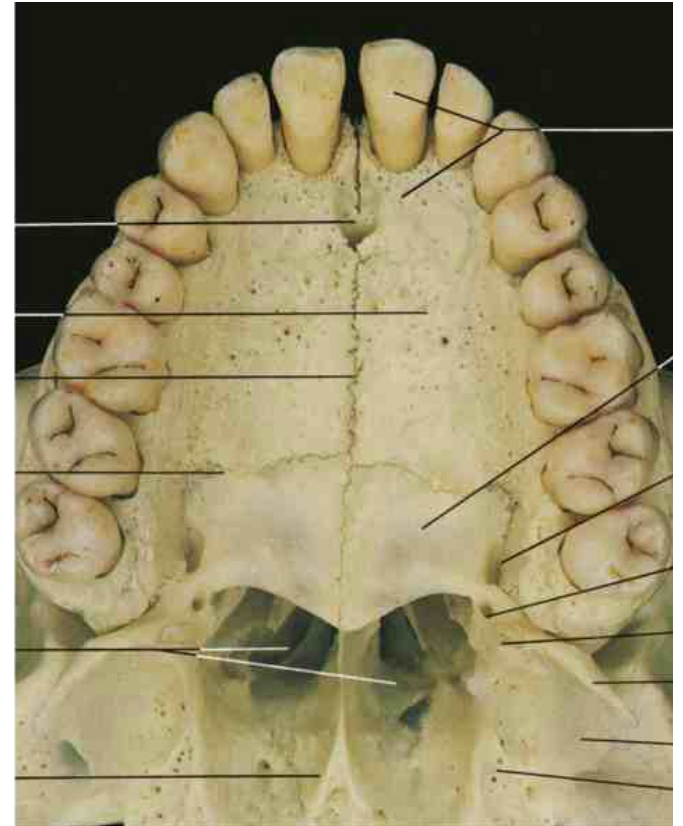


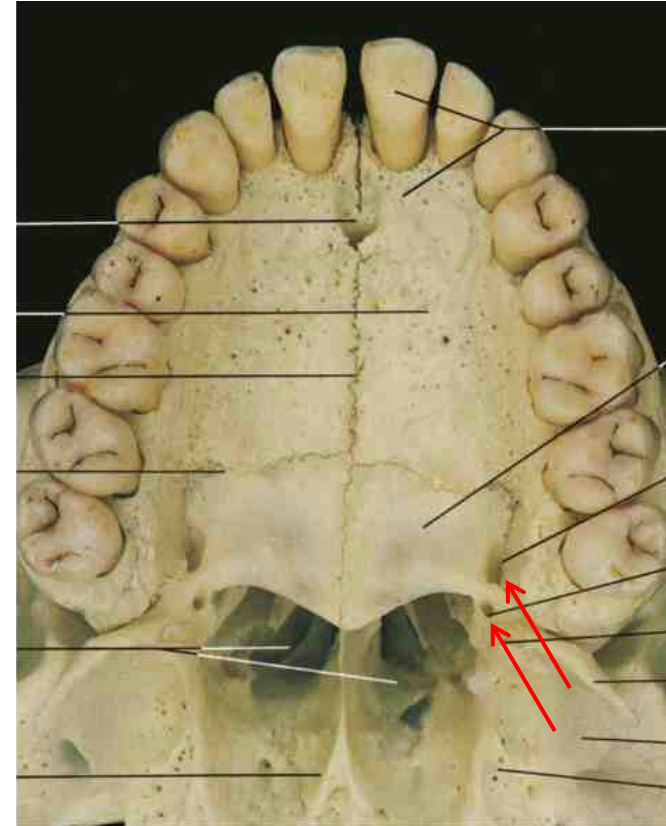
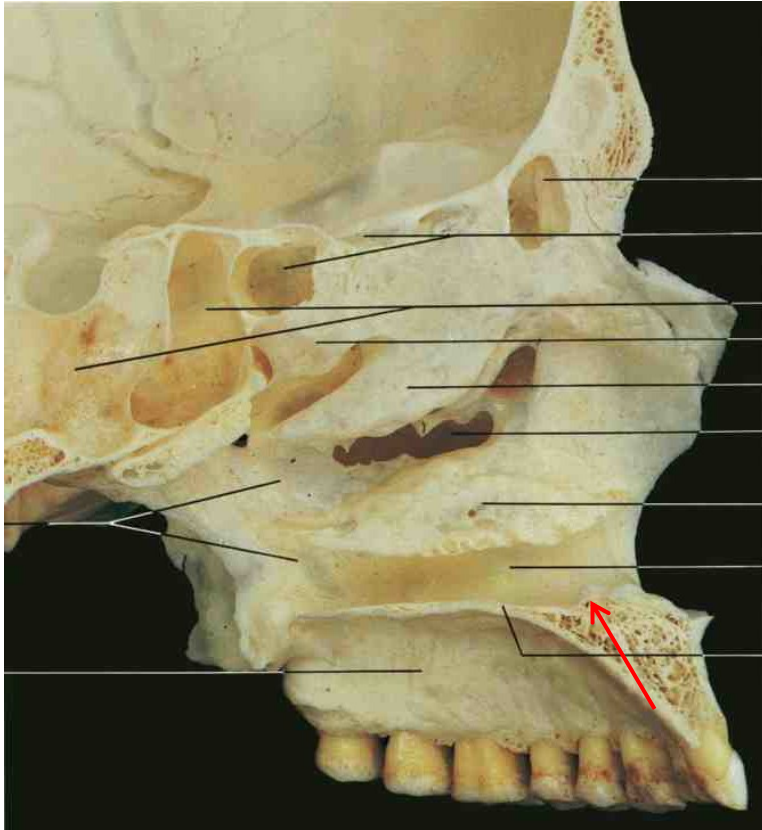
Harten Gaumen (*Palatum durum*)

Maxilla – Processus palatinus

Os palatinum – Lamina horizontalis

Sutura palatina mediana et. transversa





Meatus nasi communis

- Canalis incisivus

Fossa pterygopalatina

- Canalis palatinus major et canaliculi palatini minores

Quellen:

Dr. Gábor Baksa: Os shpenoidale, os ethmoidale

Dr. Márk Kozsurek: Facial skeleton, orbit

Dr. Andrea Székely: Fossa pterygopalatina, fossa infratemporalis, szájüreg

Rochen, Yokochi, Drecoll: Color atlas of anatomy (7th edition)

Kahle, Leonhardt, Platzer: Taschenatlas der Anatomie – Bewegungsapparat (6. Auflage)

Faller: Stichworten in Anatomie

<http://www.wikiwand.com/hu/Orrcsont>

http://anatomyonline.ru/os_lacrimale.html