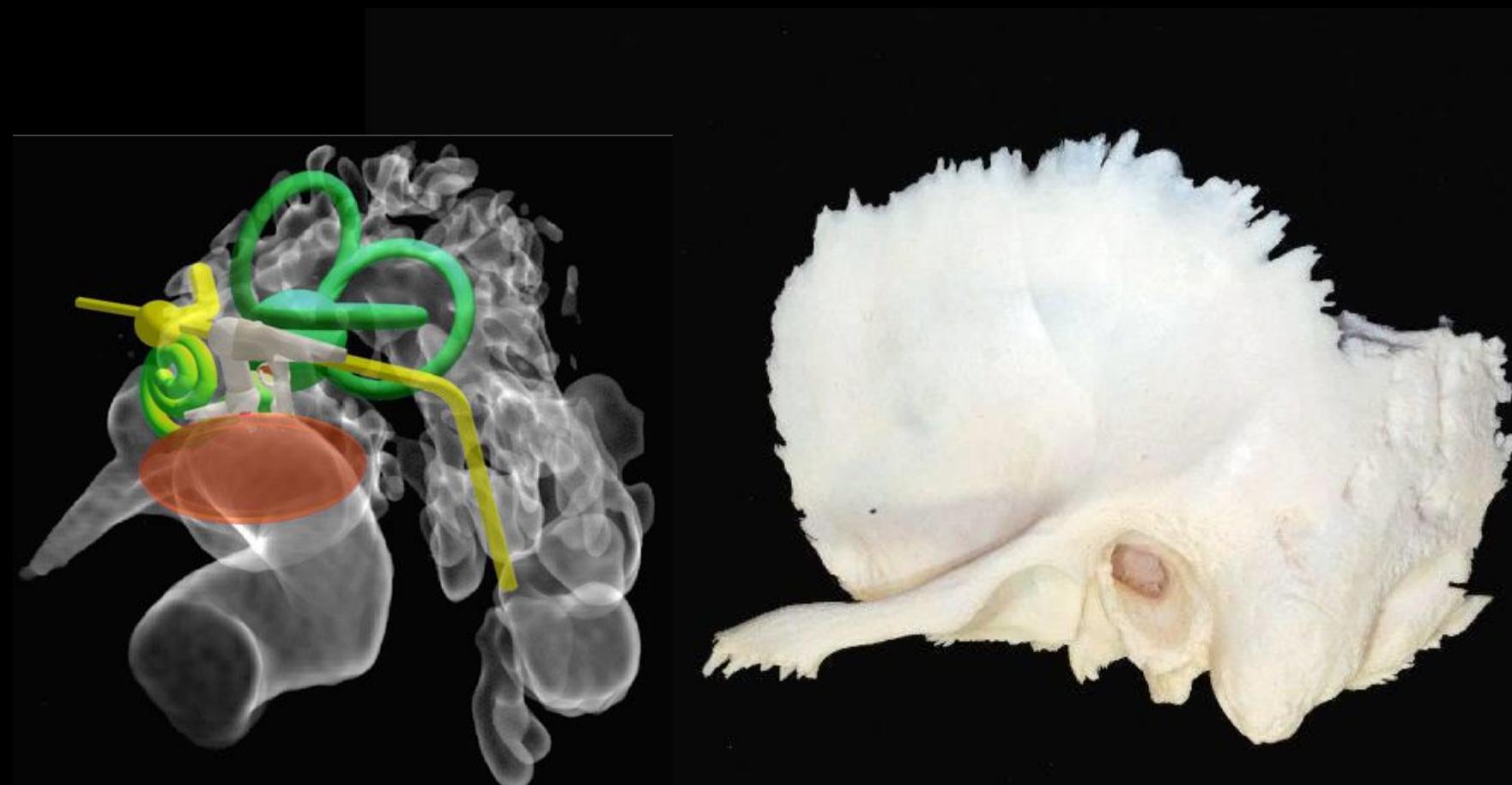


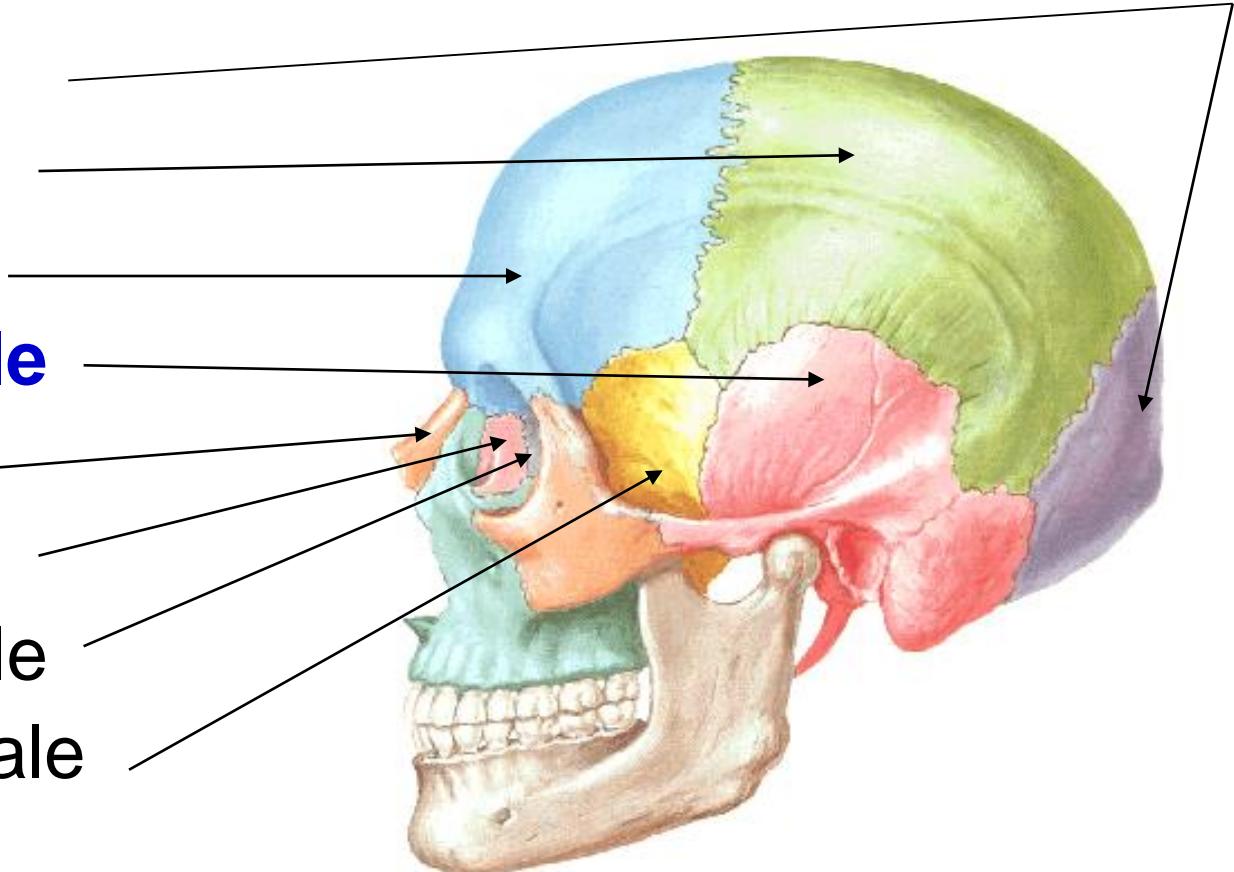
# Spánková kost

## *Os temporale*



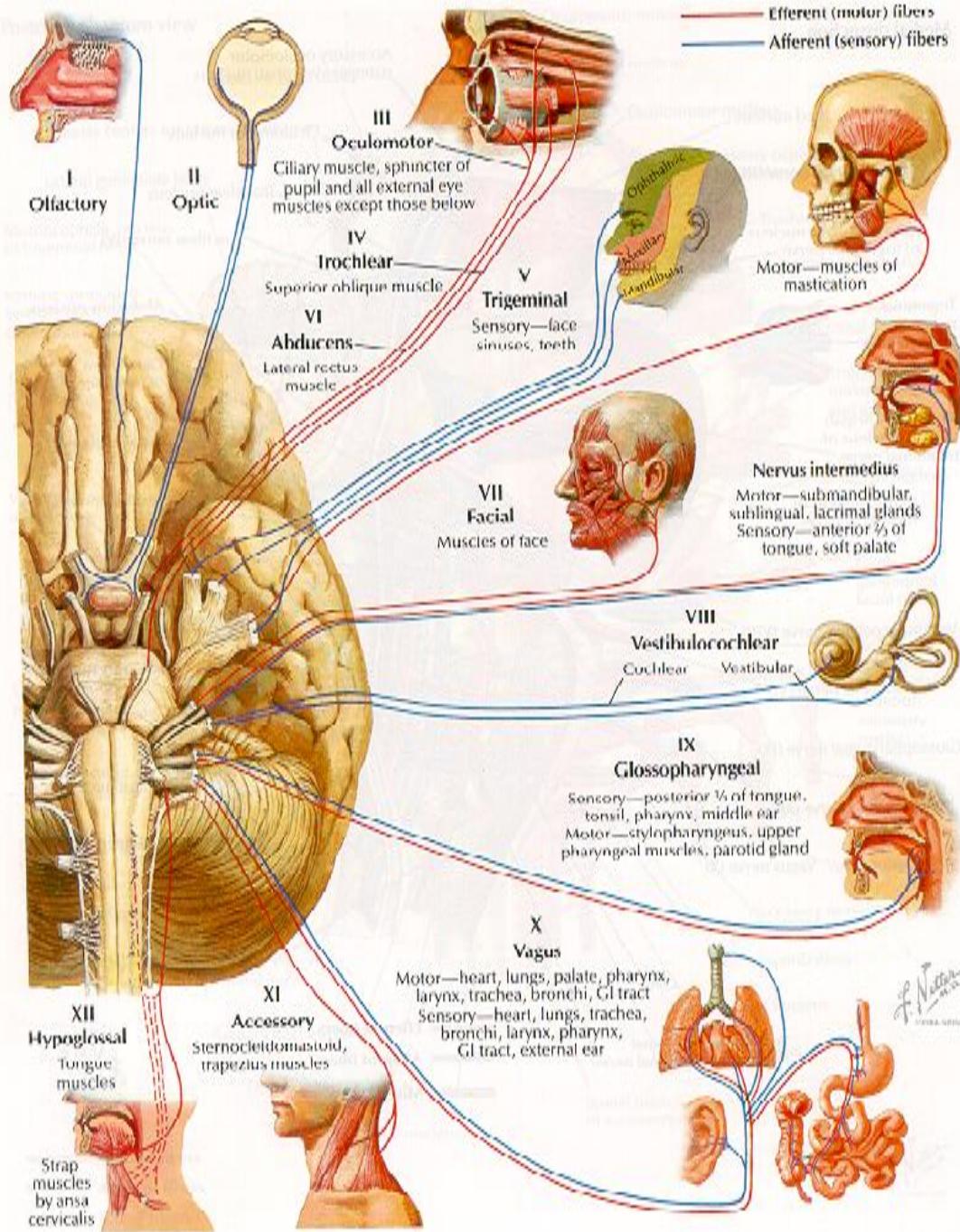
# Neurocranium

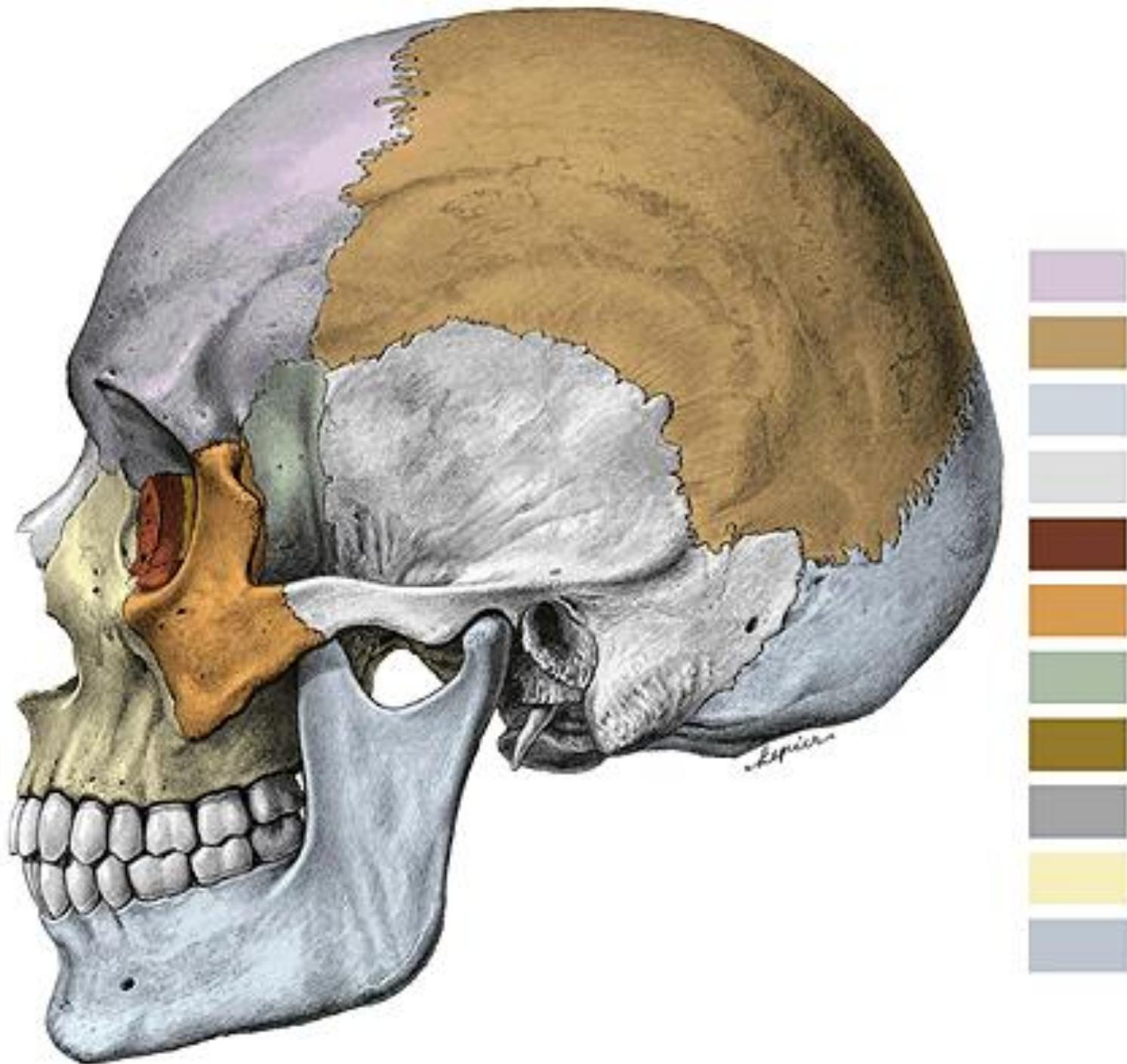
- os occipitale
- os parietale
- os frontale
- **os temporale**
- os nasale
- os lacrimale
- os ethmoidale
- os sphenoidale
- vomer
- concha nasalis inferior



# Hlavové nervy (Nervi craniales)

- n. V = n. trigeminus  
(trojklaný nerv)
- n. VII = n. facialis  
(lícní nerv)
- n. VIII. = n.  
**vestibulocochlearis**  
(sluchorovnovážný nerv)
- N. IX. = n.  
glossopharyngeus  
(jazykohltanový nerv)
- n. X. = n. vagus  
(bloudivý nerv)

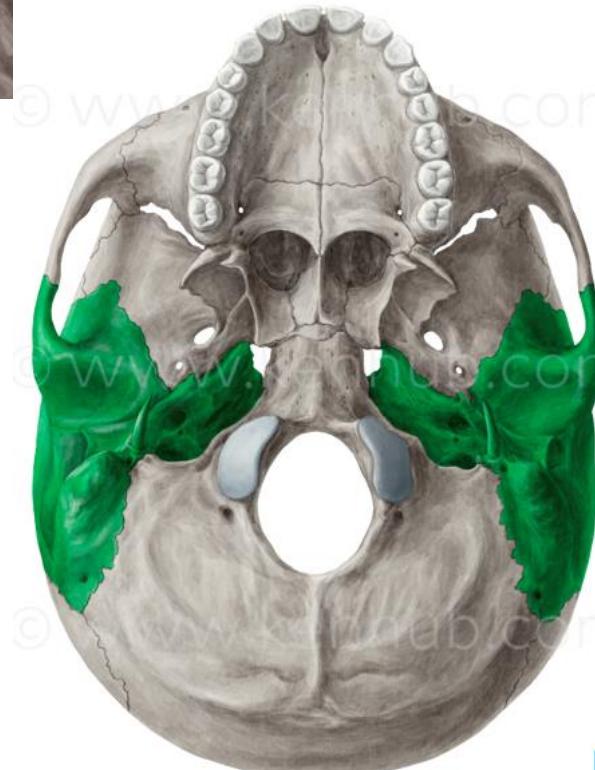
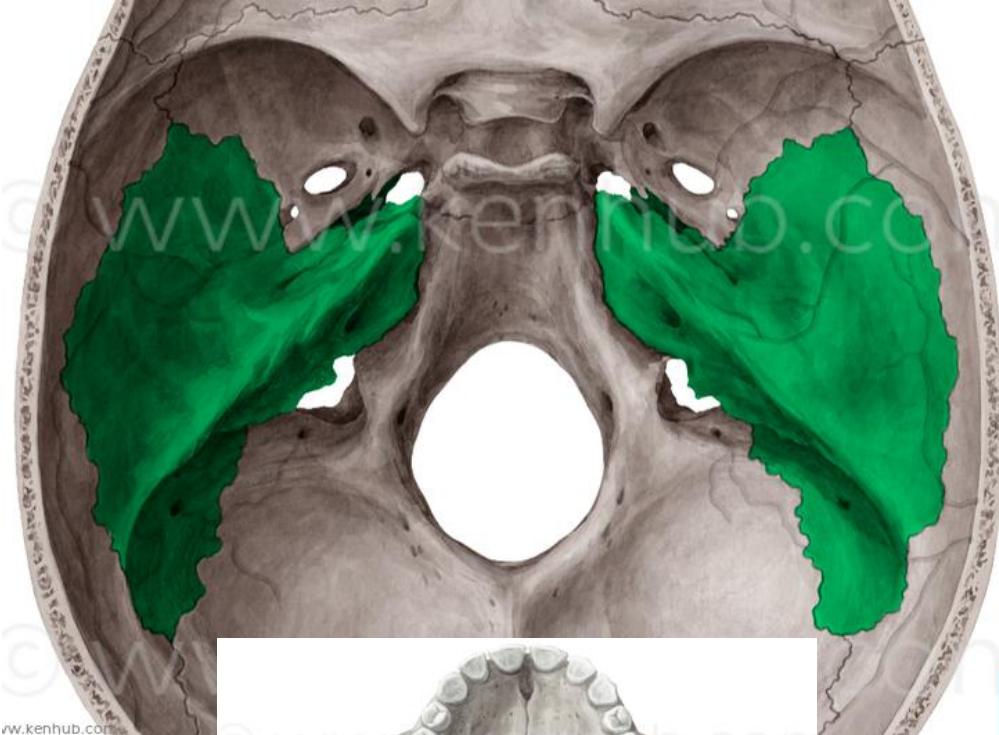




# Spánková kost (*Os temporale*)

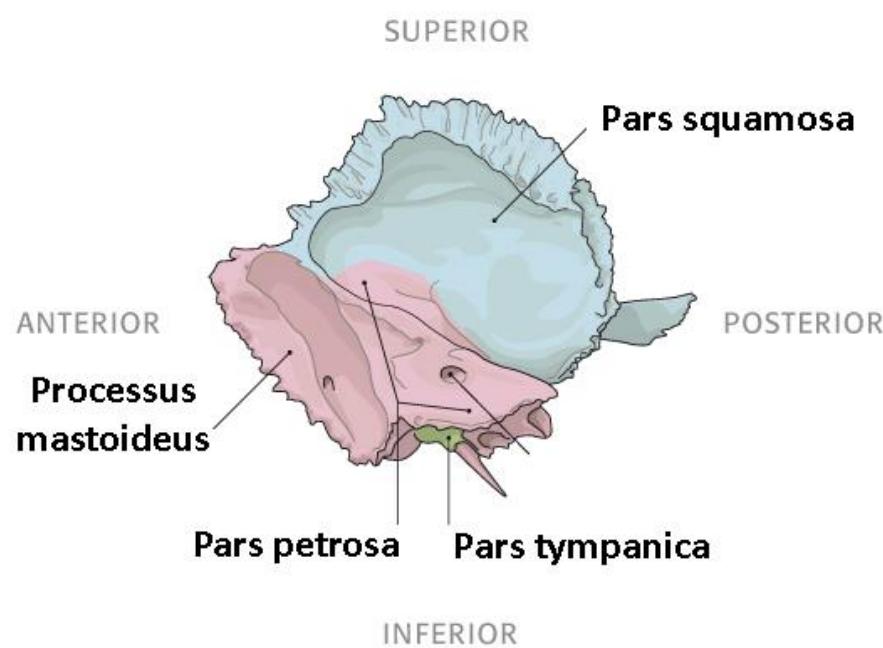
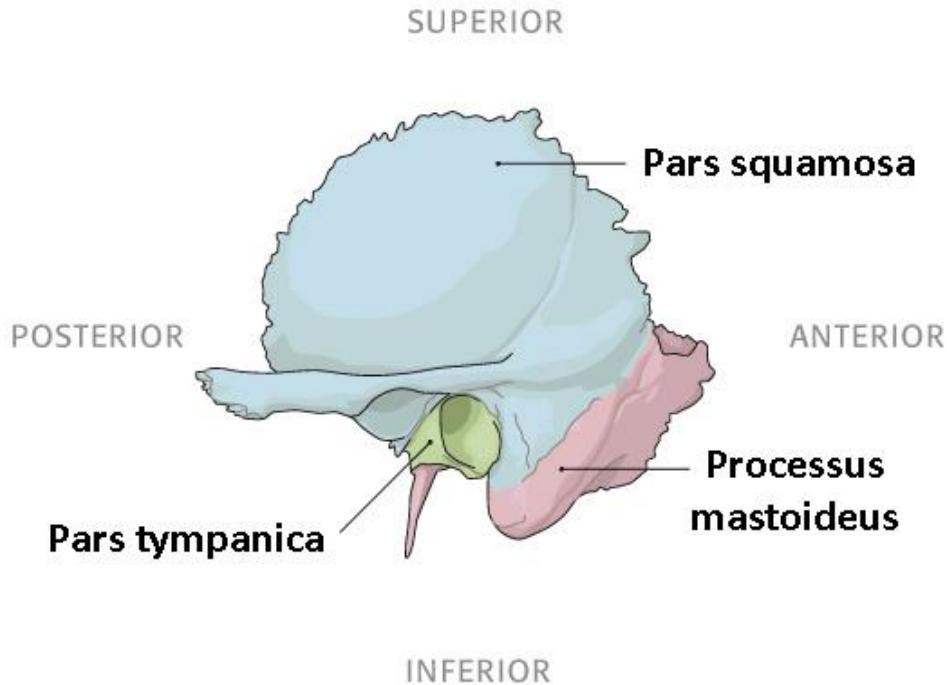
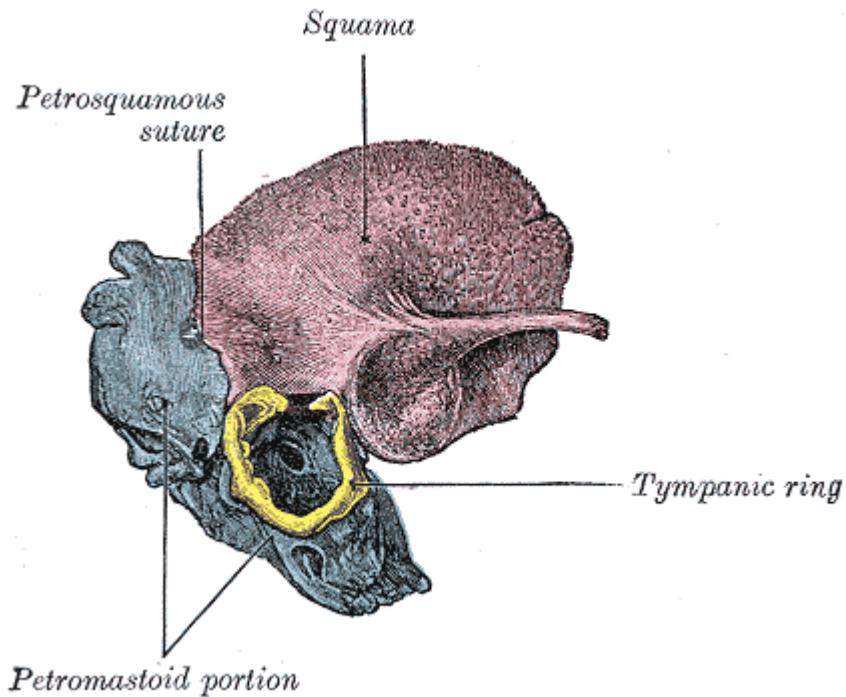
neurocranium

- pars petrosa
- pars tympanica
- pars squamosa
  
- cavitas tympani
  
- dezmogenní i chondrogenní původ



# Spánková kost (Os temporale)

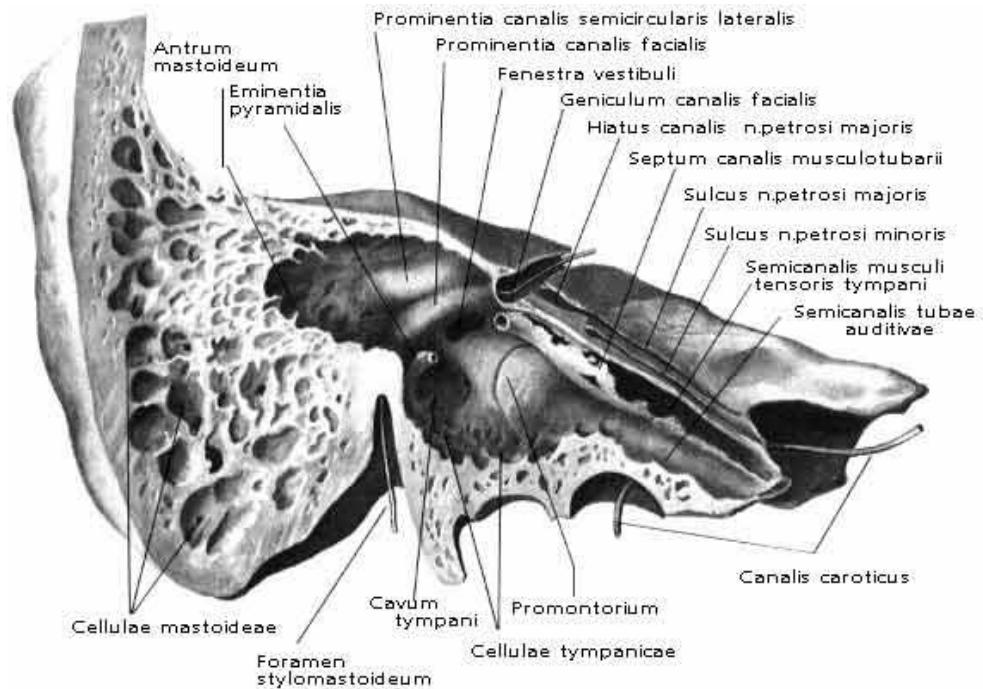
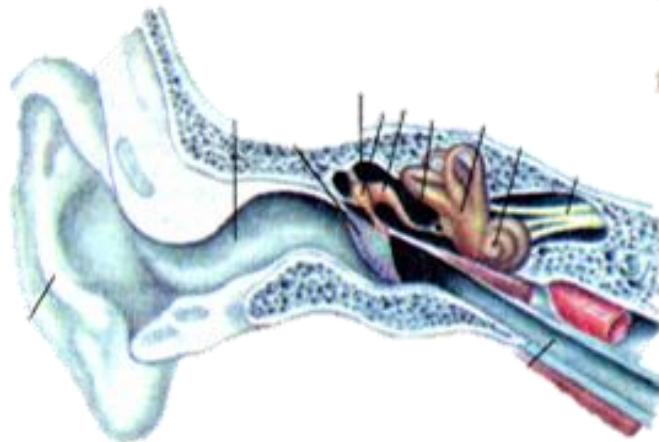
- pars petrosa
- pars tympanica
- pars squamosa





# Dutiny

- středoušní dutina
  - bubínková dutina
    - sluchové kůstky
  - antrum mastoideum + cellulae mastoideae
- vnitřní ucho
  - rovnovážné ústrojí
  - sluchové ústrojí
- canalis nervi facialis



# Pars petrosa (skalní část) (dříve os petrosum, pyramis, pyramida)

**Apex partis petrosae**

**Canalis caroticus**

**Apertura interna canalis carotici /**  
Vnitřní ústí krkavcového kanálu

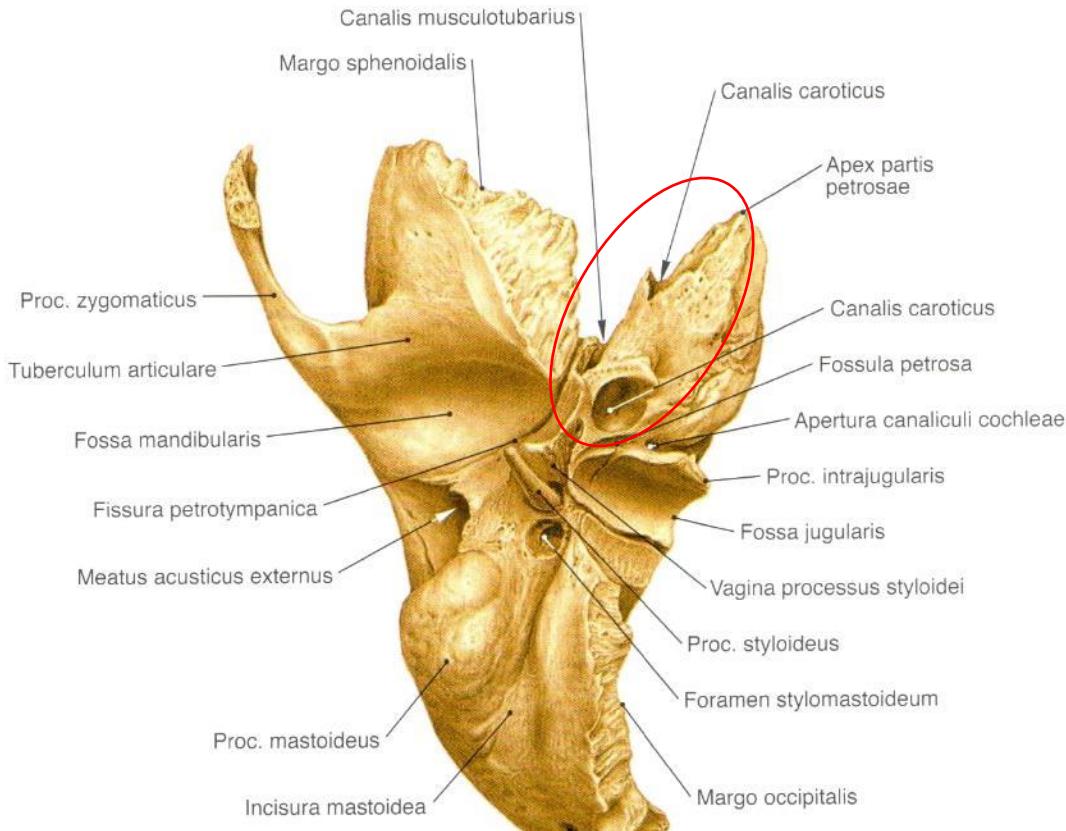
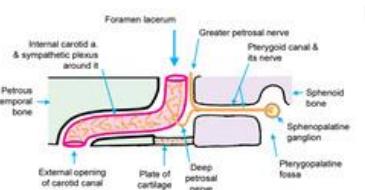
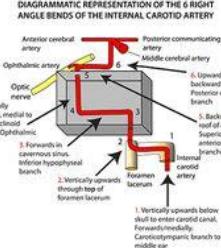
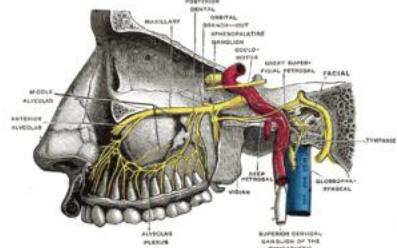
**Canaliculi caroticotympanici /**  
Krkavcobubínkové kanálky

**Canalis musculotubarius /**  
Svalotrubicový kanál

**Semicanalis musculi tensoris**  
**tympani** / Polokanál bubínkového  
napínače

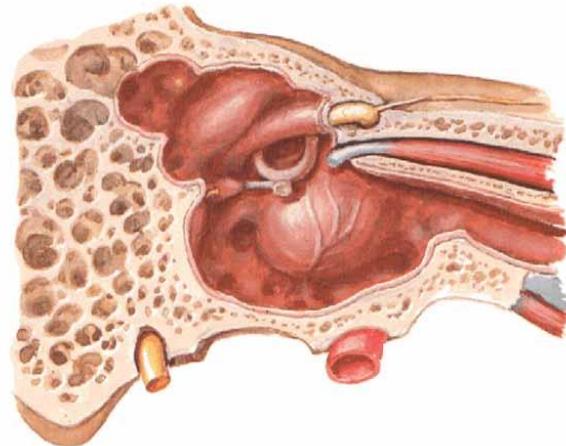
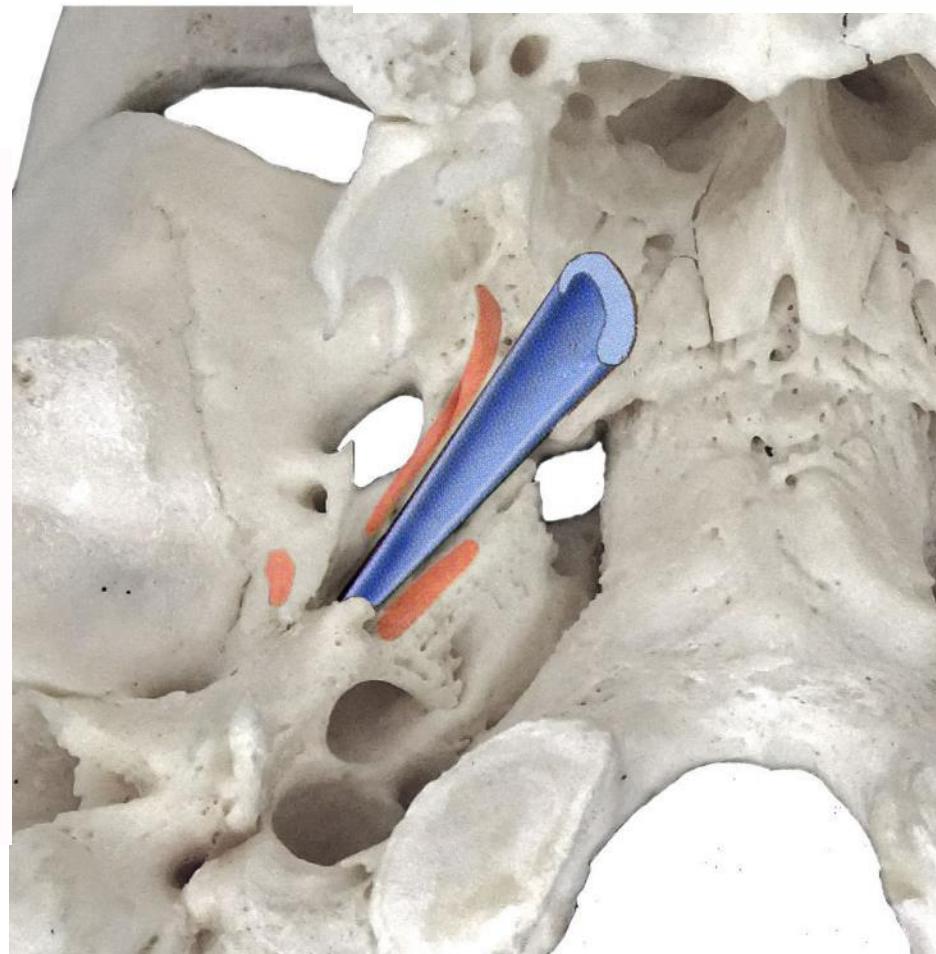
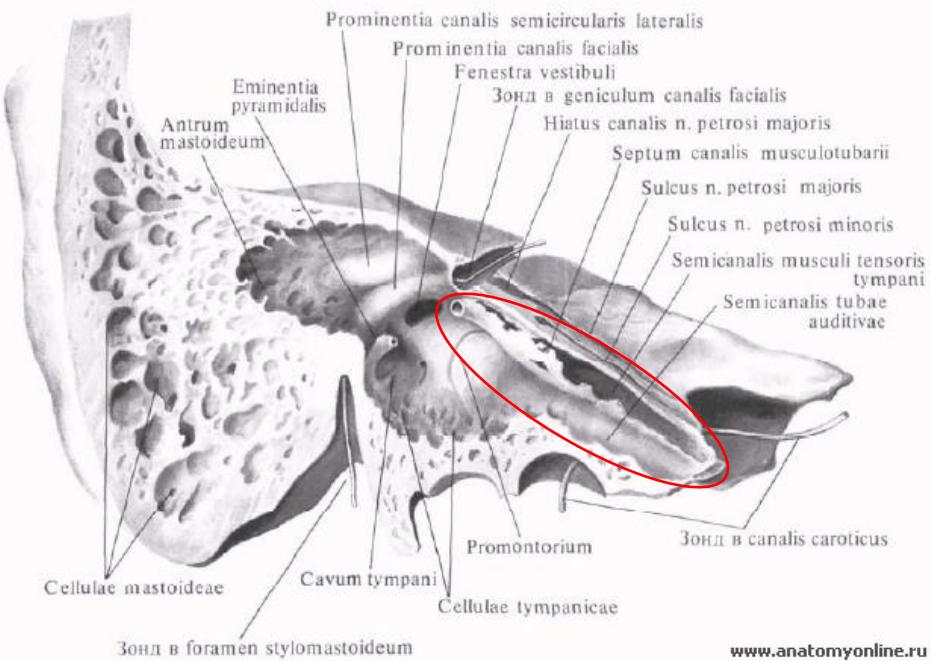
**Semicanalis tubae auditivae /**  
Polokanál sluchové trubice

**Septum canalis musculotubularii**



# Canalis musculotubarius

- semicanalis musculi tensoris tympani / polokanál bubínkového napínače
- semicanalis tubae auditivae / polokanál sluchové trubice
- septum canalis musculotubarii



# Facies anterior partis petrosae

**Impressio trigeminalis**

**Tegmen tympani / Středoušní strop**

**Eminentia arcuata**

**Sulcus nervi petrosi majoris**

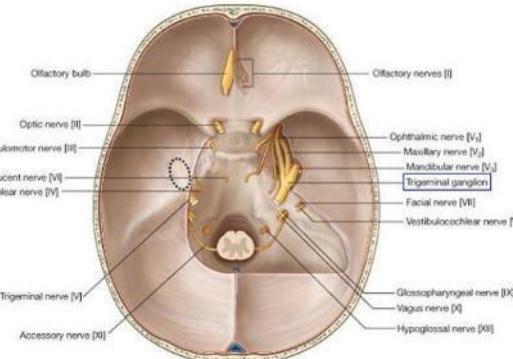
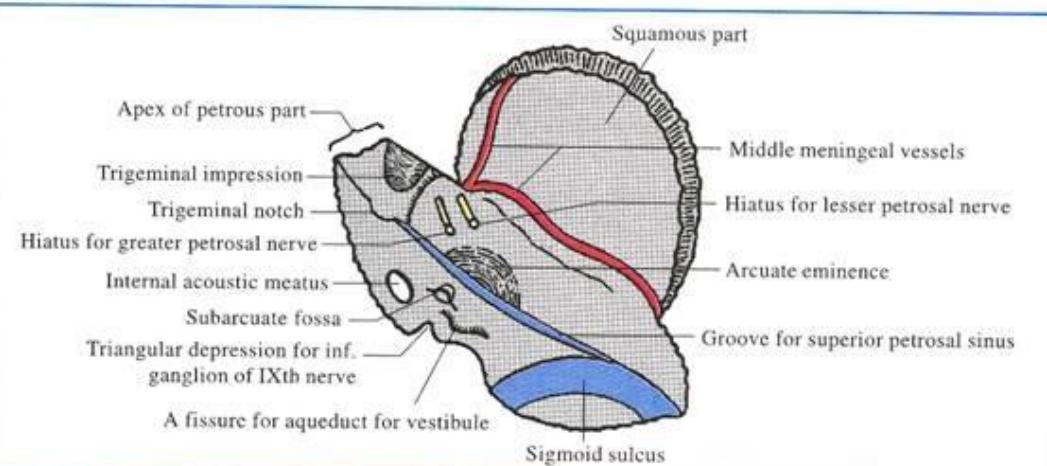
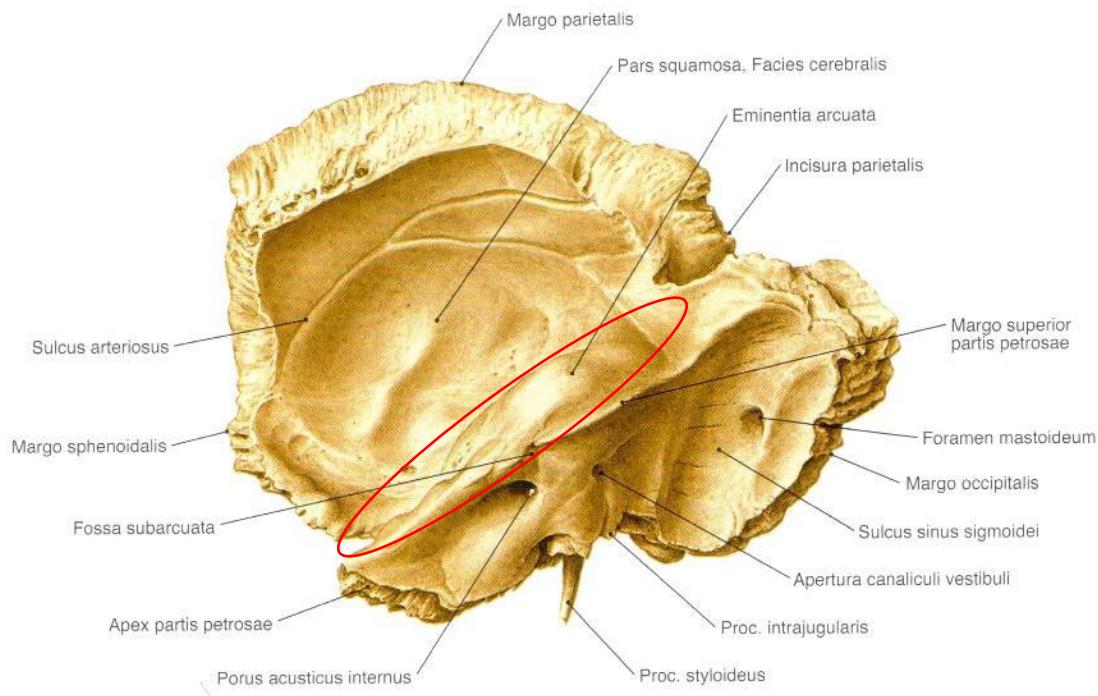
**Hiatus canalis nervi petrosi majoris +  
Canalis nervi petrosi majoris**

**Sulcus nervi petrosi minoris**

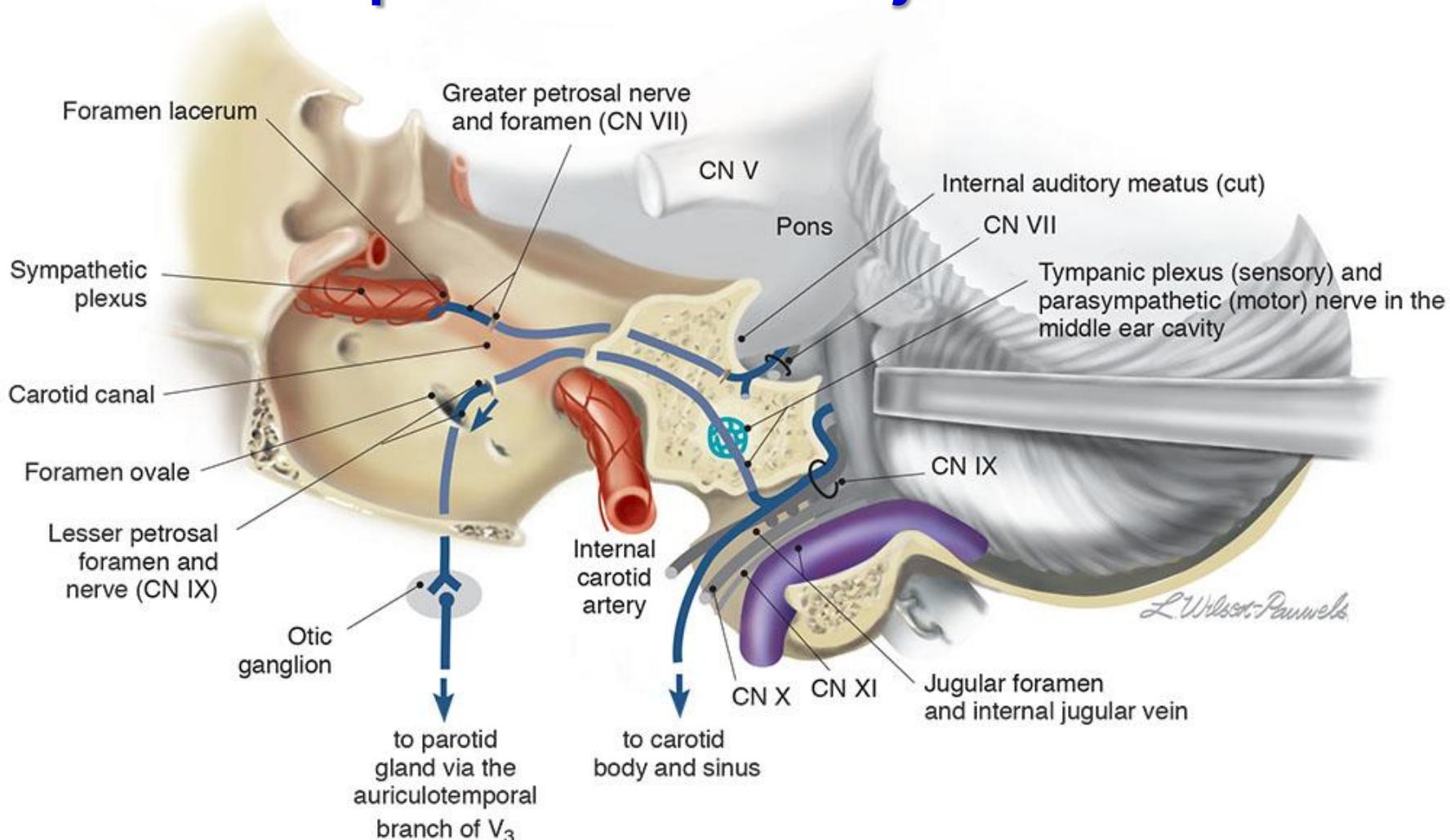
**Hiatus canalis nervi petrosi minoris +  
Canalis nervi petrosi minoris**

**Margo superior partis petrosae (dříve  
crista pyramidis)**

**Sulcus sinus petrosi superioris**



# Nervus petrosus major et minor



**Figure IX-10** Lesser petrosal nerve (parasympathetic motor IX) and greater petrosal nerve (parasympathetic motor VII) and surrounding structures (sagittal section through the jugular foramen showing cut petrous temporal bone).

**Apex partis petrosae**

**Canalis caroticus**

**Apertura interna canalis carotici**

/ Vnitřní ústí krkavicového kanálu

**Canaliculi caroticotympanici /**

Krkavicobubínkové kanálky

**Canalis musculotubarius /**

Svalotrubicový kanál

**Semicanalis musculi tensoris**

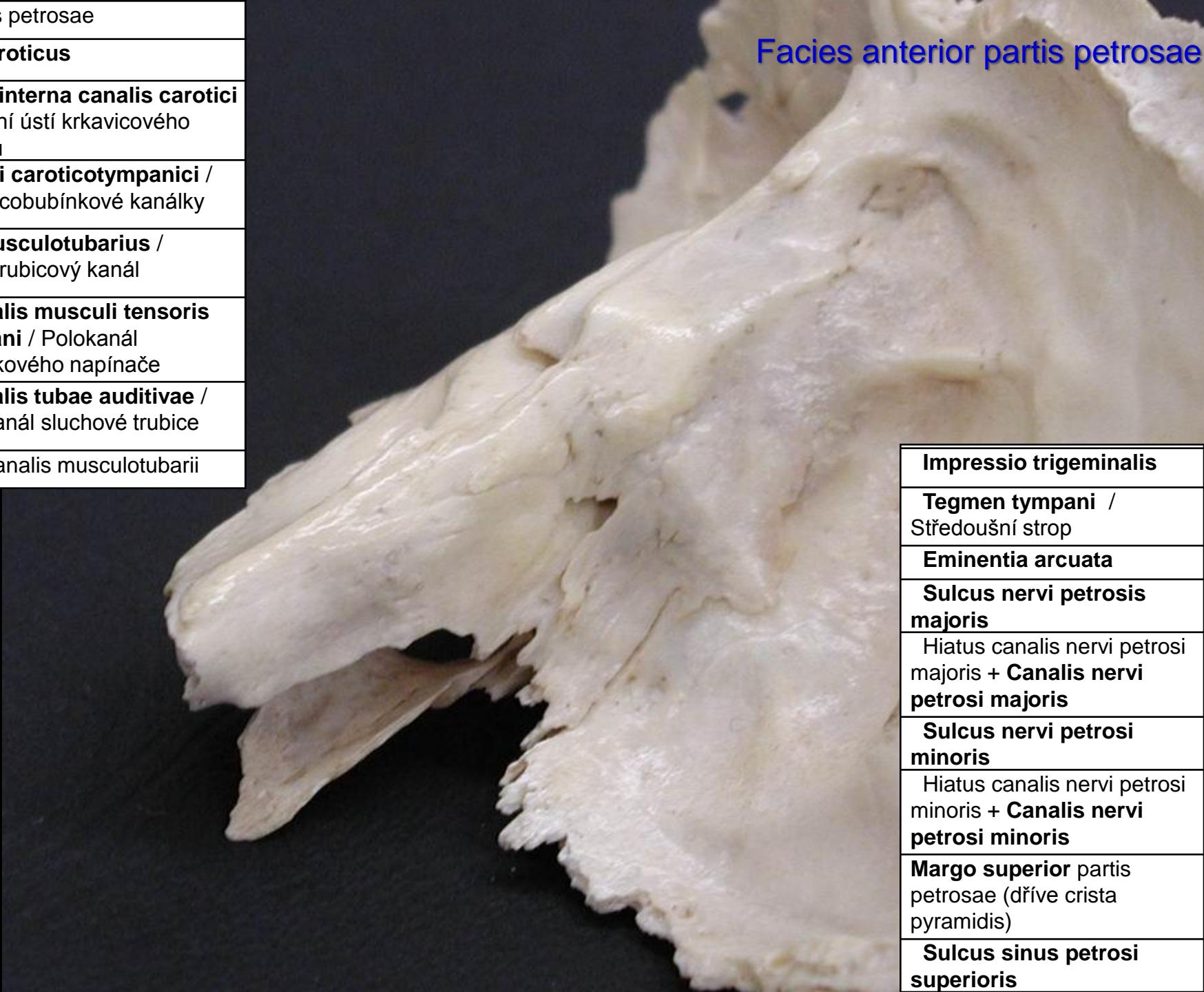
**tympani /** Polokanál bubínkového napínače

**Semicanalis tubae auditivae /**

Polokanál sluchové trubice

Septum canalis musculotubarii

Facies anterior partis petrosae



**Impressio trigeminialis**

**Tegmen tympani /**  
Středoušní strop

**Eminentia arcuata**

**Sulcus nervi petrosis majoris**

Hiatus canalis nervi petrosi majoris + **Canalis nervi petrosi majoris**

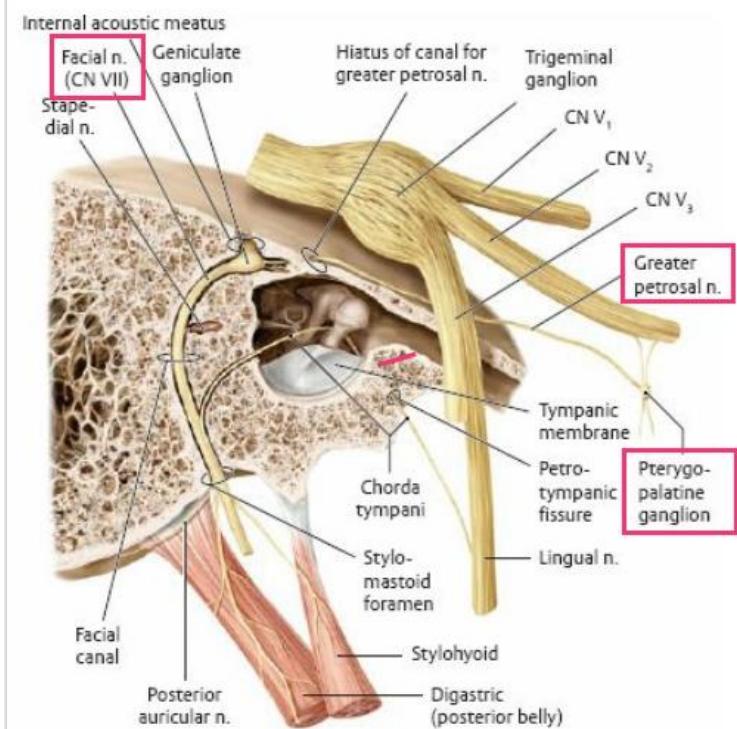
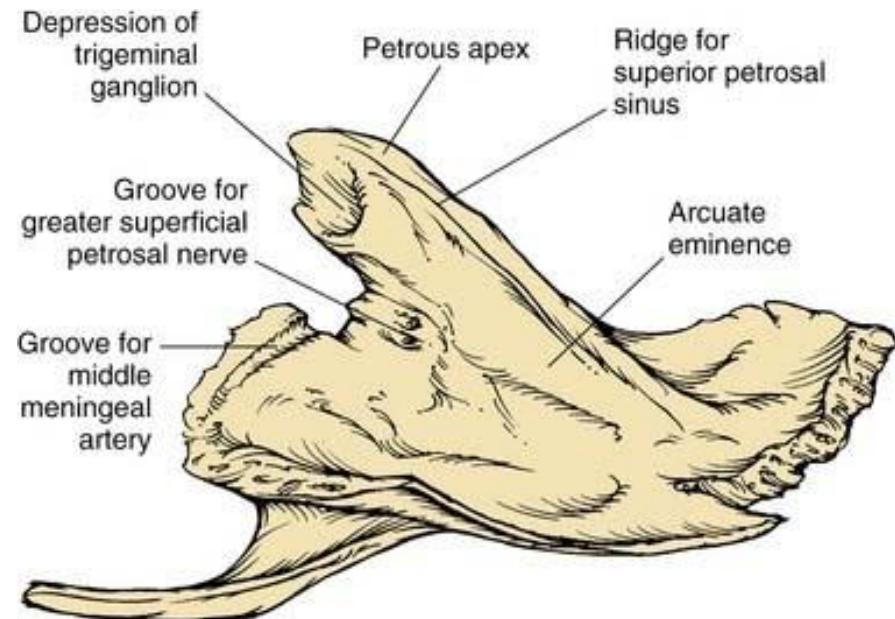
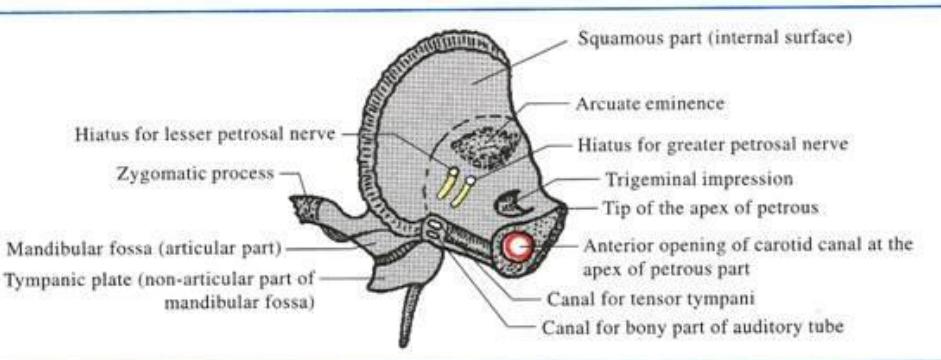
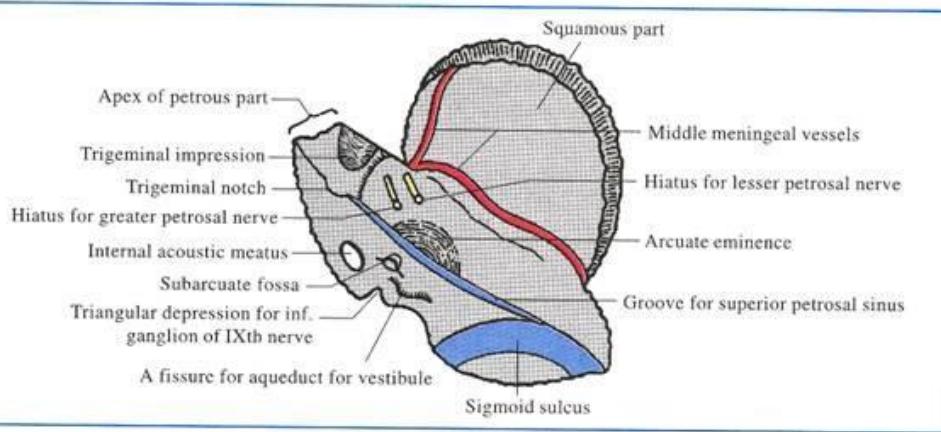
**Sulcus nervi petrosi minoris**

Hiatus canalis nervi petrosi minoris + **Canalis nervi petrosi minoris**

**Margo superior** partis petrosae (dříve crista pyramidis)

**Sulcus sinus petrosi superioris**

# Facies anterior partis petrosae



# Facies posterior partis petrosae

## Facies posterior partis petrosae

**Porus acusticus internus / Vstup  
vnitřního zvukovodu**

**Meatus acusticus internus / Vnitřní  
zvukovod**

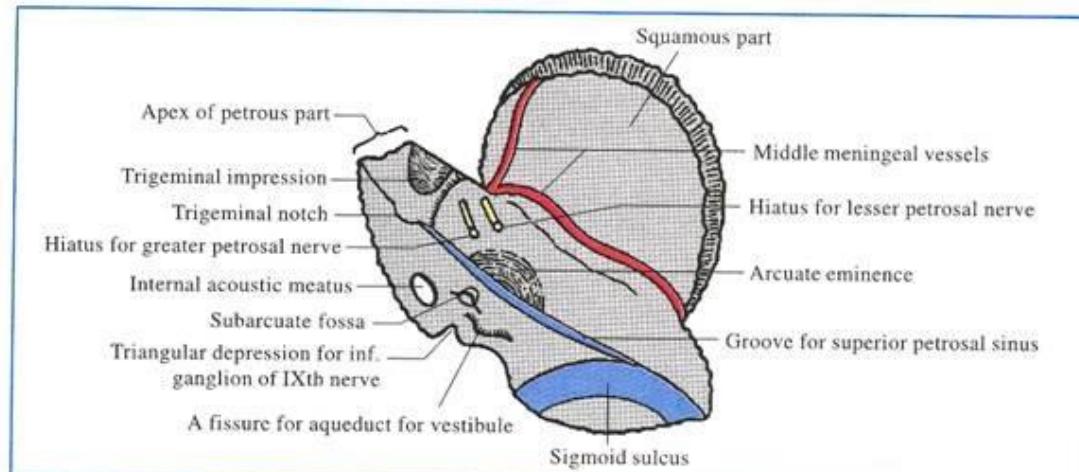
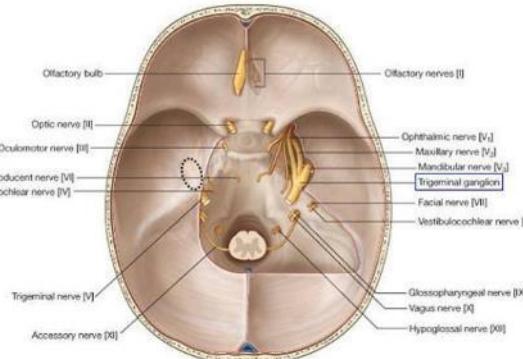
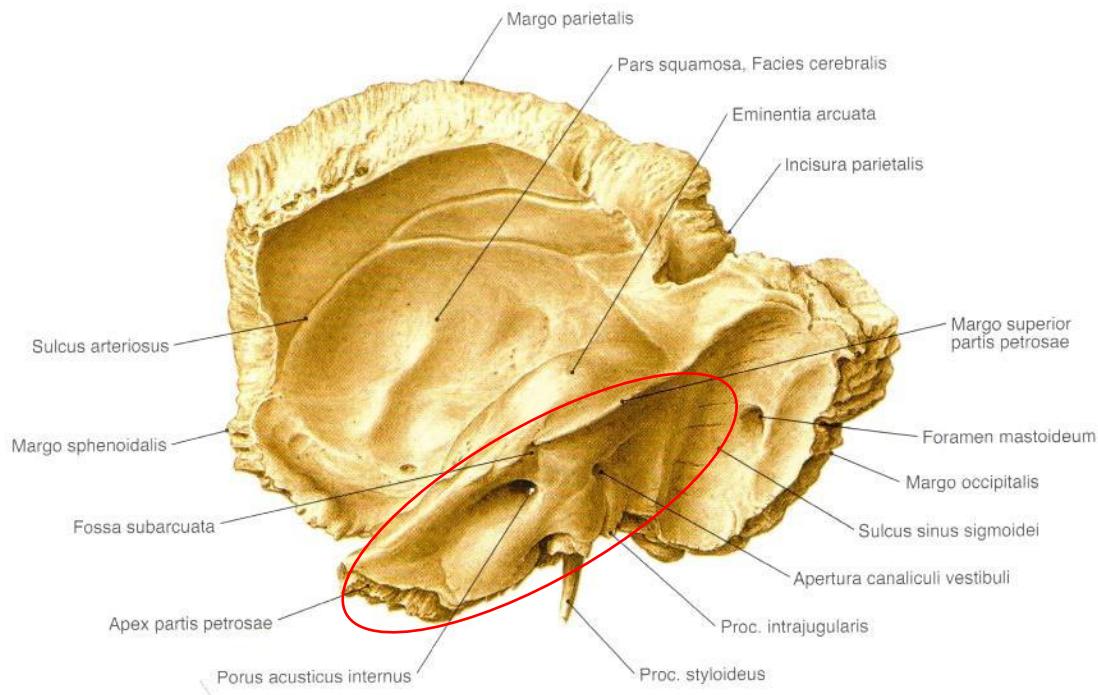
Fossa subarcuata

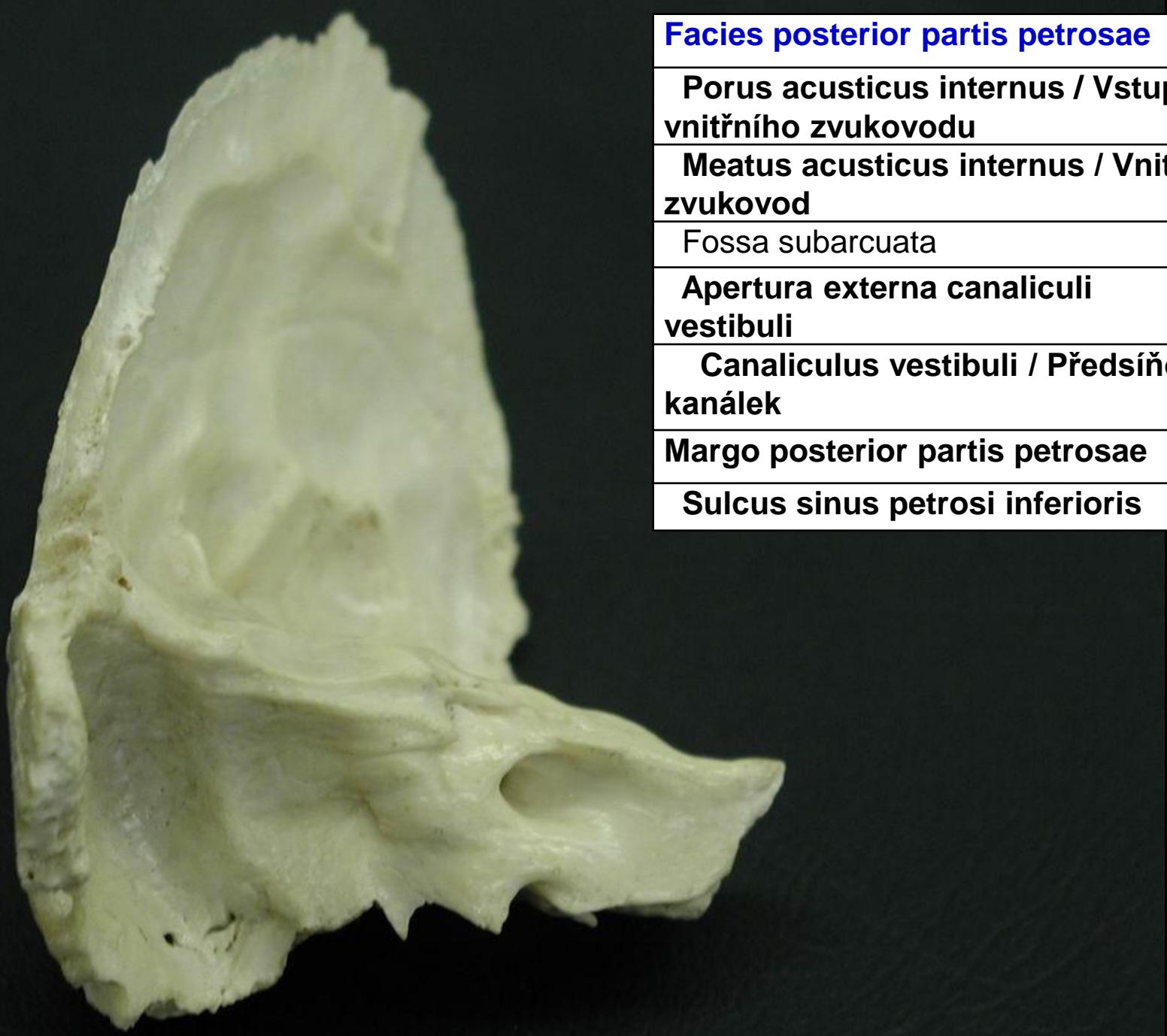
**Apertura externa canaliculi  
vestibuli**

**Canaliculus vestibuli / Předsíňový  
kanálek**

**Margo posterior partis petrosae**

**Sulcus sinus petrosi inferioris**





### Facies posterior partis petrosae

- Porus acusticus internus / Vstup vnitřního zvukovodu
- Meatus acusticus internus / Vnitřní zvukovod
- Fossa subarcuata
- Apertura externa canaliculi vestibuli
- Canaliculus vestibuli / Předsíňový kanálek
- Margo posterior partis petrosae
- Sulcus sinus petrosi inferioris

# Vnitřní ucho

## Kostěný labyrint

### *Labyrinthus osseus*

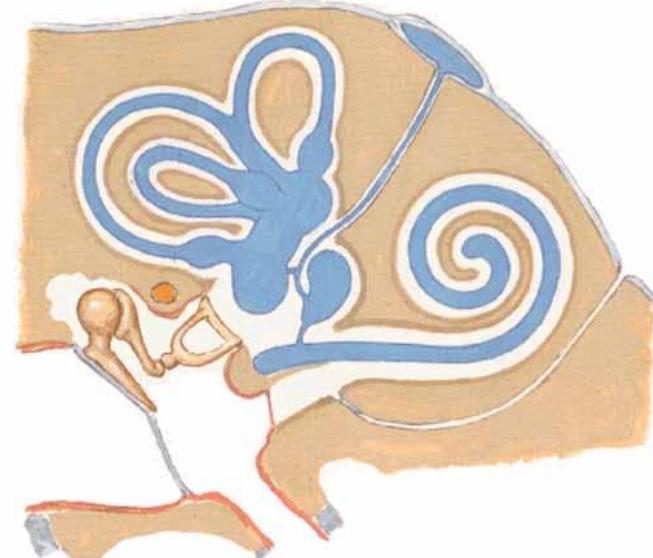
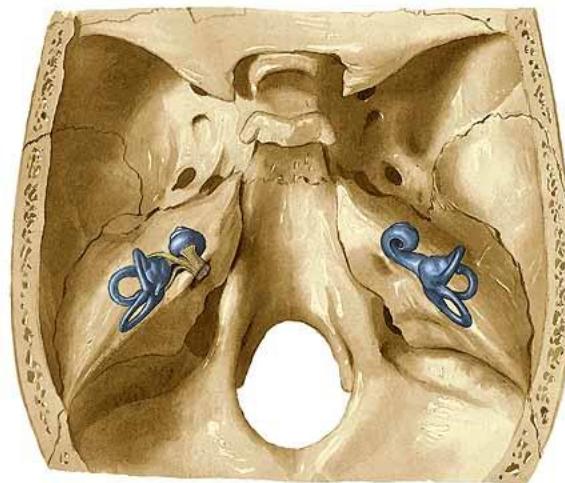
- vestibulum (předsíň)
- canalis semicircularis anterior, lateralis, posterior = polokruhové kanálky
  - ampulla + crus
- cochlea (kostěný hlemýžď)



## Blanitý labyrint

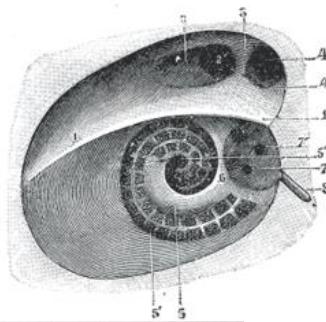
### *Labyrinthus membranaceus*

- utriculus (míšek) – vodorovný pohyb
- sacculus (sáček) – svislý pohyb
- ductus semicircularis anterior, lateralis, posterior = polokruhové chodbičky – úhlové zrychlení
  - ampulla + crus
- ductus cochlea (blanitý hlemýžď) – sluch



# Meatus acusticus internus

## Vnitřní zvukovod



**Porus acusticus internus /**

Vstup vnitřního zvukovodu

**Meatus acusticus internus /**

Vnitřní zvukovod

**Fundus meatus acustici**

**interni / Dno vnitřního zvukovodu**

Crista transversa

Crista verticalis

**Area nervi facialis / Políčko**

**lícního nervu**

**Area vestibularis superior /**

Horní předsíňové políčko

**Area vestibularis inferior**

**Foramen singulare /**

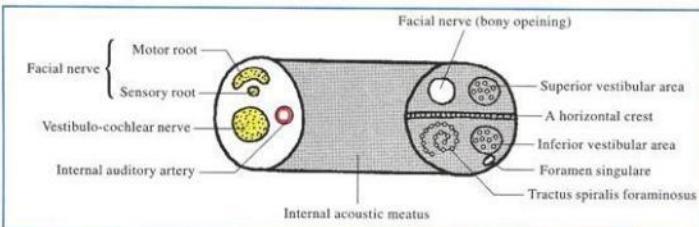
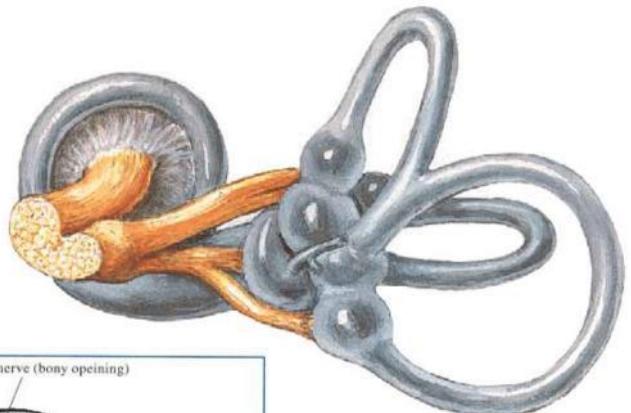
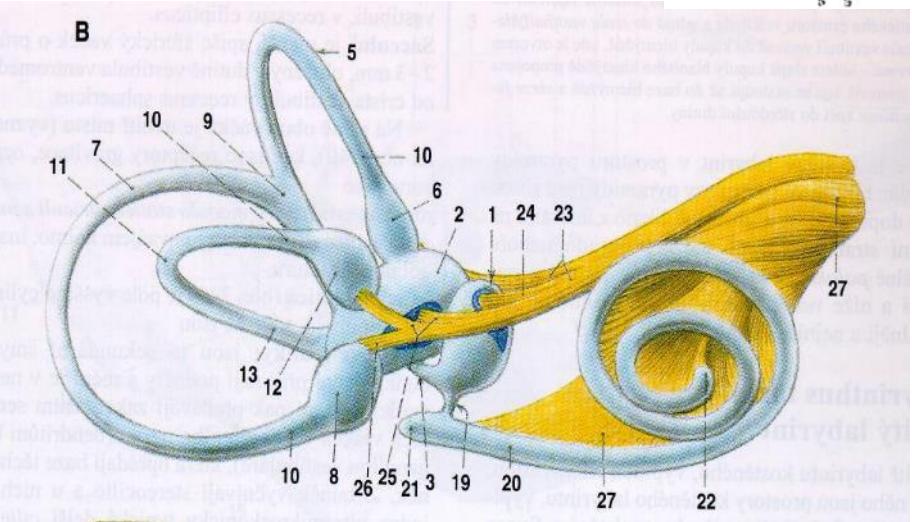
Osamělý otvor

**Area cochlearis /**

Hlemýžďové políčko

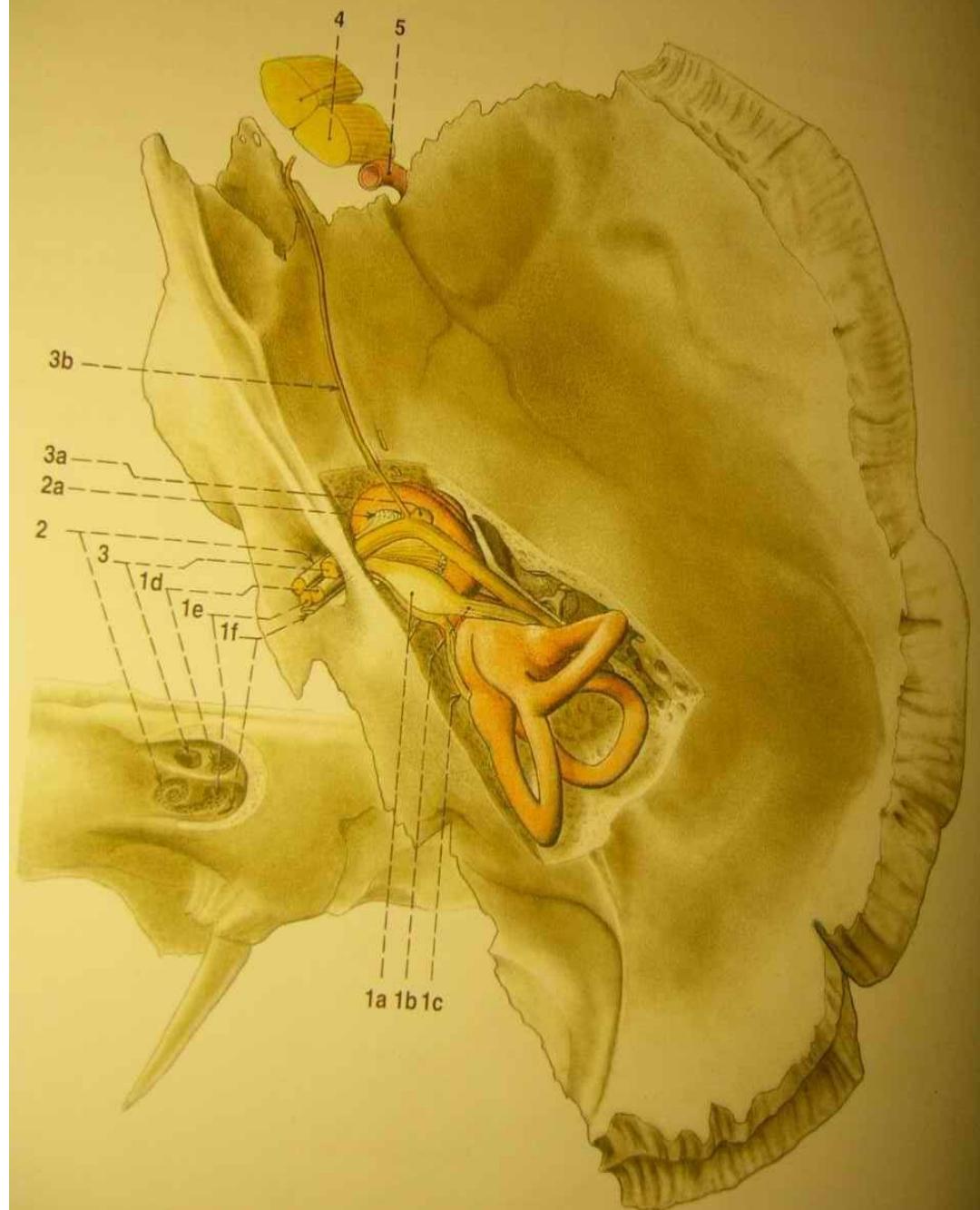
**Tractus spiralis foraminosus /**

Dírkovaná spirála



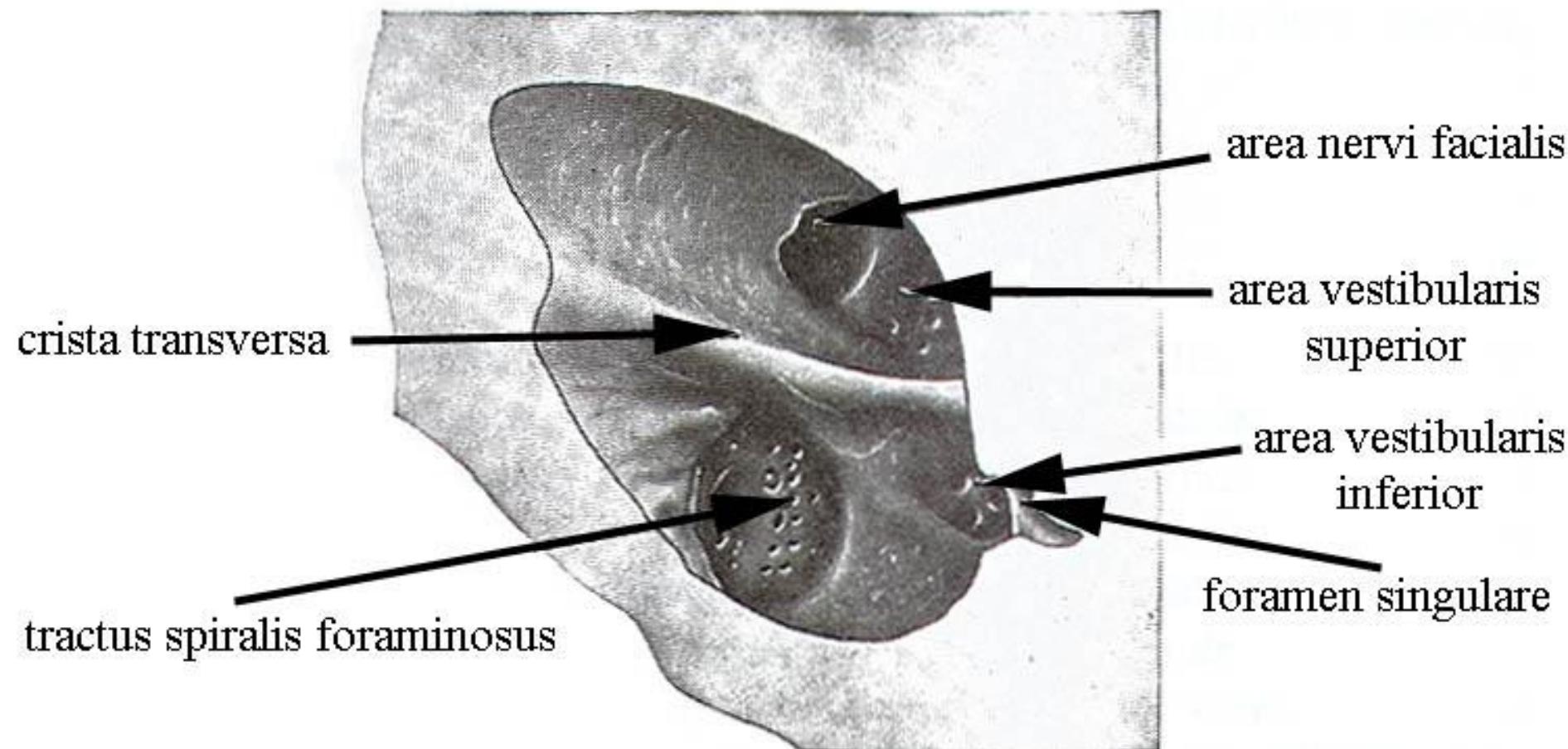
# Meatus acusticus internus

## Vnitřní zvukovod



# MEATUS ACUSTICUS INTERNUS

(fundus meatus acustici interni)



A posterior view of a human skull base, specifically the occipital and temporal regions. The internal acoustic meatus is visible as a large, circular opening on the left side of the occipital bone. The surrounding bone is light-colored and shows some natural fractures and pores.

*Meatus acusticus internus*  
Vnitřní zvukovod

# Facies inferior partis petrosae

**Apertura externa canalis carotici**

**Fossa jugularis**

**Processus intrajugularis**

**Canaliculus mastoideus Arnoldi**

**Fossula petrosa**

**Canaliculus tympanicus Jacobsoni**

**Apertura externa canaliculi cochleae**

**Canaliculus cochleae / Hlemýžďový kanálek**

**Processus styloideus / Bodcovitý výběžek**

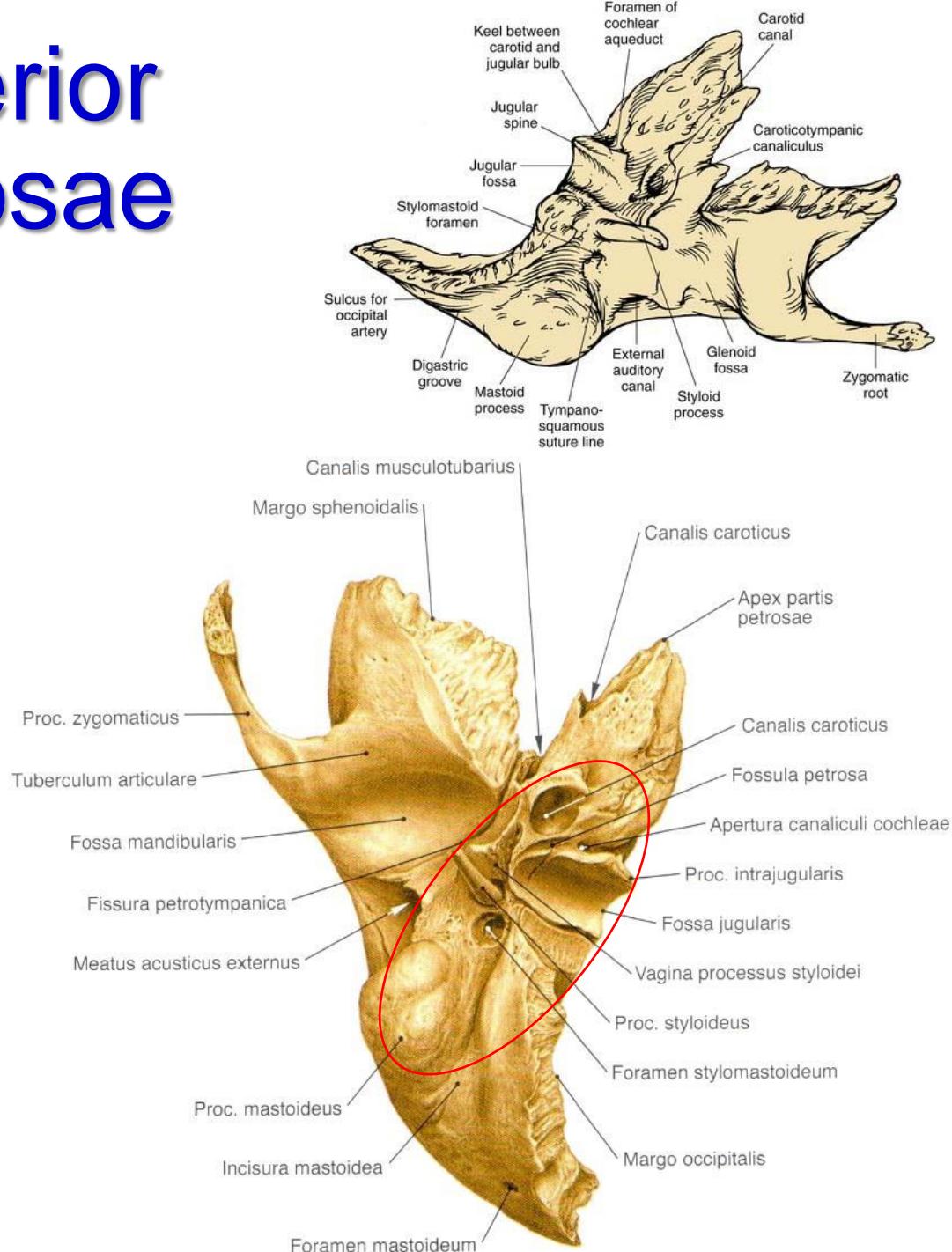
**Foramen stylomastoideum / Bodcoscovitý otvor**

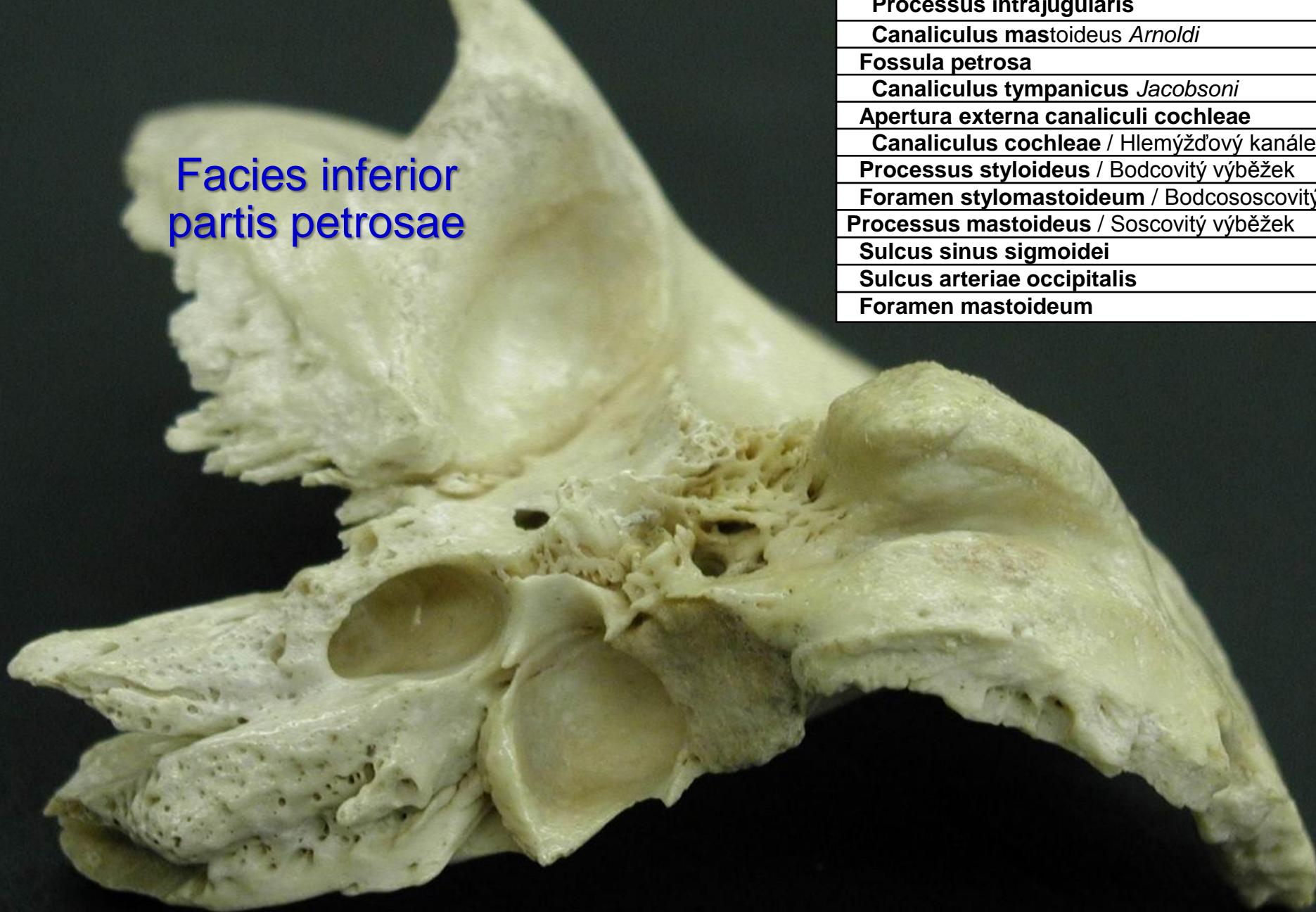
**Processus mastoideus / Soscovitý výběžek**

**Sulcus sinus sigmoidei**

**Sulcus arteriae occipitalis**

**Foramen mastoideum**





## Facies inferior partis petrosae

**Processus intrajugularis**

**Canalculus mastoideus Arnoldi**

**Fossula petrosa**

**Canalculus tympanicus Jacobsoni**

**Apertura externa canaliculi cochleae**

**Canalculus cochleae / Hlemýžďový kanálek**

**Processus styloideus / Bodcovitý výběžek**

**Foramen stylomastoideum / Bodcososcovitý**

**Processus mastoideus / Soscovitý výběžek**

**Sulcus sinus sigmoidei**

**Sulcus arteriae occipitalis**

**Foramen mastoideum**

# Pars tympanica ossis temporalis

Anulus tympanicus /  
Bubínekový prstenec

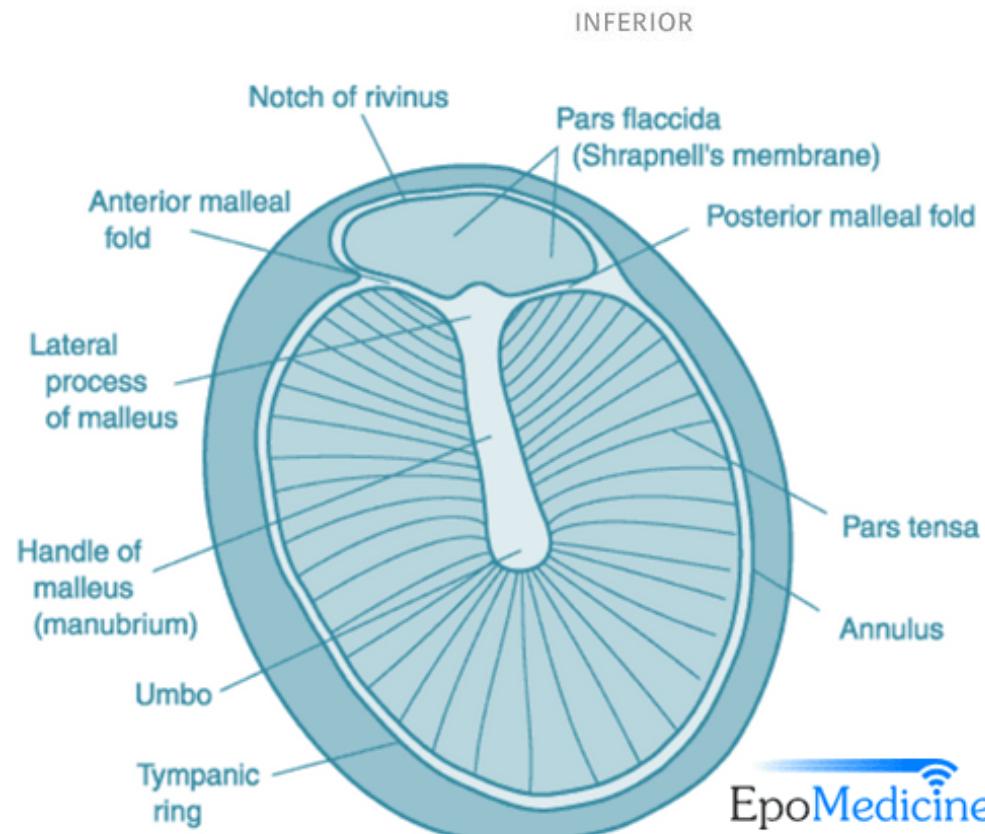
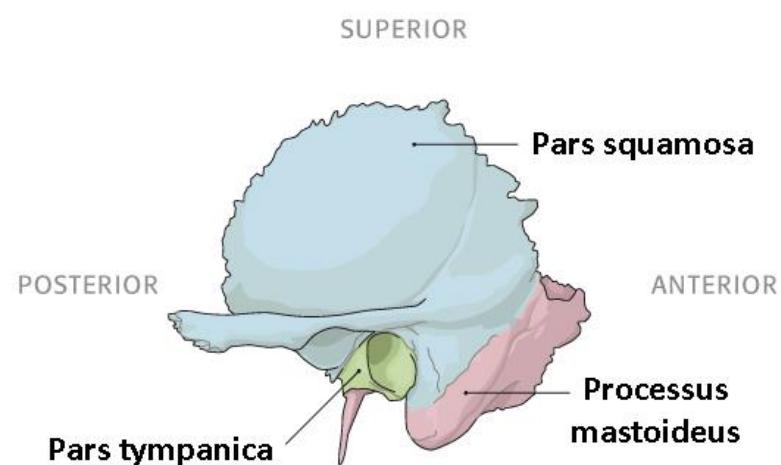
**Porus acusticus  
externus**

**Meatus acusticus  
externus**

**Sulcus tympanicus**

**Incisura tympanica  
Rivini**

**Spina tympanica  
major et minor**



# Pars squamosa ossis temporalis

**Facies temporalis**

**Facies cerebralis**

**Sulcus arteriae temporalis mediae**

**Processus zygomaticus**

**Crista supramastoidea**

**Foveola supravertebralis s.**

Trigonum Maceweni /  
Nadzvukovodová jamka

**Spina supravertebralis Henlei**

**Fossa mandibularis**

**Facies articularis**

**Tuberculum articulare**

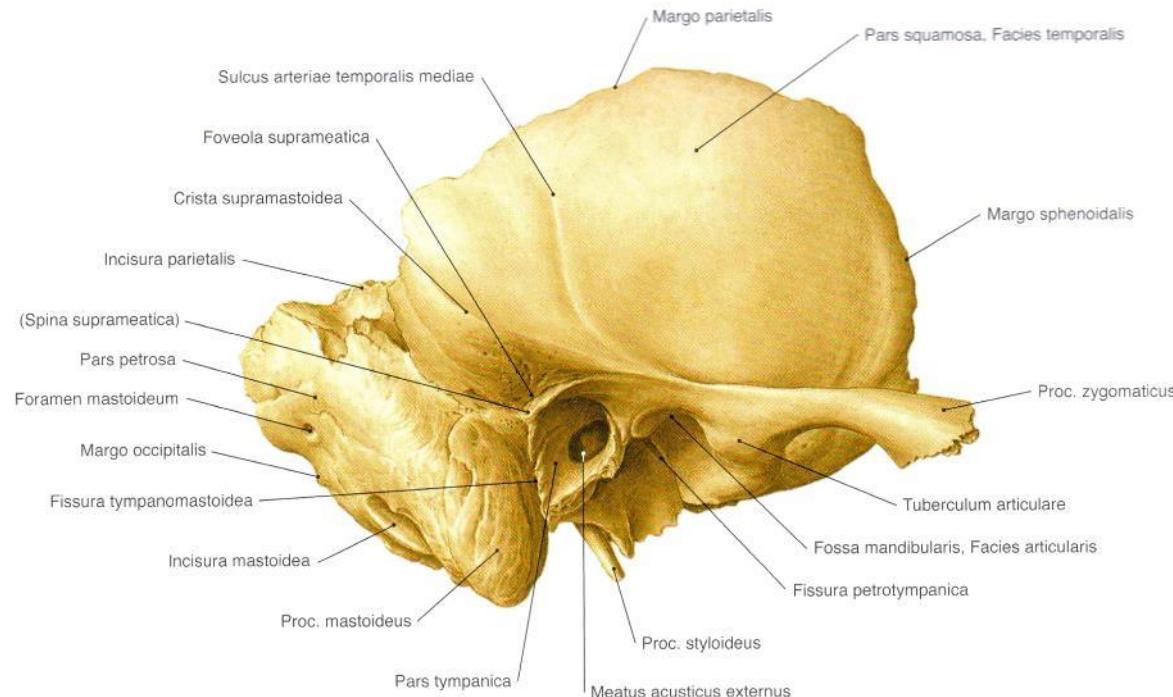
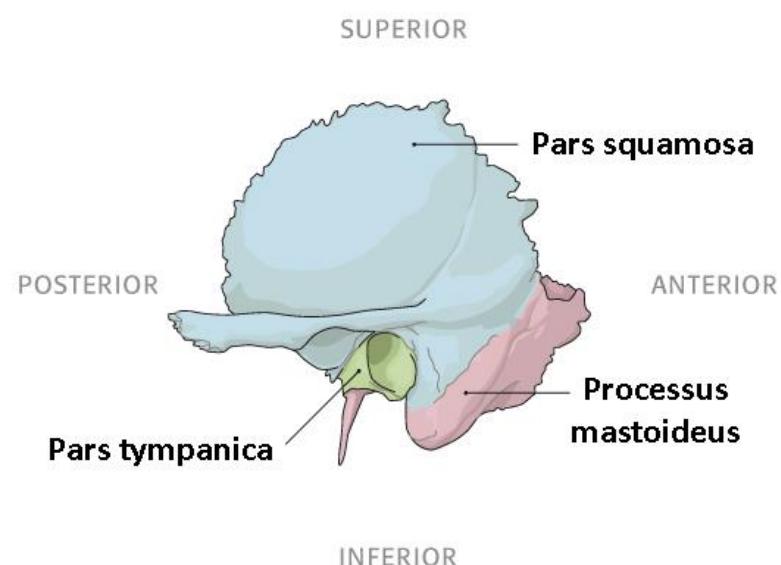
**Fissura petrotympanica Glaseri**

Canaliculus chordae tympani  
anterior *Huguieri s. Civinini*

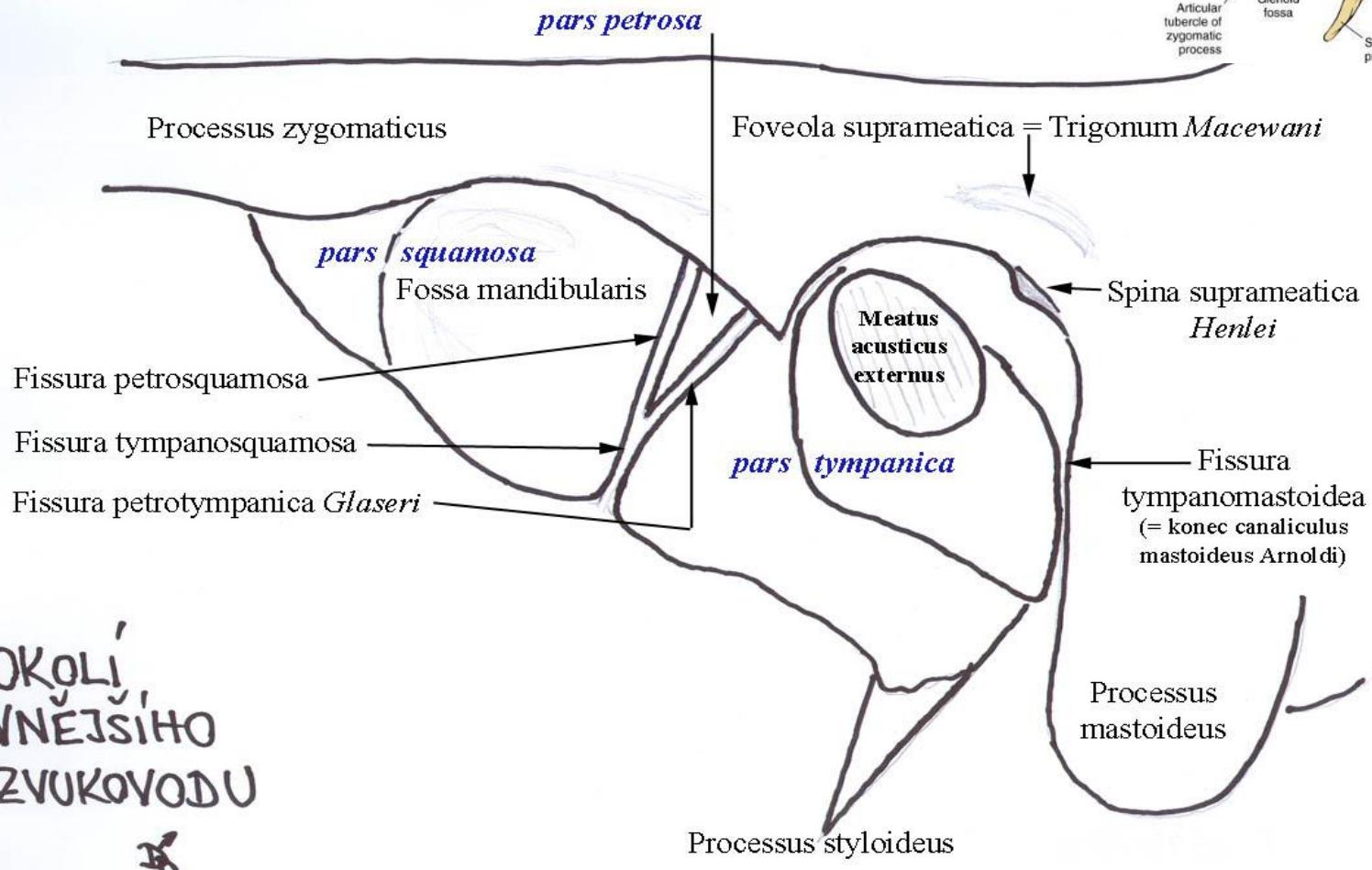
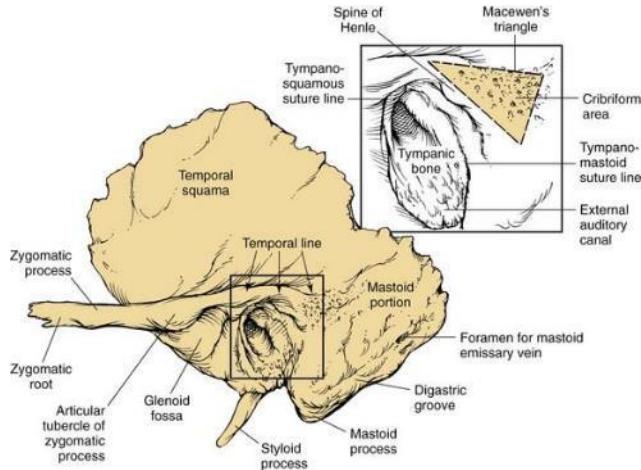
**Fissura petrosquamosa**

**Fissura tympanosquamosa**

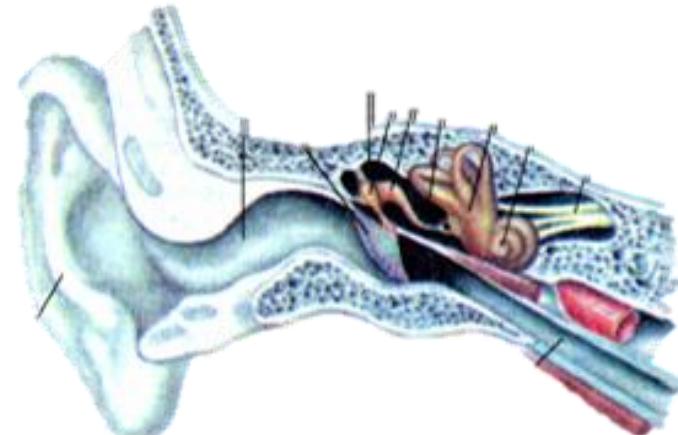
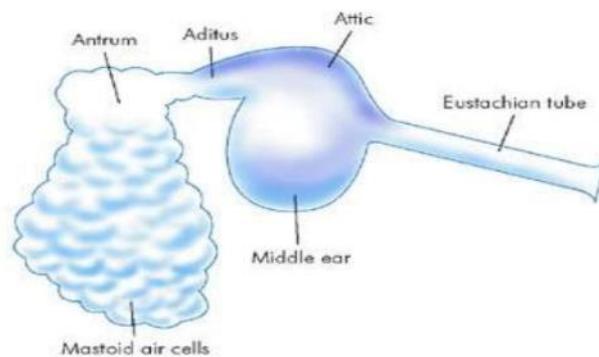
**Fissura tympanomastoidea ←**  
**Canaliculus mastoideus Arnoldi**



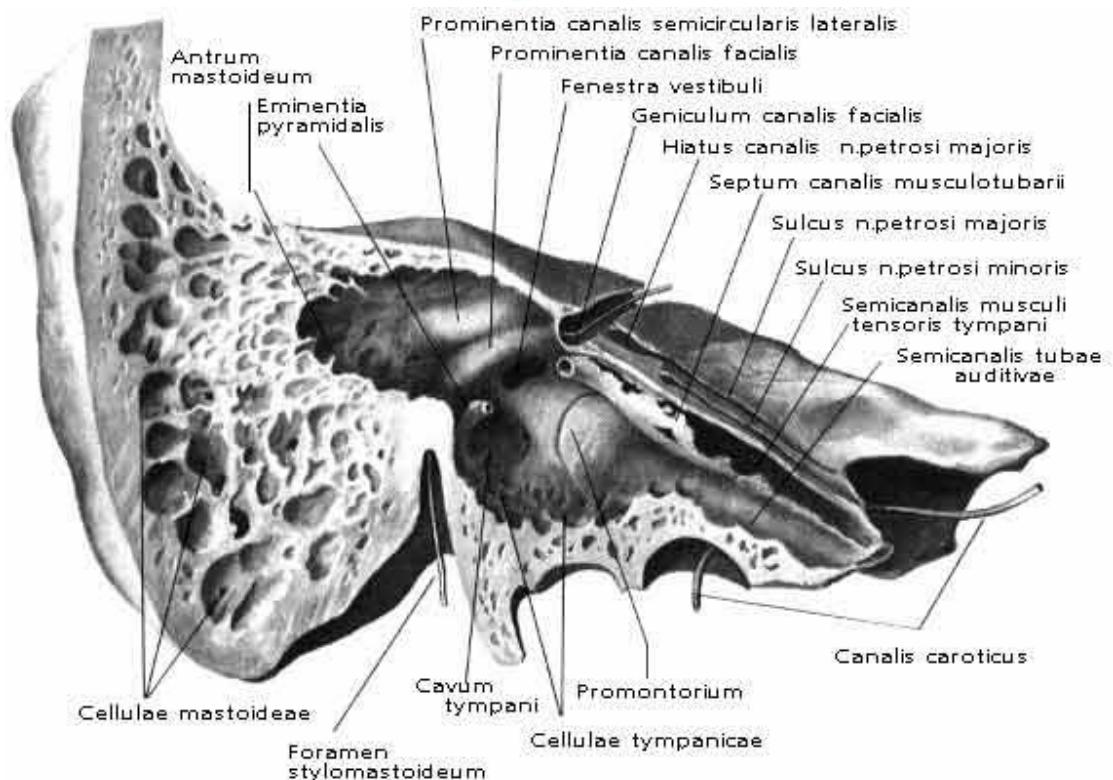
# Pars squamosa ossis temporalis



# Středoušní dutina



- středoušní dutina
  - bubínková dutina (cavitas tympani)
    - sluchové kůstky (ossicula auditus)
  - antrum mastoideum + cellulæ mastoideæ
  - sluchová trubice (tuba auditiva *Eustachii*)



# Cavitas tympani (Bubínková dutina)

## Stěny

Paries tegmental is / Strop

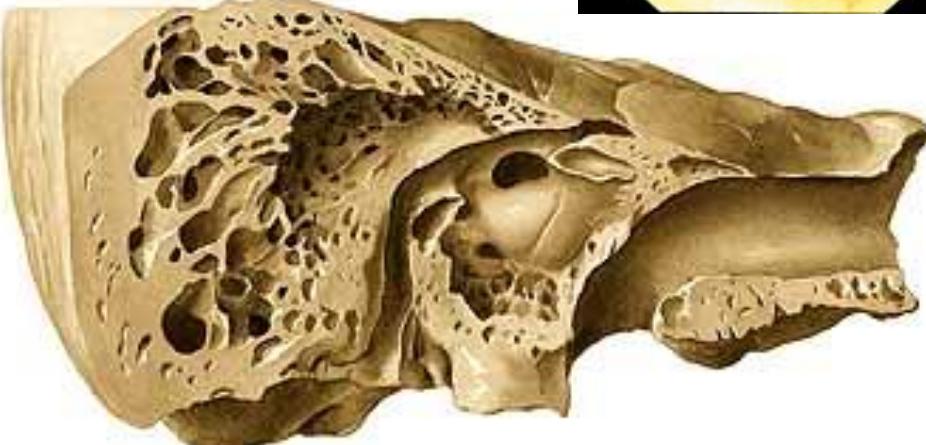
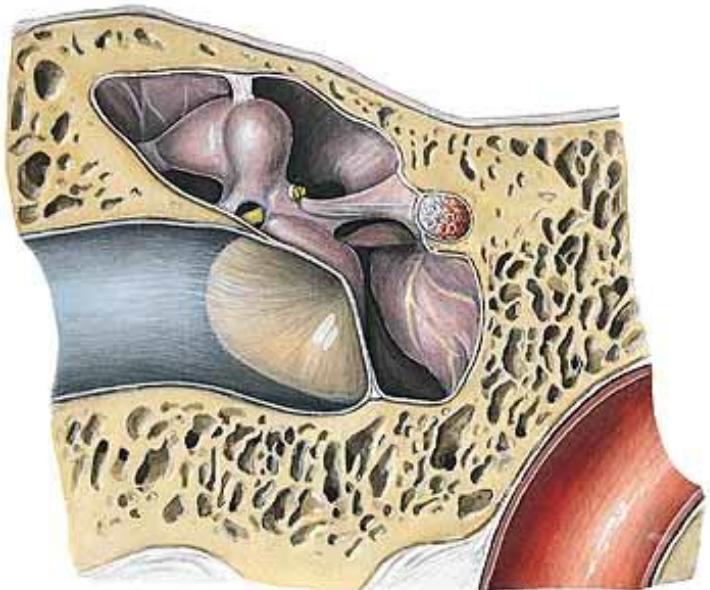
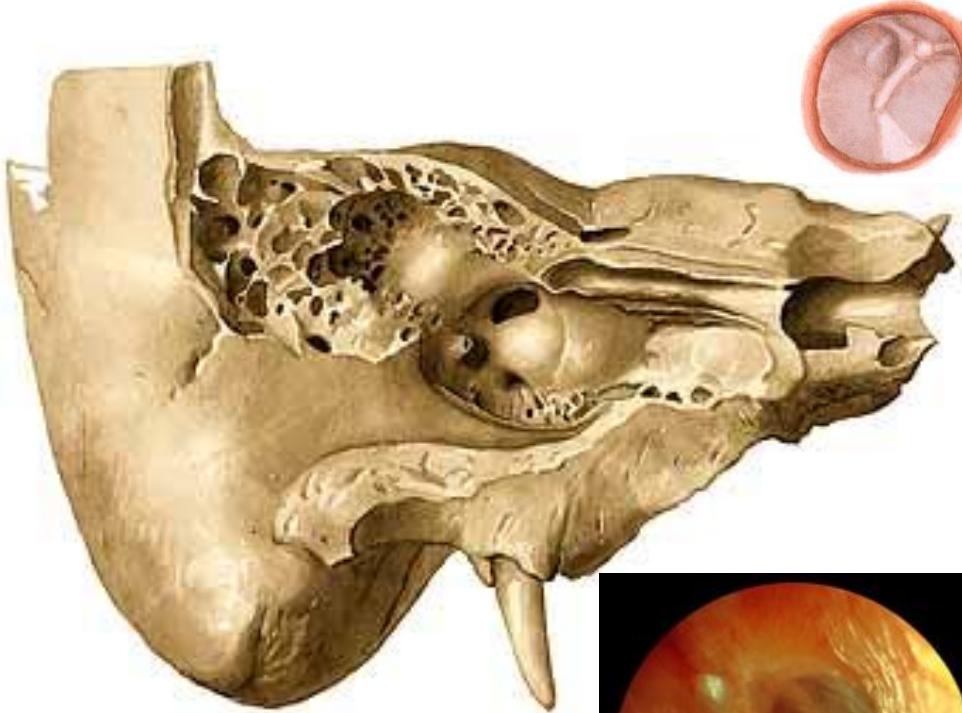
Paries jugularis / Dno

Paries labyrinthicus (dříve Facies ventrobasalis partis petrosae) / Labyrintová stěna – vnitřní stěna

Paries mastoideus / Zadní stěna

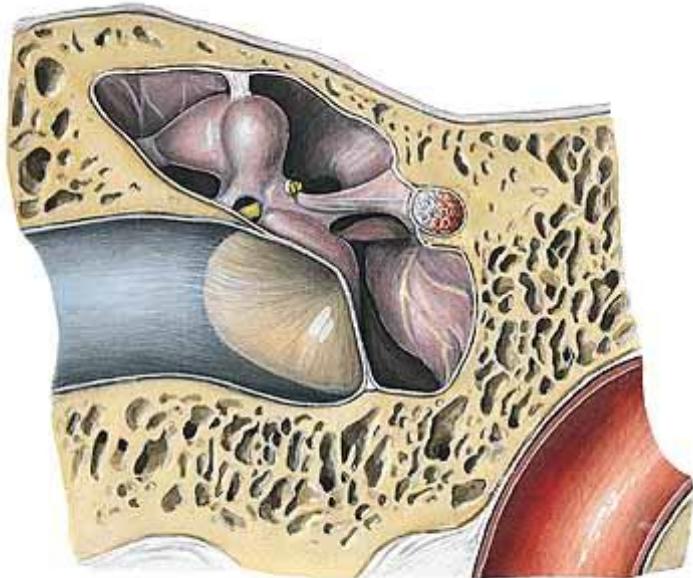
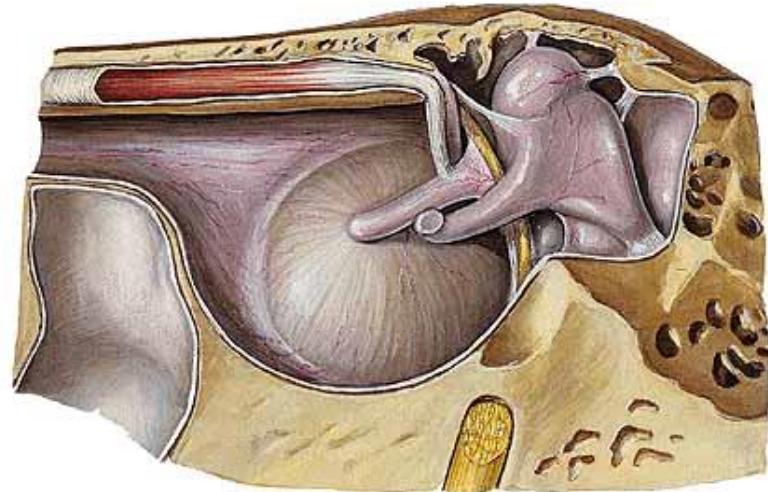
Paries caroticus / Přední stěna

Paries membranacea = Membrana tympanica (Bubínek) – vnější stěna



# Cavitas tympani (Bubínková dutina)

- tvar přesýpacích hodin
  - 2 mm u bubínku (mesotympanon)
- recessus epitympanicus (atticus, epitympanon, epitympanum) – 6 mm
  - ossicula auditus (malleus, incus, stapes)
  - chorda tympani
- recessus hypotympanicus (hypotympanon) – 4 mm



# Cavitas tympani (Bubínková dutina)

## Paries tegmental is / Strop

Recessus epitympanicus (nebo atticus) /  
Nadbubínkový výklenek

## Paries jugularis

Prominentia styloidea / Bodcovité vyvýšení

## Paries labyrinthicus (dříve Facies ventrobasalis partis petrosae) / Labyrintová stěna

Fenestra vestibuli (dříve Fenestra ovalis) /  
Předsíňové nebo Oválné okénko

## Promontorium / Předhoří

## Sulcus promontorii

Sinus tympani / Bubínková zátoka

Fenestra cochleae (dříve Fenestra rotunda) /  
Hlemýžďové nebo Okrouhlé okénko

Processus cochleariformis / Lžičkovitý výběžek

## Paries mastoideus / Zadní stěna

Aditus antri mastoidei / Dutinový vchod

Prominentia canalis semicircularis lateralis /  
Vyklenutí bočního polokruhového kanálku

## Prominentia canalis nervi facialis

Eminentia pyramidalis / Jehlanová vyvýšenina

Fossa incudis / Kovadlinková jamka

Sinus posterior / Zadní zátoka

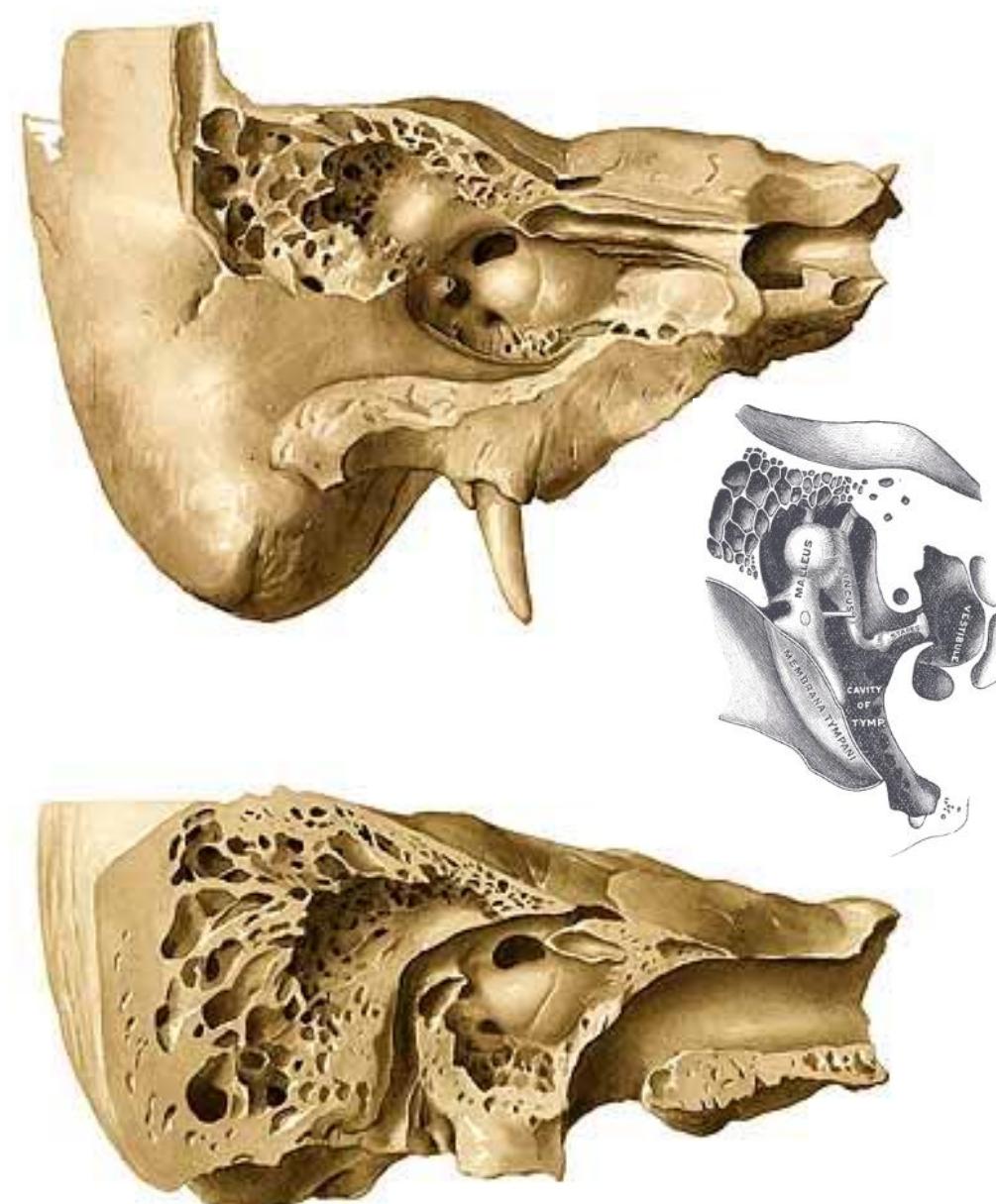
## Paries caroticus / Přední stěna

Canaliculi caroticotympanici

Canalis musculotubarius

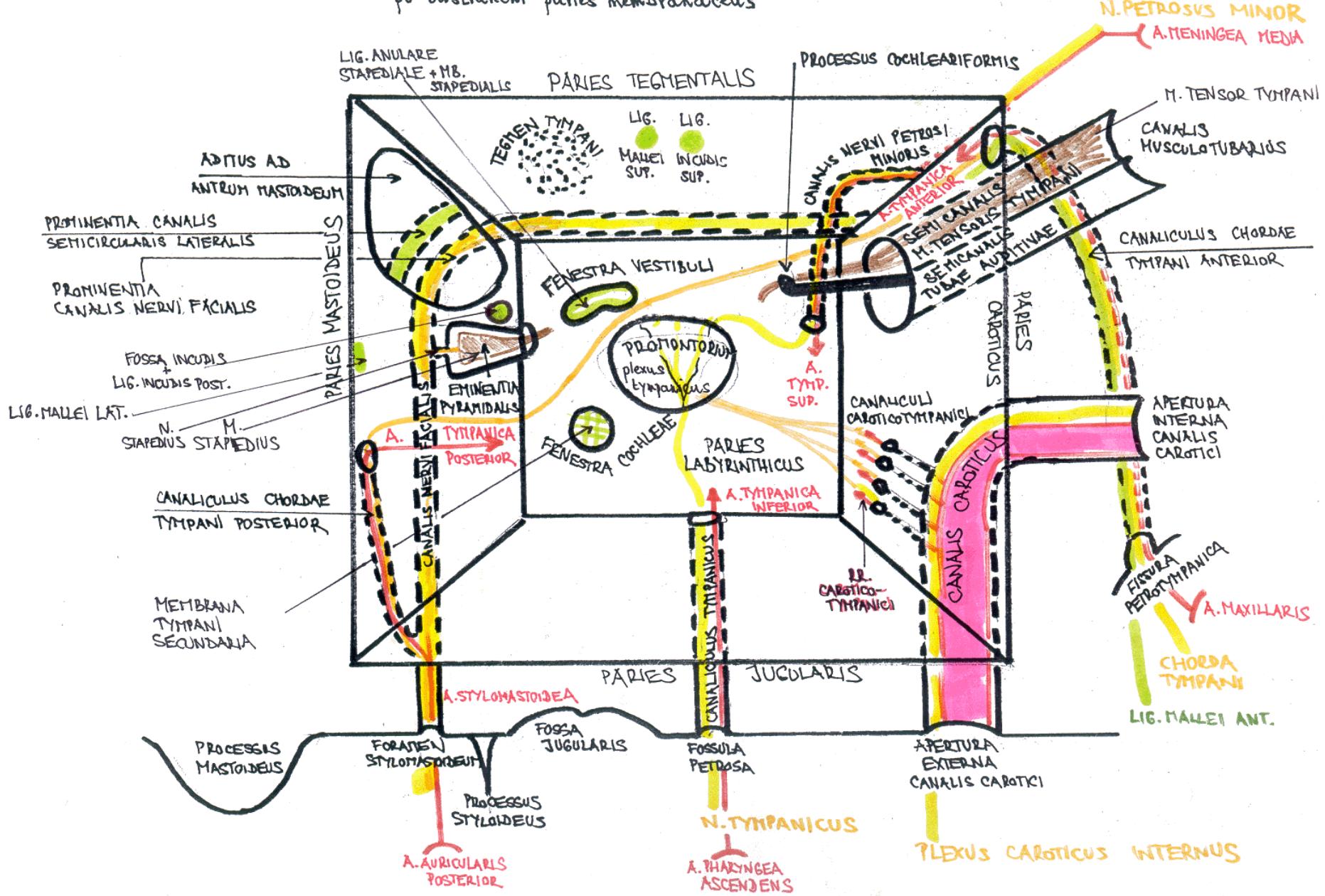
Fissura petrotympanica Glaseri

Canaliculus chordae tympani anterior



# CAVITAS TYMPANI

po odstranění paries membranaceus  
1. dx.



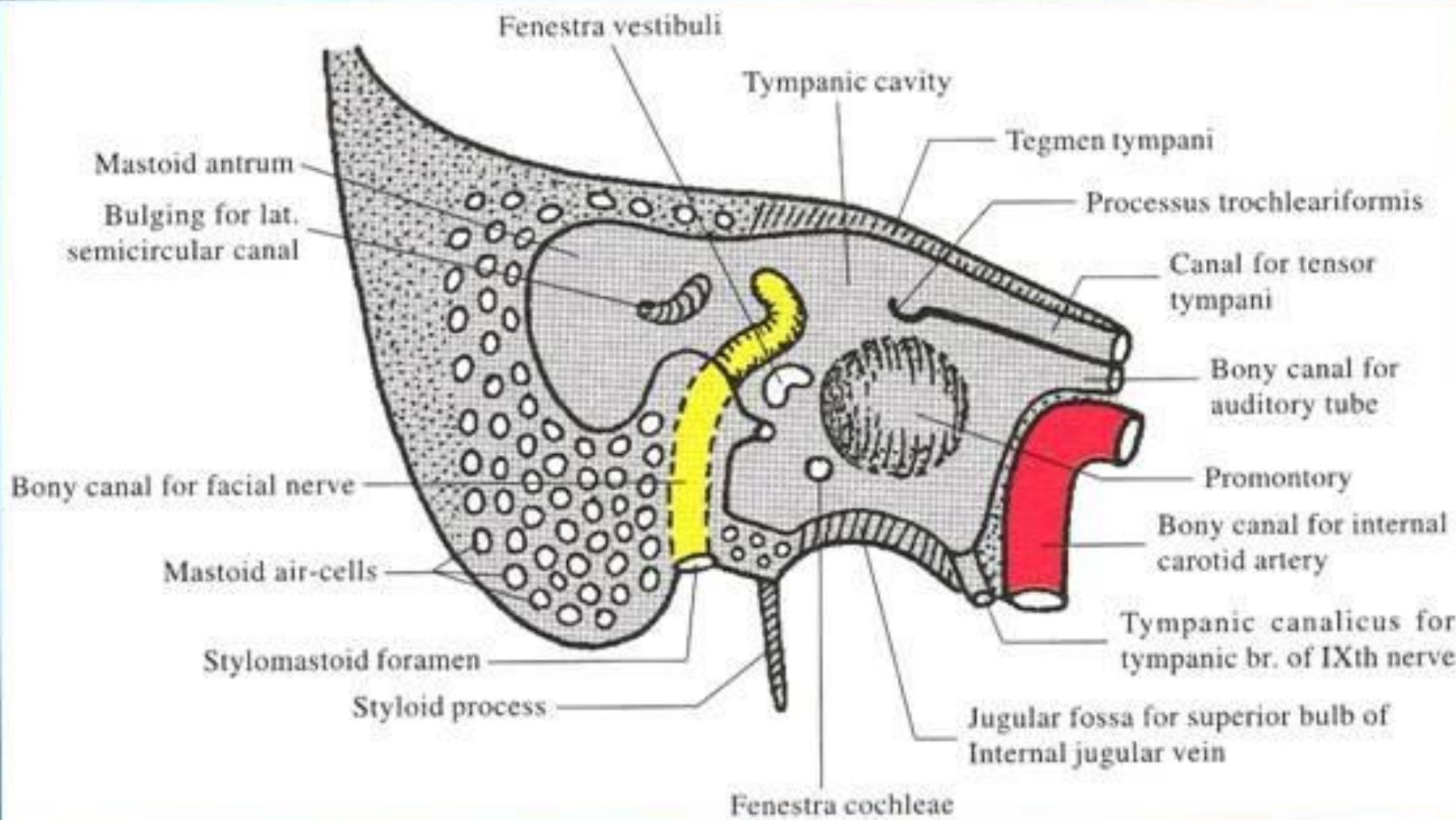
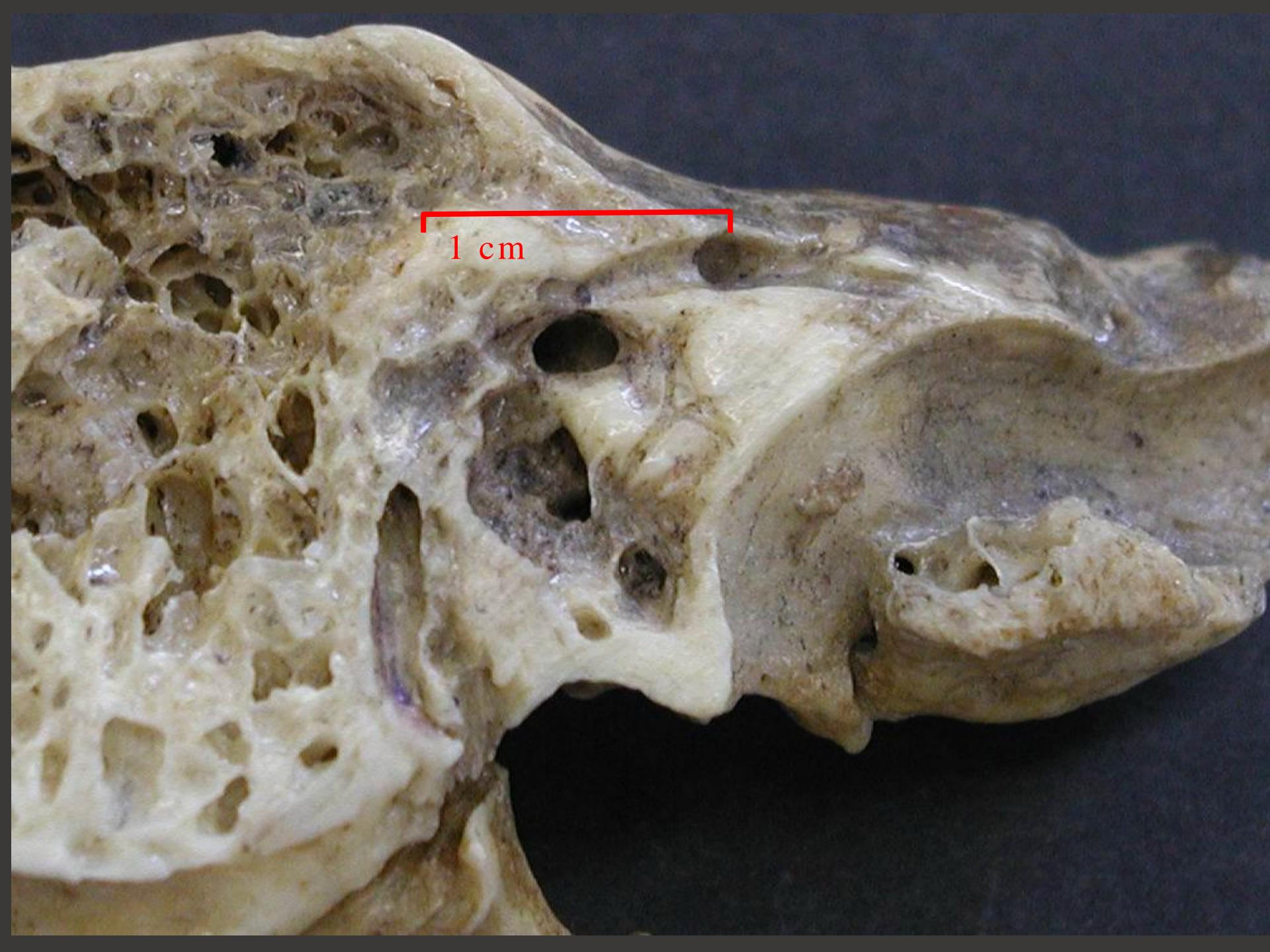
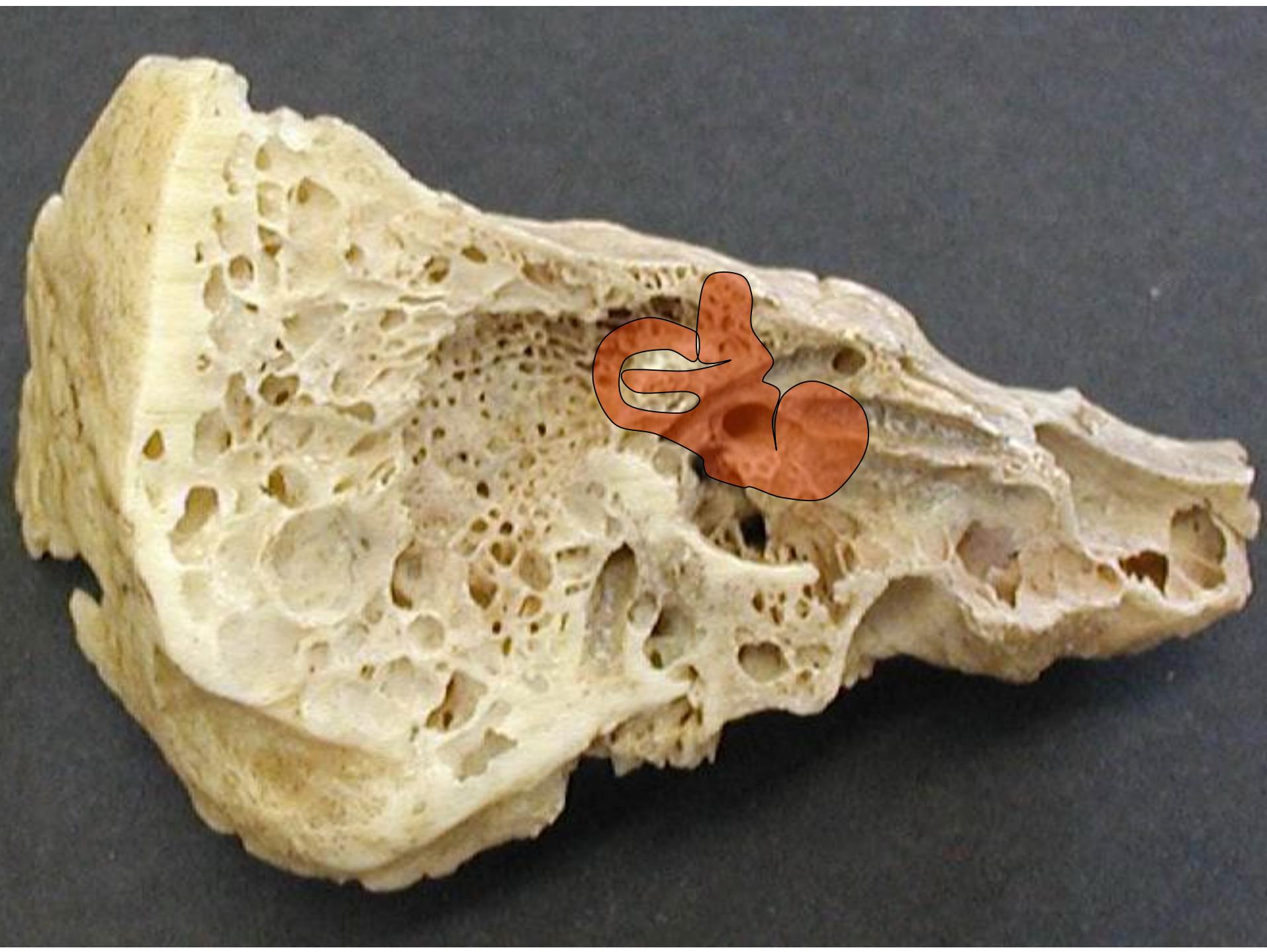


Fig. 1.18. A section through the tegmen tympani along the long axis of Petro-mastoid part of right temporal bone (Medial part of the section).



1 cm





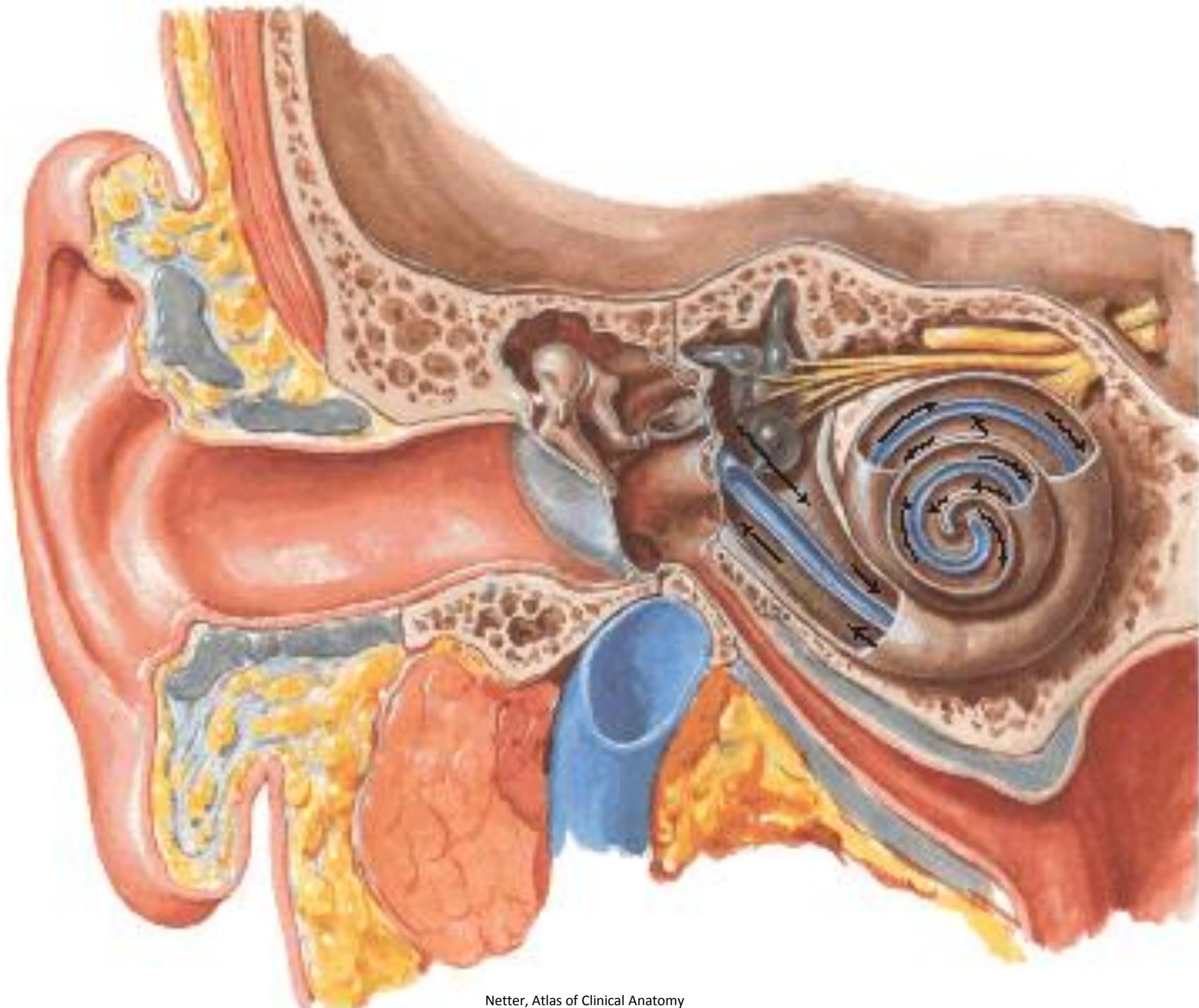
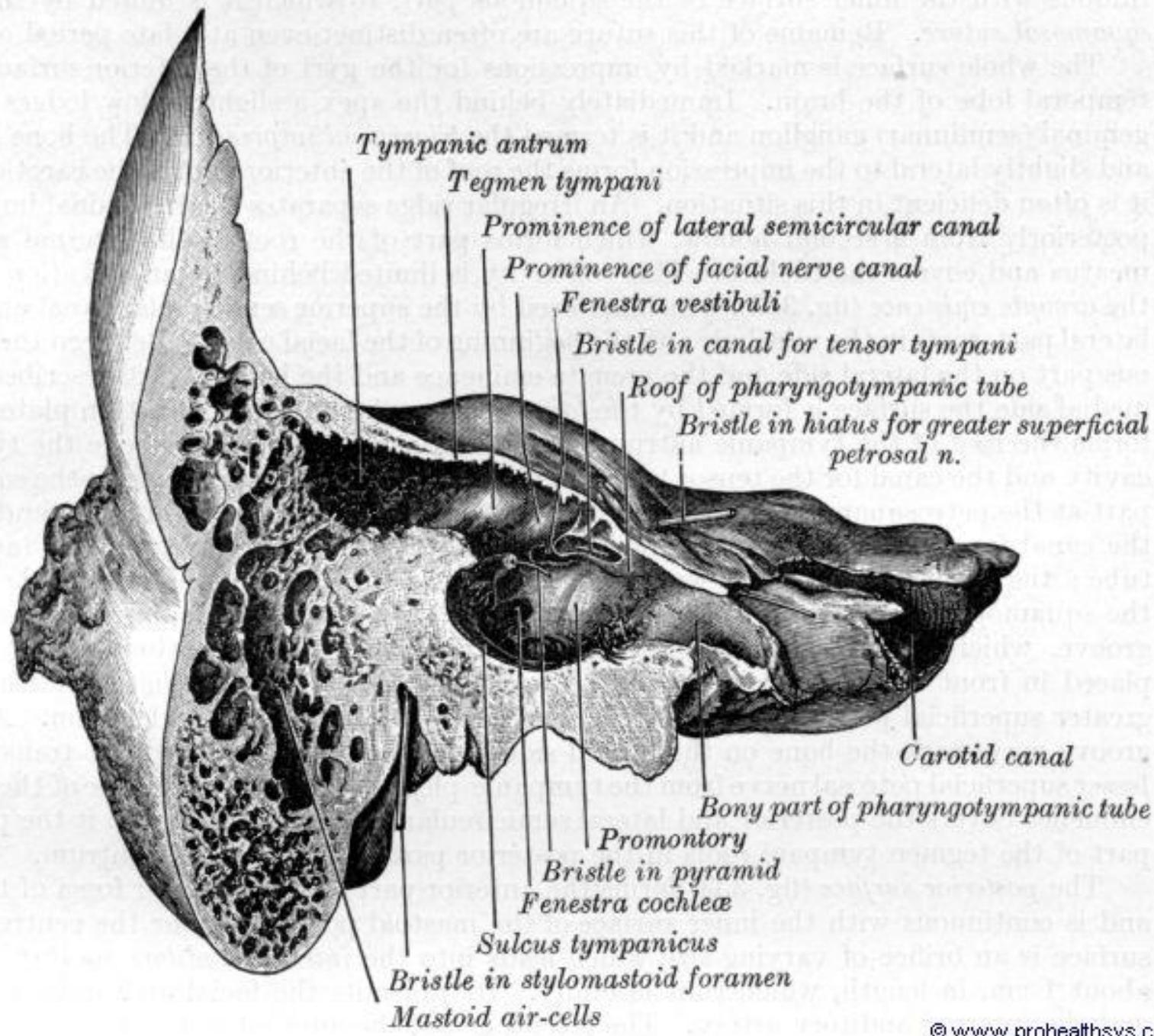
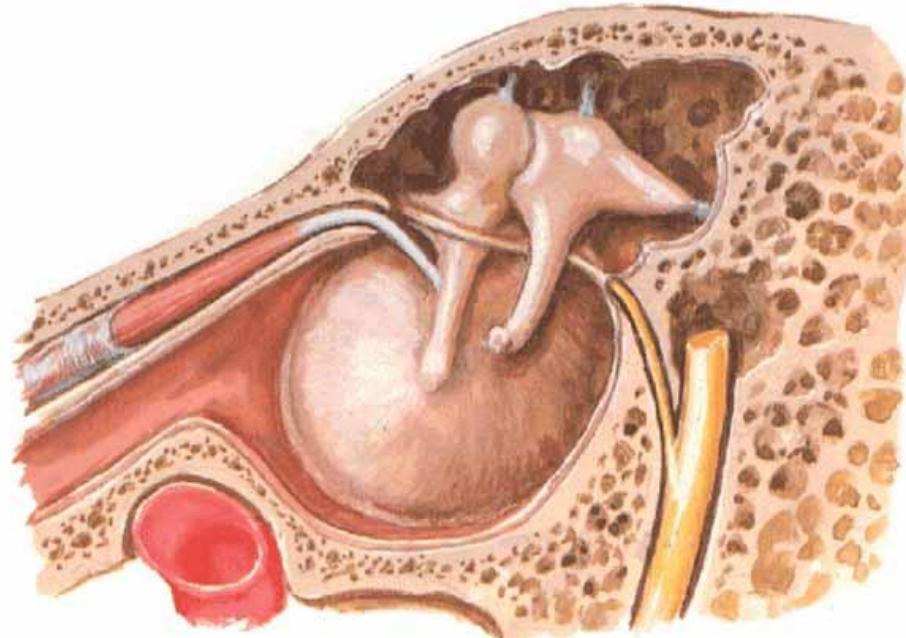
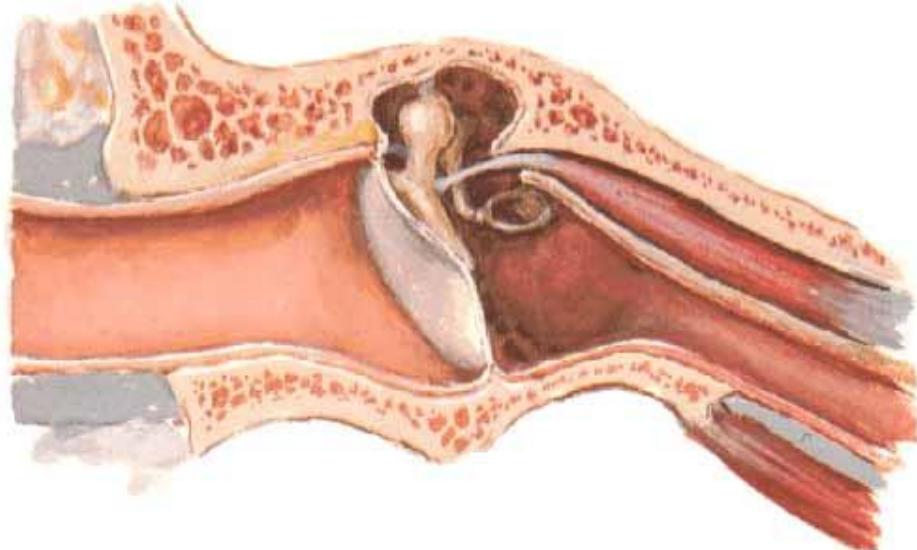
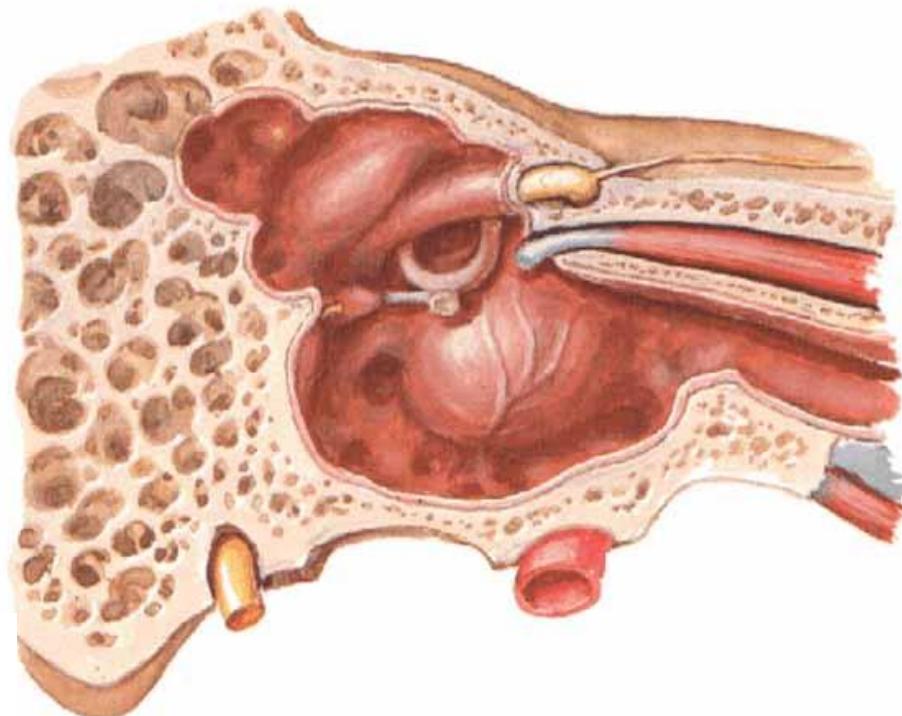


FIG. 354.—A coronal section through the right temporal bone. Anterior aspect.



# Cavitas tympani (Bubínková dutina)

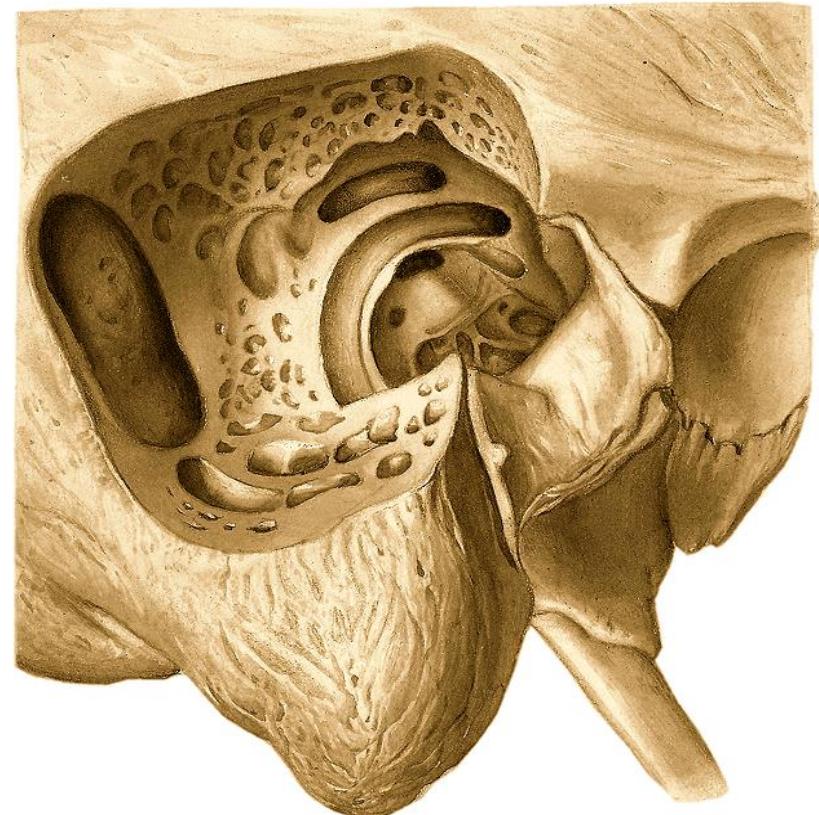
External Ear and Tympanic Cavity  
Coronal Oblique Section



# *Antrum mastoideum*

## Soscová (Bradavková dutina)

- paries mastoideus: aditus antri mastoidei
  - **antrum mastoideum**
  - **cellulae mastoideae**
- vývoj postnatálně – 6. rok
- typ pneumatický
  - typ diploický
  - typ sklerotický
- **cellulae tympanicae**
  - *mastoidektomie*



# Canalis nervi facialis *Falloppii*

Fundus meatus acustici interni

Area facialis

Geniculum canalis nervi facialis / Kolínsko kanálu lícního nervu

Canalis nervi petrosi majoris

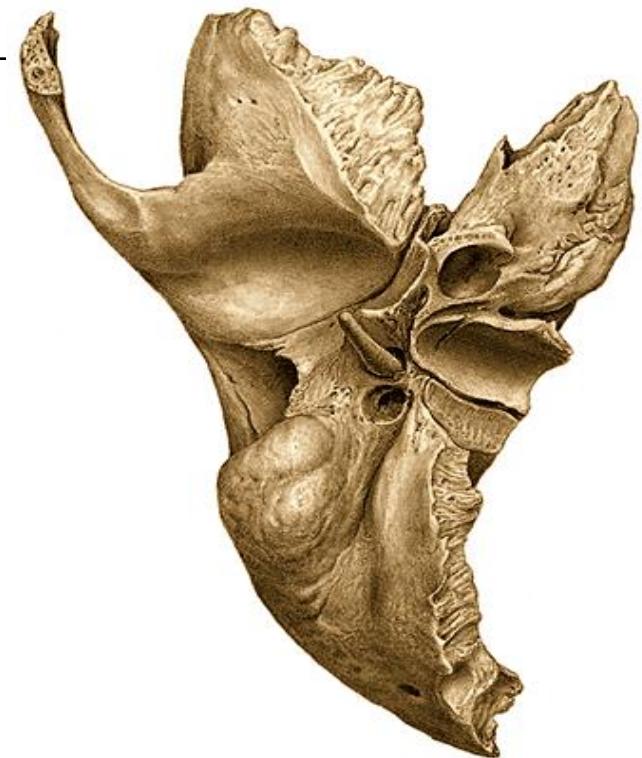
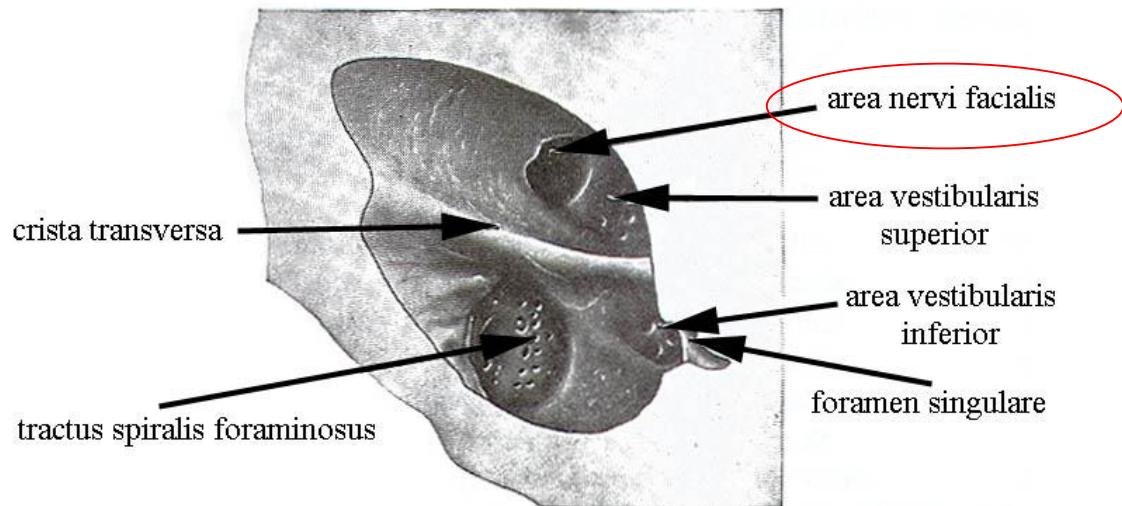
Kanálek pro n. stapedius do eminetia pyramidalis

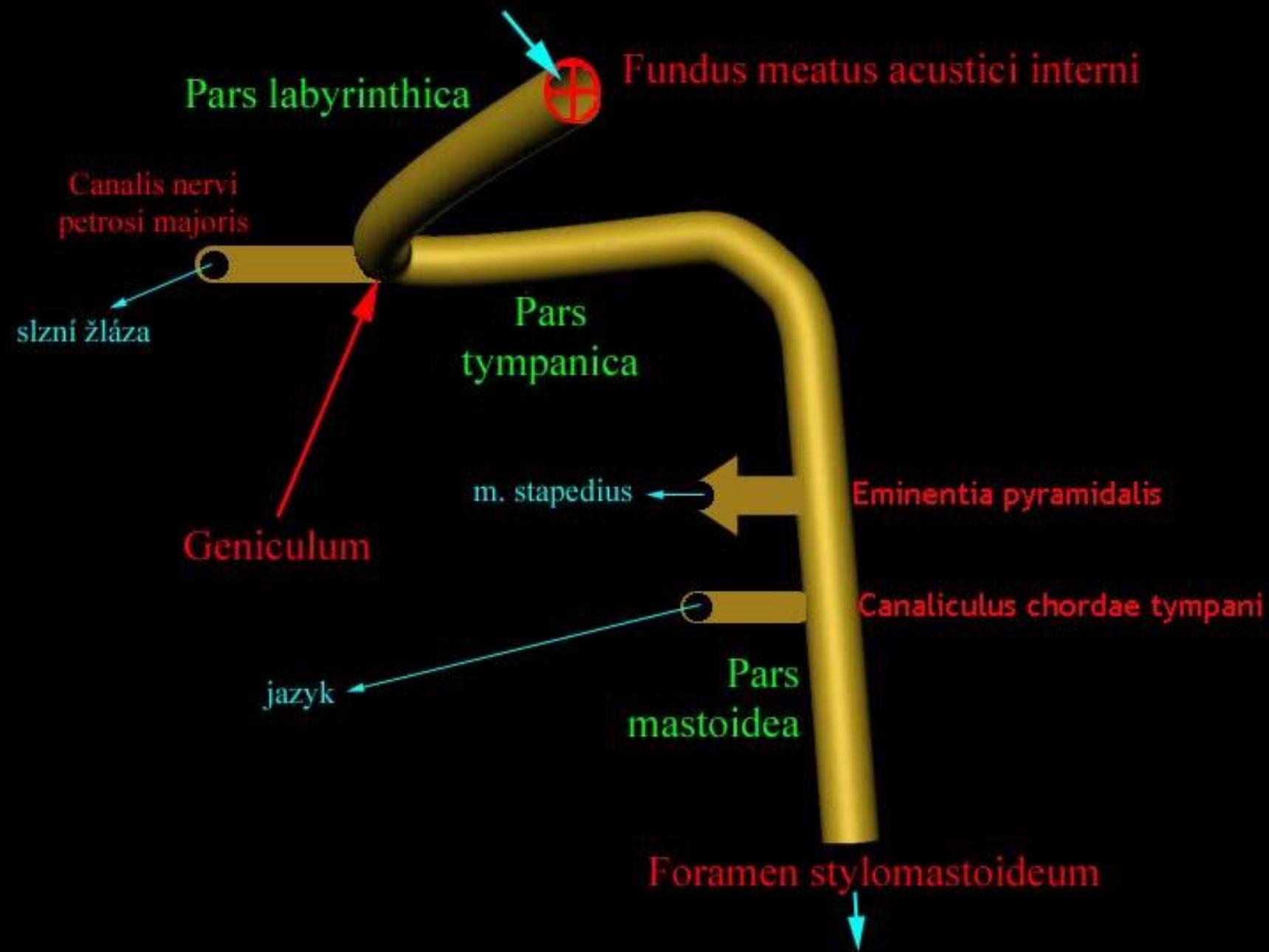
Canaliculus chordae tympani posterior / Kanálek pro středoušní strunu

Foramen stylomastoideum / Bodcososcovitý otvor

MEATUS ACUSTICUS INTERNUS

(fundus meatus acustici interni)

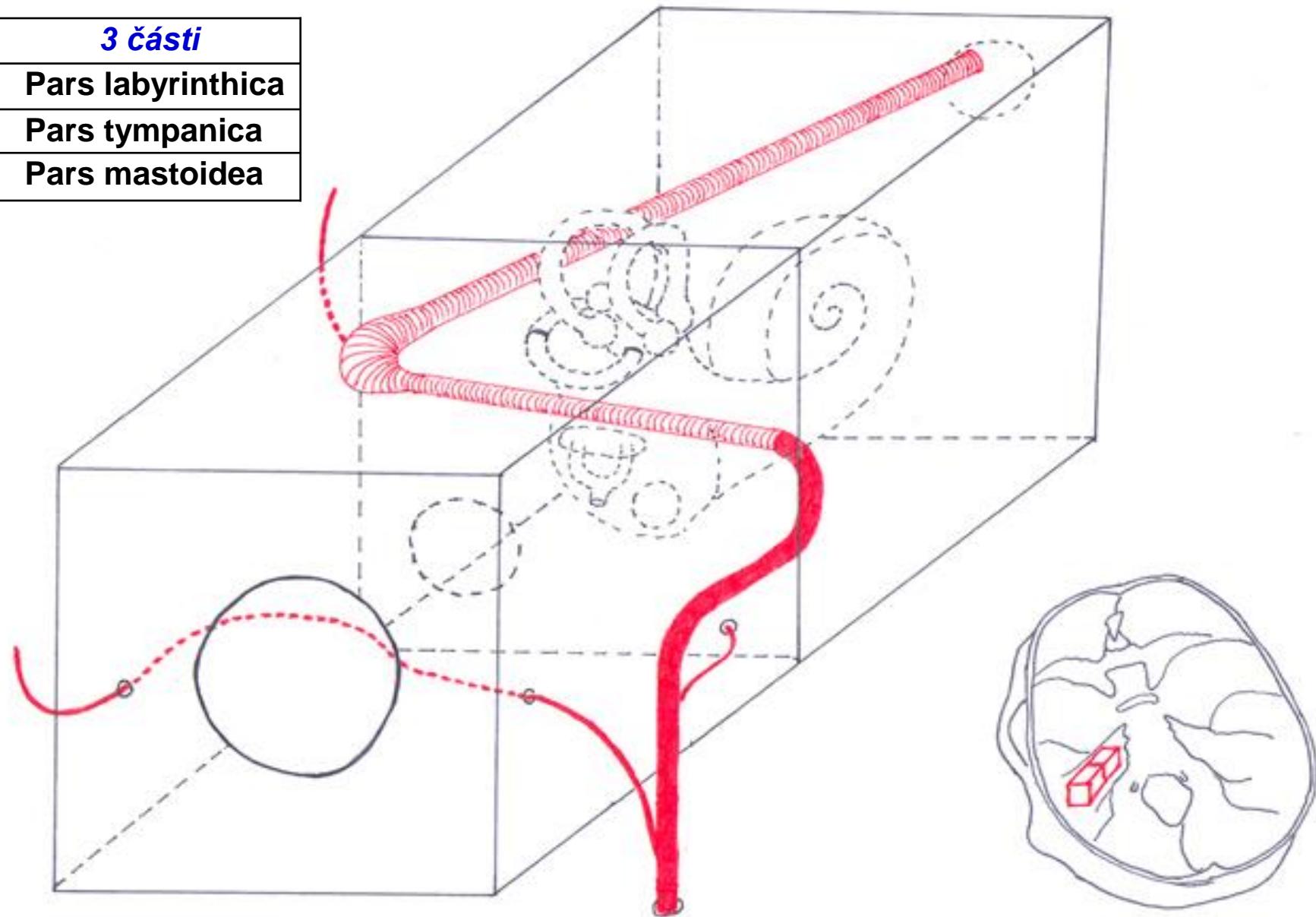




# CANALIS NERVI FACIALIS *FALLOPII* l. sin.

**3 části**

- Pars labyrinthica
- Pars tympanica
- Pars mastoidea



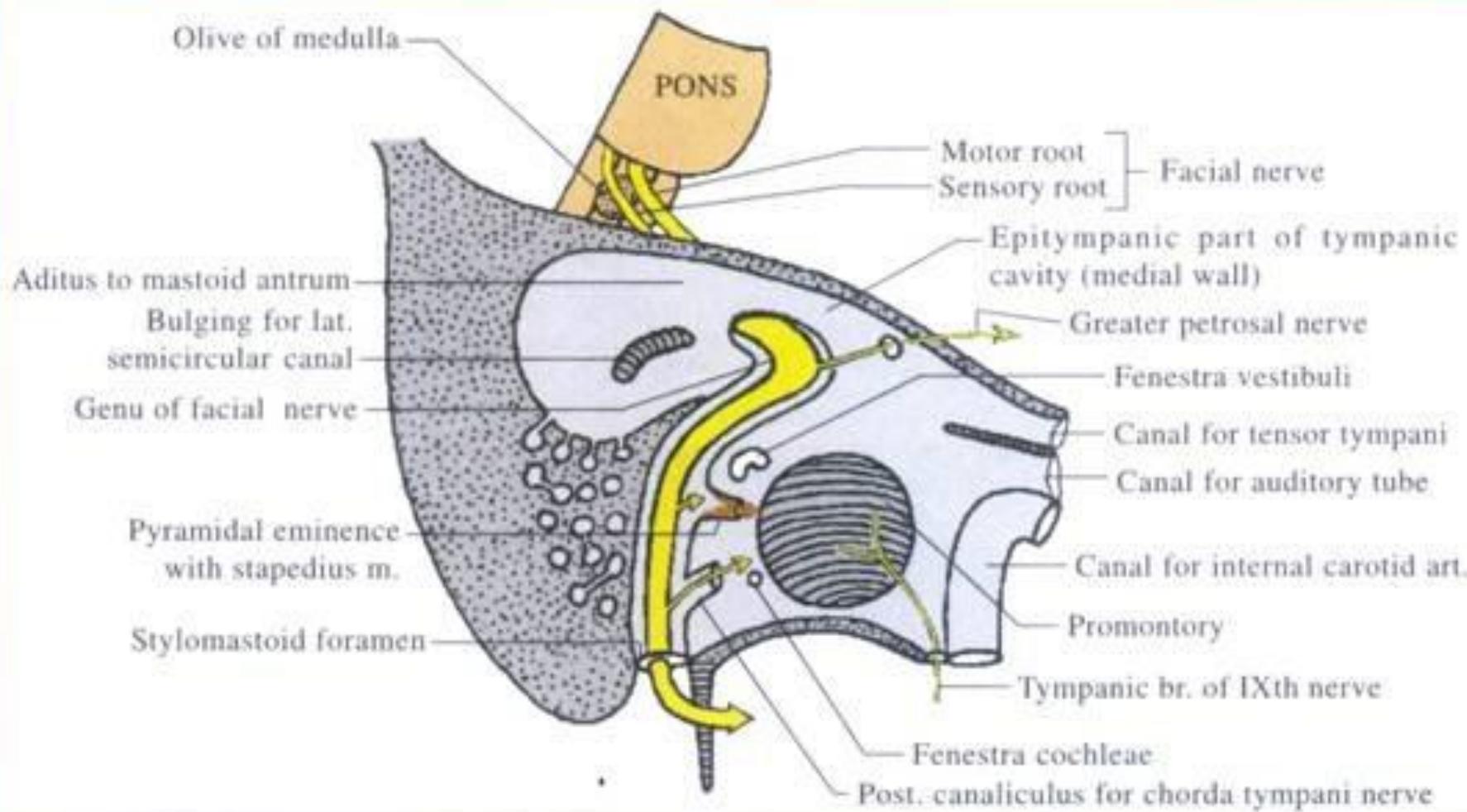
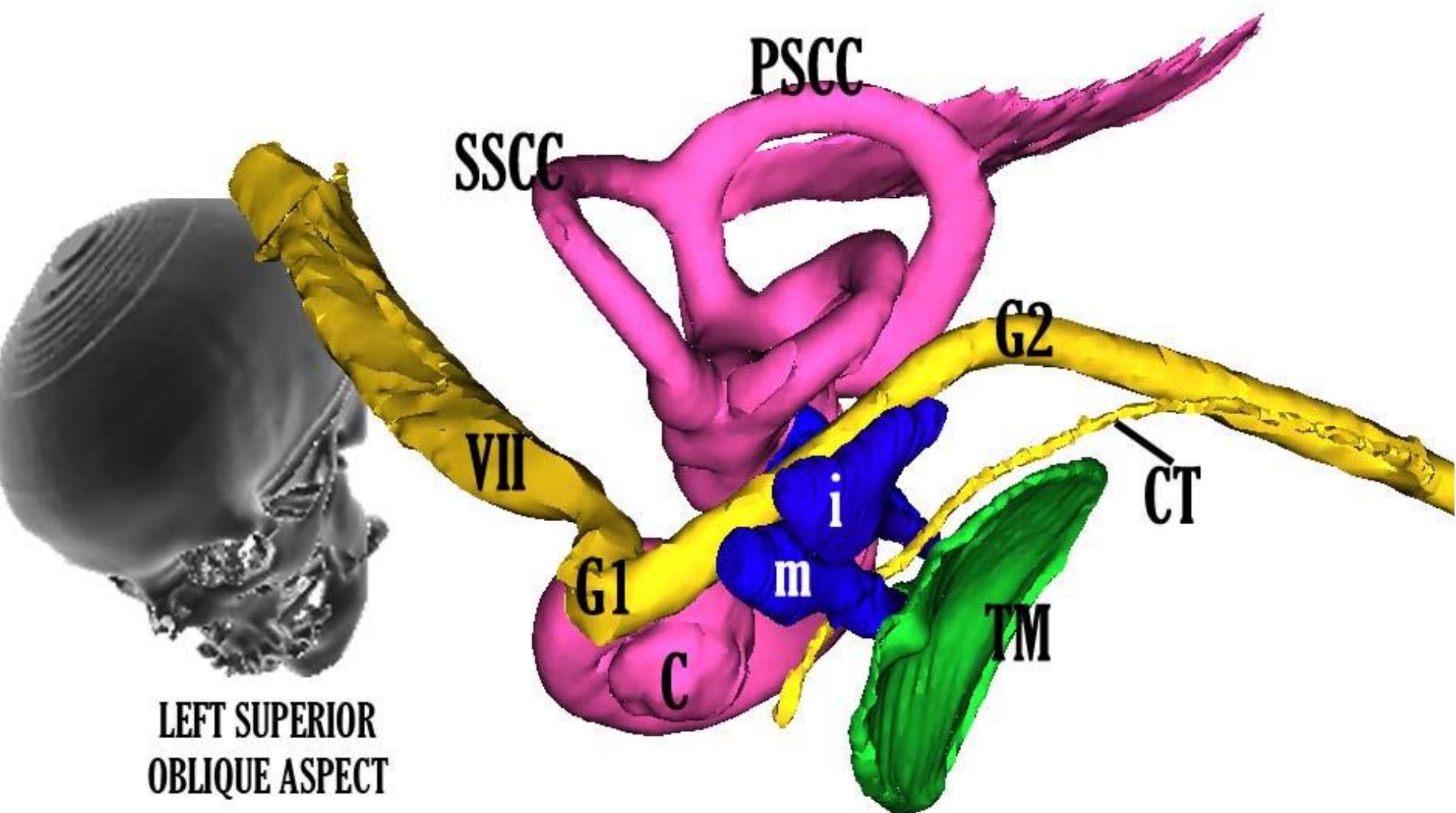
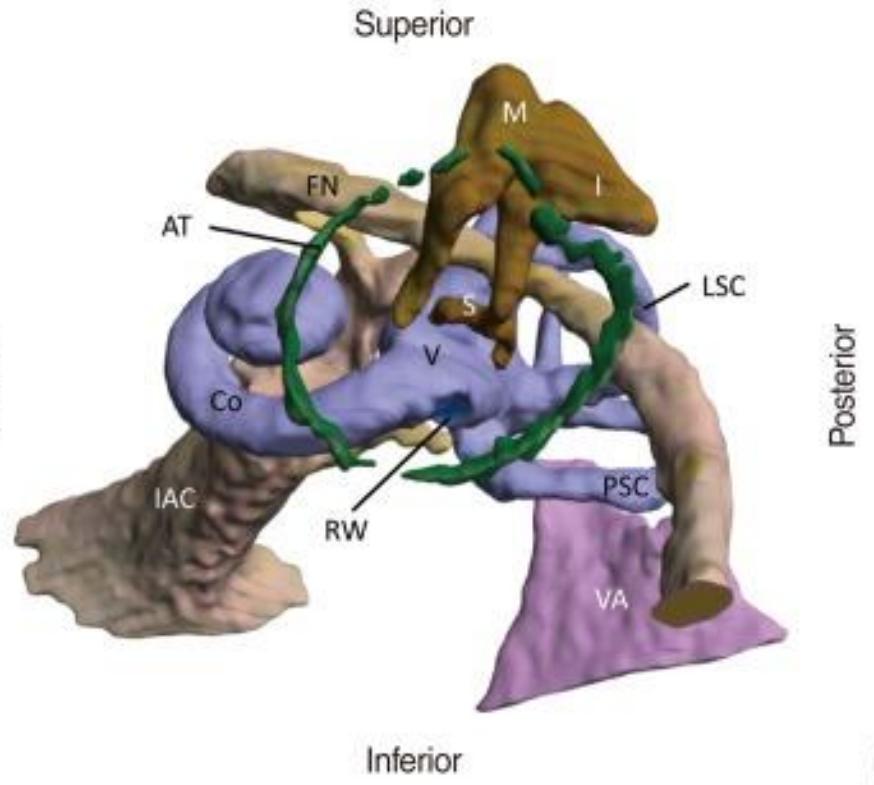


Fig. 14.9. Facial nerve and its relations with middle ear.

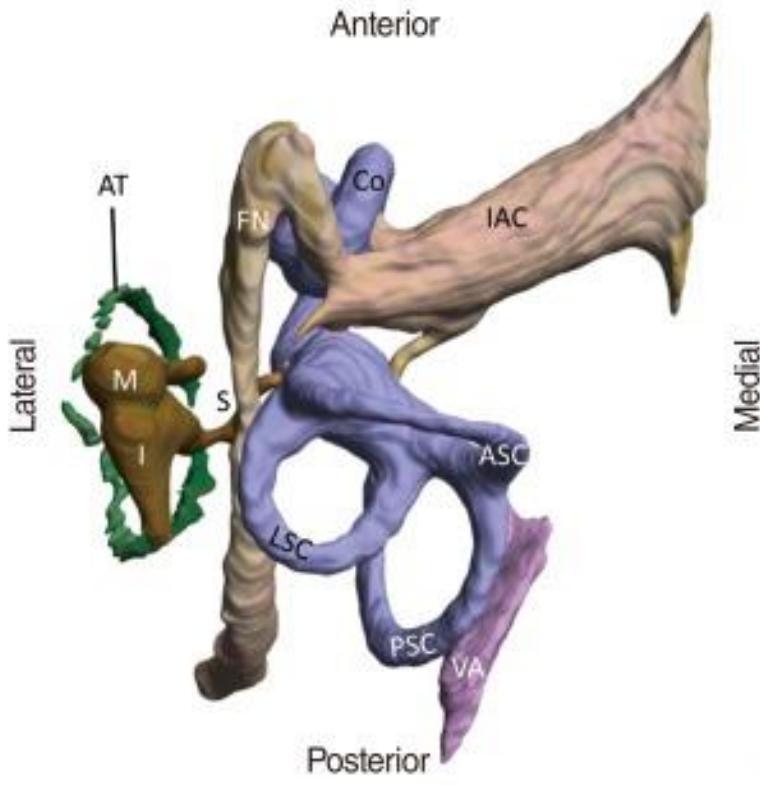
# Canalis nervi facialis *Fallopiae*



Anterior



**A**



**B**

