

Phylum

Mollusca

(5 Classes)

Polyplacopphora – Many plates on a foot

Cephalopoda – Head foot

Gastropoda – Stomach

Scaphopoda – Tusk shell

Bivalvia – Hatchet foot

Policemen

Censor

Gals in

Scant

Bikinis!

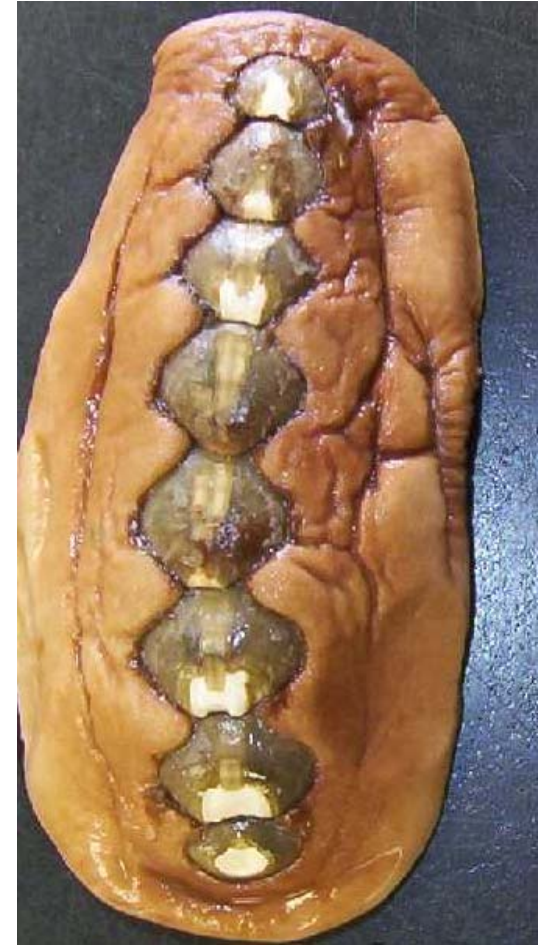
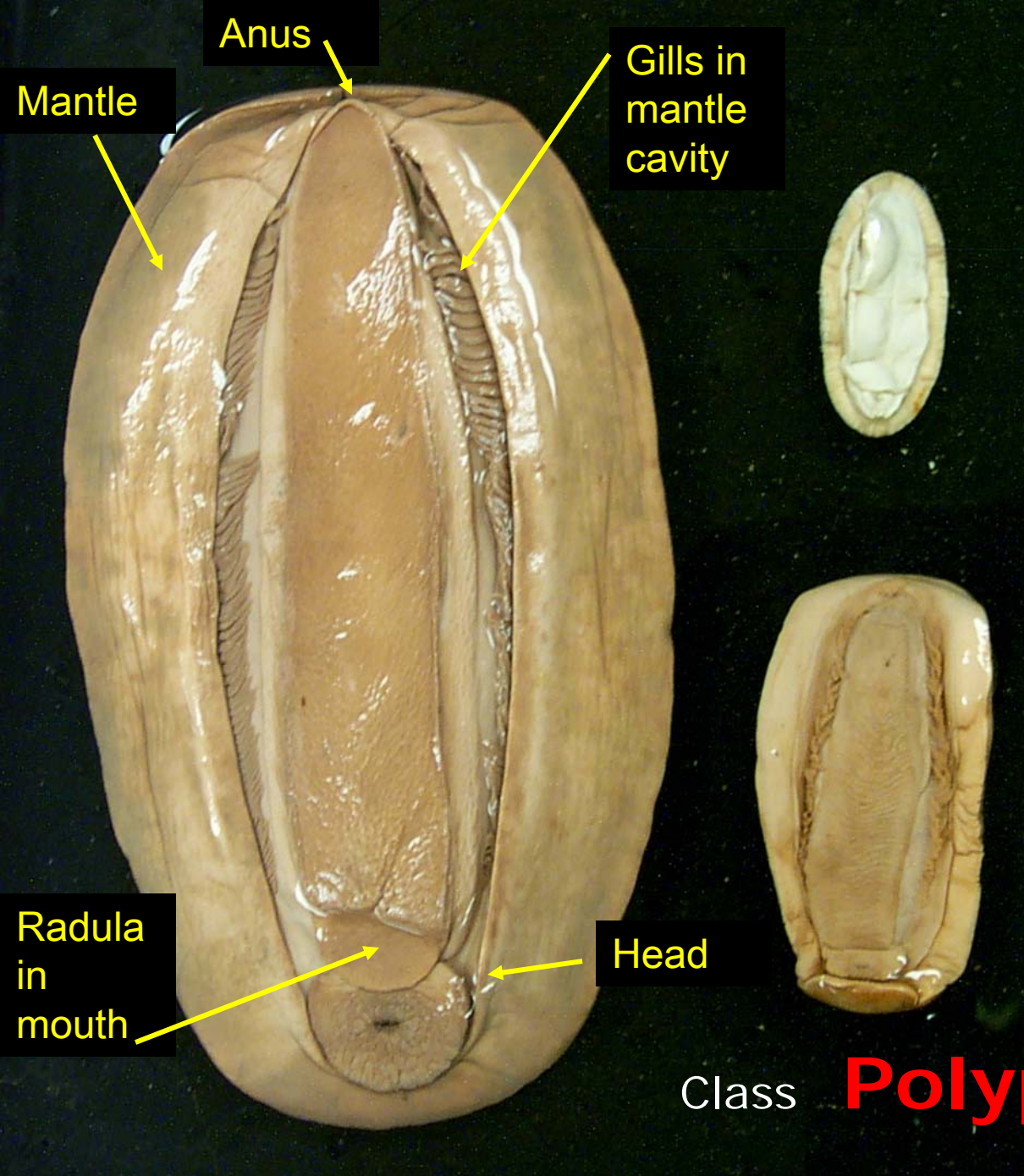


Typical questions for Mollusca

- How many of these specimens possess a radula?
- Which ones are filter feeders?
- Which have undergone torsion? Detorsion?
- Name the main function of the mantle?
- Name a class used for currency
- Which specimens have lungs?
(Just have think of which live on land vs. in water.....)
- Name the oldest part of a univalve shell? Bivalve?

Answers...maybe

- Gastropods, Cephalopoda, Mono-, A- & Polyplacophora
- Bivalvia (Scaphopoda....have a captacula)
- Gastropods Opisthobranchia (sea hares & sea slugs) and the land slugs of the Pulmonata
- Mantle secretes the shell
- Scaphopoda
- Pulmonata – their name gives this away
- Apex for Univalve, Umbo for bivalve but often the terms are used interchangeably



Chitons radula, 8 plates

Class **Polyplacophora**



Class **Cephalopoda** - Octopuses, Squid, Nautilus, Cuttlefish...beak, pen, ink sac, chromatophores, jet propulsion.....dissection.

Subclass **Prosobranchia**

Aquatic – marine.

Apex

Generally having thick pointed shells, spines, & many have opercula.

Gastropoda

WORDS TO KNOW:

snails, conchs, torsion, coiling, radula, operculum & egg sac

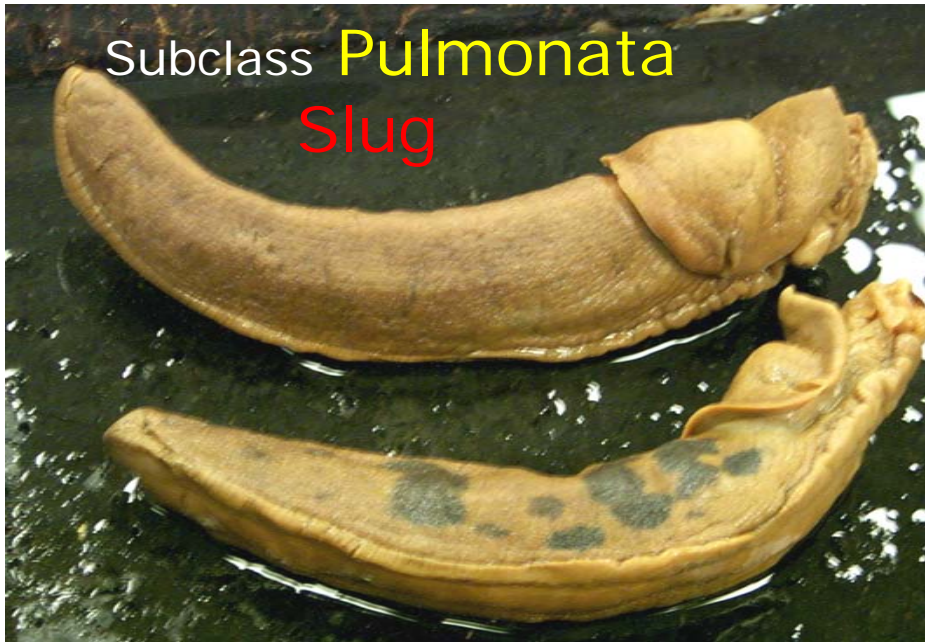


Subclass **Pulmonata**

Aquatic – freshwater.

Shells are thin, rounded, with no spines, ridges or opercula.



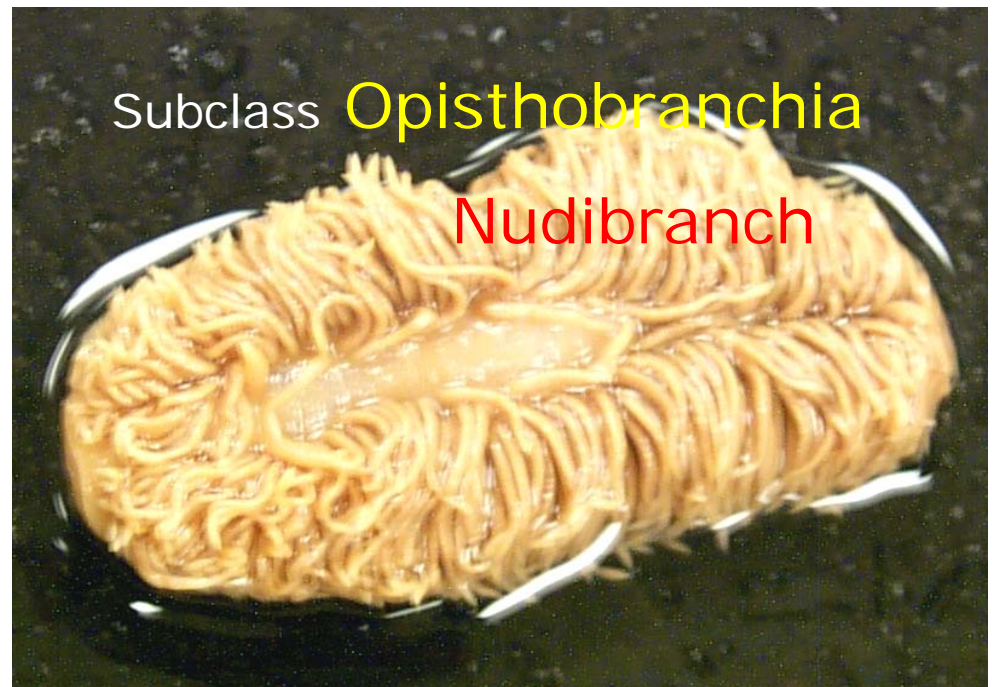


Detorsion...

If something
looks strange,
chances are....

.....it is
something from
Class **Gastropoda**

**(...or your
roommate!)**



Class **Gastropoda**

'**POP**'

Subclass **P**rosobranchia

- Aquatic snails ("shells")
- Have gills

Sinistral

Dextral



Subclass **O**pisthobranchia

- Marine
- Have gills
- Nudibranchs / Sea slugs / Sea hares
- Mantle cavity & shell reduced or absent



Subclass **P**ulmonata

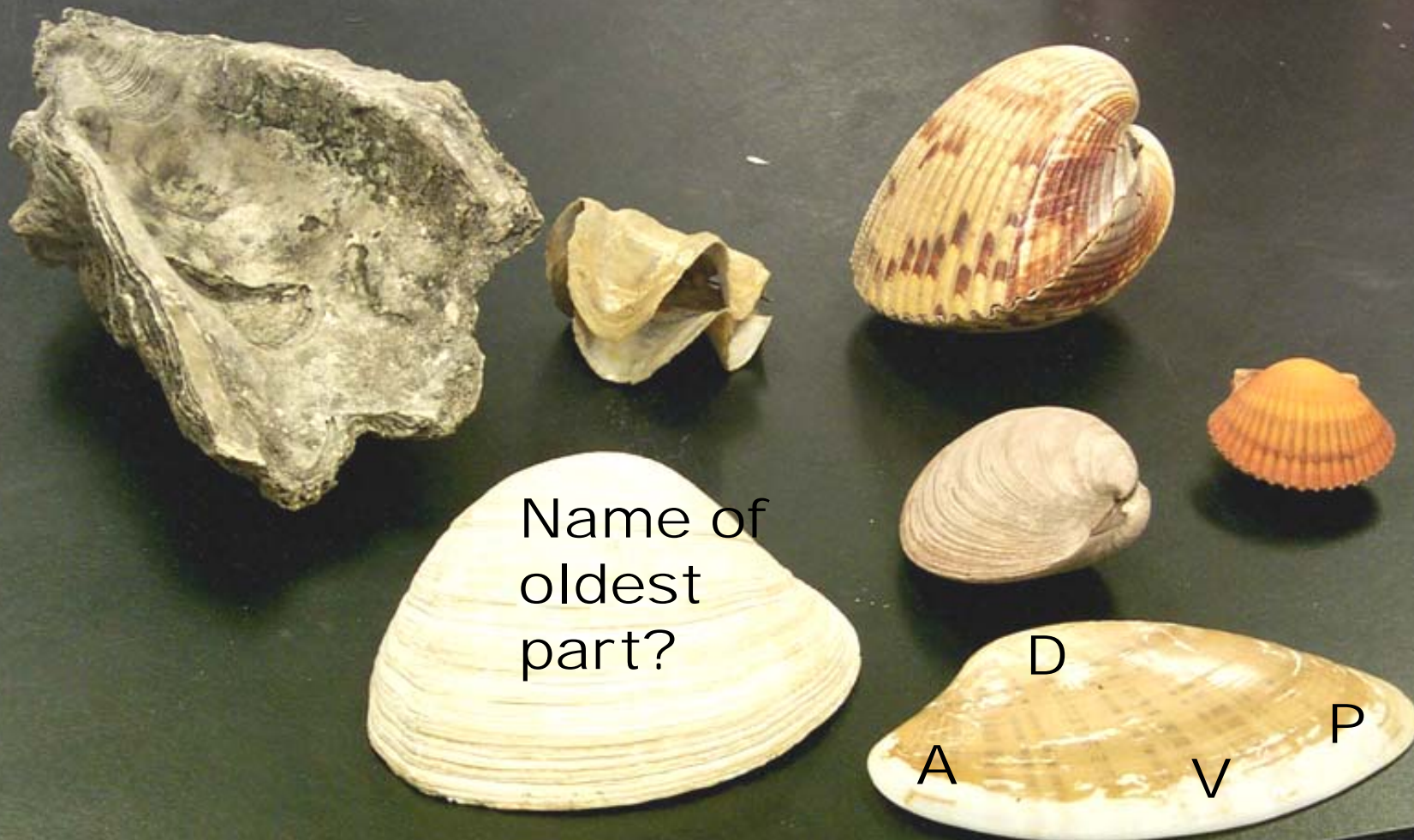
- Terrestrial Slugs and terrestrial snails
- Have lungs



Scaphopoda - “tusk shells”

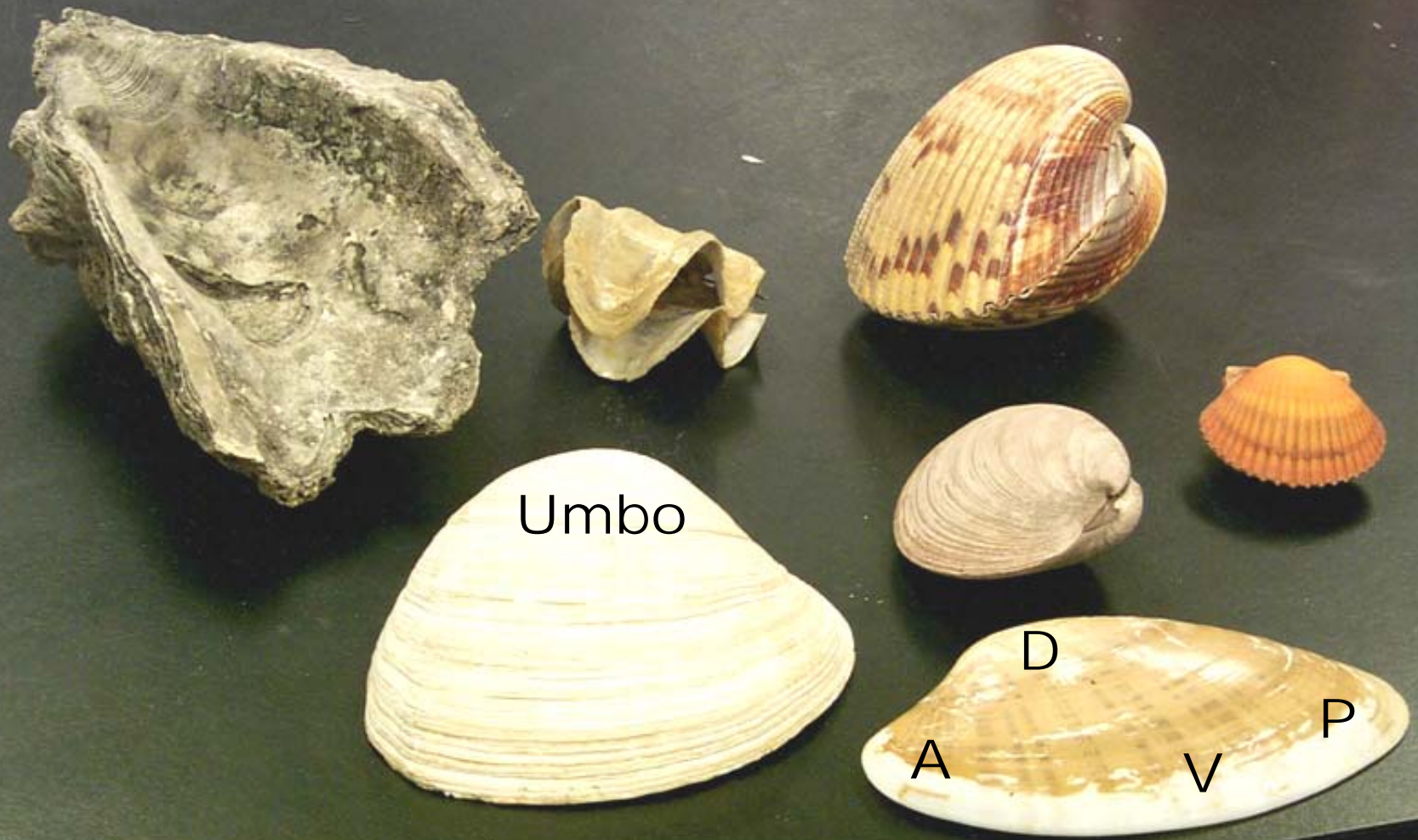


Wampum Indian currency. ‘Head’ in sand.
Respire through mantle (no gills.) Captacula for feeding on (capturing) foraminiferans

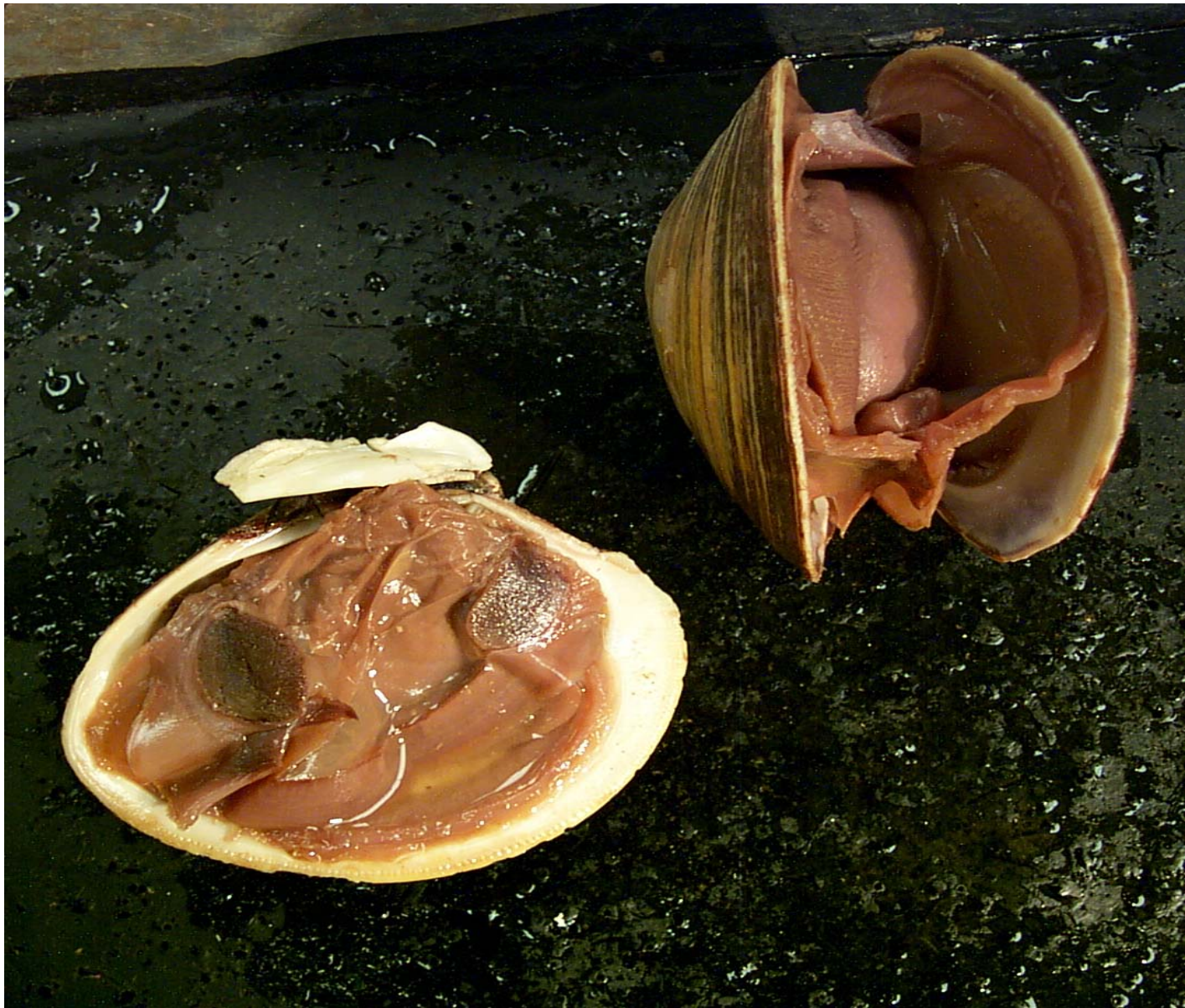


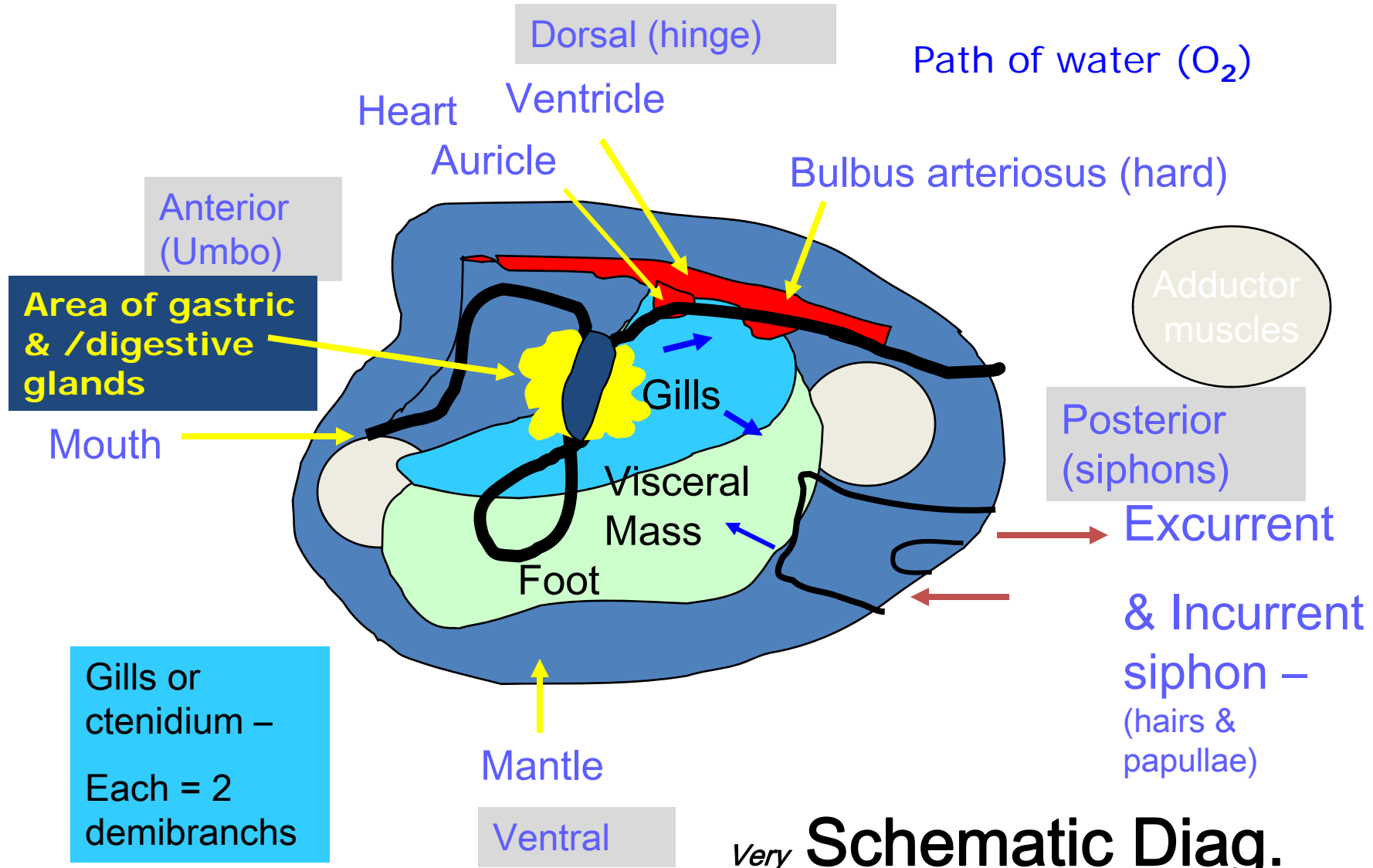
Name of
oldest
part?

Bivalvia or **Pelecypoda** - clams, scallops etc.
filter feeders, bivalved shells..... dissection



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Very **Schematic Diag.**
- Clam Dissection

Quiz Mollusca

- Which class has an incomplete digestive system?
 - Ophiuroidea (Brittle stars & basket stars lack an anus)
- How many classes possess a radula?
 - 3 of the 5 classes (Cephalopoda, Polyplacophora & Gastropoda)
- How many are filter feeders?
 - 1 of the 5 classes (Bivalvia)
- What feeding structure do Scaphopoda use?
 - A/ pedicellaria B/captacula or C/Aristotle's Lantern?
 - B - to catch foraminifera