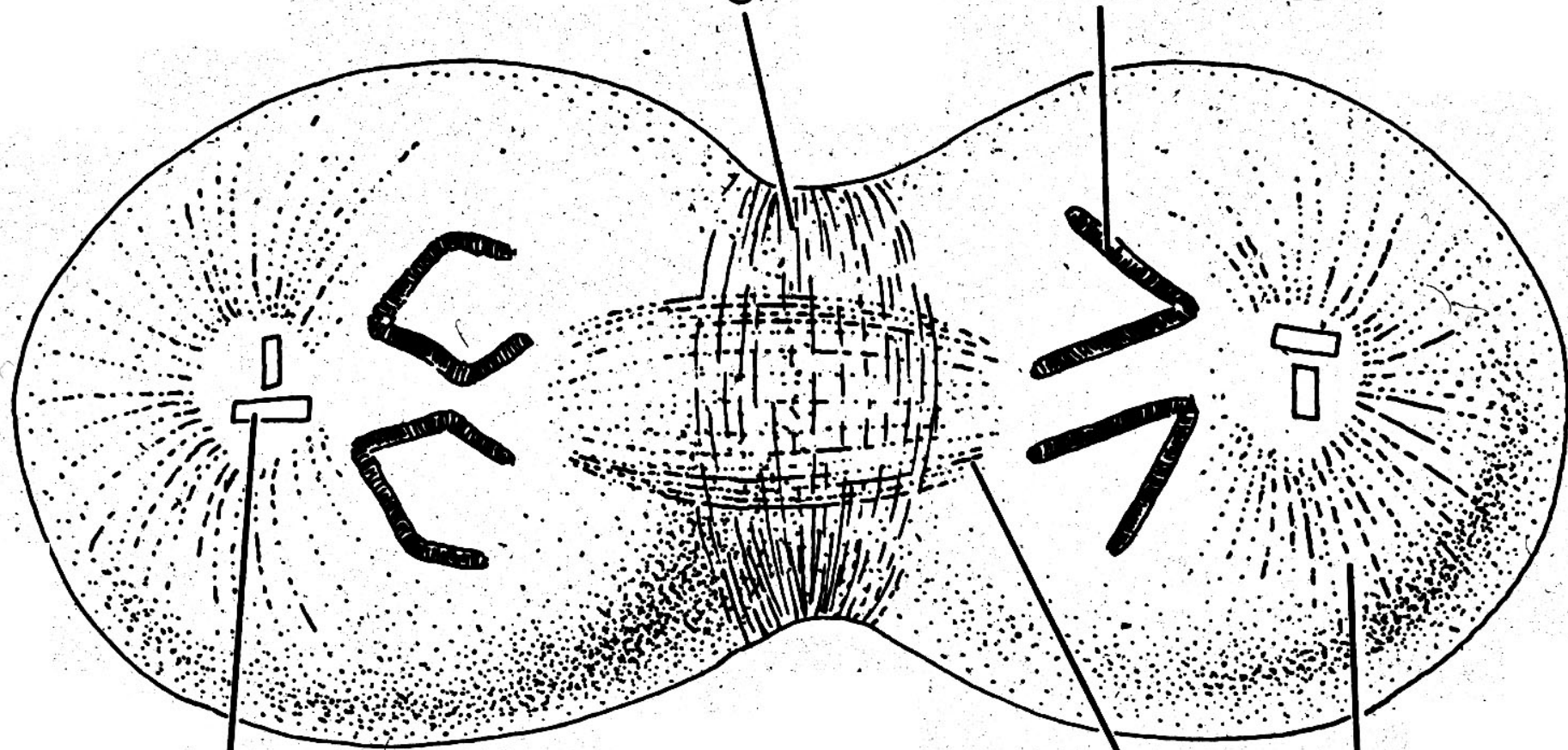


**Microfilaments
(contractile ring)**

Chromosomes

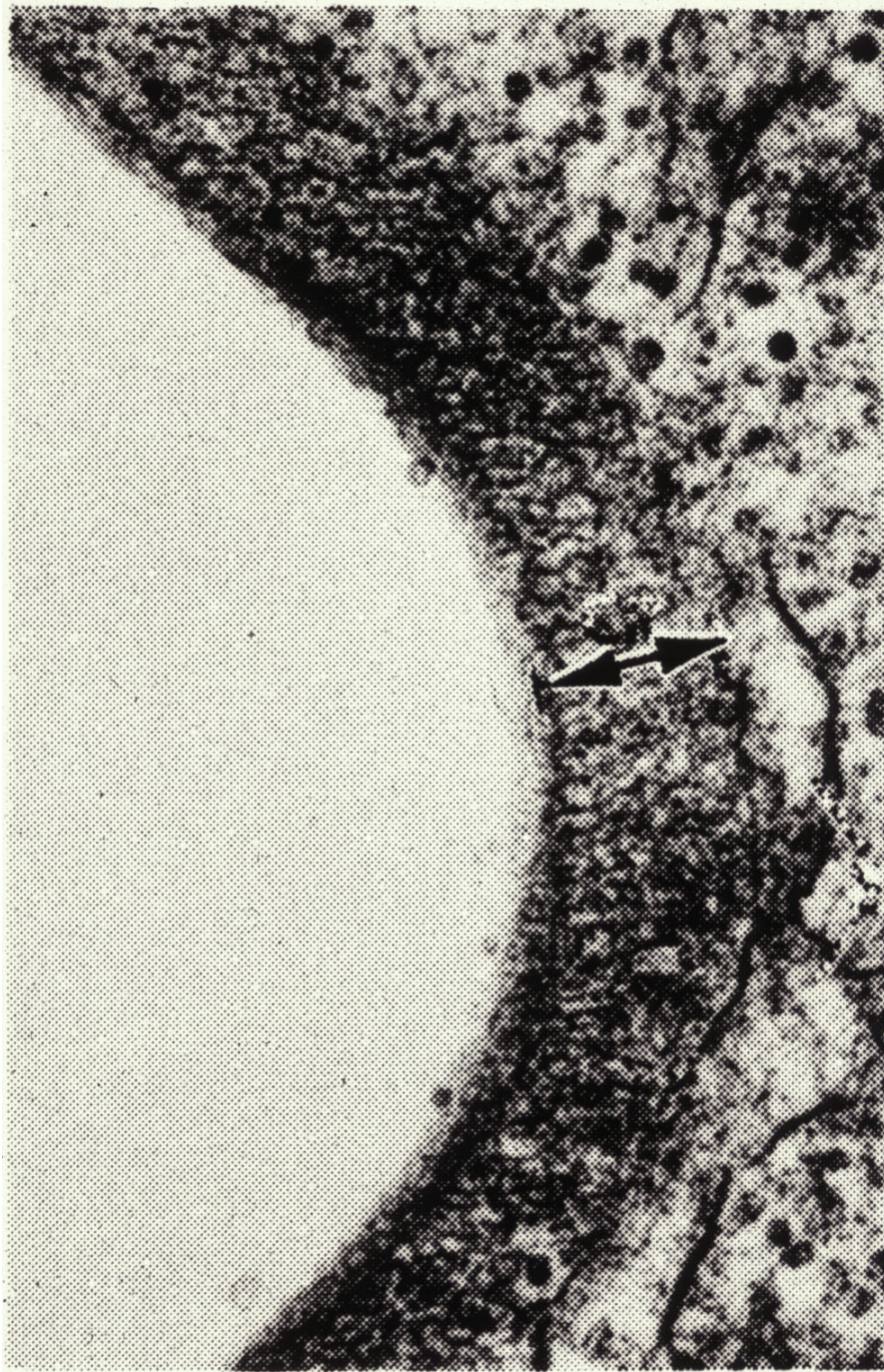


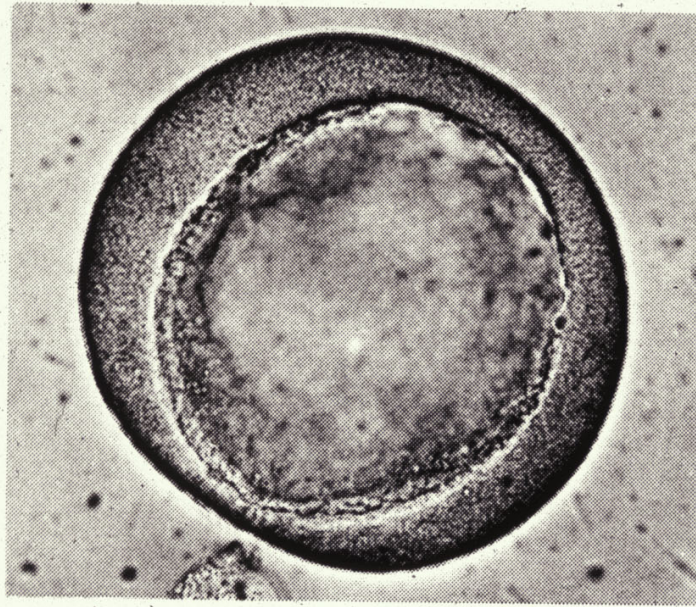
Centrioles

Microtubules

Karyokinesis and cytokinesis

<i>Process</i>	<i>Mechanical agent</i>	<i>Major protein composition</i>	<i>Location</i>	<i>Major disruptive drug</i>
Karyokinesis	Mitotic spindle	Tubulin microtubules	Central cytoplasm	Colchicine
Cytokinesis	Contractile ring	Actin microfilaments	Cortical cytoplasm	Cytochalasin B

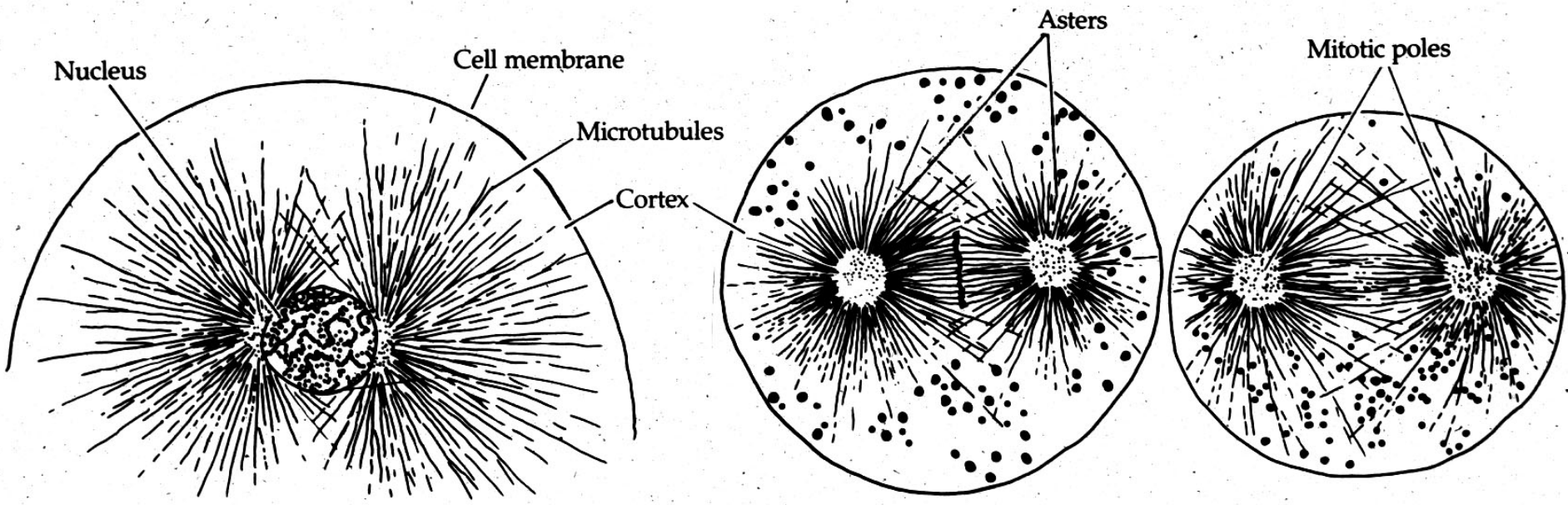




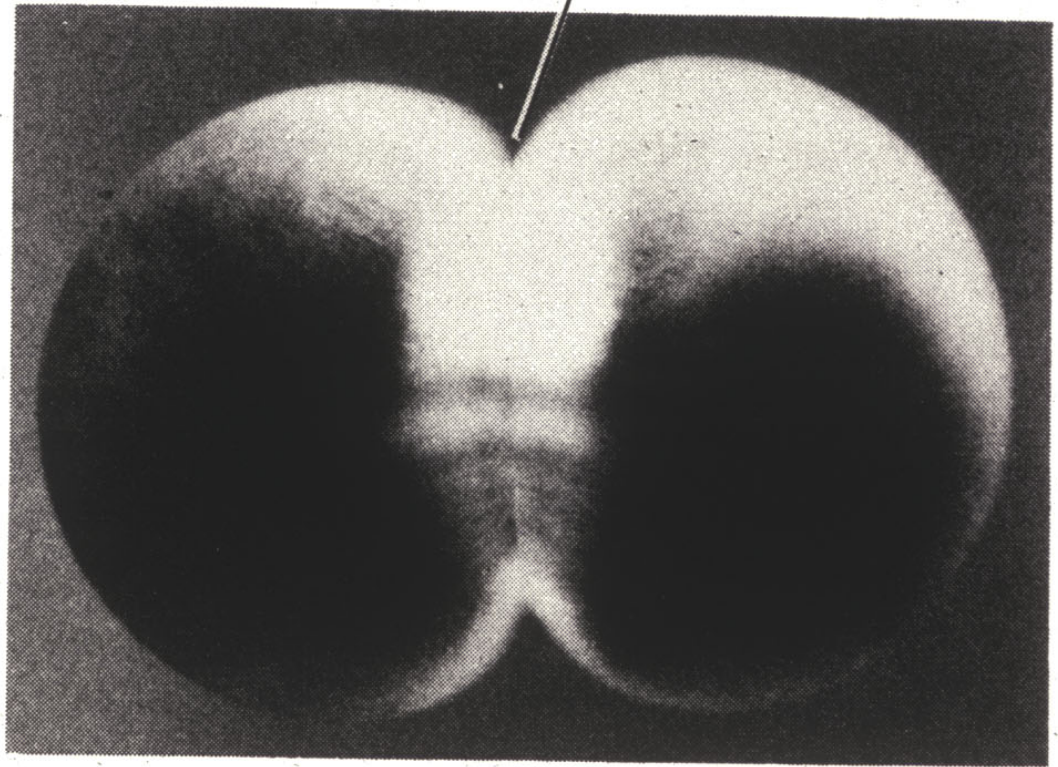
(A)

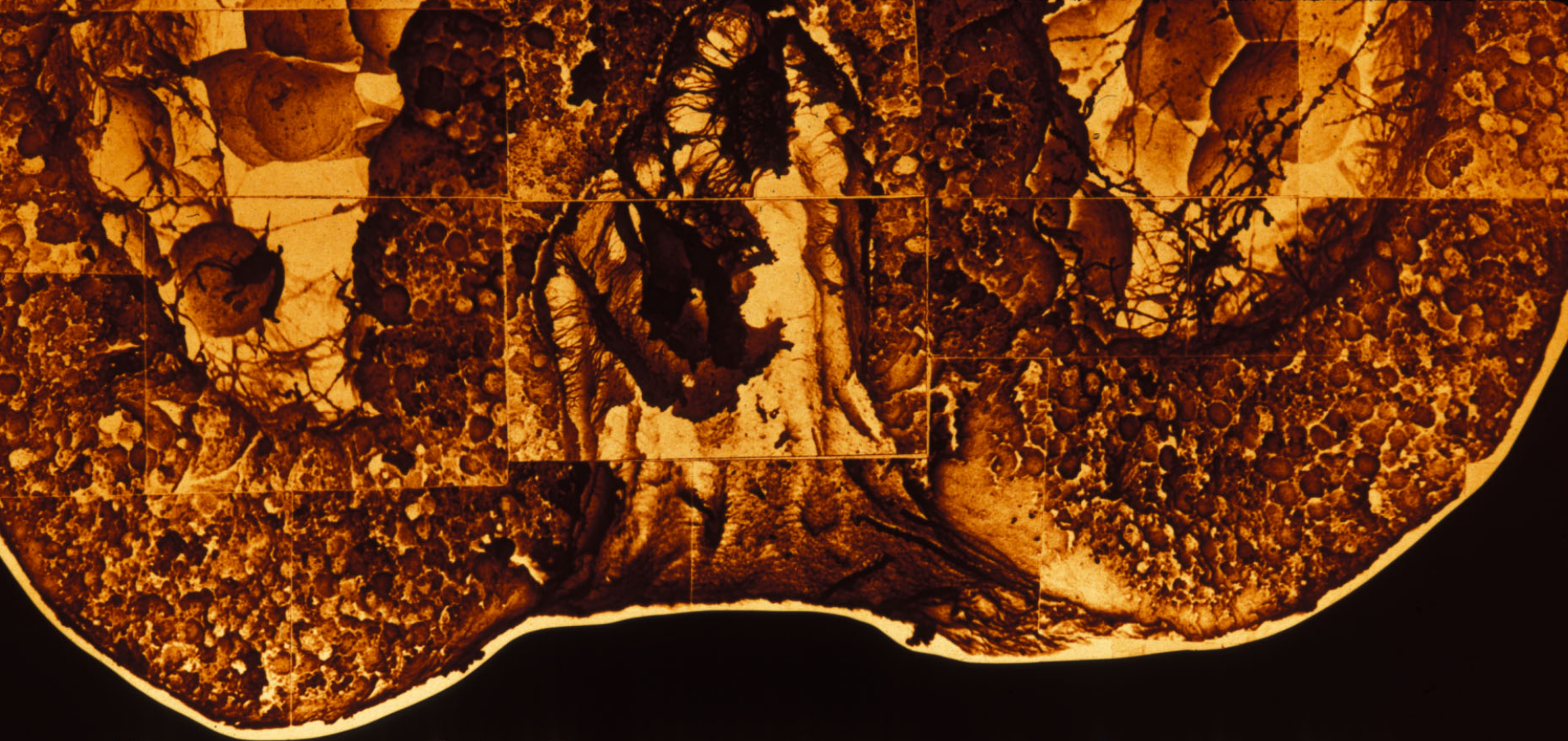


(B)



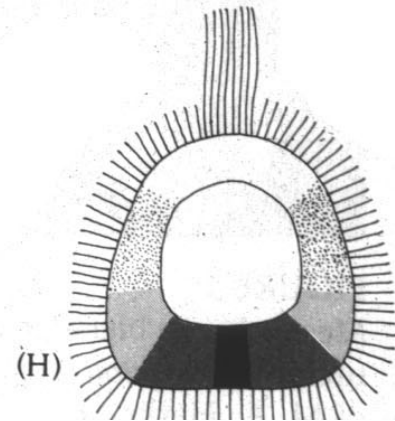
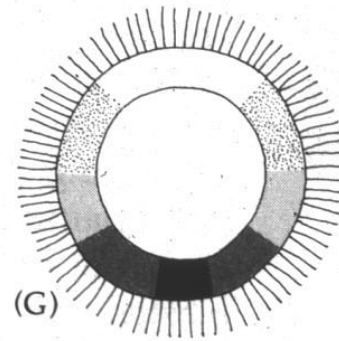
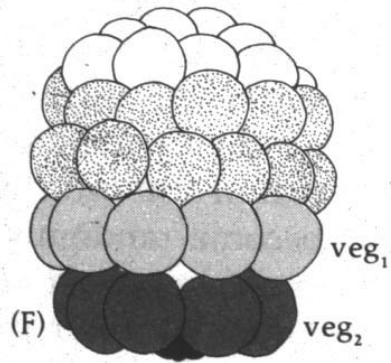
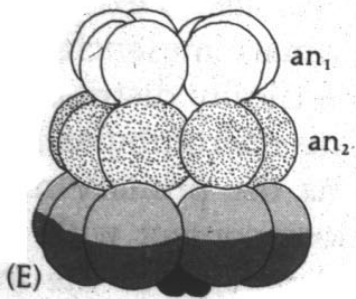
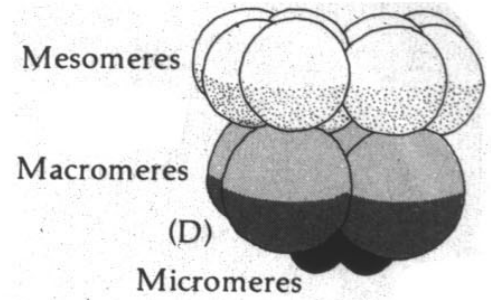
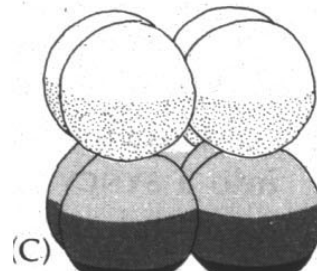
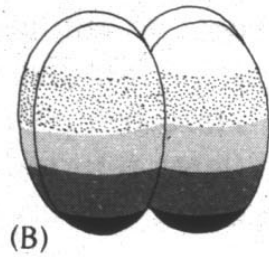
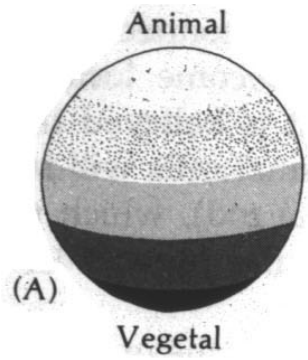
New-unpigmented membrane

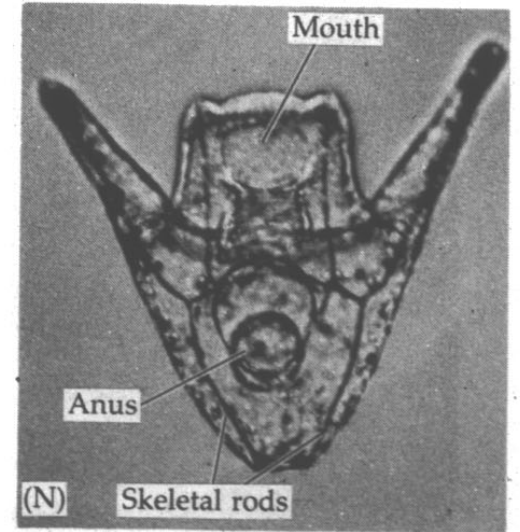
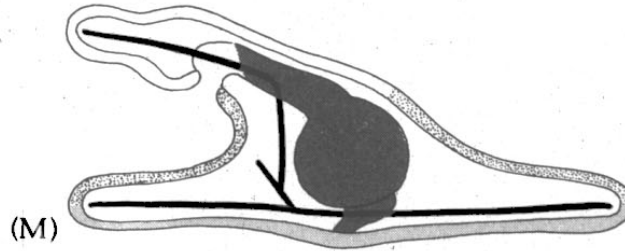
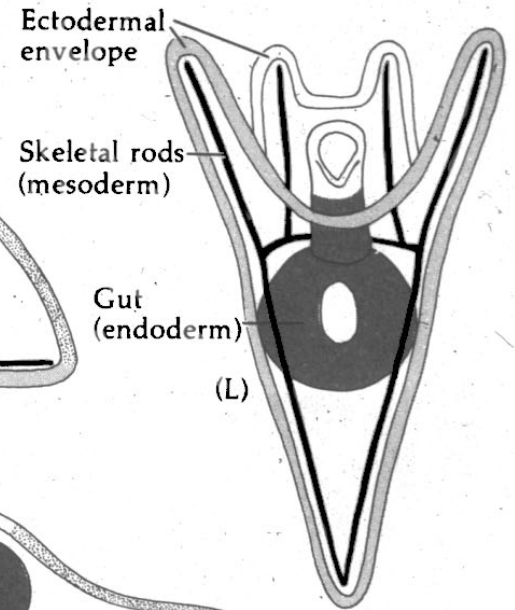
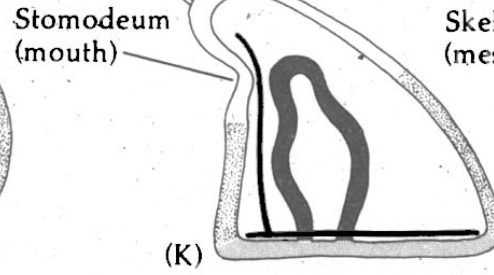
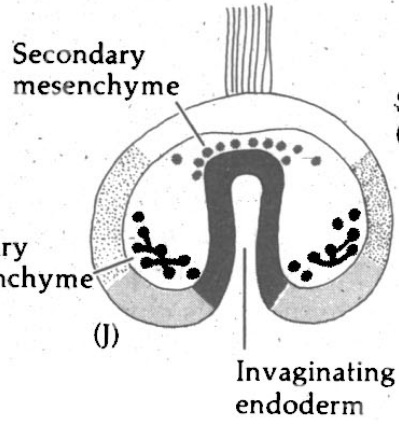
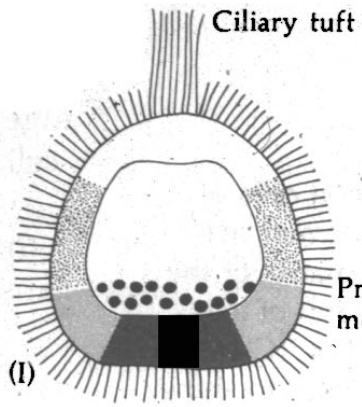




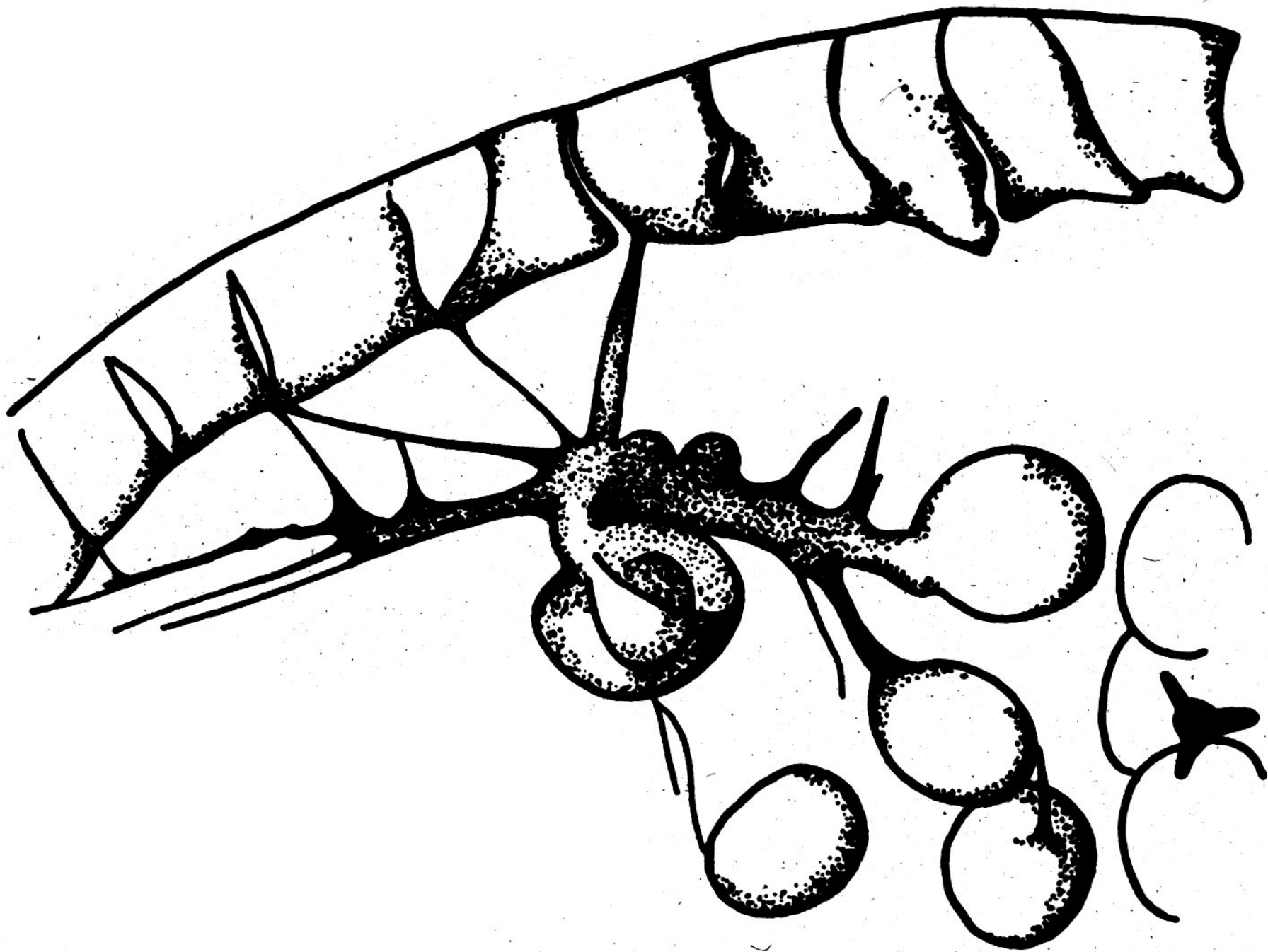
“It is not birth, marriage, or death, but gastrulation which is truly the most important time in your life.”

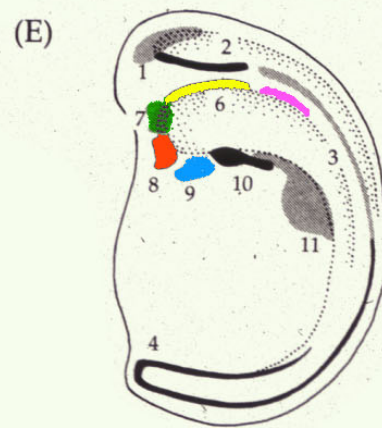
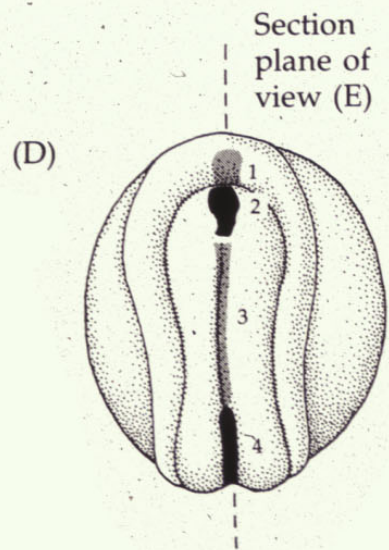
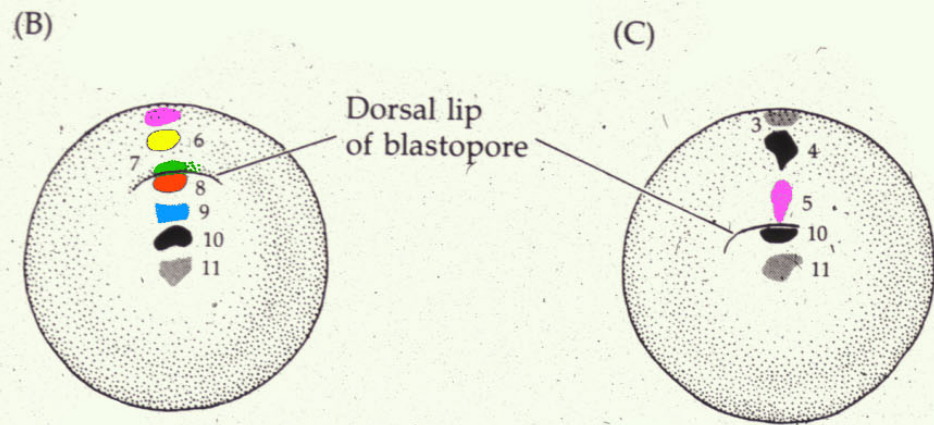
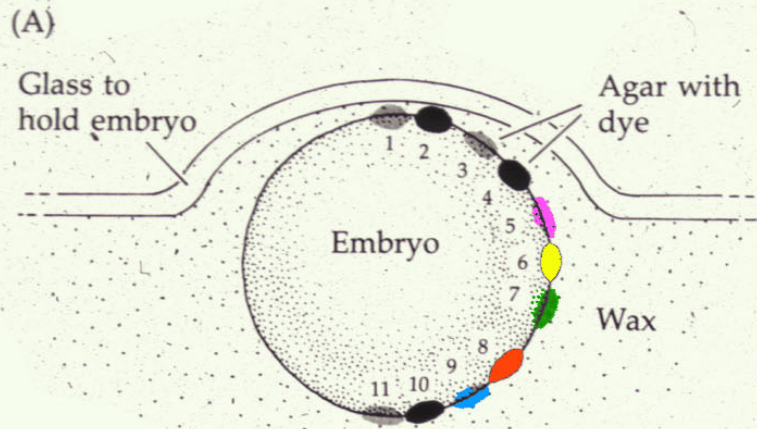
Lewis Wolpert

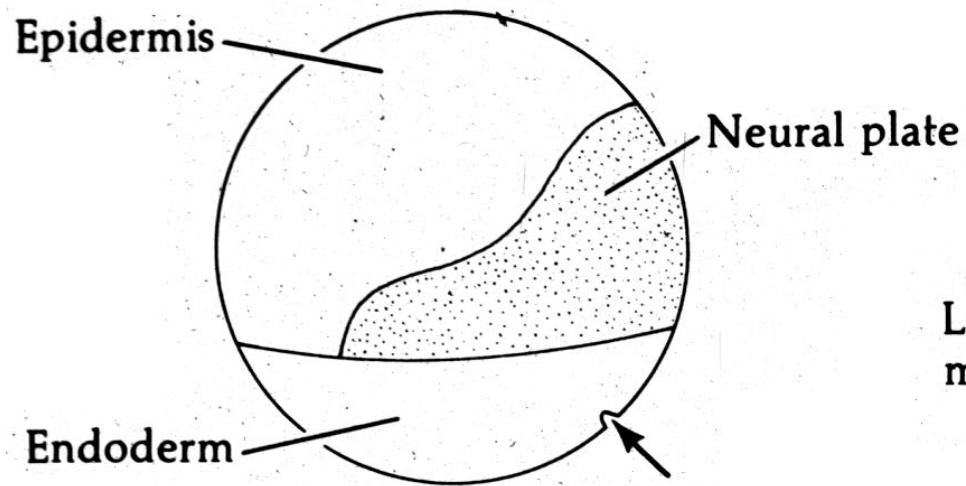




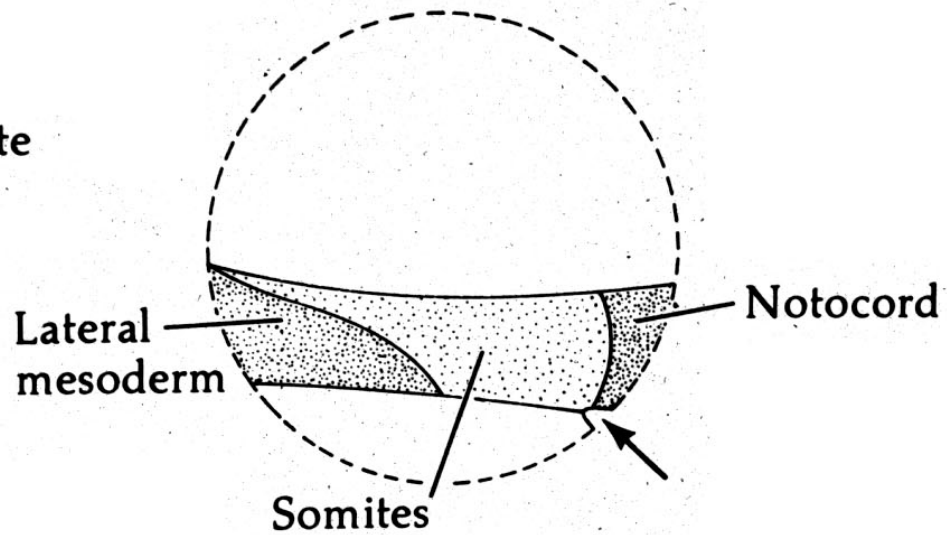






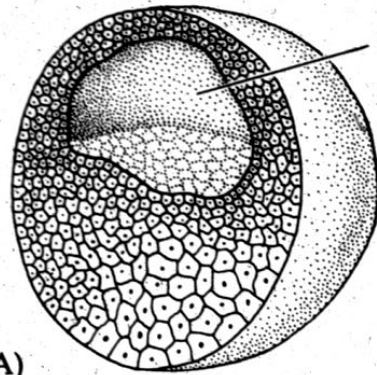


(A) EXTERIOR



(B) INTERIOR

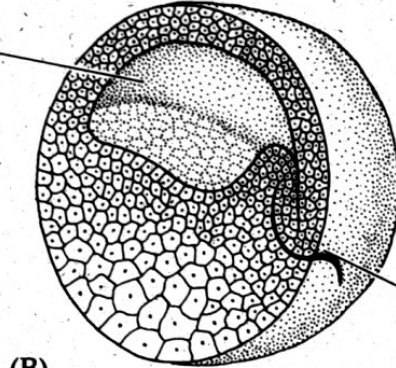
Animal hemisphere



(A)

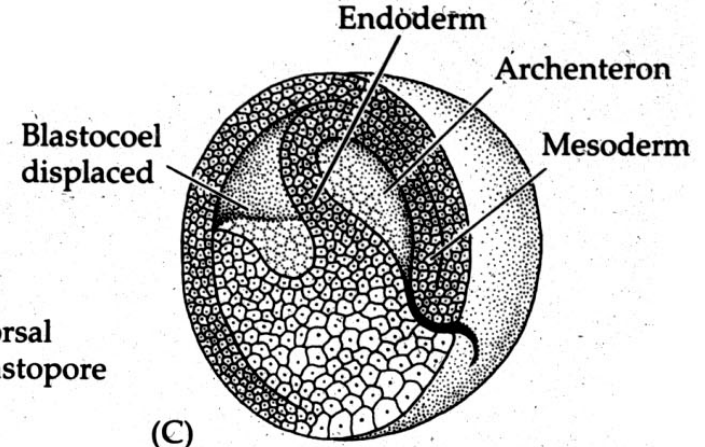
Vegetal hemisphere

Blastocoel



(B)

Dorsal blastopore lip



(C)

Endoderm

Archenteron

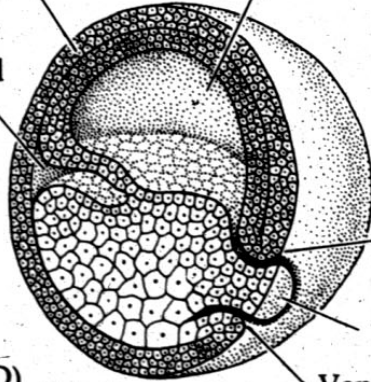
Mesoderm

Blastocoel displaced

Ectoderm

Archenteron

Blastocoel



(D)

Dorsal blastopore lip

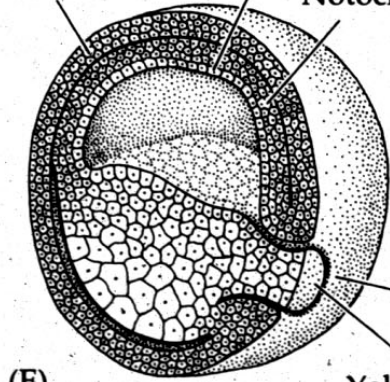
Yolk plug

Ventral blastopore lip

Ectoderm

Endoderm

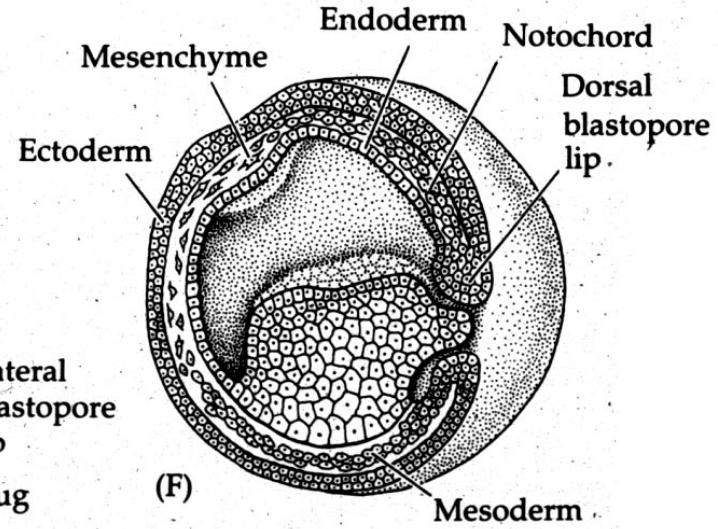
Notochord



(E)

Lateral blastopore lip

Yolk plug



(F)

Endoderm

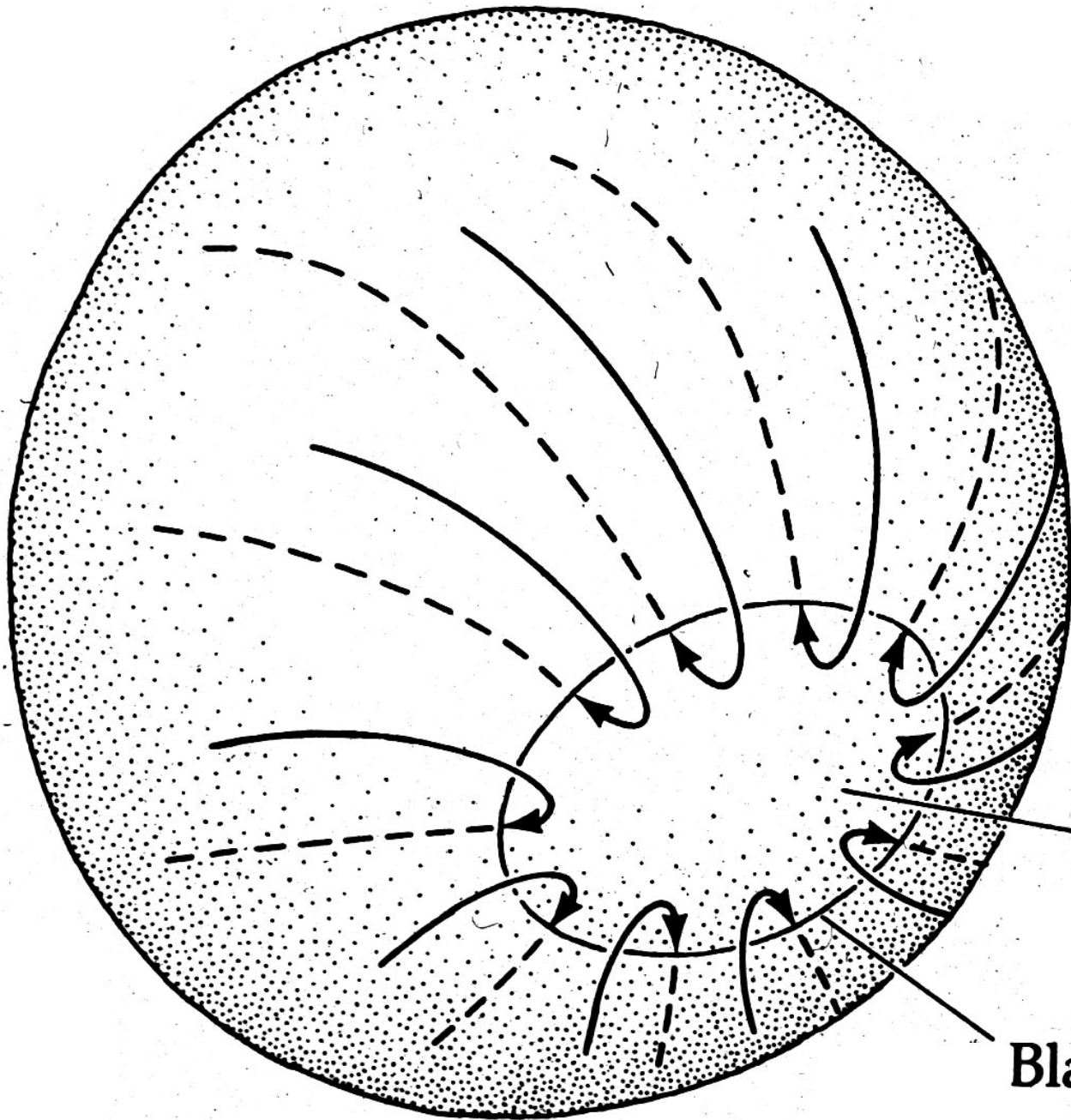
Notochord

Dorsal blastopore lip

Mesenchyme

Ectoderm

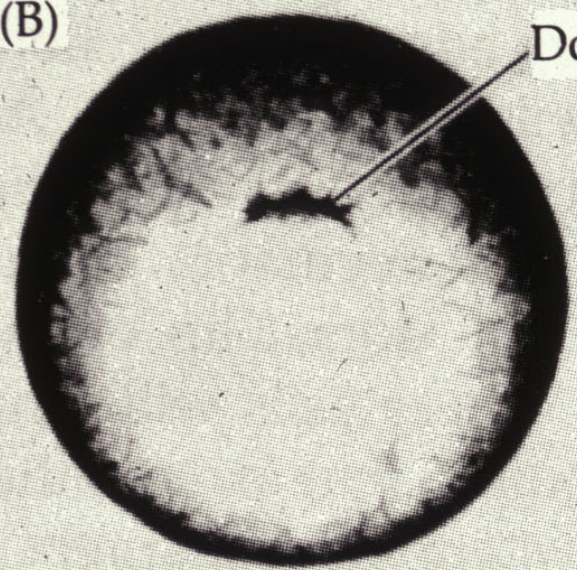
Mesoderm



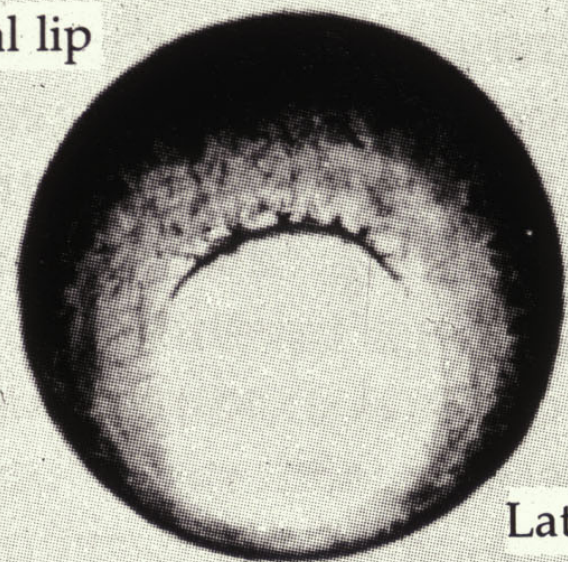
Yolk plug

Blastopore lip

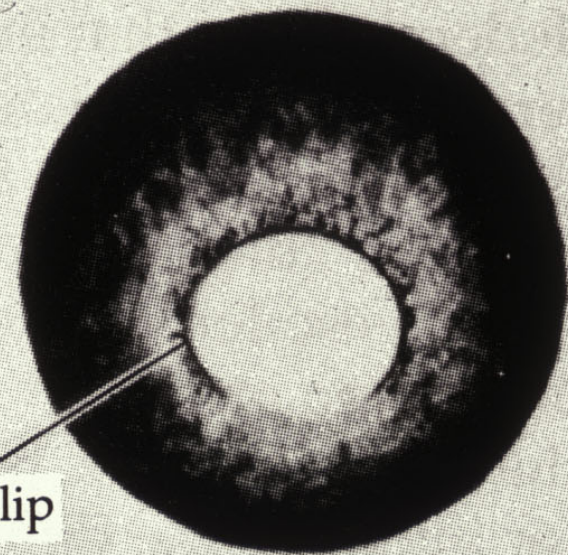
(B)



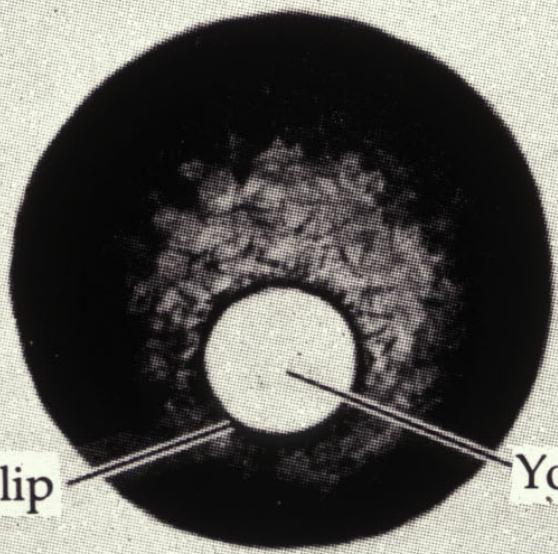
Dorsal lip



Lateral lip

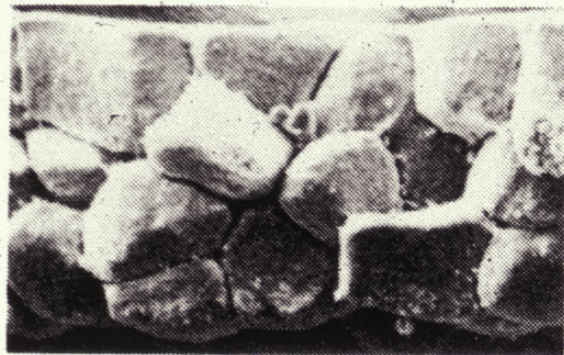


Ventral lip



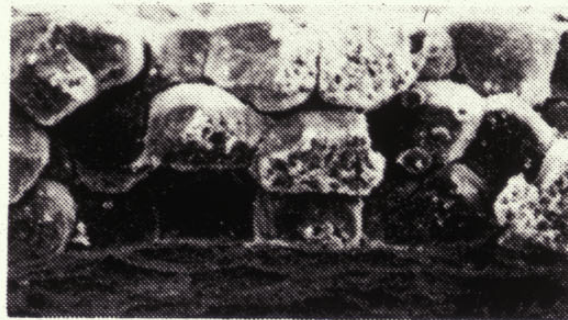
Yolk plug





8

Stage

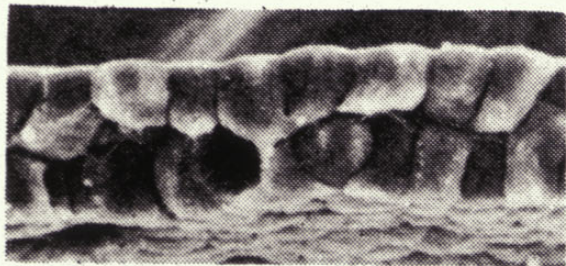


9

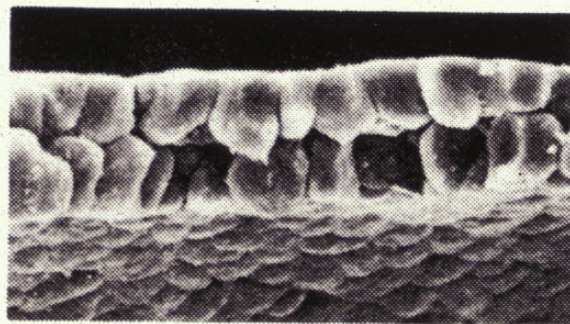


10

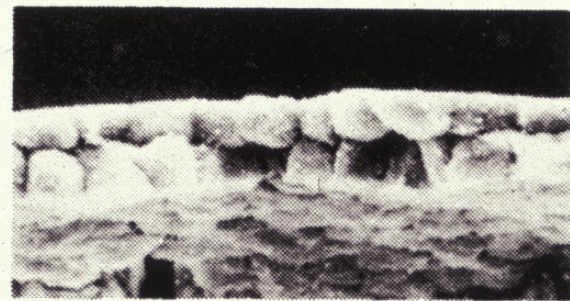
10.5

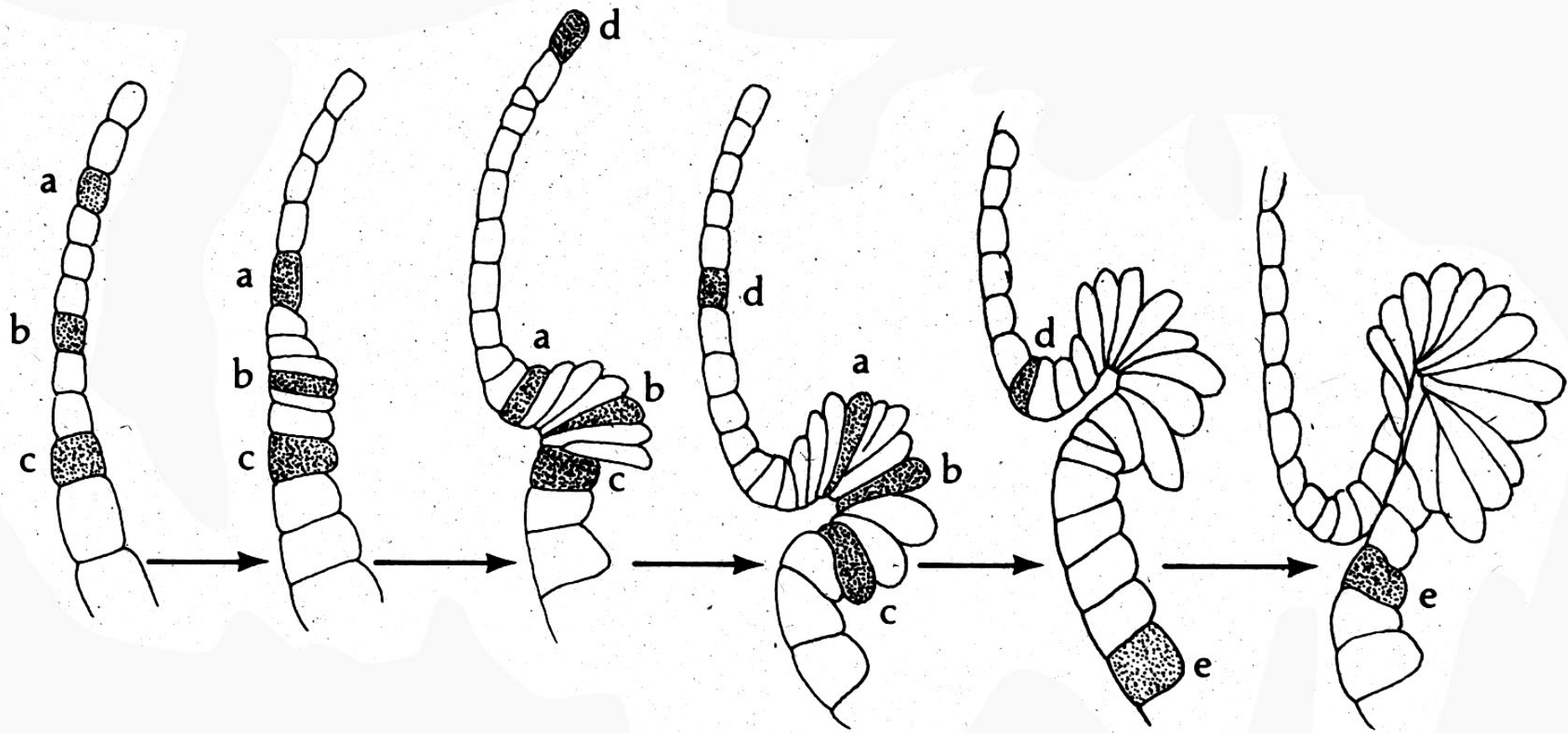


11

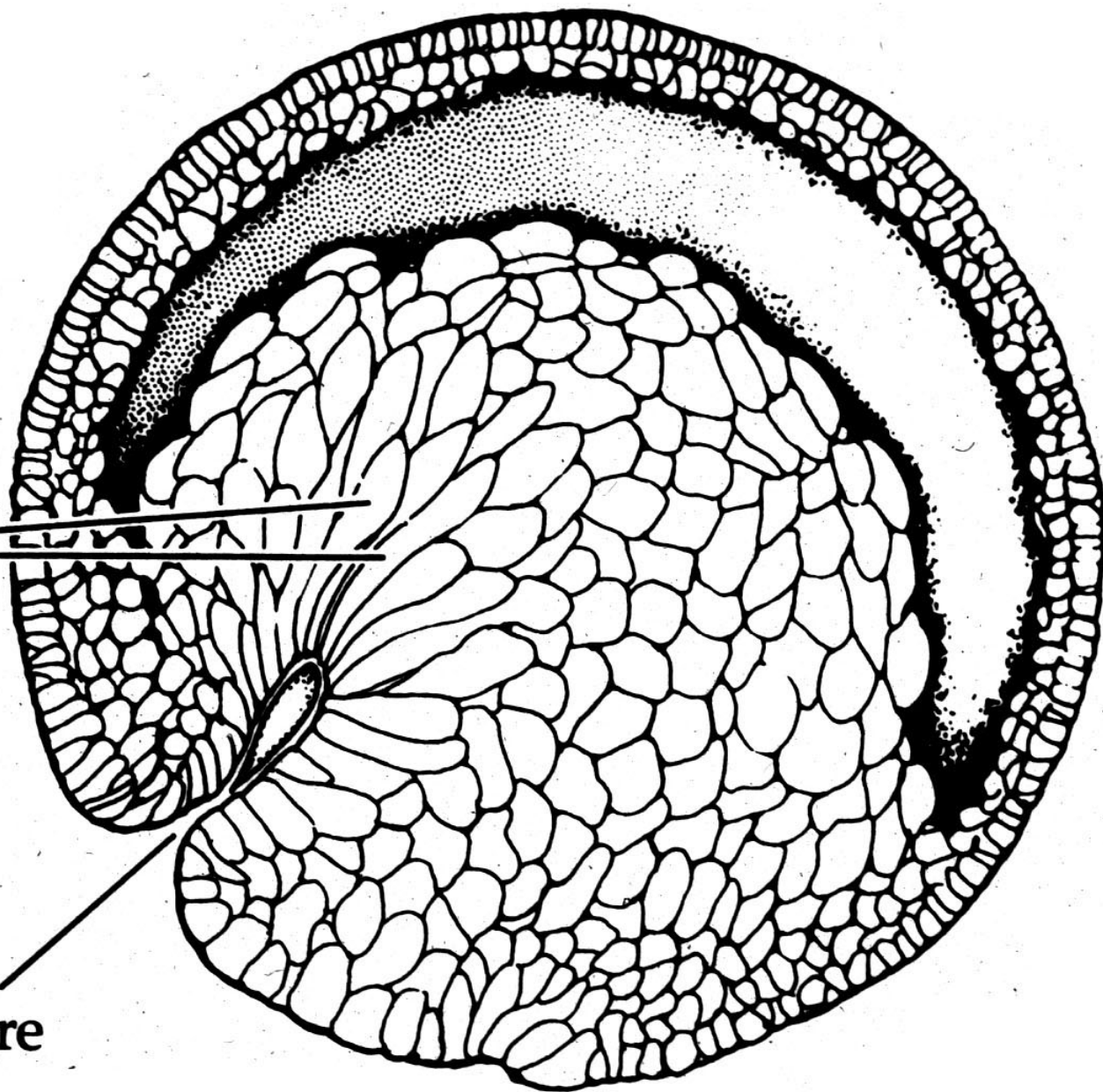


11.5

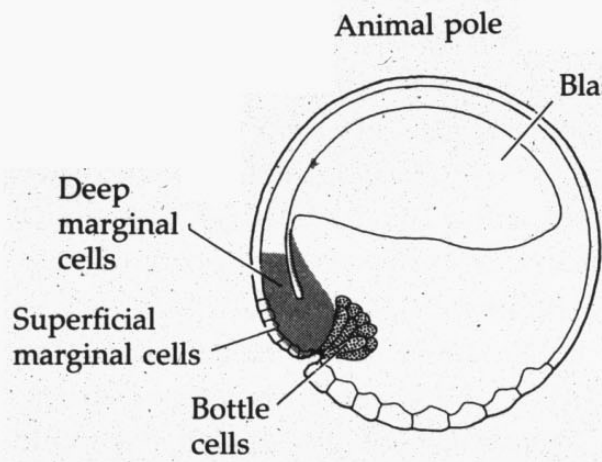




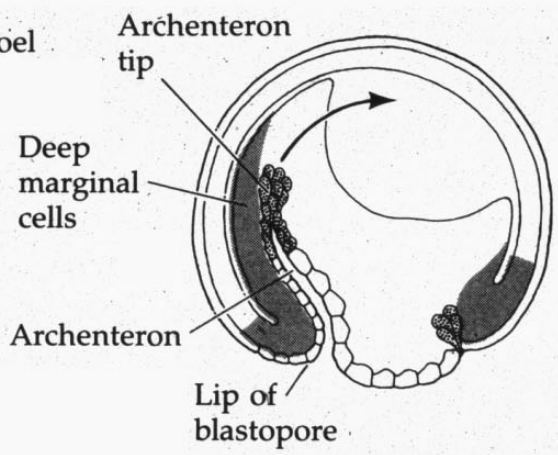
Bottle
cells



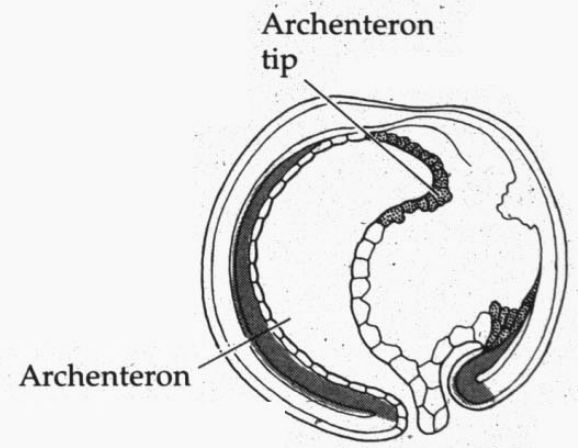
Blastopore



EARLY GASTRULA



MIDDLE GASTRULA



LATE GASTRULA