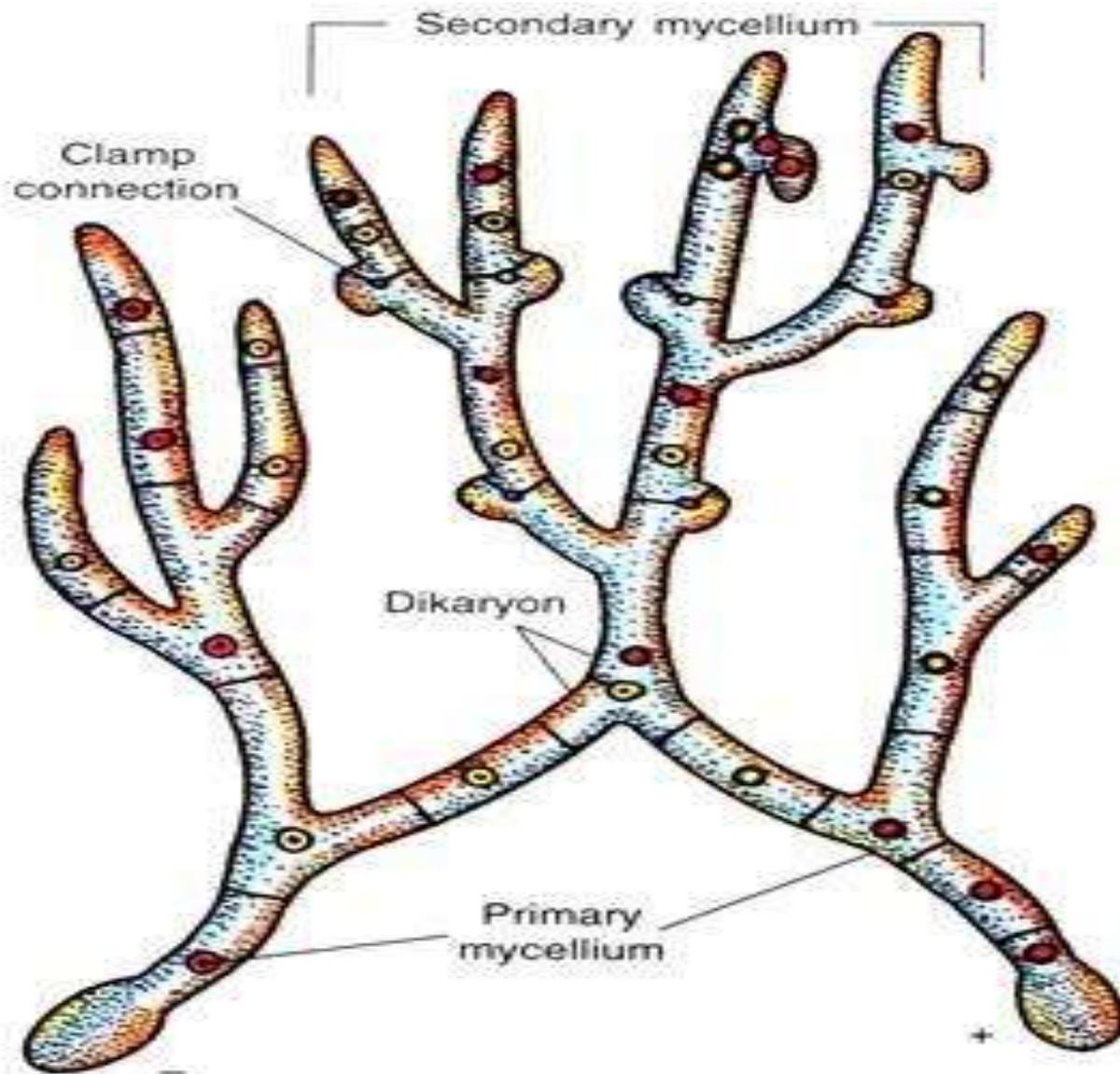




Agaricus

Mycelium

- The primary mycelium produced by the germination of basidiospore is of short duration. It is haploid and either of plus strain or minus strain. The hyphae are septate. The cells contain oil globules, vacuoles and are short and uninucleate.
 - Soon as a result of hyphal fusions the primary mycelium becomes binucleate usually without clamp connections rarely with clamp connections. The mycelium with binucleate cells is called secondary or dikaryotic mycelium. It is long-lived and abundant. It produces mushrooms year after year. The secondary mycelium forms a branching network of hyaline hyphae.
- The hyphae are long, branched and short celled.

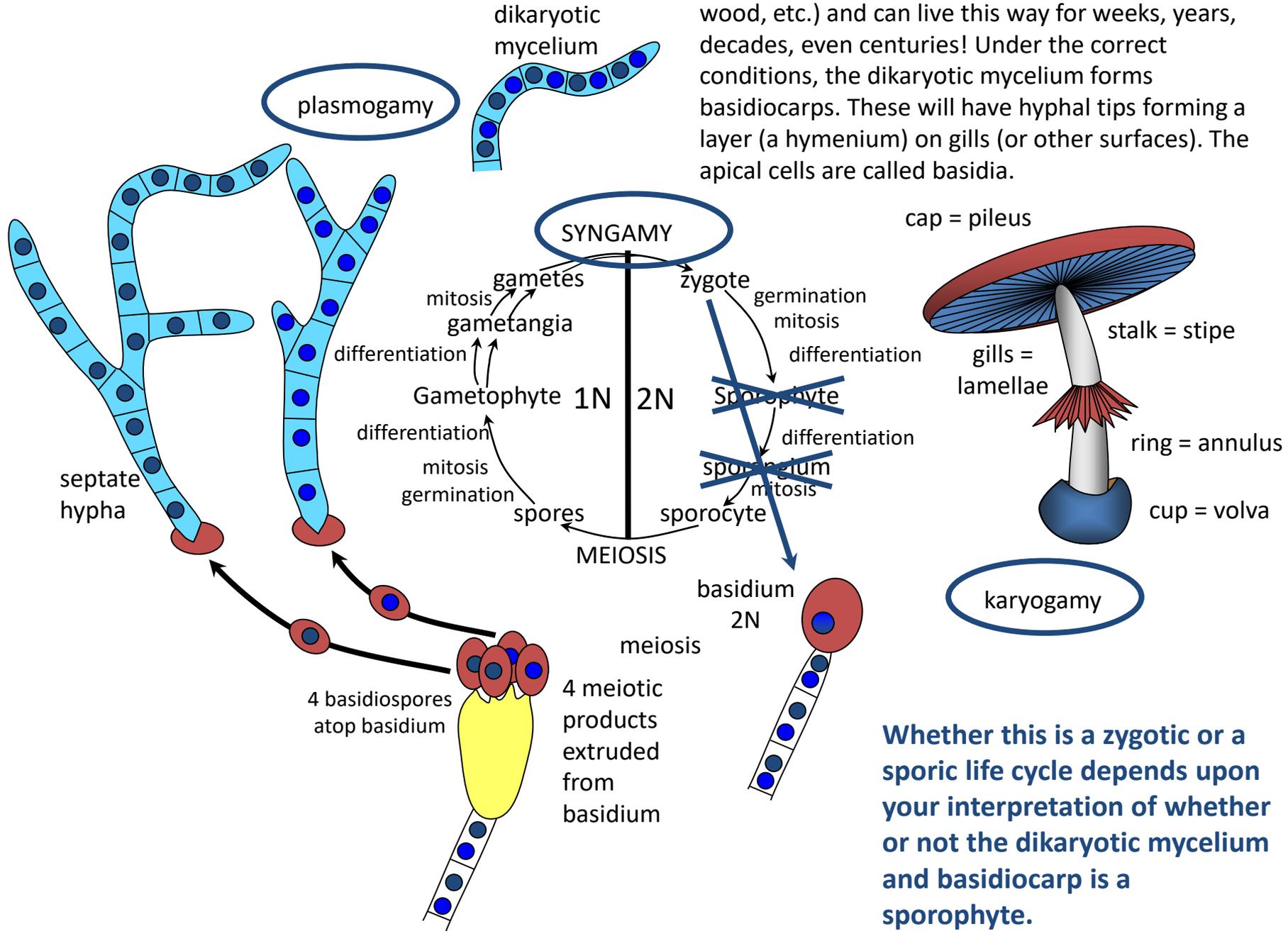


Sexual Reproduction:

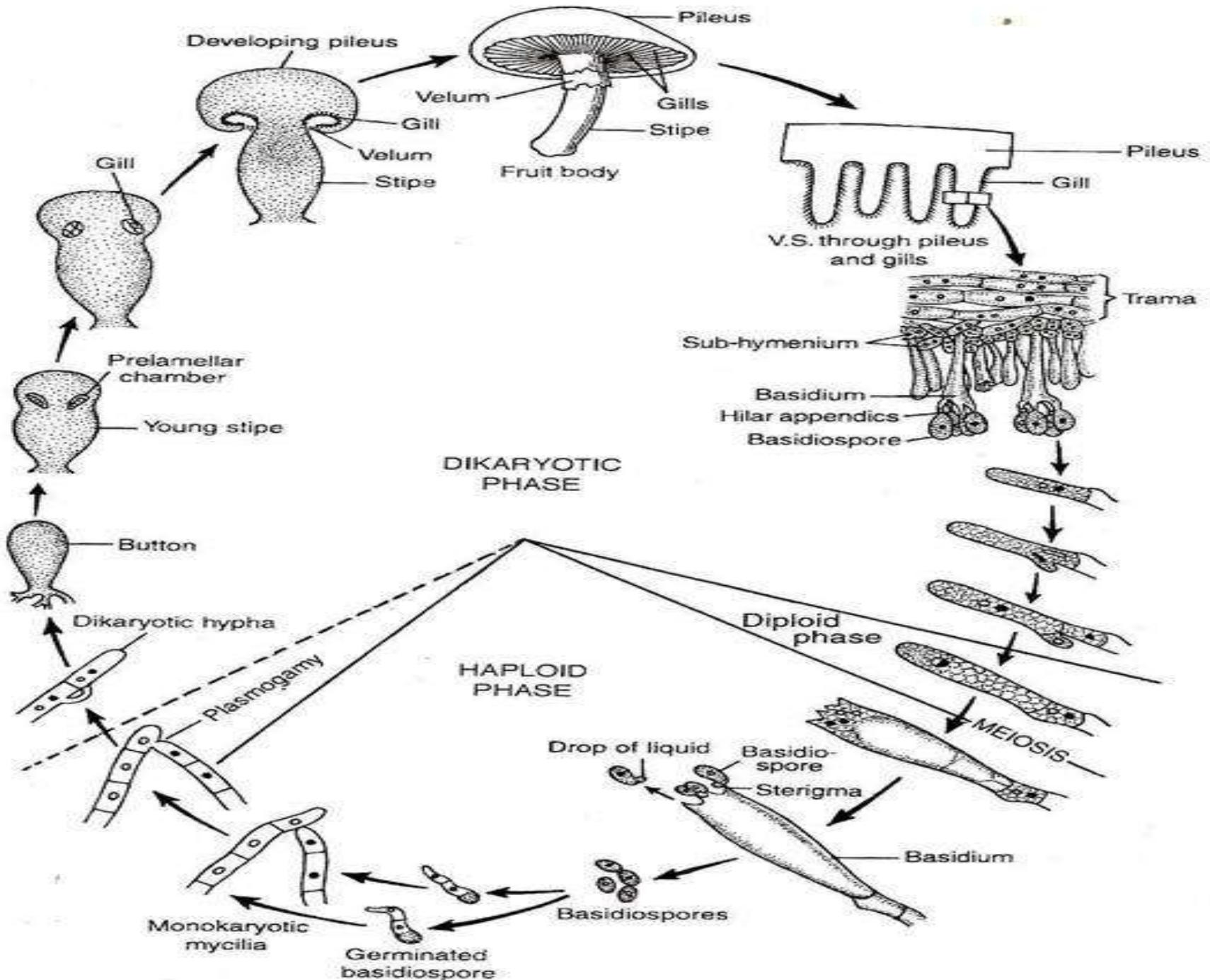
The sexual apparatus in the form of sex organs is completely lacking. Their function has been taken over by the somatic hyphae which are heterothallic. The fusion between two somatic hyphae of plus and minus strains represents the first phase.

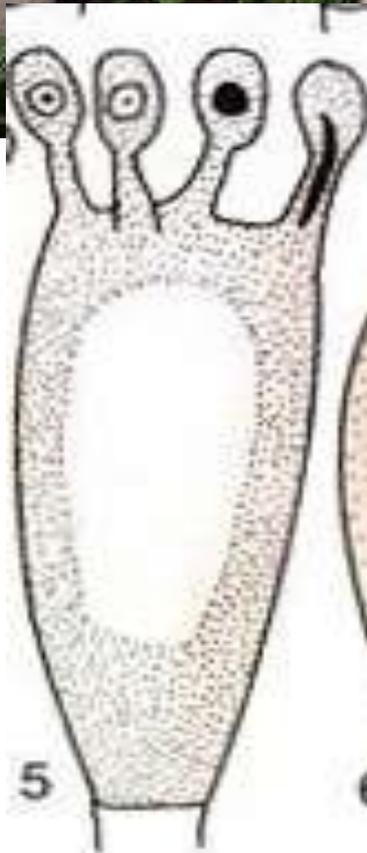
Life Cycle of *Agaricus*

This dikaryotic mycelium is composed of septate hyphae. It proliferates in the substrate (soil, rotting wood, etc.) and can live this way for weeks, years, decades, even centuries! Under the correct conditions, the dikaryotic mycelium forms basidiocarps. These will have hyphal tips forming a layer (a hymenium) on gills (or other surfaces). The apical cells are called basidia.



Whether this is a zygotic or a sporic life cycle depends upon your interpretation of whether or not the dikaryotic mycelium and basidiocarp is a sporophyte.



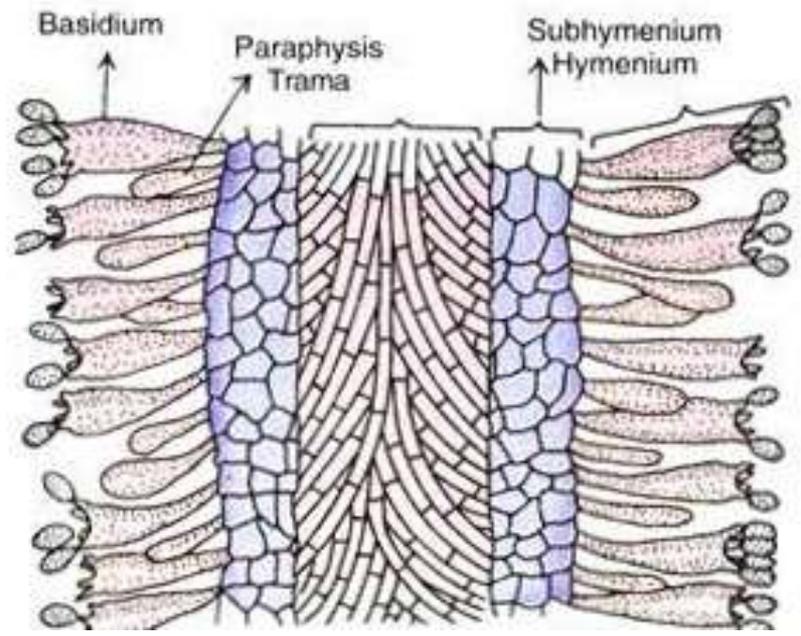
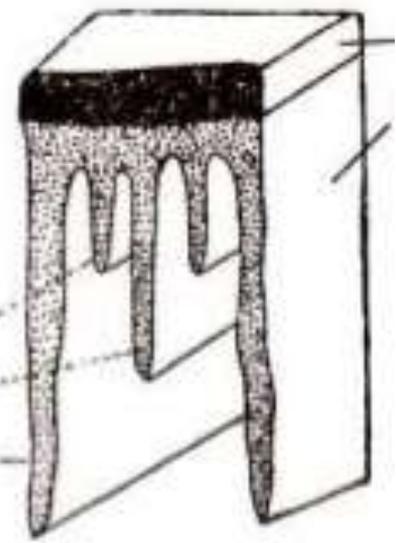


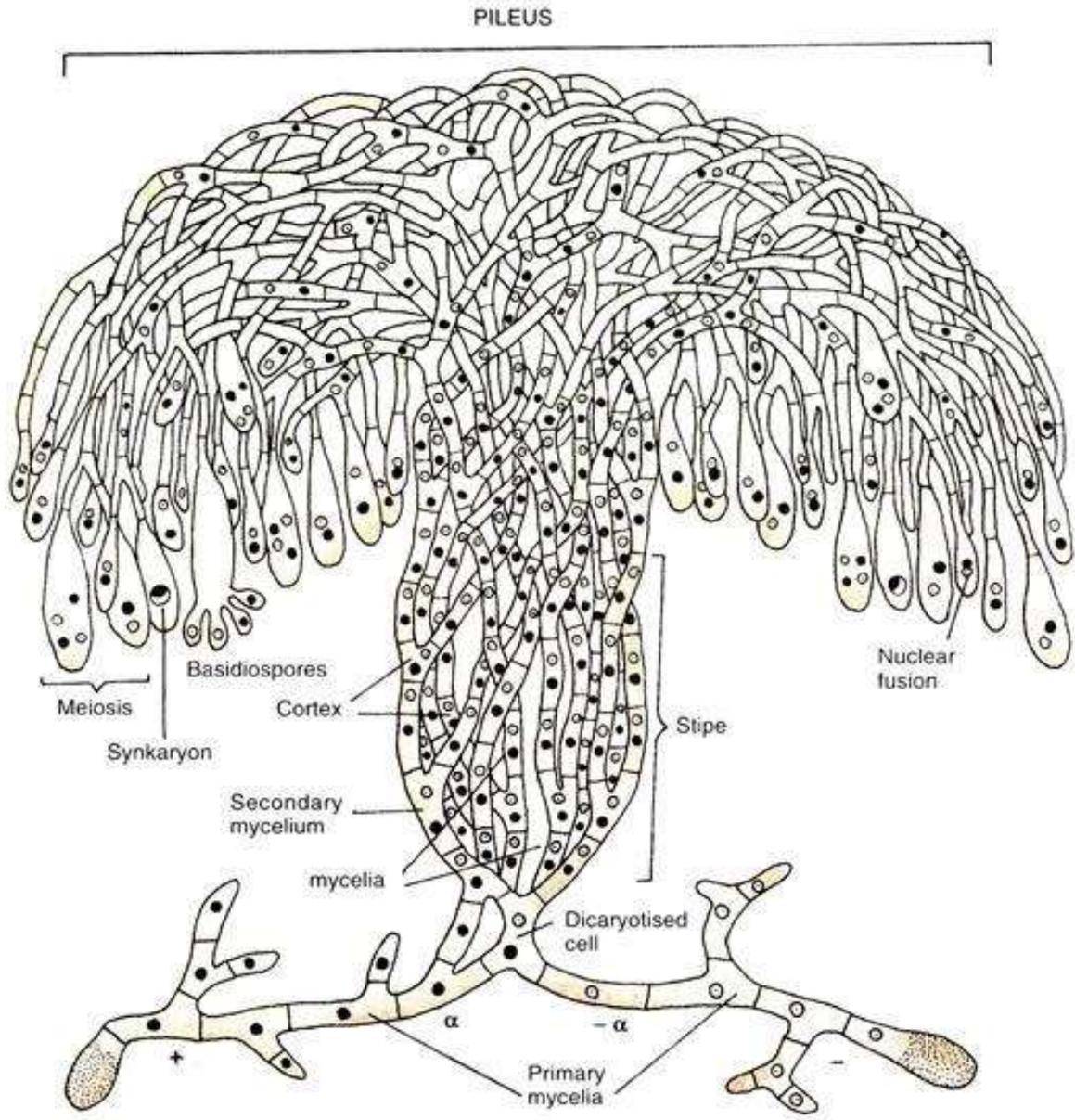
A - Sporophore

Quarter length gill

Half length gill

Full length gill





PILEUS

Stipe

Meiosis

Basidiospores

Cortex

Synkaryon

Secondary mycelium

mycelia

Dicaryotised cell

Nuclear fusion

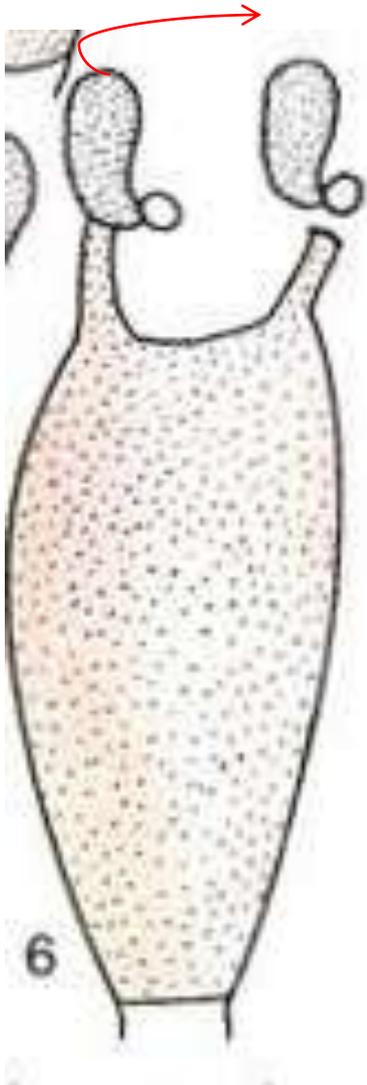
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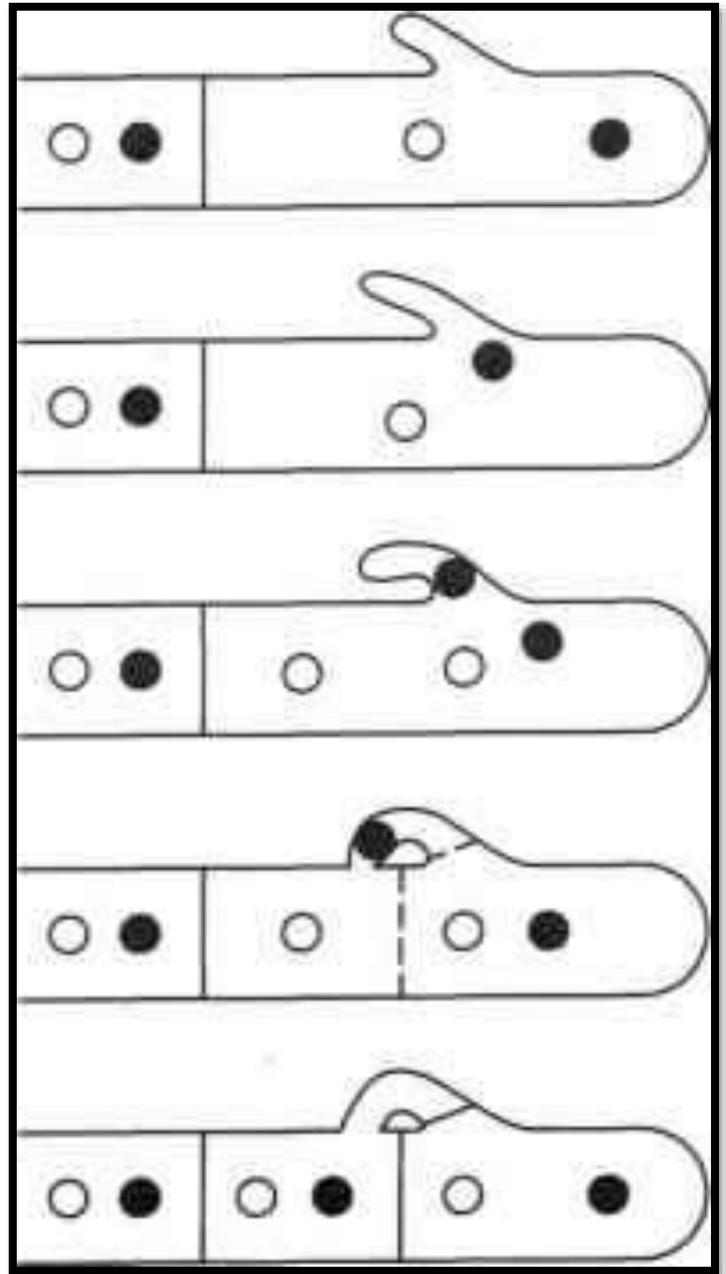
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Primary mycelia

+

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COMPILED BY KOUSIK GHOSH
FROM DIFFERENT SOURCES

THANK YOU