

Other types of Nuclear reorganisation (Paramecium)

Endomitosis :

It is observed in P. aurelia by Woottuff & Erdman (1914).

- It contains one Mega/ Macro & two Micronucleus
- Megakaryon disintegrates & disappears.
- Micronuclei divide twice forming 8 (Eight) of which 6 (Six) disappear & Paramecium divides each with one daughter Micronucleus.
- Micronucleus of each divides twice to form 4 (four) of which 2 (Two) become Megakaryon
- 2 (Two) Micronuclei in each divide with cell division to form 4 (four) Ordinary individuals each with one Mega & two Micronuclei.
- Thus four (4) individuals are formed from one by an intracellular nuclear reorganisation bring about Regeneration of the cell by periodic renewal of the Megakaryon.
- The most characteristic feature of Endomitosis is the absence of nuclear fusion at any stage & its results in increase in number (reproduction) and again of lost power (Regeneration)
- Endomitosis may be compared to Parthenogenesis
- However, some workers have claimed with good reasons that endomitosis is not a valid process, & it has been described due to faulty observation, In all probability Endomitosis doesn't take place and it may only be a specialised case of Autogamy.

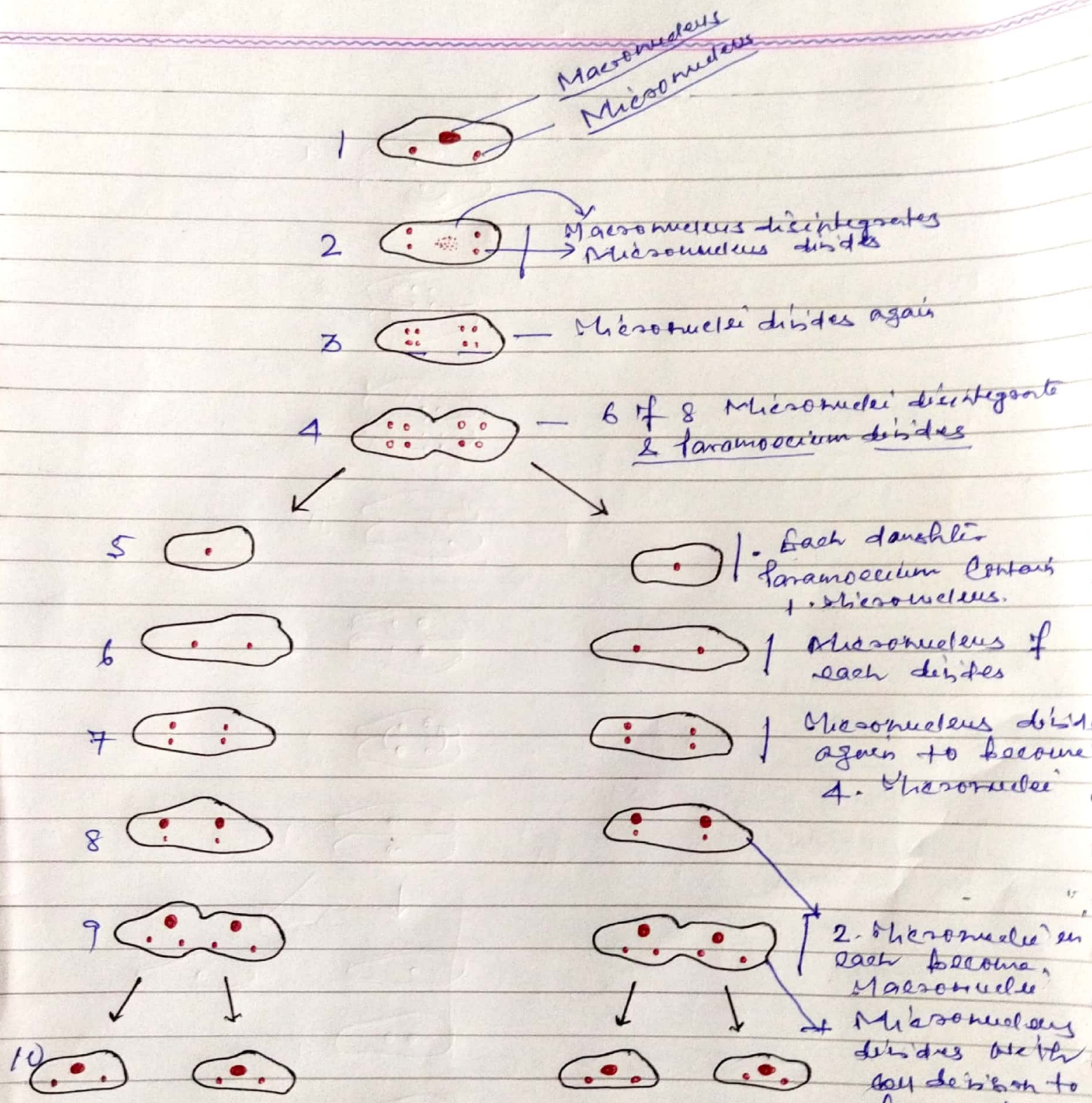


Fig - *P. aurelia*, (Diagram showing nuclear changes during Endocytosis)

Each daughter paramoecium contains 1 Mikronucleus.
 Mikronucleus of each divides
 Mikronucleus divides again to become 4 Mikronuclei
 2 Mikronuclei in each become Macronuclei
 Mikronucleus divides with cell division to form 4 ordinary individuals