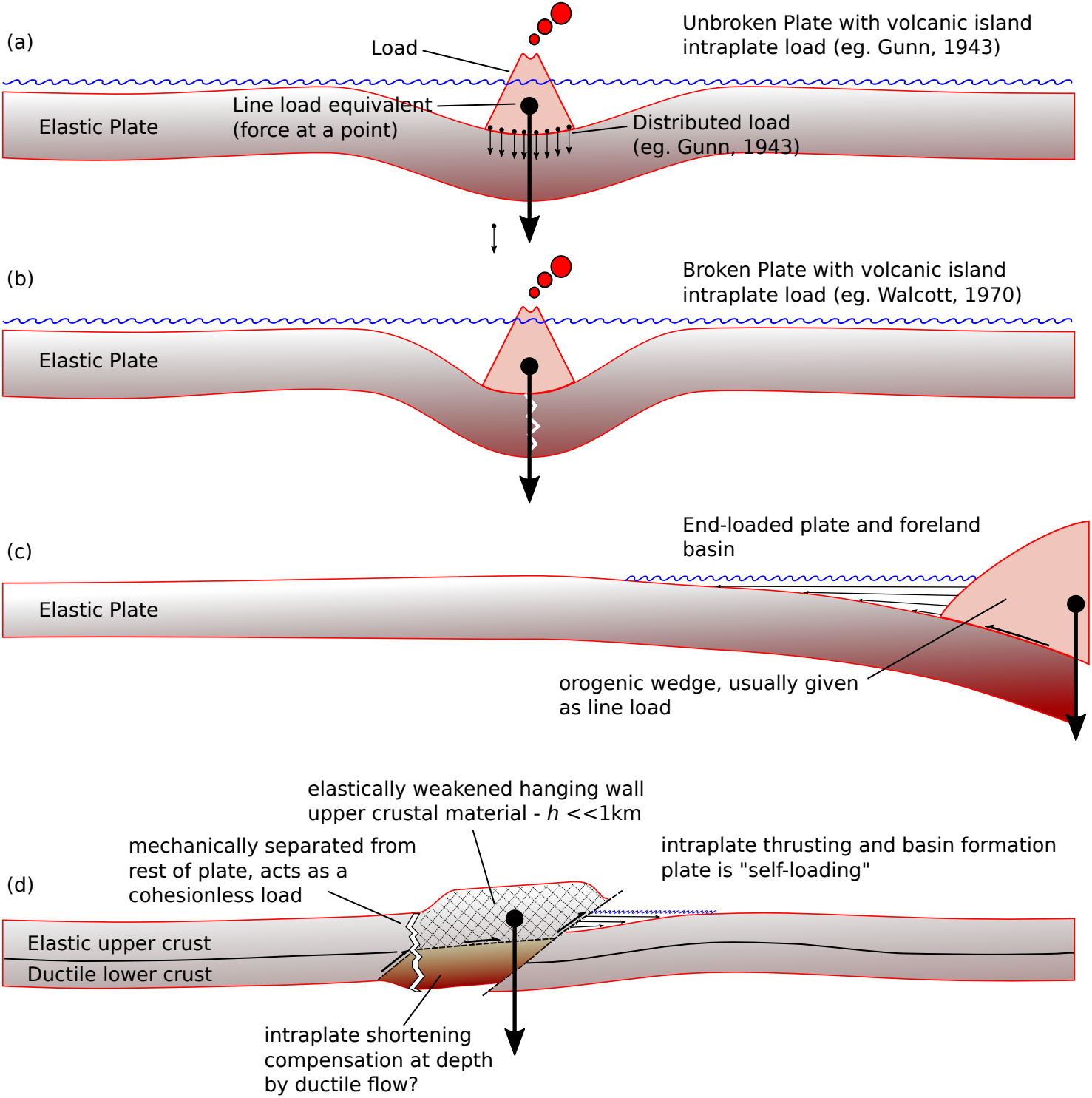
(a)
Load
Unbroken Plate with volcanic island
intraplate load (eg. Gunn, 1943)
Elastic Plate
Line load equivalent
(force at a point)
Distributed load
(eg. Gunn, 1943)
(b)
Broken Plate with volcanic island
intraplate load (eg. Walcott, 1970)
Elastic Plate
(c)
End-loaded plate and foreland
basin
Elastic Plate
orogenic wedge, usually given
as line load
(d)
elastically weakened hanging wall
upper crustal material - h <<1km
mechanically separated from
rest of plate, acts as a
cohesionless load
intraplate thrusting and basin formation
plate is "self-loading"
Elastic upper crust
Ductile lower crust
intraplate shortening
compensation at depth
by ductile flow?