

Where do bees want to live?



An ideal home

- Volume 20-40L (National Hive brood box 35L , super 22L)
- Small entrance ~25 sq cm
- Entrance at bottom of cavity
- Entrance 2-6m off ground
- Comb built by previous colony
- South facing

Building comb

Built from top in
catenary curve

Worker cells 5 per
inch

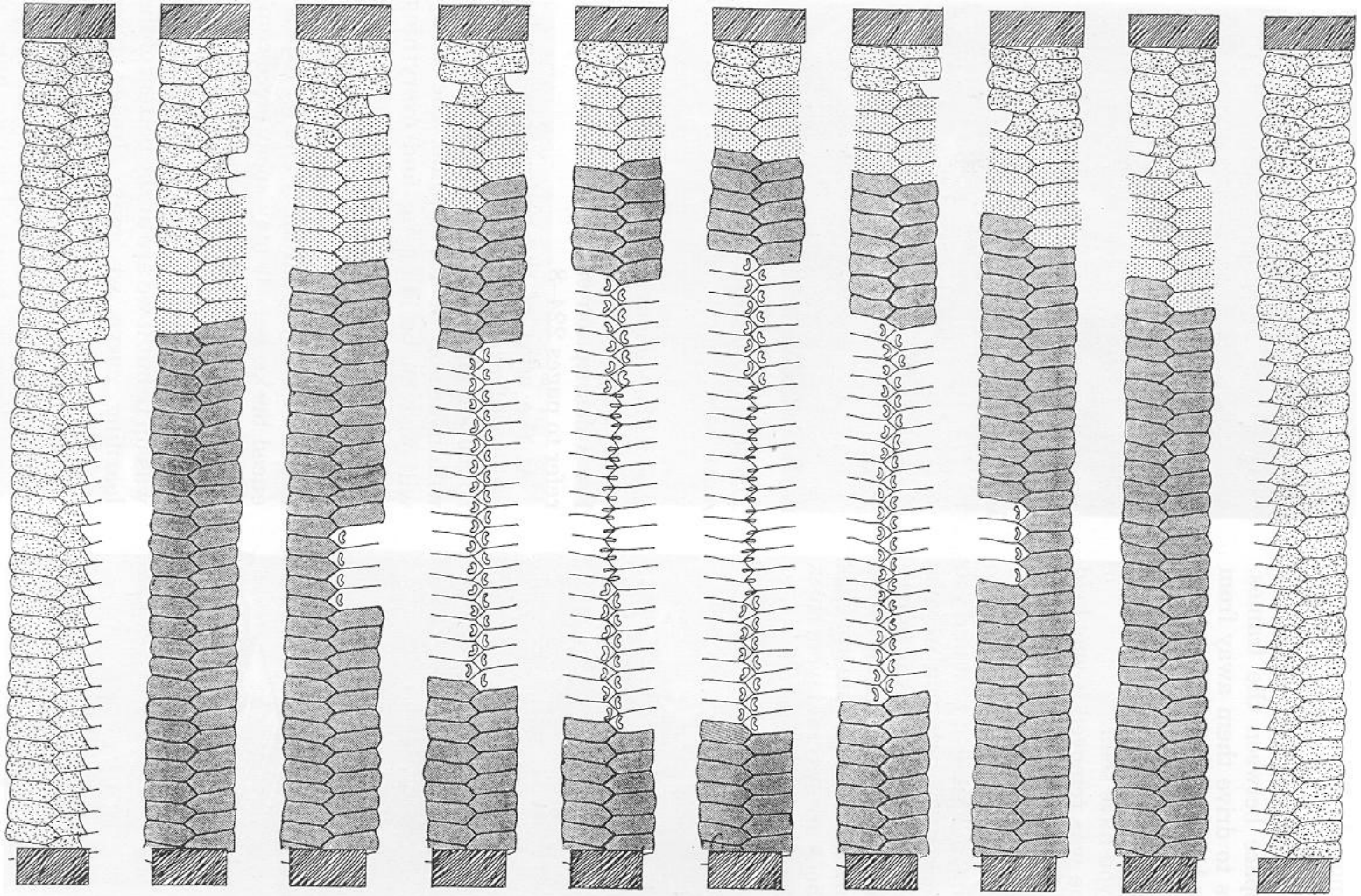
Cells 11mm deep
at 35mm centres

Cells 13 deg to
horizontal

Sufficient space
between combs for
2 bees to pass



The bee nest



Cross section through honeybee nest

Courtesy of Clive de Bruyn

Control of the hive environment

- The colony needs to control temperature, humidity and CO₂ levels
- Summer central hive temp 35 C
- Winter cluster temp 20-30 C
- Bees become immobile at less than 7 c

Methods of control

- Choice of location and entrance size
- Reduction in entrance size by propolisation
- Heat generation from micro vibration of flight muscles
- Clustering to reduce heat loss
- Fanning
- Water evaporation