## The making of the axe-blade

A. Ore: S-free (< 0,5%S) like malachite (found sometimes massive, mainly as green layers on primary copper-ores)



- B. Smelting of small quantities of metallic copper brills using blowpipes (max. 100g each procedure)
- C. Collecting the brills from the slag and melting in a fireproof crucible (300 g for the Iceman's axe)
- D. Cast in a vertical mould of burnt clay (not necessarily fireproof)
- E. Adapting the raw-cast for finer shaping:
- F. Hammering the side-flanges, the edge (combined with hammer-sharping), and closing of the shrinking-hole.
- G. Smoothing or polishing the surface (removal of slag-layers and oxides)

## Zur Metallurgie der Ötzi-Zeit

