

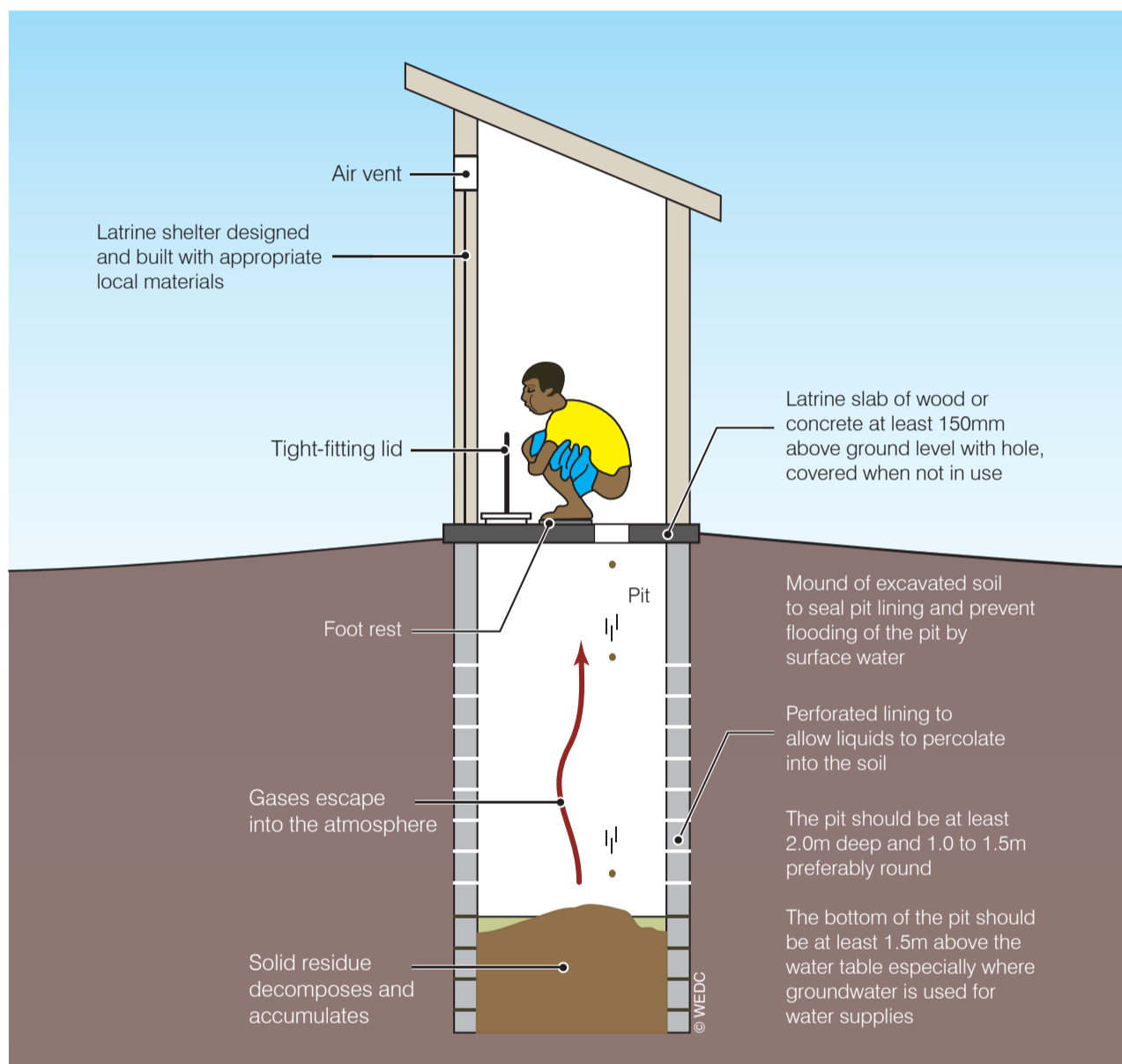
Latrine slabs

The design of a simple reinforced concrete slab is a basic structural problem for an engineer, but when that slab forms a critical part of a latrine, the design criteria widen to include issues of economics, maintenance, sustainability, health, gender, culture, and user preference as well as construction factors. Size, shape and surface finish need to be considered alongside strength.

Dignity

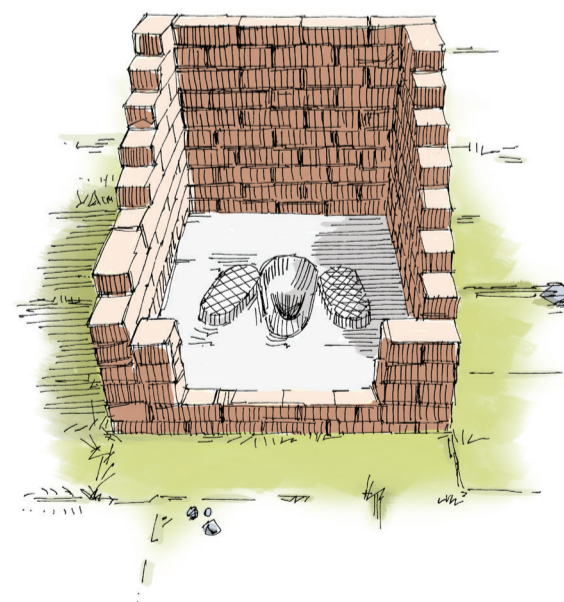
Defecation is often a private activity and subject to cultural constraints. Being able to go to the toilet in a pleasant, private and clean location is valued by many societies and so the slab needs to meet the user's needs and preferences. It should be strong and offer a secure platform over the vault.

People will want to be able to use the latrine without getting their feet wet or their clothes dirty, so the slab should be able to be cleaned easily.



Safety

People will want to be sure that the slab will not break or tip, causing them to fall into the vault. They should also be able to use the latrine without tripping or slipping. Discouraging snakes, spiders and scorpions is another health and safety issue. Two rough planks over a deep hole is not very safe!



Source: REED, B. J. and SHAW, R. J. 2012. *An engineer's guide to latrine slabs: WEDC Booklet No. 5*. Loughborough UK: WEDC, Loughborough University