

*The portable and recyclable
superstructure
Do they have merit!*



Peter Morgan

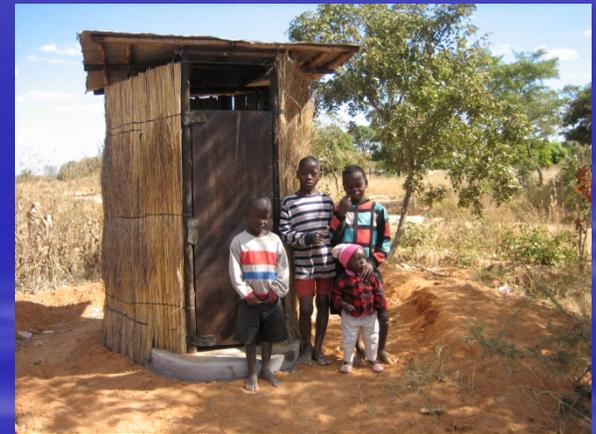
It has now been established that a large capacity brick lined pit together with a concrete cover slab can be built using a single bag of Portland cement.



*This "substructure"
is relatively easily
built at relatively
low cost and with
speed.*

*The question
remains:
what structure to
go on top?*

*Brick?
Traditional?
Portable?*



*Most school
superstructures and most
homestead structures
are made of bricks in
such a way that they are
neither portable or easily
recyclable*

*but is there a case for
placing long life portable
(or easily recyclable)
superstructures over the
economy substructure?*



The question of the large multi-compartment school block is also open to question.

It is almost impossible to empty and when the various pits are full it must be rebuilt. However experience in Zimbabwe suggests that such units may provide over 20 years of service

Might a series of more recyclable and versatile structures be more appropriate



Gallery of potential portable superstructures



Portable options



Composite, fibreglass or steel frame structures?

Can brick be regarded as Portable?

Brick structures have always been regarded as permanent or semi permanent and certainly not portable. But they can be designed to be easily recyclable? Brick structure attached to a wooden or steel door frame can be dismantled and rebuilt within a day! This recyclable brick structure was built by school boys. Is this one way of moving forward in school and homestead sanitation.?



Can brick be regarded as recyclable?

This series of photos shows how a brick structure was taken apart and rebuilt in a day. The brick structure is linked to a steel frame with door attached. The roof and pipe are detachable. The roof and pipe were removed and the brick structure taken apart. The mortar used to bond the bricks was a weak but durable one (20 parts pit sand to 1 part cement)



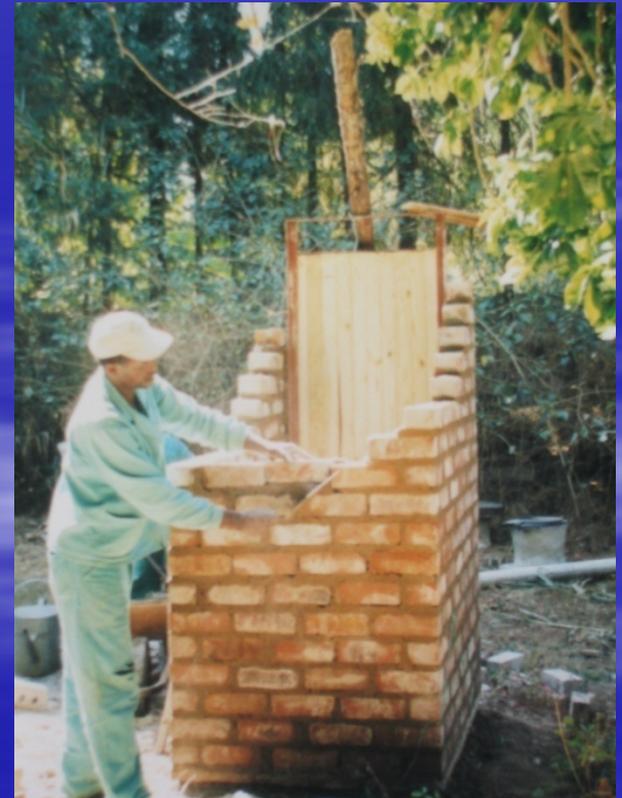
Can brick be regarded as recyclable?

The bricks were cleaned, the slab removed (rectangular in this case) and placed on a new brick lined pit.

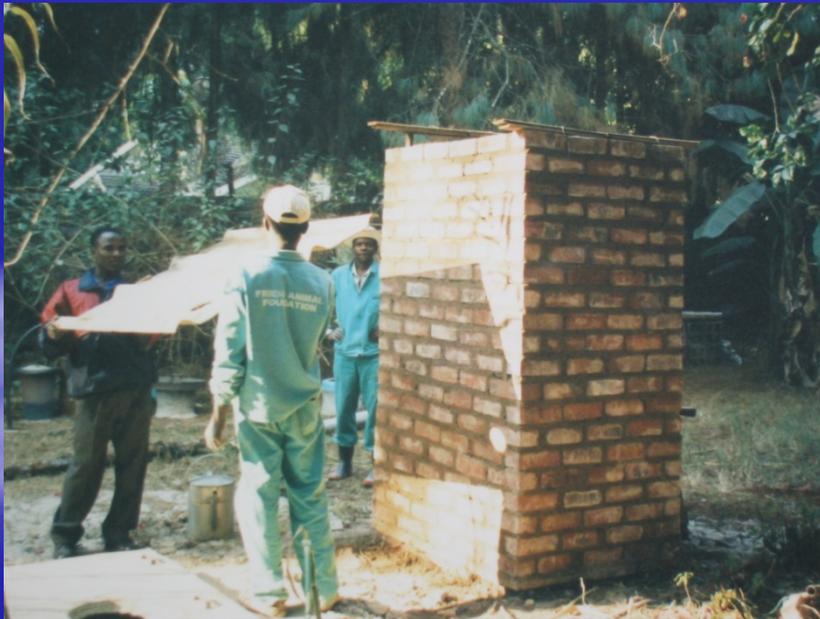


Can brick be regarded as recyclable?

The superstructure was then rebuilt on a new site using the same bricks and slab as the original toilet. The unit was designed to be recyclable.



Can brick be regarded as recyclable?
After the brickwork was complete the roof and pipe were fitted back again.



Can brick be regarded as recyclable?

The steel frame and brickwork are connected to steel fingers called "sprags" welded to the door frame. In this case the toilet was fitted with a home made pedestal.



These photos reveal that there can be great diversity in the way toilets are built both in school and in the home

