

Shelter: Learning from vernacular ?

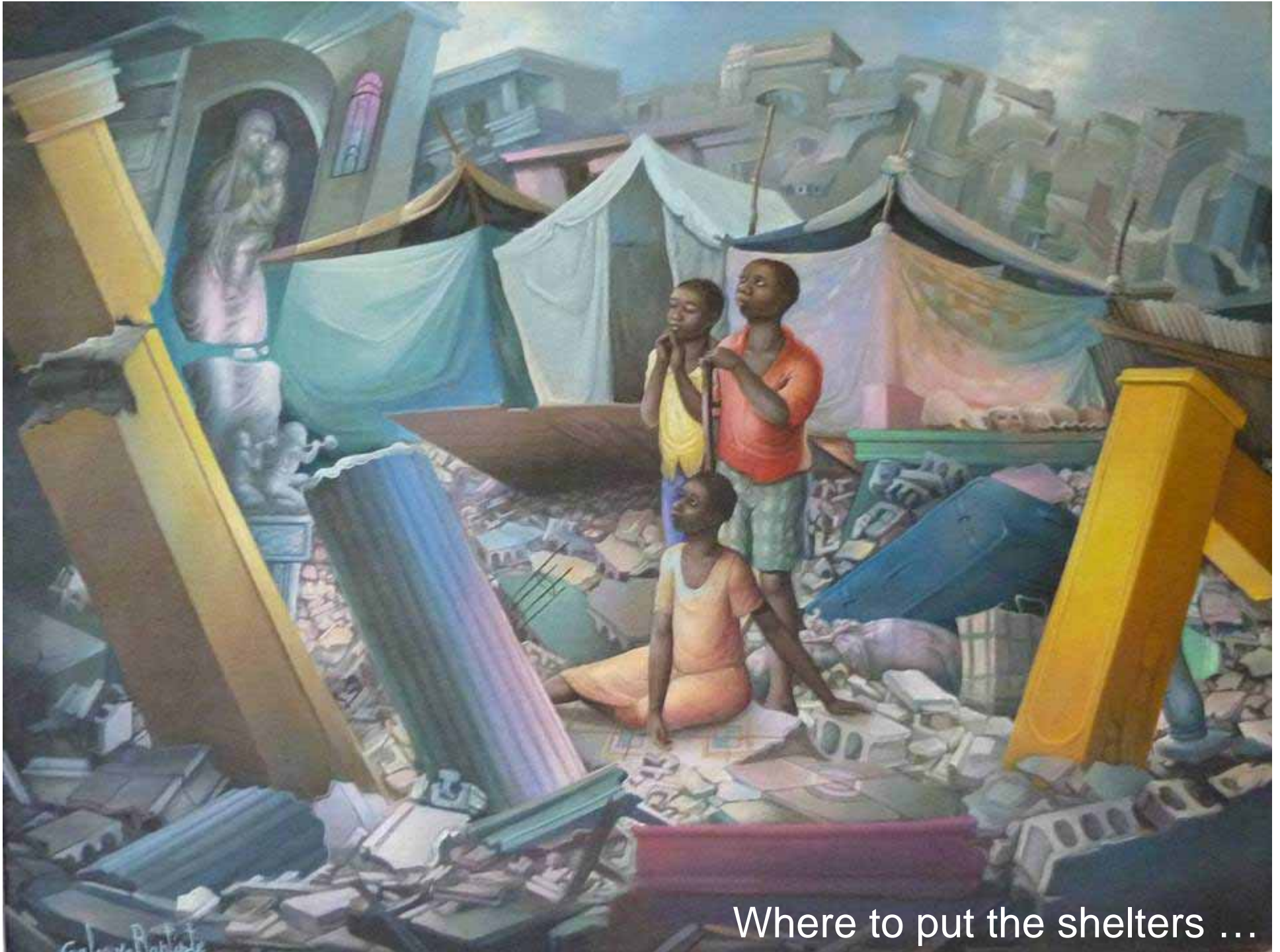


Construction Course SHA Gwatt, 25 August 2011

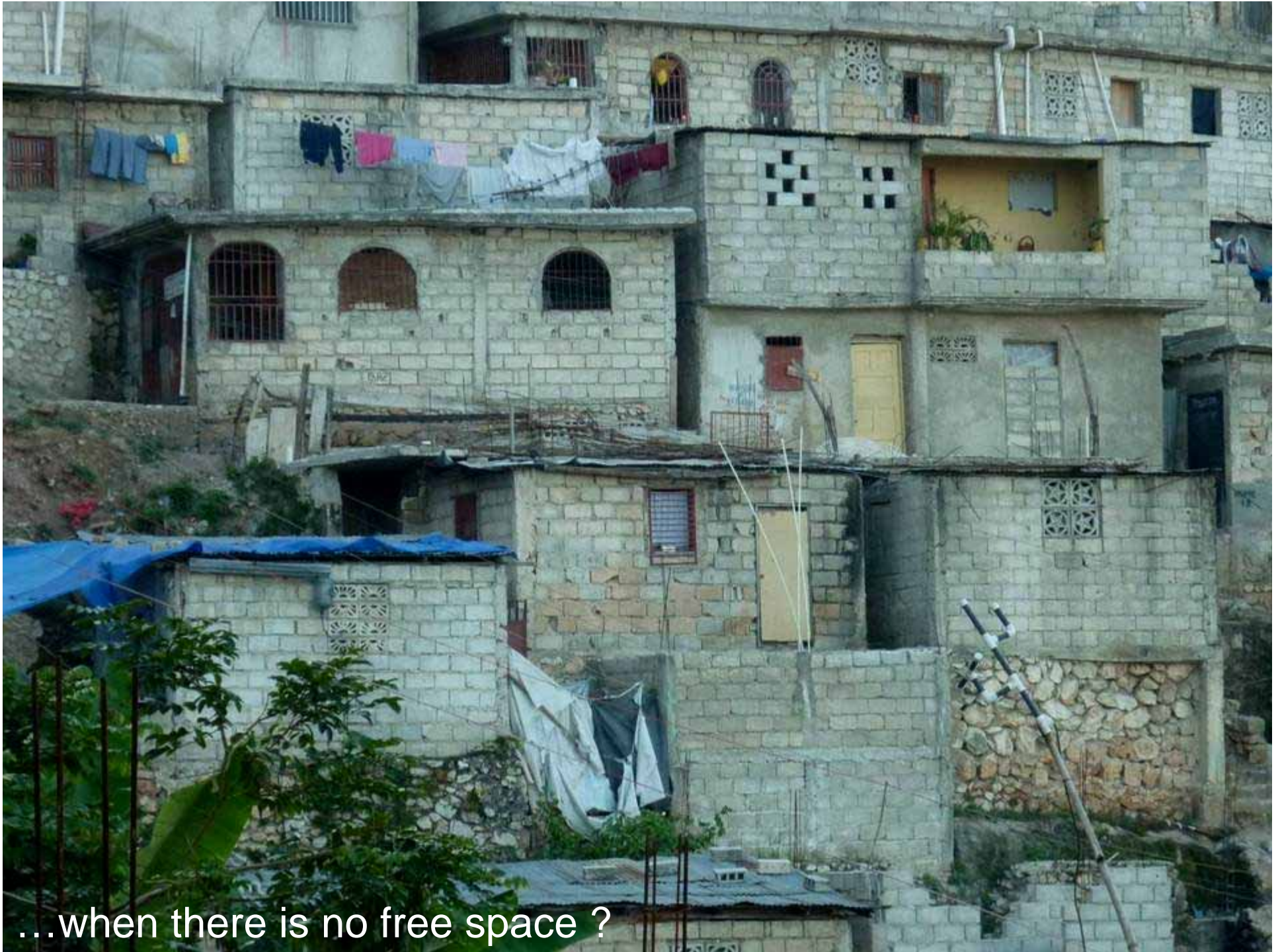
By Tom Schacher

The urban context





Where to put the shelters ...



...when there is no free space ?

On the site of the original house ?



Build multi-family shelters ?



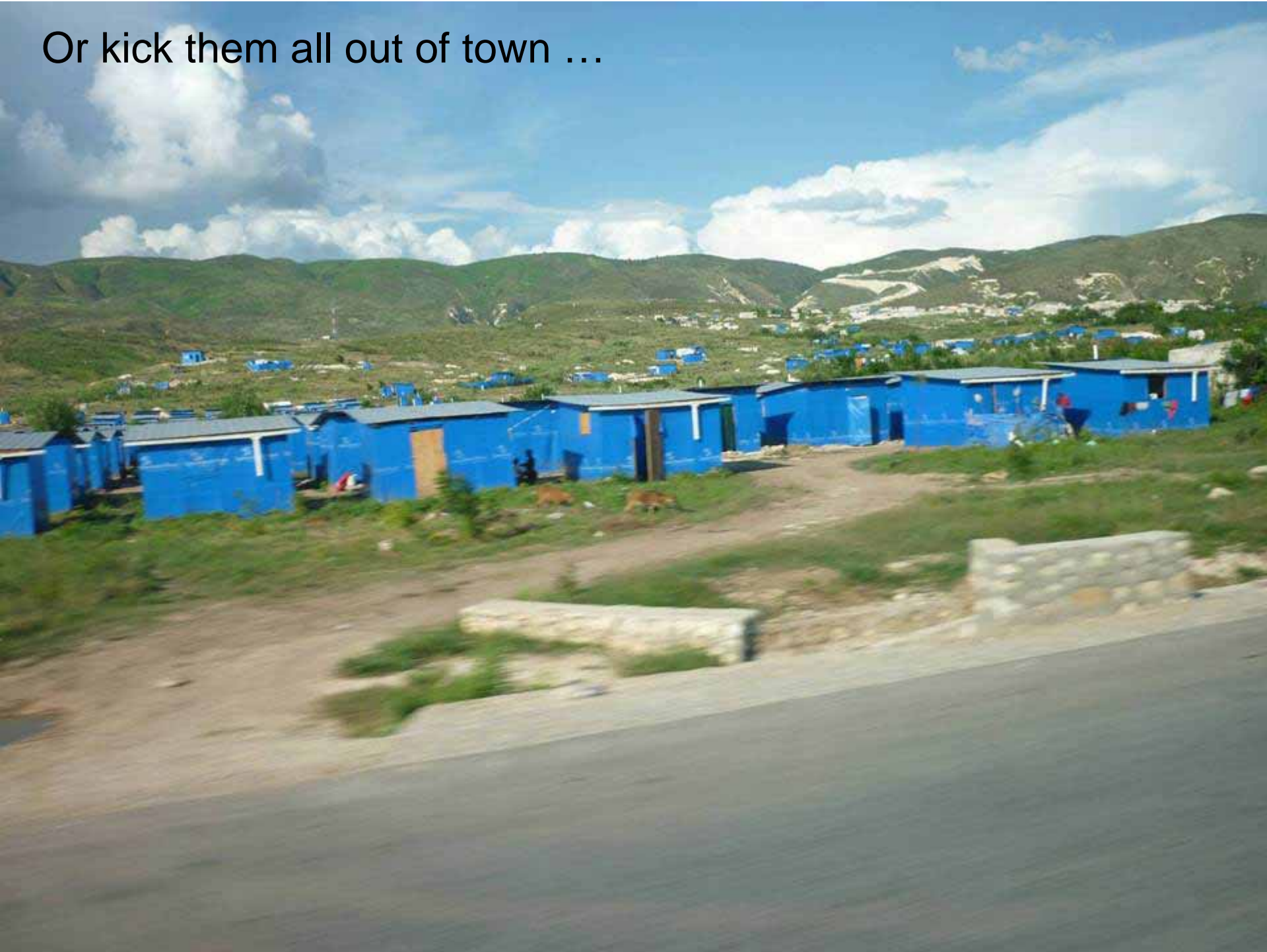
Or let people create makeshift camps ...



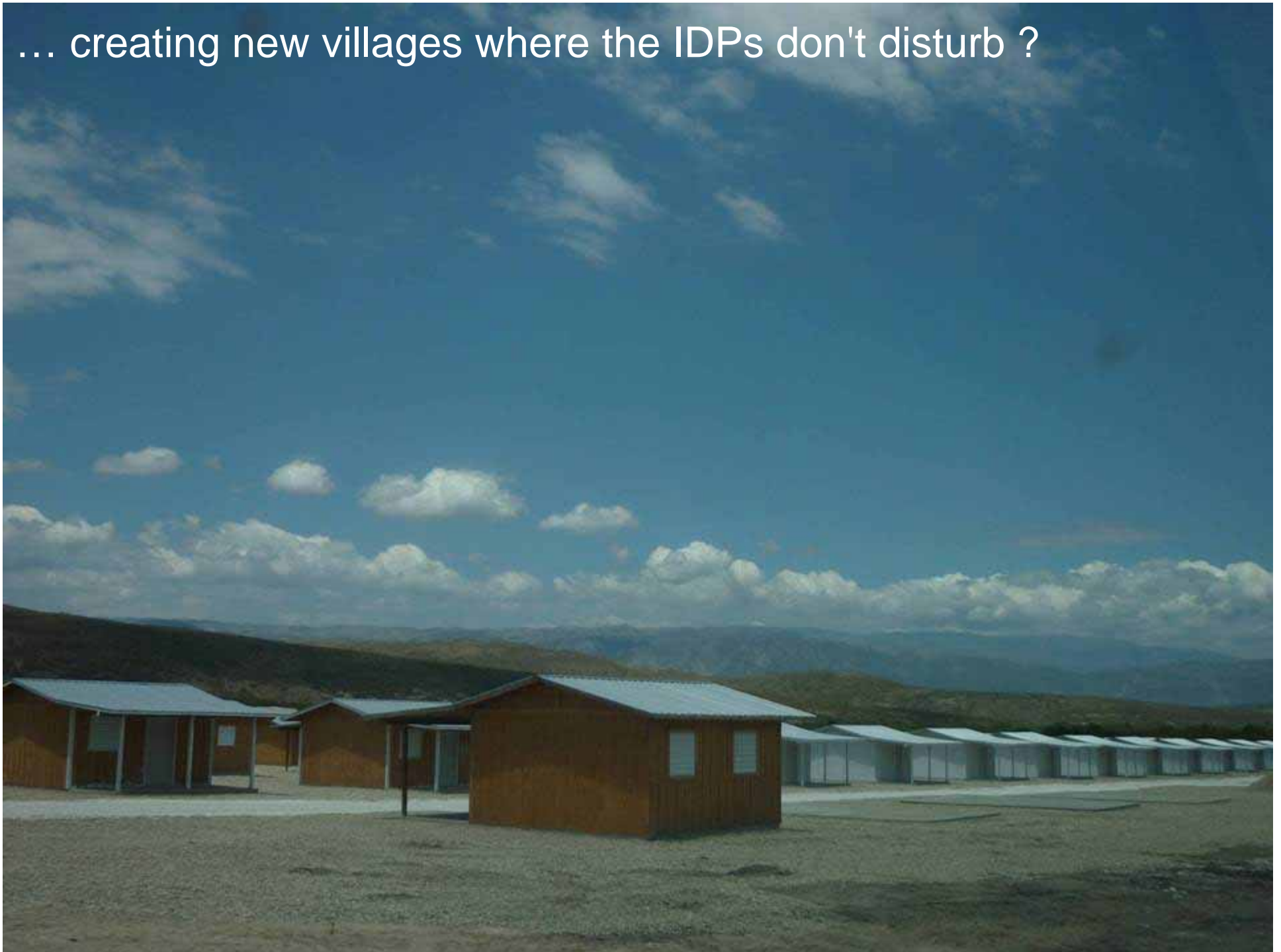
... in public spaces or private gardens ?



Or kick them all out of town ...



... creating new villages where the IDPs don't disturb ?

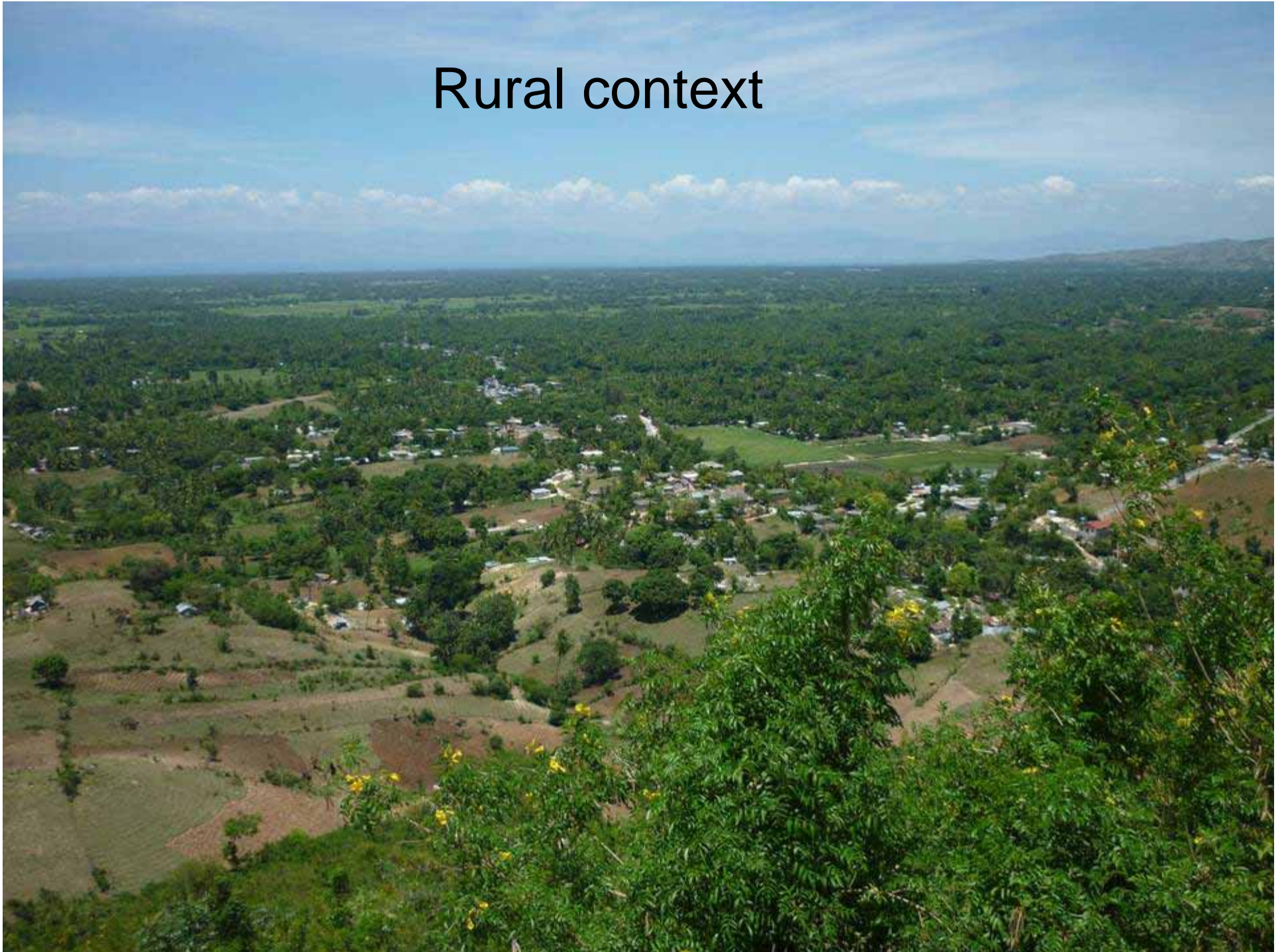


... and where people will feel at home ...



... thanks to the colours inspired by tradition ?

Rural context

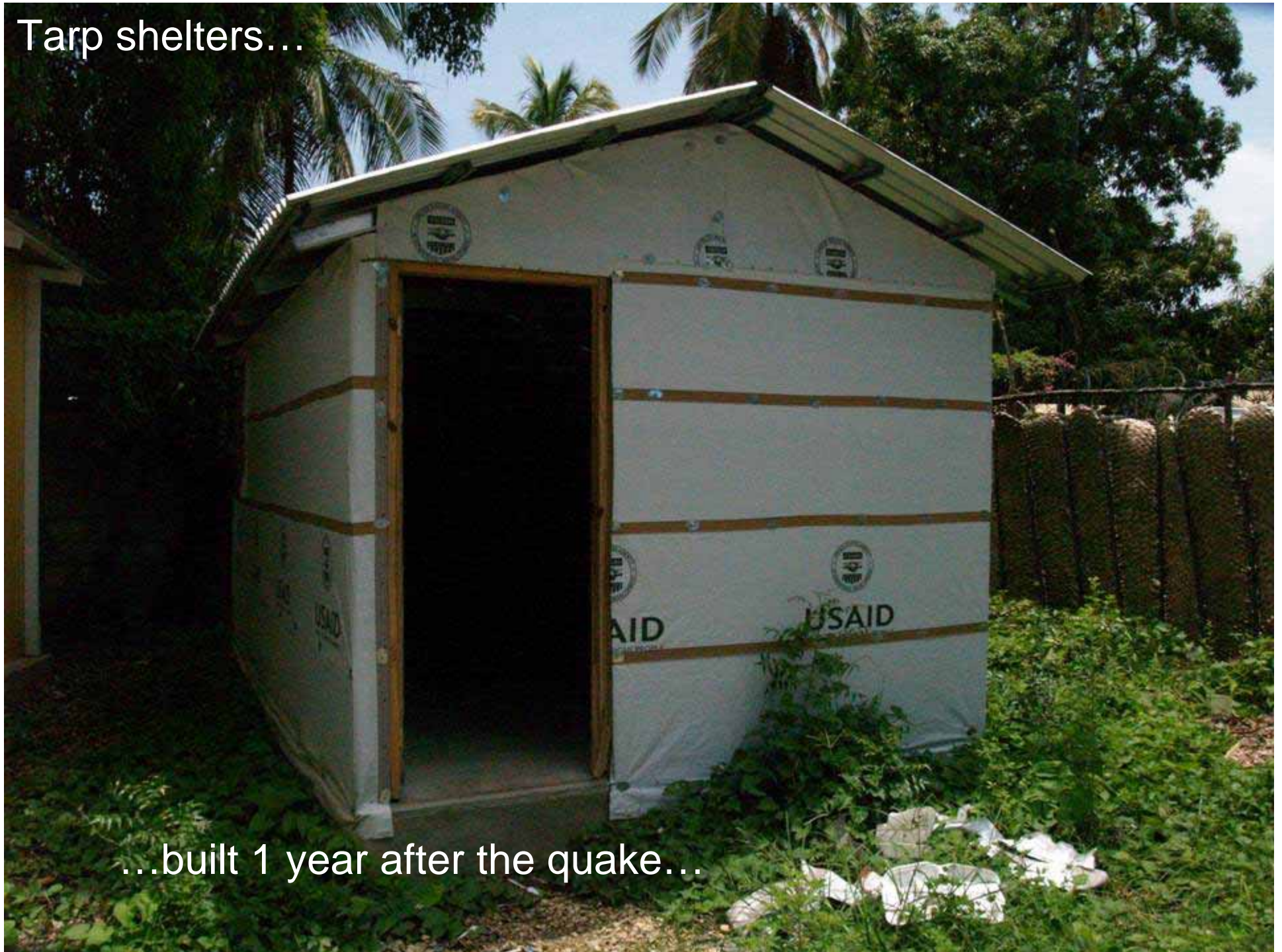


There is more space ...



... and you can do whatever you want (???)

Tarp shelters...

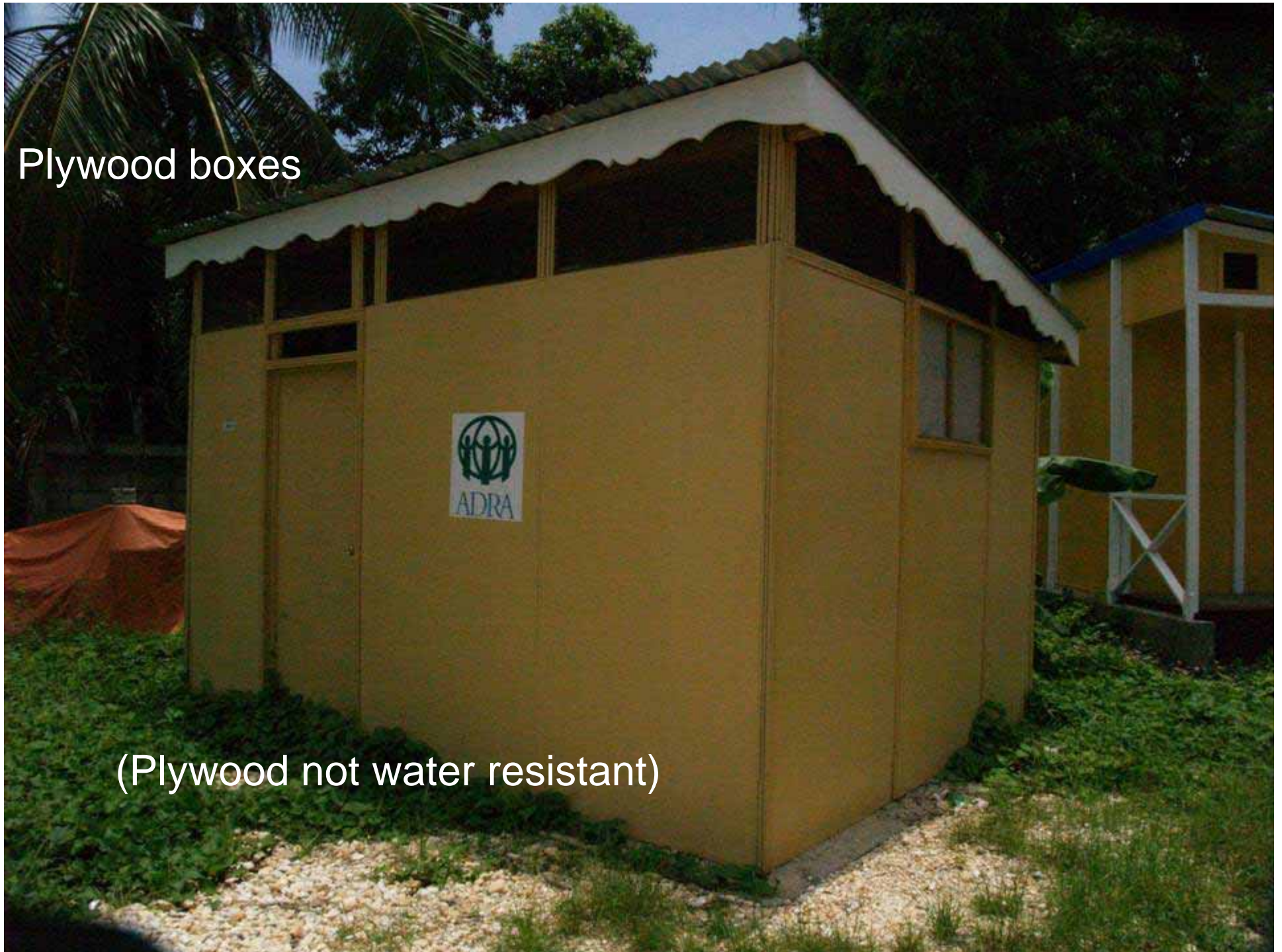


...built 1 year after the quake...



...on riveted steel structures

Plywood boxes



(Plywood not water resistant)

Cyclone resistant timber structures ...

...left unfinished





Well ventilated shelters not ideal for cyclones

Imported prefab shelters ...





... but locally assembled...

(occupying the plot needed for reconstruction?)

... and adapted to local traditions



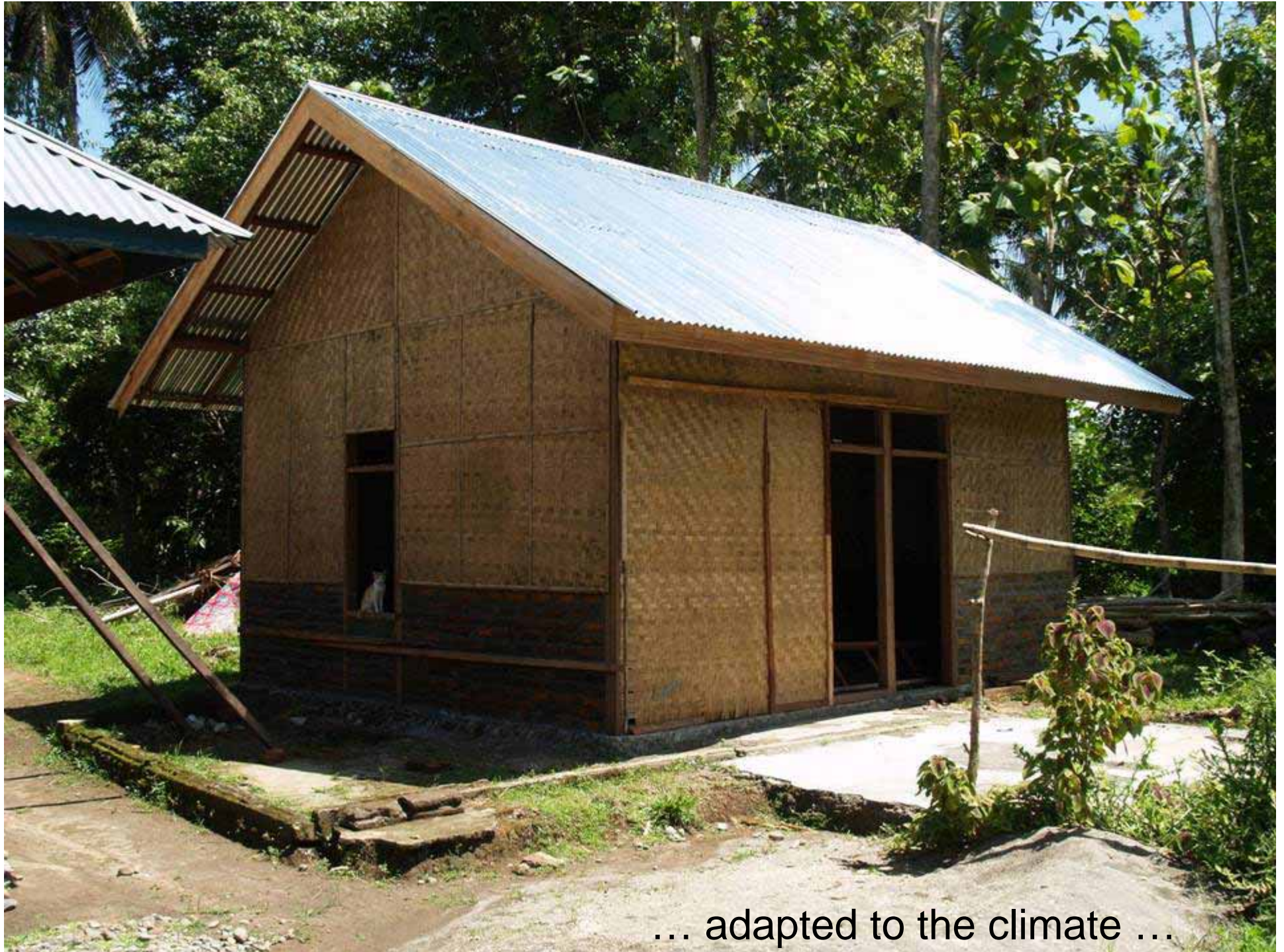
Glass door

... and adapted to local traditions



Making use of local and salvaged materials ...



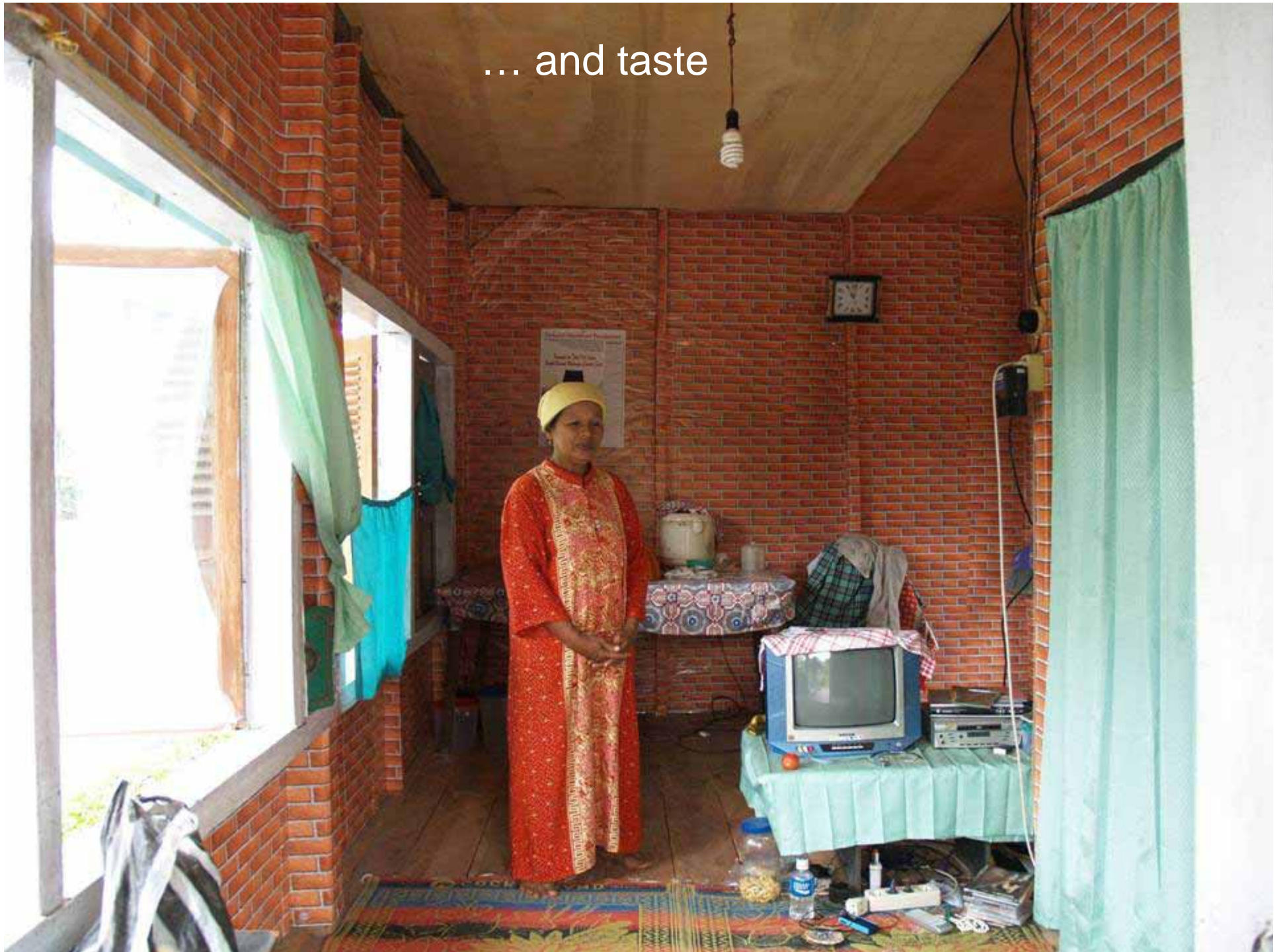


... adapted to the climate ...



... and local tradition ...

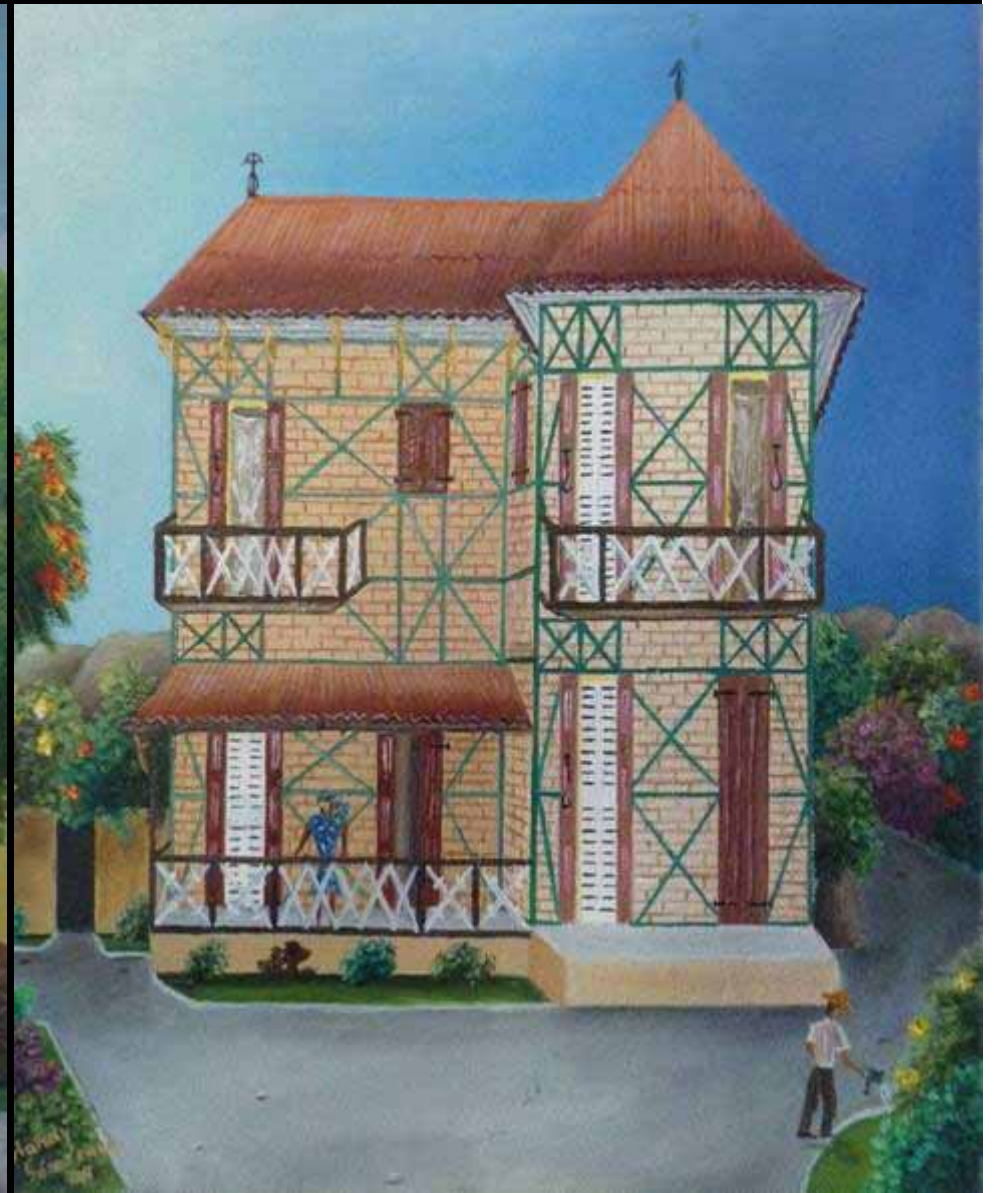
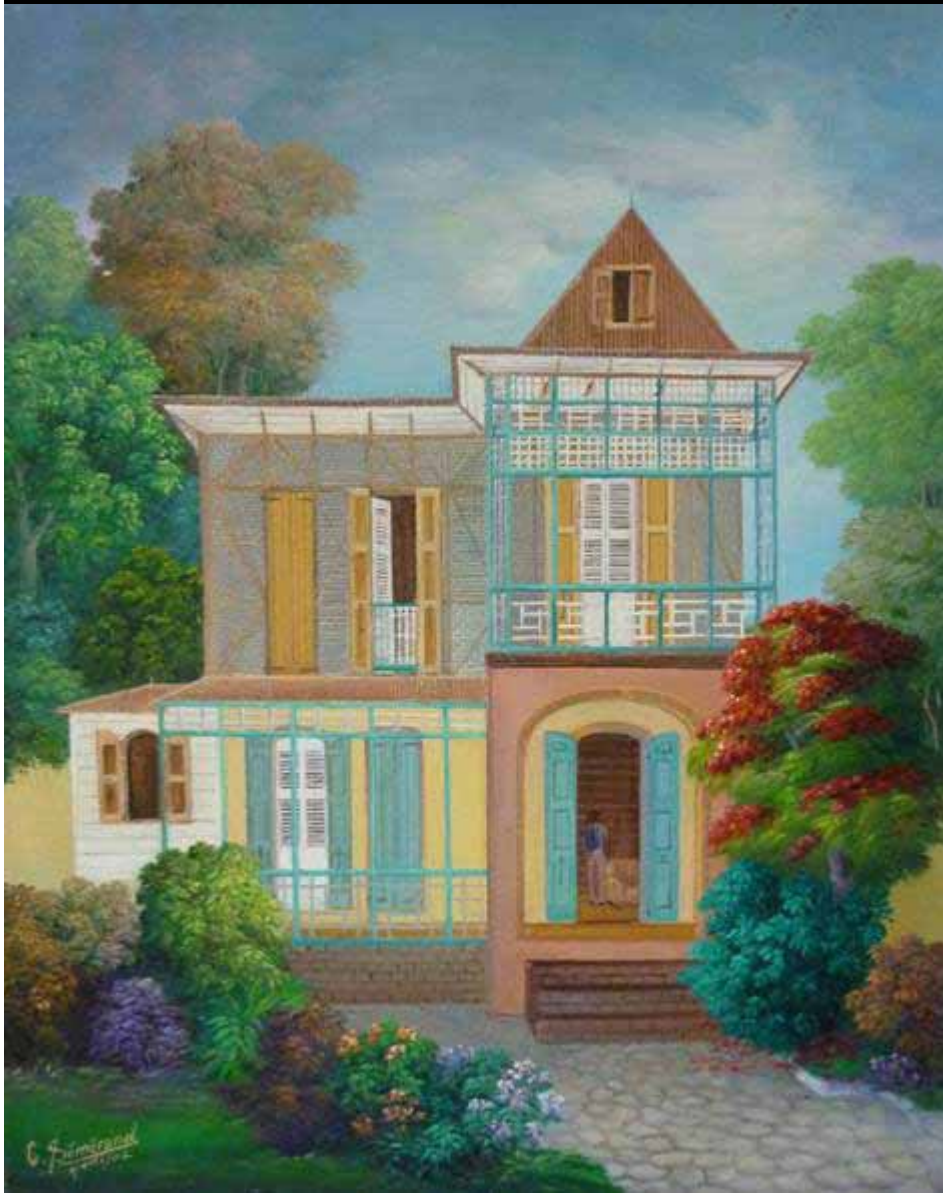
... and taste



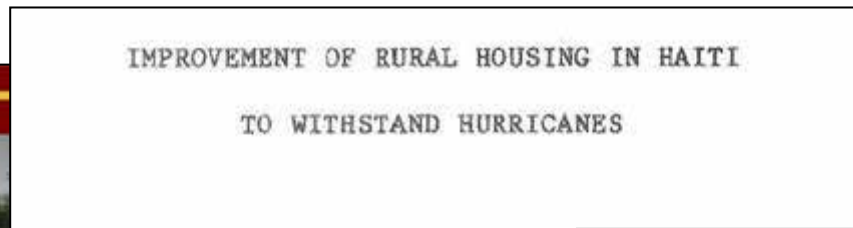
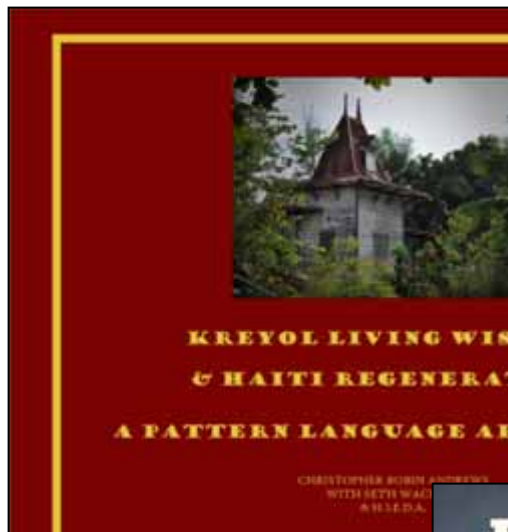


A good shelter programme may lead to real houses

But one needs to know about local culture



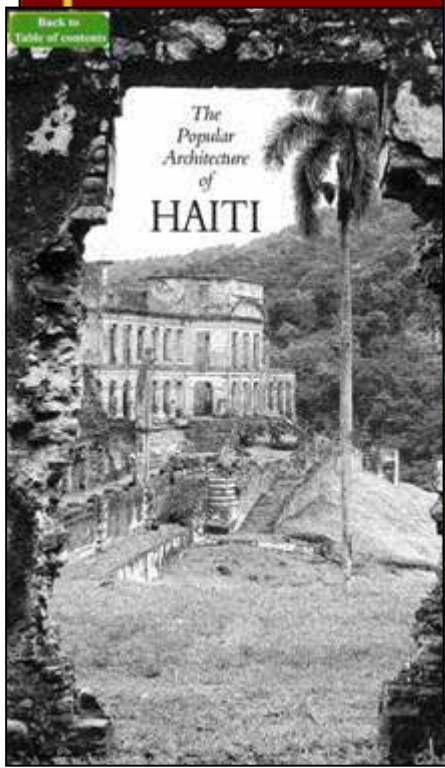
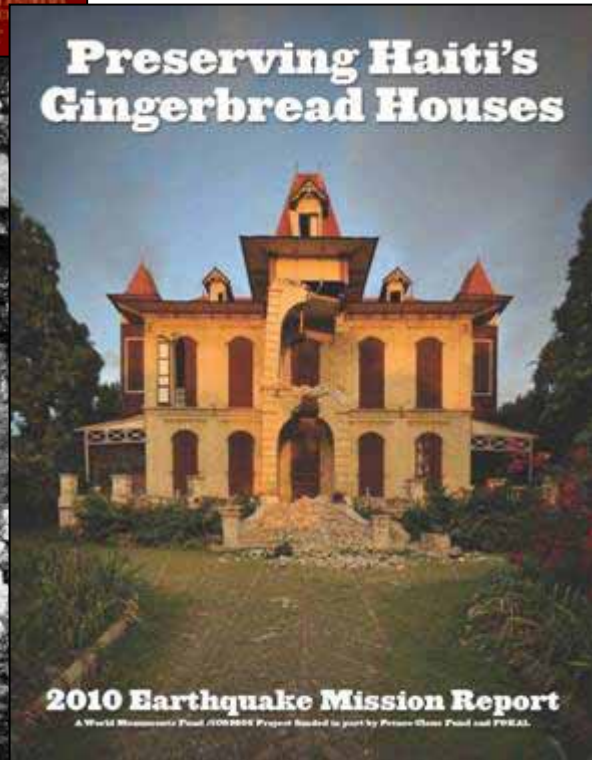
Use the internet

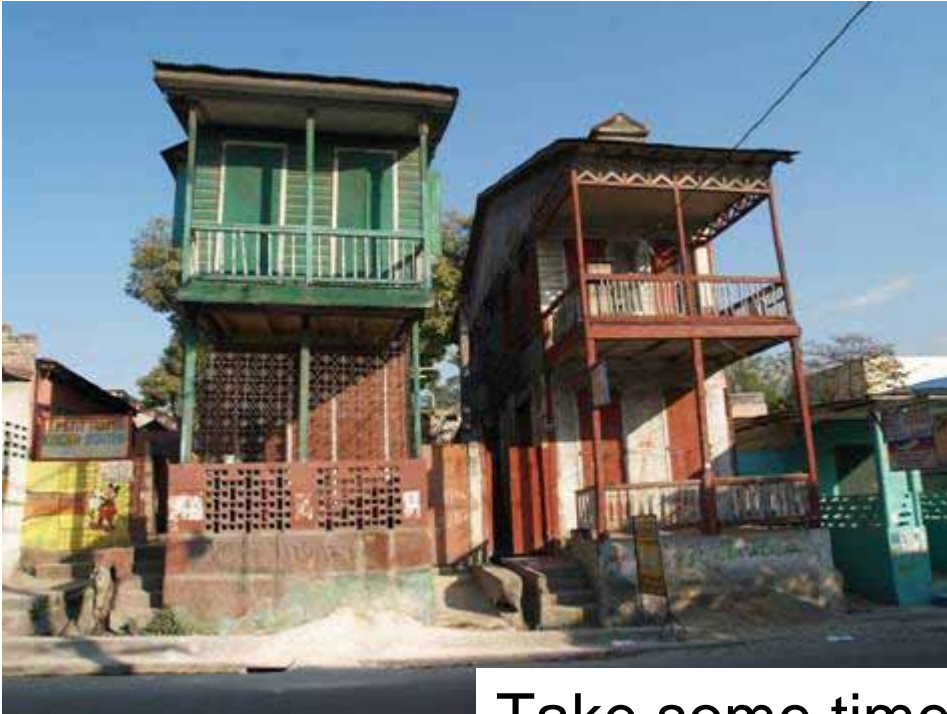


HAITIAN WISDOM FOR AID BUILDINGS
Patti Stouten, Landscape Architect
March 15, 2010

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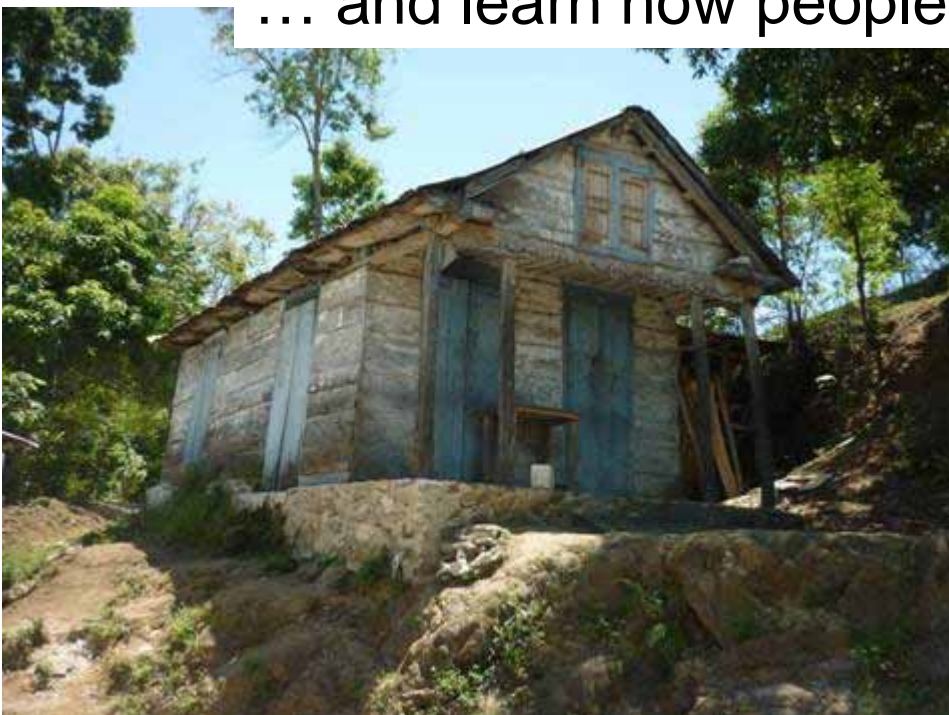


Take some time to look around...

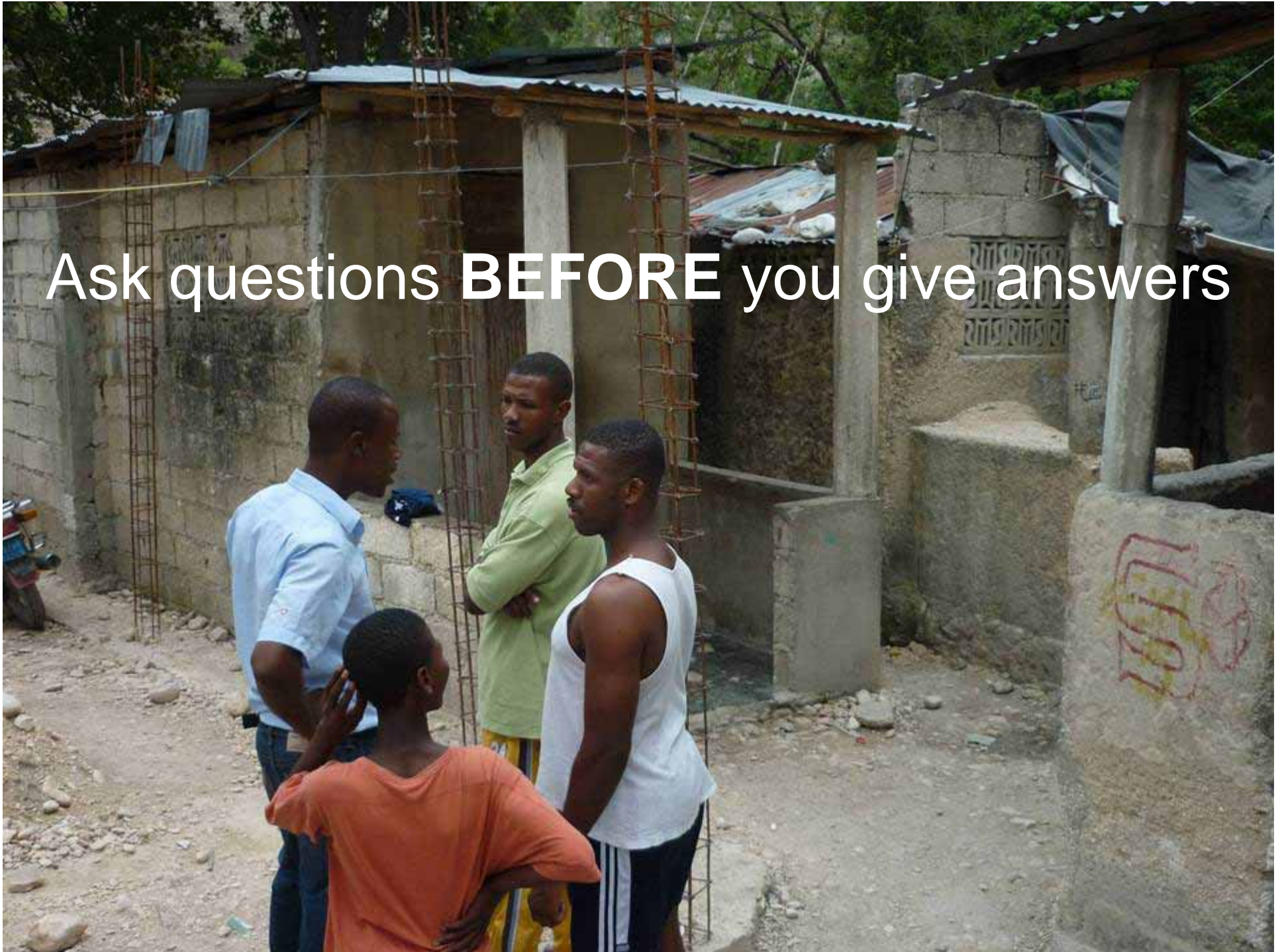




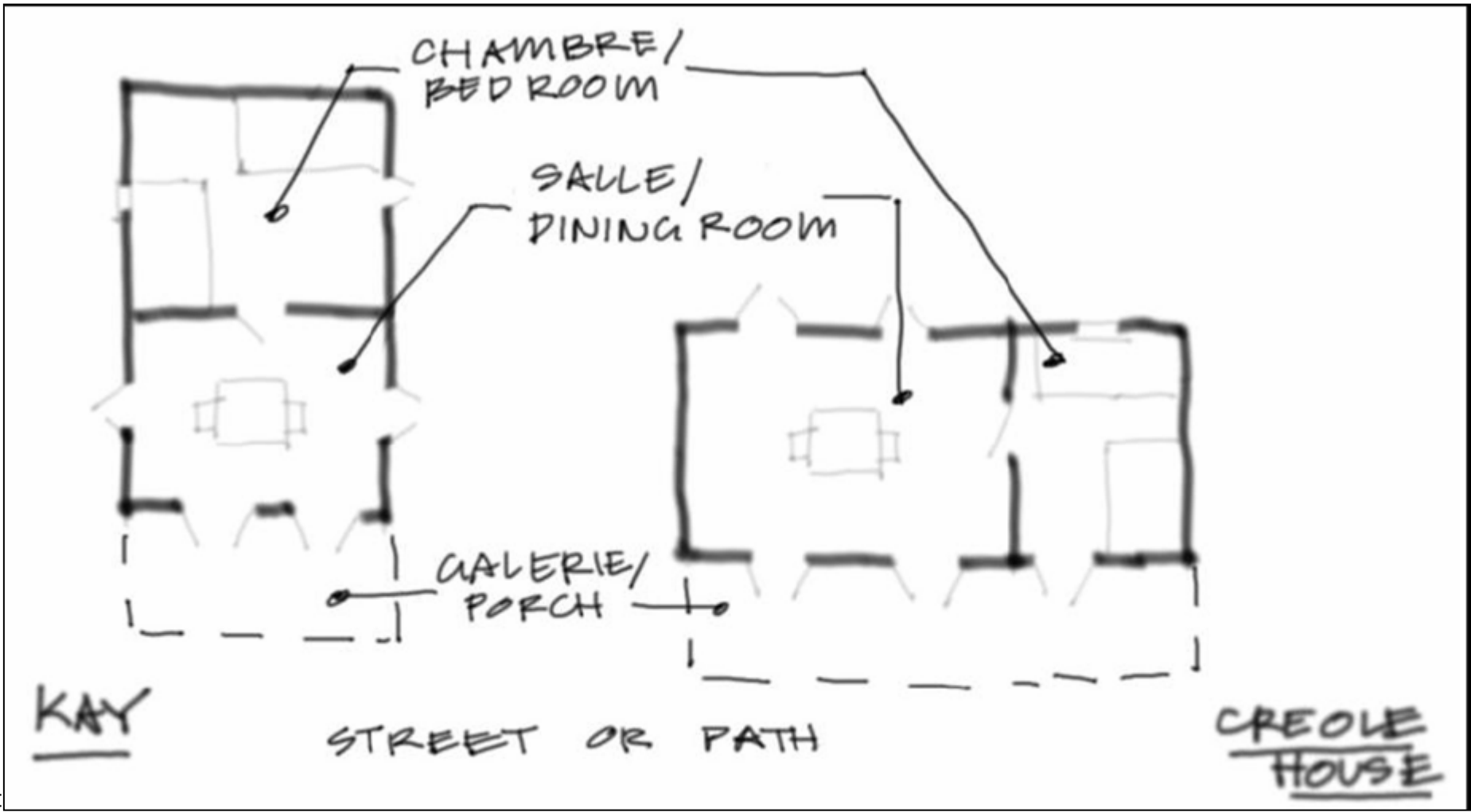
... and learn how people live and what they need.



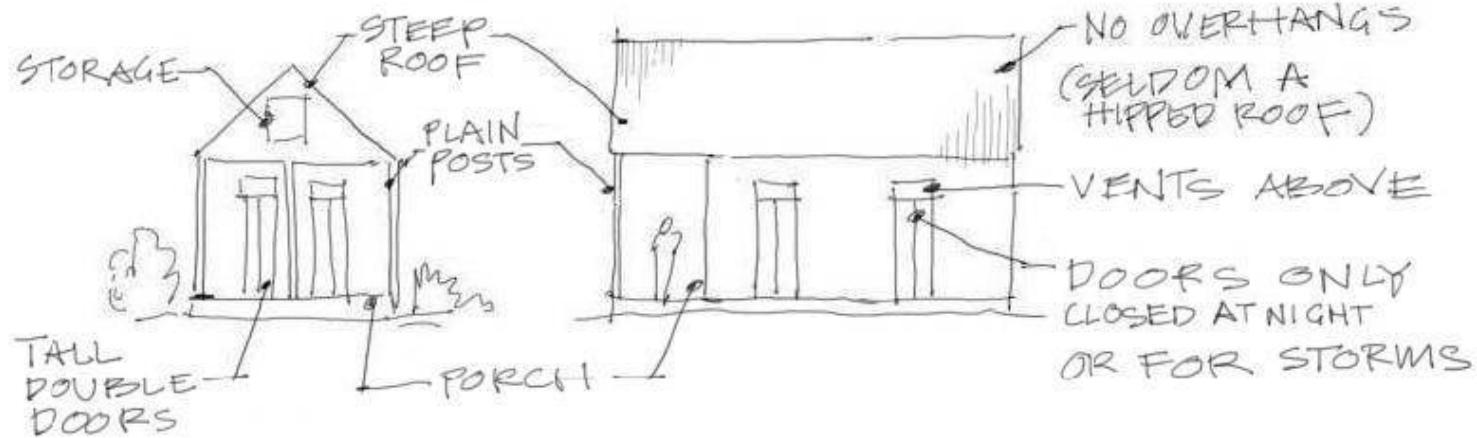
Ask questions **BEFORE** you give answers



How are houses organised ?

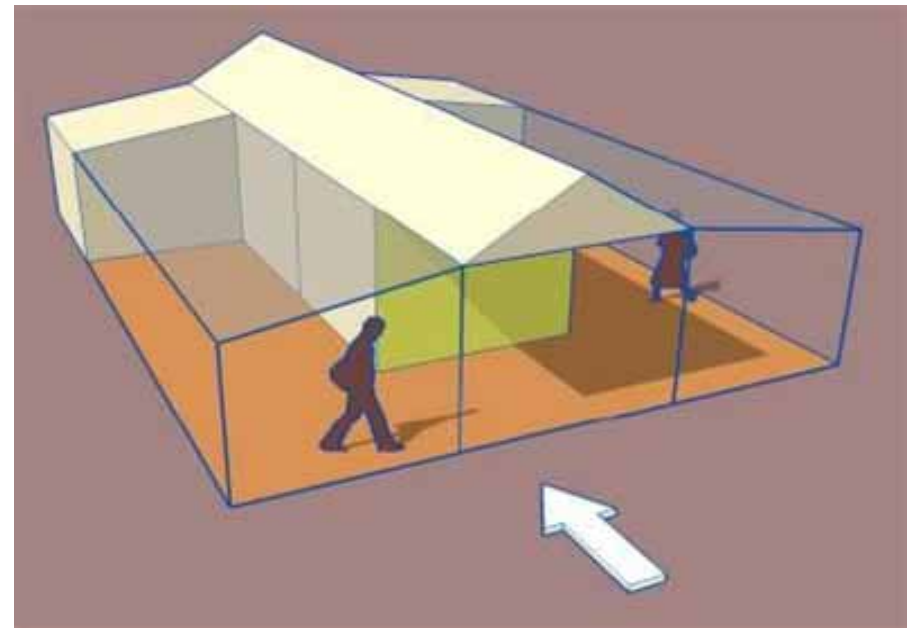
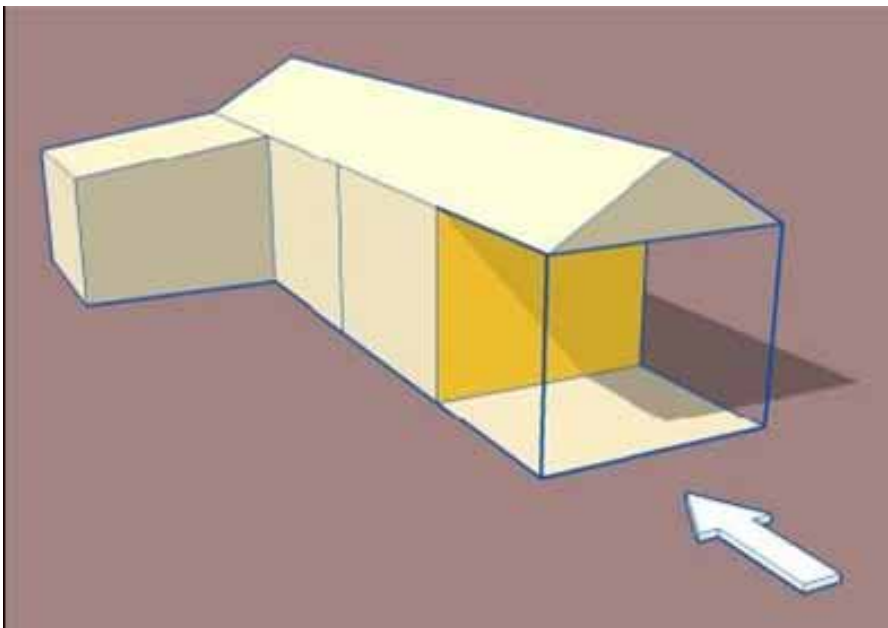
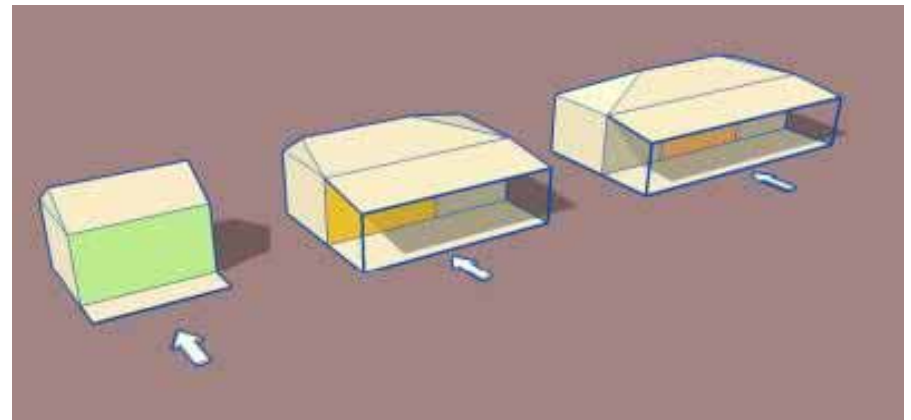
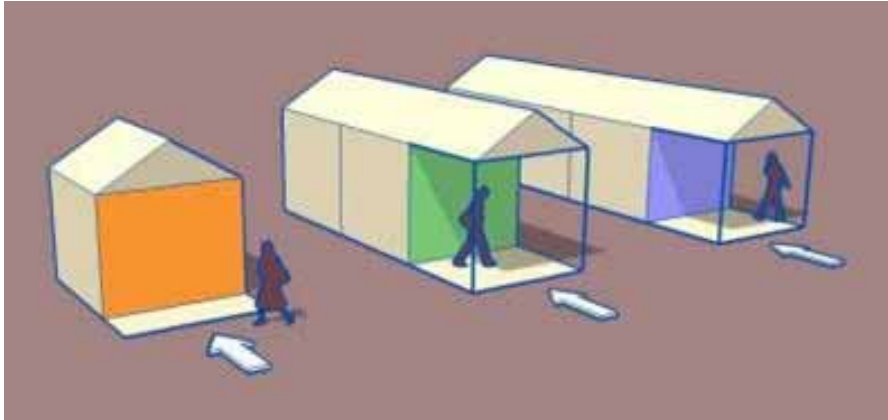


What are the important architectural elements ?

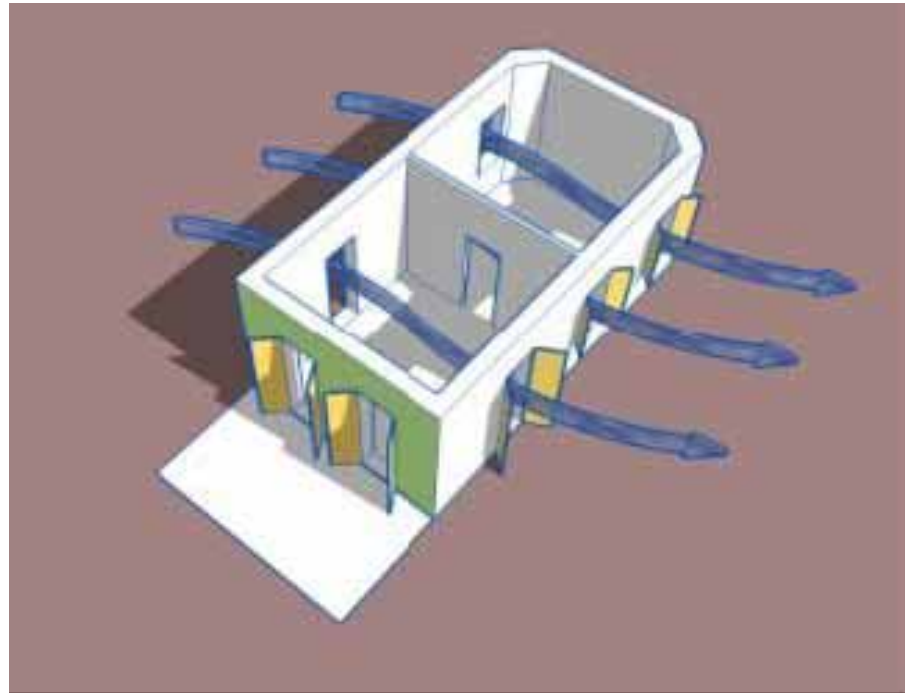


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Patti Stouter, Landscape Architect

How do houses grow over time



How do people cope with climate ?

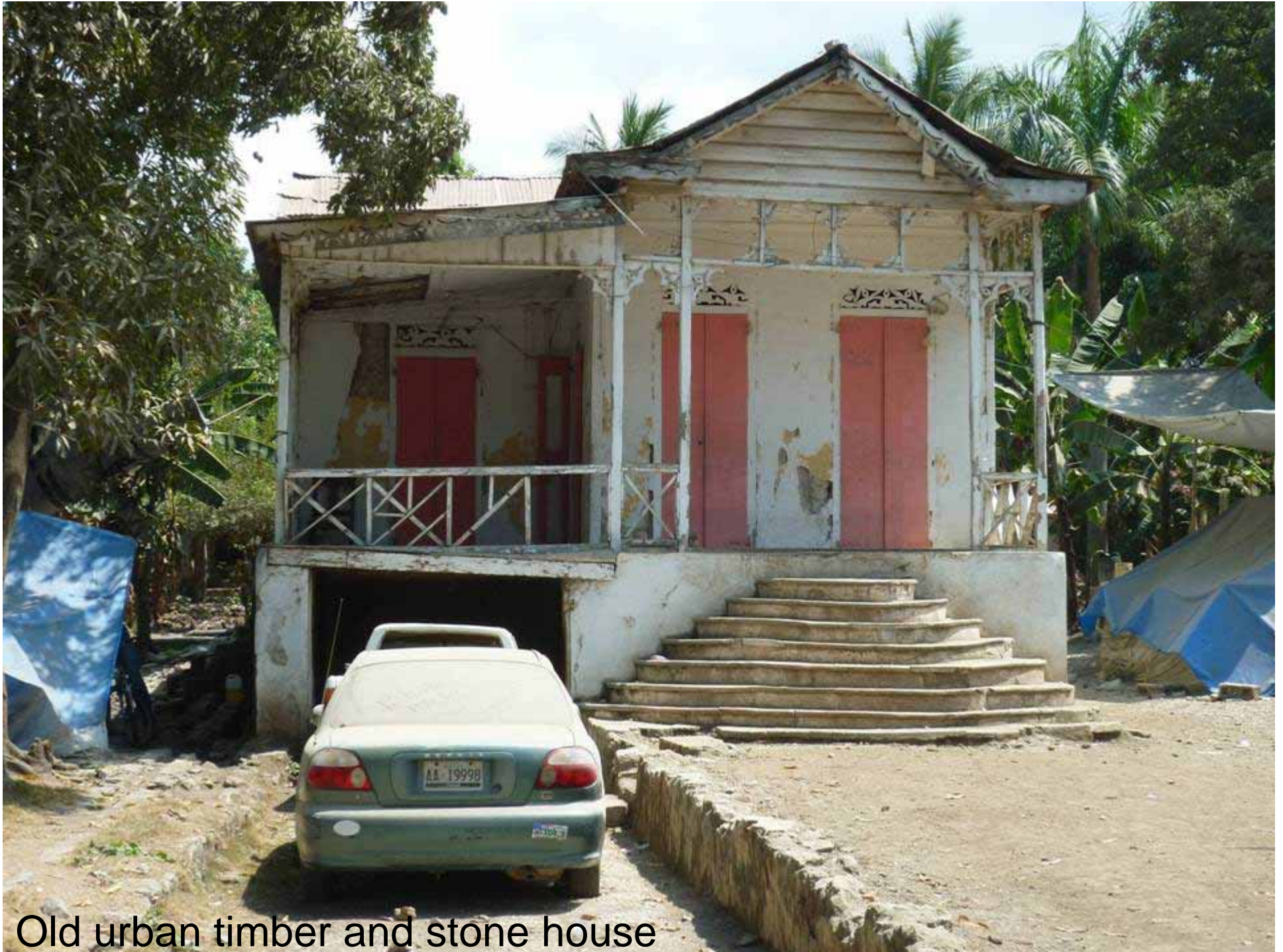


Gingerbread:
timber structure with brick infills





Old urban timber house



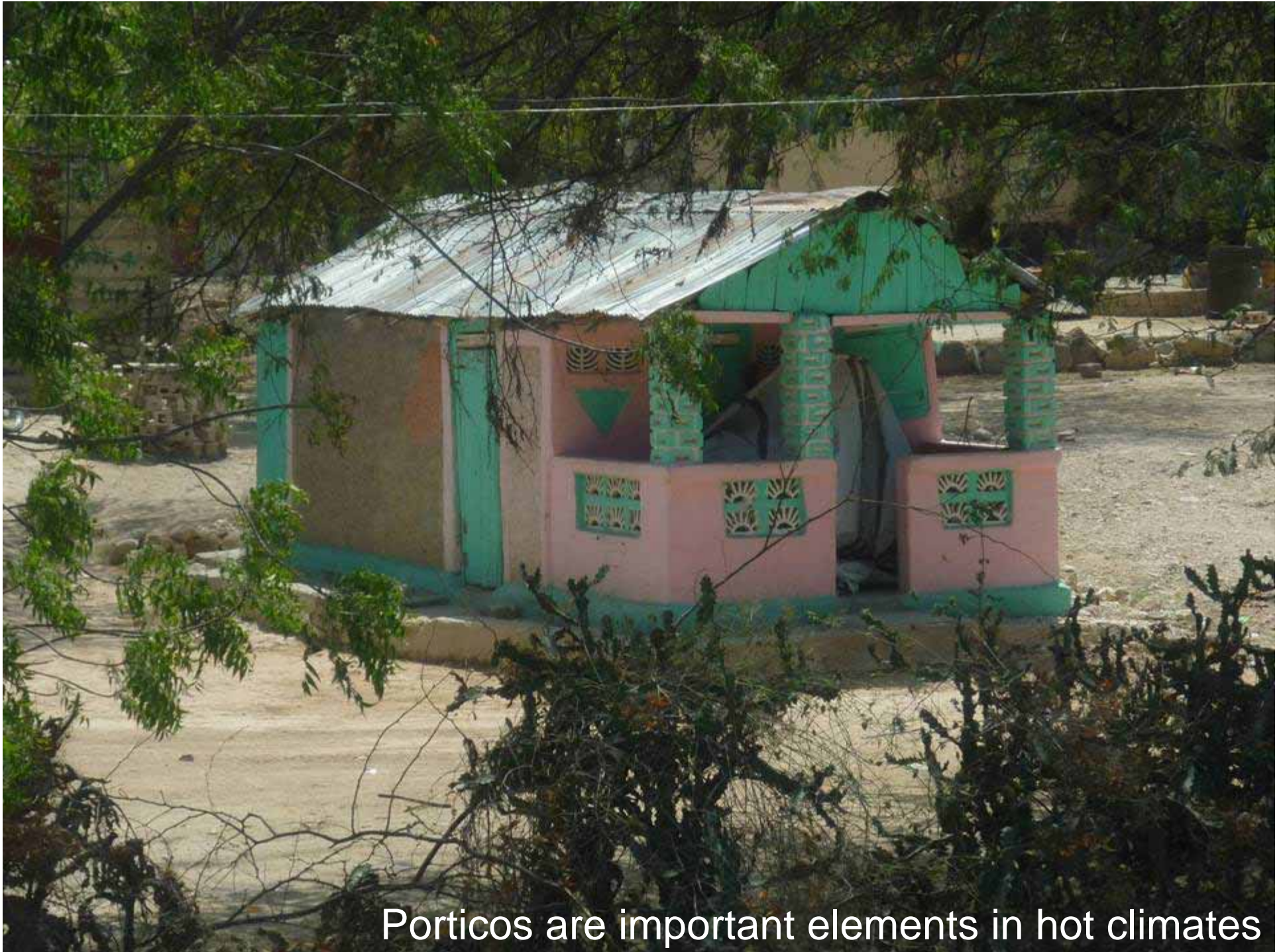
Old urban timber and stone house



Typical rural house



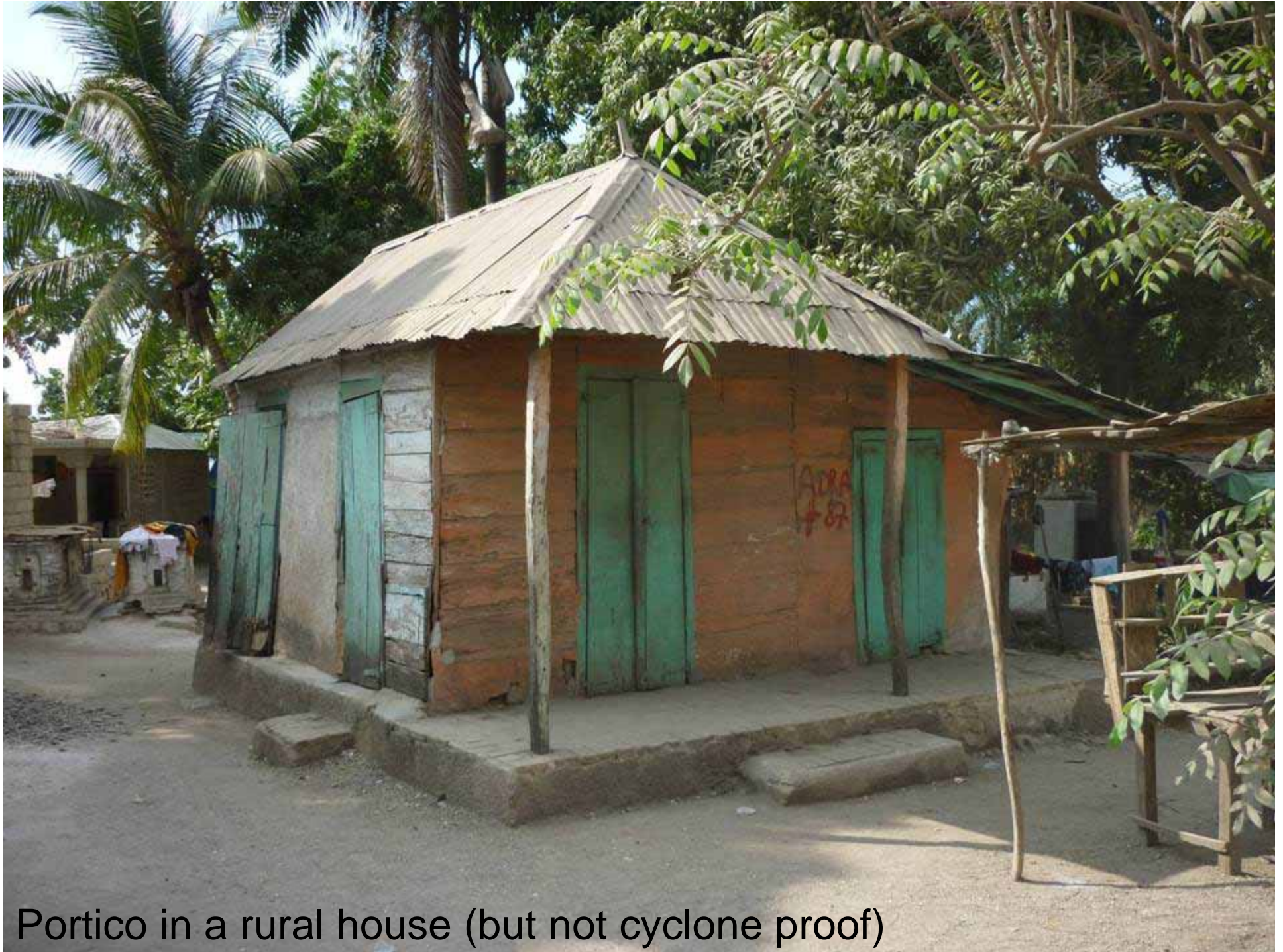
Inside a rural house



Porticos are important elements in hot climates



Porticos are important elements in hot climates



Portico in a rural house (but not cyclone proof)

Door to storage space





Portico and storage space under the roof



Lateral addition to the house



The importance of the yard



Minimum standard for the poorest ?

Traditional shelter built by
the people themselves



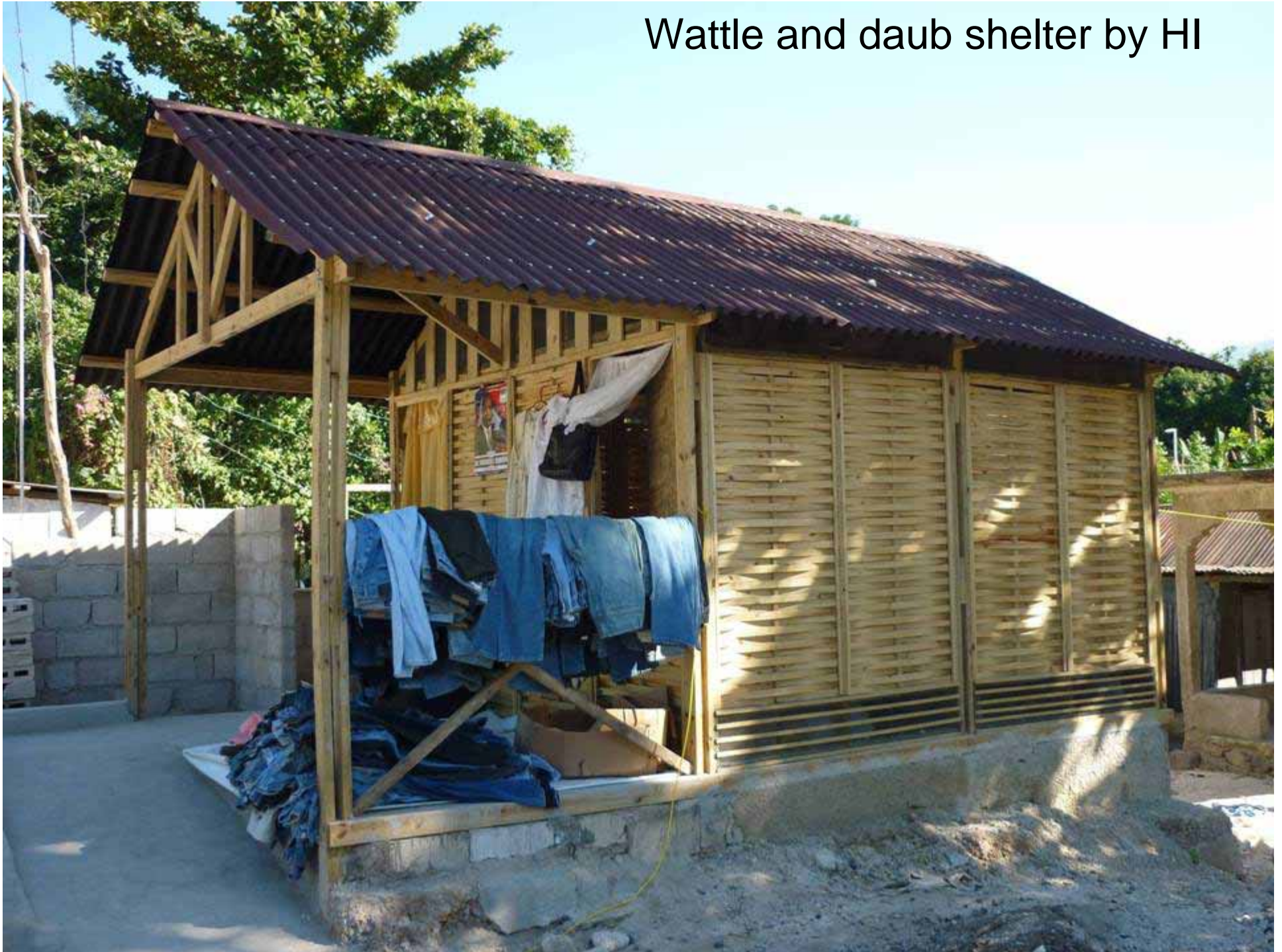
Rural wattle house



Rural wattle and daub house



Wattle and daub shelter by HI





Different types of plastering according to the wishes of the client

Cement plaster on wattle



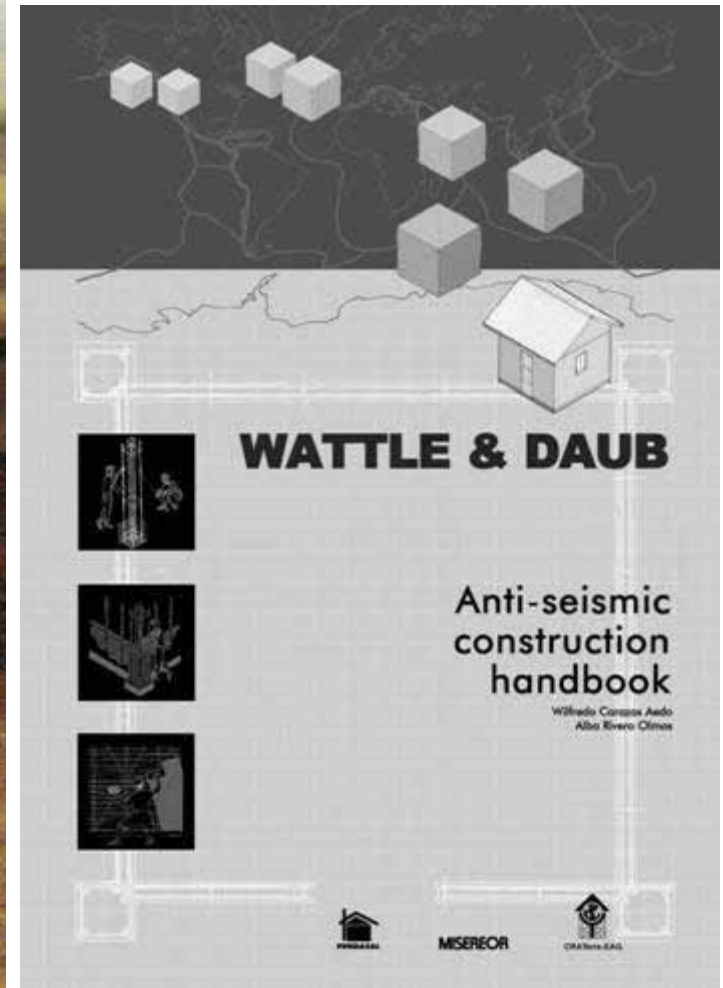
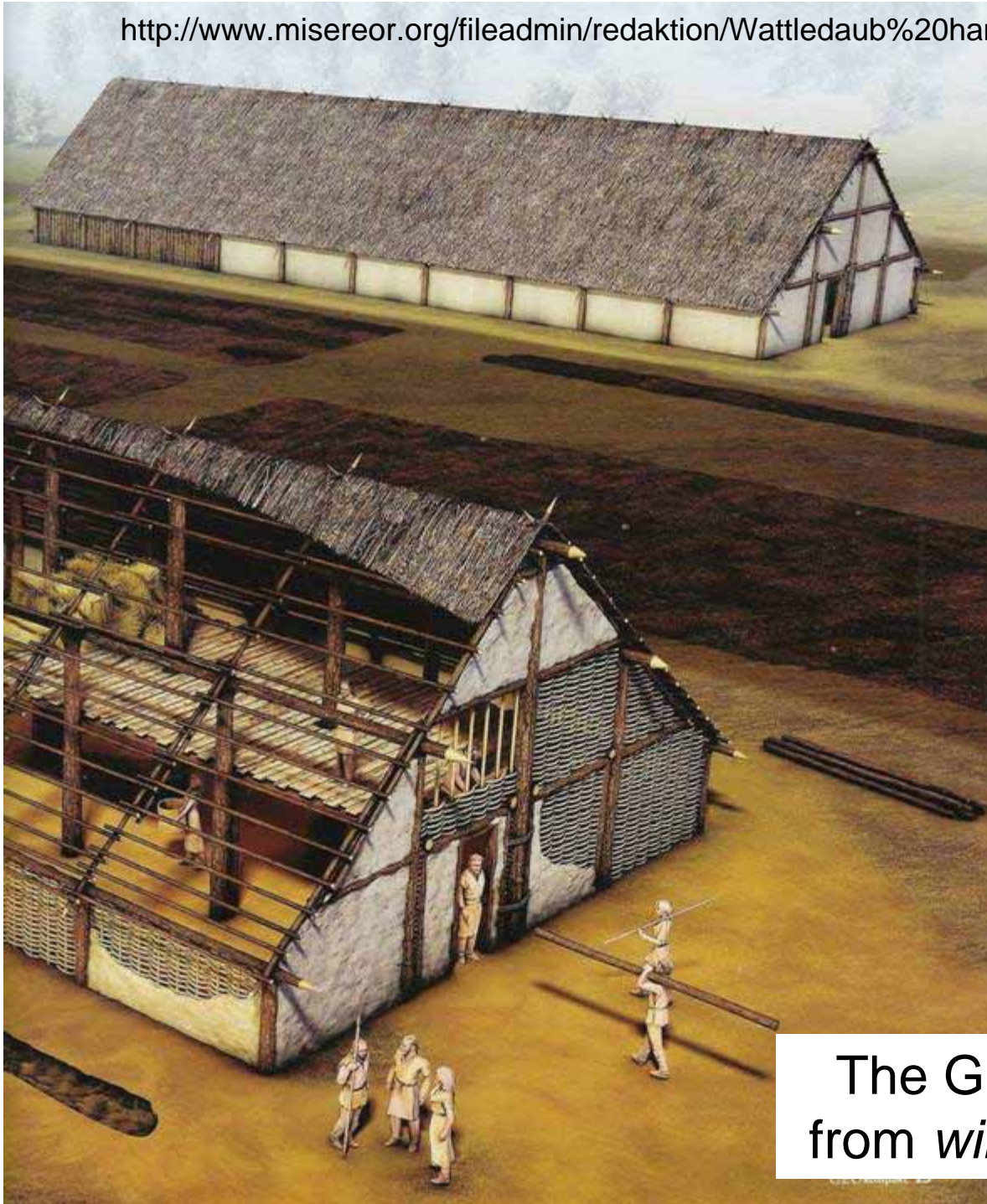


Tin roofs insulated with reeds

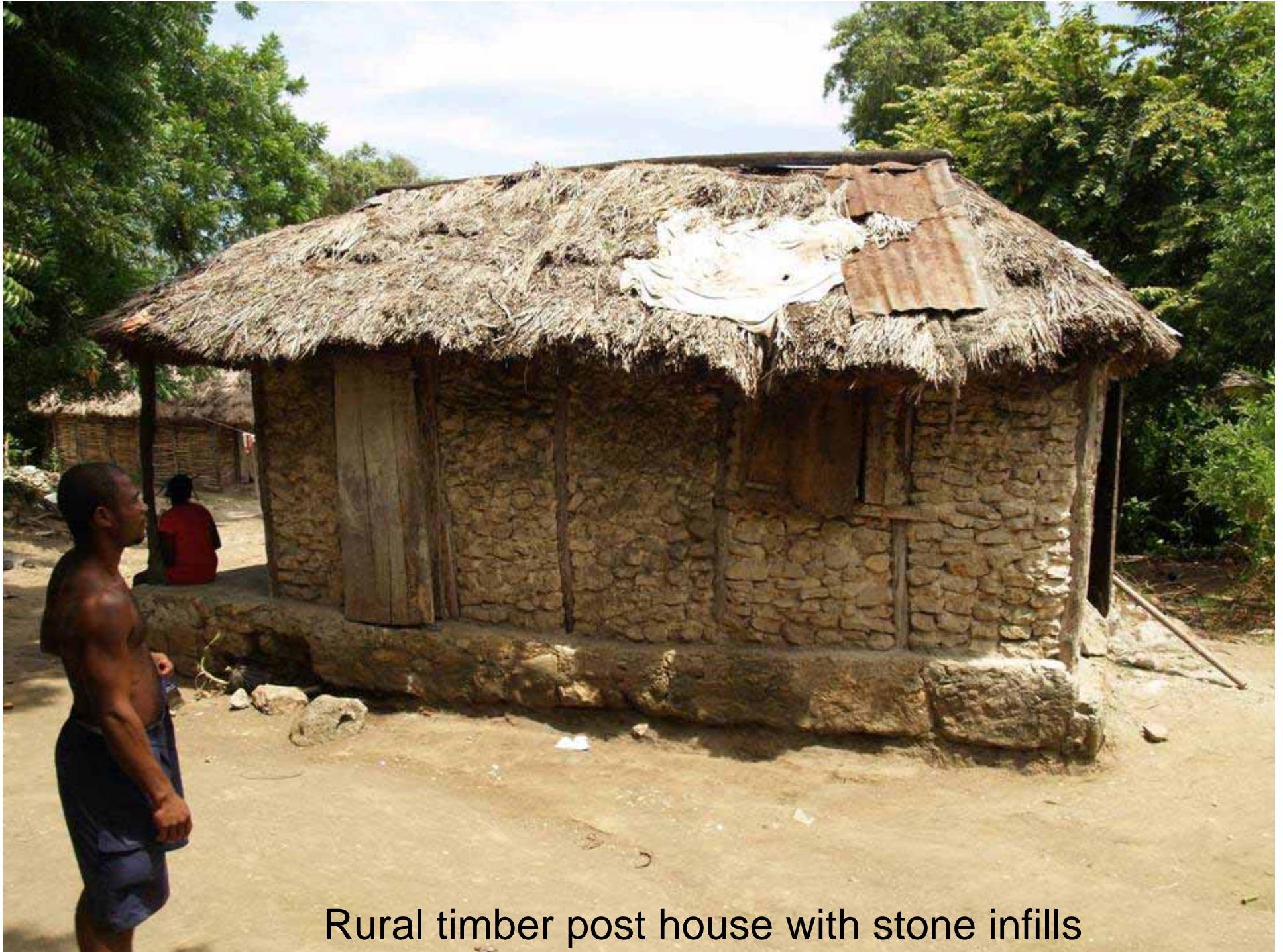
Same roof over room and veranda
is not hurricane proof



<http://www.misereor.org/fileadmin/redaktion/Wattledaub%20handbook%20anti-seismic%20construction.pdf>



The German word *Wand* comes from *winden*, i.e. wattle and daub



Rural timber post house with stone infills



The traditional way: poles in the ground and no bracings



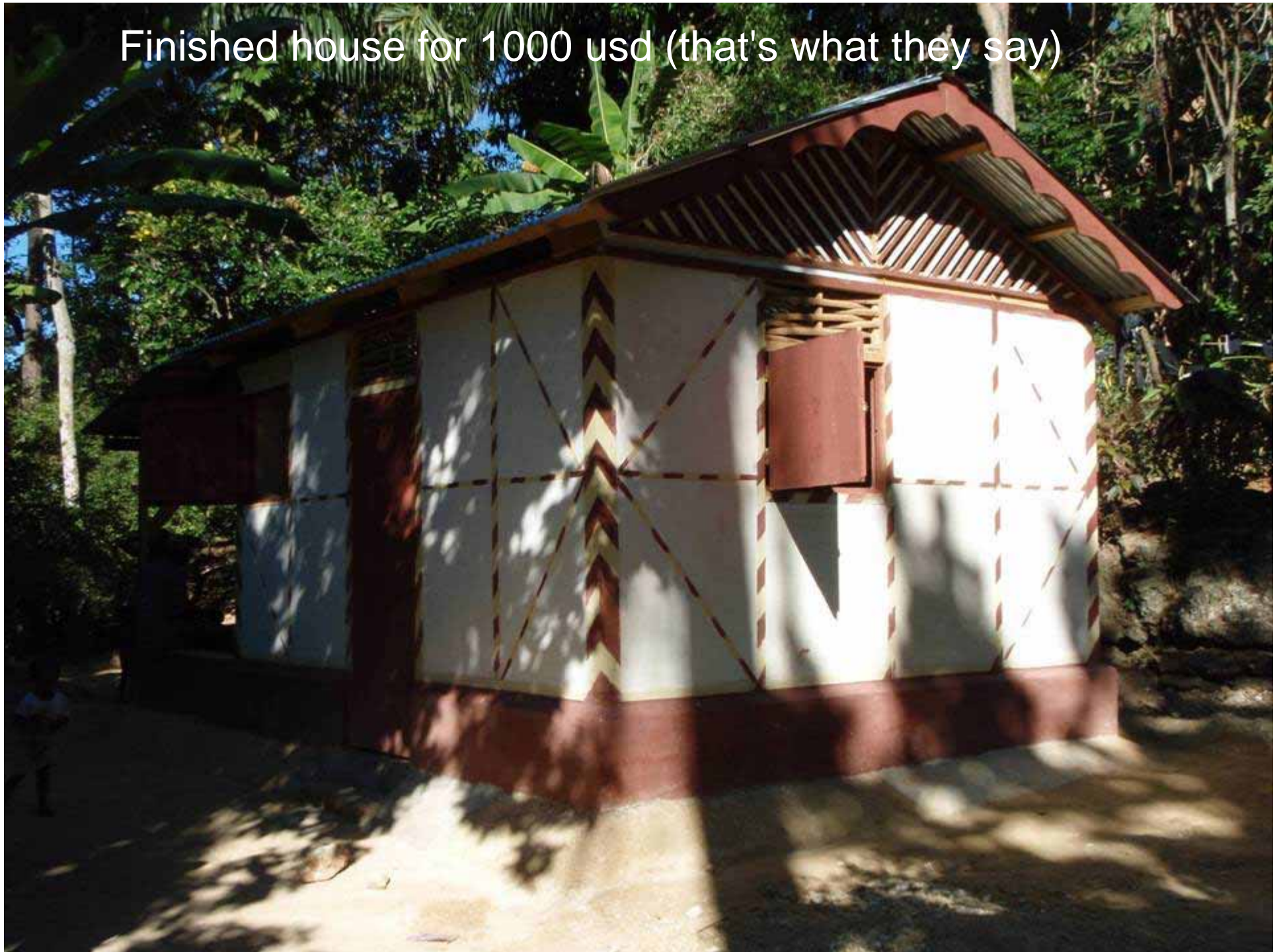
Introducing a plinth to get timber away from humidity



Introducing bracings and stone-mud masonry infills



Finished house for 1000 usd (that's what they say)





Finished house



Cyclone appropriate veranda roof
(can fly away)





↑
Ventilation

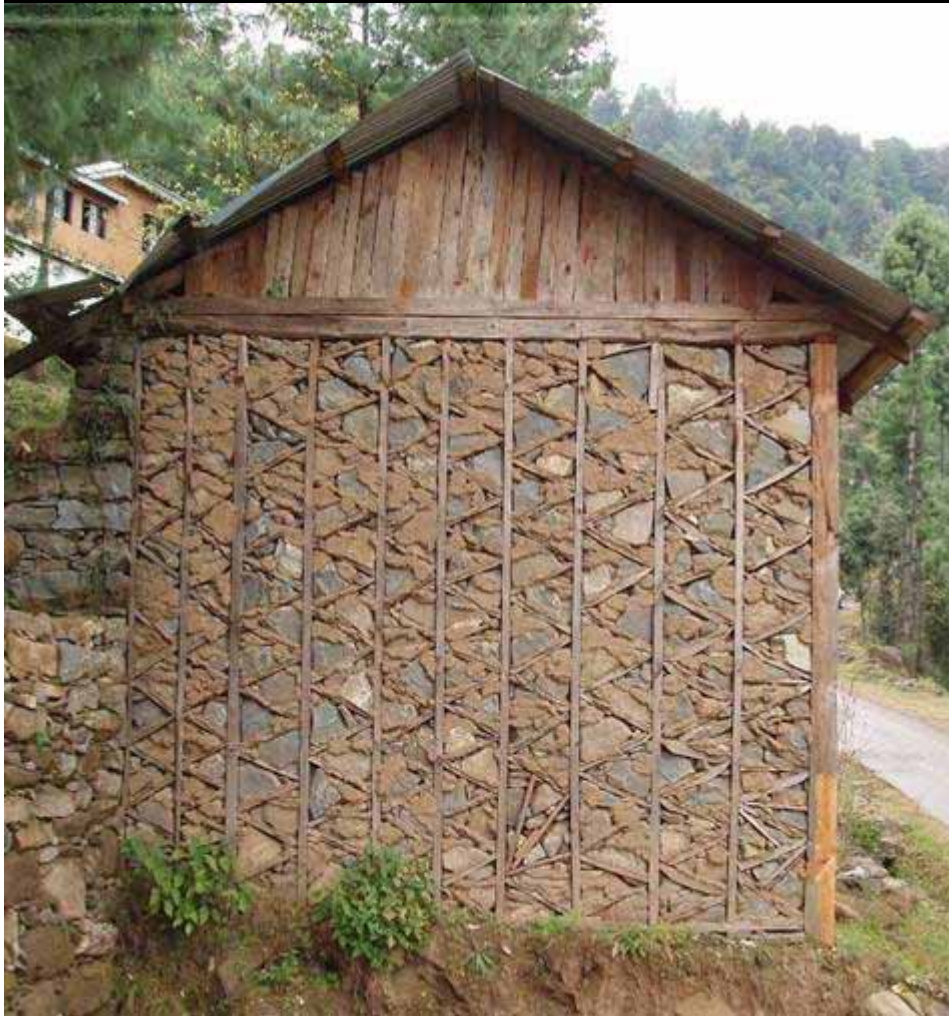
Showing different ways of mud plastering



People loved the mud block pattern !



Pombalino reconstruction of Lisbon in 1755

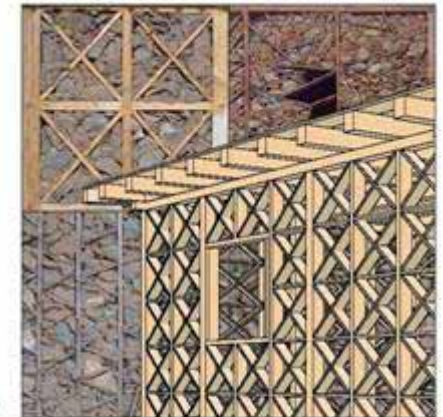


Traditional EQ-resistant dhajji construction in Kashmir

Dhajji reconstruction in Pakistan 2006



Pakistan manual has been used
by various organisations in Haiti



DHAJJI CONSTRUCTION
For one and two storey earthquake resistant houses

A guidebook for technicians and artisans

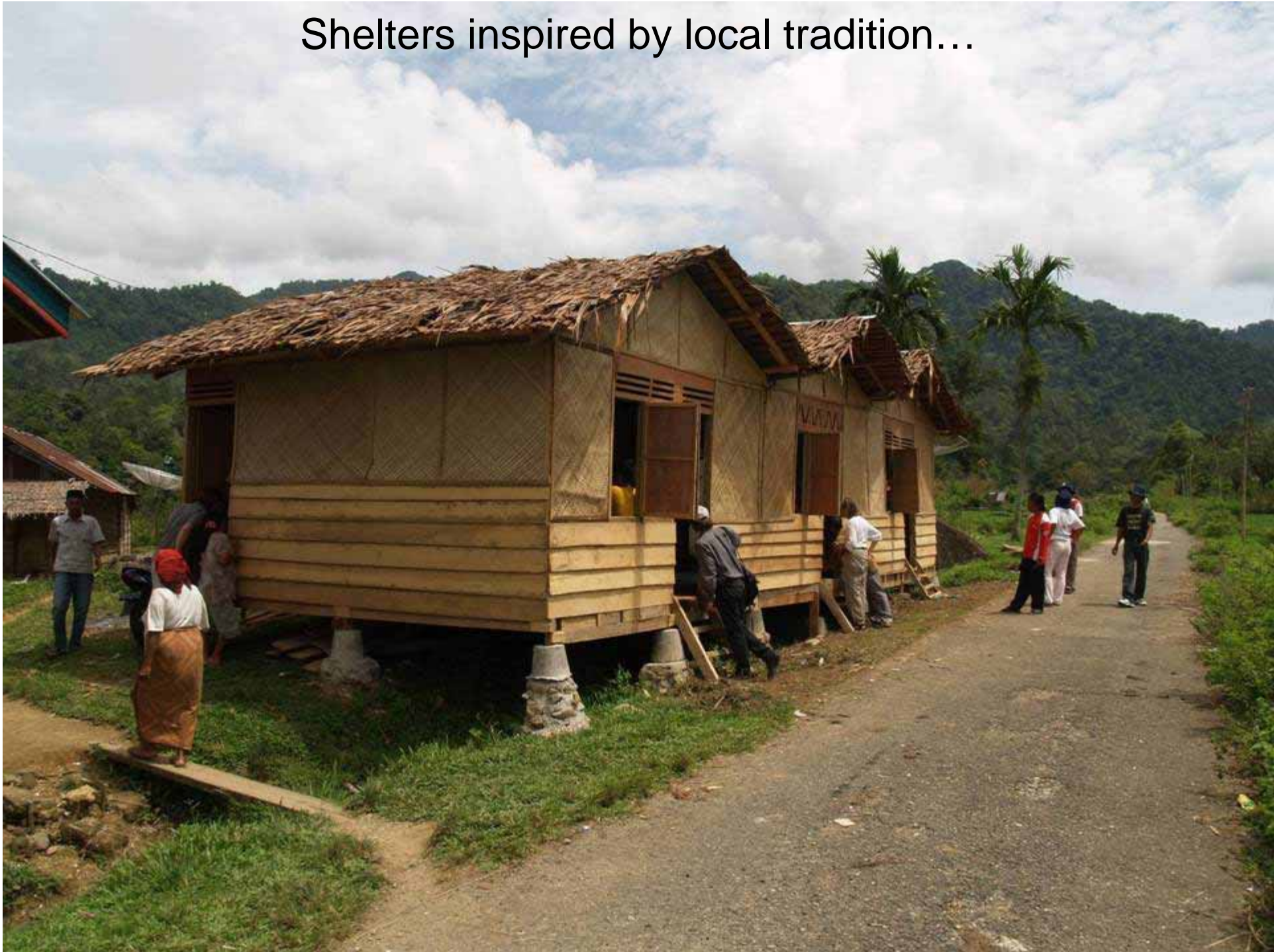


Modern timber frame with brick infill construction in Sumatra !



Modern timber frame with brick infill construction in Sumatra !

Shelters inspired by local tradition...



... but modified...



(interior of the same house)



Shelters don't have to be so stupid !



The end

Luckily Haitians have a good sense of colour !