

# The “GREB” straw bale technique in a few words

This unique construction technique is a mix of several others : it consists in infilling a double light timber frame with a straw bale layer, fixed directly on the foundations. Straw bales are protected by a light wood mortar, made up of cement – calcic lime – sand and sawdust.

The originality is that the construction process is very simple and easy for unskilled labour, thanks to the use of small dimension formwork. The light wood mortar can be easily run and protects directly the straw bales from outside. The aerated mortar also gives a regular aspect to the wall.

The microporous mortar associated with natural lime coating will guarantee a breathing wall and protected from the rain.

First, assemble a double light timber frame, using a unique section (40 mm x 100 mm, 2”x4”) of vertical posts, separated by the width of a straw bale (60 cm, 2 ft average). Posts are screwed directly to a sill plate fixed on the foundations.

For each floor, fix an upper rail on the posts to install the floors and ceilings joists. Each upper level and gables can be easily made with the same construction technique. To support a specific beam or additional load bearing, use a structural column made of 8 posts assembled to each others, wich gives a strong resistance / (an extreme solidity) to the work.

A first straw bale layer is slipped inside the double frame ; formworks are screwed on the posts, the wood mortar is run between straw bales and formworks.

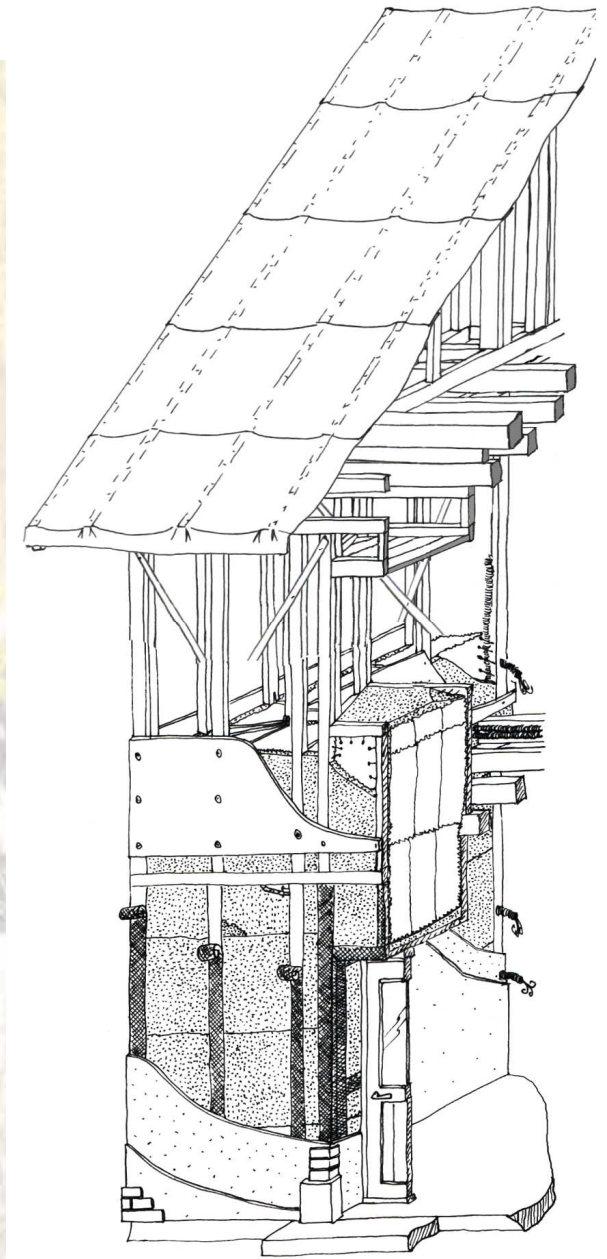
Dismantling is possible after 12 hours, new straw bale layer and formworks can be replaced to run another wood mortar.

The walls will be then protected by a lime mortar or other covering, depending on the finishing coat needed.

Building walls with the “GREB straw bales construction specifications” can be accomplished with unskilled and non professional labour, the low costs of the bales make this technique economically very attractive.

Need more details about the “GREB” technique?  
Then read the book « *How to build your own straw bale house using the GREB construction technique* » (only available in French).

[www.approchepaille.fr](http://www.approchepaille.fr)



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