FOUNDATIONS

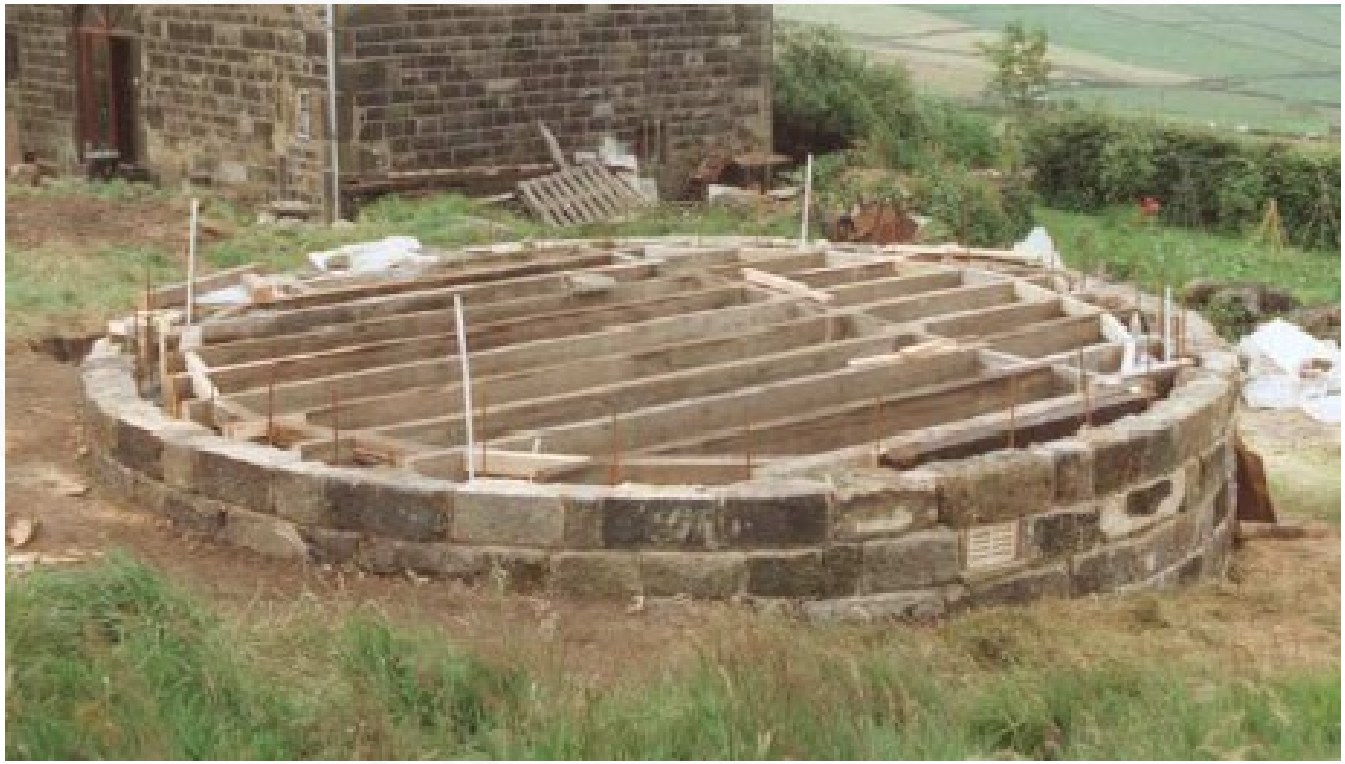
LOW IMPACT FOUNDATIONS

Ecology Building Society 2005

- Building Regs approval for low-impact shallow foundations
- No cement
- No plastic damp proof course
- No deep trenches

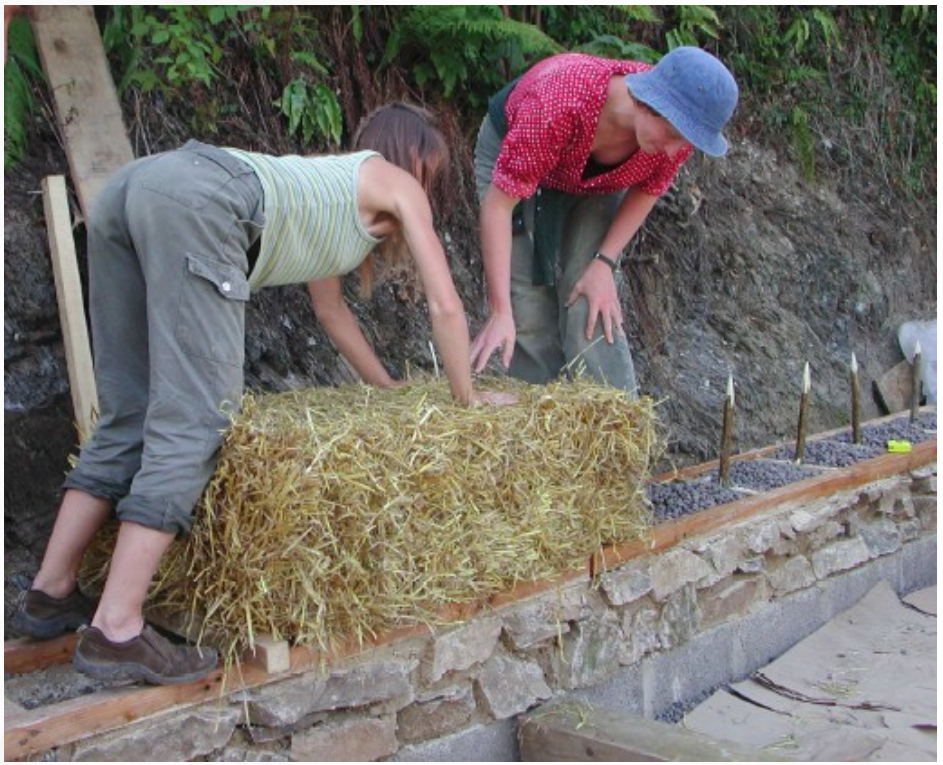
LOW IMPACT FOUNDATIONS

- Local stone with
  slate damp proof course
- Self draining
- Insulated cavity



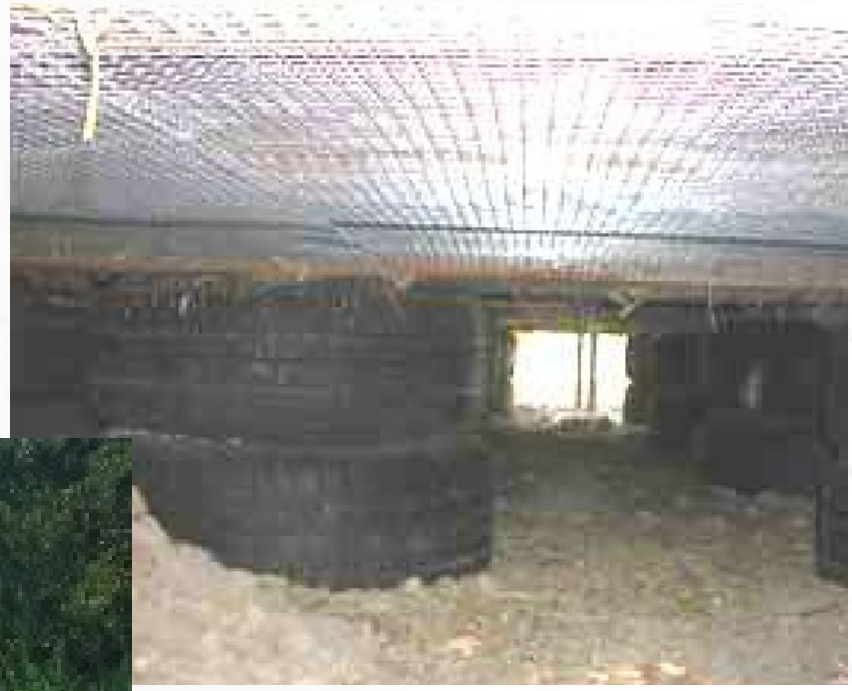
LOW IMPACT FOUNDATIONS

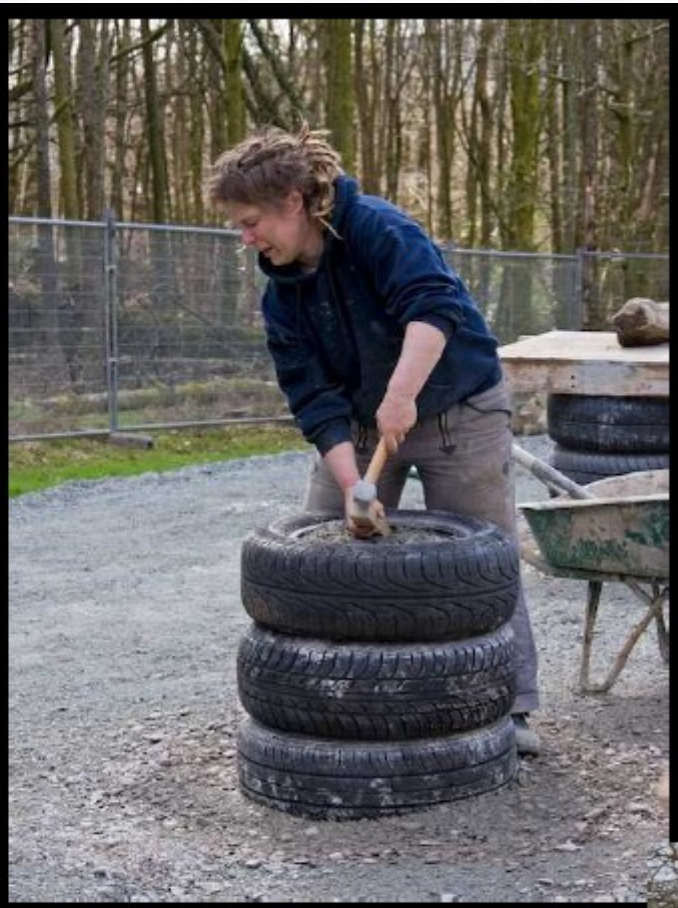
- Reclaimed stone from site
- Blown clay Leca (optiroc) insulation
- Local grown larch baseplate
- Local grown hazel pins

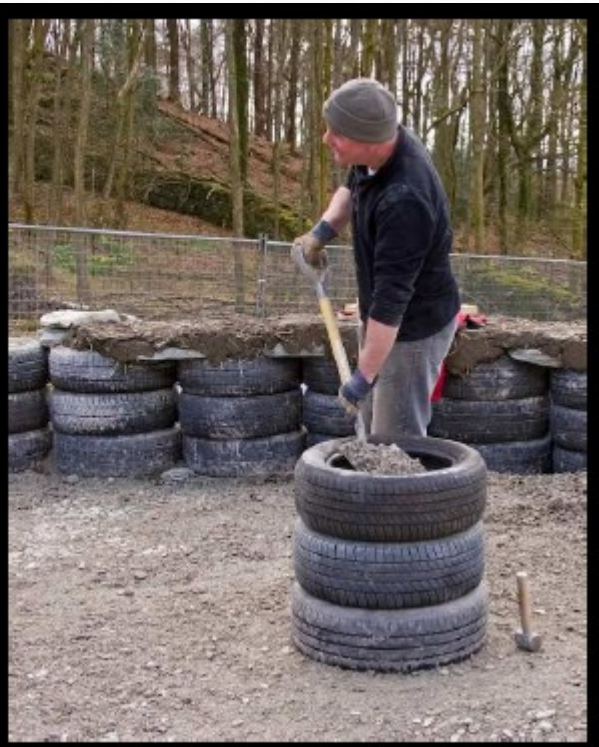


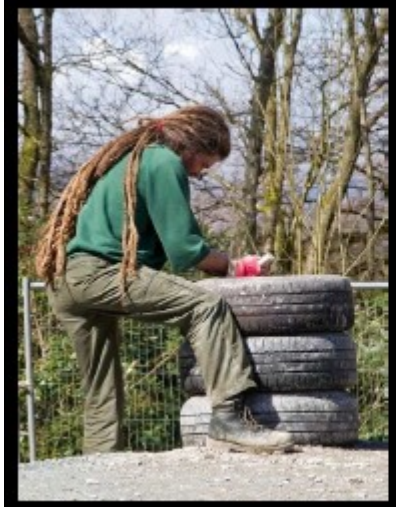
LOW IMPACT FOUNDATIONS

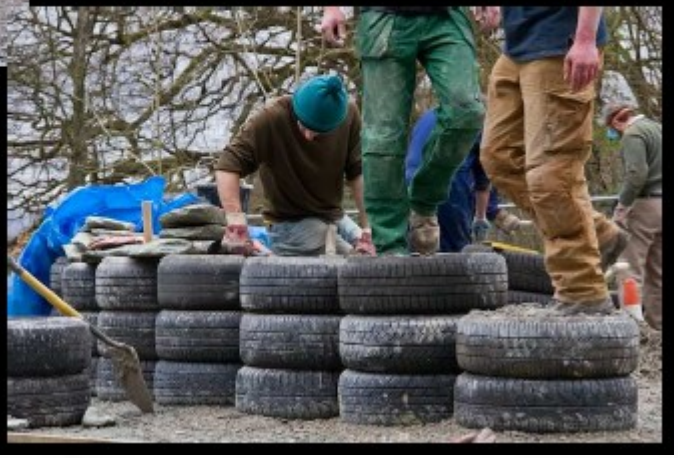
- Ram filled car tyres
- Full building regulation approval





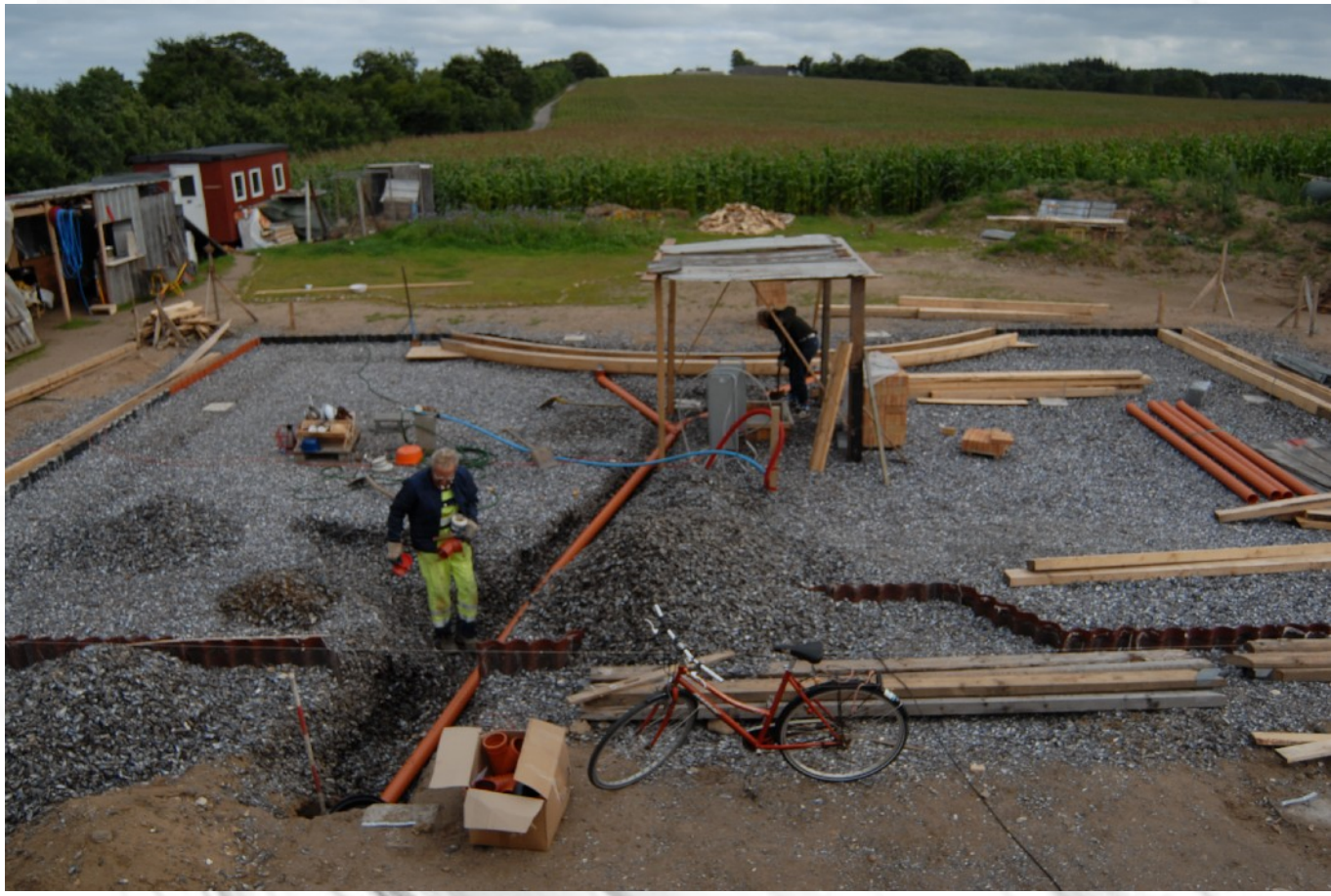




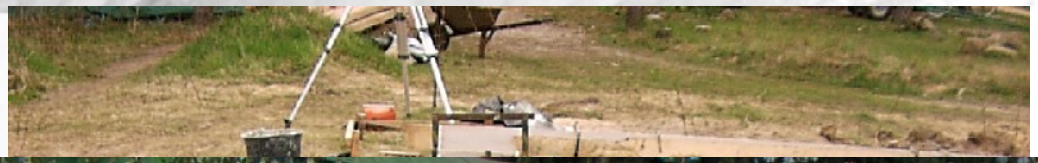


LOW IMPACT FOUNDATIONS

- Mussel shells as floor slab insulation
- Thermal conductivity and capillary suction measured for whole shells, crushed shells and the coarse fraction of the crushed shells.
  ë ~ 0,12 W / mK
- Capillary suction height
  < 25 mm



LOW IMPACT FOUNDATIONS

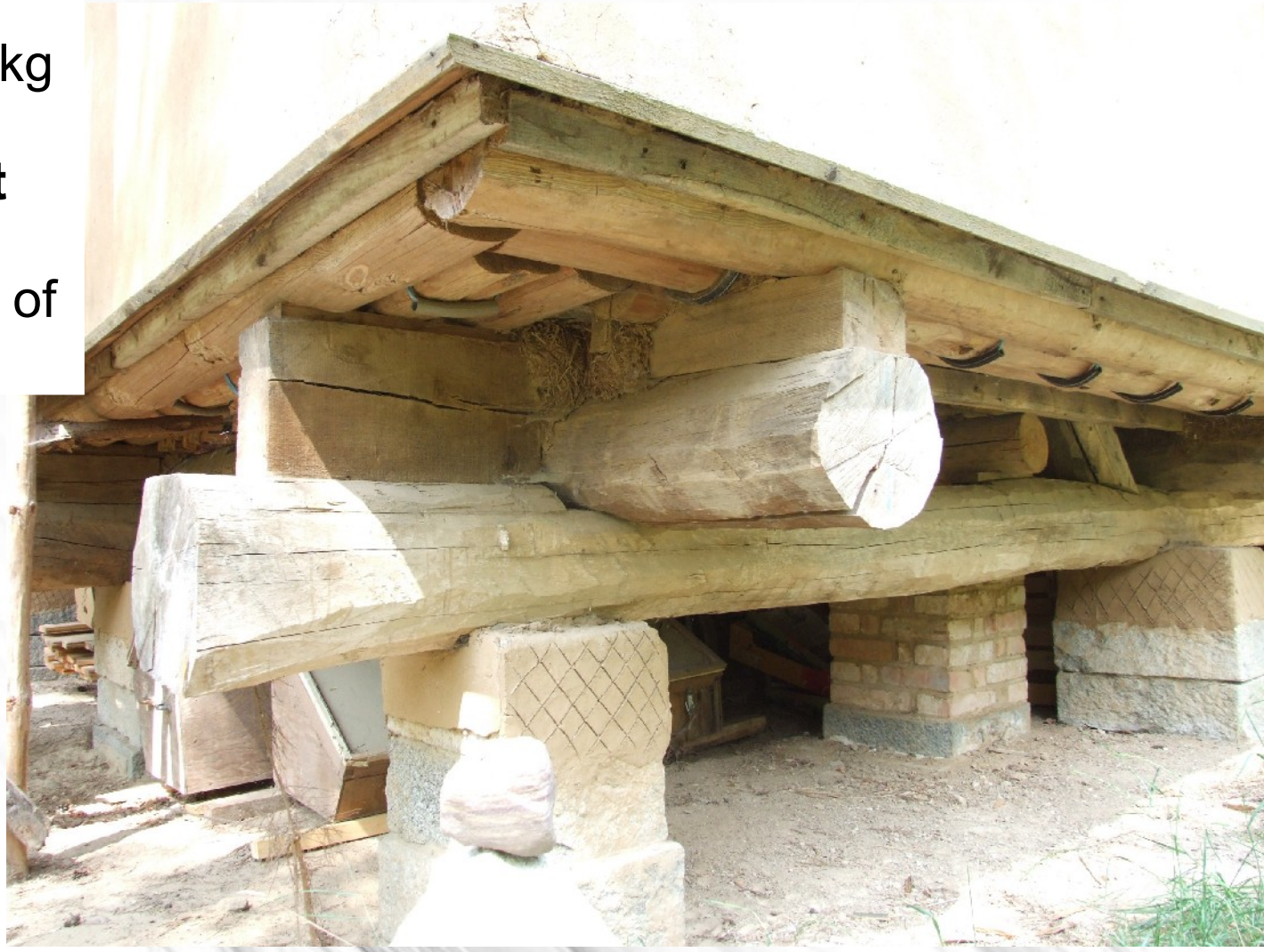


- Directly recycled concrete blocks
- Mounted without little amount of new concrete
- Final layer on top for getting precise niveau
- **Reduction of cement use by 95%**
- **Expenses mainly for paying people instead of ressources and energy**

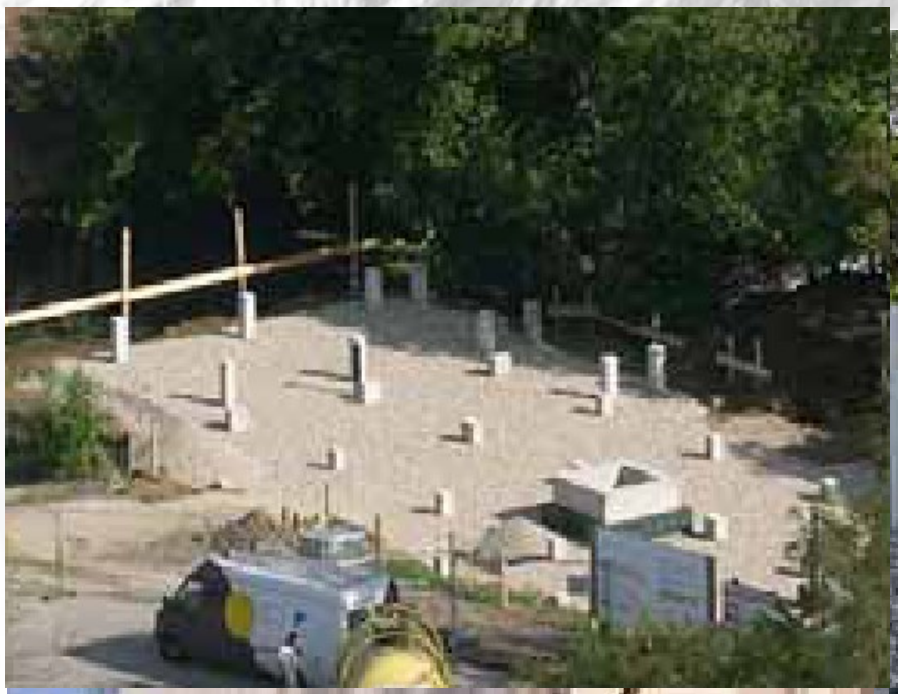
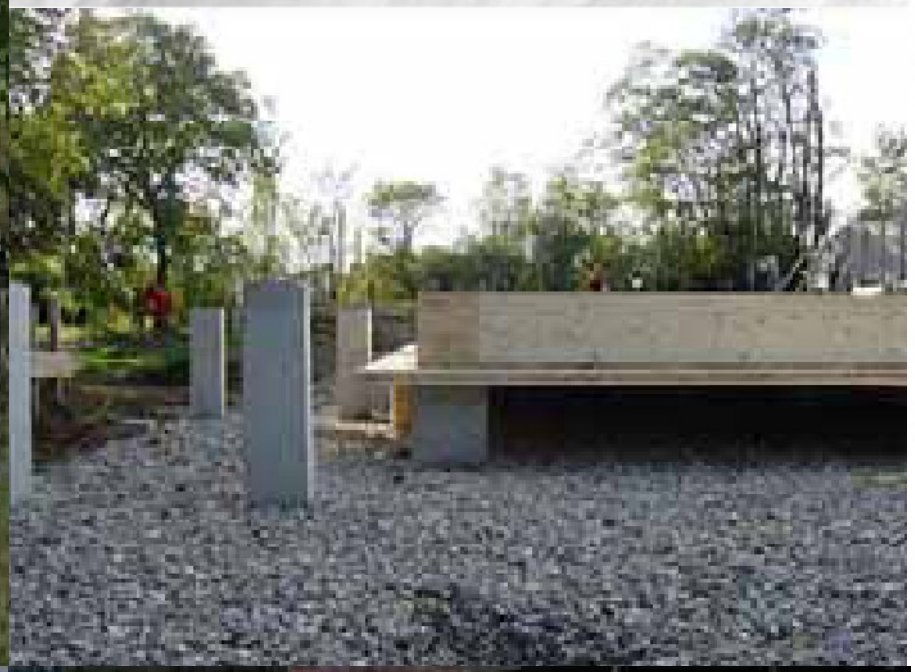
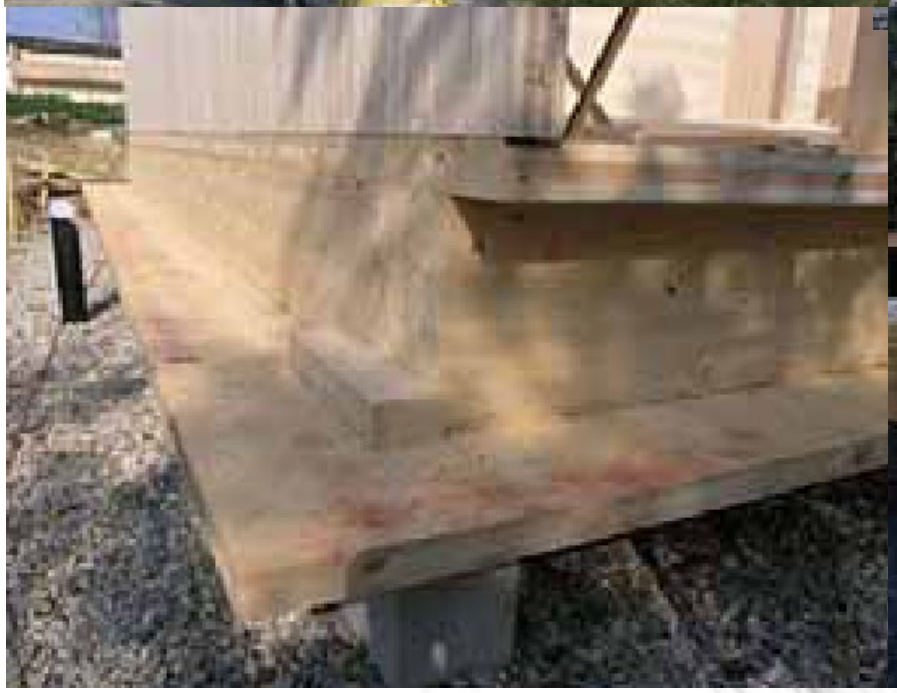
Villa Communia, Sieben Linden (Germany)

LOW IMPACT FOUNDATIONS

- Directly recycled granite blocks
- Mounted with only 20 kg of new cement
- **Reduction of cement use by 99 %**
- Human power instead of fossile energy



Villa Strohbunt, Sieben Linden (Germany)


S-House Austria: single foundation points, no sealing, but still compaction of soil

THANK YOU !

Resources:

- Amazon Nails, http://www.strawbalefutures.org.uk
- BYG (Lars Keller)
- World Wide Web
- Pictures made by myself and many different people in Sieben Linden
- ...

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