



# EARTH USA 2011

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**Title:**

Why Haitians Want High-tech Low-skill Earthbags

**Abstract:**

Earthbag is a hybrid earthen technique combining subsoil with a small proportion of inexpensive manufactured bags and wire (made world-wide). It is spreading in traditional earth-building regions and beyond because it is low-cost, accessible to unskilled workers, can use a wide variety of fills, and has an intrinsic reinforcement matrix that prevents wall collapse.

Video and e-book instructions available on the web have attracted many building in Haiti, where it is welcomed in shapes that fit the culture. The author has worked full time since the quake on housing, clinic, and school projects for Haiti, and training Haitian-Americans. Customary earthbag reinforcement costs less than adobe reinforcement. Recent test reports and informal experiments show that unreinforced earthbag may bear much more shear stress than unreinforced adobe. New earthbag reinforcement techniques that need further testing.

The future of earthbags include base isolation or vibration-dampening layers, mesh tubing with earth in non-hazardous regions, and clay dipped straw wattles for thinner upper walls.