Building with Earth

Why Build with Earth?

∑ **Earth buildings are energy efficient.** Earth buildings have superb insulating qualities, absorbing heat during the day and letting if off through cool nights. In the summer, earth insulates against heat. Building with earth often doesnít involve the use of power tools.

∑ **Earth buildings use resources that are readily available, renewable and affordable.** Many of the materials for earth buildings can often be found directly on the building site, decreasing the need for fossil fuel-burning transportation.

∑ **Building with earth is easy.** Many methods of earth building can be done by a group of people, who then have the satisfaction of living in a structure they built themselves.

∑ **Earth buildings are internationally popular.** Because earth is such a ubiquitous and adaptable material, people worldwide use earth to build a variety of structures in many different ways.

What are Earth Buildings?

∑ **Cob or Wattle-and-Daub**: Creates walls with a mixture of mud and sticks or straw as reinforcement over a framework which then dries solid. This method is one of the most commonly used internationally.

∑ **Rammed Earth**: Uses a mixture of soil, sand, water and usually cement or another stabilizing ingredient. It is compacted into a wall-formed mold, which is later removed allowing the walls to dry.

∑ **Gunearth or PisÈ**: Sprays a mixture of soil, sand, water and usually cement or another stabilizing ingredient onto a metal or wooden formed frame or into a mold, which then dries in that shape.

∑ **Adobe**: Uses clay, sand and straw as a mixture to form unfired bricks. This mixture can also be poured into a form, similar to rammed earth building. The walls can then be covered with a lime wash.

Sources:
∑ Pearson, David. The Natural House Book. Simon & Schuster, New York: 1989.
King, Bruce. Buildings of Earth and Straw. Ecological Design Press, California