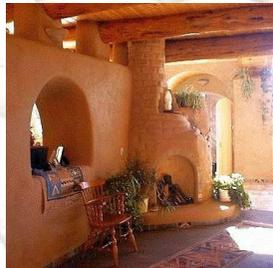
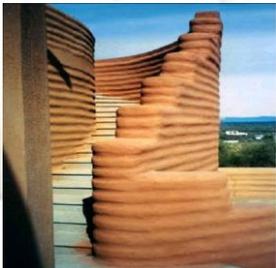




The renaissance of earth building – the advantages of superadobe technology

- Natural, reversible, recyclable building materials no harmful to our health and the environment;
- Good thermal mass material: perfect heat storage capacity and regulation of the temperature and the humidity resulting a comfortable interior microclimate;
- Good acoustic parameters (healthy soundspaces);
- Statically strong, durable and resistant even to extreme weather conditions and natural catastrophes (flood, windstorm, hurricane, fire, earthquake);
- Wide range of application; the most ideal technology for arched walls and earth sheltered houses;
- Harmonic and diverse – traditional or modern – forms and styles: straight or arched walls, square structures, vaults, domes or their combinations;



- If we build vaults or domes, we can omit or minimize the use of wood, iron or reinforced concrete bond and beam systems and roofs;
- Economic and environmentally friendly, easy building with local materials: small waste production, lower need for industrial background and machines, shipping costs, energy input and environmental pollution;
- Lower building and housekeeping costs;
- Anyone can learn this building technology: the whole family or community from young to old can build;
- Ideal for humanitarian purposes, strengthen communities and equal opportunities.

Activity of the SzuperMA Workgroup

- Introduction lectures, consultation, professional workshops, courses, practical training camps;
- Information and professional brochures, books, CD-s;



ANYONE CAN LEARN TO BUILD!

Superadobe workshop soon in English!

- Alternative techniques and materials: hyperadobe (raschel), extradobe (stick-on polyethylene tube), bagadobe (woven hemp) etc.
- Professional supervision and guidance for building;
- Individual planning, prototype plans;
- Future plans: Rainbow Ecovillage – reference and education of complex self-sustaining and sustainable systems including permaculture, organic constructions, renewable energies and recycling water systems.



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*“Earth turns to gold
in the hands of the wise” (Zumi)*

SUPERADOBE and its alternatives

BUILDING TECHNOLOGY FOR HOUSES,
GARDENS AND LANDSCAPE ARCHITECTURE



Building with earth in a new form

What is superadobe? Essentials of the technology

On-site earth – optionally mixed with **stabilizing material** (e.g. lime or cement) – is filled into **polypropylene bags (sandbags) or tubes** (the uncut raw material of the bags). The superadobe tube is **tamped** like it is done when we build a traditional rammed earth house.



We lay strands of galvanized **barbed wire** between the superadobe rows, which keep the layers together (like mortar) and increase the tensile strength of the structure.

The long-lasting polypropylene (PP) tube acts as a **formwork** that stays in the wall giving a permanent extra strength to the structure. The water can leave the earth through the gaps of the woven strands of the PP tube, and it keeps the filled plastic earth together until it gets dried and set. Finally the wall is **plastered** that protects the PP from the damage that UV-radiation could cause to it.

Superadobe is like a large “superlong” adobe, an **instant and flexible wall generator**, which we can use to form long rows without intermission. Since the raw earth is plastic and the tubes are flexible, we can easily build a great variety of structures, not only square buildings but also **arched walls, vaults and domes** that have many **static and aesthetic advantages**.

Building with Superadobe is **easy, environmentally and economically friendly, and anyone can learn it**.

Superadobe structures are **stable and water resistant**, and can resist even to **extreme weather and environ-**



mental conditions – like **floods, windstorms, fire or earthquakes**. **Eco-Dome** – prototype of the technology – passed the very strict California’s building codes.

Dependent on what a structure we want to build, PP tubes can be substituted with different materials, e.g. with **raschel (hyperadobe)** or with natural materials like burlap or linen (**bagadobe**).

Origins of the superadobe technology

Superadobe technology integrates traditional, timeless building techniques and materials with the latest results of science and industry.

The concept comes from the Persian-American architect **Nader Khalili**, who formerly worked as a successful skyscraper specialist. In 1991 he founded the **California Institute of Earth Art and Architecture (Cal-Earth)**. His basic idea was to help the poor and the victims of the environmental catastrophes with this quick and cheap living solution. However the development of the technology showed that its application possibilities or its combination with other building methods are so extensive that almost our fantasy can set a limit to them.

Superadobe is appropriate for the current structures and building engineering, but also a great alternative for **eco and autonomic houses**, and for the fans of **organic building, sacral geometry or folk architecture**. It is the most ideal for **arched walls and earth sheltered houses**. **From simple to luxurious** we can build different kinds of structures that meet the contemporary global safety and comfort requirements: from **family houses, industrial and farm buildings to landscaping structures** etc.

With his original “Velcro-adobe” concept Khalili was invited to the NASA program of **“Lunar bases and planetary activity in space in the 21st century”**.

What can you build from Superadobe?

- Family houses, semi-detached and terraced houses;
- Small block of flats, subdivisions, eco-villages;
- Holiday houses, bungalows, camps, garages;
- Community, educational and cultural buildings;
- Offices, shops, marketplace, pavilions, kiosks;
- Industrial, farm and outbuildings, cellars;
- Renovation, strengthening, protection or enlargement of old adobe or brick buildings;
- Walls, steps, ovens, plasterwork inside and outside;
- Garden facilities, landscape architecture: fences, buttress walls, garden furniture, fireplaces, rose-bowls, flowerbeds, doghouses etc;
- Works: lakesides, river bends, barrages, flumes, pools, cisterns;
- Temporary or permanent shelters;
- Flood, underflow, erosion and landslip control.



Superadobe & Permaculture Workgroup

Hungarian Superadobe Workgroup was founded in 2010 December. It is working on the **adaptation, development and introduction of superadobe technology in Hungary** and in the **CEE region** by the guidelines acquired in the Cal-Earth Institute. Our aim is to **join with the local and regional communities of organic building and environmentally conscious, sustainable living**. We plan to establish a small **eco-village – Rainbow Village** – that aims to serve not only a model but also an **educational center** for green building and the connected topics, like **permaculture, renewable energy, water protection, healthy and conscious living**.