



BUILDING WITH EARTH
3rd-5th September 2010

Rammed Earth is an ancient technology, currently being used around the world in a variety of situations and applications. It's a cliché, but the technology really is only limited by your imagination, and makes walls which have superb thermal mass, load bearing, fireproof and with impressive acoustic attenuation. They also look good, they are the colour of the surroundings they are from, and with minimal carbon dioxide emissions could be part of an answer to fast growing pollution from construction.



Friday	1600 1800 1900	onwards: arrival. Please ask at reception or in the restaurant for directions to your room. Supper in restaurant. Introduction to the course and the Centre. What makes earth walls stand up? Including a discussion on soil suitability, moisture content, formwork and compaction; a look at two different buildings as examples of how to approach design, engineering, costing and regulation of new earth build in this country.
Saturday	0830 0930 1100 1130 1300 1400 1600 1630 1800 1900	Breakfast in restaurant. Understanding building structures. Soil selection and preparation. A comparison of imported material and material found on site. Coffee. Understanding building structures. Formwork construction: looking at issues relating to openings and inserts as well as basic box technology. Lunch in restaurant. Practical session: building some sections of wall, using different materials to vary colour and texture, inserts to give the walls openings and indentations. Different means of fixing to earth walls: battens, reveals and roof plates. Tea. Practical session continued. Supper in restaurant. Earth buildings in Britain and abroad. A chance to ask questions on the day's build experience.
Sunday	0830 0930 1100 1130 1300	Breakfast in restaurant. Practical session. Review Saturday's work, including material constituents, colour blending, surface texture, surface finishing and weathering. Coffee. Design and detailing. Making sure you aren't designing walls for another technology. Lunch in restaurant then depart.

COURSE TUTOR: Rowland Keable

Rowland began building earth structures in 1985 in Sierra Leone and has extensive experience of working across Africa and Australia. After publishing *Rammed Earth Structures: A Code of Practice*, Rowland worked towards its adoption as a Standard, first in Zimbabwe whilst working there between 1995-98, and subsequently across the whole sub-region.

Since returning to the UK, Rowland established In Situ, which worked for a diversity of public and private clients including Eden, Channel 4 (Big Brother) and South Gloucester Council. Rowland has also published *Rammed Earth Design and Construction Guideline* and is a founder member of Ebuk (Earth Building UK). He established Ram Cast CIC in 2007 to continue previous work in the UK and open up new work in research and overseas development.

FOOD AND ACCOMMODATION

The course fee covers full board accommodation at CAT, tuition and course materials. All food is vegetarian, and we are happy to cater for special diets – please let us know your requirements when booking.

There are a small number of single rooms available at an extra cost of £15 per night. Please indicate when you book if you would like a single room.

ACCOMMODATION FOR NON-PARTICIPANTS

Depending on course numbers it is sometimes possible to accommodate friends and family. The cost full board for a non-participant is £50 per day, including entrance to the centre. Please contact the Course Administrator about availability. We regret that we are unable to offer crèche facilities.

DIRECTIONS

CAT is 3 miles north of Machynlleth on the A487 and is clearly sign posted. To arrive by train you need to come via Shrewsbury to Machynlleth. You can walk to CAT from the station (about 45 minutes), get a bus or take a taxi (a single journey costs about £7.50). CAT is registered on www.liftshare.com as a public group. If you require or can offer a lift, please check the website. For more public transport details and excellent journey planners please see www.traveline.org.uk.

WHAT TO BRING

For the practical workshop sessions on the course, you will be required to provide steel toe capped boots or shoes and overalls. The wearing of Personal Protective Equipment is obligatory. CAT will provide other PPE.

We provide bedding but you will need to bring a towel. A torch is useful for moving between buildings at night. It is also advisable to bring wet weather gear and strong footwear as we are based in an old slate quarry.

COURSE FEES

£360 – Company / £250 – Waged / £185 – Non-waged

We have to charge a realistic rate for our courses, but we do not want to exclude people because of cost. We have therefore designed a tiered price structure. Please choose the rate to pay accordingly and let us know when you book. If we do not have this information you will be automatically be invoiced for the ‘Waged’ rate.

TO RESERVE A PLACE

A £100 non-refundable deposit is required to secure your booking. Please book in one of the following ways:

Online: www.cat.org.uk/shortcourses, **By phone:** 01654 704952 **or**

By post: The Courses Administrator, CAT, Machynlleth, Powys SY20 9AZ. Cheques should be made payable to 'CAT PLC'.

PAYMENT OF BALANCE

After booking your place you will receive an e-mail (or postal copies if requested) and an invoice for the balance. We reserve the right to offer the place to another participant if fees are not paid two weeks before the course starts.

CANCELLATION FEES

We regret that except in cases of illness supported by a doctor's note, we will make the following cancellation charges:

Deposits are none returnable;

More than six weeks before the course – half the fee is forfeit;

Less than four weeks before the course – the full fee is forfeit.

CAT reserves the right to cancel any courses. Should this be necessary, deposits and fees will be returned in full. CAT also reserves the right to modify the published programme.

