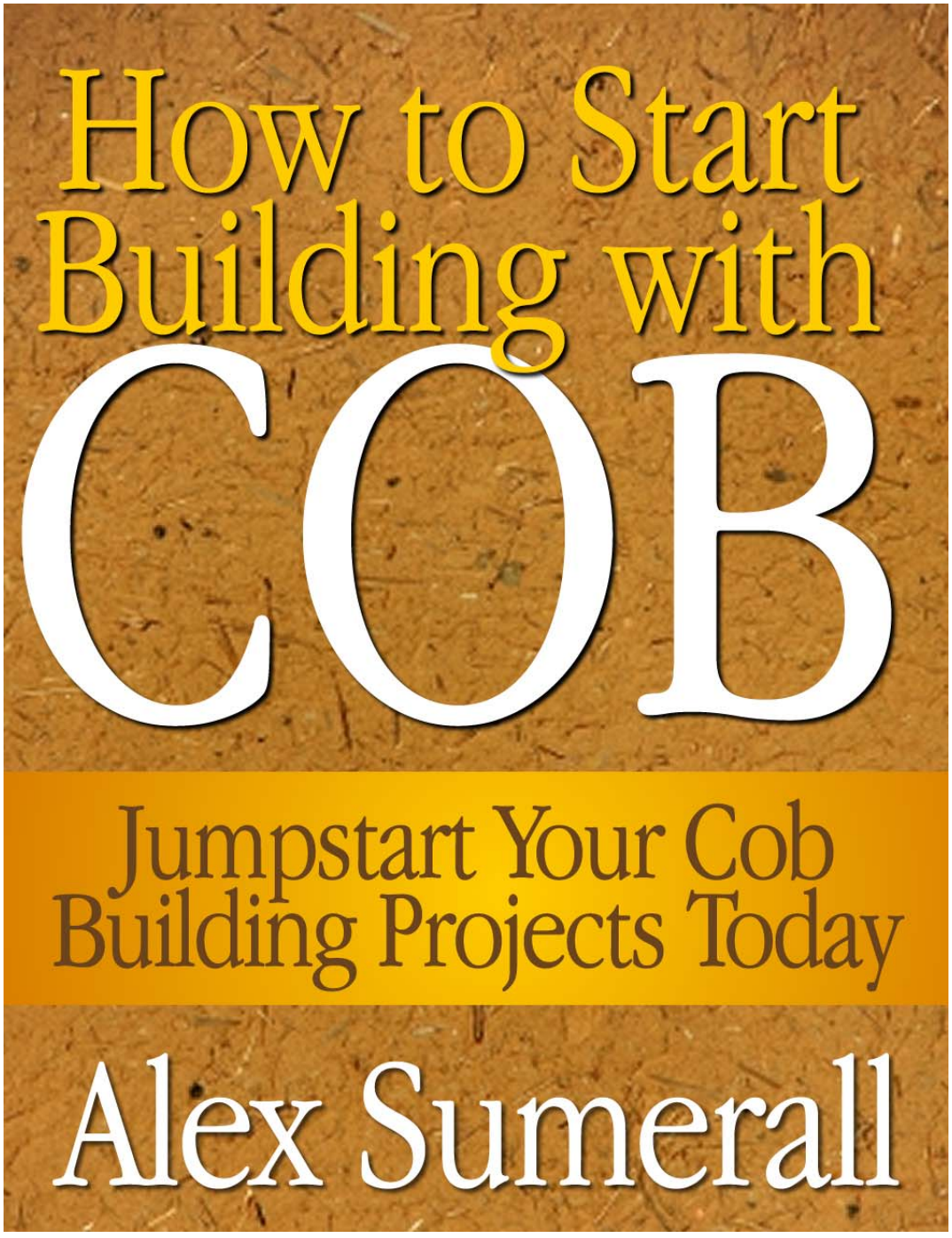
How to Start Building with Cob

Jumpstart Your Cob Building Projects Today



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About the Author

My name is Alex Sumerall and I've always had a passion for building things. I have always enjoyed using my hands to create something.

I started from a young age building things like Legos, sand castles, and forts.

My Dad taught me a lot of building skills and passed on to me what he had learned as a builder and a handyman.

My Dad and I doing some building!

Now as an adult, I'm exploring alternative and natural building methods that are more sustainable, ecologically-friendly, and financially cheaper than our conventional construction methods. I believe there is going to be a huge change in the way we build our homes and buildings in the near future.

I'm the owner of **thiscobhouse.com** and my goal is to provide you with valuable information and a roadmap to help you build your own cob home and other cob constructions.

What is cob and what can you build with it?

> "Cob has its origins in millennia of traditional building, in the oldest permanent human dwellings; we have made shelters this way so long that we may carry a genetic memory of how to do it. For many of us, even a photograph of a cob building can evoke powerful emotions; seeing our first cottage is an unexpected glimpse into a different world that nevertheless feels oddly familiar."
>
> *Ianto Evans, The Hand Sculpted House*

Cob is an earthen building material that is made of clay, sand, straw, and water. It has been used for thousands of years to construct homes and buildings with. It has been used worldwide, but has only recently started to pick up interest in the United States.

About 30 percent of the world's population lives in earthen homes. This is nothing new to the world, but cob is offering new advantages and opportunities to the developed world. Building with earth and other natural materials is becoming a solution to our world's energy and consumption problems. Cob is dirt cheap, sustainable as a building material, and ecologically friendly.

Click here to learn about 14 characteristics of cob homes.

You can build all kinds of useful and creative things with cob. You can build a house, a wood fire oven, a bench, a garden wall, a rocket mass heater, sculptures, and much more.

How to Make Cob

I'll explain the basics of making cob using the tarp method, which was developed in 1994 by a cobber in North America called Becky Bee.

This can be done by yourself or with one other person. You will need a large tarp and 4 or 5 five gallon buckets.

1. Get all of your materials close to your building site. Sand, clay subsoil, straw, water, tarp, and buckets.
2. Lay out your tarp on a flat space. This is where you'll be mixing.
3. Put your dry ingredients (clay subsoil and sand) in the middle of your tarp in a pile. Your ratio will always differ depending on where your materials come from. You will probably need to experiment with the first few batches to determine how much clay and sand are needed for a good mix. Here are some common ratios:

Sand	Clay
2	1
2	2
3	1

4. Now you want to mix the dry materials together on the tarp. Have each person grab two corners of the tarp and both people walk forward to the center of the mix, folding the tarp in half. The dry material should be together in the center of the

tarp. Put the tarp back in its starting position and lay it out flat on the ground again. Go to the other end of the tarp and repeat the process of turning the dry materials over. Do this 3-4 times or until the dry materials are mixed thoroughly. Put the dry ingredients back to the center and lay the tarp flat again.

5. Make a crater in the middle of your dry ingredients, and add a small amount of water into the crater. Always err on the side of caution when you add your water. It is much easier to add more than it is to take away. A standard ratio of five parts dry ingredients to one part water is usually good, but your mix may need a little more or a little less. You will develop this judgment the more you get used to mixing cob. Keep one thing in mind about adding too much water: even though it may feel easier to mix, a mix that is too wet will not hold its form well once you start to build, and the wetter your cob mix, the more liable it is to crack when it starts to dry out. If you do end up adding too much water, either leave the batch to dry in the sun, or you can add a bit more of the dry ingredients. The straw will soak up some of the excess water too.
6. Push the dry ingredients with your feet into the middle of the crater of water, and begin to stomp on it. Grab as many people as you can get on the tarp without bumping into one another and smash the cob mixture. Jogging in place, twisting your heels, dancing, or whatever feels good to you just as long as the end result is that all the water and dry materials are mixed together, and the clay particles and sand smear together.
7. When this has been achieved, grab your tarp corners again and fold the tarp back on itself a few times then stomp again. If you are having difficulty mixing the dry ingredients into a homogenous mix, add some more water until this is achieved. By now your cob mix should be forming itself into the shape of a huge burrito every time you roll the tarp back and forth. This is a good indicator to let you know that the cob is well on its way to getting thoroughly mixed. Another test you can do is to roll the cob into a ball in your hand: it should hold form like plasticine. You are now ready to add the straw.
8. Stomp the mix out of its burrito form so that it spreads across the tarp. Grab a few handfuls of straw, and sprinkle evenly across the surface of the cob. Stomp vigorously until all the straw has been smeared by cob. Turn the mix over again and stomp the mix flat. Add more straw and do the same as above. A good ratio of straw to clay and sand is one five-gallon bucket of compressed straw to five buckets of dry ingredients. Keep repeating this process until the straw is used up, constantly turning and stomping, until all the straw is thoroughly mixed in and is the same color as the cob. Add straw until the mix can take no more. By now you should have a large burrito of very straw-rich cob sitting in the middle of your tarp.

Source: Building with Cob by Adam Weismann & Katy Bryce

See the *Resources* section for more information on how to mix cob.

Beginner Cob Projects

Lots of people envision building their own cob house or cottage one day. Some people hire an experienced cob builder, but most of the time they build it themselves.

Building with cob is so much easier than modern conventional building. If you can build a sand castle then you can build a cob house! Well, okay… It's not that easy, but you get the point I think.

Anyway, we all need to start learning somewhere. That's why I've made a list of a few recommended cob projects to get you started. This is what I tell people to do when they don't know where to begin.

Stop feeling intimidated about building something you've never done before. Just find your motivation and the will to put thought into action, and I guarantee that you will surprise yourself at what you can create and achieve.

There is no specific order to do these projects in, and you don't have to do them all. They all rely upon the same basic concepts and skills. Just choose the one that sounds best for you.

Cob Oven

The first project I did was to build a cob oven. It felt very rewarding and empowering when I saw what I had created with my own two hands.

I think building a cob oven is a great idea for a first project using cob. There are some more technical details that have to be paid attention to compared to the other projects I have listed below, but there is less cob that has to be mixed overall.

Building a cob oven will let you get your hands dirty by learning how to make cob, a rubble trench foundation, and a stemwall. These are the same three components of any cob wall that would be used for a cob house.

With a cob oven you will also learn how to make insulation mixes, oven mud, and natural plaster (either lime plaster or earth plaster).

Before I made my first cob oven, I didn't even know how to make cob at all. I had only read books about how it was done. When I decided I was going to build a cob oven, I got a copy of Kiko Denzer's book Build Your Own Earth Oven. I simply followed the instructions in the book and built my own cob oven. I really recommend that you get this book if you want to build a cob oven. It will lead you through every single step in the building process and you'll learn a lot!

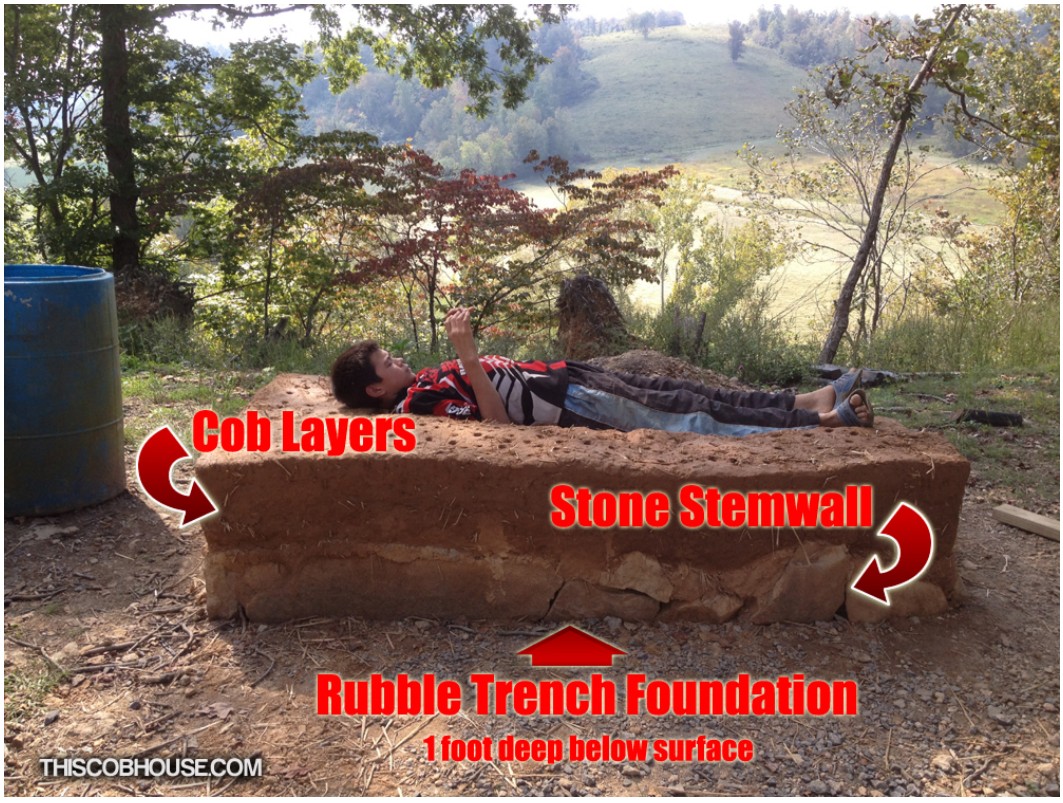
Click here to watch the video of my cob oven being constructed.

Cob Bench

A cob bench is a great starter project for new cob builders. Imagine building a couch out of cob. You can build as big or as small as you want it though, and you can mold it however you want it to look like.

Building a cob bench will teach you the basics of cob building. You will learn how to make cob, how to make a rubble trench foundation, how to build a stemwall, and how to finish with plaster.

If you can build a cob bench then you can easily build a cob wall for a house. The same concepts apply.



Cob Garden Wall

A garden wall is a good project to begin cobbing with too. You will learn how to dig and construct a rubble trench foundation, set a stemwall foundation, mix and apply cob, and plaster. You can also add roofing shingles on the top of the wall if you want. This will help protect your wall even more from weathering. (See *Resources* for information on shingles.)

A cob garden wall can be as long and high as you want it. There are all kinds of places that you could build one. Spruce up your garden or your yard with one. Learn how to build your own – Click here to get my construction plans for a cob garden wall!

Cob Dog House or Play House

Another good project you may want to start with is a cob dog house or cob playhouse for children. This project is more advanced than the other ones I listed, but it's definitely doable if you're motivated to take the extra steps.

The concepts from the other projects apply here once again.

You will learn:
- How to make and apply cob
- How to make a rubble trench
- How to make a stemwall foundation
- How to finish with plaster

If you decide to do this project you will need to also learn how to insert windows, possibly doors, and how to build a roof. (See *Resources* for more information on these.)

Training

When you decide to get some training and building experience under your belt, you may want to attend one of these schools or workshops. I'm not affiliated with any of these schools, programs, or websites, but I recommend them due to their good reputations and successful training programs.

YESTERMORROW DESIGN/BUILD SCHOOL	**Yestermorrow Design/Build School** teaches over 150 hands-on workshops a year in design, construction, woodworking, and architectural craft and offers a variety of courses concentrating in sustainable design. http://www.yestermorrow.org/
The Cob Cottage Company	**Cob Cottage Company** is one of the main authorities on cob construction. http://www.cobcottage.com/workshops They offer workshops of all kinds. http://www.cobcottage.com/apprentice They also have an apprentice program which is very intensive and teaches all aspects of building with cob.
Cob Workshops	**Cob Workshops** is a free listing for cob building workshops and events. This is a great resource! http://cobworkshops.org/
Cobworks.com workshops • construction • design	**Cobworks** provides training in, consultation, and construction services for earthen home construction. They are based on Mayne Island, British Columbia, Canada, but they offer workshops all over North America. http://www.cobworks.com/

Build a Cob House: A Step-By-Step Guide

I highly recommend that you read my book ***Build A Cob House: A Step-By-Step Guide***. It will teach you all the basics of building with cob. You will learn step-by-step, from the ground up, how to build your own cob home.

The book will help give you a solid foundation and understanding for cob and natural building methods. This resource will help you with the starter projects, and it will give you the details that this short book that you are reading now can not provide.

See the entire table of contents and get the full details by **clicking here**.

I know you will enjoy it!