

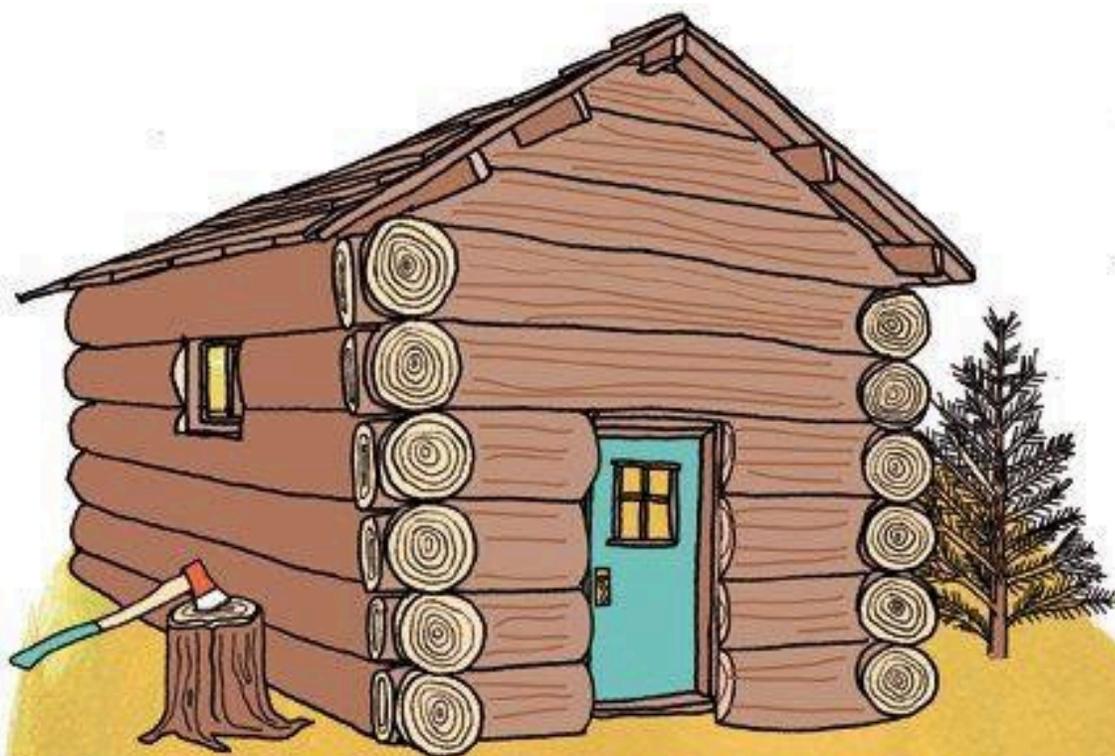
TIPS FOR BUILDING YOUR OWN LOG CABIN

People living in structures made of natural logs has a log history. One story from the rich folklore of log building tells how a Grand Master of the Teutonic Knights insisted, around the year 1500, that a wood structure be built onto his stonecastle to provide a homier place to live.

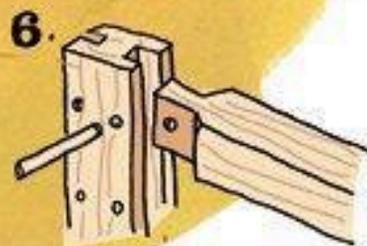
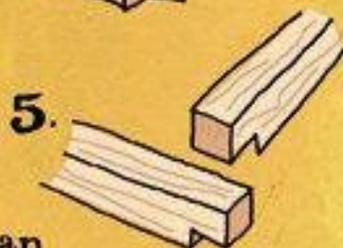
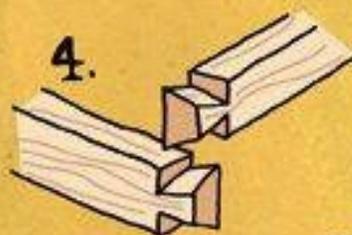
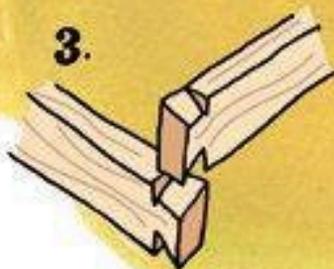
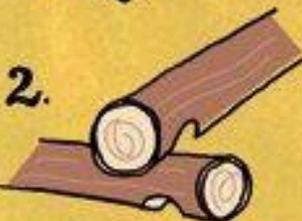
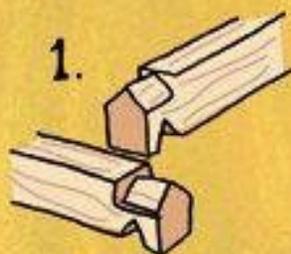
Many log structures built in the same period still stand in Scandinavia and Central Europe.

Each area developed its own distinct methods, from the square hewn log homes of France to the dovetail-joined cabins of Germany. When all these influences were introduced to the New World, the Scandinavian style of round logs with bottom-cut corner notches prevailed. Examples of this method can be seen across the United States and Canada.

Log building has always required a lot of patient, physically demanding work. And for the modern builder, it also requires learning some new skills.



THE LOG CABIN



notches

1. v
2. saddle
3. half dovetail
4. full dovetail
5. flat or square
6. french canadian post & job

Here's a short primer on this extensive subject, with valuable tips on building your own log cabin.

Building your own log cabin is not an easy undertaking. Contrary to some popular myths, however, it is possible to build an energy-efficient, cost-effective log home at or below the cost of a traditional stick-built home. A successful log home will require comprehensive planning, the right tools and materials and getting advice from those who have already completed this rewarding project.

PICKING A DESIGN

The design phase of your log cabin project is something you don't want to rush through. Making sure you get it right is truly the most important consideration.

Almost every inch should be evaluated many times over for efficiency, design, flow, and log content and placement.

In planning, the challenge is to find each room's personality, giving attention to not only the design, but also to its detailed construction. Every room should be planned so that you and your family has a reason to use it.

Log cabin kits give step-by-step directions and materials to complete your own log home.

However, the kits can cost as much as or more than building a conventional home. Study all the different styles of cabins before choosing.

Common designs with kits include the chinkless method, meaning the logs fit naturally on top of one another without cutting, and the saddle notch, in which logs overlap at the home's corners. The butt-and-pass design, in which logs meet at the corners without notching, is the most inexpensive way to build a log home but generally is not available through kits.

More Butt-and-Pass Method

Few people in today's world have the necessary craftsmanship background or the requisite amount of time it takes to master traditional notching and scribing and notching. Fortunately you do not have to become a master craftsman to be able to build a high-quality log structure in relatively little time.

Logs are peeled, dried, cut to length, hauled into place, then drilled and pinned. With the butt-and-pass method developed by Skip Ellsworth, you use a big electric drill, lots of cheap reinforcing bar (otherwise known as "rebar"), and a sledge hammer to pin the logs together with essentially no scribing, no notching, and no close fitting. The final product is stronger and more stable than a scribed and notched log home.

A log on one wall butts up against a log on the other wall, overlapping like brickwork up the corners. The logs are held together with rebar pins, drilled and nailed through from one log to the next, at the corners and every four feet along each log. The butt-and-pass method has no vulnerable notches for rot to start in, and all the pieces are tied together with rebar so that there is no settling. The window and doorframes can be nailed directly to the logs without worry. The space between the logs is insulated with strips of fiberglass insulation, then covered with sand and cement chinking mortar.



Butt and Pass Method

TOOLS

Besides standard woodworking and homebuilding tools, you'll need a few special tools for log cabin work.

A beam saw is a stronger version of a circular saw that will be invaluable in log preparation.

Power planers will help fit the logs, as even mill logs sometimes need further planing.

A drawknife will remove a log's bark, which could contain pests.

Other tools you'll need include a chainsaw, ax, a sharp chisel and an electric drill.

Some type of loader to load and unload logs and timber from a truck and the sawmill.

A truck and trailer for hauling logs and timber.

A wheeled tripod with a wench that could be used to move logs around on the subfloor and hoist them into place.

CHOOSING MATERIALS

Conifers such as pine, fir and spruce provide a lightweight, durable source of wood that is optimal for most cabins. Hardwoods such as oak are usable but are more susceptible to worms and fungus.

The logs should be straight, 8 to 10 inches in diameter and have little to no tapering.

If you want to cut the wood yourself, the trees should be felled in early winter. The cooler temperatures make for slower drying time, which reduces log checking, cracking and splitting. It's also easier to haul logs out of the forest over frozen terrain.

If you plan on building in or very near a forest or other damp location, one solution is to build with logs of naturally rot-resistant species, such as cedar or redwood. The cedar will cost more, and pine logs are perfectly fine for most climates. If in doubt, build with cedar.

Buying Pulp Wood Logs

These small logs are cheaper and easier to handle.

Owners of forest land who grow trees for timber sale will often do thinning cuts of their forest land. This is much like gardeners do with their vegetable garden, taking out extra plants to make more room for those that remain. Trees removed during thinning are often not big enough to be marketed as "saw logs", so they are sold for pulp wood, to be made into paper products. Logs sold for pulp will command much less money per ton than will the larger saw logs.

LAYING A FOUNDATION

Choose concrete or block walls over stone - they're just as sturdy and require less work.

Excavate to the frost line and build the foundation 20 inches above ground level.

Install piers within the foundation walls to support the flooring. Using piers instead of a full foundation will help reduce the overall cost of your log home.

The pier foundation also disturbs the land at building site a whole lot less, and allows construction on sloping sites that would be impractical for a full concrete foundation. Piers allow the building to be easily placed well above the ground, so concerns about flooding are less of a problem.

BUILDING TIPS

Unless you're an experienced builder of log homes, don't take the do-it-yourself approach too literally when building a cabin. Put together a team of experienced cabin builders to help you, and make sure any contractors have cabin-building experience. Plan for future cost savings while you build. Install energy-efficient windows. Save money by using a fireplace insert rather than a full-foundation fireplace. Building a conventional roof rather than a log-framed roof also will cut construction costs.

Keep your logs dry! With lower moisture content in the logs settling is not a problem. Kiln dried logs are usually dried to 19% moisture, but 12% to 15% is better. Air-dried logs are superior to kiln dried logs. When logs are air dried correctly, generally 6-8 months (although longer is better), they acclimatize to the atmosphere.

- Build the first course of logs at least two feet above ground level.
- If there is no natural slope, then slope the grade away from the house.

These two considerations early on will make the maintenance of the home a cinch. It's when the home is exposed to too much sun that you have to re-stain/re-finish your home much more often, and it's when the home is exposed to too much moisture that you run into the eventual decay of wood. Plan to keep the sun and the moisture off your wood as much as possible and

your home will last "forever".
The sun facing the cabin east to west is the best.

Picking the right logs and joining logs correctly will help you avoid drafts. If you are building a full scribe home this is even more important as over time the house will begin to settle and require some minor adjustments to avoid logs turning and creating gaps in your home.

The one place not to be stingy is when it comes to your exterior stains. You should purchase the highest quality stain you can afford. Typically, you should re-stain every 2 to 5 years, but the better your stains, the less frequently you have to do that.

Buy some books, watch some YouTube videos and read some blogs on log cabins to better your knowledge to make sure you avoid common mistakes. Once you have good knowledge on log cabins, you have a much better chance of getting the design and build right!

If you decide that you can't do it alone, work with a company that has a solid reputation, plenty of experience (so they are not practicing on your cabin) and treats the homeowner with respect from day one.

CHINKING

Foam (insulating foam of numerous types) and mortar; cement; clay; strips of fiberglass insulation, burlap or felt.

For a log cabin in the woods, moss is also perfectly fine. The tighter the moss is packed, the better the insulation.

USEFUL TIP:

The Log Home Builders Association <http://www.buildloghomes.org> is a non-profit educational association that teaches the craft of log home building to average men and women who have an interest in building their own log home. They don't work with commercial builders, only owner-builders and others who are interested in building a log home for themselves.

They teach the Butt-and-Pass method, which is perfectly suited to owner-builders with little or no experience. It is fast, inexpensive, sturdy, and requires a lot less skill than the various notched styles.

BEST WISHES

We hope that this primer will be able to get you started on your way to achieving your dream of building a cozy log cabin.

We wish you the very best in your endeavours and may you live long and happy!

<http://cozyhomeslife.com>