

Building our house in Ecuador for \$15,000 or less

...and no headaches (almost)



Part 1

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A few months ago...

...I gave myself the challenge to build a house on our property in Vilcabamba Ecuador for USD 15,000, not just a tin shed or a glorified garage but a **real** house with running water, bathroom and kitchen, everything you'd expect.

I did this because I am the happy owner of some [beautiful land](#) along a pristine river not far from the village of [Vilcabamba](#) in the province of Loja in [Ecuador](#). I am currently paying rent each month to live in a house, a very nice one that is, in the village and many times I asked myself: "why am I not living on my own land for Christ sake?" Finally this is about to become a reality, a few more months and we'll be all set.

Why 15,000? Because that is what I could afford at this point in time, and also because I believed intuitively that it was possible. Many expats build for much more, particularly when they deal with other expats to do the work and/or when they try to transpose here what they had in the 1st world. The locals on the other hand build for much less, but they seem happy with a toilet outside flushed with a bucket, no hot water, few windows if any, a low ceiling, unpainted brick walls on which they stick religious posters, dirt floors etc... I am not criticising by any mean but these places don't do for me. I like my comfort. I wanted a house with windows, cold and hot water in kitchen and bathroom, lots of light inside, an open kitchen (AKA here as an "American kitchen") with ample bench space to chop vegetables, a cosy atmosphere, something that looks and feels good, something finished without rebar sticking up above the roof. Also, I wanted to try and set an example of what can be done for a fixed price, because many would be buyers in the project ask me how much it cost to build and how long it takes etc... There is nothing like a real project and a real home to show to answer these questions.

The building is not finished, so I don't have all the answers yet. This article is part one of a series and I will keep posting as the work progresses.

It all started...

... one Friday afternoon, I was doing my things around the central square and a man named came to me and said in Spanish that he heard that I was going to build. He said that he had such and such experience with Adobe and with bamboo (I love bamboo) and that he was available. So we had a chat. I got a good vibe from the man; he seemed articulate enough, very polite, and best of all he sounded like he knew what he was talking about. This is the incredible bit; **he suggested on our first encounter Friday night that we could start building on Monday.** We were to meet the next days, on Saturday and Sunday to discuss the details after I had some time to think about what it was that I wanted.

In the so-called "first world" and in particular¹ in New Zealand...

...where I have been living for 15 years before I immigrated here, **things definitely do NOT work that way.** You need proper plans drawn by an architect, then you need to apply for a permit and sometimes for what they call a "resource consent" which is another type of permit that you need if you dare to attempt excavating a bank higher than 1.2 meter for your road or your house or if you need to do anything with a river or many other activities that are necessary in a rural environment. Then, you have to wait for weeks or months until you get ... your permit?? Nope! What you get are questions from the municipality: *what about your storm water? what about your parking space? what about fire protection? where is your effluent field from your septic tank going to be?, please provide an engineer report with soil permeability tests; Please provide a contour diagram with elevations around the house; Please correct the proposed roofing insulation material²* etc... 6 months later, after answering all the questions, possibly several times, and fighting hard if you dare to propose anything ecological and non mainstream such Adobe earth blocks, you finally get a bill in the mail with a note that your permit is ready to collect, of course only after you pay the bill. The bill can be many thousands of dollars depending on how many times your file had to go round the bureaucratic spiral before it landed on firm ground and how many times it got stuck between the building permit department and the resource consent department (which don't seem to talk to each other). Then only can you start **thinking** about excavating. **No** work is allowed before you get your permit.

If all goes well, you end up a year later if you are lucky, having spent twice your budget and having lost some more of your youth and your health. What you have is still only a New Zealand home, made out of chemically treated Radiata pine³, pink batts, GIB plasterboard, glue everywhere, zillions of nails, corrugated roof, paint (required outside for "durability"), hardly the strong earthy home that I have always dreamed I could have in the middle of the green rolling hills of New Zealand.

¹ I say "in particular", not because it is particular to New Zealand, but because that is what I know

² We wanted to use natural wool, which makes sense in an 80 million sheep country like New Zealand. However this is not the "approved" type of insulation, the municipalities know pink batts (<http://www.pinkbatts.co.nz/>), a horrible synthetic fibrous material that makes you itch and cough.

³ Radiata pine is a plantation softwood timber that originates from California and thrives in the New Zealand soils and climatic conditions. It is always chemically treated with copper chrome arsenate, highly toxic but supposed to be relatively inert once fixed to the timber. It does leak into the soil though and I always thought onto the little hands of our children playing on these treated pine playgrounds all over the country.

Needless to say that building was not a pleasant experience and I have in my mind very strong associations between building and pain and more pain.

So, when a guy I meet for the first time on the Vilcabamba square tells me on Friday night that we can start building on Monday morning, you can imagine how excited I felt.

No permit is required

That is because the Rio Uchima property is located in a rural zone. In town, it is another story and I have no experience with that process. Outside of town, you basically do what you want. This is **a good thing or a bad thing** you may think. A good thing for obvious reasons. A bad thing because if everybody does whatever they like, you end up with a mess. This does not seem to be the case though, except in the Guayaquil slums although I believe that you do need a permit there because it is not rural but I don't know for sure. And it is a filthy mess. In rural Ecuador, things seem to work reasonably well.

For a start and by and large, **people are poor so they don't have the money to do as much damage** as wealthier people. They build simple **Adobe** or **Bricks** or **Rammed earth** ("tapia" they call it but this is used less and less because it is very labour intensive) or **Concrete blocks** homes, usually low impact structures and their lifestyles match the houses they build. They wash their clothes by hand outside, have minimal power requirements, have a small gas stove, no dryer or air conditioning or any other polluting (in terms of electrical consumption) piece of gear etc...

Then, they seem to know what they are doing. There is **a lot of the commonsense that seem to lack in our bureaucracy loaded societies**. When they build a house, they know that if it falls on their heads they have nobody to sue for it. How would they afford a lawyer anyway? So, they build strong, they stick to old and proven ways and nothing bad happens. Well, sometimes you hear that a number of houses have followed a landslide into the river after heavy rainfalls but that happens in the first world too.

In New Zealand, we have heard for years about the so-called "**leaky home syndrome**" that affected hundreds or maybe thousands of homes. This was due to the fact that people built flash looking Mediterranean type homes without the traditional eaves to protect the top of the walls from the rain. But they do this in a climate that is not suitable. It rains a lot in New Zealand. Aotearoa in Maori means "the land of the long white cloud". Because the walls are made out of this weak treated pine timber that the powerful lobbies in New Zealand have imposed, whatever water gets into the wall from the top leads to major problems. Basically, the whole house rots and falls apart. And what is people's priority would you say when they find out that the expensive home they built only a few years ago is rotting away? Fix it? Nope! Find a culprit and turn to the municipalities which authorised the buildings and sue them. Of course, to cover their a.., the municipalities' reaction is to require more chemical treatment of the timber, tighten all the rules and make the building process even less enjoyable for the next guy. What would you expect? This is how all these rules come to life, because people don't take responsibility and are quick to sue. Same in the US I would imagine. Same in Europe.

Nothing like this happens here. For a start, Adobe, earth, bricks and concrete don't rot. If the roof leaks a bit here and there, energies are usually spent at fixing it, with a bit of plastic sheet or whatever it takes, which is usually not that much anyway, or just put a bucket under the leak and

wait for the rainy season to be over. People in Ecuador are incredibly creative and “solution oriented”, I witness that every day, not just for building houses but for everything, e.g. changing the tyre of a fully loaded bus in less than 10 minutes without a jack. But I diverge.

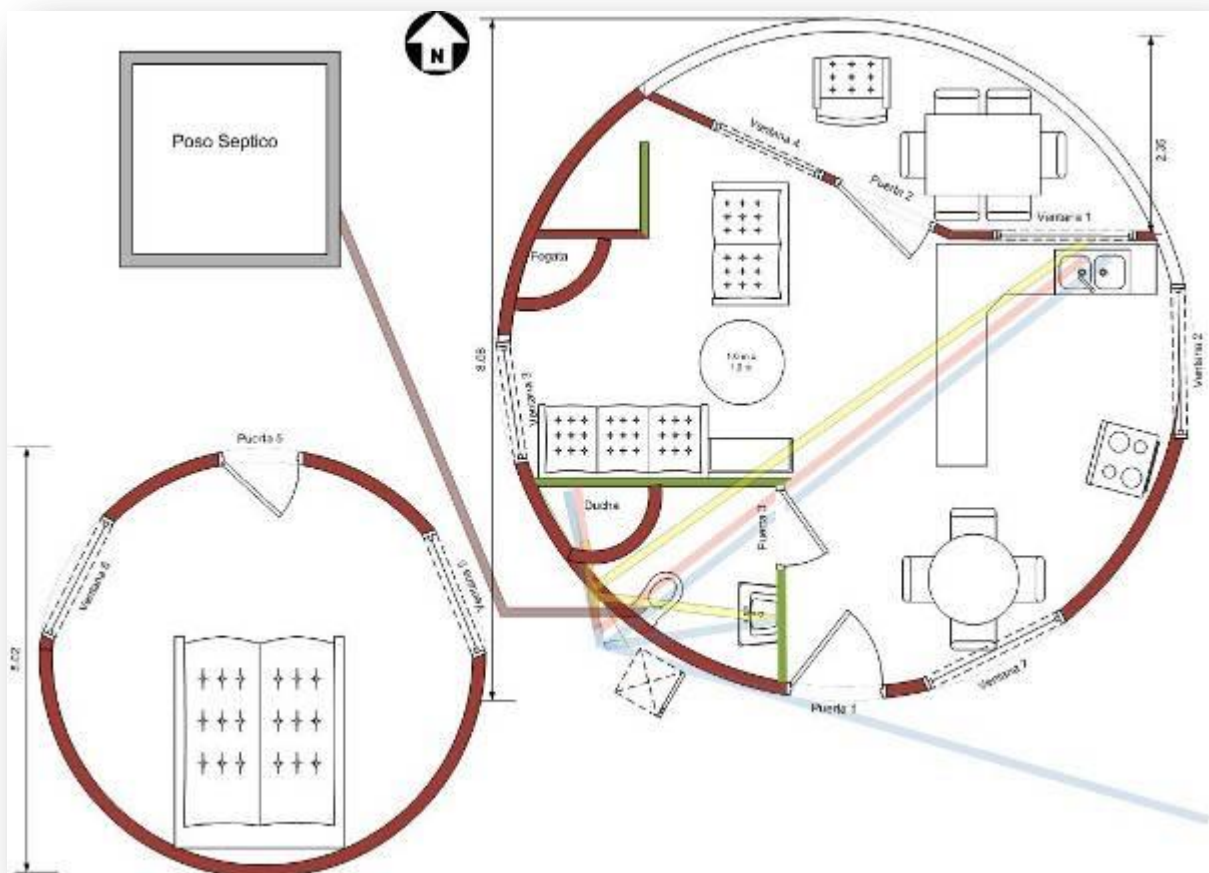
House plans

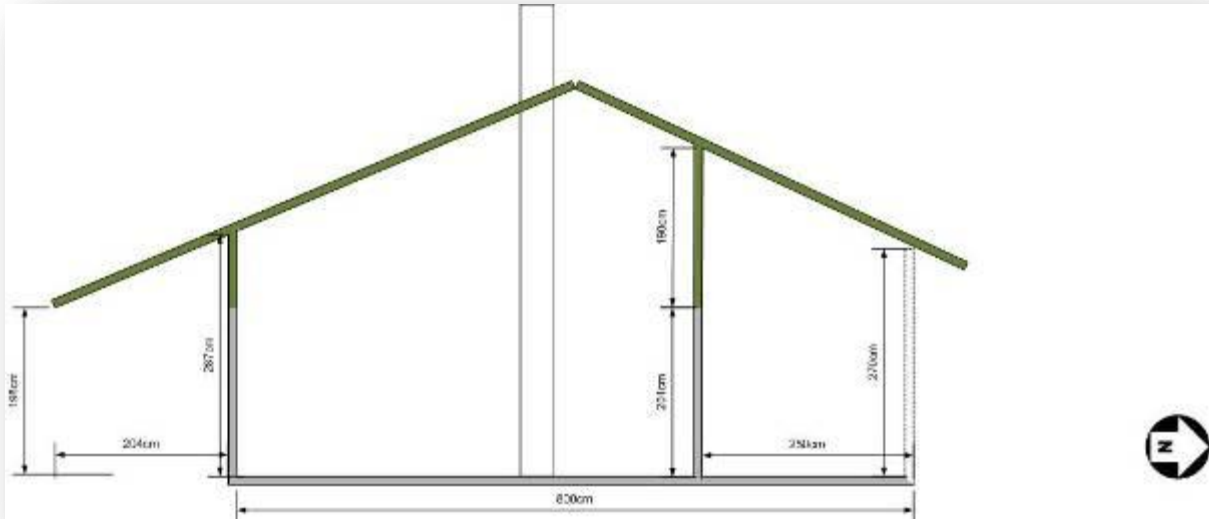
I spent my Saturday improvising myself as an architect and drew some floor plans with Visio.

Then we met on the Sunday in front of the church, after the Sunday service of course, and agreed on what exactly was included in the price and how everything was to be paid. Included were a brick floor laid on top of a concrete slab (tiles are great but much more expensive in labour), all walls, windows, doors, a sugarcane straw roof guaranteed to be leak proof, a shower, a fireplace, a toilet, all the plumbing but not the sink or the kitchen bench, all land preparation, waste pipes, a septic tank, a fireplace, no electricity. We agreed on a first deposit of 2,000, then a second after the site is excavated and then a third one after the roof is up and then the balance at the end. I copied another contract I had in Spanish from the construction of the bridge over the Rio Uchima and changed the names and we both signed.

The price specified in the contract was \$8,000.

Here are the plans that we attached to our contract:





The house consists of two separate buildings: the main one, a circle of 8 m diameter, would be for the kitchen, living area and bathroom while the secondary one, a circle of 5 m diameter, would be for one bedroom. I figured that if we managed to build that for 8,000, I would be lucky. For those who haven't completely lost their mathematical skills, a circle of 8 meter diameter has a surface of 50 sq meters (or approx 450 square feet) and a circle of 5 meter diameter has a surface of 20 sq meters (approx 180 sqf). That is a total of 70 square meters of building or 630 sqf. 70 square meters for 8,000 dollars, that is not bad at all.

However...

I knew at the back of my mind that we were likely to exceed the \$8,000 to get it really finished. For a start, the hot water system was not included, electrical work was not included, the kitchen bench was not included. Then I soon found out that Adobe blocks should really not be left exposed to the weather. Unless you cover the building with a huge roof that expands at least 2 meters all around the house, which we could have done, but did not do, you need to protect the Adobe with plaster, clay or some form of moisture protection. That was actually indispensable but not included. Then I wanted to add a few extra windows. Then Anita commented that for the bedroom she did not want to sleep under a rood of straw with the possibility of a spider (or worse) landing on her nose in the middle of the night. I asked the builder to make me a timber ceiling. Extra cost: \$450. Then there were going to be some unexpected costs as well.

I preferred to keep things simple to start with, agree on a price that I knew we would exceed, but get something tangible rather than try to get all I's dotted and T's crossed and include everything down to each doorknob upfront.

The builder seemed confident that he could build what I asked for \$8,000, "todo incluido" as he used to say with a big smile showing his white teeth.

Even if, in the end, the real cost of the house was going to look more like 15,000 than 8,000, building a 70 sqm home for \$15,000 means that the cost would be \$215 per square meter or \$24 per square

foot. That is less than a quarter of the price we would pay per square meter for something basic in New Zealand.

Not bad!

I must admit that there were lots of unspecified or loosely specified items on the plans and that I was relying quite a bit on the guy's honesty to deliver something good out of our agreement. This brings me to another important point that I want to make:

The relationship/trust versus transaction/authority

... ratio fundamentally differs between the first world and this place here in Ecuador. Let me explain.

In the first world and in particular in the English speaking first world, people tend to be “**transaction oriented**” which means that they like to list things to do and treat the business as a “transaction” between two parties. They make a point, as if proud of it, that there is nothing whatever personal involved. You do what we agreed and I pay you what we agreed. After that I may or may not see you again. Pretty much what you expect when dealing with a bank for a loan. Everything has to be on paper, including all the bad stuff, e.g. what if I don't pay? what if I don't do? what if this? what if that? Makes you depressed just having to think about all the bad things that could happen. As a result, you get on with the work almost already hating the person you are going to deal with because you have had to go through all these “what ifs” in your head.

In Ecuador, and this probably applies to other Spanish speaking countries but I don't know as I have only been here, “**relationship**” **comes first**. This may not apply so much to dealing with a bank but it applies to dealing with a builder or even with a lawyer for example. The first thing one needs before doing anything is a good relationship. With a good relationship, if a guy tells you that he is going to build you a good home with doors and windows and with a roof that does not leak or fall on your head and if the guy has some good references to tell you that he is not a liar, this is worth more than any municipality approved plans and a contract with any certified construction firm. It means that you will be able to work with the guy and sort things out when no doubt things go suboptimal as they always do sooner or later.

Design as you build. It is effective and much more fun.

This is what I found day after day during my project. Every day, we catch up on site and talk about the progress. There are always questions, small problems and change of plans and tactics. We come to realise many times that the plan we both signed does not make sense here or there and talk things through, sometimes at the cost of a little extra cash out of my pocket. We adopt what I would call a “**design as you build**” approach, which consists of freely changing the location of anything regardless of what the plans say. What about adding an extra window here? Sure. That wall there, I'd like it moved to there. No worries, it'll cost you an extra \$35 for the time and cement but yes we can do that. Try that in more regulated countries where the slightest deviation from the plan means that the whole thing has to go back for an “alteration permit”, meaning that all the bracing calculations have to be redone (and yes the engineer is now on holiday) and more questions have to be answered. Everything comes to a grinding halt.

Also, with a good relationship, and I cannot emphasise that enough, **the building process can be FUN**. Did you hear that? Yes, FUN. The guys are all in a good mood, we laugh all the time, nothing is

a problem, and anything can be done. I must emphasise that it is more fun if you accept upfront that what you are going to get in the end may not be exactly what you expected at the beginning. It is all about adjusting and flowing with the flow.



The boys making a mess with the cement inside on the floor

Can you build anything you want in Ecuador?

Yes you could but the real question is should you?

Many people come here trying to reproduce what they have and what they know. They usually end up working with one of the expat builders established here and they manage to build at high cost something that looks pretty much like what they have always had before.

My strategy is the opposite.

I did not come here to make Vilcabamba look like New Zealand. I look at what the locals do, see what the locals are good at doing and accept that this is the reality here. If I then ask an Ecuadorian builder to build me something like what he's been building for years, no words need to be exchanged. He knows how to do it and will do it well. On the other hand, if I come up with all these ideas that I want to build a sand bag house or an underground house or a house made out of recycled tyres, beer cans and buffalo excrement, it is a lot harder because either I will have to explain to the guys how to do it and how to source the materials or I will have to find someone else somewhere who has already done it, usually another expat. Then the prices go up, the risks go up and stress goes up.

I ask myself this fundamental question and I invite everyone reading this to do the same. **Why have I come to Ecuador?** What do I want to achieve here? In the process of answering these questions, I realised that honestly I don't care whether my house is made this way or that way. **I come here to detach myself from all these things we have become so attached to in the first world** and that includes dirt, also called "real estate" and shelter, also called "homes". If my home is natural, healthy, a happy place to live in and does not bankrupt me in the process of being built, that is a

winner. Then I will have the time to do more of what I am supposed to be doing which is meditate, enjoy the Now, spend time with my little girl and my wife, grow my papayas and mangos and just BE.

On the Monday, as scheduled, we started

The team was all there with machetes, a chainsaw and some barretas⁴ to clear and excavate the site. Let's mention here that there is no power available, no access for a machine either and everything had to be done by hand. Not a problem, my builder told me, this is the way we prefer to do things anyway, **all by hand**, "todo a mano".



Excavating all by hand

I liked that so much. On the Monday when I came to see the work, there was no noise, just a bit of chainsaw work for an hour to clear a few trees but after that, the silence settled to be never again broken. What a relaxing environment to work in with fresh air, nature all around, the sound of the birds and no hydraulic nail guns or other power tools. Oh, yes I forgot, there was more chainsaw work to cut the posts to hold the roof, but that was done at the bottom of the property by the bridge so I did not really hear anything. One guy did it all in one day. From entire eucalyptus trees lying on the ground, he cut all the posts required to build the main structure of the house.

⁴ see [here](#) for pictures of the standard tools workers use in Ecuador



Cutting the posts



Preparing the roof for the straw

This is I noticed the way they do things: they first put the posts up inside holes in the ground and secure them with concrete, then build the roof and then only lay the floors. This is the opposite of what we do in New Zealand where the concrete slab always comes first. Maybe it is not always the way they do things here but at least in this case it made sense.

Today, 2 months later, we are well underway, we have a roof, a floor, all the wall finished and we are now completing the kitchen bench and the shower. More photos later.

I have yet to hear the sound of a power tool.

To be continued