

Our house without wood

by Aboubakrine Hamet Ly

The problem

Desertification is widespread and one afflicted area is my village called Loboudou, in southern Mauritania. The advance of the desert has seriously reduced the two forests which we have always depended on for gathering wood and for pasture. Today there is much less wood available for building.

Thanks to Baobab!

In November 1993, I saw an article in Baobab Number Twelve that talked about "Building without wood". The article prompted me to write a letter to Development Workshop, which is promoting the technique. I received a reply, saying that Development Workshop happened to be planning a demonstration in Mauritania in early 1994, and that it would take place in the village of Keur Macène.

A further coincidence

In May 1994, while visiting Oxfam UK's offices in Nouakchott (the capital of Mauritania) for other reasons, I mentioned my interest in Development Workshop to the Oxfam representative. He told me there was a representative of Development Workshop in the very next room and took me in to meet him! So that is how I came to know Mr. Tunley, who agreed to set up an experiment in building without wood in my village of Loboudou.

An agreement

We decided to sign an agreement spelling out the responsibilities of Development Workshop and the village of Loboudou. This is what we agreed:

- Development Workshop would train two masons from Loboudou for three weeks. At the end of the training period, they would send two technical assistants from Mali for another three-week period. Development Workshop would also provide the brick moulds and pay the two masons.
- The villagers of Loboudou would choose the two ma-

sons to be trained, see to the making of the bricks, provide the necessary building materials, and provide food and lodgings for the two technical assistants.

Everyone gets involved

The day after the agreement was signed, we started telling the village about the advantages of building without wood. This took three days. Next, two masons were chosen and sent for training at the experimental building site in Keur Macène. Then we began making the bricks. This only took 16 days instead of the 21 days allowed for in our agreement.

At present, we are waiting for the masons to return from their training, and for the technical assistants. As soon as they arrive, we can start building Loboudou's first woodless house. The project has attracted



Completed soon after Mr Ly sent his article, the first house built without wood in Loboudou village.

Project focus

a lot of attention in Loboudou. After hearing of the project, one of the elders of the village said, "Praise be to God and the people who developed this technique, for now we will no longer have troubles when we want to build."

For more information about the Loboudou project, write to Hamet Ly at:

s/c SMCPP, Nouakchott,
B.P. 679, Mauritania.

Our story continues with a letter from Ibrahim Tomota, a mason from Mali who went to Mauritania to train other masons in building techniques which do not use wood.

I am writing to tell you how warmly the people of Loboudou welcomed us upon our arrival. At the entrance to the village, we were greeted by horsemen on decorated mounts. Then there was a parade of young people, and when we arrived in the village itself, there was dancing in the homes where we were to stay. It was a splendid day! We really felt that the villagers had been looking forward to our visit and to seeing the first wood-free building in Loboudou.

Everyone in Loboudou lent a hand: site: men, women, young people, and even children. When the building was completed, there was a whole day of joyful celebration, and all the village and the surrounding area participated with enthusiasm. A lot of people here hope there will be more buildings without wood.

Ibrahim Tomota



Building Without Wood is a mobile training and information programme of Development Workshop operating in the Sahelian countries of West Africa.

"Building Without Wood" uses arches and domes to build houses out of unbaked mud-bricks.

The bricks are shaped in a mould, hand finished and sun-dried. The arches and domes are built without using any wooden frames, so that the entire house, including the walls, the roof and the lintels, is built without wood.

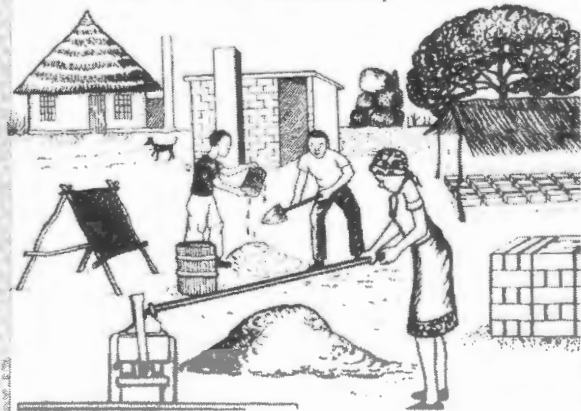
In areas where building wood is becoming hard to find and extremely expensive, building without wood is an affordable alternative. But only if there are trained masons! The programme trains about one hundred masons every year. There is currently a training session being held (November-December 1994) in Myriah, near Zinder, in the Niger. This training course takes seven weeks, after which a group of about thirty masons will be ready to build simple houses unaided. At the same time, the programme

helps experienced masons become trainers. The programme encourages experienced masons to pass on their knowledge to other masons. The next training session will take place in the regions of Djenne and Bankass in Mali.

For further information, contact: **Salifou Mahamadou, UICN, B.P. 10933, Niamey, Niger;** or **John Norton, Construction Sans Bois, B.P. 13, 82110 Lauzerte, France.**

Additional resource on low-cost housing materials

Turn to page 40 for information on a new manual on low-cost block production.



An exceptional rainy season

John Norton

This year, the rains have been heavy in the Sahel region, often 50% heavier (or more) than the average rainfalls of the last twenty years. There have also been a higher number of rainy days, and numerous floods. And according to some, there are wadis filled with water for the first time in forty years. There have been heavy damages - in the Niger, over 18,000 houses have collapsed, leaving around 120,000 people without shelter.

Effects on woodless houses

The houses built using woodless construction techniques survived the rains very well. There are approximately 600 such buildings in the Sahel region, and most of them were not damaged.

However, more detailed comments can be made:

1. Woodless roofs must be carefully constructed: they must be designed to allow run-off and must include proper gutters. Among the roofs that were properly designed and built to allow water run-off, not one has collapsed. This means that woodless construction is viable for areas with an annual rainfall greater than 600 mm.

2. The choice of site is very important. In buildings situated on flooded land, about a dozen structural problems came to light. It is important to look back *before building and try to remember if the prospective building site has ever been flooded.*

3. It is important to use large open gutters. Gutters made out of PVC pipes are common and

readily available, but unfortunately they are not adequate.

4. Roofs should be built with two layers of bricks. Unfortunately, many homebuilders preferred a single layer in hopes of saving money.

5. Banking up around the houses is also very important. This keeps water from collecting at the base of the walls where it can seep into the foundations.

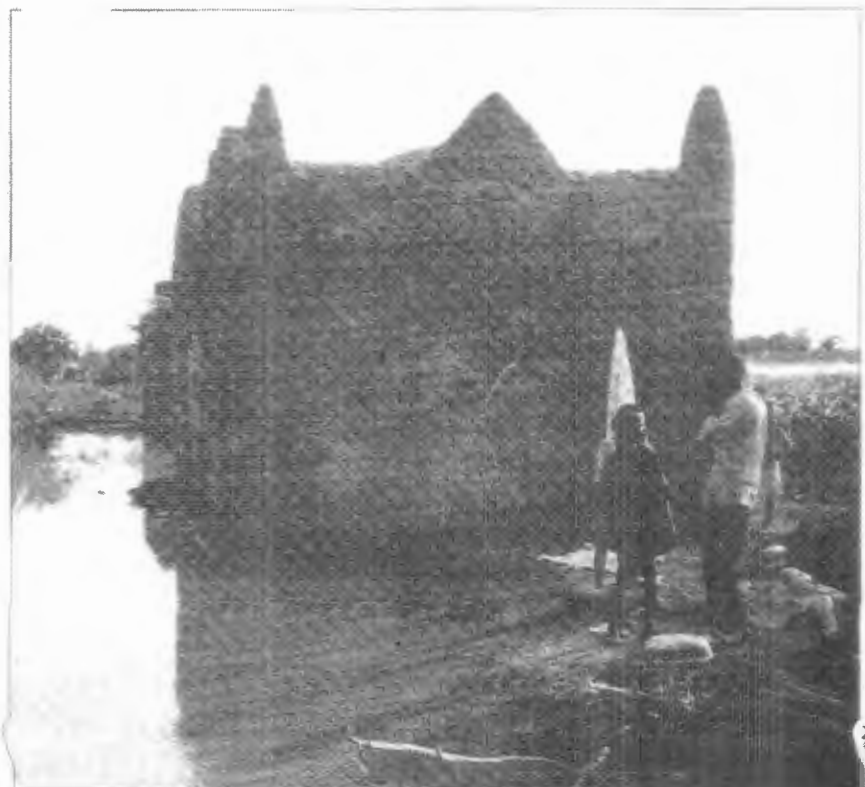
6. Finally, construction during the rainy season must be avoided! Some homebuilders decided to start building in May 1994, and the rains meant significant damage for their unfinished houses.

Public feedback

People have faith in woodless construction. There is currently an increasing demand for woodless construction, including construction, training, and rebuilding damaged homes. In response to the increase, the Woodless Construction Programme is stepping up its operations.

John is director of Construction Sans Bois, his address is:

**Construction Sans Bois,
B.P. 13, 82110 Lauzerte,
France.**



Credit: John Norton

It is extremely important to look at the long-term suitability of a home site!