



September 27, 2008

NPR: Weekend Edition Saturday

Sandbag House Wins Humanitarian Award

SCOTT SIMON, host: This week, the Curry Stone Design Prize for International Humanitarian Design was announced. The winner is a South African architectural firm that developed a new and energy efficient way to build homes with sandbags. The prices of those homes were also good. The sandbag structures are framed with timber and cost just about \$6,900 U.S. to make. Luyanda Mphahlwa heads up MMA Architects, the firm that invented the sandbag-building technique. He joins us from Cape Town. Mr. Mphahlwa, thanks very much for being with us.

Mr. LUYANDA MPHAHLWA (Architect; Winner, Curry Stone Design Prize for International Humanitarian Design): Thank you very much and greetings to the listeners.

SIMON: How big a house do you get for \$6,900 U.S.?

Mr. MPHAHLWA: We have developed a house which is 54 square meters, and it is on two levels. It's a double story house.

SIMON: How do you build these houses?

Mr. MPHAHLWA: Basically, you put the timber frame structure as the frame, which is made of pine, which is combined with some galvanized iron elements, and then you pack the sandbags and the timber frame gives the structural integrity, and the sandbag actually provides you with some kind of structural foundation and support of the timber frame structure.

SIMON: Sandbags are heavy.

Mr. MPHAHLWA: They're very heavy, yes.

SIMON: So this has to be done by professionals, or at least people who know what they're doing.

Mr. MPHAHLWA: No. Definitely not. That's the beauty of the construction. The bags are about - now unfortunately, we don't work in inches, but they are about 35 centimeters wide and so they're, you know, easy to pick up. You actually just fill in that little bag and then they are packed or stacked together on top of each other. And you do need a bit of scaffolding as you go higher up, but it's a very simple, energy efficient way of construction where you don't need any electricity to actually put up the houses.

SIMON: So that's what's meant by energy efficient. You don't need gas-driven vehicles to put them together.

Mr. MPH AHLWA: Yes. I mean, you basically have to deliver the sand on the cars. The eco bins are produced in a warehouse, also using very simple machine equipment, no huge electricity or welding or anything like that. And in fact, the beneficiaries themselves are part of the construction team.

SIMON: What happens when it rains?

Mr. MPH AHLWA: It is known that when water falls into sand it drops down. So basically, you just have to make sure that you do have sufficient drainage at the bottom of the wall to take the water to the outside. But the other thing is that on top of the sandbags, we put a wire mesh and then it is plastered over. So if you do not know it was built of sand, when you see the finished product, you actually don't say this is a sandbag house.

SIMON: Well, congratulations. Mr. Mphahlwa, thanks so much. Good luck to you.

Mr. MPH AHLWA: Thanks a lot for giving me the time to celebrate my winning of the first Curry Stone Design Prize. I'm very, very proud of that moment.

SIMON: Luyanda Mphahlwa in Cape Town. This is NPR News.