

Circularity for Educators BLOCK III Circularity in Architecture and the Built Sciences Practitioners Interview Series

## Christina Eickmeier Co-founder and architect CHRITH Architects

My name is Christina Eickmeier. I'm an architect and I'm the founder of CHRITH Architects. We are in our office now. You see the straw bale wall behind us and that is one of the building techniques we're specialised on. We really focus on ecological building methods.

## What drew you to circularity?

I think the reason why I am so interested in circular architecture and particularly in natural building materials is really lying in my roots. I'm a farmer's daughter so I basically grew up between the hay bales and the straw bales.

So around 10 years ago we had a study trip to Central Asia, to Uzbekistan, and we had the chance to visit the rural area. They have still a very vivid building culture with earth and timber. What was so fascinating for us was that when a son is born there, the parents buy a piece of land and then they plant trees. The trees will grow and after 20 or 25 years, when the son is old enough to have his own family, they can cut down the trees. They can use the ground from the site, and with these two materials they have basically 90% of everything they need to build the house. This is such an ideal way of thinking for us. You plan in advance, you think about "okay, in 25 years I need some timber, I'll just plant a tree". It's so simple, but on the other hand also so surprising

for our culture. That really changed our mind, how we think about architecture and the way we deal with materials.

## Can you discuss one of your projects in terms of circularity?

I would like to speak about our third straw bale project and the first one that we did in the Netherlands. First we designed and built two straw bale houses in Germany and then we moved back to the Netherlands (since my partner comes from the Netherlands). It's the first house we designed here with the straw bales. It's an old farmhouse. It is this traditional Dutch farmhouse with this very big roof that almost comes down to the ground. It has a front house that was used for living and it has a back house, a kind of barn which was used for the cattle. That was in very bad condition so we had to demolish that, and it was decided to build this more or less in the same shape. But then with the straw bale technique.

I think the straw bale technique is such a good technique because the environmental footprint of a straw bale is just very, very low. Actually this CO<sub>2</sub> footprint is even negative, so it stores more CO<sub>2</sub> than was emitted for its production. It's a super nice natural material and you can really just use it one to one from the field to the building. You don't need any company to modify it or anything else. In our buildings we have the farmer who brings the straw bales. We check the quality of the straw bale and then we use it as a building material.

What was very nice about this project, and we have done that with several straw bale projects actually, is that the clients did a lot of work themselves, so they invited their friends and their families. My partner gave a workshop for them on how to build it in. It's a technique which is very easy to learn. Even for people who haven't worked on a construction site at all they can learn it in a day. That's what we did in this project. The clients just invited their friends and family and we built in the straw bales. That gives also a very big social aspect to the building material which you don't have with any conventional building method. You really form a community and you can really build up a relationship with the building you are going to live in.

One of the major lessons was, it was quite surprising actually, before we worked in Germany. We had the experience with a construction site there. When we came to the Netherlands we just thought we do the same, but there was one thing, that we couldn't find the right timber dimensions for our building in the Netherlands. In Germany the carpenter would go to a sawing mill and just order timber 6x32. In the Netherlands apparently this is very difficult because all the timber dimensions are industrialized and we just couldn't get that. In the end the clients just bought the standard dimensions and glued two of them together. That was the solution that we found.

## How does the transition towards a circular built environment challenge the role of the architect?

I think a very important quality for us as architects and urbanists in this transition is to really work together and form networks where we share honestly our experiences. What went good, what went not so good, so that you can really learn from each other. I think that is really essential for the transition we are in.

Secondly, I would say we as architects should become more involved in politics, and really see how we can share this movement of changing things.