



## Circularity for Educators

### BLOCK III Circularity in Architecture and the Built Sciences

#### Practitioners Interview Series

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I'm Caro van de Venne. I'm one of the founding partners of NUDUS, and we are here at our office in Rotterdam.

#### *What drew you to circularity?*

What drew us to circularity when we founded NUDUS was that as three partners we realized that we were all three very inspired and also positively energized by nature. The feeling that you walk in the sun or feel the breeze in your hair, float in the water, it gave us, we feel, a creative boost that we need for our practice.

When we were talking more about nature and the inspiration source that it could be for us, we also realized how intelligent it is, how constantly it's adapting, it's flexible, it changes, nothing is redundant. And for us it was a huge inspiration when talking about what kind of buildings we want to make or how do we want people to experience the built environment.

Well, at the same time if we see what as a society currently we're doing to nature and how we somehow act that the resources are endless and they're not, and how we already see the results of how certain societies have to deal with the threats of nature, we feel like when we set up a new and fresh practice we have to act differently and one of these new ways of acting is more working with

the materials which are already there, and use and reuse them again.

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

The exemplary circular project we're currently working on is the *Palace of Justice* in the Hague. We're doing that for the Rijksvastgebouwbetrijf, it's a Dutch governmental building institution. By 2030 they want to do all projects completely circular and by 2050 their whole building stock needs to be circular. *Palace of Justice* in the Hague and it's this courthouse where in 2019 the Urgenda law case took place and it was the law case of the Urgenda against the State. And there was ruled that until now the State is failing to do everything in its ability to aggressively reduce CO<sub>2</sub> emissions and that the State cannot hide themselves stating: "Yeah, we do already this, so we don't have to do that". No, you have to do everything that's in your ability.

And this fact was for us so strong that we stated: by this project we really gonna say to our client, to ourselves, to the future users, let's practice what you preach, and use the materials already there. We're gonna reuse the glass, we're gonna reuse the natural stone of the facade, the internal walls, upgrade the flooring but with the existing material and with that aggressively, indeed, reduce the

CO<sub>2</sub> emissions of this project.

And we could do that because there are two buildings, one building of the 60s, with a low rise part and a high rise part, and a building of the 90s. It's interesting also how these two buildings are different that you see that the buildings from the 60s have a lot of space, sturdy materials, really, it feels durable. Where the building of the 90s, it lacks daylight, doesn't feel like a pleasant place to be. So they both need another way of dealing and acting, but for both entities, we said, we take on the challenge to make a project of new build quality, but without using massively new build products.

The obvious first answer of the challenges and opportunities by circular design is obviously cost. Building circular is still more costly than building new and that's due to the amount of labour that is needed. First of all, it starts with documenting, the older buildings are not documented yet. Then about demounting, working with the materials, remounting the materials, so that is an amount of labour that has to take place also in the Netherlands. Dutch building cost and labour cost. But also warranties, people somehow still don't feel comfortable with circular products. They rather have a new product, because that has certain warranty and quality labels, than a reused product. Well, you could also say, that facade panel already proved for 50 years it's durability, so let's reuse it again. But that way of thinking and also believing that we can upgrade products to a new quality, that's something that is definitely still hard work.

The opportunity that we learned from Palace of Justice is also that we can develop a new way of thinking about architecture, that we can be very innovative with existing materials, that we can also find new architectural language. We also have to get used to that, it's like we are working different, we have to accept a different aesthetics, but we can also develop ourselves a

new aesthetics and we got very excited about this fact, like wow, what we all can do with materials that are already there and how we can treat them; how we can talk to craftsmen and really use this craftsmanship to make something really beautiful. How we can extend our network and finding also other people to test and re-test and assemble and de-assemble in order to find the right aesthetic solutions. So the conversation at the design table becomes simply different.

The major lesson that we learned from the *Palace of Justice* is that you have to start working early with this craftsmanship and with the materials and build up your architectural vocabulary from that, take that as a starting point. Stay also close to the logic of the building and build up your new aesthetics upon that. And you should also force yourself that the existing materials lead the design process, so it requires another way of thinking and designing. As an architect you also have to accept that the outcome is different than when you would have started with a blank canvas.

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

The change to the circular design is, I think, for us as architects also a change in how we look at architecture, that we have to accept that there comes a new aesthetic to it. And the process towards this different role is also partly educating our clients, also stepping over the fear that something existing doesn't have the qualities of new build, clarifying that it's not a matter of polishing something up or using old window frames in a new build construction, it's a matter of respectfully working with the resources and treating the natural environment. And I hope that as a building industry we somehow also can hopefully inspire more people to step into the craftsmanship of making, of mounting and remounting and finding new ways of building.