

THE EXPLODED VIEW BEYOND BUILDING

AN EXHIBITION OF 100 BIOBASED MATERIALS



Dutch Design Week 2021

Initiative:

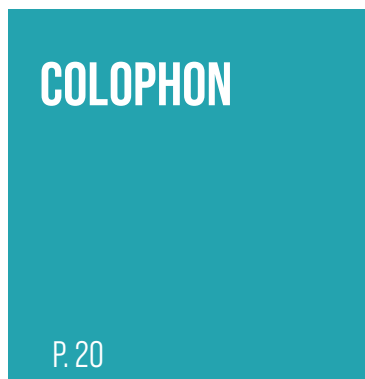
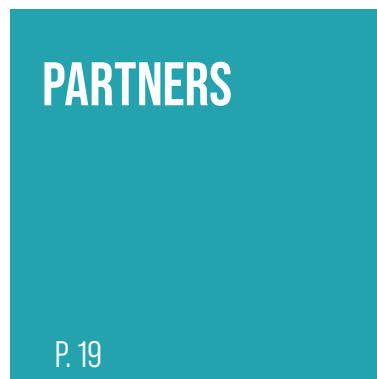
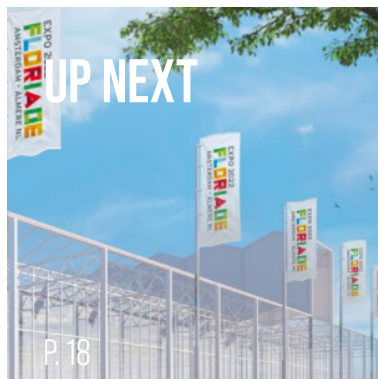
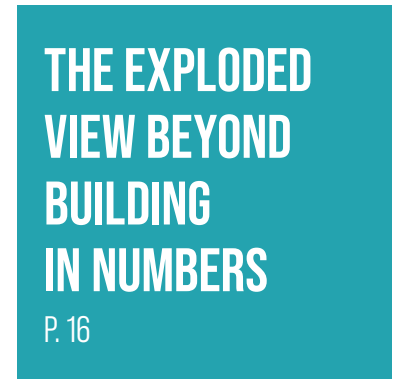


Embassy of
Circular & Biobased Building

Concept:



CONTENTS





THE EXPLODED VIEW BEYOND BUILDING

The Exploded View Beyond Building at DDW 21. 'Meet your circular living environment of the future'. With this message Biobased Creations presents, together with more than 100 pioneers from the world of circular and biobased construction, The Exploded View Beyond Building. This exhibition premiered during The Dutch Design Week 2021

The Exploded View Beyond Building is an iconic exhibition in the form of a house that consists entirely of biobased materials, circular construction methods and stories about the changing value chain of which it is part. This life-size biobased house stimulates all your senses and shows you the circular future.

The Exploded View Beyond Building is the result of collaboration and research by builders, producers, farmers, scientists, designers, governments, knowledge institutes, storytellers and artists who are united in The Embassy of Circular & Biobased Building. Together they work on new perspectives for sustainable (circular and biobased) building and living in a circular living environment.

Visit www.theexplodedview.com for more information

Or click on one of the logos below:

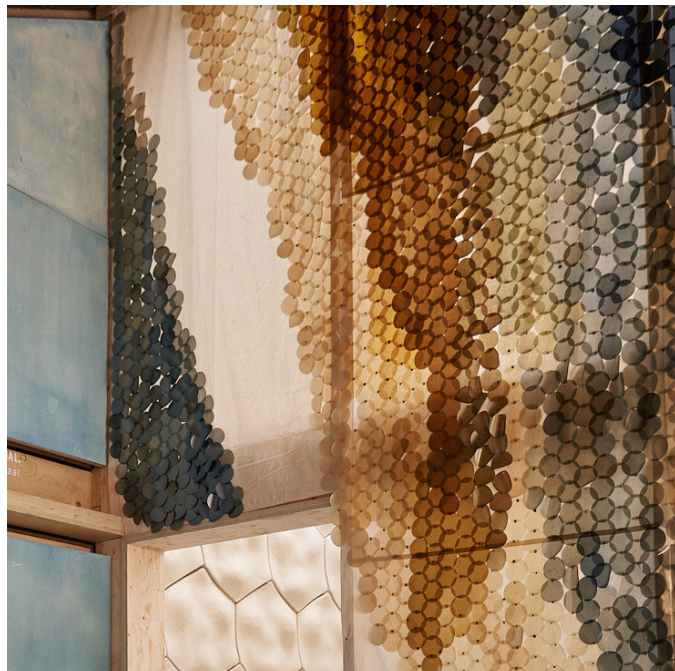




THEMED ROOMS

There are nearly 100 natural building materials in The Exploded View Beyond Building [TEVBB]. In TEVBB we show the endless, potential material flows that are available but hardly used in the construction world. For example, materials from food, seaweed, (sewer) water, existing buildings, agriculture and our own living environment. These are materials that are already proven and widely available but still have difficulties finding their way to the construction site. Other materials we display still need serious support to develop and scale up. We've labeled them as materials of today, tomorrow and the day after tomorrow. We divided the TEVBB into 7 themed rooms and we present online the materials within these themes. Via QR codes next to the materials, visitors can easily request the online information.

Click on the pictures to discover the materials.



WATER

Our earth consists of 70 percent seas and oceans. In addition to the rise of sea farms that cultivate algae, seaweed and other seagrasses, cities are also giving more and more space to aquatic plants such as reeds and cattails. These wet crops are not only essential for biodiversity and the prevention of harmful subsidence, but can also be used as a building material. We show water applications in our house for both outdoor use and indoor use.



EARTH

Mineral raw materials, such as clay and loam, are almost infinitely available in river deltas due to the constant supply via the water. Even after they have been specifically applied, the minerals can easily be returned to their original form. As a result, they can be used as raw materials much more often.



FUNGI & BACTERIA

If we tell you "we build with fungi and bacteria", chances are that your face will start with horror. But fungi and bacteria have been the building blocks of nature for millennia and can also be invaluable to us.



PLANTS

In addition to wood, the most common building materials consist of plants. With the most commonly used plant at the moment, hemp. It grows easily and everywhere, requires little water and provides a huge amount of material possibilities. In addition to specially growing plants for the construction world, which is a perfect alternative revenue model for agriculture, many materials are also made from residual flows from food production.



LIVING MATERIALS

If we really want a more sustainable world, our buildings must not only be less polluting, they must also create more nature. By arranging facades, walls, roofs and ceilings in such a way that plants and flowers can grow, we not only provide more greenery, we strengthen biodiversity, help with water collection and purify the air both inside and outside to an unprecedented level.



FOOD

One third of all the food we produce is thrown away. These 'residual flows' of food do not currently have a full-fledged repurposing. They end up on the waste mountain or are used for green energy production. A new generation of designers is showing the enormous potential of these food scraps by converting them into high-quality building materials. If we strengthen the cooperation between the food and construction sectors, we will reduce waste and create value with what we don't eat.



SEWAGE

We still too often see sewers as the highways of our shame. There are only things in it that we do not want to smell, taste or see. Yikes! But sewers contain a lot of valuable substances and minerals that we can use, with the right filtering to make beautiful materials. With these materials we can build, design and purify the soil and all that completely biologically.

STORIES

In addition to showing the power, beauty and possibilities of biobased materials and techniques, we also share stories, research, insights, articles, drawings, podcasts and videos on the TEVBB website. They are all small pieces of the big puzzle that we have to put together in the coming years if we really want a sustainable future for everyone. We distinguish the following four themes, Health, Value, Farming and Neighbourhood.

Because if we want to create a sustainable future for us and our children, we have to evolve into a different system. In that system, all worlds are connected to each other. The builders, farmers, residents, companies, bankers, policy makers and the observers (education, research, art) all have to make their contribution. After all, you're not just building a house, you're building a whole world.

ALL STORIES



View all stories here



VALUE - Nieuwe helden

VALUE MAGAZINE

We live in a world dominated by numbers. We express value in terms of money. And we are increasingly leaving more to the...



NEIGHBOURHOODS - BPD

BIOBASED MATERIALEN IN HET HANZEKWARTIER

Door het partnership levert BPD een bijdrage aan het onderzoek naar de mogelijkheden van biobased materialen..



FARMING - EXIE

RELIFE

ReLife is opgericht met als doel het gevecht aan te gaan tegen uitstoot van CO2, de strijd aan te gaan tegen...



HEALTH - VELUX

THE INDOOR GENERATION

We spend 90% of our time indoors without enough daylight or fresh air. We don't think about it any more...

DDW 2021



THE MAKING OF

The Exploded View Beyond Building has been realized by more than 100 partners. Cool! Amusing! But how? We would like to give you an idea of this.

"For me as a designer, it's important to show the power of these natural materials"
-Pascal Leboucq



Pascal Leboucq talks about the concept



Group photo of (almost) all makers during the opening of The Exploded View Beyond Building



The Exploded View Materials & Methods

THE FORERUNNER

In 2020, we proudly presented the installation The Exploded View Materials and Methods a house, scale 1:4, with more than 60 biobased materials and circular construction methods. This installation has already got a lot of praise, with the Henry van de Velde Award as one of the highlights. And since its origin, it has been traveling the world to showcase what is already possible in sustainable construction. In 2021, we went a step further with The Exploded View Beyond Building. This life-size biobased house shows you the circular future.

THE MAKING OF

We could never have realized this innovative installation without the support of our construction partners, Caspar de Haan, WAM&VanDuren Bouwgroep, Fiction Factory and Van Helvoirt Groenprojecten.

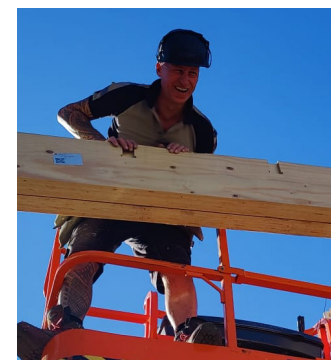
View the timelapse of construction



*Cas de Haan and
Lucas De Man about
the essence of this
project*



*Willy Smit of WAM&VanDuren Bouwgroep about
the construction of The Exploded View
Beyond Building*



DDW VISITORS

Merel Hegenbart talked to DDW visitors.

"I would like to live in this house, I just wonder how expensive it is"

"I feel everything, the soft walls... fungi and algae, what you can do with them"



Gerni Luttkhuis,
lecturer in Business Administration at
the University of Groningen and
owner of her own company.

"I dream of building a completely sustainable house. When I see this house, I think 'great, every year there is a big step.' And every year I become more aware of how much wealth we have that we don't use and how much more can be used than we think. And I think this house is fantastic, another big step forward. I feel everything, the soft walls... fungi and algae, what you can do with them.

Wherever you look, there is something that is useful and that has been thought about. It makes me very happy. It comes together, you make it, it lives and it goes back when it is no longer usable. And then there is a new generation and they do the same with new insights. So we are here temporarily, and such a house helps us to be able to do it temporarily. "

"There is also an emotional experience when you walk through this house"



Jin Jing,
student aan de University of Arts Berlin

"How you are guided through the house and experience the different materials, it is all very carefully considered. The house is very cosy, the whole colour palette is earhttone, very warm, which makes it a very good environment for residential purposes. Getaway is really popular in the United States right now, and one of these Getaway places is a cabin in the woods. The design of it is very similar to this house, it reminds me of that. I would like to live in this house, I just wonder how expensive it is, so I would like to if I can afford it."



Maxim Meijer,
Product design student at the Amsterdam
University of Applied Sciences

"I myself already have some knowledge of the materials in this house and products from the designers, so it was nice to see that it is now being used on a larger scale and that large products can also be made from it. To a certain extent, there is also an emotional experience when you walk through this house. Because I am also working on this as a student, it motivates and inspires me to continue in the same field."



Jelmer Boersma, landscape architect
at the Municipality of Rotterdam

"I think the house is really cool. I think you need this house to design climate-robust and really think from that position. The reuse of materials such as algae and reeds, these are materials with which I think we will have to work in the future. So it is not only building materials, because unfortunately a lot is lost in building materials. In Rotterdam, we are also looking at how we can reuse these materials. How that is done in this house is really super. There really is a future in this."

"The reuse of materials such as algae and reeds, these are materials with which I think we will have to work in the future"



Noémie van der Brempt, interior design
student at LUCA in Ghent

"This house contains certain materials that I did not know at all, so I absorbed everything"

"I am very interested in sustainable materials and have worked a lot with sustainable materials in my projects, first at the Steinerschool and now at luca in Ghent, where I study interior design. This house contains certain materials that I did not know at all, so I absorbed everything. It would be cool to work with these materials once. The bedroom is very acoustically pleasant, and actually everything is beautiful."



Peter Kapteijn,
founder of circular design and project
office Werkterrein

"Those cork walls, the reed wall above. It's all obvious, but you just have to come across it"

"I have an interior design agency and realize. Where we build interiors, we have been working for years with green walls, with clay, with giving a new life to old products and working with wood. It makes me very happy. This house is fantastic. The new methodology and developments to turn organic raw materials into new products, new applications. Very pretty. For me, it is the introduction to a number of new applications of existing products that make it worthwhile to walk through this. Those cork walls, the reed wall above. It's all obvious, but you just have to come across it."



"I think it is very good that the house scale is 1:1, because you often see the smaller models. This scale is a completely different story"

Jacques Vink,
architect with specialism
Nature Inclusive Design

"I am an architect specialising in Nature Inclusive Design. This means that our environment is not only intended for people, but also for animals and plants. In an environment, they should all be given a full place.

I think it is very good that the house scale is 1:1, because you often see the smaller models. This scale is a completely different story, it proves itself on our own scale. You can estimate it better, also as an architect. It shows how it works in real life. There are many materials among them that I find very special, such as this Mycelium wall. For the experience, it is also good that you can feel everything."

"It really is a new way of thinking and designing"

Evelyn Leiva Deantonio,
G4-trainee Information- management
at Municipality Rotterdam



Nathalie Lermytte,
Stylist DingDong BV Belgium

"In this house you can see certain materials that I knew you could process, but I did not know that it existed in this specific form, such as the glass of seaweed or the curtain of seaweed. I find that amazing. The structures are very pleasant to stay in. The bedroom inspires me to incorporate something like this in a hotel in a future project."

"The structures are very pleasant to stay in"



"Walking through this house, I really enjoyed seeing how these sustainable materials come together. It really is a new way of thinking and designing, which can last for a longer period of time and ensure that we live more consciously.

I thought it was really cool to see what you can put down and in which sustainable ways you can build. Very nice not only to hear the story, but to be able to see it in the house and to be able to touch, experience and smell it. It actually felt like I was in some kind of museum. I liked that it was a full experience, so that you could really walk in it, really an overall experience. It's actually a work of art that you walk into."

"This house shows me that the use of biomaterials is not such a very far vision of the future"



Jason Fick,
Trainee Information Management at
Municipality Rotterdam

"I am a Trainee Information Management at the Municipality of Rotterdam. There I now work within the innovation team and I am working on the issue: how are we going to connect innovation to improving biodiversity within the municipality? This house shows me that the use of biomaterials is not such a very far vision of the future. It is very realistic, this house proves that. It is a missed opportunity not to use these materials. The house feels very homely, warm, it is nice to have such a natural look around you. In addition, it is also nice to know that you are making a good impact on the climate."

DDW MEETINGS

During the DDW, several meetings were held in The New Blok.



During the DDW, **Stichting Agrodome** organized a mini symposium on healthy building and other benefits of natural building materials.



Caspar de Haan takes relationships such as housing corporations into the world of circular and biobased construction. Five mornings were organized including a tour of The Exploded View Beyond Building. The use of imagination, stories and connection inspired 200+ participants on what can be done today, tomorrow and the day after tomorrow in the field of circular and biobased construction.



The Exploded View as fieldlab

Meeting each other is necessary, according to Sanne van Leeuwen, who works from TNO on the programme 'The Exploded View as a field lab for emission-free construction'. The workshop is the first of three workshops where the producers of materials and the market parties talk to each other about what they encounter when it comes to circular biobased construction.

- **Saturday 16 October**
Stichting Agrodome - Healthy construction with biobased materials
- **Monday 18 October**
Caspar de Haan - breakfast session
- **Tuesday 19 October**
Caspar de Haan - breakfast session
- **Wednesday 20 October**
Caspar de Haan - breakfast session
- **Thursday 21 October**
TNO / Biobased Creations - The Exploded View als Fieldlab
- **Friday 22 October**
Caspar de Haan - breakfast session
- **Saturday 16 October**
Opening with partners
- **Monday 18 October**
Meet the Gencork team
- **Tuesday 19 October**
Drive Live
- **Tuesday 19 October**
WAM&VanDuren Bouwgroep
- **Tuesday 19 October**
College van Rijksadviseurs
- **Wednesday 20 October**
Provincie Noord Brabant - Brabant approach to circular construction
- **Wednesday 20 October**
BPD - Inspiration session
- **Wednesday 20 October**
projectteam kloostergoed Theresia
- **Friday 22 October**
Rabobank - Inspiration session
- **Friday 22 October**
Jansen by ODS

TOURS



English - Tour through The Exploded View Beyond Building (16 min)

THE EXPLODED VIEW BEYOND BUILDING IN NUMBERS*



1

Modular and circular
housing scale 1:1



100

Biobased materials



150

Partners



17

Construction days



50.000

Visitors DDW



30

Press releases



100

Guided tours



8.000

Online tours



Eindhoven

DDW 2021

Almere

Floriade Expo 2022

Antwerp

KAMP C 2023

*as at 1 December 2021

IN THE MEDIA

Both nationally and internationally, there is a lot of attention for The Exploded View Beyond Building in newspapers, online, on television and radio. A more complete and up-to-date overview of the publications can also be found on the website.

ALLE COMMENTS

View all comments here

NOS

NOS/ NIEUWSUUR

Een rioolwater-wc en een schimmelmuur, volgens deze kunstenaar is het de toekomst

AVROTROS

AVROTROS

De wereld van morgen (min 35 – 38)

de
zeen

DEZEEN

House built from 100 different plant-based materials unveiled at Dutch Design Week

arch  daily

ARCHDAILY

How Emerging Practices Approach Sustainability in Architecture

 BNR NIEUWSRADIO

BNR NIEUWSRADIO

Het huis dat bestaat uit 100 biobased materialen

vpro

VPRO

DDW TV (5): Lucas De Man

 腾讯网
QQ.com

QQ

成立20周年的荷兰设计周 今年用“更大的数字”讲故事

COBouw

COBOUW

Honderd biobased materialen samengebald tot een huis

circu
build.be

CIRCUBUILD.BE

The Exploded View Beyond Building: expo rond huis uit natuurlijke materialen

CASA
VOGUE

CASA VOGUE

Esta casa foi construída com 100 materiais à base de plantas e substâncias orgânicas

UP NEXT:



THE FLORIADE IN ALMERE
From 14 April to 9 October 2022

PLAN A VISIT



For questions, ideas or information about possibilities for collaboration?
Contact us at info@biobasedcreations.com

THE EXPLODED VIEW BEYOND BUILDING IS MADE POSSIBLE BY:



IN COLLABORATIE WITH:

KNOWEGE PARTNERS:



MATERIAL PARTNERS:



PROGRAM PARTNERS:



TOGETHER THESE ORGANIZATIONS FORM:



Embassy of
Circular & Biobased Building

COLOPHON

Concept of The Exploded View Beyond Building:

Lucas De Man and Pascal Leboucq

Design of The Exploded View Beyond Building:

Pascal Leboucq

Photography:

About.Today

Lisa Wernaart

Eduard van vliet

Merel Hegenbart

Erik Melander

Other images:

Value Magazine

BPD

EXIE

Velux

Caspar de Haan

Editorial staff:

Diana van Bokhoven, Jopie de Zeeuw en Merel Hegenbart

Design and layout:

Lennart van der Heide

