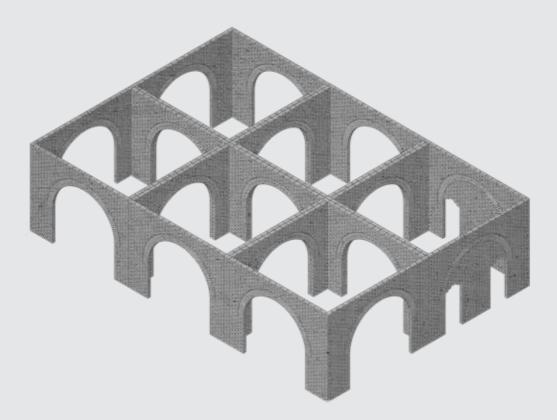
## Same Same but Different



BC architects & studies & materials, 10.04.22–07.08.22



Vleugel 58



# How can we use resources differently?

Resources are growing scarcer all the time. Just look at the current price increases and supply problems in the construction business. That building materials also have an impact on our environment is a lesser-known fact. If traditional modes of extracting natural resources are energy-intensive and polluting, they also make global inequality persist. This is why new future perspectives are urgently needed, whereby architecture can truly make a difference. Since 2009, BC architects & studies & materials has been taking on this challenge.

BC is a hybrid architectural firm with a mission, aimed at reforming building processes and rendering communities sustainable. In Same Same, but Different, it is possible to trace the fine details of their basic principles — The Act of Building. According to BC, building is action and discourse. It involves mobilizing all sorts of people, efforts and resources. This calls for a community effort, as well as an expression of specific values and ideas, harbouring the potential of change.

To generate such positive impact, the BC staff does not just pursue a new infrastructure. They also rethink the building and extraction processes through the development and production of new, sustainable materials. Moreover, they work on activating the community and combining their knowledge with a variety of programmes, actors and technologies. For instance, they developed a women's shelter and kindergarten in Morocco and a library in Burundi, but also a community centre in Edegem and a bakery's oven for Bokrijk. To them, a project means more than just realizing a building.

The BC approach can hardly be called new. As early as Antiquity, old buildings served as 'quarry' for new buildings. The principles of recycling or circular building, then, have been around for ages. Yet it is also true that we are living in a completely different world today. BC aims to link up this rediscovered knowledge with our current social, political and architectural worlds. Through Same Same, but Different, they stimulate the debate about sustainable societies.

## Geo-sourcing



WOODSTOCK is a private home in the Ardennes region which floats over a river bank. This house is a good example of one of the trademarks of BC: geo-sourcing. This firm deploys mineral building materials found in the nearby soil, such as sand, clay and stone. In this way, building as an activity — from design, extraction and transport to ultimate realization — is concurrently a matter of returning 'space' to nature.

#### Regional extraction

Stones, soil and waste materials from local quarries make up the materials for this house. All are reclaimed from within a range of 30 km from the project. Next, there has been extensive prototyping and sampling to realize material applications. Finally, craftsmen and bricklayers built the house according to traditional, regionally based techniques.

#### Design

This new stilt house covers the terrain's extent while also highlighting the edge of the forest. To stress the notion that the house is part of the forest and nature, its front can be fully opened. The equipment spaces, sanitary facilities and bedrooms are located in three nuclei made of natural stone. The foundation consists of compressed gravel, instead of concrete. The ground floor level sits six meters above the ground surface in order to prevent river floodings from causing damage to the house.



Through the *Usquare Feder*-project, ULB, VUB and the Brussels Capital-Region provide new life to the former police station site in Elsene. BC, EVR and Callebaut architects designed this project with an eye to circular features, as well as social and ecological cohesion. To this end, an utmost effort was made to hold on to or recycle the materials that were there. Starting from *urban sourcing*, they focused on building materials found in the city.

#### City as quarry

On the one hand, BC retained the materials applied already, paying close attention to the preservation and restoration of particular parts. On the other hand, the removal of the adjacent building provided usable materials for the police station's renovation. Accordingly, use was made of bricks, natural stone, sanitary objects, tiles and wooden floors. After their removal, cleaning or treatment, they were applied in new ways. Finally, BC decided to work with biological building materials, such as stucco lime and hempcrete.

#### Design

Seven buildings of the former police station in Elsene will be given a new function and will undergo thorough renovation. The enclosed site will be made publicly accessible through two new entrances. In addition, the use of several buildings will be changed. The former stable, for instance, will be turned into a sustainable food hall. Other buildings will be turned into research centres, experience spaces, residential spaces and meeting places.

The spaces will act as adaptable open workspaces for facilitating informal encounters. The residential spaces consist of efficient 'home units' made of wood. These modular units can easily be altered in response to changing spatial needs.

## Bio-sourcing



Atelier LUMA is the design and research programme of LUMA Arles (France). Its approach is fully geared to the region's environment, comprising Camargue, the Alpilles and the Crau plains. It is a region rich in crops and natural resources, such as rice, algae and salt, which Atelier LUMA aims to develop in new ways. *LOT8* is a former railway workshop. Its sustainable renovation is realized through a collaboration of Atelier LUMA, Assemble and BC.

#### Seasonal harvests

The architects develop new construction materials based on natural, residual materials found locally via bio-sourcing. In this process a non-renewable material of mineral origin (like concrete) is substituted with a biological, renewable material. Such basic materials include flax, hemp, plants and algae. These materials can be cultivated or harvested in the short run and are renewable without end. This approach reduces the CO<sub>2</sub> emission, while it also has lasting socio-economic effects. In this way, knowledge and resources are shared with local players.

#### Rice and sunflowers as raw material

Of old, rice is one of the main crops in Camargue. By considering the straws as valuable material, however, local resources are utilized and this will also stabilize the plant's CO<sub>2</sub>.

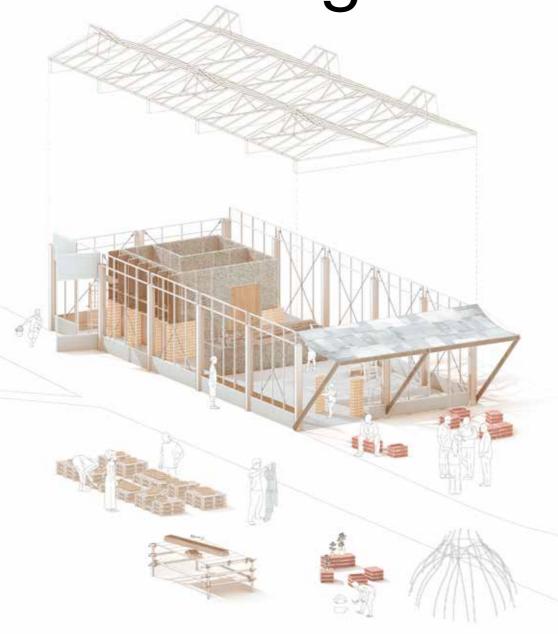
The panels are composed of a mix of rice straw, plaster and chalk. They slightly vary in terms of colour and texture and come with fire-resistant and acoustic qualities. Production is seasonal and varies during the year.

Sunflowers define the image and agricultural economy of the Crau plain. Atelier LUMA added the harvesting of stems and other sunflower residues to the traditional harvest process. This residual material is used to make acoustic and solid panels. The pith of the stems is perfect for sound proofing. The panel's hard material can actually be worked like wood. It provides heat and sound insulation, and can also be composted.

#### Indigo wood stain

Buildings in Camargue carry the colours of the landscape. Atelier LUMA explored the colourant options of local algae, minerals and plants, applying them in paints and coatings. The indigo wood stain, for instance, is a mixture of plant-based oils and organic indigo and Maya blue pigments. The stain colours the wood in hues ranging from light blue to dark blue and preserves it by closing off its pores. Algae can also be used for plaster, whereby algae powder serves as binding agent.

## Social Harvesting



BBB, or Building Beyond Borders, designed this last space. BBB is a postgraduate degree from UHasselt, focused on more sustainable building processes. The emphasis is on responsible ways of building, within a context of scarce resources. They strive for a positive impact on the environment and society. Through international cooperation, they exchange skills and visions.

#### Social and sustainable

As visitor you navigate a collective library of over 70 books, in which you find passages, articles and reports which served as eyeopeners for postgraduate students. Based on that global vision, one project is highlighted: *Parckfarm* in Molenbeek. Located on the Tour & Taxis site, this place developed into a park with both a social function and an ecological one. Apart from presenting a plea for sustainable food and urban agriculture, it is a cosy meeting place for neighbourhood residents.

The research group employed this project to strengthen the social cohesion in Molenbeek and to test sustainable architecture. During six months, group members studied the potential of urban sourcing, including waste flows and local, biological and geological resources. This resulted in different prototypes which you can find in the structured arrangement of plinths. In a way the space is a prototyping lab: a production line for basic elements of the *Parckfarm* project (bricks made of clay and textile).

#### Curator

BC architects & studies & materials

#### Scenography

BC architects & studies & materials

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#### Video

Thomas Noceto, Cinzia Romanin, Alexandre Humbert

#### **Partnerships**

Usquare Feder: a partnership between EVR, Callebaut architects and BC Lot8: a project by Atelier LUMA in collaboration with Assemble and BC Building Beyond Borders (BBB): a postgraduate course at the University of Hasselt

Closely follow the BBB activities via this QR-code:



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