

English

### **AT THE COALFACE!**

### Design in a post-carbon age

In this manner, in early days, were formed those vast and prodigious layers of coal, which an ever-increasing consumption must utterly use up in about three centuries more.<sup>1</sup>

Ten years after the Grand-Hornu complex was added to UNESCO's World Heritage list, *Atthe Coalface!* is the first exhibition dedicated to this fuel that triggered an irreversible turning point during the Industrial Revolution. A living archive of the region's mining economy, the Grand-Hornu site is a city project, a unique example of practical urban planning on the European mainland, built around the presence of coal in its soil. The site's mining past has thus shaped economic, cultural and political history over several generations, those who live nearby or travel here from afar, former miners or newcomers, migrants or descendants.

Today, coal is still humanity's second biggest energy resource after oil and the number one source of electricity. Its combustion is responsible for a large proportion of the planet's  $CO_2$  emissions. A combustible sedimentary rock that contains high levels of carbon, formed from the partial degradation of organic matter from plants, here, coal provides the raw material for a symbolic story about design: from its industrial origins to the era of the post-carbon energy transition. It is a multi-faceted element and a whole host of issues are concentrated in this overexploited natural resource, some of which will be touched on in some of the projects in the exhibition. Designers, architects, illustrators and visual artists embrace coal and use it to develop scenarios that allude to the migration of workers, artifacts where coal is a noble material, works that create empathy with the harsh working conditions of mining, tools that recreate the formation of coal, objects that introduce new rituals or materials from future alter-extractivists.

The pieces that make up the exhibition offer both a damning observation and reasons for hope: design becomes a practice whereby the hierarchies between man and nature can be deconstructed, and humans can be returned to the humus, as nature themselves.

The *At the coalface!* exhibition is designed to be a cross-disciplinary conversation combining memories and techniques from the past with the need for solutions for the present emergency. Coal becomes a resource for generating polyphonic, sustainable narratives.

### *We only understand what we transform.* (Bertolt Brecht)

Design and, more generally, research, creative, exploratory action, is the central theme. We are not focusing on the object (the form, the function) but rather with the artifacts resulting from a "journey to the centre of the object": their natural being; their capacity to translate memories and enter into a conversation with memory; their vernacular intelligence; their power to produce narratives and to make history; or to project us towards imaginary futures.

*At the coalface!* introduces essential values for a creative environment that is in transition. Designers, architects and artists ask questions about how resources are used, and experiment with their circular transformation.

They invent new ways of looking at production, ranging from non-invasive extraction to handling materials sensitively in order to understand, control and minimise their impact on the environment. These approaches are defining a post-carbon landscape studded with technical, cultural, political and ecological tools that are capable of regenerating our future. The material we are talking about here, as Tim Ingold would say, is both emotional and substantial, existential and essential. Coal exists in many forms: charcoal, from fire and an age-old practice for staying warm, cooking, drawing and purifying; coal from fires caused by climate change or criminal interests; coal as a component of the landscape, natural humus and architecture, between slag heaps and industrial archaeology; and, lastly, coal as a fossil fuel, whose extraction and exploitation by humans are a major contributor to the climate crisis.

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Introduction

Here, design becomes the narrator and actor in an interconnected, multidisciplinary system made up of actions, values and know-how that digs down into the distant or dramatically recent past, into

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the memory of the biosphere, of humans and of nature, in order to understand before transforming.

## THE NEW DE SIGN

Design, the great-grandson of the Industrial Revolution and extractivist policies, is now calling into question the principles of the economic growth from which it was created. We urgently need a paradigm shift if we want to see human beings, as much as their artifacts, as interconnected elements in the non-linear lifecycle and imperfect beauty.

Smoke Red Blue Chair, 2010 Burned wood, epoxy Collection Centraal Museum Utrecht

An icon of 20<sup>th</sup> century design introduces this narrative: the Red Blue Chair created by Gerrit Rietveld in 1918-23. Designer Maarten Baas transforms this 'beautiful object' by burning it. Fire both destroys and preserves this chair, which loses its geometric form and its primary colours. The designer calls into question the object's durability, and returns the wood to its original status as a raw material, a vulnerable natural resource.





© Photo Caroline Dethier

# LANC SCA PES

Coal can be obtained by combustion (charcoal) or formed by the sedimentation of organic matter, a process that takes over 350 million years. Its presence in the region's soil has shaped the history of Grand-Hornu as well as its landscapes, and is the starting point for this exhibition. An invisible part of the land, its extraction brought about geological, social and cultural transformations.

Urban flotsam, 2022 Wood collected from the streets of Berlin and carbonised

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point for of the land, gical, social

### LAND SCAPES

Dispersion, 2020 Pigment prints on Hahnemühle Fine Art Photo Rag® 308 g/m² paper (laminated to Dibond)

*Dispersion*, 2020 Print on fabric





**Laetitia Bica** has put together a poetic report on the slag heaps of Northern France, and specifically on the yellow horned poppy, a plant native to the arid soils of the Mediterranean that migrated and proliferated in this new area, just like the workers who came here, willingly or by force, in the coal mines.

In collaboration with Valérie Fortin La Montagne Noire, 2018 Raku stoneware Collection Province de Hainaut/CID

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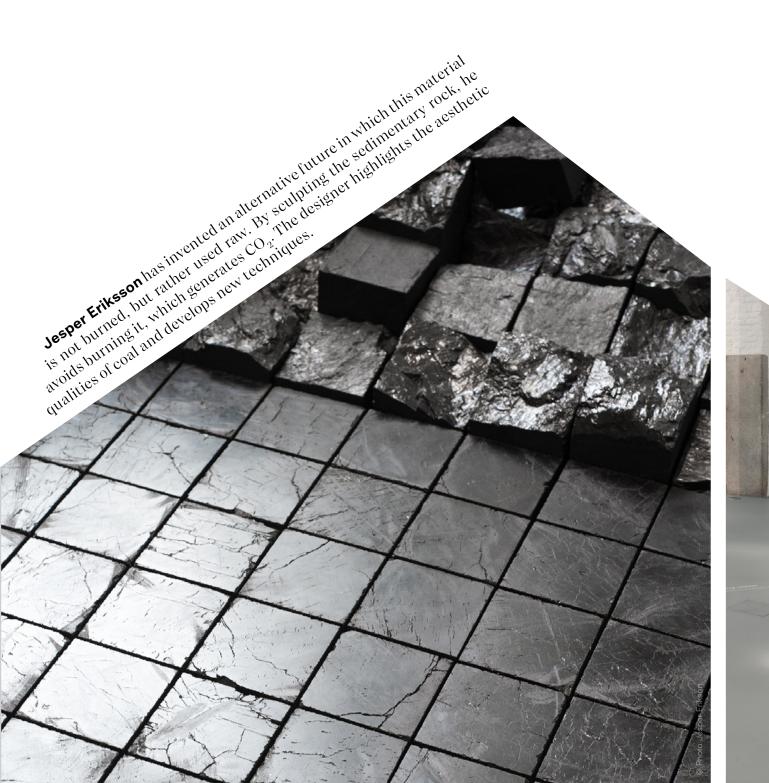


*Lueur*, 2018 Black Limoges porcelain Autour du Louvre Lens edition

The design studio **Khors on Rice the** brings to life a collection of candleholders of the Jowy safety lamp, used in the mines

# UNDER STAN DING BY MAKING

Designers, artists and craftsmen produce knowledge by working with material. They extract it, cut it, heat it... They transform it, not to create a finished product, but to question our relationship with coal and reveal production methods that generate less pollution.



Coal:Post-Fuel A Speculative Future, Collection 018, 2018 Sculpture 018 Anthracite coal Stool 018 Anthracite coal, wooden structure Totem installation Anthracite coal

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From below, 2016 Miniature coking plant Ceramic kiln, mouthblown glass, copper, steel Pyramid, cube, hemisphere, cone Coke (carbon)

From below, 2016

Images : Martin Mostert

Soundtrack: Johannes Arolt

Video

**Philipp Weber** uses his work as a designer to dig into his family history. The grand-grandson of a miner, he has honed his technical research to transform coal into coke, using a process that produces way less emissions. The coke oven that he has developed allows him to deconstruct the manufacturing phases and reposition this industrial practice, turning it into a kind of craft.



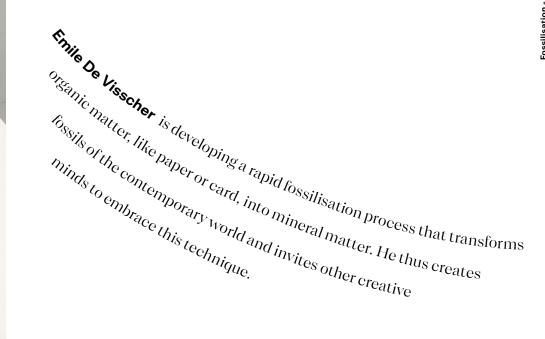


# FOSS LISA TION

Coal is formed from plants and organic matter dating back several million years. It creates the soil's memory by fossilising what was once alive. Designers are inspired by this natural process to create new techniques and new narratives.



*Pétrification,* 2015-2022 Cellulose, cotton, silica







Briques, 2022 Wadding, wool, silica

# AT THE COAL FACE!

The French name of this exhibition, "Au charbon", is an instruction to get stuck in to an unpleasant task. A symbol of the exploitation of manual workers, miners were at the forefront of the first strikes in favour of workers' rights and industry's social responsibility.

Sergio Salma, e en noir et blanc charbonnage à Marcinelle causa la mort Cette tragédie e par la presse na à une prise de ons de travail des





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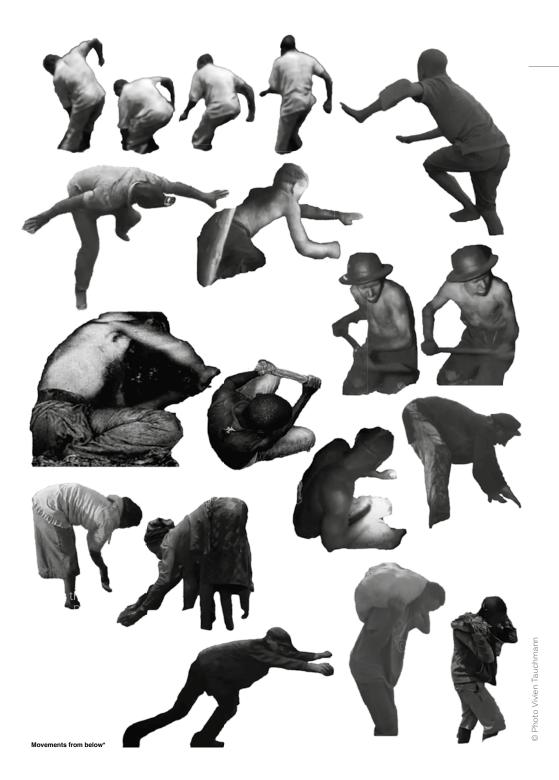


The comic book by **Sergic** sober, black and white lines disaster at Le Bois du Cazie in Marcinelle (BE) in 1956

*Marcinelle* 1956, 2012 Éditions Casterman

> The comic book by **Sergio Salma**, uses sober, black and white lines to describe the disaster at Le Bois du Cazier, a coal mine in Marcinelle (BE) in 1956, which caused the death of 262 people. This tragedy was widely reported by the international press and led to increased awareness of working conditions for miners.





Movements from below, 2022

**Vivien Tauchmann** continues this work of providing information and raising awareness. In her choreographic project she documents the routine actions and the daily exhaustion of the miners' bodies. She links the "past" to the "present", the "here" to the "there", the exploitation of bodies from the 18<sup>th</sup> century in the Borinage to the exploitation being perpetrated today in the mines of the Democratic Republic of Congo.

Performance at CID Grand Hornu, 23 september 2022 video (<u>lien</u>)



# PU RI FY ING

Burning coal pollutes by emitting CO<sub>2</sub>. Alongside this, activated charcoal, obtained from wood or other plant sources, has many purifying uses thanks to its ability to bind unwanted molecules. Wood ash also has a cleansing power; the act of burning can protect wood (a technique known as *ya-kisugi*). Designers and artists take advantage of these contrasting functional and symbolic qualities to create new uses and regenerative rituals.



In 2018, fire reduced six hundred hectares of alpine forest in Monte Serra (Florence, Italy) to ashes. **Jeewi Lee** has collected these ashes, the relics of the forest, and used them as an ingredient of soaps that form the installation *Ashes to Ashes*. By doing this, the artist condemns these huge fires, caused by human activities, and creates a purifying ritual, the starting point for a new cycle. Ashes to Ashes, 2019 Ashes, pine needles and charcoal of from a forest fire, olive oil, coconut oil, sunflower oil, shea butter, almond oil, castor oil, mud, fragrance

Courtesy Sexauer Gallery, Berlin





Kaspar Hamacher uses fire to sculpt wood. Inspired by yakisugi, **newpar riamacner** uses thre to sculpt would, the sufface of wood to make an ancient Japanese technique of charting the sufface of wood to make it more resistant to maintenance and au aucient Japanese technique of charring the surface of www.eesigner it more resistant to moisture and generally more durable, the designer combines the arrigon consistence. it more resistant to moisture and generally more uuraure, organic combines the artisan savoir-faire of carving with the pure, organic forms that regult from the same forms that result from burning.

*Burnt Chiseled Console,* 2019 Solid oak, fire-carved Collection Province de Hainaut/CID





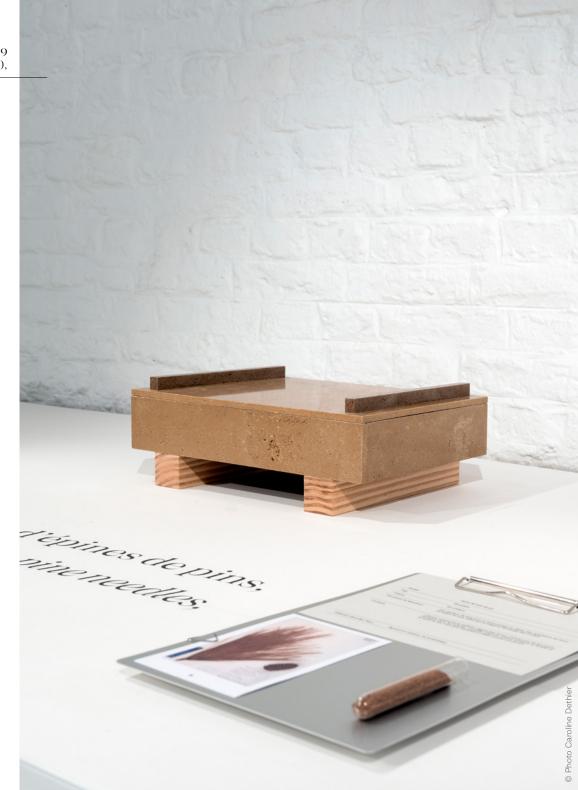
# POST-CARBON DESIGN

Coal, oil and natural gas are the three fossil fuels that sum up the the Western attachment to extractivism. In these systems, nature is perceived as a useful resource, violently exploited to feed 'growth'. Through their research, designers, artists and architects denounce the status quo and put forward new forms of relationships between production and the environment that are non-violent, circular and sustainable.

*Out of the woods,* 2018-2019 Pine wood dust (Pinus elliottii),

When working on its *Out of the woods* research, **Studio Plastique** refuses to reduce the forest to its usual role of 'mine', which we exploit to produce paper, furniture etc. Based on age-old know-how, the two designers are creating biocomposite materials from pine needles, sawdust, bark, dead leaves and pine resin without damaging their original ecosystem.







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La collection de bols et assiettes de **Kosuke Araki's** collection of bowls and plates was made from 315 kg of non-edible food waste collected in one year. Carbonised, mixed with Urushi lacquer, then moulded, this waste is transformed into a collection of tableware that encourages us to rethink the way our consumption and waste.

Anima, 2018 Bowl, plate and cup Carbonised food waste, Urushi (Japanese lacquer) Collection Province de Hainaut/CID

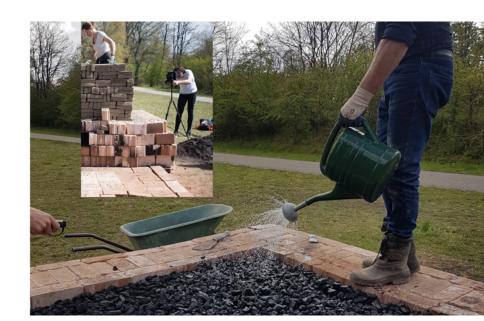
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Brickette: dec(h)arbonised block, 2022 Compressed earth brick



**BC Materials** promotes the vernacular practice of using raw earth generated by demolition in architecture, combining the intelligence of an age-old process with its circular value. Clay as a building material calls into question the predominance of long-lasting materials that produce pollution in modern architecture and celebrates the frugality and reversibility of carbon-free architecture.





**Ciel Grommen** & **Maximiliaan Royakkers**'s project is based at the former mining site of Genk. Since 2020, the two architects have been working together on a series of projects in this changing region, including building a low-tech kiln, firing bricks made from the soil of the slag heap, and installing a platform used as a space for cooperative creativity and new relationships.



TO FORSILES EMBLÉMATIQUES DES LOGIQUES T PERÇUE COMME UNE RESSOURCE UTILE, RECHERCHES, LES DESIGNERS, ARTISTES ET FORMES DE RELATIONS ENTRE PRODUCTION ET COAL. OIL AND NATURAL GAS ARE THE A EXTRACTIVISM. IN THESE SYSTEMS, NATURE "GROWTH". THROUGH THEIR RESEARCH, DES FORWARD NEW FORMS OF RELATIONSHIPS BETW AND SUSTAINABLE.





I stand on a disturbed ground, a thick line dug up from deep down, a slag, grown by a tireless hunt for fallen trees and dead bodies, 850m below my feet. Many men and women have dug endless hours in heat, darkness and sweat digging drilling pulling up moving washing

#### dropping

laving bare I stand on combustible rock formed by the pressure, heat and time of deep burial black stones burning like logs once giving rise to a process of large-scale excavation. A heap has formed here, 67m high, dumped after washing out its value, to become a new laver in strata of time. A mount of trash, a ruin of capitalism. There is energy in this soil. When pulverizing and mixing it with water, a mass of clay, sand and coal can be thrown into a mold. At high temperatures, it becomes hard and brittle.

surprising with red colors and hard black cores.

The devils of Winterslag can't be broken, affirm the people of town. Over 60 years of bricks have been made with this ground. Bricks which seem to unite them all. I am no singular experiment. I belong to a long lineage of peers. Low-tech, fast and flexible, able to appear and disappear wherever clay needs to become brick. This old man has been my companion for 50 years knowing all the surprises I have in store, feeling me and testing me out. It is all about the mesh. About the bandages. About the ties between my bodies. More coal at the base? Maybe cokes grit between the bricks? Reduction, not oxidation. Water helps sometimes. I don't know why. My ignition initiates a new chapter. Keep the fire burning until it reaches the right temperature to transform the bodies to which I am a mantle. 100°C 200°C 500°C Please close the gate and leave me with my flame.

My companions decide to stay on guard, unable to control anything

but united under the spell of my mystery. 600°C 700°C It is the second day. The fire travels from my base to my to top. I cringe Ishrink I collapse but I brace myself, through the bandages. I reach 1000°C in my innermost depths. Something is melting inside of me. I fall asleep. Some weeks will pass before I wake again. Unaware of my inner storm, the people wander off into my surroundings, where nature is mingling with the human arrogance of the past. Pioneers and seeds covered in sticky hydrogel rooting in the dry and black underground. engage in a never-ending dance of relationships, until the violent past becomes just a silent murmuring. In this refuge, migrant species are moving in and out. transgressing property fictions of absent men. This place offers a rare vastness. a room for practices that escape control. I smolder on and cool down as time passes. Raindrops make me sizzle, I get ready to uncover the fruits of my labor.

I get ready to uncover the fruits of my labor. My companions stop their chatter and full of expectations submit to my dissection. Shades of colors reveal the journey the flame has made, raising questions of efficiency and isolation. Uncooked cooked overcooked The sounds of bricks tell a story of resisting moistures and their future destination. ( Empty and dismembered, one can ask again who and what I am. I am born and I die through many bodies

a dance of stacking and unstacking waves of assembly and disassembly I am a collective entity a gatherer of words and gestures a silent smoking protagonist around which one comes together intimately.

Text from the film essay (<u>Link</u> - password: lepaysagemenage) on the sociology of a temporary brick kiln at C-mine in Genk (B), 2022 Director : Ciel Grommen & Maximiliaan Royakkers.

in collaboration with Jonathan De Maeyer. Duration : 10'

# RELICS FROM THE ANTHRO POCENE

Coal is a material used both in industry and our civilisation. When burned, it generates energy and pollution, but also magical smoke and domestic warmth. Its ambivalent connotations drive artists and designers to embrace it to create a friction between nature and norm, matter and its representation, the archaic and the modern.



### Mercedes Klausner takes

coal and uses it to sculpt a range of iconic objects from past and present civilisations that are fragile, ready to burn and go up in smoke. Her work is both political and animistic. The artist summons up the magical qualities of coal to remind us of our ephemeral nature.

Relics from the Anthropocene - p. 67

*20/30,* 2009 Polyethylene foam, felt Collection Province de Hainaut/CID

**Raphaël Charles**'s 20/30 calibre coal rug tells us about Belgium's mining past and man's relationship with nature via standardisation. The materials that make up our environment become resources for human activity once they have been calibrated for our use. The black nuggets are scattered throughout the domestic world, we walk on them but we don't get dirty.



# STOP COAL!

The climate emergency documented every year by the IPCC is accompanied by recommendations to put a stop to the extraction of fossil fuels. Recently in Europe, the war in Ukraine has dramatically underlined the urgent need for alternative solutions. New relationships need to be built with our soil and the materials and the memories it contains. Art, design and architecture construct a militant narrative capable of condemning and engaging a critical mass in its quest for change. By questioning our dependence on coal and fossil fuels, we need to reconsider and change our entire model of existence a sa matter of urgency.

The exploitation of the huge mining site near Cologne in Germany, captured in «Slow Violence», has already destroyed 90% of Hambach Forest as well as many villages. It generates 270,000 tonnes of  $CO_2$  every day, making it the major source of greenhouse gas emissions in Europe.

Using a drone, the artist **Joanie Lemercier** is carrying out truly investigative work that pushes the boundaries of what is legally allowed: he is exposing the scale of the excavation, the violence that nature is enduring, and the protest movements rallying against it. This immersive video installation marks the end of the exhibition's journey, offering a collective aesthetic experience where reality is stranger than fiction.

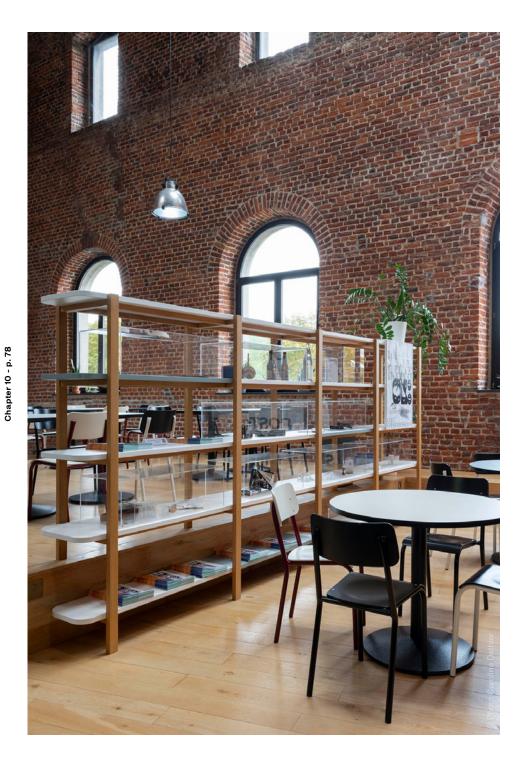


Slow Violence, 2019 - 2021 Audiovisual work Duration: 27' <u>Teaser</u>



# POST-CARBON SOUVE NIRS

As important as understanding the past, the exploratory capacity of design helps us imagine different scenarios for the future that help us control the impact of our actions in the present.





From reading about the history of coal at Grand-Hornu in the archives, which are kept in the Plaetens Collection, <u>DSAA Design</u> <u>Fiction</u> students (Villefontaine, France), accompanied by Olivier Wathelet from <u>Making Tomorrow</u> have come up with imaginary scenarios for the future, some of which are optimistic, while others are more dystopian. The result of this exploratory work on the history of the site is a collection of souvenir pieces that bear witness to a review of the future of the Grand-Hornu, and more generally of our attachment to extractivism.

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Online sales catalogue

#### Giovanna Massoni, curator

Giovanna Massoni (who was born in Milan and lives in Brussels) is a freelance curator and consultant who works in the field of design and visual arts. Since 2005, she has worked regularly with different institutions to promote Belgian and international design as a curator and communication manager. In an ongoing quest for collaborative methodologies and innovative forms that can best highlight and convey the cultural and social value of design, she is determined to support this movement because of its ability to facilitate more openness, create networks and foster interdisciplinary collaboration, all of which are now essential if we want to construct a new ecosystem of values and objects. Some of her most significant projects to date include:

Since 2006, she has been working alongside Belgian federal institutions to organise. publicise and curate exhibitions during Milan Design Week under the label "Belgium is Design". In 2006, 2008 and 2011 she was guest curator at the International Design Biennial in Saint-Etienne (France); in 2008 she was project manager for the DesignSingapore Council for Milan Design Week. In 2009 and 2011, she was a consultant for the EESC (European Economic and Social Committee) for the first and second sustainable design awards. Between 2012 and 2018, she was the artistic director of RECIPROCITY. International Design Triennial for Social Innovation in Liege (BE). In 2020, she curated the Circular Economy POC House, as part of Lille Metropole 2020, World Design Capital. In September 2021, as part of Milan Design Week and in collaboration with Belgium is Design, she curated The object becomes. - a film directed by Alexandre Humbert, which continues its tour of international festivals, including MDFF 2021 and the New York Architecture and Design Film Festival 2021-22.

### Amandine David, associate curator

Amandine David is a designer and researcher based in Brussels. Her work explores sensitive, mathematical ways of collaborating between traditional crafts and digital manufacturing.

Amandine David teaches at the Autonomous Design department at KASK (Royal Academy of Fine Arts, Ghent). She is also the co-founder of Hors Pistes, a nomadic residency programme that introduces artisans and designers to each other and explores the value of multidisciplinary and multicultural collaborations.

Since 2018, she has been honing her skills with FORMAT at Z33 (2019), in residency at the FabLab IMAL (2020) and as part of the Duos en Résonances project (2021). She has collaborated with the likes of Trame Paris, Dutch Invertuals, Ohme, MAD Brussels, Unfold and TAAT Collective to name but a few. She is currently contributing to the KASK Laboratorium as well as iAtelier of Crafts Council Nederlands x Crafting Europe.

Amandine David has a Diplôme Supérieur in Product Design (La Martinière-Diderot, 2010) and a Master's degree in Social Design (Design Academy Eindhoven, 2018). **Marie Douel Studio** creates immersive universes while minimising the environmental impact of the scenographies it designs.

For *At the coalface!* the studio was inspired by the committed character of the large lettering brandished in citizen movements against the exploitation of fossil fuels, in order to design a scenography where objects, texts and images form a sensitive and militant landscape.

Spread out on the walls and the floor, the text immerses the visitor in a narrative that places the story and the projects on the same level of reading. The treatment of the text plays with a typography referring to the story interspersed with titles reminiscent of those of ecological demonstrations.

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The stencil is applied directly to the walls and the printed wallpaper covers the plinths made from wooden panels recovered from previous exhibitions. The stencil on the floor creates the tour route, and marks a natural boundary between the public and the fragile objects. It also encourages the viewer to look down to the ground, in a symbiosis with the coal mining topic.

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Through this mix of techniques and the absence of plastic elements, the scenography explores different ways of reducing the environmental impact of an exhibition, in order to better fit into a post-carbon era.

### **Commissaire d'exposition |** *Exhibition Curator* Giovanna Massoni

**Commissaire associée** | Associate curator Amandine David

**Direction CID** Marie Pok

Scénographie | Scenography Studio Marie Douel

**Textes | Texts** Giovanna Massoni & Amandine David

#### Participants

Aequo Design (FR), Kosuke Araki (JP), Maarten Baas (NL), BC Materials (BE), Laetitia Bica (BE), Raphaël Charles (BE), Emile De Visscher (FR), DSAA Design Fiction Villefontaine & Olivier Wathelet - Making Tomorrow (FR), Jesper Eriksson (UK), Luke Fuller (UK), Ciel Grommen & Maximiliaan Royakkers (BE), Kaspar Hamacher (BE), Jenna Kaës (FR), Khorram-Ricatte (FR), Jeewi Lee (KR/DE), Joanie Lemercier (FR/BE), Mercedes Klausner (AR/FR), Grégory Lacoua (FR), Ulrike Mohr (DE), senscommon (PT) x Uchino (JP), Sergio Salma (BE/DE), Shahar Livne (IL/NL), Studio Plastique (BE/DE), Vivien Tauchmann (DE), Philipp Weber (DE).

Traductions | Translations

Virginie Stoquart

Maxence Noël

Logistique | Logistics

Shahrazad Ameur, Marc Holthof, Right-Ink

Responsable technique | Technical Manager

Sophia Bouarfa, David Marchal, Fannie Tomas

Design graphique | Graphic design

#### Equipe CID / CID team

Martine Acar, Shahrazad Ameur, Marine Babic, Sophia Bouarfa, Aubane Brebant, Jeoffrey Bultez, Lukas Bultez, David Buyle, Giuseppe Cannella, Maryvonne Colle, Brigitte Delattre, Gaëtan Delehouzée, Véronique Demebski, Filip Depuydt, Massimo Di Emidio, Françoise Foulon, Sophie Gallez, Céline Ganty, Marianne Jayé, Christine Lecomte, Laurence Lelong, Zoé Luc, Maxime Mairesse, David Marchal, Vincenzo Mauro, Justine Mertens, Maxence Noël, Jean-François Paternoster, Thierry Pochet, Carine Saber, Matteo Sciullo, Virginie Stoquart, Fannie Tomas, David Vilain, Maryse Willems.

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