PRESS KIT - NEW DELFT BLUE by Studio RAP

New Delft Blue is a pioneering project in the historic Dutch city Delft, designed and 3D printed by Studio RAP. This project reinterprets the world-famous decorative qualities and design vocabulary of Delft Blue porcelain. By fusing 3D clay printing, computational design, and artisanal glazing, New Delft Blue hopes to unfold a new architectural potential of ceramic ornamentation of the 21st century.

The Design

The lush communal courtyard of the PoortMeesters residential building block, which is part of the large-scale urban redevelopment Nieuw Delft, is framed by two large entry gates. The gates, roughly four metres wide, eight metres high and twelve metres deep, cover a large public staircase. These gates refer to Delft as a mediaeval trading city with its many city gates and provide passers-by with a glimpse of the idyllic life going on inside. The New Delft Blue gates take their inspiration from traditional Delft Blue porcelain plates. The design vocabulary of these plates has changed radically over the centuries from copying Chinese and Japanese Oriental designs to making contemporary Dutch designs. The differentiation between a decorative, nature inspired frame and idyllic scene, however, has been a recurring trait. As such, this division is the starting point for the New Delft Blue design, where the idyllic scene is the ever-changing courtyard life while the gates stand as a three-dimensional frame with algorithmically designed nature inspired patterns that guide people from the public space to the semi-public courtyard.

The Innovation

The approximately 3000 unique ceramic tiles that cover the two gates are 3D printed, allowing for the creation of contemporary ceramics that are both rich and unique. Using an algorithmic approach to 3D pattern design, certain manufacturing constraints—maximum overhang, width, height and depth, shrinkage and internal support structure—were taken into account when the geometry of the tiles was generated. Because the tiles were 3D printed, applying variations to their shapes allowed for poetic ways of 'painting with shapes'. This is done by applying a transparent blue runny glaze that creates on the convex portions of the tiles (the hills) a light blue colour while allowing for deep blue glaze pools in the concave (valley) areas of the tiles, creating smooth transitions between hues of blue. The deep blue colour reflects the connection to Delft Blue porcelain and the surrounding canals, and it provides a pleasing contrast to the earth-toned brickwork of the building.
Combining this all together the project embodies the unique identity of Delft in a contemporary way, by referring to its history with its algorithmically designed nature inspired patterns in blue and referring to Delft of today as the city of knowledge by using cutting-edge design and 3D printing technology.

Studio RAP

Studio RAP aspires to reclaim a significant role for the architect in the design and realisation process of the built environment. To show how such a more prominent role in the design and realisation of a building process could work they took matters into their own hands with new entrepreneurship, combining architectural design, digital fabrication and contracting. This came along with a new architecture language, one which is expressive as much as it is contemporary, one that breathes digital craftsmanship. By combining cutting-edge digital design and fabrication technology they aspire to bring back custom-made ornamentation into architecture. New Delft Blue is a statement to enrich the world with a new architectural language, one that breaks barriers by innovating the way the world is envisioned, built, and experienced, making the world more exciting and diverse.

Credits

Client:	BPD(Bouwfonds Property Development), Ballast Nedam Development, Ballast Nedam Bouw West;
Architect New Delft Blue:	Studio RAP
Contractor and 3D ceramic printing:	Studio RAP
Glazing and Firing:	Koninklijke Tichelaar
Architect PoortMeesters:	VY Architects
Mounting:	Kooistra Geveltechniek
Rear structure:	Lomax Systems
Photographer:	Riccardo De Vecchi
Movie:	Oculus Film

Movie

https://vimeo.com/user112389618/ndb