

The image displays a grid of numerous small, square concrete samples. Each sample has a different texture and color, ranging from light gray to dark gray, and some have a more porous or rough appearance than others. The samples are arranged in a grid pattern, with some missing or partially obscured, creating a sense of depth and variety. The overall effect is a visual study of concrete's diverse possibilities.

Concrete stories

How it all began – The story of Graphic Concrete

My interest in concrete as a building material began as a student at the Helsinki University of Art and Design. In 1996 I enrolled in a course on concrete applications to learn more about the material. The aim of the course was to examine new look of concrete, and the outcome was a design for the Pikku Huopalahti Concrete Park. I studied aesthetic values of concrete as a facade material and how to treat the concrete surface in an industrially viable way. This resulted in a new method of creating patterned concrete surfaces, graphic concrete, which was the subject of my final thesis.

The real challenge was to apply this technology to precast concrete production. The final method, patented in February 1999 as Graphic Concrete, became the auxiliary trade name of my design company, Reseptori Ltd. In 2000 we launched a product development project together with leading concrete factories, paper manufacturers and printing laboratories. The project was financed by Finnish concrete companies and the Finnish Funding Agency for Technology and Innovation (Tekes).

The R&D project was a success, and in 2002 together with Veli-Pekka Rydenfelt, Engineer, and Risto Mannonen, D. Tech, we founded the company called Graphic Concrete Ltd. Later, Graphic Concrete Ltd. announced the appointment of its first Managing Director, Harri Lanning, D. Tech, to oversee the commercialisation of the technology. Today, the technology holds a patent in EU, USA, Canada, South-Korea, China, Brazil and South Africa.



Samuli Naamanka, Interior Architect, MA

Making a concrete impression

The company

Graphic Concrete is a proprietary technology that enables the reproduction of attractive and durable patterns and images on prefabricated concrete surfaces such as façades, partitions, walls, floors, and pavement slabs. It provides both timeless and visually aesthetic details that enhance the architectural appearance of the building.

From the beginning, graphic concrete technology was developed as a tool for architects and designers. With this tool they could integrate their visual creativity into construction projects and design large-scale concrete surfaces. All building parts prefabricated by means of horizontal casting are suitable applications.

Today, graphic concrete is a proven concept within the prefabrication concrete industry. Since our foundation in 2002, Graphic Concrete solutions have been used globally in over 600 projects throughout 25 countries. Our list of international projects demonstrates the vast range of designs in which architects can use graphic concrete: whether the project is public, residential, commercial, industrial or infrastructural in nature.

Using Graphic Concrete, architects and designers are able to turn their visions into impressive buildings and structures. Our products can be tailored, and the outcome of each project is unique.

Our technology

Our solution is to print the desired image on the membrane, which is then sent to the local concrete prefabrication company for casting. When the concrete has set, the membrane is removed and the panel surface is washed to reveal the aggregates in the concrete. The image results from the contrast between the fair face and the exposed aggregate surface. Read more about the production from page 78.

Easy, safe, and cost effective solution

Creating excellence in architecture does not have to be expensive. Our solution is cost effective as the surface is manufactured ready for installation, and as such requires no additional cladding. Maintenance-free façades are especially important on tall structures, in terms of safety and overall costs.



Creating concrete stories

This book includes a small sample of our references, each one better than the next and each with their own story to tell. Graphic concrete has played an important role in the interpretation of all these stories. Small excerpts from these stories can be read on the following pages. You can read the entire story behind each project on our website at: www.graphicconcrete.com/stories

Graphic concrete membrane rolls.





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←P

SAMBACENTER BLDG

久太郎町1
Kudamatsu-1

河津大橋

SAMBACENTER BLDG
4

洋風建築
最良の
と

SAMBACENTER

トヨタ自動車

Semba Center Building

Osaka, Japan, 2014

Architecture: Ishimoto Architectural & Engineering Firm Inc.

Graphics: Samuli Naamanka

Builder: Kumagai Gumi Co., Ltd.

Prefabrication: Asahi Building-Wall Co., Ltd. (AGB)

Pattern: Unique repeating pattern

"The design assignment for a Kimono pattern was an extremely interesting challenge, as the kimono is a very traditional Japanese garment. In my subsequent research I learned about kimonos and their different varieties, such as Nami and Asanoha kimonos. I found out that each designer creates his or her own variation of the theme and that there is no one standard design," **Samuli Naamanka, Interior Architect, MA**

Photos
Graphic Concrete Ltd





Keiyo Bank

Chiba, Japan, 2014

Architecture: A. Kuryu Architect & Associates Co. Ltd.

Graphics: A. Kuryu Architect & Associates Co. Ltd.

General Contractor: Keisei Construction, Inc.

Prefabrication: Takahashi Curtain Wall Corporation

Pattern: Unique repeating pattern

Photos
Katsuhiko Suzuki





京葉銀行





Skandion Clinic

Uppsala, Sweden, 2014

Architecture: Link Arkitektur Stockholm

Builder: Akademiska Hus Uppsala Ab

Prefabrication: Abetong AB

Pattern: Unique repeating pattern

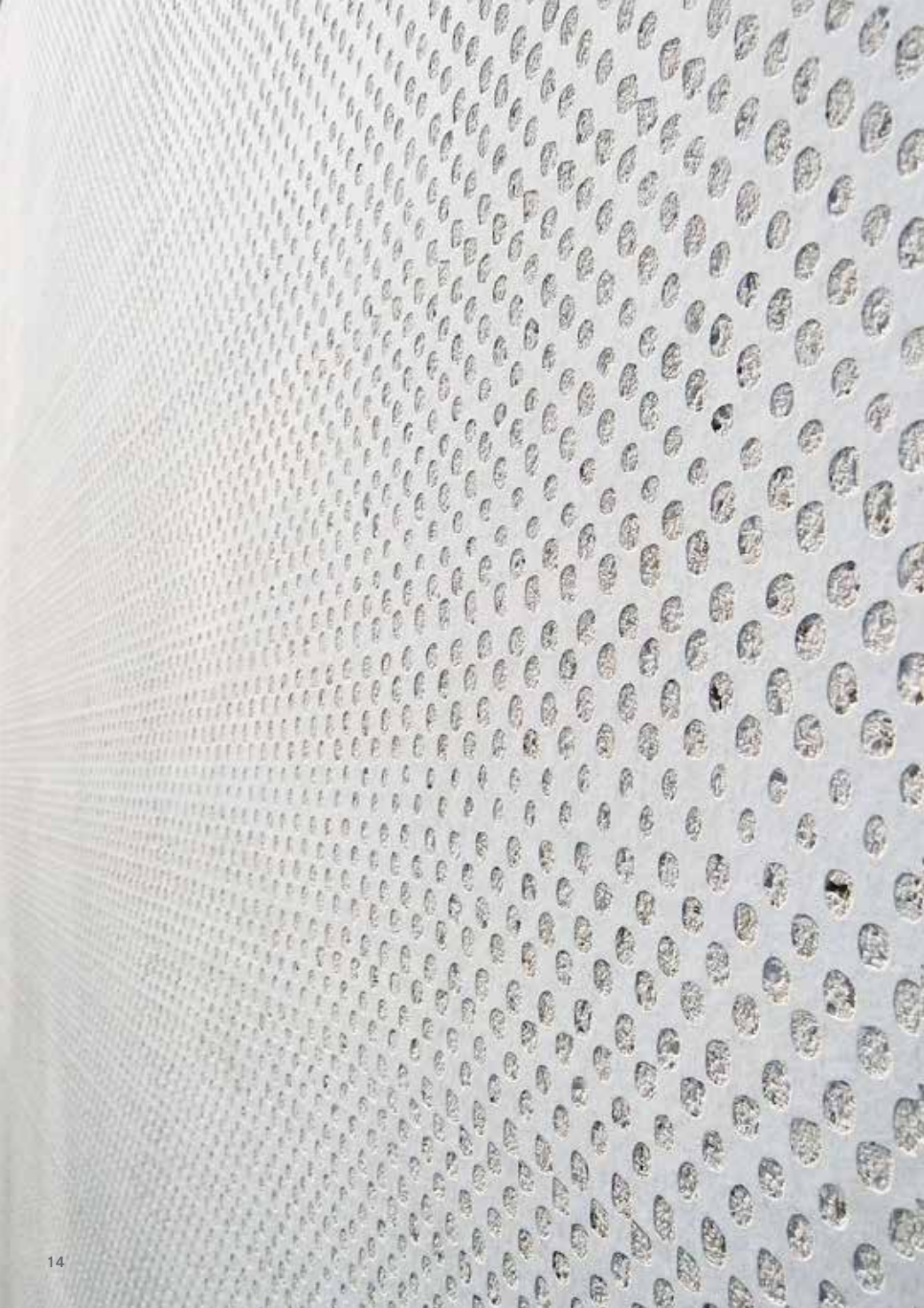
“The white colour and the graphic pattern are common to the various building volumes. We have tried to achieve a 'textile' effect with the pattern to give the large volumes a human appearance. Many who work or have visited the building have speculated about what the pattern actually illustrates. The hotel's staff likens it to a lace curtain, while the clinic's staff sees in it a rain of protons.”

Carl-Fredrik Danielson, Architect SAR/MSA,
Link Arkitektur.

Photos
Mervi Junkkonen







Attunda Tingsrätt, Courthouse

Sollentuna, Stockholm, 2010

Architecture: Svante Forsström Arkitekter AB

Pattern: GCCollection™ Round rough

Developer: Skanska

The pattern adds an interesting new aspect, tactility, to the façade. When viewed up close, the pattern appears clearly dotted. From further away, the pattern is almost invisible still creating depth to an otherwise simple facade.

Photos
Graphic Concrete Ltd



STYUÐUR VINGRÁTT







Waurin Ponds Police Station
Victoria, Australia, 2014

Architecture: Strata PNA Architects
Builder: Lyons Constructions
Prefabrication: Metro Precast
Pattern: Unique image

Photos
Reid Construction Systems







Viborg Landsarkiv, Provincial Archive

Viborg, Denmark, 2015

Architecture: Schmidt Hammer Lassen Architects

Design/Graphics: Grethe Sørensen, Textile Designer

Builder: KPC BYG A/S

Prefabrication: Confac A/S

Pattern: unique repeating pattern

Photos
Helene Høyer Mikkelsen





Hämeenlinna Provincial Archive

Hämeenlinna, Finland, 2009

Architecture: Heikkinen-Komonen Architects

Design/ Graphics: Aimo Katajamäki, Aimonomia

Builder: Senate Properties Ltd.

Prefabrication: Parma Oy

Pattern: Unique repeating pattern

"We decided to coat the facades of the archive with graffiti. This black national memory stick is embroidered with tags found in the depths of the archive: from peasants' bookmarks and the letters of kings to contemporary internet symbols. This was made possible by the graphic concrete technology."

Mikko Heikkinen, Architect, Heikkinen-Komonen Architects

Photos
Graphic Concrete Ltd
Jussi Tiainen





Skanska Headquarters Finland

Helsinki, Finland, 2011

Architecture: L Architects (Larkas & Laine Oy)

Prefabrication: Ämmän Betoni Oy

Pattern: Unique repeating pattern

"The inspiration for this particular pattern was the historic "Nolli Map of Rome" drawn in the 1700s. From afar the pattern looks like natural rock, but up close it reveals an old city map. Observed in detail one can even make out the street names, courtyards and churches. But in reality you cannot find this city anywhere, as the map has been drawn on top of the image of an oak leaf; the leaf stems are transformed into streets and the spaces in between become city blocks and buildings." *Katia Salo, Architect, L Architects*

Photos
Tiia Ettala
Graphic Concrete Ltd





Derby Business Park

Espoo, Finland, 2011

Architecture: Lahdelma & Mahlamäki Architects

Builder: SRV

Prefabrication: MH Betoni Oy

Pattern: Unique repeating pattern

Photos
Graphic Concrete Ltd





Valio Lapinlahti Factory Building

Lapinlahti, Finland, 2012

Architecture: RE-Design Ltd.

Graphics: Pauno Pohjalainen

Prefabrication: Lujabetoni Ltd.

Developer: Valio Ltd.

Pattern: Unique repeating pattern and unique design

"The design of this pattern was based on the factory's purpose: processing milk into powdered milk. It was inspired by telling my own children about the nutritional importance of powdered milk. An angel appears in the design: 'the angel about the sky of Lapinlahti'. It symbolises how everything good comes to us as a gift from heaven."

Pauno Pohjalainen, Graphic Designer

Photos
Kuvatoimisto Kuvio







H.A.N.S. Industrial Building

Čeperka, Czech Republic, 2009

Architecture: Ing. arch. Jan Jarolímek

Pattern: GCCollection™ Atom Cross

Developer: H.A.N.S. stavby, a.s.

Prefabrication: H.A.N.S. stavby, a.s.

Photo
Ing. arch. Jan Jarolímek
Aleš Jungmann MgA., QEP



Forskerparken Cortex
Odense, Denmark, 2015

Architecture: Creo Arkitekter A/S
Builder: CJ Anlæg A/S
Prefabrication: DS Elcobyg A/S
Pattern: GCCollection™ Ikat, Píksel,
Round Rough 200%, Textilia 200%

Photos
Helene Høyer Mikkelsen







Crevin Upper Secondary School

Crevin, France, 2014

Architecture: Jean-Francois Golhen Architecte

Builder: Département Ile et Vilaine

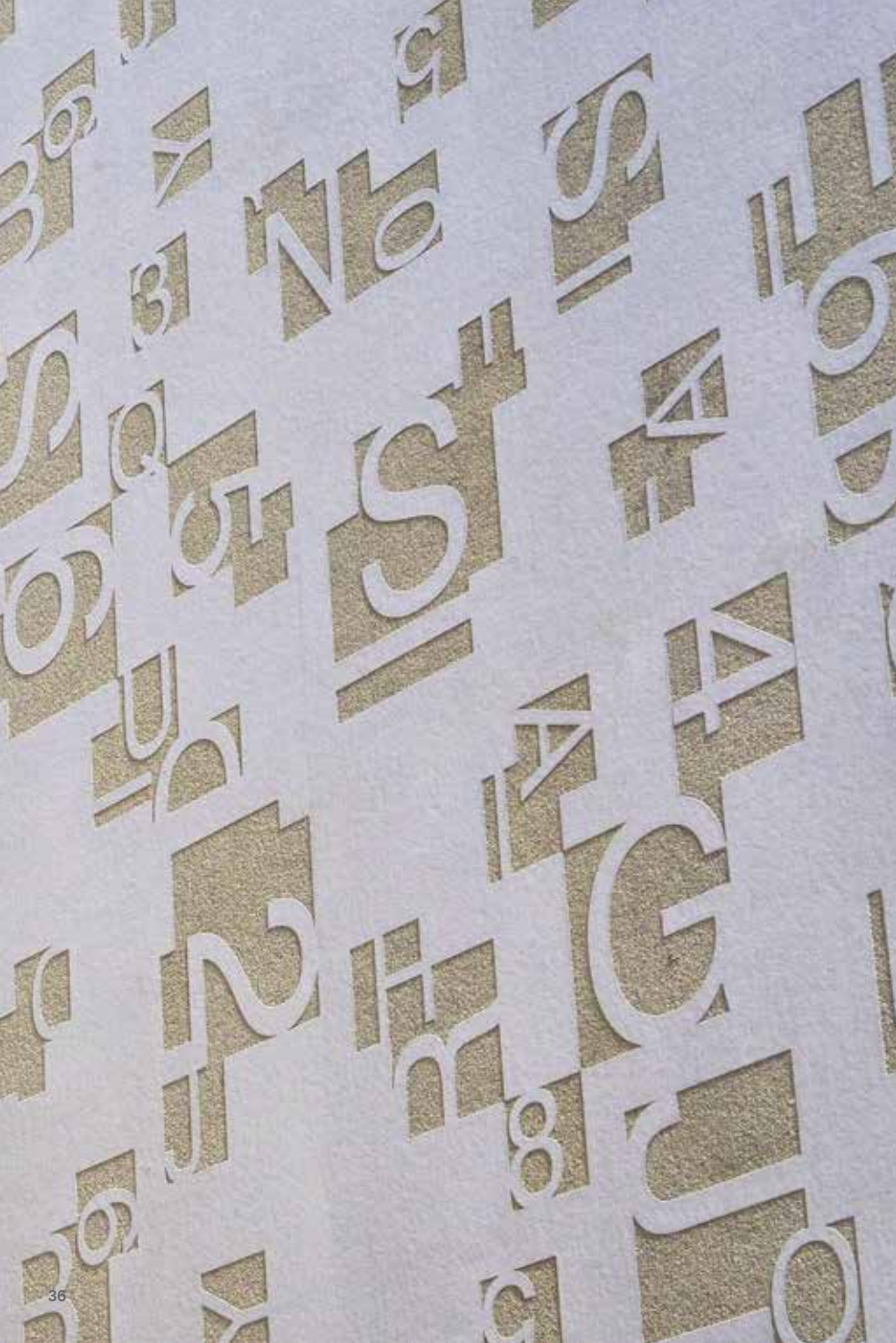
Prefabrication: MSA

Pattern: Unique image

The façade depicts 28 iconic persons who have had their influence in the cultural development of Bretagne, including the author Colette, the artist Clotilde Vautier, the film director Charles Vanel and the poet Gilles Fournel.

Photos
Graphic Concrete Ltd





Josep Quinovart Primary School

Castelldefels, Spain, 2011

Architecture: Pich-Aguilera Architects

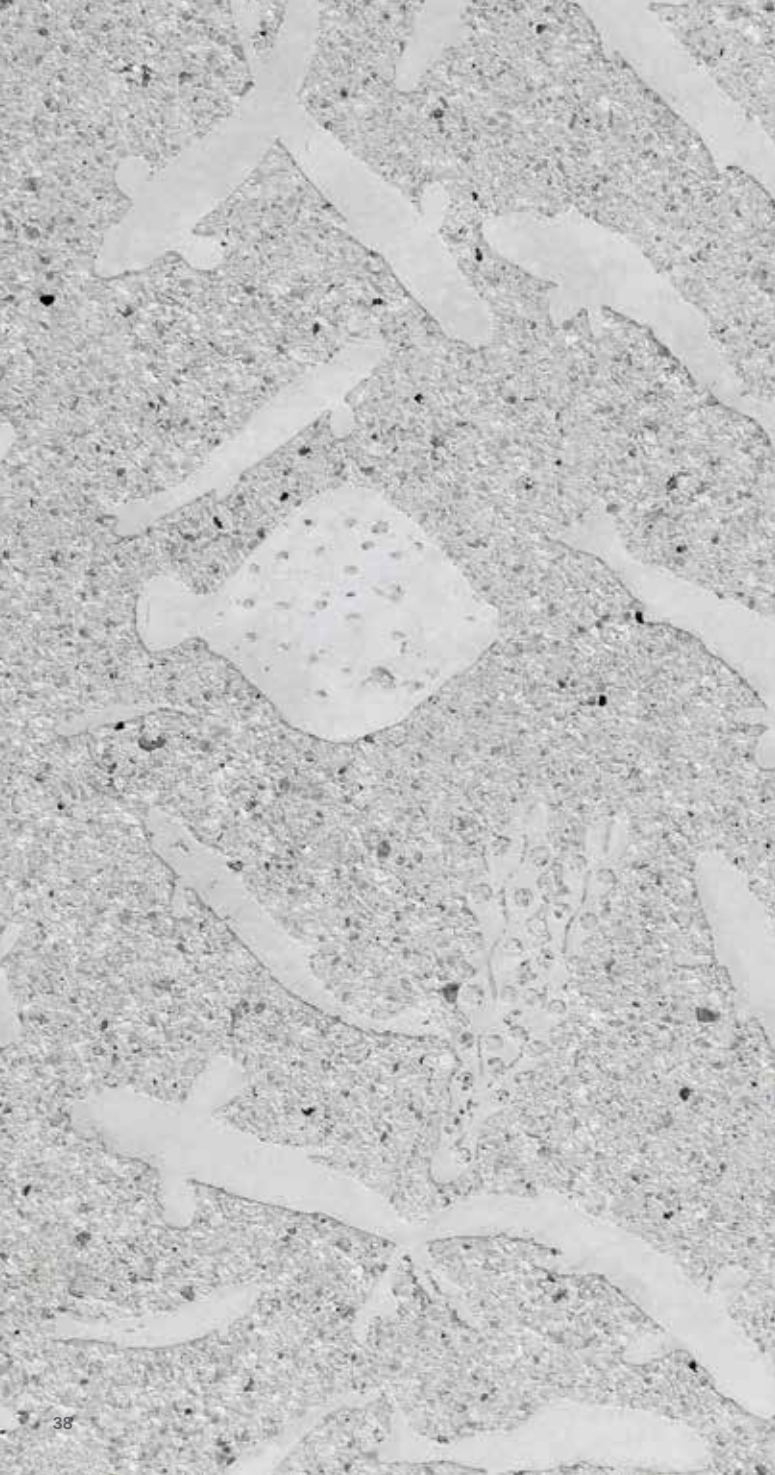
Prefabrication: Hormigones Prefabricados de Espana S.L.U

Pattern: Unique repeating pattern

“The building is a school, a primary school where children start to learn about what numbers are and what they mean in our world. You can deal with numbers nearly every day; you have to calculate, remember the telephone number of your friends and family, computer language is based on numbers. You find them everywhere: mathematics, physics, and so on. We want to show that they are not only scientific; numbers can be decorative, and they can be art. It always depends on one’s personal point of view. Ute Müncheberg, Architect, Pich-Aguilera Architects

Photo
Graphic Concrete Ltd





product
best of best



architecture
winner

Ulappatori, Housing

Espoo, Finland, 2012

Architecture: Petri Rouhiainen Architects Ltd.

Design/Graphics: Aimo Katajamäki, Aimonomia

Builder: YIT Construction Ltd.

Prefabrication: Parma Oy

Pattern: Unique repeating pattern

"The inspiration for the patterns came from the site's proximity to the sea. The repeating patterns feature fish and shellfish from the Baltic Sea, and their scale is close to their natural size. These patterns are complemented by abstract lines resembling sea waves flowing across the façade."

Aimo Katajamäki, Graphic Designer, Aimonomia

Photos
Kuvatoimisto Kuvio Oy







Zwembadsite, Housing

Leuven, Belgium, 2008

Architecture: Bob361 architects

Design/Graphics: Bob361 architects

Developer: Implant nv, Extensa nv

Prefabrication: Eurobeton

Pattern: Unique repeating pattern

"The design completes Smets Square and its residual spaces, while creating new passages, integrating the existing Fabiola building, and enclosing a new informal semi-public/semi-private courtyard. The apartment building acts as an intermediate zone between two different scale levels, and each building block is finalised by taking its own logic into account." **Bob361 architects**

Photos
Graphic Concrete Ltd





Les Marguerites, Housing

Paris, France, 2012

Architecture: Agence Espaces Libres
et Agence SkyLines Architecture et Urbanisme

Design/Graphics: Marie-Gabrielle Verdoni

Prefabrication: Decomo SA

Pattern: Unique repeating pattern

Discrete white flowers connect the building with its facing green area, delivering an optimistic message to pedestrians. As the morning hits the surface, the whole façade starts to bloom.

Photos
Thierry Truck





beloni

Winner of the Finnish
concrete structure award
"Betonirakenne" 2014

Länsisatamankatu 23, Housing

Helsinki, Finland, 2013

Architecture: Huttunen Lipasti Pakkanen Ltd.

Builder: NCC Construction Ltd., Helsinki Housing Office

Prefabrication: Ämmän Betoni Oy

Pattern: GCSmooth™

The beautiful velvety smooth and even concrete surface
highlights the inherent beauty of concrete.

Photos
Graphic Concrete Ltd





Joensuun Elli, Housing

Joensuu, Finland, 2010

Architecture: Arcadia Oy Arkkitehtitoimisto

Graphics: Maria Mughal, Woop

Builder: Student Housing Joensuun Elli Ltd.

Prefabrication: Pielisen Betoni Oy Lieksa

Pattern: Unique image

The facades of the building feature an impressive work of art realised in graphic concrete. Entitled "Sisters", the design is based on three paintings by artist Maria Mughal: "Poem", "Nature" and "Helen of Troy". Mughal's original inspiration for the series of works was based on concrete as a material – often considered gray and cold, even impersonal. The works of art on the end facades of the complex are the very opposite – colourful and large 3 x 3,8-metre paintings. The artist wanted the female figures of the paintings to make direct contact with viewers.

Photos
Graphic Concrete Ltd





Kuopion Majakka, Housing

Kuopio, Finland, 2014

Architecture: QVIM Arkkitehdit Oy

Prefabrication: Ämmän Betoni Oy

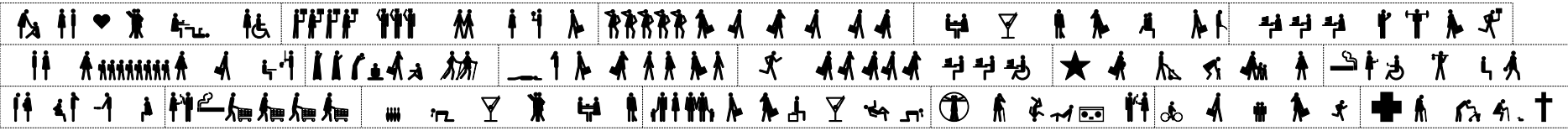
Builder: Lujatalo Oy

Pattern: GCCollection™ Ikat nega

Photos

Kuvatoimisto Kuvio





“By applying graphics to the facade it can deliver a message. Primula is the developer for the Kvarteret Mältaren project in the new seaside area of Stockholm, Hammarby Sjöstad. For this building artwork was implemented on the facades. The artwork tells a story with real life situations, and the story is told by figures in pictogram form using graphic concrete. This adds to the street level excitement – giving a new dimension to the architecture and a visual experience for visitors.” Torleif Falk, Project developer, Architect SAR-MSA, Primula

KV Mältaren, Frieze

Hammarbysjöstad, Sweden, 2010

Architecture: Primula

Artistic co-operation: Torleif Falk, architect, Primula

Design/Graphics: Lars Arrhenius

Developer: Primula Byggnads AB

Pattern: Unique image

Photo
Graphic Concrete Ltd





Award 2012

Helsingin Tervapääskynen, Housing

Helsinki, Finland, 2011

Architecture: Arkkitehtitoimisto Helamaa ja Pulkkinen Oy

Graphics/Photographer: Tapio Vanhatalo

Builder: VVO Rakennuttaja Oy

Prefabrication: Parma Oy Forssan tehdas

Pattern: Unique repeating pattern

The gentle look of a group of cows in a newspaper picture caught the attention of the architect, whose task was to reflect the history of the area of a new residential building. He resolutely wanted to use this specific picture on the cold retaining wall as the building stands on the same spot as veterinary stables some centuries ago

Photos
Graphic Concrete Ltd





Ospedale Giovanni XXIII Chapel

Bergamo, Italy, 2012

Architecture: Traversi + Traversi Architetti and Aymeric Zublena

Graphics: Stefano Arienti

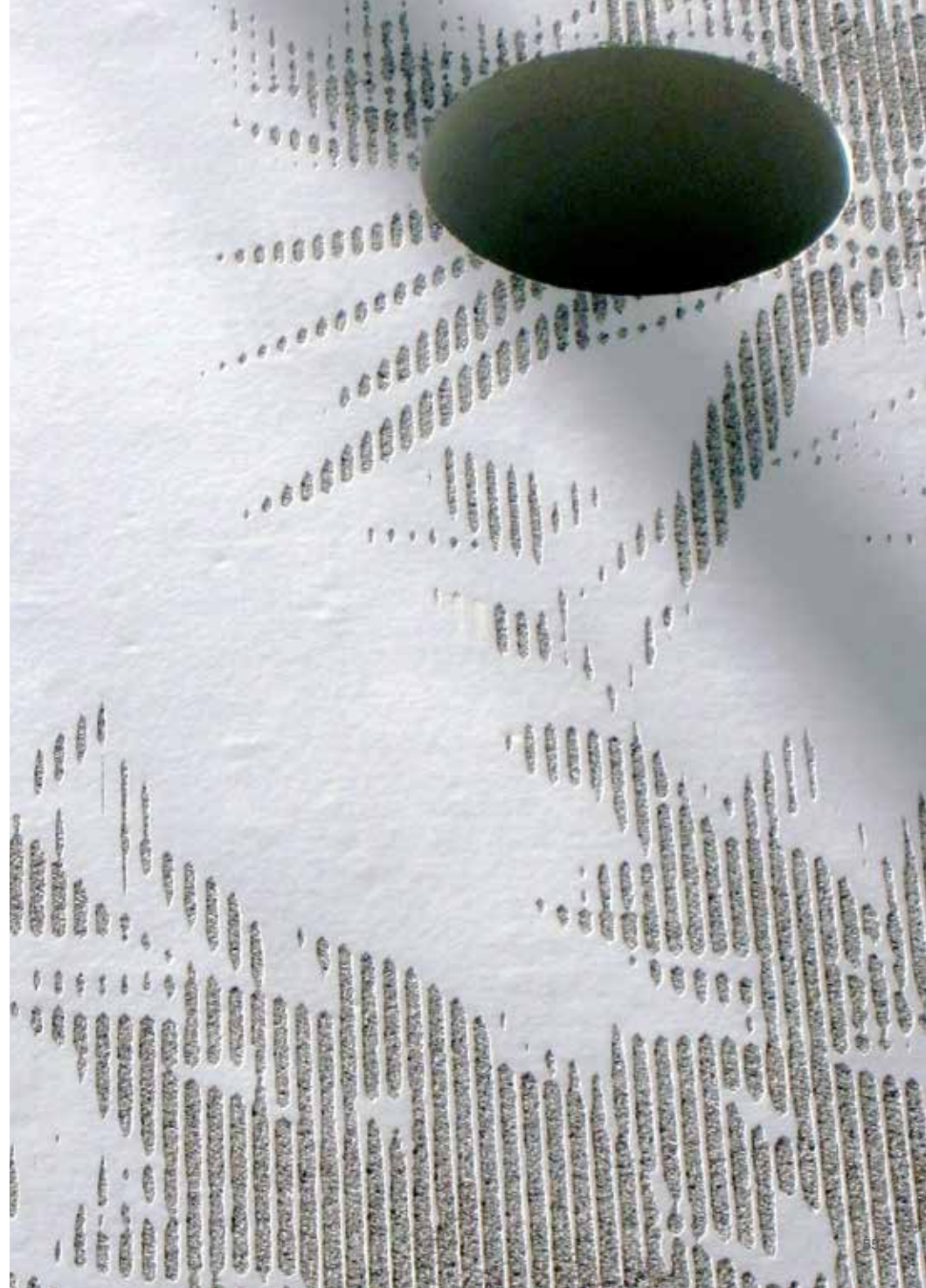
Builder: Styl-Comp Group

Prefabrication: Styl-Comp Group

Pattern: Unique image

“The inspiration came from the Garden of Eden, as reflected by the flowers, plants and shrubs that are repeated in the pattern. The floral imagery was realised using delicate rasterised images and a dedicated concrete mix design, creating an overall impression that is light, airy and calm. The natural light that enters the chapel through round openings in the walls and in the ceiling completes the breathtakingly beautiful effect.”
Ivo Allas, Design Director, Styl-Comp Group

Photos
Camillo Bonfanti, Styl-Comp Group
Graphic Concrete Ltd





SC Johnson Memorial Building

Racine, Wisconsin, USA, 2010

Architecture: Foster + Partners, Co-architects: Epstein

Pattern: Unique image

Graphics: Ralph Appelbaum Associates

Developer: SC Johnson

Constructor: Gilbane Building Company

Prefabrication: International Concrete Products

Fortaleza Hall honors the family history of SC Johnson and celebrates the spirit of adventure. The curved graphic concrete interior walls add visual effect to the overall experience.

Photos

James Steinkamp, Steinkamp Photography

Fabio Gherardi





Archive Center Lund

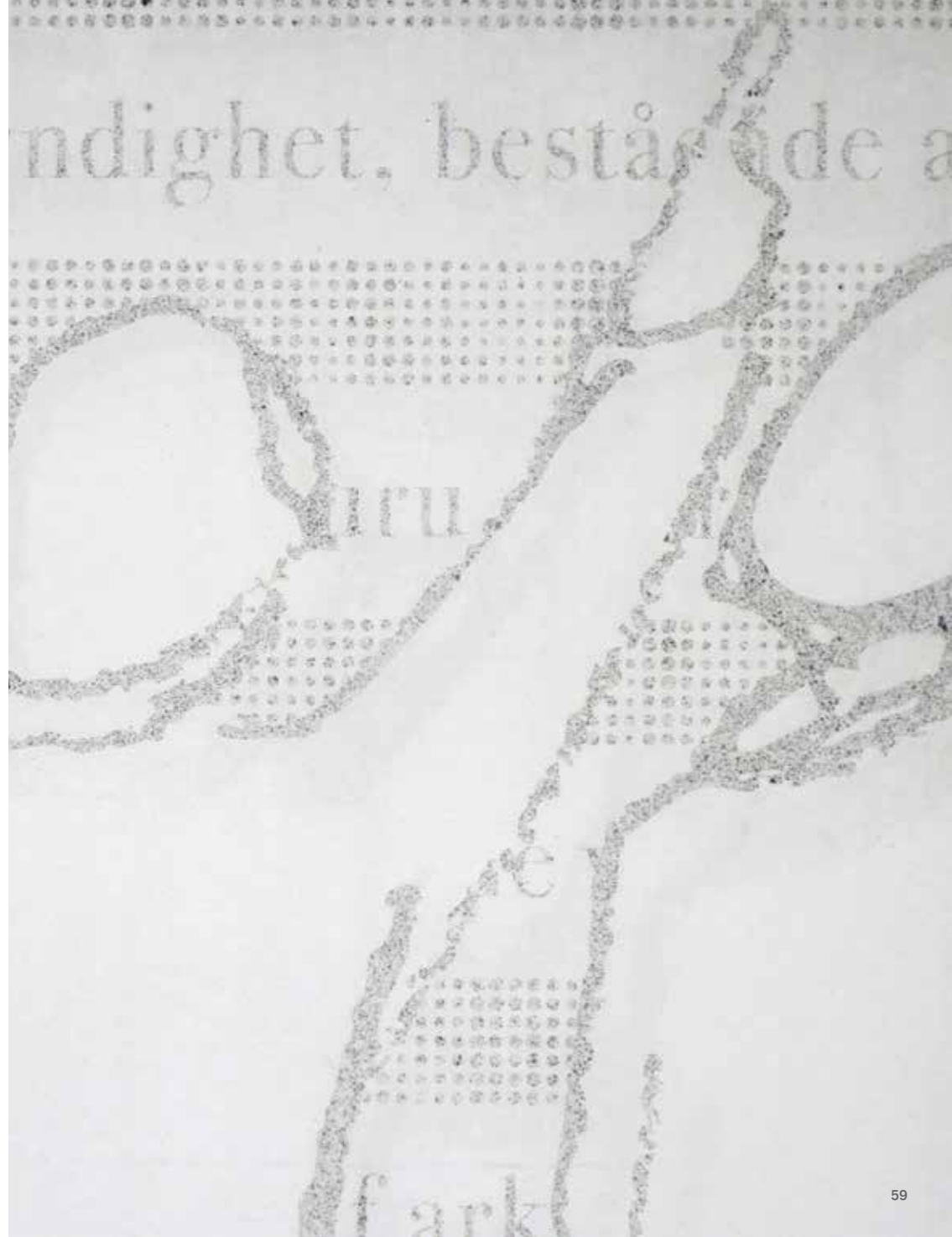
Lund, Sweden, 2012

Architecture: Tage Möller Arkitektbyrå AB
Prefabrication: Strängbetong AB Herrljunga
Pattern: Unique image

"The first Swedish national archive regulations dating back to the 17th century have formed the pattern on the wall in front of the grand lecture hall. The 'spectators' came from my notes from one of the many meetings concerning how to decorate the wall. Sometimes notes can be useful..."

Nils P Johansson, Architect, Tage Moeller Arkitektbyrå AB

Photos
Graphic Concrete Ltd





Jyväskylä Adult Education Institute

Jyväskylä, Finland, 2014

Architecture: Arkkitehtitoimisto Pekka Paavola Oy

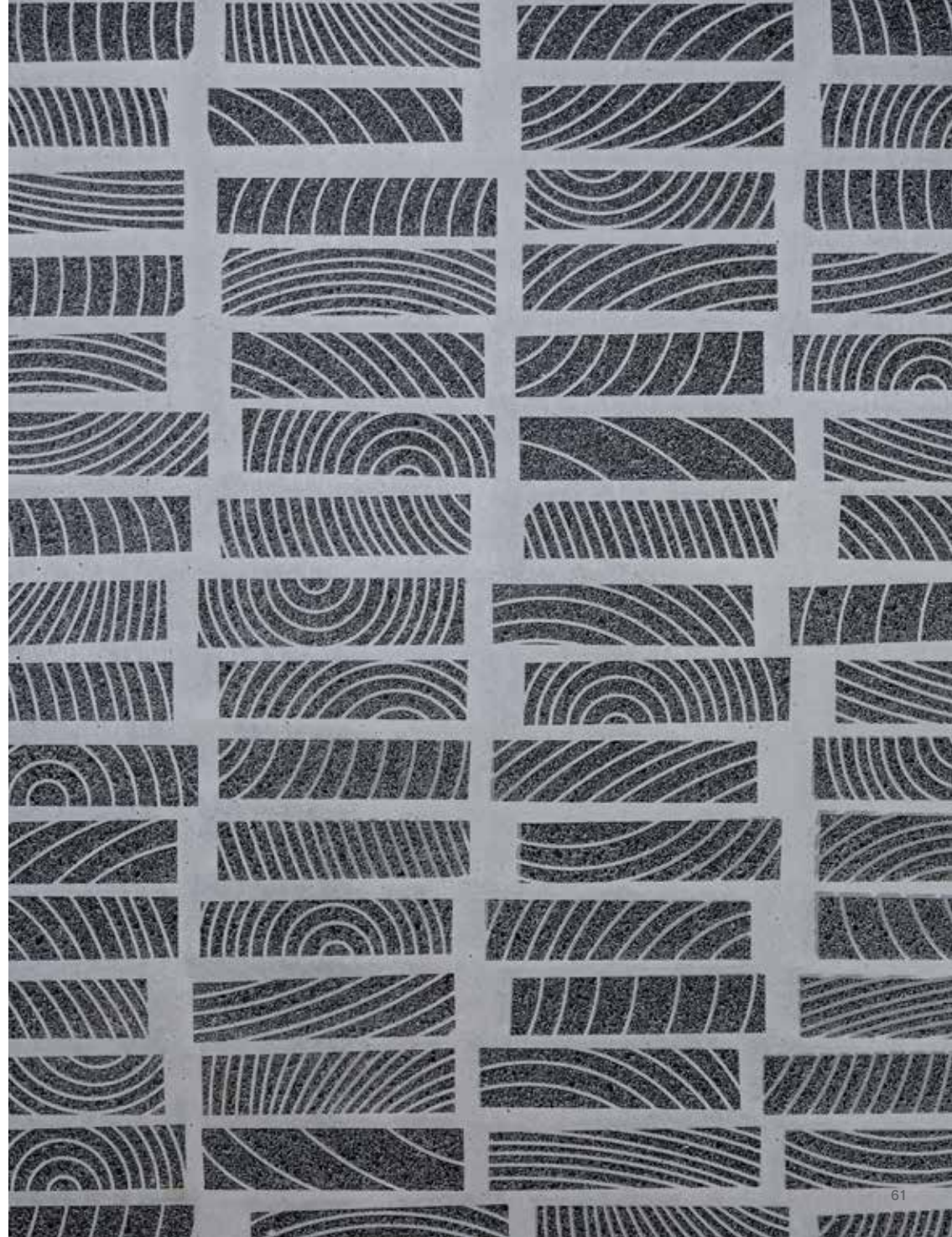
Prefabrication: MH Betoni Oy

Pattern: Unique repeating pattern

"We wanted to use an image or pattern on the wall of the hall to communicate its purpose: carpentry. The pattern had to be easily repeatable and graphic in appearance. We believe that the pattern illustrating plank ends did an excellent job of meeting our needs."

Niina Murtola, Architect, Arkkitehtitoimisto Pekka Paavola Oy

Photos
Kuvatoimisto Kuvio





Tändstickan Parking House

Göteborg, Sweden, 2013

Architecture: Arkitektbyrån Design AB, Göteborg

Graphics: Arkitektbyrån Design AB, Göteborg

Builder: Skanska Stomsystem AB Distrikt Väst/Syd

Prefabrication: Kynningsrud Prefab Ab

Pattern: Unique repeating pattern

“The idea to use graphic concrete came from the insight that the parking garage is huge and we need to bring down the scale using a graphic pattern. The primary aim was that the persons working in surrounding buildings should have a nice view despite the massive concrete parking house. The nature pattern is used to highlight the contrast between cars/traffic/pollution and nature/animals/fresh air. We wanted a calm and playful feeling.”

Henrik Markhede, Architect SAR/MSA, Arkitektbyrån Design

Photos
Graphic Concrete Ltd
Anne-Charlotte Brettmark





Leppäviita Parking House

Espoo, Finland, 2013

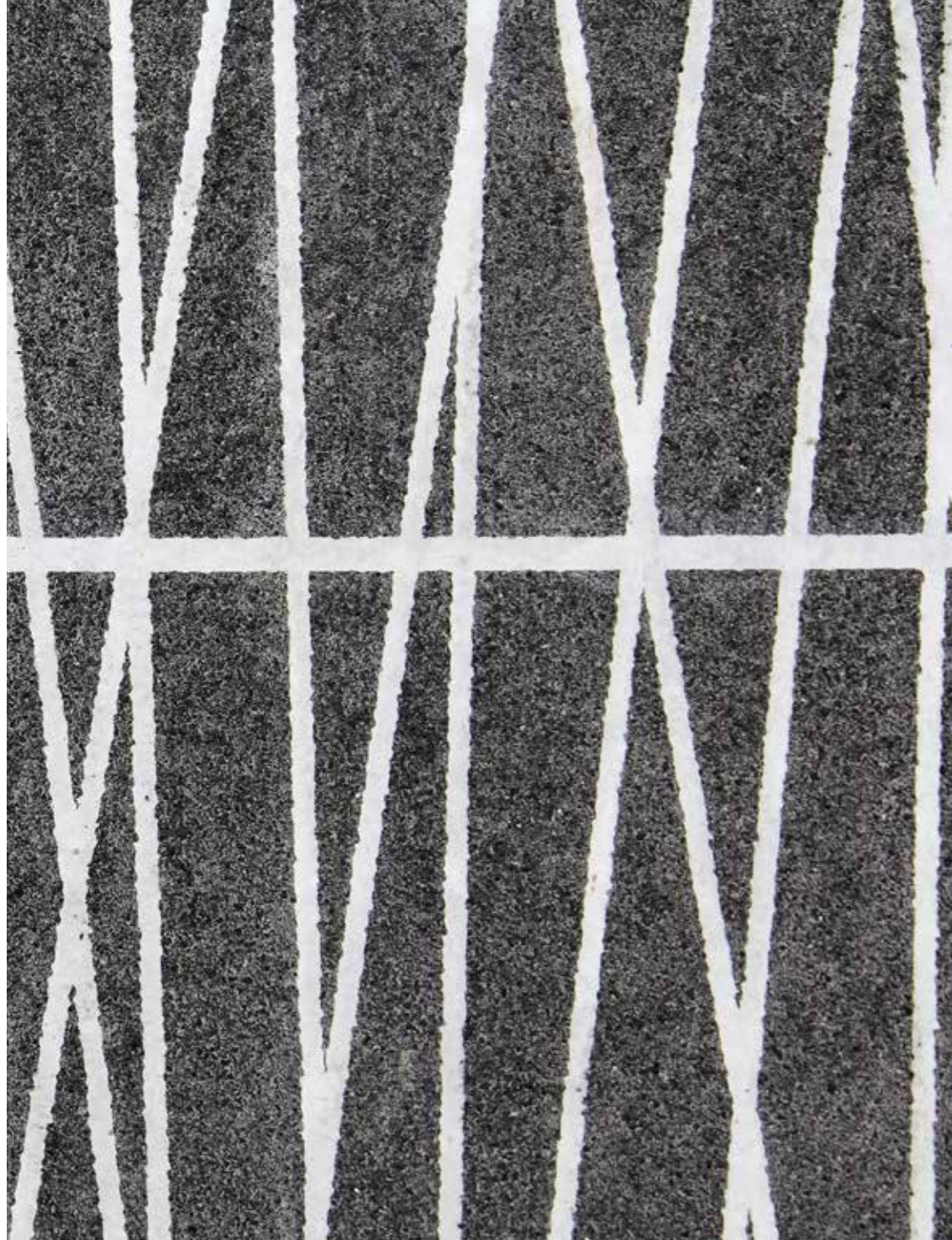
Architecture: Arkkitehtitö Boman, Lindström, Vesanen, Virtanen Oy

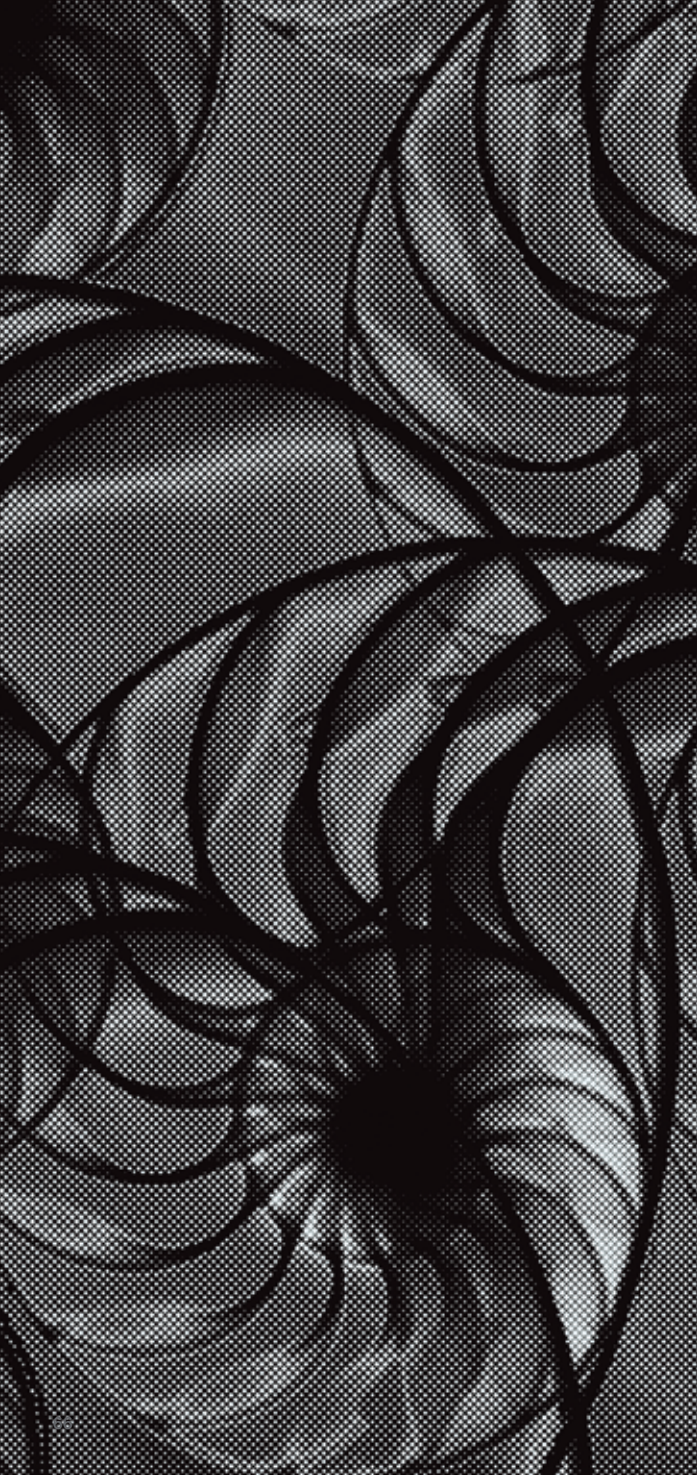
Builder: ISS Proko Oy

Prefabrication: Lujabetoni Oy

Pattern: GCCollection™ Vertices nega

Photos
Graphic Concrete Ltd





Graphic Concrete Pavilion

Milan, Italy, 2012

Architecture: Rintala Eggertsson Architects

Graphics: Samuli Naamanka

Prefabrication: Truzzi Prefabbricati

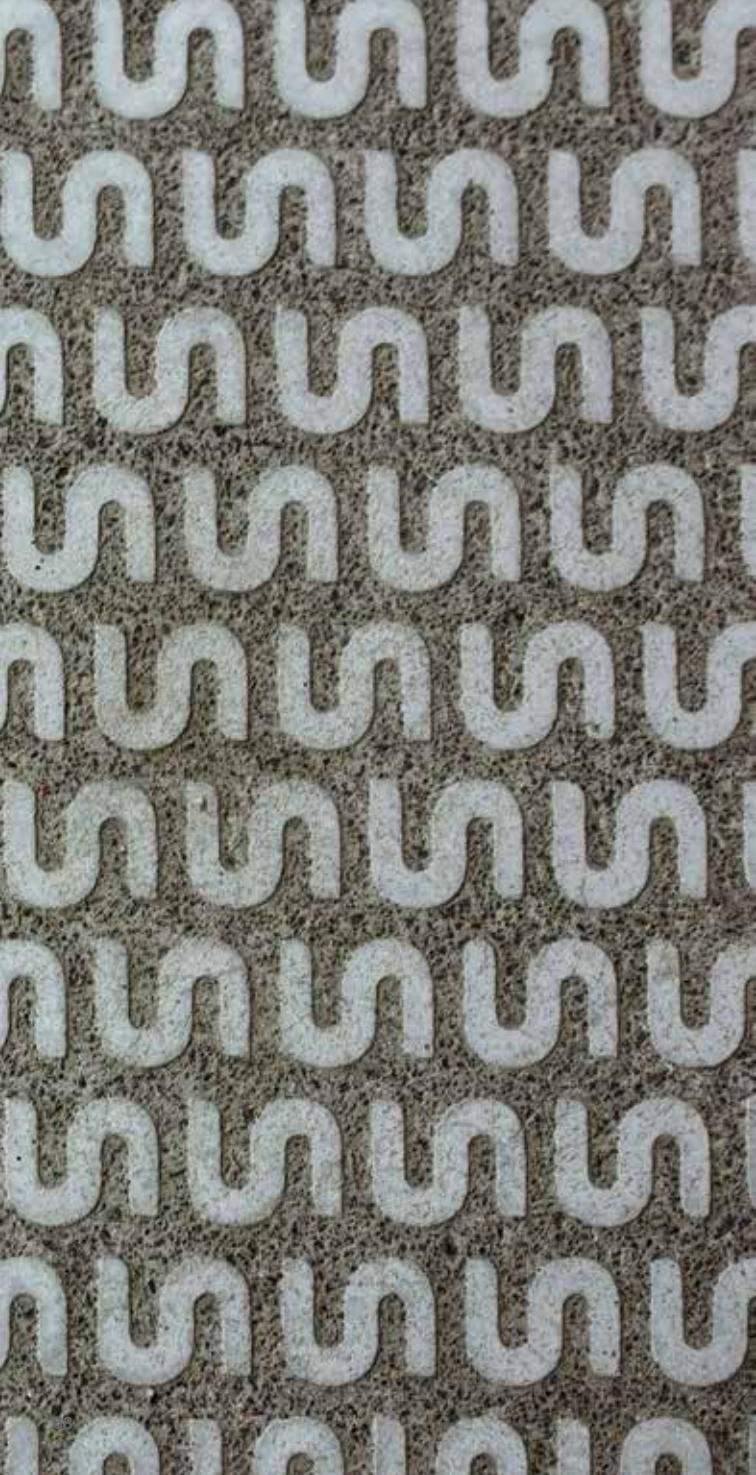
Pattern: Unique image

Photo

Graphic Concrete Ltd







Skanska Headquarters Sweden

Stockholm, Sweden, 2013

Architecture: Strategisk Arkitektur

Builder: Skanska Stomssystem AB

Prefabrication: Skanska Stomssystem AB

Pattern: Unique repeating pattern

Photos
Graphic Concrete Ltd







Sønderhav Senior Housing

Måløv, Denmark, 2012

Architecture: Trude Mardal, Entasis

Graphics: Ane Mette Ruge

Builder: Entreprenørfirmaet Einar Kornerup A/S

Prefabrication: Aarhus Cementvarefabrik A/S

Pattern: Unique repeating pattern

“The floor is made of large concrete slabs that create the impression of a rug, one that is full of shapes and repeating patterns. While the larger patterns can be discerned immediately, the smaller ones require closer examination. As a growing number of residents in nursing homes suffer from some form of dementia, the patterns serve as elements that help stimulate their mind, evoking associations and memories of the past. The concrete “rug” conceals everyday objects and evocative shapes in the form of repeating patterns. One can find dogs, cats, buckets, spades, caravans, cars, tractors, flowers and leaves in the patterns. Together they help make the entrance cosy and interesting.”

Trude Mardal, Architect MAA, Entasis

Photos
Graphic Concrete Ltd





Viertola Wall

Vantaa, Finland, 2014

Architecture: Jaakkola Architects Ltd.

Builder: Lemminkäinen

Prefabrication: Lahden Kestobetoni Oy

Pattern: GCCollection™ Swarm nega

Photos
Graphic Concrete Ltd





Kockums Park

Malmö, Sweden, 2010

Architecture: White Arkitekter AB Malmö
Builder: Midroc Property Development AB
Prefabrication: S:t Eriks Uppsala
Pattern: Unique repeating pattern

"We were inspired by the history of the site. Kockums AB was a Swedish shipyard and we focused on the workers, the so-called 'kockumiterna'. We wanted to show their everyday lives balancing on high scaffolding surrounding the ship."

Nina Lindegaard, Landscape Architect MSA

Photos
Graphic Concrete Ltd







Pihlajalaakso Sound Barrier

Kuopio, Finland, 2014

Architecture: Ramboll Finland Oy
Graphics: Teemu Matilainen / Ramboll Finland Oy
and Graphic Concrete

Builder: City of Kuopio

Prefabrication: Betonimestarit Oy

Pattern: Unique repeating pattern

Photos
Kuvatoimisto Kuvio



graphic concrete in the precast factory

Photos Pekka Agarth
Veli-Pekka Rydenfelt



The casting is prepared by cleaning the mould and cutting the membrane according to the element drawings. It is recommendable to use a vacuum table.



The membrane is spread out on the clean mould table with the retarder side facing the concrete.



The reinforcement is placed on the membrane. The casting starts.



The mould is filled with concrete mass.



A vibrating table removes air from the concrete.



The next day, the element is demoulded.



The element is transported to the washing area and the membrane comes off.



The element is high pressure washed.



The element dries and waits to be transported to the building site.

Now it's your turn to
write your own story!

Don't hesitate to contact us – we're always happy to help!

Graphic Concrete Ltd

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