

**NEW NORWEGIAN ARCHITECTURE** 

#### IMPRINT

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# MADEIN NORWAY

NEW NORWEGIAN ARCHITECTURE

INGERID HELSING ALMAAS (ED.) ARKITEKTUR N

BIRKHÄUSER, BASEL

# **FOREWORD**

# Local Experience and Global Expertise

Norway today is part of a globalised world. Our ideals and our perceptions of reality are shaped by worldwide chains of cause and effect. Economic, political and cultural developments in Norway are influenced by our own particular circumstances as well as by events taking place far beyond our borders. The construction of a building is by necessity a local endeavour, yet architectural ideas travel far and wide, spread by new digital media, and by publications such as this book.

There is a growing interest in Norwegian architecture, which is renowned for its high quality. Furthermore, international issues such as climate change adaptation, energy conservation and digital technology - which dominate discussions in the global building industry - are key concerns in Norwegian architecture. This is reflected in the construction of buildings in Norway, as well as in the design of buildings by Norwegian architects abroad. International interest in Norway's unique natural environment, technological achievements and social values are also factors contributing to the increasing interest in Norwegian architecture.

Architecture develops in response to a specific set of circumstances, including climate, topography, tradition, and social conditions. How we construct buildings is closely linked to how we see and organise the world, and buildings mirror the most basic priorities and expectations of our society. Norwegian architecture stands out in the international

arena because of just this: private and public building projects alike embody many of the goals of modern Norway. They seek to exploit Norway's natural resources to the full, make practical use of material and technical innovations, and demonstrate the importance of democratic processes in connection with planning, user participation and environmental responsibility. The examples of Norwegian architecture shown in this book are not just cultural expressions, they are models of value creation that benefit society as a whole.

The selection of projects in this book showcases the experience and expertise of Norway's talented professionals in the fields of architecture and construction. Each of the buildings shown here is also a real and physical manifestation of the traditions and practices that continue to shape Norwegian society. They reflect the international calibre of Norwegian architecture and architects, and what can be achieved when this is combined with local skills. Our aim is for Norwegian architecture to continue to make a significant impact in the international arena.

Oslo, January 2016

Børge Brende

Minister of Foreign Affairs

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# What is Norwegian Architecture?

#### INTRODUCTION

BY INGERID HELSING ALMAAS (ED.)

Obviously, an understanding of local conditions is central to creating architecture anywhere. Every building is specific, it exists in only one location; it may even be unique. Nonetheless, looking at the production of contemporary architects from different parts of the world, it seems obvious that most of them are working within a common idiom, and that whatever is specific about their work often seems cloaked in a globally recognisable expression.

Architects have been pondering the idea of a "sense of place" for at least a generation or two. The idea of a "genius loci", the spirit of place, was launched as a challenge to the increasingly oppressive international style, and the rhetoric of the placemakers aimed at formulating – and constructing – local challenges to an increasingly generalized building industry.<sup>1</sup>

Looking at mainstream construction today, however, it seems that this effort has largely failed. Technology and construction expertise has continued to flow effortlessly from continent to continent, eradicating climatic and cultural differences and homogenizing architecture in the process. There is little difference between an office building in Shanghai and one in Stockholm, except perhaps in the settings on the air conditioning system. So how does national identity and local experience manifest itself in architecture, if at all? Looking at recent building construction in Norway, for example, what can be said to be Norwegian architecture?

"Any profound, sincere work of architecture is a force of resistance", says Juhani Pallasmaa.<sup>2</sup> In fact, the new projects selected in this, our second edition of "Made in Norway", can all be said to be such works of resistance. Rather than a collection of works typical of Norwegian construction in the second decade of the second millennium, they are the exceptions. They are exceptions, in terms of architectural quality, or clarity of planning, or material innovation. The average client in Norway is not particularly enlightened when it comes to architecture, the average budget is not very big, the average builder not particularly skilled. These buildings are exceptions because someone managed to realise an idea despite, rather than because of, the current conditions for Norwegian architectural production. Trying to identify trends or generalities on the basis of this collection of exceptions, seems meaningless to me as a way to understand current architectural production in Norway.

Rather than generalising, what we need to do is to identify what was special, particular, unique about each of these projects, and see if we might recreate the circumstances that made them possible. My guess is that what we will find at the heart of each of these successes are people, individuals, architects and others, with an idea and the will and ingenuity to see it through; rather than systems, policies, general concepts or formalised processes. And when we focus on these specifics, and really get to know and understand something, nationality very quickly becomes irrelevant.

And then the architecture is no longer Norwegian architecture, it is just architecture. Ambitious or even good architecture. Not something foreign to be admired from afar, but something to provide you with specific points of view that maybe, just maybe, also has value in other equally specific situations. Paradoxically, it seems the more specific a work of architecture is, the more precise it is, the more understandable and accessible it can become – sometimes for many, sometimes for a few. And if there is a general insight to be found in this, it might be that we are capable of appreciating beauty anywhere, and of being moved by the qualities of material and of thought in architecture – anywhere.

Ingerid Helsing Almaas Editor-in-chief, Arkitektur N

Milman

#### Notes

- 1 The term "genius loci", or the spirit of place, was introduced into architecture in Norway by historian and theorist Christian Norberg-Schulz. See Ole Møystad's essay "Rethinking Place in a Multicultural Society" at the end of this book, p.136.
- 2 "... any profound, sincere work of architecture is a force of resistance. It's bound to be a cultural resistance. Because we have abandoned architecture as a means of organising society and re-distributing the benefits of wealth, in the sense of creating dignified settings for collective life." www.architecturenorway.no/stories/people-stories/framptonpallasmaa-11/

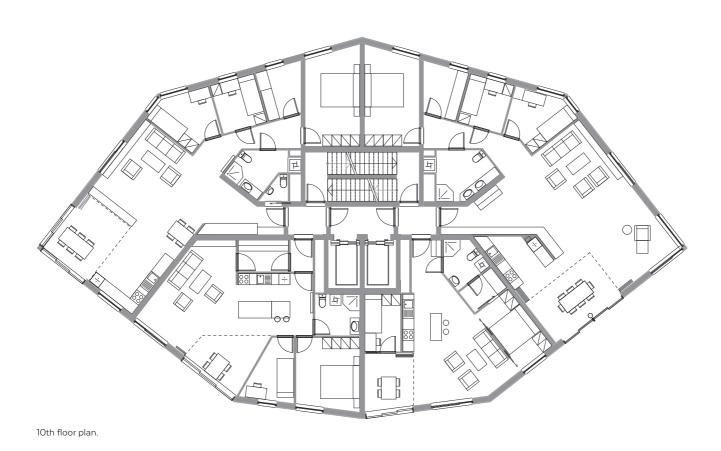
# EVERYDAY EXCEPTIONS

What is life on a Thursday morning? Most of us are surrounded by buildings for most of our day, making architecture a key condition of everyday life. We mostly think of the everyday as drab, and of everyday architecture as unremarkable.

But there are exceptions.

# RUNDESKOGEN APARTMENTS, SANDNES

ARCHITECTS: **HELEN & HARD AS** 



The apartment towers at Rundeskogen balance vistas and visibility, and connect the structural core with the surrounding outdoor common areas.

The Rundeskogen apartments are situated at an infrastructural node between three city centres on the west coast of Norway. Single-family houses and small-scale housing projects dominate the region, creating a context that accentuates the height and volume of the project, which is also a result of the requirement to keep a distance to a recently discovered Viking grave on the neighbouring hillside. The three towers contain 113 units, ranging from 60 sq. m. to 140 sq. m., with the highest tower reaching 16 stories. The star-shaped core structure is in concrete, with secondary elements in timber. To minimize the footprint of the three towers and retain the neighbours' view of the fjord, the first floors have been lifted off the ground, cantilevering from the core, creating covered outdoor spaces at ground level.

The façades are clad with triangular sheets, creating individual

nuances of shadow and light in each element.

The project is organized around the star-shaped structure, and the fins stretching out from the core function as walls between the apartments. On the ground level they spread like roots, bracing the structure while integrating social meeting spaces, playgrounds, gym facilities and large entrances. The apartments are placed with ideal sun conditions and views in mind.

Each apartment has an integrated winter garden, with fully insulated glass facades allowing flexible, year-round use. Other environmental features include solar collectors on the roof, heat recovery from grey water and ground source heat pumps. Every apartment buyer received a complementary bike and their own fruit tree in the garden.

Helen & Hard







## **PROJECT INFORMATION**

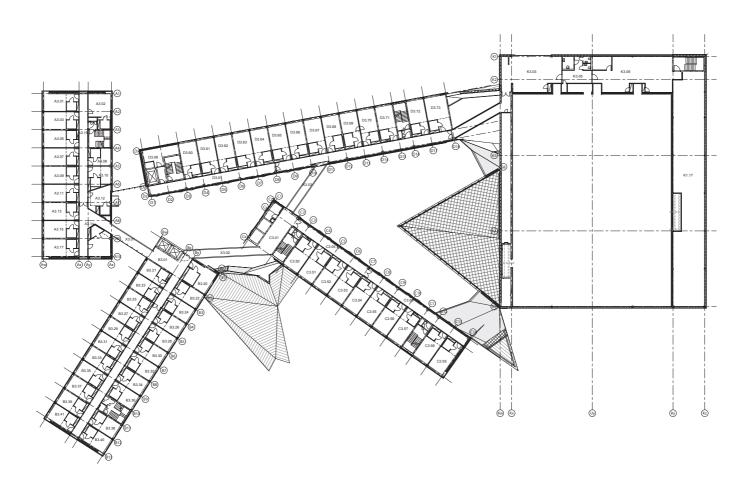
Address: Nikkelveien 18, 20 and 22, Sandnes, Completed: 2013, Apartments: 113, Gross Area: 14 250 sq.m. (ex. parking), Construction Cost: 314 million NOK incl. VAT, Client: Kruse Eiendom AS/Otium AS, Architect: Helen & Hard AS, Team: Siv Helene Stangeland, arch. MNAL, Reinhard Kropf, Njål Undheim, Ane Dahl, arch. MNAL, Randi Augenstein, arch. MNAL, Nadine Engberding, Collaborators: de Rijke Marsh Morgan Architects, London, Landscape Architect: Helen & Hard AS / rum Arkitekter (DK), Consultants: Dimensjon Rådgivning AS, Sig.Halvorsen AS, Energi og Miljø AS, Rønning Elektro AS, Sweco Norge AS, Siv Ing Albert Ølnes, GAIA Trondheim, **Photos**: Emile Ashley, Sindre Ellingsen, Aeroview

#### **ENVIRONMENTAL INFORMATION**

Estimated Energy Consumption: approx. 52 kWh per sq.m. GBA per year, Area Usage: approx. 15.000 sq.m. GBA / 113 apartments, Cost: construction cost approx. 27.000 NOK ex. VAT per sq.m. GBA, Average U-value W/sq.m.K: walls: 0.18; roof: 0.12, Energy Sources: Geothermal wells, solar collectors, regeneration of heat from ventilation, peak load gas turbine (natural gass), Ventilation: mechanical, central plant, Material Use: exterior cladding made from wood and wood-based materials (Trespa), Other Measures: Energy for production of hot water for consumption and heating of the apartments is comprised of 70-80% renewable energy (non-fossil fuels). Compact building volume. Almost all apartments in the project have been declared NVE energy efficiency class A.

# CLARION HOTEL & CONGRESS, TRONDHEIM

ARCHITECTS: **SPACEGROUP AS**INTERIOR ARCHITECTS: **ANDERS BJØRKÉN AND SPACEGROUP AS**LANDSCAPE ARCHITECTS: **PLAN ARKITEKTER AS** 



2nd floor plan.

The hotel at Brattøra challenges established hotel typology, and Spacegroup explores the relationship between Trondheim's urban landscape and a new ornamental use of materials.

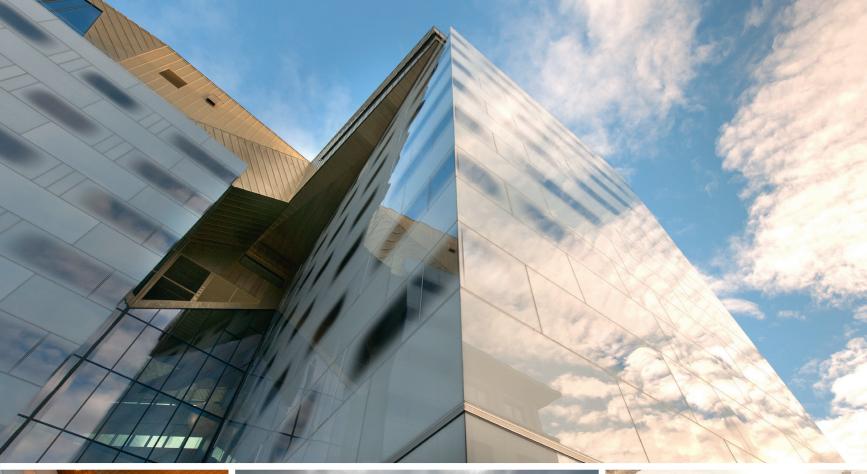
Clarion Hotel offers a new interpretation of an established hotel typology, where the central glazed atrium is transformed into a dynamic experience by dissolving the hotel room wings into four separate volumes, optimising the view from the bedrooms and opening the central space to the fjord and the dockside as well as to the surrounding city on all sides.

The organisation of the discreet volumes reflects the urban structure of Trondheim, which combines longer structural lines with smaller, intimate alleys. The large central space, topped with a golden "star" structure, is offered to the city as a new urban space, further extended by the suites of meeting rooms and the congress

centre, café and restaurant spaces and the sky bar at the top. The star-shaped golden roof connects the four buildings. The roof tiles are 50 percent aluminium and 50 percent copper.

The windows of the hotel rooms are framed by a pattern of dots printed on the glass façade. The pattern adds insulation (the building has achieved energy grade A) as well as sun screening. The façade of the congress building consists of 1200 different laser-cut patterned aluminium sheets. The architects have also designed the carpet pattern, the acoustic wall in the conference room, and twelve unique chandeliers, each made up of 70.000 parts.

Spacegroup









## PROJECT INFORMATION

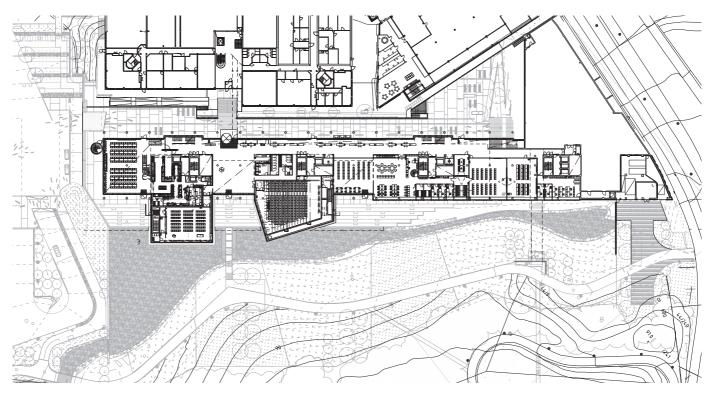
Address: Brattørkaia 1, Trondheim, Completed: 2012, Client: Star Invest AS, User: Nordic Choice Hotels, Architect: Spacegroup Company AS, Competition Team: Gary Bates and Adam Kurdahl, both partner/architect; Gro Bonesmo, partner/Prof. arch. MNAL; Wenche Andreassen and Fredrik Krogeide, both Associate/sivilark. MNAL; Naofumi Namba, Tim Prins, Minna Riska, Lotte Sponberg, Gerald Bliem, Grant Cooper and Nathan Smith, all arch; Karolina Hartiala, Kaisa Heijerman and Karsten Huitfeldt, Project Team: Gary Bates, Adam Kurdahl, Gro Bonesmo, Wenche Andreassen, Anne Wodstrup, project leader/arch.; Fredrik Krogeide, associate/arch. MNAL; Gesine Gummi, ark. DI ARCH; Claudia Laarman, technician; Thomas Bang Jespersen, ark. MAA; Jens Niehues, ark. DI ARCH; Erich Gerlach, arch., Interior Architect: Anders Bjørkén, Luleå, Sverige and Spacegroup, Landscape Architect: Plan Arkitekter AS, Gross Area: 31 500 sq. m., Cost: 600 million NOK ex. VAT, Photos: Peter Hebeisen, Spacegroup

# **ENVIRONMENTAL INFORMATION**

Estimated Energy Consumption: 188 kWh/sq.m. GBA per year, approx. 4 200 000 kWh per year (heated GBA: 22 253 sq.m.), Average U-value (W/sq.m.K): Wall: 0.17, roof: 0.13, floor: 0.17, window: 1.13, Energy Sources: Heat pump owned by Statkraft Varme installed in the hotel's technical room. Choice pays for supplied heat from the pump. Peak load is covered by ordinary remote district heating, Ventilation: mechanical, Other Measures: Stretch ceiling with cooling ventilation in the lobby, bar and restaurant contributes to a low energy consumption. Exposed concrete in the hotel rooms. The hotel room ceilings are exposed to increase spaciousness and daylight utilisation. The exposed thermal ceiling mass stabilizes the room temperature. The windows of the hotel façade are very well insulated. Pixelated silk prints on the glass provide glare control without limiting the view, while the G-value of the glass is significantly increased.

# OLE-JOHAN DAHL'S HOUSE, UNIVERSITY OF OSLO

ARCHITECTS: LUND HAGEM ARKITEKTER AS
LANDSCAPE ARCHITECTS: GULLIK GULLIKSEN AS LANDSKAPSARKITEKTER MNLA
INTERIOR ARCHITECTS: ZINC AS



Ground floor plan.

The vertical and horizontal volumes of the new Department of Informatics extend the strict orthogonal language of the existing Oslo university campus, tying it to the green trail of a local brook.

The building is flexible but has a clear identity, reinforcing the existing green axis running through the campus and integrates the Gaustadbekken brook.

The building consists of two parts: specially designed shared spaces on the ground and first floors, and a more general structure of offices and laboratories on floors three through ten. All the departmental groups are organized around their own laboratories, with common rooms that connect to open roof gardens with views of the Gaustadbekken brook. The roof gardens provide daylight to the otherwise compact office spaces.

The landscaping comprises three main parts: The vale of the Gaustadbekken brook, the campus areas and the roof gardens. The vale also provides an experience for local residents and the general public, and enriches the local ecology and biological systems. The ponds provide skating in the winter and bathing in the summer.

The campus areas are located on top of a parking garage and are strictly delineated. The roof gardens comprise eight balconies, a total of 28.000 sq.m., that over time will be covered with vegetation. The balconies offer students and staff access to green spaces without having to go down to ground level. Red brick has been used for exteriors and interiors in the two auditoriums, and the polished concrete floors on the ground floor echo the concrete surfaces of the campus outside. All interior steel has been painted black, and black pigmented oak features prominently in floors, walls, ceilings and doors.

Interior architects Zinc have participated in the development of the design from the beginning, working closely with both the architects and the user groups. A specially designed piece of group study furniture stretches along almost the entire length of the building.

Lund Hagem







## PROJECT INFORMATION

Address: Gaustadalleen 23B, Blindern, Oslo, Completed: 2010, Client: Statsbygg, User: University of Oslo, Architect: Lund Hagem Arkitekter AS **Team**: Einar Hagem (project leader), Tom Erik Aschehoug (group leader), Ellen Sjong (project architect), Svein Lund, Mette Røsbekk, Per Suul, Nelson Ferreira, Pål Ring Giske, Arvid Pedersen and Vegar Voraa, all archs. MNAL Interior Architect and Team: Zinc AS: Heide Tjøm, interior arch. MNIL, Guri Mo,

Ragnhild Flatabø Narverud and Tone Midtsund, all interior archs. MNIL, Mattis Moe, furniture designer MNIL and Elin Taaje, interior designer, **Landscape** Architect and Team: Gullik Gulliksen AS Landskapsarkitekter MNLA: Siri Anette Myklebust, Kaia Bonnevie, Kjetil Espedal og Gullik Gulliksen, all landscape archs. MNLA

Consultants: NGI, Hjellnes Consult AS, Brekke og Strand as (acoustics), Ing. Bjarne Aasheim as, Dørteknikk as, Rambøll as

Gross Area: 28 250 sq.m., Cost: 1 334 200 000 NOK incl. VAT (2011). Interiors approx. 194 400 000 NOK incl. VAT, **Photos**: Ivan Brodey, Kjetil Espeland

#### **ENVIRONMENTAL INFORMATION**

Estimated Energy Consumption: 175.5 kWh/sq.m. GBA per year,

Area Usage: 10.3 sq.m. per user (350 permanent employees and 2400 students), Average U-value (W/sq.m.K): 0.43, Energy Sources: remote district heating/electricity, Ventilation: mechanical ventilation with rotating heat collectors,  $\mbox{\bf Other Measures:}$  Planned measures to regain heat from server room