



HENRY PLUMMER

NORDIC LIGHT

MODERN SCANDINAVIAN
ARCHITECTURE

Thames & Hudson

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NORDIC LIGHT

MODERN SCANDINAVIAN ARCHITECTURE

WITH 513 ILLUSTRATIONS, 441 IN COLOUR

For Juhani Pallasmaa
Nordic friend and kindred spirit,
and for Patty,
in gratitude, for the first forty years.

On p. 2: Olari Church, Espoo, Finland, 1981,
by Kåpy and Simo Paavilainen

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INTRODUCTION

SEEKING LIGHT IN THE MYSTICAL NORTH

Extreme variations of climate and sun have produced unique conditions of light throughout Scandinavia.¹ The seasons present astonishing swings of illumination. The long, cold winter is dark and gloomy, with the sun barely appearing at all, and when it does, rising and setting for the briefest of times. Night-time permeates into the day to cloak the

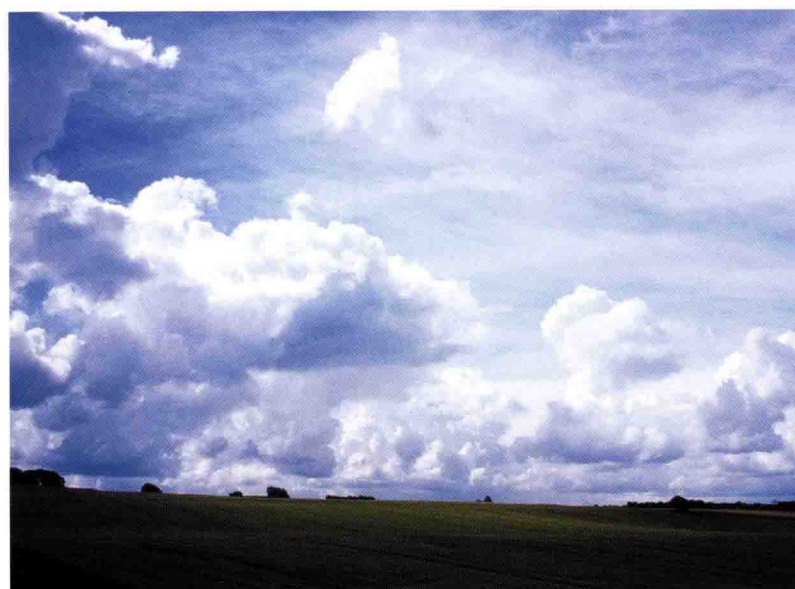


Finnish light, Lake Päijänne

land in perpetual shade. And during the ecstatic yet fleeting summer, nights are pervaded by the midnight sun, producing almost too much light and concentrating the annual light-fall into several months.

The low slant of sun at high latitudes is also remarkable, transforming human perception with long shadows and strikingly refracted colours – especially in winter, when sunshine arrives at glancing and often peculiar angles. ‘One of the qualities of Nordic light’, observes Finnish architect Kristian Gullichsen, ‘is that in winter it is almost horizontal, and at certain moments comes from below the horizon line. If you are making a drawing with snow on the ground, you put shadows on top, rather than below, the mouldings. Sverre Fehn, the Norwegian master, was especially conscious of the light coming from below and up into a building, and designed for light that was reflected upwards from water or snow.’²

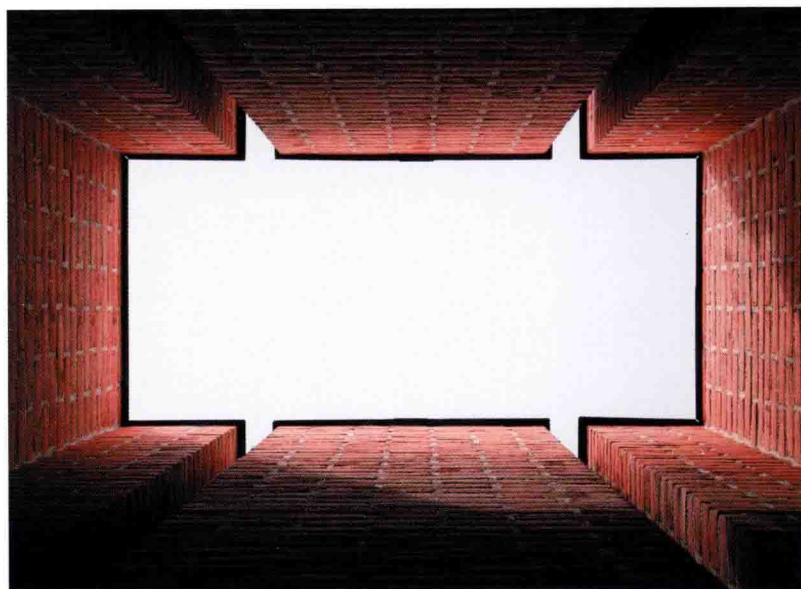
Further diffusing the weak sun are atmospheric conditions of unstable weather and frequent clouds that blend into sea air or forest mist. On midsummer evenings, the sun dissolves into an unreal haze that bathes the land in a fairy-like glow, its colours strangely muted and blurred. And during long winter twilights, sky and snow are equally tinged with rainbow hues that linger for hours. While Norway, Sweden, Denmark and Finland are dissimilar in topography and vegetation, their skies share a subdued light that imbues the entire region with mystery. More than the landscape, it is this dream-like atmosphere that tells people at once that they have reached the outermost rim of the earth. Left behind is the brilliant sun of the south, under which shadows are strong and contours sharp, making perception more clear and constant.



Danish clouds and light, Jutland

These bewitching effects of light were absorbed into Nordic saga and myth, and have permeated the arts. Perhaps their most renowned expression occurred at the end of the nineteenth century, when artists were searching for a way to define their geographic identity at the far edge of Europe. Plein-air painters became obsessed with the muted glow that gives the North its brooding character. This fascination is immediately evident in a series of exhibitions on Scandinavian painting organized in North America and Europe during the 1980s and '90s. Their titles alone are revealing: *Northern Light* (1982–83), *The Mystic North* (1984), *Dreams of a Summer Night* (1986–87) and *The Light of the North* (1995–96).³ In these collections, drawn from every Nordic land, one is impressed above all by how subtle conditions of natural light, modified by weather, were observed by the artists with painstaking care and depicted on canvas with a kind of devotion.

Apart from the achingly transient summer night, so beautifully captured in Swedish painter Richard Bergh's *Nordic Summer Evening* (1900), artists were enthralled by the soft blur of fog and mist, glistening sheets of translucent ice, pristine blankets of white snow, starry winter nights and the throbbing violets of winter dusk. Portrayed on canvas with penetrating accuracy were the frailest, most evanescent aspects of nature, producing a hypnotic mixture of realism and magic that was completely devoid of sentimentality. Viewers are brought into startling contact with powerful characteristics of light that suffuse the entire picture surface, and are often its primary subject. Drawing ephemera up to the eye are clever manipulations of pictorial space, combining near and far to create a rapport with distant phenomena. This

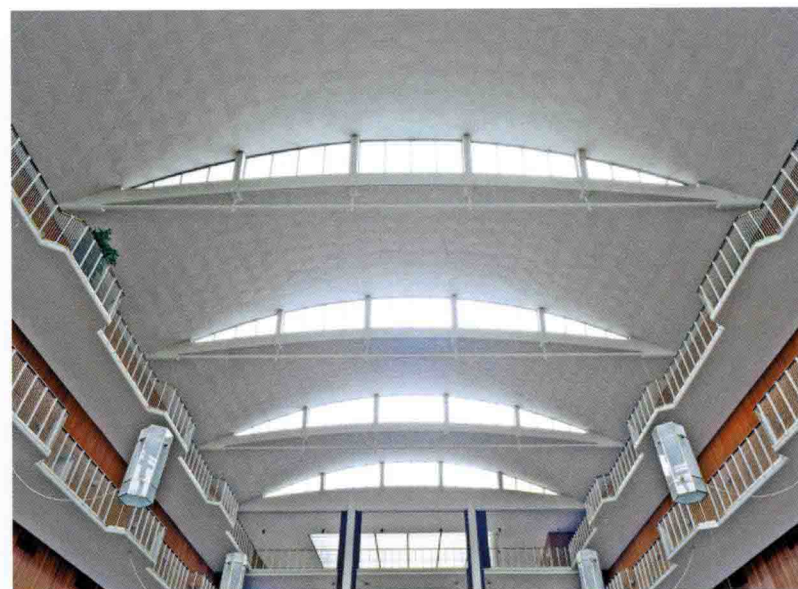


Wall 3, Ballerup, Denmark, 1995, by Per Kirkeby

intimacy also appears in genre painting, adding a mystical intensity to urban scenes, as well as quiet domestic interiors. Even in pictures of ordinary life, we find ethereal light washing into barren rooms to bring every surface under its spell, as it melts away contours and hangs in the air. Often referred to as ‘mood paintings’, these pictures convey a contemplative space in which separate details have lost significance, and light has harmonized all the parts into a resonant whole.

By the 1920s and '30s, Scandinavia's early masters of modern architecture – Erik Bryggman and Alvar Aalto in Finland, Gunnar Asplund and Sigurd Lewerentz in Sweden, and Arne Jacobsen in Denmark – were beginning to explore a vision of reality that was similar to that of the plein-air painters of the previous century. Their efforts to construct a Nordic identity that was authentic to its place in the world drew a sharp contrast with the earlier National Romantic movement, whose

rugged and richly embellished forms remained somewhat nostalgic in character, and were too physically emphatic to register subtle impacts of light. While spurred along by the modern movement's therapeutic regime of sunlight and fresh air, pioneered in France by Le Corbusier and in Holland by J. J. P. Oud, among others, Scandinavian architects loosened their buildings from the formal and machined stress of Modernism, and sought instead to naturalize simple volumes by suffusing them with a light distinct to the North. Even Alvar Aalto's outwardly rational Viipuri Library (1935), in Vyborg, Russia, for instance, was conceived as a series of ‘plateaus’, which were illuminated by ‘suns in different positions’, filling the interior with a ‘shadow-free, diffuse light’.⁴

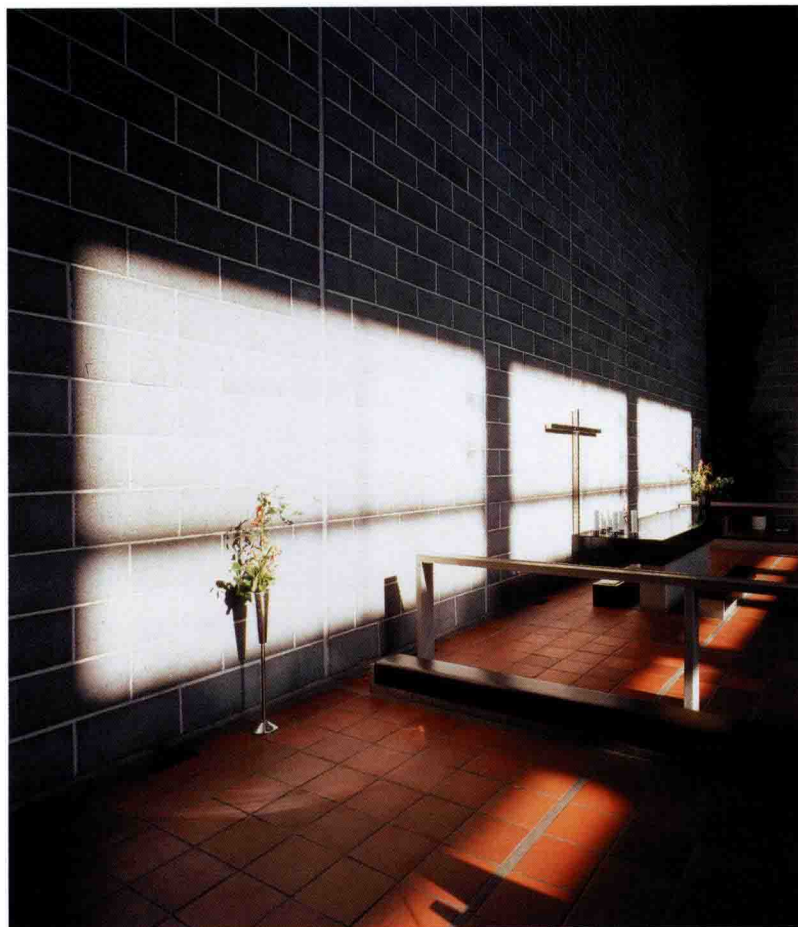


Århus Town Hall, Denmark, 1942, by Arne Jacobsen

In their efforts to seize upon Nordic light as a source of identity and inspiration, architects were faced with a dilemma that is unique to frigid climates. At high latitudes, where daylight is meagre and solidity is needed to resist the harsh winters, how could interiors be generously lit and brought into contact with the pageantry of nature? In response to this problem, a variety of architectural forms were developed that closely linked rooms with the sky – forms that were able to collect, preserve and allocate the scant illumination, while putting its changing moods on display as a metaphysical image of the North. Building profiles were moulded to gather low angles of light, and as much as possible from the south – the only part of the sky where the sun is present in winter. For buildings demanding softer light, such as museums and libraries, sunlight was tempered by multiple reflections, or diffuse illumination was garnered from northerly parts of the sky. To achieve this

control over incident light, building plans and sections were shaped virtually into funnels, aimed to specific points on the horizon, and hollowed within to conduct captured light to rooms where it was most needed. By transforming architecture into an optical instrument, a proficient use could be made of scarce daylight and every room exposed to the sky. A further virtue of these building forms is their revelation of the solar forces unique to high latitudes, telling people *where* they are and anchoring them into a particular place on the planet.

Complementing the inhalation of precious light is another characteristic of Scandinavian architecture – the monolithic use of pale materials to conserve and magnify faint illumination. Reflective finishes, from white plaster and blond wood to ceramic tile and silvery concrete,



Tapiola Church, Finland, 1965, by Aarno Ruusuvuori

avoid the premature absorption of light, while helping to spread illumination to every corner of the space. Beyond its practical value, the pale finish serves a more poetic aim – as a projection screen upon which subtle daylight can be exhibited, and even intensified. Delicate illumination becomes more visible on neutral and reflective walls, in the same way that diluted pigments are fully revealed on white canvas. As the

frail Nordic light washes over these bare rooms, a connection is felt with the sun, moon or clouds, without having to see them directly.

The Scandinavian urge to live in close communion with nature can be partly explained by the survival of a rural society until well into the twentieth century. A strong relationship with the elements developed from aeons of living alone in the wilderness – closely bound to the seasons and weather, immersed in eternal darkness and ice, which are overcome each spring by the returning sun. The artist Richard Bergh aptly described this imprint on the northern spirit: ‘The landscape, that tract in which we live, affects our lives, not just in the superficial sense of enforcing on us certain fixed living conditions, but also by the purely suggestive influence it has on our soul. That drama that daily is



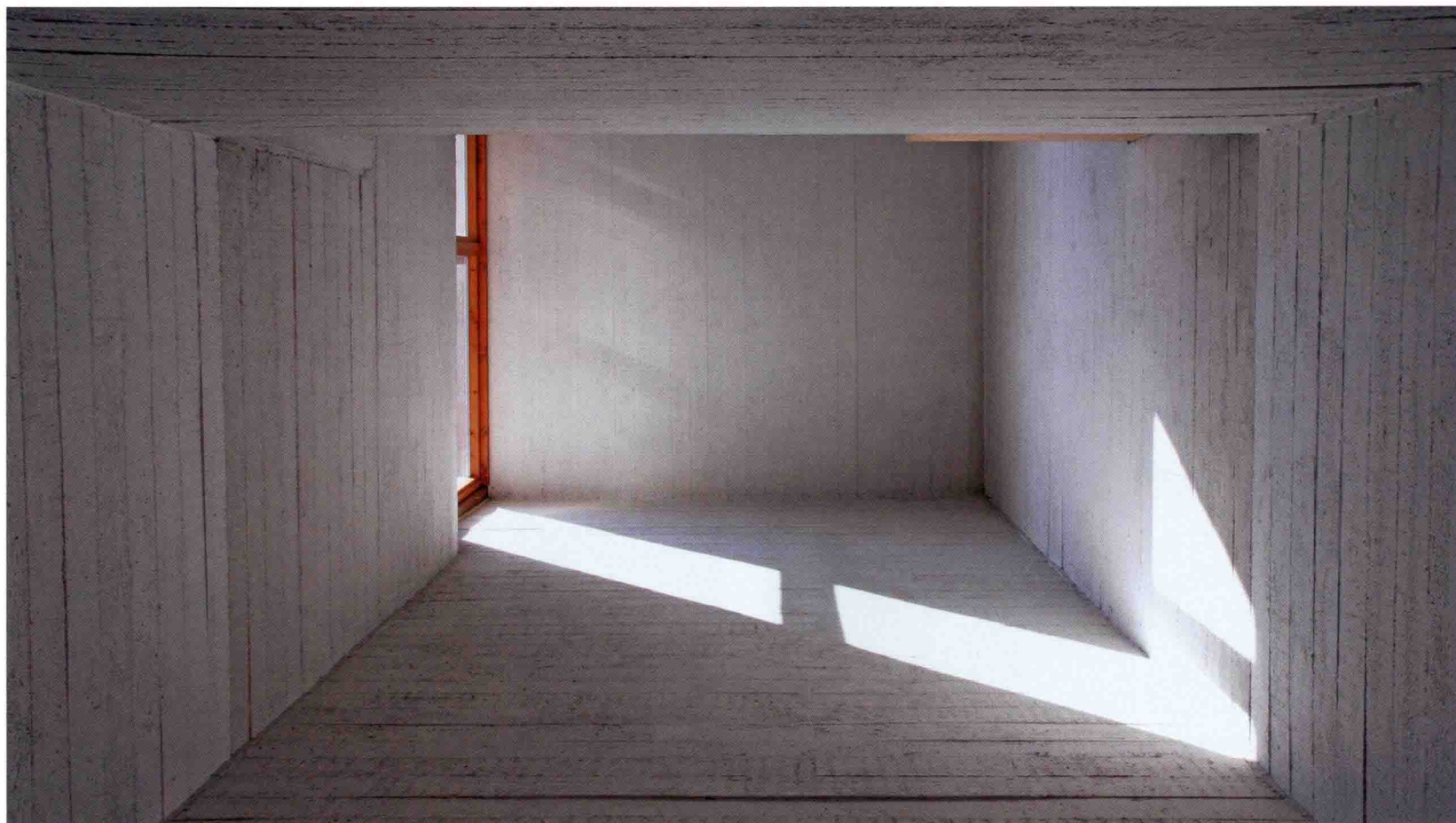
Dust Motes Dancing in Sunlight, 1900, by Vilhelm Hammershøi

in front of our eyes puts its mark on our inner being. ... Every landscape is a state of mind.’⁵

Nordic architects have long been resourceful in nurturing this ‘state of mind’ by etching it into the everyday buildings in which people live. In addition to ‘painting’ rooms with the moods of the sky, another means of transmuting nature into architecture is metaphoric evocation.

As daylight passes through windows and bathes over walls, it can be modulated to echo the characteristics of light that identify the North, and in doing so directs its appeal to the poetic imagination, rather than the rational mind. Metaphors suggestive of natural phenomena resonate with images that arouse the human psyche, causing the beholder to conjure up ephemera beyond the reach of the physical eye. Even monumental vernacular buildings are made aware of their universe: the dark intensity of the Norwegian stave church, which arouses an image of black winter skies dotted with stars; the billowing white vaults of a Danish church, which stirs an impression of the dramatic cloud forms unique to that land; or the peasant log hut, whose tonal vibrations suggest the primeval forests that still cover much of Scandinavia.

fied abstraction of light and place that has evolved over the past century, based on lyrical images that are devoid of use and unconcerned with formal beauty, serving instead to reawaken the imagination and stimulate a more active role in its harmonious relationships with nature. This process underlies Alvar Aalto's fascination with thickets of poles and sinuous screens, which allude to the cleft light of the Finnish forest, or walls coated with rippling tiles that recall the play of light across a lake's surface, in either case without resort to literal imitations of nature. The resulting kinship with the environment is based more on interpretation than resemblance, and operates at a deeper level than the easy, somewhat superficial solidarity with nature in folk architecture. By embracing contemporary values of ambiguity and self-realization, these

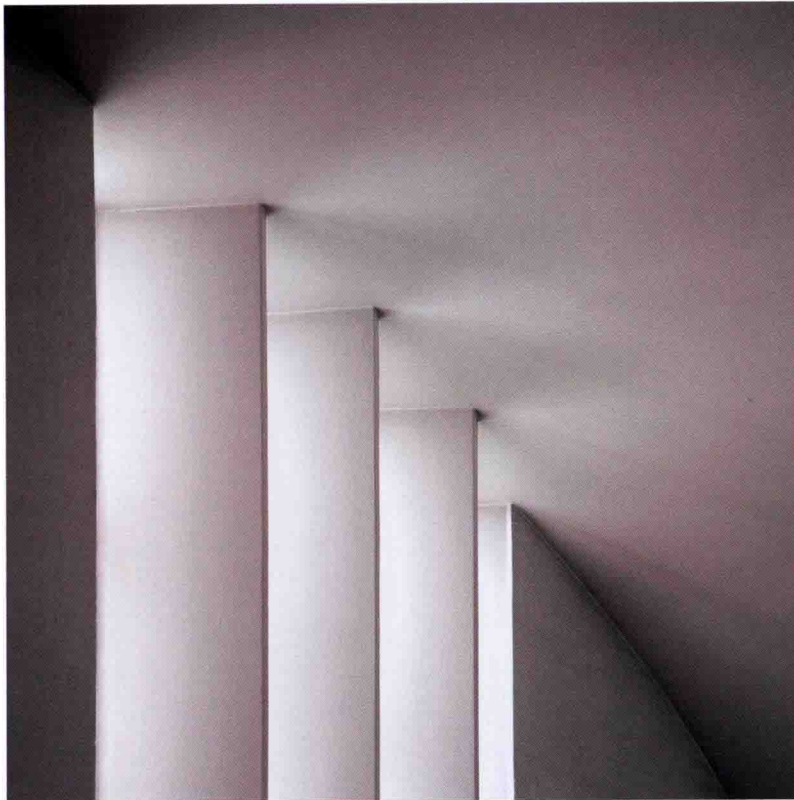


Dipoli Student Assembly Building, Otaniemi, Finland, 1966, by Reima Pietilä

The architectural production of these primitive echoes is obviously driven by something deeper and more vital than pragmatic necessity or aesthetic desire. Beneath the impulse to commune with the sky is a longing for elemental modes of life, confirming that one exists somewhere, and that one exists *emotionally* and *spiritually*, as well as physically. This search for reality is increasingly evident in the intensi-

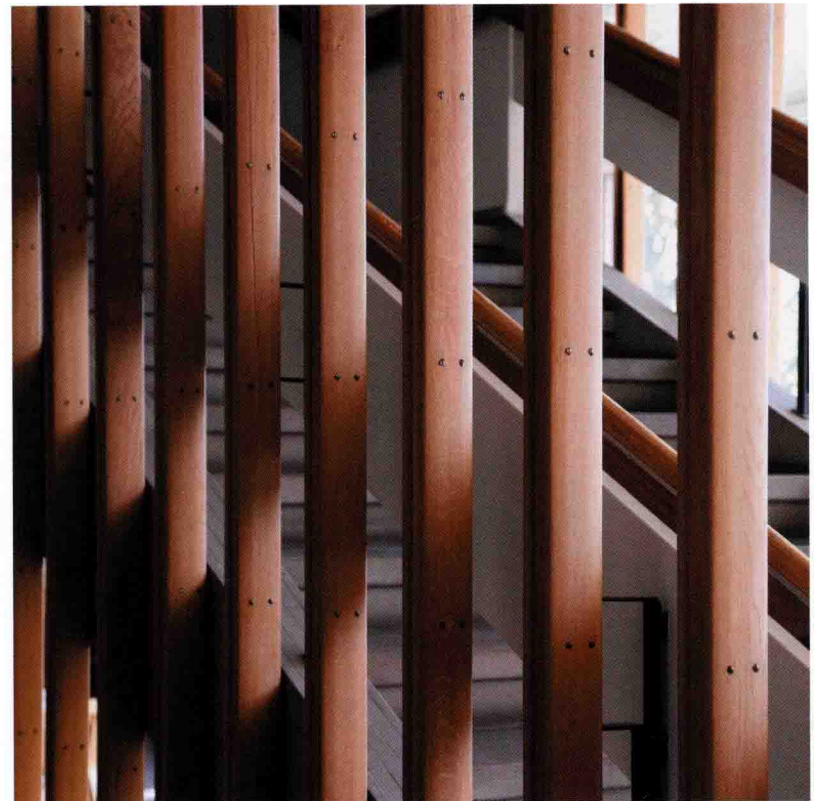
elusive metaphors invite us to intuit and decipher their latent images, and in the process exercise our own capacity to creatively 'see'. Communicable images of this kind – which arouse the dreaming consciousness, helping people to recapture a direct experience of reality and to understand where they belong – are a pervasive theme in the past century of Nordic architecture. Examples are legion, among them the

In recent decades, this poetic tradition has grown ever more obscure yet involving, using pure geometry and severe austerity to defamiliarize architecture from nature, and reinforcing this divergence with industrial materials or coats of paint. The sublimation of image and memory in the management of northern light continues to tease out something of significance, rather than forming it in an obvious manner. By expanding the field of human perception, these faint evocations become far more demanding and intriguing, and ultimately powerful, than formal analogy – challenging the human faculty to create images that exceed each person’s immediate memory. We find these extra depths of imaginative power in the overlapping white planes of Juha Leiviskä’s buildings, for instance, as well as in the recursive and rectilinear wood-



Seinäjoki Church, Finland, 1960, by Alvar Aalto

metaphoric skies constructed by Gunnar Asplund over his Woodland Chapel (1920), in Stockholm’s Skogskyrkogården, and Stockholm City Library (1927; pp. 77, 81), or the undulating vaults that pile up and drift over ceilings in Arne Jacobsen’s Århus Town Hall (1942; pp. 7, 52) and Jørn Utzon’s Bagsværd Church (1976; p. 56), both in Denmark. Then there is the recollection of arctic night in the dark brickwork and shadowy voids of the Swedish churches of Sigurd Lewerentz and Peter Celsing, or in the faceted light on battered concrete used by Reima Pietilä to commemorate Finland’s glacial origins.



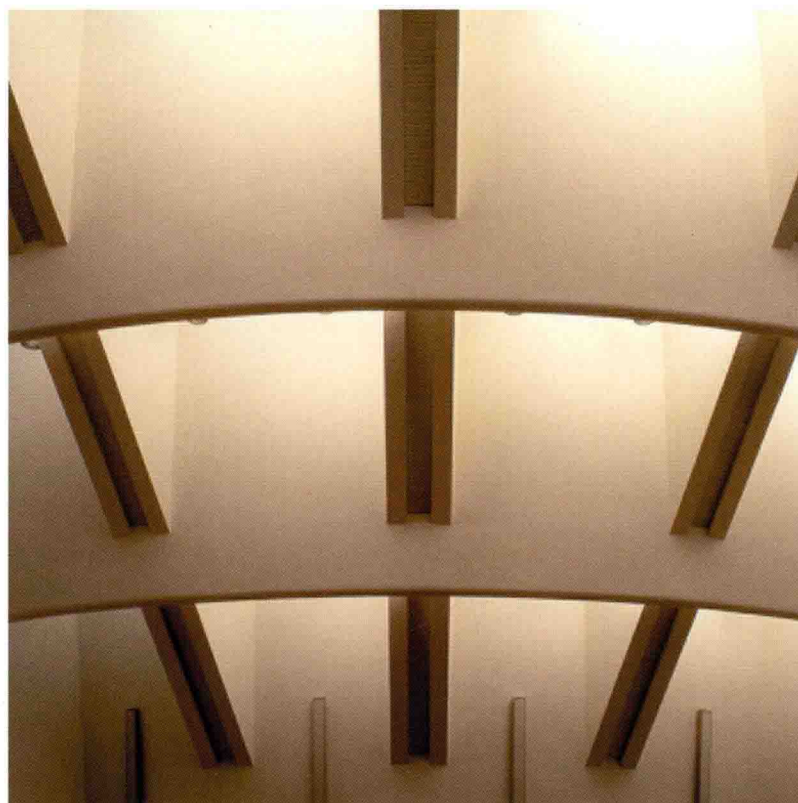
Main building, Helsinki Institute of Technology, Otaniemi, Finland, 1964, by Alvar Aalto

work of Sverre Fehn, or the steel meshes and dark metal boxes of Helsinki firm Heikkinen-Komonen. The non-representational images formed by these architects transcend the level of metaphor, to charm and activate deeper strata of the human psyche. By freeing its evocations from any quick and docile memory, architecture expands the creative scope of the eye, as well as the imagination, asking people to sense, rather than see, that they are still in contact with ultimate reality.

The existential achievements of Scandinavian architecture, which explain the world to which they belong, should not allow us to overlook

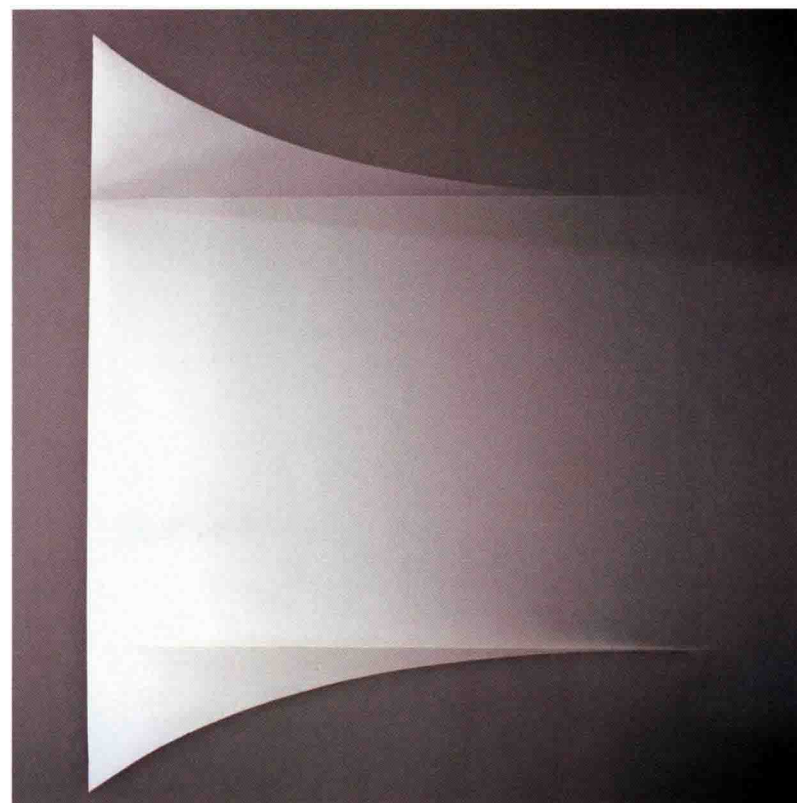
their contribution to an international discourse on light that over the past century has reshaped our understanding of architecture.⁶ While we cannot imagine the finest Nordic buildings appearing anywhere else in the world, neither can we imagine them before the revolution of thought and feeling that gave rise to modernity. Iconic works such as Aalto's Villa Mairea (1941; pp. 104, 132), along with Jacobsen's National Bank of Denmark (1971; p. 184) and Fehn's Hedmark Museum (1979 and 2006; p. 86) are distinctly northern interpretations of the modern belief that light can have a presence of its own – where it is free, in part, of its illuminating role, and even its past symbolic value.

Laying the foundation for this contemporary understanding of light was a transformational shift a century ago in our comprehension of



Main building, Helsinki Institute of Technology, Otaniemi, Finland, 1964, by Alvar Aalto

light itself. A series of discoveries, including Albert Einstein's conception of light as particles of energy called 'photons', put forward in 1905, together with physicist Max Planck's theory of quantum physics and James Clerk Maxwell's observation that light behaves as an electromagnetic wave, altered our Newtonian view of light. Emerging in the process was a new kind of light that exists as both wave and photon – a 'modern light', as it was called, of the twentieth century. Anticipating the revelations that air and matter are vibrant with energy were artists envisioning similar phenomena. In the smoke and mist of Claude



Herning IBA, Herning, Denmark, 1995, by Henning Larsen

Monet's paintings, the dissolving away of figural form allowed light itself, and its interweaving colours and shadows, to become the predominant subject. Many artists focused on particulate light, and the complex interaction of light with matter. Pointillist painters Georges Seurat and Paul Signac covered their canvases with dots of complementary colours, immersing half-dissolved figures in an atomized glow that caused the picture field to quiver and appear more luminous than it actually was. And in the paintings of Vincent van Gogh, light exists as trembling particles of radiant pigment, which emanate in concentric

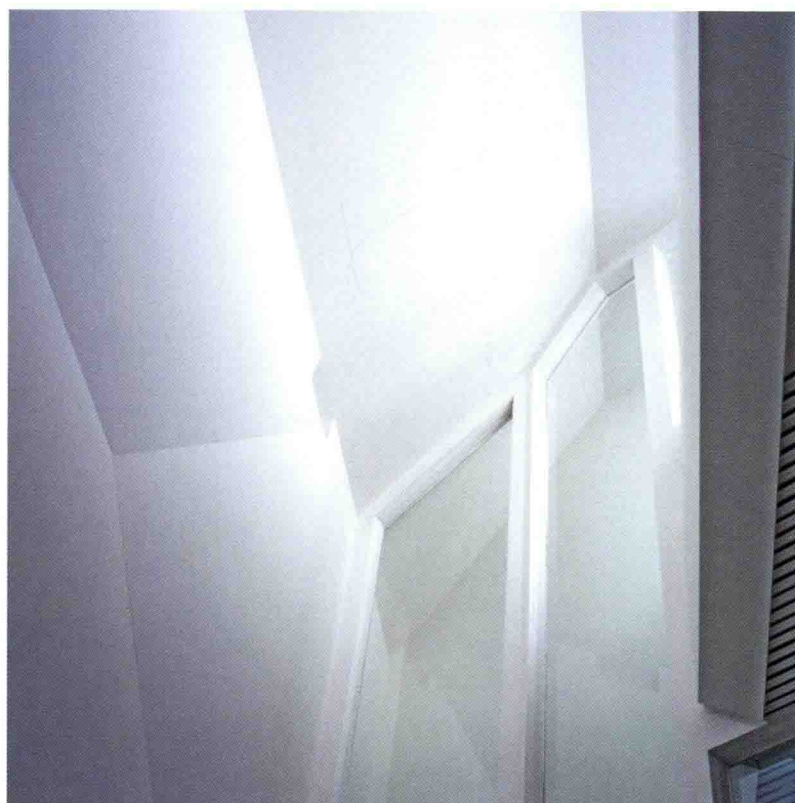
waves from a sulphur-yellow sun or star, lamp or candle. Orphic painter Robert Delaunay summed up these efforts: ‘So long as art is subservient to objects, it remains description, literature.’ The way beyond this is for light itself to be ‘treated as an independent means of representation’.⁷

Continuing to construe a reality in which light is more autonomous and tangible than previously thought, abstract painting becomes virtually objectless and devoid of representation, so that the only figure left is light itself and its infinite modulations. In the radically anti-materialist images of American painters Richard Pousette-Dart, Mark Tobey, Mark Rothko and Barnett Newman, ambient light is carried to a state of almost mystical purity. The physical world has fallen silent and vanished, leaving behind an elusive, spiritual atmosphere. In their

most famously his *Dust Motes Dancing in Sunlight* (1900; p. 8), where walls are seen through palpable rays of slanting sun, and there exists in space a violet-tinged glow that is far more arresting and alive than its solid backdrop. A similar dream-like space that tests the limits of physical reality was explored by Finnish painter Ellen Thesleff (opposite), whose pictures are filled with a silver-grey mist that serves as a vehicle of introspection. Equally pensive is Danish artist Peder Severin Krøyer’s blue haze, which hangs over Skagen on summer evenings, or the transcendental blues of winter nights amid icy mountains of Norwegian painter Harald Sohlberg. The throbbing blue air of winter night that suffuses Stockholm’s buildings and streets was the subject for Swedish artist Eugène Jansson, showing the city’s liquefaction into a place of



Vor Frue Church, Copenhagen, Denmark, 1829, by C. F. Hansen



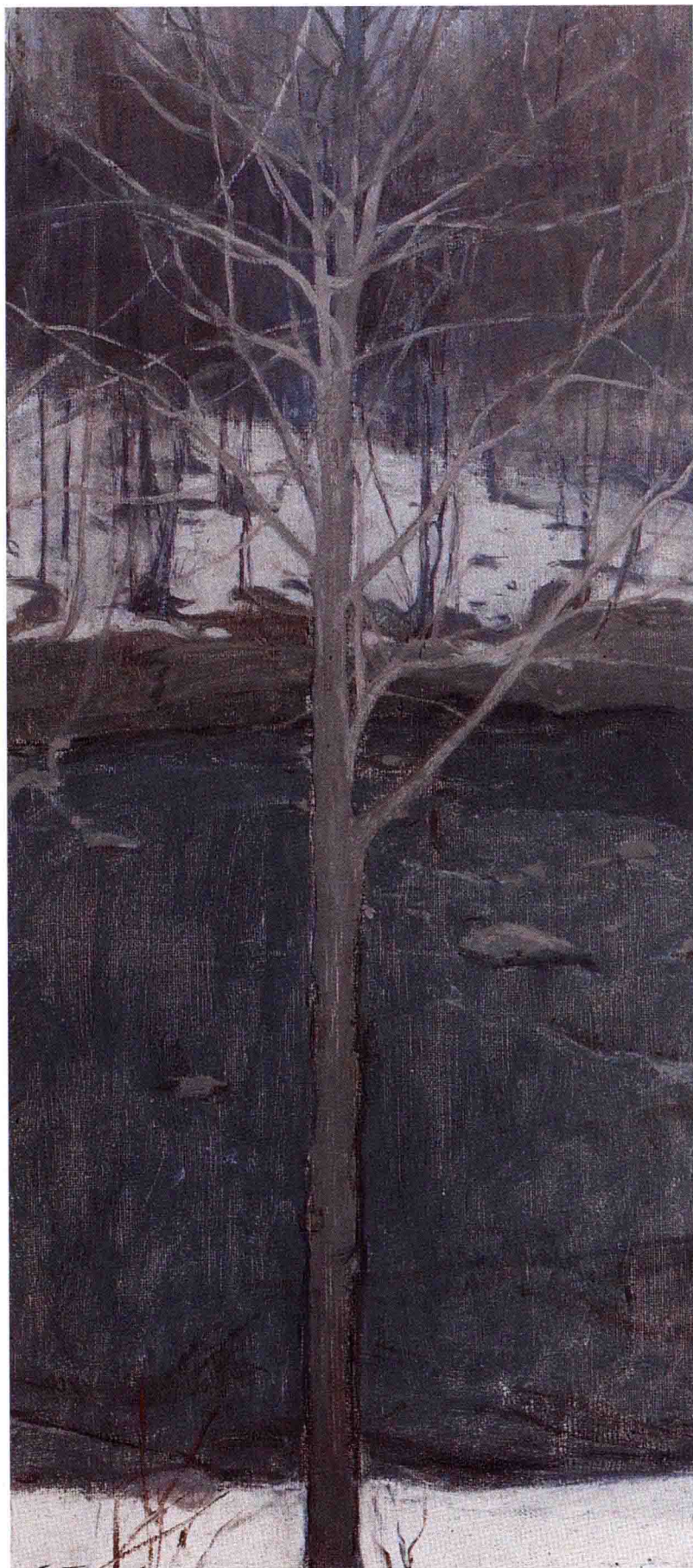
President's Residence, Mäntyniemi, Finland, 1993, by Reima Pietilä

installations, beginning in the 1960s, artists Robert Irwin and James Turrell made even a room seem substanceless, unless one means the vaporous substance of light itself.

While Scandinavian artists have taken part in this search for truth, there was less need to invent a new mode of painting, since the Nordic world is inherently veiled by molecular light drifting through space. The reality portrayed by Nordic painters is physically present, but reduced to the setting for a luminescence that hangs in the air and penetrates objects. Consider the starkly empty rooms of Vilhelm Hammershøi,

hallucinatory beauty. Northern sculptors, constrained by matter, have been no less inclined to turn solid form into a scaffold for palpable light, as in the brick constructions of Per Kirkeby (see p. 7), or the timber blocks of Kain Tapper, carved to imitate moonlight or morning mist, and the aluminium slats of Raimo Utriainen, which dissolved into a shimmer of lines.

In their comparable efforts to elevate light to an independent medium closely attuned to geographic reality, Nordic architects are producing buildings that are true not only to their place in the world,



Aspens, 1893, by Ellen Thesleff

but also to our current age. The twentieth-century proposition that the forces, energies and intensities of light are a new measure of the world we live in, and that architecture offers a venue for these agitations, reaches what is arguably its fullest and most convincing expression in Scandinavia – in buildings based on a formal restraint to enhance the flux and fragile beauty of natural light. The bare and elemental simplicity so universally admired in this architecture serves an aim beyond itself, allowing its designers to loosen light from the physical objects with which it mingles, and in the process to liberate light itself from its duty as an instrument of definition, and assume a more commanding role in buildings.

If the art of building in the far north has lagged behind the spatial and formal ingenuity of Western Europe and America, it has nevertheless been at the forefront of the metaphysical aspirations of twentieth- and twenty-first-century architecture. A telling sign of this leadership is its close parallel with, and at times anticipation of, the work of artists who use light as a means of expression, rather than merely for illuminating objects (Thomas Wilfred's *Lumia* recitals of the 1920s, László Moholy-Nagy's *Light Prop*, finished in 1930, and Otto Piene's *Light Ballets* of the 1960s), while adapting these themes to everyday life and harnessing their flow to the passing sky. Scandinavia's utterly simple and austere buildings, where airborne light exists in its own right and lives its own drama, have also prefigured the meditative calm and glowing nothingness produced by installation artists of recent decades: Robert Irwin's dissolution of material into light; James Turrell's efforts to make light material, and to create an experience rather than an object; and the mesmerizing environments of Olafur Eliasson, including *Weather Project* (2003), which filled the Turbine Hall at London's Tate Modern with a fine mist, pervaded by yellow light.

Clearly expressed in Scandinavia's most sublime buildings of the past century is a serious contemplation of Nordic light in the context of the contemporary world. At the heart of this still-emerging vision are the animating powers of immaterial forces and energy, which are able to resonate within each living observer, bringing us closer to the human essence of architecture. Instead of fixed images that are passively viewed, light is used to produce fluid images that arouse a creative human response, and can change the heart and mind of an active, feeling and moving beholder. This non-objective aim is well stated by Finnish architect Juhani Pallasmaa, who notes that 'nowadays I don't regard architecture as a building in itself; it is a means of revealing something else. For me, light is the most ecstatic architectural experience there is, and in many ways the best architecture is a preparation for the experience of light.'⁸