

PROFESSIONAL LIGHTING DESIGN

Magazine for
professional lighting design

MAIN TOPIC
Office design

LIGHTING DESIGN
RD Construction headquarters
in Moscow/RU

Corrs Chambers Westgarth's
new office in Melbourne/AU

Trading floor in a bank
in Montreal/CA

Biophilic design in the King
office complex in Stockholm/SE

The 751 D-Park office building
in Beijing/CN

PCK Refinery
in Schwedt near Berlin/DE

PRACTICAL ISSUES
Sunlight indoors

The internet sees the light

THEORY
Longing for the
digital world in green

INTERVIEW
Interview with Cristiana Cutrona

Not only a case of black and white

Text: Jo-Eike Vormittag

A corporate office facility can sometimes drift into becoming a city of its own within the city. The surface area comprising corridors, rooms of different sizes and workspaces is extensive and "heavily populated": it has developed its own working infrastructure, an administrative and organisational structure that ensures all processes and workflow remain intact; then there are spaces for people to rest and relax in that look like bedrooms, lounges like living rooms, and all kinds of workstations. All the features of a residential home, in fact – and enough things to buy to eat, or fully equipped kitchens if you prefer the hands-on approach. And of course the opportunity to pursue leisure activities. Viewed in these terms, RD Construction's headquarters in Moscow could be classified as a no-nonsense, ultra-modern office city within the city ...



16



Subconscious symbolism

Text: Jo-Eike Vormittag, Joachim Ritter

Lawyers have an image problem. As long as we have no need for them we are happy to do without them and, contrary to other professionals we sometimes need to seek help from who generally wear white at work, lawyers always seem to give us the feeling they are against us. It is imperative that they show no weaknesses, and yet we need their understanding and their know-how. A modern office environment and the right lighting can literally shed new light on the image lawyers currently have, aligning their work and reputation to modern, socially acceptable living standards.

26

Reason to stay

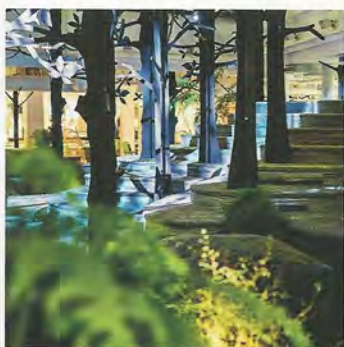
Text: Jo-Eike Vormittag

The board members of the National Bank of Canada must be heaving a sigh of relief. Their original scepticism towards any kind of modernisation of the former dull-looking trading floor in their offices in the historic Sun Life Building in the centre of the City of Montreal, Quebec/CA reigned supreme for a long time. In fact, it looked as if there was a greater chance they would move to another building rather than embark on a renovation project. The bottom line today does indeed look quite different from what they – or anyone – expected.

A team of architects and lighting specialists were ultimately commissioned to revitalise the spacious work environment, which accommodates almost 260 traders and managers. And hugely successful they were too, as the result shows.



32



Back to the future

Text: Jo-Eike Vormittag

In nature, every plant and species of animal yearns for ideal conditions in which to thrive and grow. It is no different when it comes to fostering ideas: working environments that feature the best possible conditions for their users can help ideas expand to acquire enormously creative and highly successful dimensions – an aspect which is being given increasingly high priority in our modern working world, or in urbane enterprises where such spatial atmospheres are deemed necessary and appropriate. The right atmosphere can inspire the people working in the space to be far more creative and flexible than

ever thought possible. Certainly a great basis for a developer of colourful, highly imaginative video games, when creating the right scenarios for their staff to fulfil their daily tasks.

38

COVER

RD Construction headquarters in Moscow/RU
Photo: Alexey Zarodov

SCENE

8 News from the international world of lighting design

LIGHTING DESIGN

16 RD Construction headquarters in Moscow/RU

26 Corrs Chambers Westgarth's new office in Melbourne/AU

32 Trading floor in a bank in Montreal/CA

38 Biophilic design in the King office complex in Stockholm/SE

44 The 751 D-Park office building in Beijing/CN

48 PCK Refinery in Schwedt near Berlin/DE

PRACTICAL ISSUES

52 Sunlight indoors

60 The internet sees the light

THEORY

56 Longing for the digital world in green

INTERVIEW

58 Interview with Cristiana Cutrona

MARKET AND TECHNOLOGY

63 A supplement with news on products, product applications and manufacturers

PROFESSION AND EDUCATION

76 Reports and updates on professional and educational issues

REGULAR ITEMS

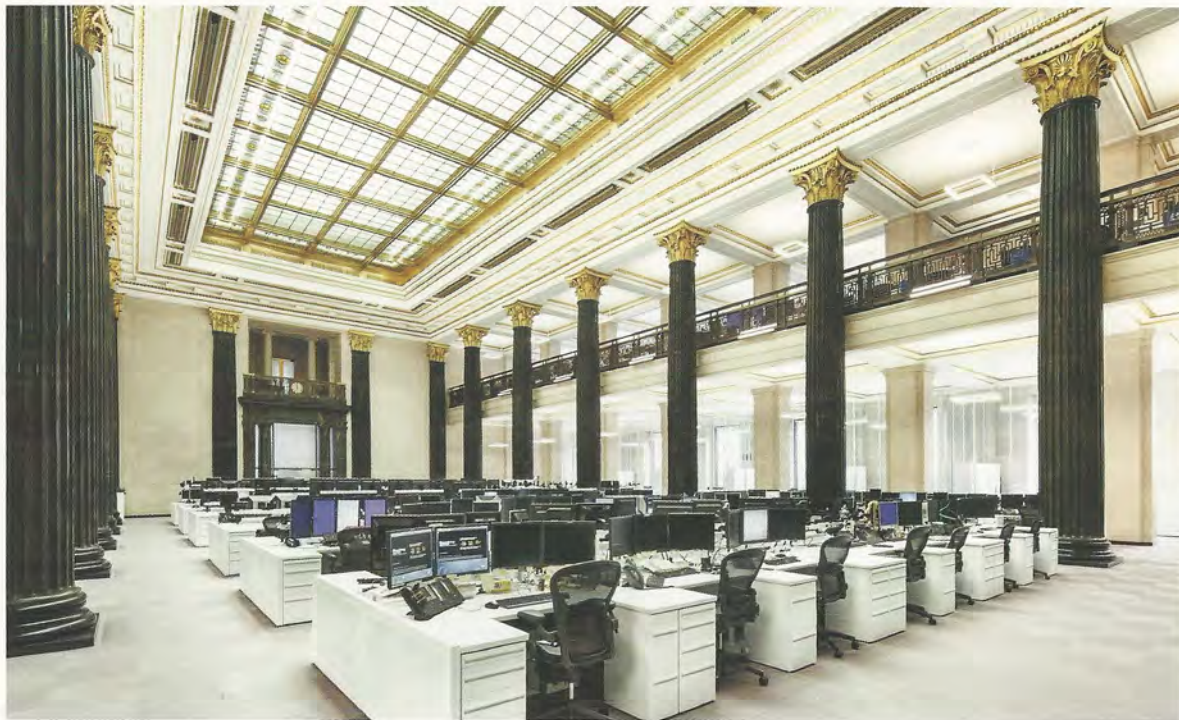
78 Preview/Imprint

Reason to stay

Revitalisation of a trading floor in an historic setting in Montreal/CA.

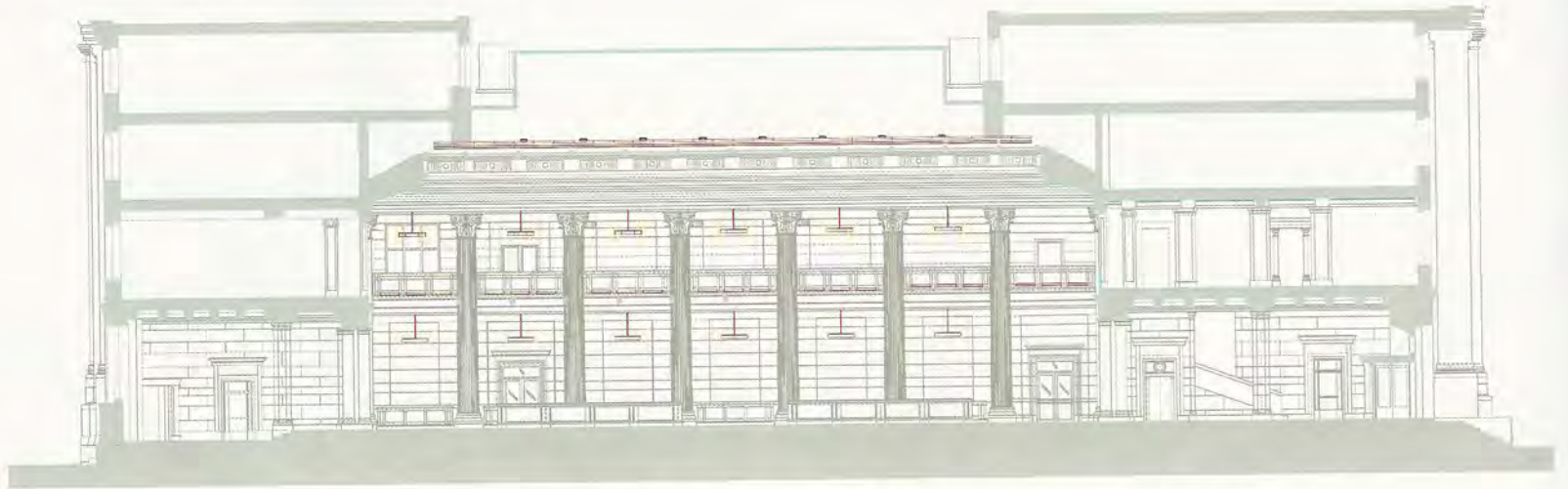
Text: Jo-Eike Vormittag
Photos: Stéphane Brügger

The board members of the National Bank of Canada must be heaving a sigh of relief. Their original scepticism towards any kind of modernisation of the former dull-looking trading floor in their offices in the historic Sun Life Building in the centre of the City of Montreal, Quebec/CA reigned supreme for a long time. In fact, it looked as if there was a greater chance they would move to another building rather than embark on a renovation project. The bottom line today does indeed look quite different from what they – or anyone – expected. A team of architects and lighting specialists were ultimately commissioned to revitalise the spacious work environment, which accommodates almost 260 traders and managers. And hugely successful they were too, as the result shows.





The historic Sun Life Building is one of the most striking buildings in the centre of the city. The magnificent architecture visible from the street is continued inside the building.



It had been 20 years since the trading floor had witnessed any form of renovation. Its design was accordingly out of date, the lighting design left much to be desired for various reasons, and the working atmosphere was inappropriate to the state of being dark and uncomfortable. The Board of Directors at the bank felt compelled to react: plan to move to a completely different building or undertake architectural and design measures to amend the situation. The 24-storey office building dates back to 1913, at least this is when work was begun on it. Completion was in 1931, after three phases of construction, when the final floor was added. The trading floor is located in the eastern section, which was part of the second construction phase from 1923 to 1926. The trading floor features high-quality materials and special architectural elements: columns, marble cladding on the walls, a ceiling lavishly decorated with gold leaf and a large skylight. Despite these rich details, the exceptional heritage space remained unspectacular, and uncomfortable. With the goal of realising a "subtle intervention" out of respect for the protected historic building fabric, the architects and designers accepted the conditions and the challenge to create a bright, friendly, comfortable and technically modern place of work in which typical lively stock-exchange floor trading activities can be pursued in future. Undertaking any form of modernisation in existing historic architecture can be challenging in many respects. Also when it comes to the lighting design.

In the case of the latter, one would have thought that the large skylight would have provided the perfect basis for allowing daylight to penetrate the space. But for some reason this idea was struck from the list in the development phase when planning was underway to build the extension. A roof construction was built over

the skylight, eliminating any view outside and preventing incident daylight. A lighting system was installed between the glass and the roof structure, delivering an uneven spread of dim artificial light to the space below. Workplace dividers made of opaque glass prevented a better distribution of the little light available, and even opening the hall up to the west to allow natural light in made little difference to the gloomy atmosphere.

When developing a lighting design concept for the renovated trading floor space, the designers first considered what changes could be made to the skylight as the dominating feature in the space. It was still encased in the roof construction that rendered it so dim and gloomy. The skylight first underwent a thorough cleaning and some restoration work, and then received a completely new lighting concept. LED floodlights with a colour temperature of 4000K were mounted between the glass and the roof structure. These are focussed on the underside of the roof and make for a daylight atmosphere when viewed from below. Linear LED luminaires with a colour temperature of 3000K are also mounted behind the frosted glass, but directed downwards into the hall. This provides the necessary functional lighting for the employees at the workstations in the main hall, who feel comfortable and at ease in the deceptively authentic daylight aura created by the new skylight solution.

The lighting concept for the skylight is complemented by pendant luminaires applied in the peripheral zones at ground floor and first floor level. These spaces also accommodate workplaces, which are now separated from the rest of the trading floor by transparent glass partitions. The pendant luminaires either take the form of simple short linear fixtures applied along the corridor spaces or rectangular framelike design luminaires in the



closed office spaces. Linear luminaires mounted on the balustrade on the upper floor illuminate the historic materials and gilded finishes on the ornate ceiling elements and lightly wash the renovated skylight from below.

The newly installed neutral white diffuse LED lighting in the ceiling provides some contrast to the warm historic materials such as the gold leaf and other exquisite design details. Thanks to the new transparent glass partitions between the workspaces in the peripheral zones, light – including the daylight from the east facade – can penetrate the entire space. The combination of diffuse skylight illumination and natural light now fills the magnificent hall and all office spaces with new energy. The bank headquarters, and in particular the trading floor in the former Sun Life building, is extremely important for the National Bank of Canada given its central location in Montreal and the history of the remarkable building. The trading floor is the financial institution's nerve centre, and is in fact the largest active trading floor in Quebec.

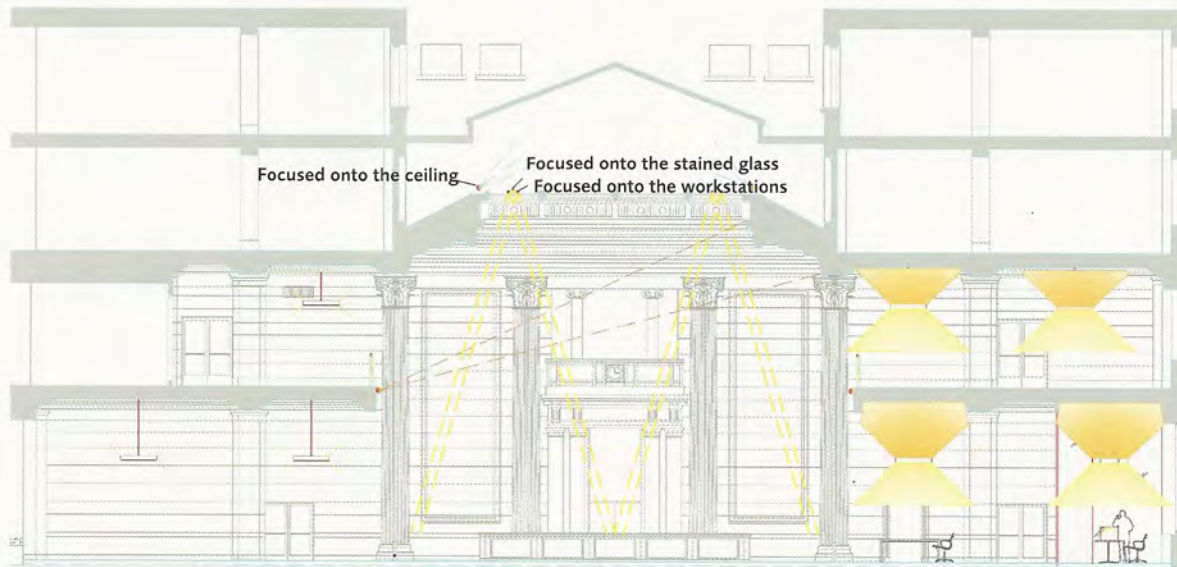
Interesting, when you consider that the decision to renovate the existing architectural space and to redesign the lighting was almost dismissed in favour of moving out of the dismal, uninspiring facility. What close collaboration between architects and lighting designers can achieve has been clearly proven in this project. The result is most definitely reason enough to stay.

In a nutshell, the challenge the lighting designers from Ombrages were faced with involved developing a concept that would do justice to the historic architecture as well as fulfilling the needs of the given volume of space. Banks are frequently housed in large-volume spaces. The concept is nevertheless to remain transparent and visible without revealing too much internal





Cleverly designed artificial lighting makes up for the lack of daylight, which is prevented from penetrating the interior via the skylight due to the closed roof construction. The workplaces located in the peripheral zones have received contrasting modern pendant luminaires.



know-how. Everything here revolves around capital. Capital underlines the long tradition of success as much as it does the modern ways of dealing (literally) with it. But the ways and means this is achieved prefer not to be in the limelight. Taking a closer look at the project and the new lighting concept after renovation, it very quickly becomes clear that this was the underlying approach.

High-ceilinged rooms bathed in light, realised by means of an artificial sky, enabled the designers to waive the need for any additional task lighting. This is not entirely without risk, given that diffuse lighting tends to be associated with a dull or uninteresting atmosphere. The luminous intensity accordingly needs to be relatively high, in this case especially with regard to the large central hall. On the upper floors, which have lower ceiling heights, it was necessary to apply pendant luminaires. Some of these are direct/indirect versions of the luminaire, applied to illuminate the historic ceiling cassette and add visual tension.

All in all, however, the colours applied – black columns and gold ornamentation – compensate admirably for the otherwise lack of contrast.

A laudable project, resolved from a lighting design point of view in the modern sense in historic architecture.

Project team:

Client: National Bank of Canada

Architecture: Architecture49 – Alexandre Sauv  (lead architect), Alexandre Landry (design architect), Nicoleta Dan-Ferenta (project manager), Pierre Baillargeon (supervising architect), Louis-Pierre Hubert (site supervisor); www.architecture49.com

Associate architect: Robert LaPierre

Lighting design: Ombrages (formerly  clairage Public); www.ombrages.com

Engineers: Bouthillette Parizeau (m/e); NCK (structural)

Products applied:

Lighting: Lumenpulse (fixtures); Lutron (controls)

Glass partitions: Muraflex