



Book of Light

office

industry

traffic

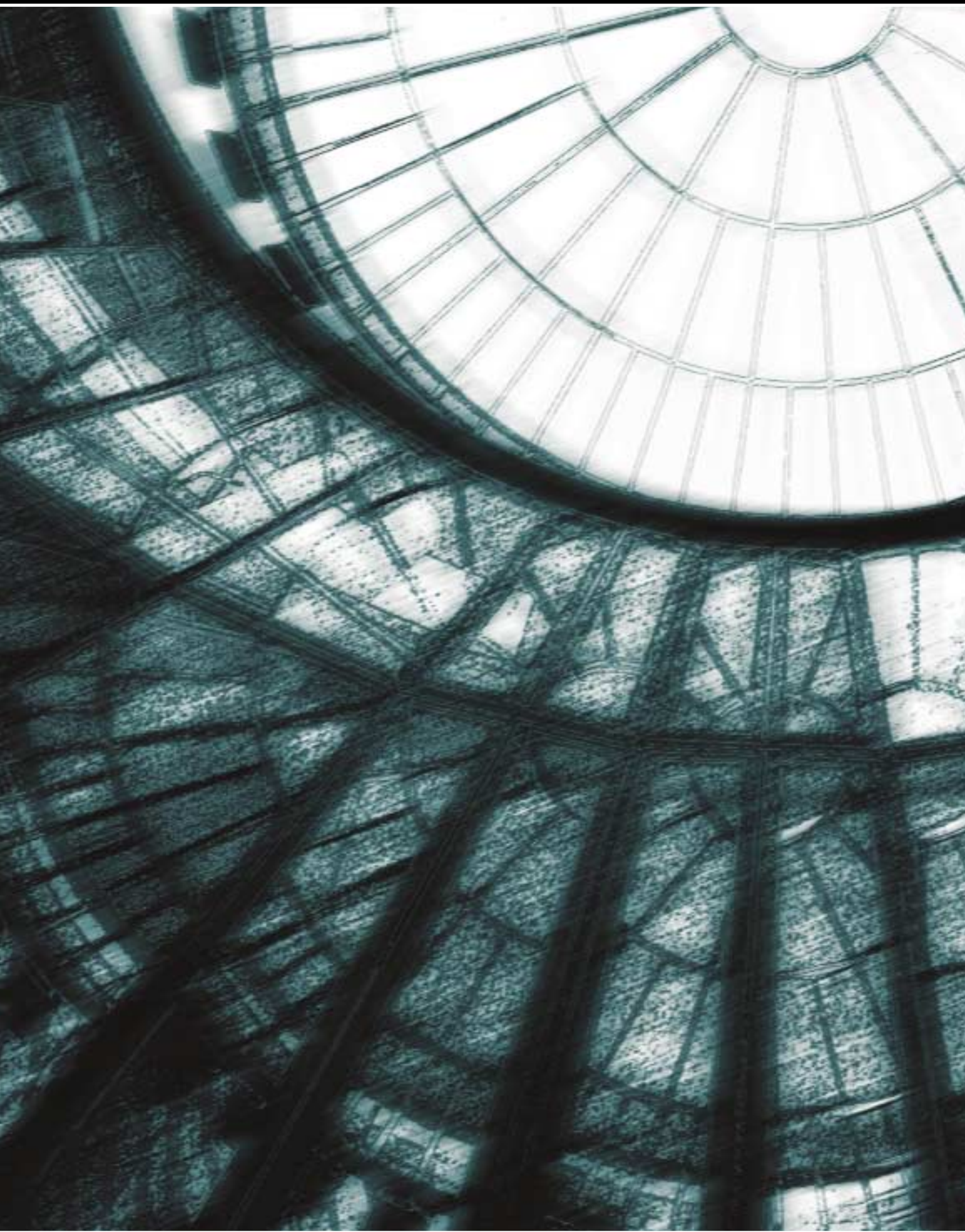
shopping

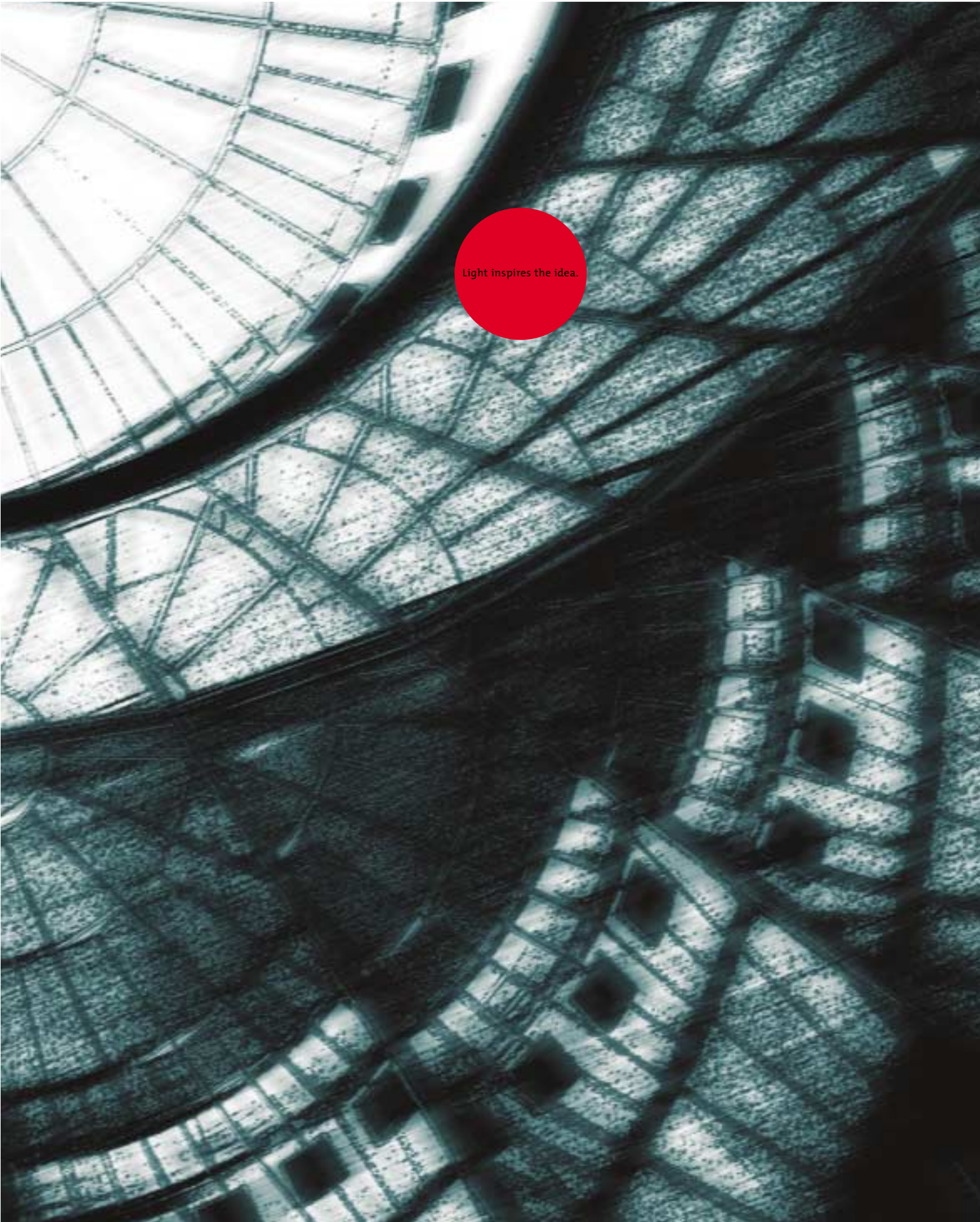
public

sports

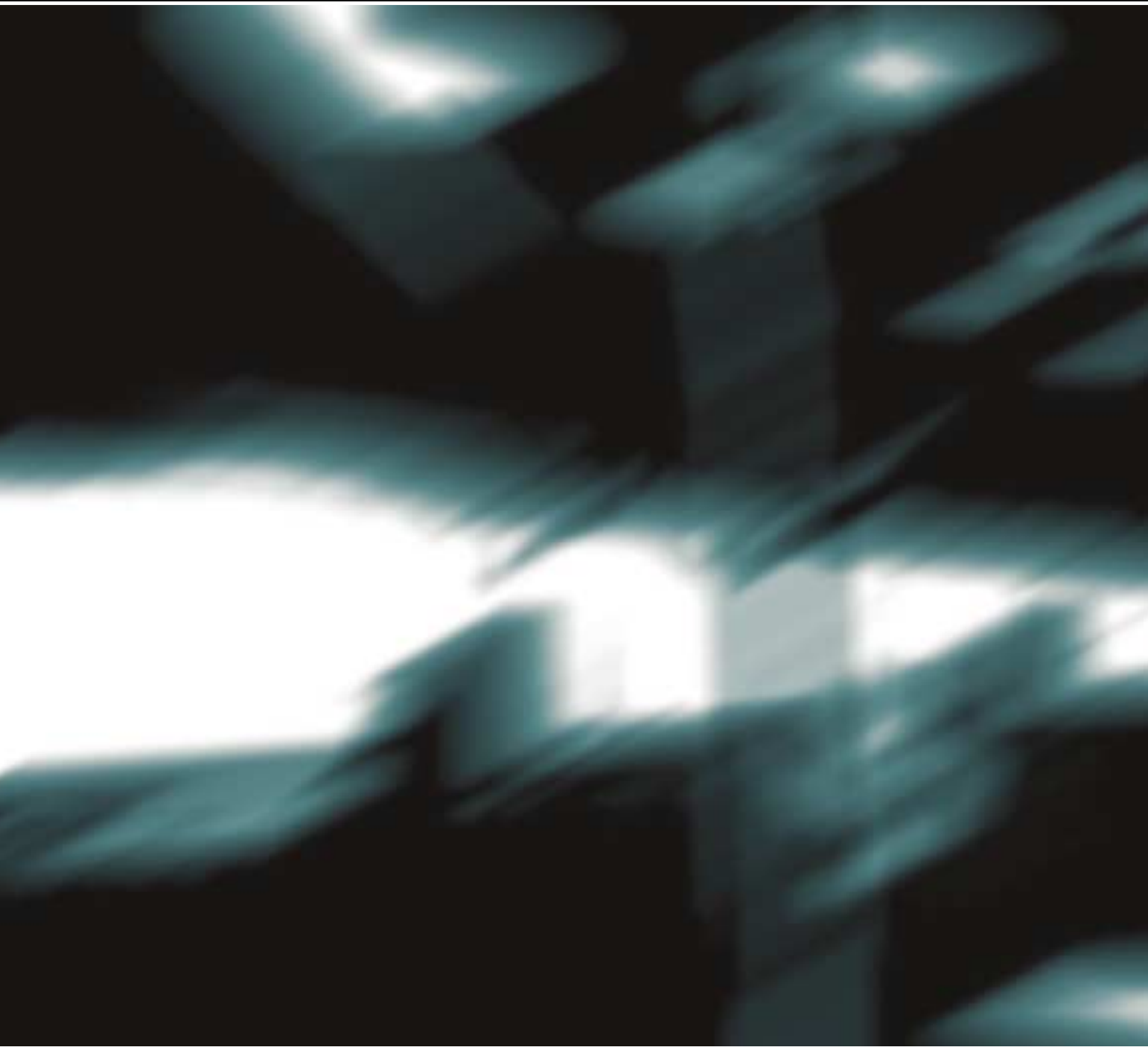
sITeco

Lighting Instruments and Concepts
for Architecture and People





Light inspires the idea.





Dr. Peter H. Emmert, CEO, Siteco

Book of Light for Consultants and Designers.

With this Book of Light we would like to give you, the architect, lighting-consultant or electrical-consultant, suggestions for the planning and designing of interior and exterior areas with the use of light. The focal point is not so much technical details as fundamental questions about functionality and aesthetics. How to plan a space in the best light in order to offer its users optimal visual conditions - that's the main theme in the first part of the Book of Light. With the use of exemplary lighting concepts, we'll show you how excellent lighting solutions can be found for: a museum foyer, an industrial plant or an office workplace. The Siteco Book of Light should be a source of inspiration, an orientational guide and an instrument for your daily work.







Light, as You Like It.

Siteco brings perfect light everywhere: light to work with and to feel good with, light for interiors and exteriors. Standardised light and individual light. We ensure the highest product quality in the development of future-oriented systems. A major commitment is competent and creative advice for our customers, whether they be architects, lighting-consultants or electrical-consultants. Our lighting consultants are always there for you, and they speak your language. Their ideas are the basis for a successful lighting implementation.











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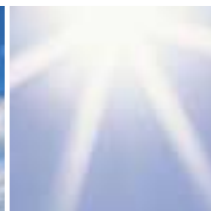
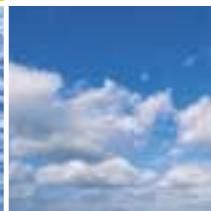
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Quantity

The eye is able to adapt itself to extreme light intensities, whether it be finding the way in moonlight conditions or detailed daytime viewing. Planned lighting levels in the area of artificial, architectural lighting range from the economically justifiable area of 1 lux to over 2000 lux.





Light for Life.

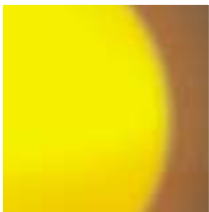
“Everything that exists lives from light”, wrote the American architect Louis I. Kahn. And the writer Novalis called light “the inner soul of life”. Without sunlight there are no sunflowers and no moonlight. Without light there would be no cosmos, no evolution and no Homo Sapiens. We see nothing without light. Light serves as orientation in space and time. Light guides our biological rhythm. It creates moods and generates atmosphere. Light stimulates and vitalises. Artificial light allows us moreover to be independent from daylight. It allows us the use of architecture 24 hours a day. Light becomes the centre of nightlife and night-time experience. It forms and shapes architecture more profoundly than daylight and becomes an unmistakable design element in the architecture of the night.





Dynamics

The dynamics of natural daylight follow the biological rhythm of the human organism. Hormones steer phases of activity by day and phases of rest by night. The use of daylight and the dynamic controlling of artificial light play an important role in the maintenance of health and biological rhythm.





Orientation.

Light in summer or light in winter, on a fresh spring day or a cloudy day in autumn, at dawn or dusk: at every instant the dynamics of daylight inform us about climatic, meteorological and seasonal changes and the progress of the day. Daylight gives us in this way a spontaneous orientation in space and time. The cycles of the cosmos allow it to become a tactile experience.

But it's not only outside that daylight serves a function. Architecture must make sure that during the daytime, contact to outside and to daylight is maintained. In the hours of darkness it's the artificial light inside of a building that takes over the function of orientation. Central planning criteria are the emphasis on routes and channels and the visualisation of architectural structures.





Colour

Shades of light can intensify the effects of colour within architecture. Warm white light emphasises warm colours, daylight white light emphasises cold colours. Shaded light on the other hand changes the appearance of colours and opens up a completely new dimension for night architecture.



comfortable/warm



gentle



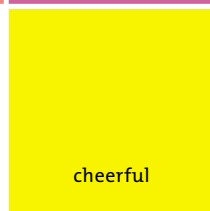
stimulating



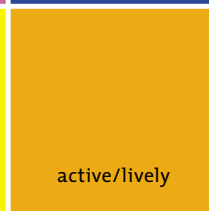
peaceful/weighty



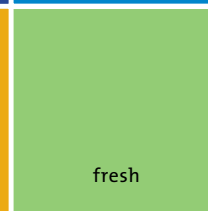
luminescent/
harmonious



cheerful



active/lively



fresh



cool



Emotion.

A central concern in the planning of light is the creation of atmosphere. Planned light imparts desired values of feeling, such as a friendly, festive and warm ambience. The starting-point for a planning approach is the function of the space. Where work is done, objectiveness is required; whoever enters a hotel room looks for security. A foyer requires an exalted light, a bar an intimate light and a restaurant a sociable light. It's here that under consideration of cultural backgrounds, a planning competence is called for when dealing with lighting. Intensity and distribution of light are of central importance for emotional effect; but colour or shade of light, colour-rendering and the brilliance of the light source also play an important role.

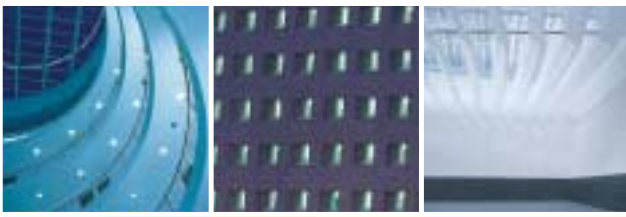






Staging.

A good lighting concept helps to significantly underscore architecture. Light helps to accentuate lines, to model surfaces and to circumscribe spaces; details in architecture can be emphasised and highlighted, provided that a lighting plan is included at an early stage in the architectural design and consequently becomes an integral part of the architecture. It can only then be guaranteed that the lighting plan assimilates the design intentions of the architect and that form, colour and materials can come into their own.



Light Effects

Shadow, brilliance and colour-rendering are important qualitative criteria for artificial light. They are decisive for the spacial properties of architecture and for the recognition of rhythm and material qualities.





Visibility

Visibility is not only a question of the strength of illumination; in architecture it's much more the result of the spacial distribution of intensity and colour of light.



Image.



Architecture does not only become visible with light; with artificial light it's possible to convey specific messages and to communicate a desired image.

The instrument of light and its impact is many and varied.

It ranges from an illuminated company logo to the deployment of defined lighting colours as a continuous element in the evolution of an image. Light facilitates night-time appearances in that it positions retail outlets and petrol stations; with the aid of lighting concepts the flagship-store becomes just as much the brand emblem as the manifestation of an industrial corporation.

In an expanded environment, lighting concepts contribute to a better townscape. With the aid of lighting, urban architecture can be communicated more convincingly. And through special lighting events an urban image can be advantageously marketed.



Quality of Light

Manpower is the most important factor in a company. Motivation and productivity are influenced among other things by quality of lighting. An investment in high-quality lighting is therefore money well spent.



Health, Vitality and Productivity.

In the workplace, productivity, a feeling of well-being and health are significantly influenced by the quality of the lighting system. An investment in high-quality lighting is money well invested. The quality of light was formerly judged solely upon the extent of the lighting levels. Today the criteria are more differentiated.

We are aware of these new criteria in connection with human biological rhythms, for example during night-shifts or in control-rooms. An important factor here is a glare-free working environment, appropriate lighting shades, good colour reproduction as well as adequate brightness within the field of view; daylight supply and viewing area are just as much quality criteria as lighting dynamics and the individual adjustment of lighting conditions according to the respective optical activity. - Light for Vitality.





Details of Architecture

Architecture is not solely delineated by lighting effects. Luminaires and lighting systems themselves are design elements and need to be carefully planned as architectural details. That's why we assign design to renowned architects and designers.





To Behold and Conceive

For the selection and layout of lighting there exists - depending upon the lighting project - a series of guidelines. Luminaires are instruments of design; and for every lighting assignment it is necessary to select the most suitable lighting equipment. The selection is dependant upon the needs of the job as well as upon site specifications, luminaire selection and the desired lighting effect. Formal criteria as well as functionality play a part in the design of lighting, especially in connection with the relation of luminaires to architecture. As with a sculpture, they can either attract attention or be placed discreetly in the background. The lighting solution therefore results from the interaction between lighting needs, technical specifications, architectural structures and the design considerations.

