LANDSCAPES
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PAYSAGES
L'ARCHITECTURE DE PAYSAGE AU CANADA

WINTER | HIVER 2013
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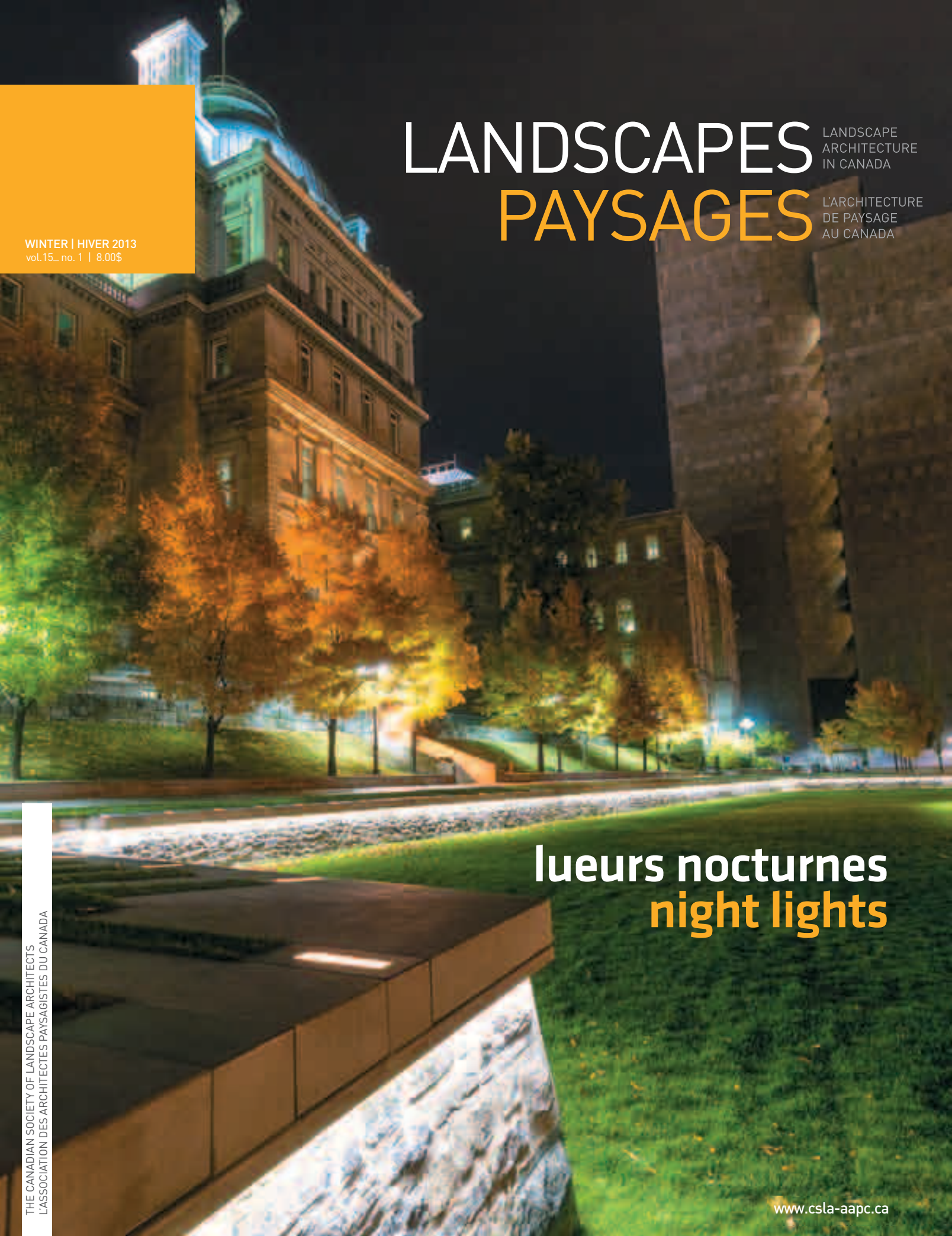

lueurs nocturnes
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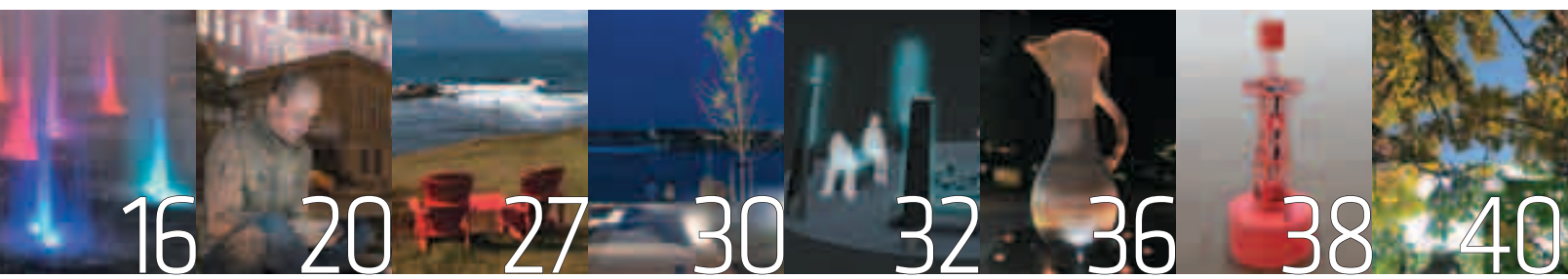

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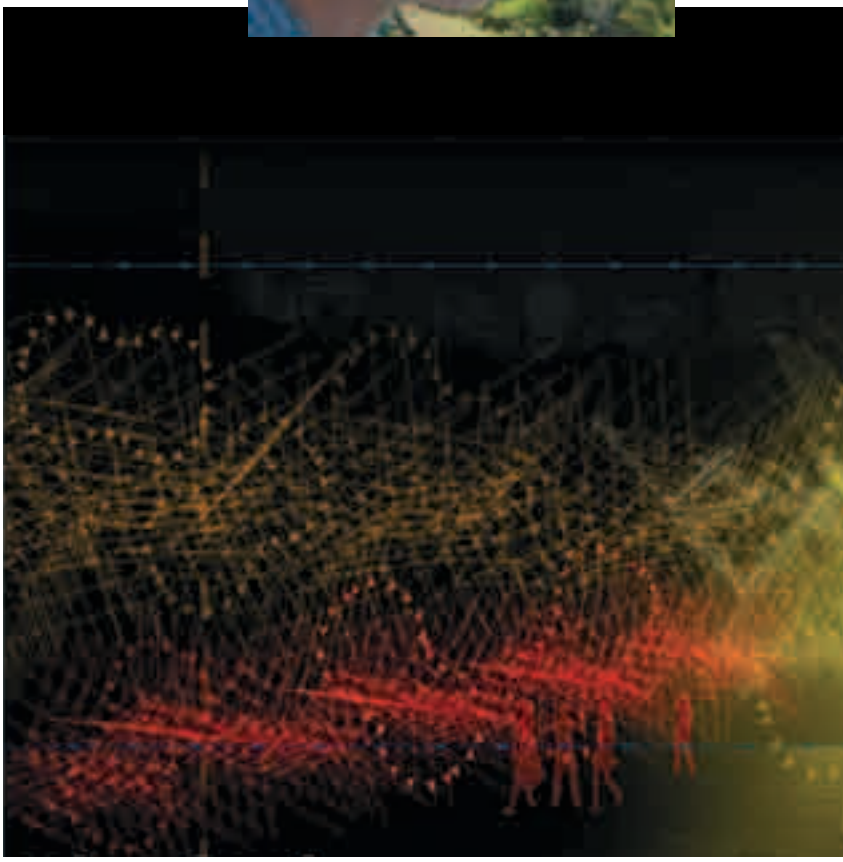


EXCITABLE PHOTONS IN THE ETHER
PHOTONS AFFOLÉS

EN_

AS A PHENOMENON our current scientific explanation of light is that it is "electromagnetic radiation" comprised of excitable photons that move around the ether as waves and/or particles, sometimes being absorbed, sometimes being repelled. For instance, in the case of green leaves all but the green radiation is absorbed.

Yet for those of us lucky enough to have observed the aurora borealis or aurora australis, it is obvious that light can be transcendent, more radiance than radiation. This issue of L|P explores multiple facets of lighting, from the technical to the inspired, from how to use lighting to make parks safer to exploring the consequences of over-illumination; from how to affect our perception of place through lighting to how to look beyond the shelf to design place-responsive fixtures.

The French impressionist painter, Edward Degas wrote, "*Work a great deal with evening effects, a lamp, a candle, etc. The tantalizing thing is not always to show the source of light, but the effect of light.*" Indeed the effect of light should be at the forefront of our minds as we consider where, how, and most importantly, *why* we light.

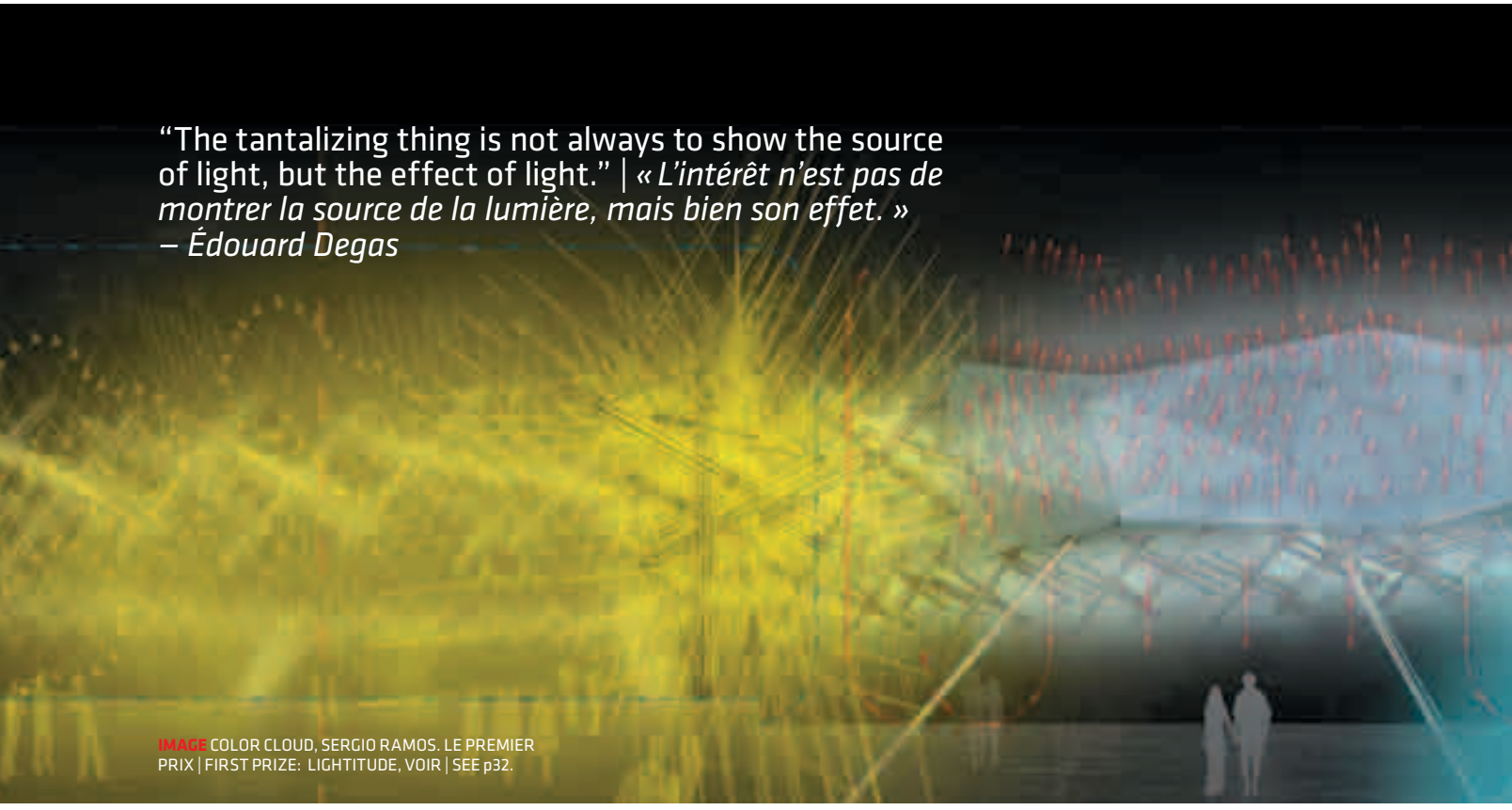
FR_

LA SCIENCE MODERNE nous décrit la lumière comme un « rayonnement électromagnétique » composé de photons affolés se déplaçant sous forme d'ondes et de particules dans l'espace, tantôt absorbés, tantôt réfléchis. Par exemple, dans le cas de feuilles vertes, tout le rayonnement est absorbé sauf le vert.

Mais pour ceux d'entre nous qui avons eu la chance d'observer les aurores boréales ou australes, il est évident que la lumière peut être transcendante, plus d'éclatante que rayonnante. Ce numéro de L|P explore les multiples facettes de la lumière, de la technique à l'inspiration en passant par la façon d'utiliser l'éclairage pour rendre les parcs plus sûrs, d'explorer les conséquences de la surillumination; d'influer sur notre perception du lieu grâce à l'éclairage et de regarder au-delà des modèles préconçus pour concevoir des luminaires adaptés à leur cadre.

Le peintre impressionniste français, Édouard Degas a écrit : « *Travaillez beaucoup avec les effets du soir, une lampe, une bougie, etc. L'intérêt n›est pas de montrer la source de la lumière, mais bien son effet.* » En effet, l'effet de la lumière devrait être au centre de nos préoccupations alors que nous nous demandons où, comment, et surtout, pourquoi nous éclairons.

KConnery@richmond.ca



"The tantalizing thing is not always to show the source of light, but the effect of light." | *« L'intérêt n'est pas de montrer la source de la lumière, mais bien son effet. »* – *Édouard Degas*

IMAGE COLOR CLOUD, SERGIO RAMOS. LE PREMIER PRIX | FIRST PRIZE: LIGHTITUDE, VOIR | SEE p32.

UPFRONT PROLOGUE

99 RED BALLOONS

NADI URBAN DESIGN STUDIO

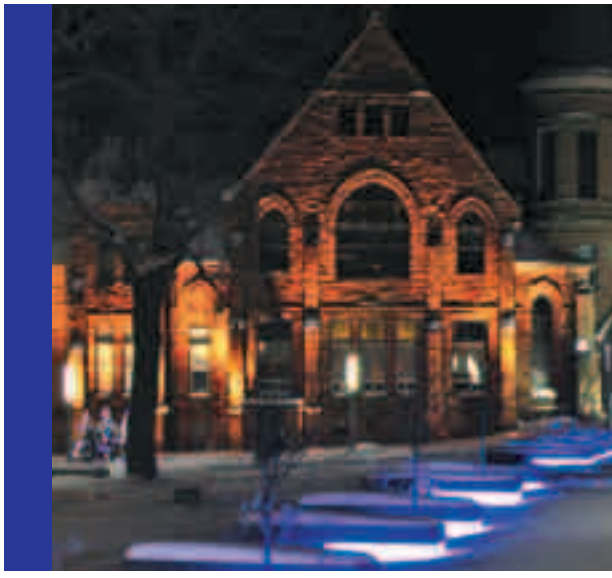
A WINNIPEG DESIGN firm, Nadi Urban Design Studio, is among the top four winners in an international design competition that attracted over 250 submissions from 39 countries around the world. The Land Art Generator Initiative (LAGI) coordinates this bi-annual competition, calling upon interdisciplinary teams to conceive of public art installations that uniquely combine aesthetics with utility-scale clean energy generation. The 2012 focus: Freshkills Park in Staten Island, New York City.

The Nadi submission, 99 Red Balloons, combines the iconic red balloon with innovative photovoltaic (solar), piezoelectric and LCD technologies, to create an interactive art installation that potentially powers up to 4,500 homes on an annual basis. Each of the red balloons is lined with transparent organic solar cells developed by MIT. When engaged by visitors the sensors will trigger the color to fade from brilliant red to crystal clear, revealing the solar generating system within.

The playful art installation is intended not only to create a distinct landmark for New York, but also to deliver a message about environmental sustainability: the whimsical giants float 30 metres above the ground where landfills once dominated. As the landfill deflates, parkland emerges. Nadi Studio's 99 balloons deliver something of a metaphoric souvenir that recognizes the park's history and celebrates its transformation into a viable public space. Swaying softly with the wind, the balloons will also contain LED lights which will glow at night.

PHOTO NADI DESIGN

Founded in 2010 by Emeka Nnadi, Nadi Urban Design is an eight person multidisciplinary studio comprised of Landscape Architects, Urban Designers and Interior Designers. The Team: Scott Rosin, Meaghan Hunter, Danielle Loeb, Emeka Nnadi, Kara McDowell, Indrajit Mitra, Narges Ayat, Denis Fleury. Winnipeg, Canada. **nadi-design.com | imagine@nadi-design.com**



LIGHT…BY THE BARREL

JILL ROBERTSON

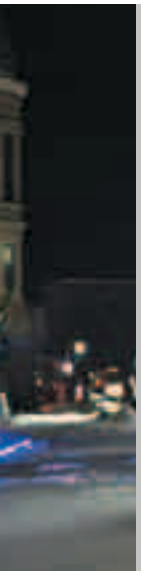
LANDSCAPE ARCHITECTS ARE increasingly required to balance multiple considerations beyond the aesthetics of design. Nowhere is this more true than in remote and isolated communities, such as Hopedale, Labrador. There, where access to most commodities can be limited, the impacts of a design have far reaching implications. Ekistics Planning and Design is presently completing an adaptive reuse master plan for Hopedale's Moravian Mission, a national historic site that has great potential to benefit the community. However, the broader issue of energy security has warranted special consideration from the study team.

Hopedale is a community largely powered by oil. Long, cold winters with limited daylight hours pose logistical challenges for many types of green energy generation. In a community where provisions are flown in during the winter, fuel access and supply is of great concern. As the restoration and adaptive reuse of the Mission site moves forward, it will be essential that the increased demand on local energy supplies not detract from the overall welfare of Hopedale residents. With a communal and limited supply of oil required to run everything from local generators to skidoos, running low on fuel is a realistic possibility. Suddenly the selection of site lighting, both internal and external, has broader implications for the entire community.

The Hopedale Adaptive Reuse project is still in its infancy with detailed design several years away. But the challenge of energy security is very real, and requires consideration even at the broad scale of a master plan. Every decision made now can have far reaching implications: even something as simple as installing a light on a building can matter to the community.

PHOTO JILL ROBERTSON

JILL ROBERTSON is a professional juggler who specializes in balancing landscape architecture, family, and life with occasional success. When she is not at work as Director of Planning at Ekistics Planning and Design in Dartmouth, NS, you may find her chasing her children through the park or clutching a giant cup of coffee. **www.ekistics.net | jill@ekistics.net**



SOMETHING OLD, SOMETHING NEW

JILL ROBERTSON

IT IS OFTEN thought that historical design needs to focus specifically on replication: if it doesn't restore or recreate exactly, it is not appropriate. This has happily proven not to be the case in Amherst, Nova Scotia, where a bright facelift has reinvigorated an important open space, shining a new light on the downtown and its history.

As the central open space in Amherst, Victoria Park is surrounded by several of the city's unique red sandstone heritage buildings. The Park has long had an inherent historical character and, as home to the cenotaph, a commemorative significance, yet it was a poorly used, underwhelming space until its redevelopment in 2011.

Amherst visitors today see a bright and contemporary urban park, which blends modern site furnishings with traditional materials. Historical details are on display: the park showcases the very best of Amherst's built heritage. The marriage of old and new is evident in the overall lighting design. Modern LED lights have been integrated into natural granite benches inscribed with the names of the four Amherst-born Founding Fathers of Confederation. The benches change colour, and can be programmed to tie into the Park's sound system so that musical events have their own unique lighting design. The brightly coloured LED lights add a contemporary feel to this historic site, and have helped broaden its seasonal appeal, drawing out even the most ardent winter-haters to enjoy the colourful glow in mid-January.

VICTORIA PARK IN AMHERST, NOVA SCOTIA
PHOTO JILL ROBERTSON

CAMBRIDGE LIGHTS UP!

www.csla-aapc.ca Des idées lumineuses à Cambridges

In our summer issue of L|P, we told you how landscape architecture firms were planning immersive installations for the Common Ground event held in Cambridge, Ontario. Since the installations had not been built by press time, we are showcasing the happy results here.

CITY POWER STATION TAKEN HOSTAGE!

VLAN PAYSAGES

1

AS PART OF the Project Common Ground event held at Ontario's Cambridge Galleries this past summer, vlan paysages installed a courtyard surrounding a small power station in a residential area of the city of Cambridge. The power station became, poetically, a lantern giving power to the place – a reflection on the capacity of urban infrastructures to become public spaces. La Lanterne bordered a heavy traffic area, a bicycle path, a sidewalk and the Grand River. Reflecting tape in a bright yellow colour was woven through the wire fence to form words 1.5 m high. The weaving technique itself was a reminder that in this region, the textile industry was a key economic engine of the industrial era. A bench adjacent to the space offered a more detailed perspective.

MICHELINE CLOUARD and **JULIE ST-ARNAULT** of vlan paysages often work with municipalities to build landscape experiences which engage the viewer by transforming our perception of the space. **www.vlanpaysages.ca**

THREAD

JANET ROSENBERG & STUDIO

JANET ROSENBERG & Studio literally enveloped visitors in a kinetic display that took its inspiration from the region's agricultural and industrial textile heritage. Walking through the interactive installation, called Thread, was an immersive experience – like walking through a shimmering wheat field swaying in the breeze. Thread was constructed in the historic Charitable Reserve adjacent to the traditional European slit barn known as the ECO Centre, where its identity was transformed as day transitioned to night. In its dark rural landscape, with minimal light pollution, Thread became a dynamic glowing beacon, its light adding dramatic contrast to the silhouette of the slit barn, and highlighting the trees against the night sky. The lighting, designed in collaboration with Moonstruck Landscape Lighting and SGI Lighting, highlighted the structure with white LED lights that minimized colour shifting and maximized the intensity of the green strips of fabric and orange mesh canopy.

PHOTOS 1 VLAN PAYSAGES **2 + 3** JEFF MCNEILL PHOTOGRAPHY

JANET ROSENBERG & STUDIO has an extensive portfolio of work that includes public, institutional and commercial spaces as well as green roofs, terraces and private estates. **www.jrstudio.ca**

2

4

EMPTYFUL

BILL PECHET

emptyful is a large tracing of a container, 11 metres high, made of stainless steel, lights, water, fog and snow. It is a meditation on the idea that Winnipeg, and the prairies that surround it, is *full* of emptiness…being a boundless space where various phenomena such as weather, light, seasons and human endeavour come and go. This fullness of emptiness is portrayed by the container: it suggests containment yet its openness actually contradicts this, by letting light, wind, rain and snow just flow through. The container shape also suggests an experiment, as a way to acknowledge that the city *is* a constant experiment, a flow of flux.

Through the open vessel, Winnipeg architecture is framed and highlighted, and the container's five-degree slope towards the library produces a feeling of motion within the work. However, the horizon line of its lights and water remains parallel to the ground, and within this line are the 156 nozzles that produce a rain curtain and fog during the summer. At night, these water elements and the container itself are lit with shifting greens, blues, aquas and whites to cool and calm the summer heat. In winter, the lights pulse with fire colours. When the snow or rain is caught by these colours, the void suddenly fills with a giddy snow-globe effect.

emptyful gives Winnipeg something that is iconic and easily recognized…a photo-op, and a moment of delight. Situated at the heart of downtown in the Millennium Library Park, it was created as a Winnipeg Arts Council Public Art Project, and has received a steady stream of attention since its opening in summer, 2012.

emptyful gives Winnipeg …a moment of delight.
emptyful apporte à Winnipeg … un moment de ravissement.

3

PHOTO 4 GERRY KOPELOW. WWW.GERRYKOPELOW.COM
For Bill Pechet's bio, see page 49.
bill@pechetstudio.ca | info@pechetstudio.com
For more about emptyful: http://bit.ly/WdGNcS

KEVIN CONNERY

WE ARE MODERN DAY LAMPLIGHTERS

FR_ www.csla-aapc.ca
LES ALLUMEURS DE RÉVERBÈRES MODERNES

BEFORE LIGHT-EMITTING DIODES and fluorescent lamps arrived, before halogen, metal halide and high-pressure sodium luminaires, and before Edison's long-lasting incandescent light bulb, there were candles and reservoirs of oil perched atop poles. And there were lamplighters who roamed the city at dusk with ladders to light the street lamps and then returned at dawn to put the flames out. The lamplighter brought light to the dark, and in the process captured the imagination of a literary giant, Robert-Louis Stevenson.

LAMPLIGHTERS SANS WICKS

One could argue that landscape architects are modern day lamplighters, *sans* the ladders and wicks, of course. We play an important role in the experience of cities after sunset, and by extension, in how the night landscape stirs the imagination. Our decisions can and should transcend the quantitative dimensions of fixtures, poles, photometry, durability, efficiency and safety to explore the phenomenology of light and dark, the impact of light on circadian rhythms and ecological processes, and notions of "Dark Sky." At times, we should even ask the question, "Do we really need artificial lighting?"

OUR INNATE FEAR OF THE DARK

Composite images of the earth at night reveal the extent of our desire to illuminate. Few parts of the inhabited planet are truly in the dark. In the developed world, our propensity to light all but the most awkward or forgotten corners of our cities speaks to both our innate fear of the dark as well as how cheap our energy supply is.

There are unquestionably tremendous benefits associated with lighting the night. Street lights make navigating city streets safer. Lighting in parks and along walkways makes for safer places that are useable by more people, for more hours. As I write this article, I am wholly dependent on light, both that which resides inside the computer as well as the nearby floor lamp. As I rode home from work this evening, I relied on my bike's battery-powered lighting both to illuminate the path and to illuminate *me* to reduce the likelihood of being run over.

HOW AND WHY WE LIGHT

Yet in 2008, my sense of how and why we light shifted profoundly. I spent time in a remote part of Africa where the nearest electrified light was hundreds of kilometres away. When dusk receded and darkness settled in, the blackness rendered sight inconsequential. In its place other senses came forward: the smell of savannah grasses; the rumbling roar of lions; the feeling of the dry tropical air. It was a reminder of how much our experience of the world is dominated by what we see, perhaps to our own diminishment. In our rush to automatically apply minimum acceptable lumen levels established by, among others, the Illuminating Engineering Society, artificial lighting is now so ubiquitous that we have come to accept it as an entitlement. This blind embrace of standards is not without consequences.

Nocturnally migrating birds have been found veering off their traditional flyways and drawn to oil rigs in the North Sea. Dutch researchers found these birds were disoriented and attracted by red and white light (containing visible long-wavelength radiation), whereas they were clearly less disoriented by blue and green light (containing less or no visible long-wavelength radiation). There are many other faunal impacts. Newborn sea turtles are crawling inland rather than moving towards the sea and nocturnal insects are flocking to the cities.

In response to high mortality rates due to birds crashing into buildings, Chicago became the first U.S. city to encourage building owners to dim the lights in tall building. Through the "Lights Out" program, Chicago's tall buildings have all turned off their decorative lights during spring and fall bird migration. The City of Toronto's "Lights Out Toronto" initiative is similarly intent on reducing the impact of artificial light on avian wildlife. Provocative posters illustrate the dangers buildings and urban areas pose for migrating birds and

what building tenants can do to help minimize the problem. Furthermore the city has developed "Bird-Friendly Development Guidelines" that are focused on reducing the adverse impacts of artificial lighting on birds from buildings and streets.

OUR CIRCADIAN RHYTHMS

More troubling is emerging research on the impact of artificial lighting on human health and specifically circadian rhythms. At a November 2012 American Medical Association conference, researchers looking at the "Adverse Health Effects of Nighttime Lighting" presented some of their preliminary findings. These include correlations between low levels of illumination in the blue or white fluorescent spectrum and the disruption of melatonin secretion. This, in turn, is being investigated for potential carcinogenic effects related to melatonin suppression, especially breast cancer. Other diseases that may be exacerbated by circadian disruption include obesity, diabetes, reproductive problems, depression and mood disorders.

Another significant issue is related to energy consumption and greenhouse gas emissions (GHG), particularly where electricity is generated in coal-fired power plants. For example, during the City of Nanaimo's GHG audit it was found that street lighting accounts for 15 percent of energy use, 38 percent of energy costs, and 6 percent of GHGs emissions. With increasing global demand for electricity there is the real prospect that over the next few decades the extent and intensity of illumination in the city may have to be prioritized. This possibility is not necessarily a bad thing as it may allow us to once again see the stars.

THE NIGHT SKY IN THE WORLD: SATELLITE MONITORING OF ARTIFICIAL NIGHT SKY BRIGHTNESS AND STELLAR VISIBILITY | LE MONDE VU DE NUIT : SURVEILLANCE PAR SATELLITE DE LA LUMINOSITÉ DU CIEL NOCTURNE ET DE LA VISIBILITÉ DES ÉTOILES. www.lightpollution.it/dmsp/

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THE LAMPLIGHTER

My tea is nearly ready and the sun
has left the sky.
It's time to take the window to
see Leerie going by;
For every night at teatime and
before you take your seat,
With lantern and with ladder he
comes posting up the street.
– Robert Louis Stevenson

ROBERT DICK

HOW MUCH LIGHT IS ENOUGH?

IN DESIGNING A park, we would like to make it as natural as possible – but what is natural? In the evening, it doesn't take long for the outdoor light levels to fall below the detection limit for some commercial photometers – thirty minutes or so. At this time, the light that shines out through a window illuminates the ground more than the ambient light from the sky. (The sensitivity of our eyes increases after sunset, so we can still see well enough to walk about without artificial lighting.)

Of course, if we stepped outside from a brightly lit room, we would be blind. This is why city illumination levels are so bright. But once our eyes have adjusted, it is even possible to read a newspaper by the light of a full moon, which is a bit less than 0.3-Lux. Moonlight is so bright that most amateur astronomers don't bother observing the sky during a full moon: the moonlight will overwhelm most stars. When I was younger and driving the Trans-Canada highway across northern Ontario, the full moon often comfortably illuminated the road ahead. As soon as another car approached, however, visibility was considerably restricted. Glare ruins our visibility.

In a park setting, if there is no exposed lighting, starlight alone will provide enough illumination to walk across an open field (about 0.01-Lux). Faster activity like running, riding a bicycle and driving a car will require much higher levels of light, though not as much as you might think. But if the outdoor environment is to be used by pedestrians, the sky glow above the city may be sufficient without any additional artificial lighting. The trick is to convince park managers. What they need and what they want can be very different.

ROBERT DICK developed the outdoor lighting guidelines for Parks Canada and the Dark Sky Preserve Program for the Royal Astronomical Society of Canada, arguably one of the most successful programs in the world to protect the night environment.
rdick@csbg.ca | www.darksky.org

1

ONTARIO LIGHTS UP | L'ONTARIO S'ILLUMINE

EN_
AS THE SUN goes down, the lights come up! What better time to check out three of Ontario's most inspiring landscapes: Toronto's Sugar Beach, Thunder Bay's Gathering Circle... and the surreal habitat of urban skateboarders, Toronto's Underpass Park.

FR_www.csla-aapc.ca
À LA BRUNANTE, les lumières s'allument! C'est l'heure idéale pour admirer trois des paysages les plus inspirants de l'Ontario : Sugar Beach, à Toronto, le Gathering Circle de Thunder Bay... et l'habitat surréel des skaters urbains, le parc Underpass de Toronto.

Sugar Beach

GILLES ARPIN

IN 2012, SUGAR BEACH *garnered yet another accolade: an ASLA Honor Award for Design."Playful and whimsical, this design transforms an industrial space into a real breath of fresh air along the waterfront," wrote the Jury. "It's fun to be a designer with a project like this." Here, Gilles Arpin of ÉCLAIRAGE PUBLIC speaks of his part of the fun – the intriguing lighting design..*

WATERFRONT TORONTO: Sugar Beach is indeed a whimsical place, a place where pink parasols invite us to relax and experience the unique phenomena of the surrounding waterfront. It is essentially a design built on nuance, where deliberately orchestrated details come together, and the playful space becomes greater than the sum of its parts.

The lighting itself is a study in nuance. Since it is part of a wider Toronto Waterfront lighting scheme aimed at establishing functional lighting along the water's edge promenade, the design intentionally focuses on discretely enhancing the landscape elements: beach, bedrock outcrops and vegetation.

A ring of LEDs under each umbrella casts a soft glow over the pink hues. The light sources are positioned high on the posts so they remain concealed from passers-by on the promenade. From the beach, the LED rings look like small necklaces strung around the slender posts of each umbrella. The emphasis is on brilliance rather than intensity. Yet despite the minimal intensity of these lights (1 lux), it is easy to see people on the beach. A unique feature of this apparatus is its use of induction through modules fitted with a small coil to generate electricity used by the LEDs. This induction system eliminates the risk of injury that might arise from a potential breakage in the wire.

For the illumination of the bedrock outcrops and vegetation clusters, we adapted the lighting used throughout the water's edge promenade (by west 8/DTAH) and added a two-metre extension to support an armature for projection lighting. The lights were selected to cast different colours, depending on where they were to be directed. For vegetation, we used a colour temperature of 6,500 K to emphasize greenery. For the bedrock outcrops, we used a colour temperature of 3,000 K to accentuate the coloured stripes. The projection lighting is fitted with barn doors and mounted on an adjustable exterior feed rail to accommodate power supply and positioning. The rail and projectors are We-eF FLC-131 type, with 70-watt Iwazaki MT70D/G12 single-ended quartz metal halide lamps in 3,000 K and 6,500 K variants. The Megabrite LED module and generator used for the umbrellas are from HEICO Lighting, with a power consumption of 1.3 watts per module.

2, 3

From the beach, the LED rings look like small necklaces strung around each umbrella's slim post.

CREDITS Claude Cormier + Associés Inc., Montréal. **Lighting Design** Eclairage Public **Client** Waterfront Toronto.
www.claudecormier.com
www.eclairagepublic.com

PHOTOS 1 + 2 WATERFRONT TORONTO: NICOLA BETTS **3** JESSE COLIN JACKSON **4** GILLES ARPIN

4

Underpass Park

NATHAN BRIGHTBILL

UNDERPASS PARK *was honoured with the 2012 Brownie Award presented by Canadian Urban Institute for the year's Best Small Scale Brownfield Project.*

WEST DON LANDS, TORONTO: Patterns of development, particularly roads, create holes in the urban fabric of the city. These underutilized spaces are often perceived as dirty, derelict, dark and unsafe. They often are exactly that – but they also present an opportunity for landscape architects, as we find ways to knit urban neighbourhoods together across previously inaccessible obstacles. One such space, Underpass Park, has become the centrepiece of the developing West Don Lands in Toronto.

Underpass Park presented serious challenges to the design team. The existing street network divides the space into three blocks, and about three-quarters of the site is covered by overpasses. To cast these problems in a different light, Phillips Farevaag Smallenberg, with The Planning Partnership, set three strategies that capitalized on the existing overpass structure. The weather protection the overpasses provided would guide programming decisions; the multi-functional ribbon-like wall structures would be used to direct movement through the site, and the existing structure would be reinvented as a sculptural canvas for light.

Because the space was already dominated by support columns from the overpasses, the team left the majority of the park open for circulation and flexible activities. The curving walls formed zones for skateboarding, basketball and ball hockey, which all benefitted from the coverage provided by the overpasses for year-round play. In uncovered park spaces, designers softened the site design with planting beds and a children's play zone.

Light plays a crucial role at Underpass Park. On the angular sides of the columns, uplighting frames and artfully reinvents the space, providing an animated experience at night while aiding with wayfinding. The in-ground LED uplights build feelings of safety, and for visual interest, can be programmed to create a constantly shifting light experience. Existing graffiti on the columns was retained, and has become an informal urban gallery that glows on the lit columns at night. A reflective public art piece, *Mirage*, created by Paul Raff Studio, adds to this interplay of light, while brightening the covered spaces during the day.

The park has been heavily used since its opening. (The final phase is set to open in spring 2013.) With new housing nearby, Underpass Park will be an integral public space for the new neighbourhood. What could have been a forgotten and fragmented patch of land has become one of Toronto's most exciting new urban spaces.

…the existing structure would be reinvented as a sculptural canvas for light.

CREDITS **Design Lead** Phillips Farevaag Smallenberg | **Contract Administration** The Planning Partnership
www.pfs.bc.ca

PHOTOS DOUBLESPACE PHOTOGRAPHY

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Prince Arthur's Landing

CALVIN BROOK

SINCE ITS OPENING *in December, 2011, Prince Arthur's Landing has been honoured with eleven design excellence awards nationally and internationally, including the International Downtown Association's 2012 Pinnacle Award for Public Space.*

THUNDER BAY, ONTARIO: By night, a network of soft lighting illuminates the curving, luminous shell form of the Gathering Circle. Visible from many vantage points throughout the City of Thunder Bay, the bentwood shroud is a "light-catcher"– a patterned surface of overlapping, divergent planes that enables views through its wooden frame onto the adjacent waterfront and to the City's downtown. The eighty-foot (24 m) open-air pavilion is a space for ceremonies, blessings, music and theatre, but whatever the season or time of day, the bentwood is at play with light and space, its subtle transformations reflective of the profound beauty and spiritual resonance of Lake Superior's north shore.

The Gathering Circle sits in the Spirit Garden, a naturalized landscape that has become an ecologically rich wetland typical to the Thunder Bay Region. The garden and its structure together mirror Aboriginal concepts of the inclusive circle, peaceful co-existence and respect for the natural world. This sense of "embedded culture" is, in fact, at the heart of the larger Prince Arthur's Landing project as a whole. Prince Arthur's Landing is a mixed-use village and park reconnecting the city with its waterfront; new businesses are opening, and people are flocking to the lakeshore.

Public art is integrated throughout, linking the experience of place to cultural touchstones including poetry, prose and extracts from letters written by historical figures. *Jiigew,* twin 70-feet tall corten steel beacons located on Piers 1 & 3 of the waterfront, mark the place where water and City meet. Each displays an array of LED lights that scroll in Morse code, relaying traditional Aboriginal stories. From the tip of the Piers, walkers can hear the stories broadcast from speakers in English and Ojibway.

…the bentwood shroud is a "light-catcher"– a patterned surface of overlapping, divergent planes…

CREDITS **Design:** Brook McIlroy with Ryan Gorrie (Gathering Circle) spmb (JIIGEW) | **Thunder Bay Waterfront Project Manager:** Katherine Dugmore.
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Video:http://bit.ly/141fbLo

PHOTOS COURTESY BROOK MCILROY: PHOTOGRAPHER DAVID WHITTAKER

1-3

PETER SOLAND WITH AXEL MORGENTHALER;
CHAMP-DE-MARS PHOTOS BY JEAN LANDRY

CHAMP-DE-MARS :
SHEDDING LIGHT ON HISTORY

4

FR_www.csla-aapc.ca

CHAMP-DE-MARS : LA LUMIÈRE AU SERVICE DE L'HISTOIRE

Restauration et mise en valeur des vestiges archéologiques des fortifications de Montréal

EN_

ALMOST 200 METRES long, the stone ruins at Montreal's Champ-de-Mars mark the site of a comprehensive military fortification that stood for a century (1717–1817). Today, the archaeological remains are at the heart of this important civic space.

In 2009, when it became clear that these evocative ruins were deteriorating, the city of Montreal commissioned us to find a solution. The walls had been restored initially for Montreal's 350th anniversary just fifteen years earlier in 1992, but to ensure the preservation of this archaeological gem, the restoration work needed to be redone and the low walls clearly needed a protective cap.

For the cap design, we departed radically from tradition with an indisputably modern intervention. The cap would not be just an architectural work covering the remains. Rather, we envisioned Champ-de-Mars as a landscape. Our design was grounded by a stainless steel strip which lines the walls' edges, retaining alternating strips of limestone and grass whose dimensions indicate the thickness of the original walls. This strategy subtly wove together the stone ruins and the grassy parade ground, forcing a double reading of the site. By highlighting the military geometry of the fortifications, we allowed the landscape's narrative to take centre stage.

THE NOCTURAL EXPERIENCE

From the earliest design phases, our design and production team envisioned a landscape transformed by light – light designed to powerfully underline the scale and strong lines of the fortifications, and create a nocturnal experience. We turned to lighting designer and artist Axel Morgenthaler of Photonic Dreams, whose concept design became an adventure for us all.

We knew that there is a risk in using cutting-edge technology in an unconventional manner, but every creative process has risks. Axel immediately shared the artist's view of light as a fascinating creative medium.

"From the beginning, light was central to our brainstorming discussions," he said. "My contribution was to focus on the most appropriate lighting products. In this case the most miniaturized would hew to the overall design goal. The next step involved the first in situ tests to check the appropriateness of the apparatus and the prototype enclosures, as well as workshop tests to finalize the industrial design of the cap. During the programming phase, the work was repeated in situ.

"Each lighting piece is dynamic," explained Axel. "Only by seeing the project in its environment is it possible to program the lighting intensities. I cannot conceptualize my work beyond that! In that magical moment, I react directly to my experience of the place and the evocative power of light. Obviously, LED technology allows for tremendous flexibility at that level."

At Champ-de-Mars, two lighting components are at work. To cast a soft white glow along the walls' remains, Axel specified the longest lighting apparatus in Montreal: two times 200 metres of uninterrupted linear LEDs. This intensity of the glow fluctuates, creating the impression that the ground is breathing and history is alive. Axel, the artist, sees this fluctuation as representing natural motion, as if the story of the old stones is taking flight in our imagination. "One inspiration is the movement of waves on water or the beating of a bird's wings," he said. "Normally, the light on the walls varies slightly in intensity, with lights sometimes interacting in phase and sometimes out of phase."

1 ILLUMINATION THAT TELLS A STORY **2** PETER SOLAND **3** LIGHT UNDERLINES THE STRONG MILITARY LINES **4** AXEL MORGENTHALER |
1 L'ILLUMINATION AU SERVICE D'UNE HISTOIRE **2** PETER SOLAND **3** LA LUMIÈRE SOULIGNE LE TRACÉ ABRUBT DES FORTIFICATIONS **4** AXEL MORGENTHALER
PHOTOS 1-3 JEAN LANDRY **4** COURTESY AXEL MORGENTHALER

"In that magical moment, I react directly to my experience of the place and the evocative power of light." | « Pendant ce moment magique, je réagis directement à mon expérience du lieu et au pouvoir évocateur de la lumière. »

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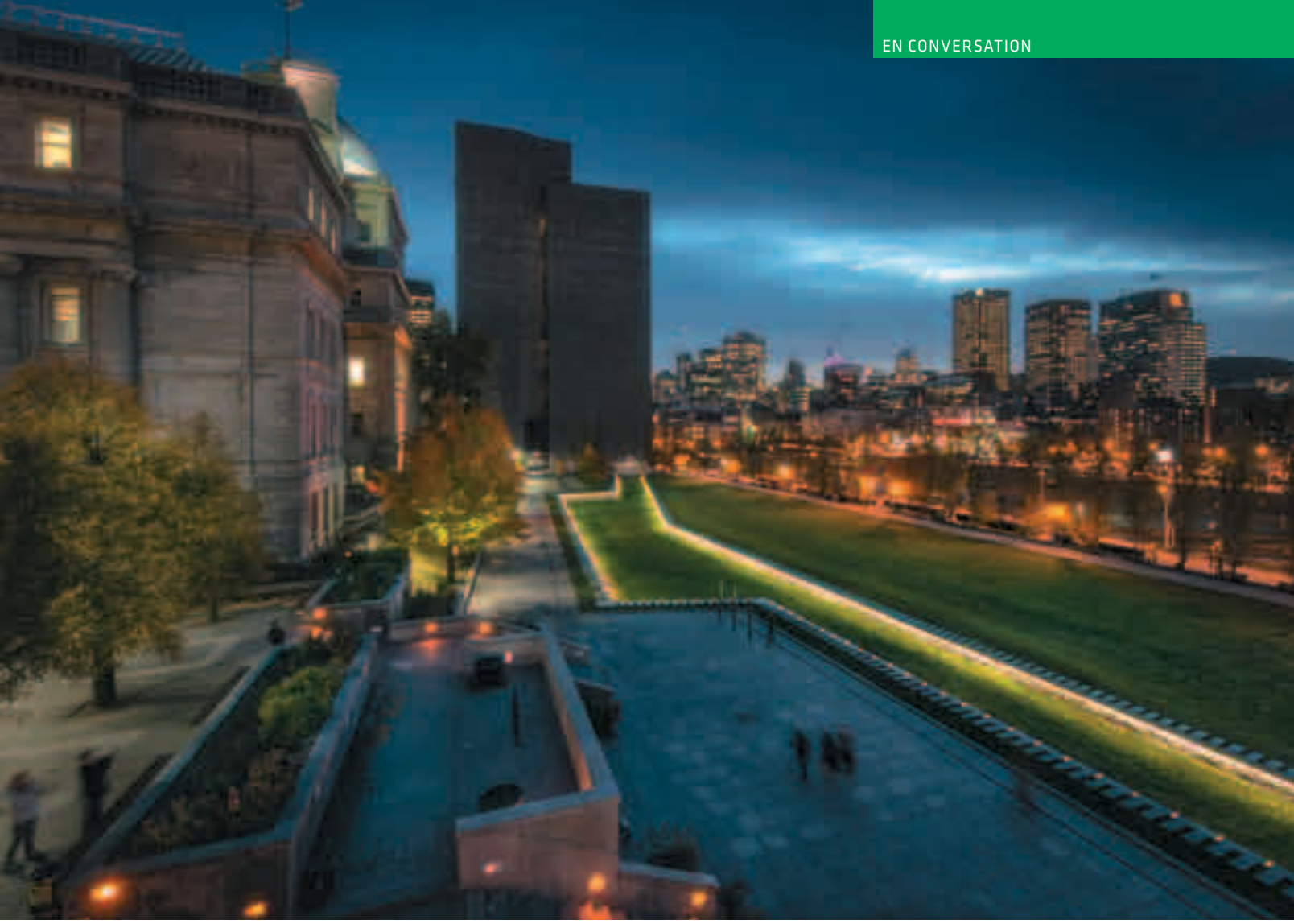
LUMINOUS ANIMATION

The second lighting component is an alignment of point sources on top of the cap enclosures on the scarp, that is, on the inside wall of the old fortifications. These points of light remind us that the wall, once more than five metres tall but now much shorter, was the city's primary rampart. These lights are also LED, but in RGB color mix mode and individually programmable, which allowed the artist to design a unique luminous animation. "By changing the colours of the lights," said Axel, "we created an artistic illuminated story and opened a dialogue with the remains. The light programming is inspired by European clocks that mark the passage of time every quarter hour and on the hour. A short, 3-minute sequence indicates the quarter-hour with oranges and reds. On the hour, an animated sequence in blues and greens runs for 5 minutes. Outside these eventful moments, the small lights glow amber."

The point-source lights enhance the perspective effects at the site, and their timed animation creates an overall event-like landscape experience. Champ-de-Mars is thus transformed, becoming a new nocturnal destination for Montreal and reclaiming its place in Montrealers' collective consciousness. For Axel, it is particularly fascinating to see how strongly the lighting attracts the public. The dynamic timekeeping intensifies the public relationship with the work. People approach, and when the colours change, a playful moment arrives. Some people break into a subtle, spontaneous dance, moving their feet to the rhythm of the changing point sources.

Of course, everything comes down to dosage and balance. Given the heritage setting that is Champ-de-Mars, the City, archaeologists and heritage experts were wary of an overly intense, even garish experience. In urban site planning, lighting can require creative restraint and a strong sense of the work's overall relationship with its setting. "Contrast is what makes light work," said Axel. "In an unlit environment, a single source is enough to make the work stand out. In a nocturnal environment with several pre-existing sources, it is necessary to find the right tone. When everything is flickering, as in Times Square, excess is the only thing that works. But when the ambient light is relatively static, the work can be both dynamic and sensitive. Lighting is like a stream in a forest scene: the stream exerts a natural attraction, first by the nature of the material (water), but especially because it is the most animated part of the environment. In Champ-de-Mars, the light plays the same role."



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Axel Morgenthaler draws his primary inspiration from nature, from the natural or the almost supernatural (like the aurora borealis) and from the multiplying effects of reflection and refraction. This fascination is both analytical and poetic, and also abstract. He reminds us that perception is about light, and light has colour, texture and rhythm. At Champ-de-Mars, we bear witness to these truths. The design illuminates a key element of Montreal history, invoking the memory of the city's first century as a French colony, and reflecting the identity of the city and its heritage.

...the glow fluctuates, creating the impression that the ground is breathing and history is alive.
... la lueur fluctue, créant l'impression que le terrain respire et que l'histoire revit.

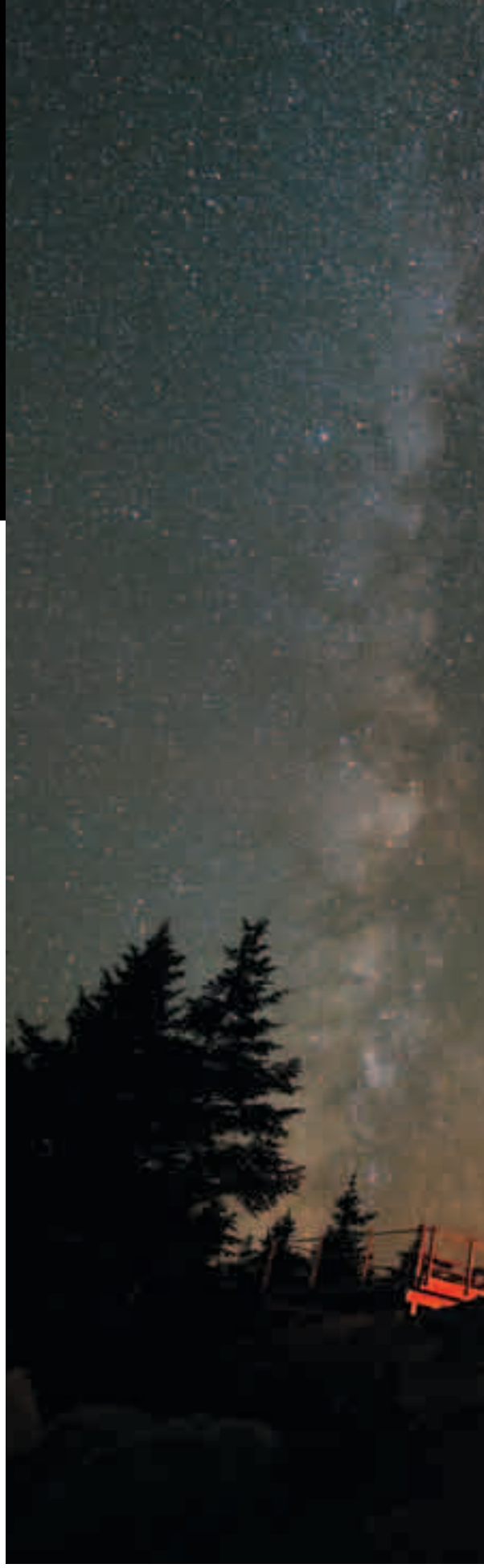
1 LIGHT ENHANCES PERSPECTIVE EFFECTS **2** CARDBOARD MOCK-UP OF LIGHTING BOX WITH STRIATED GLASS **3** TESTING LIGHTING COMPONENTS IN STAINLESS STEEL PROTOTYPE **4** THE LONGEST LIGHTING APPARATUS IN MONTREAL: 2 TIMES 200 M OF UNINTERRUPTED LINEAR LEDS | **1** LA LUMIÈRE ACCENTUE L'EFFET DE PERSPECTIVE **2** MAQUETTE D'UN LUMINAIRE EN VERRE STRIÉ **3** ESSAI DES COMPOSANTES D'ÉCLAIRAGE DANS UN PROTOTYPE D'ACIER **4** LE PLUS LONG LUMINAIRE DE MONTRÉAL : DEUX RANGÉES DE DEL ALIGNÉES SUR 200 M.
PHOTOS 1 JEAN LANDRY **2+3** PETER SOLAND **4** JEAN LANDRY

CREDITS Urban Soland, Lafontaine & Soucy and Genivar, with the collaboration of Tak Design and Photonic Dreams. **Clients** City of Montreal, Direction de la culture et du patrimoine and Direction des grands parcs et du verdissement, Ministère de la culture, des communications et de la condition féminine.
www.urban-soland.com | www.photonicdreams.com

MAUDE M. SEVIGNY + SEBASTIEN GIGUERE

PAR DELÀ **L'INFINI!**

COMMENT LE CIEL DU MONT MÉGANTIC S'EST OBSCURCI



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TO INFINITY AND BEYOND: HOW MONT MÉGANTIC'S SKIES WERE DARKENED

FR_

RÉSERVE INTERNATIONALE DE CIEL ÉTOILÉ DU MONT MÉGANTIC

Il y a cinq ans cet automne, la première réserve internationale de ciel étoilé (RICE) au monde voyait le jour dans les Cantons-de-l'Est. Attestée en septembre 2007 par l'International Dark Sky Association et la Société Royale d'astronomie du Canada, la réserve internationale de ciel étoilé du mont Mégantic s'étend sur un territoire de 5500 km2 regroupant trois MRC (Granit, Haut-Saint-François et Sherbrooke). Elle réunit 35 municipalités et plus de 225 000 citoyens.

Une réserve internationale de ciel étoilé, c'est un territoire où l'on minimise la pollution lumineuse créée par des luminaires irrespectueux du ciel étoilé ou mal installés. Cette forme de pollution a plusieurs effets néfastes sur la santé humaine, les recherches scientifiques, la faune, la flore, l'esthétique architecturale, l'efficacité énergétique et la sécurité.

PREMIÈRE MONDIALE

L'Observatoire du mont Mégantic (OMM) est l'un des centres de recherches universitaires les mieux instrumentés au monde. Il est administré par les universités de Montréal, Laval et McGill. Son télescope, muni d'un miroir de 1,6 m, est le plus important de la côte Est de l'Amérique du Nord. Au coeur de la réserve de ciel étoilé, juste à l'entrée du parc, se trouve l'ASTROLab, voué à la vulgarisation de l'astronomie.

La campagne de la Réserve de ciel étoilé a été pilotée par l'ASTROLab, de concert avec de nombreux partenaires, dont l'Observatoire et le Parc national du mont Mégantic. C'était un processus régional de grande envergure avec trois volets principaux : sensibilisation locale, réforme de la réglementation et conversion des appareils d'éclairage de la région. Une décennie plus tard, la pureté du ciel a été restaurée. Trois mille trois cents luminaires ont été convertis, réduisant la consommation d'électricité d'environ 9,5 kWh. Une économie de près d'un million de dollars.

TROIS MILLE LUMINAIRES CONVERTIS

La concertation a joué un rôle essentiel dans le processus. Comment concilier les besoins de toutes les parties? Les règlements municipaux devaient être modifiés. En 2005, l'approche multilatérale a commencé à produire des résultats quand la MRC du Granit a adopté un règlement sur l'éclairage, suivie en 2006 par celle du Haut-Saint-François et en 2007 par Sherbrooke.

« Nous avons dû nous réhabituer à sortir de l'observatoire avec une lampe de poche. »
– Bernard Malenfant

C'est aussi à ce moment que s'est mis en branle le programme de conversion. Car si d'autres projets de préservation du ciel étoilé ont précédé celui du mont Mégantic, ce dernier est le premier à procéder à une transformation massive et immédiate de l'éclairage des municipalités, des commerces, des industries et des particuliers. Ainsi, en 2007, les municipalités locales convertissaient leur éclairage de rue par des dispositifs moins puissants, mais plus performants, limitant significativement la pollution lumineuse et améliorant la qualité de l'environnement nocturne. L'impact sur le ciel étoilé fut immédiat et impressionnant, dépassant même les attentes des initiateurs du projet.

1 L'ECLAIRAGE ARCHITECTURAL RESPECTUEUX DU CIEL ETOILE PEUT RÉDUIRE LA POLLUTION LUMINEUSE. | **1** LIGHTING THAT IS RESPECTFUL OF THE DARK SKY CAN REDUCE LIGHT POLLUTION.
PHOTO PARC NATIONAL DU MONT-MEGANTIC, GUILLAUME POULIN

1, 2 3, 4 5, 6

...notre plus grande sensibilité nocturne se trouve... dans la portion bleue du spectre lumineux.

« Nous n'observons plus de dôme lumineux au-dessus de ces municipalités lorsque le ciel est couvert de nuages », témoigne le technicien de l'OMM et président fondateur de l'ASTROLab, Bernard Malenfant. « Nous avons dû nous réhabituer à sortir de l'observatoire avec une lampe de poche. C'est incroyable! »

La réduction de la pollution lumineuse générée par tous ces efforts a été évaluée, en 2009, à environ 35 %. Cette mesure a été compilée par le professeur-chercheur Martin Aubé et le groupe de recherche GRAPHYCS du Cégep de Sherbrooke, responsables d'assurer le suivi scientifique du projet. Aujourd'hui reconnu comme un leader mondial sur la mesure de la pollution lumineuse, M. Aubé a installé, en 2011, sur le toit de l'ASTROLab , deux appareils complémentaires de mesure qui ont été conçus et développés spécifiquement pour ce genre de suivi.

RELANCE DU PROJET

Après quelques années, on a remarqué dans les environs la réapparition progressive de dispositifs d'éclairage qui ne respectaient pas la réglementation en vigueur. En 2011, l'ASTROLab a donc entrepris de relancer le projet de préservation du ciel étoilé. Un nouveau plan d'action a été tracé, mettant particulièrement l'accent sur la disponibilité des luminaires conformes chez les distributeurs et sur l'amélioration de l'application réglementaire par les municipalités. Des comités de préservation du ciel étoilé ont été créés dans chacune des trois MRC. Motivés par cette relance, les gestionnaires de la réserve ont cependant rapidement réalisé qu'ils avaient sous-estimé une menace encore plus grande : l'arrivée massive et incontrôlée de l'éclairage aux DEL blanches.

PÉRIL BLEU

D'ici quelques années, les DEL deviendront l'une, sinon la principale technologie d'éclairage dans le monde. Cette technologie possède des avantages incontournables : faible consommation d'énergie, contrôlabilité, rendu de couleur, longue durée de vie, etc.). Mais il n'y a pas que des avantages... Dans son état actuel, cette technologie émet une fraction significative de sa lumière dans la partie bleue du spectre. Comme l'atmosphère diffuse préférentiellement la lumière bleue, l'impact d'un luminaire aux DEL blanches sur la pollution lumineuse est beaucoup plus grand que celui d'un luminaire sodium haute pression, dont le pic d'émission se situe dans le jaune orangé.

De plus, au cours de la dernière décennie, l'impact majeur de la lumière bleue sur la suppression de la mélatonine, l'« hormone du sommeil » régulant notre horloge biologique (cycle circadien), a été mieux documenté, conduisant à une prise de conscience de son importance pour la santé. Devant ces constats inquiétants, l'ASTROLab et ses alliés se sont associés à de nombreux partenaires du milieu scientifique et de l'industrie, afin de mieux cerner les problématiques relatives à ces dispositifs d'éclairage et, surtout, de participer à l'élaboration de solutions visant à en limiter les impacts négatifs. La première phase de cette nouvelle mobilisation s'est concrétisée en décembre 2012 par la tenue d'un symposium interdisciplinaire sur « les problématiques et les solutions relatives à l'éclairage aux DEL blanches ». Outre de mettre le public à jour, les présentateurs ont proposé des solutions techniques. Pour plus de détails : www.astrolab.qc.ca/fr/symposium.htm.

MIEUX ÉCLAIRER POUR MIEUX PROTÉGER

De plus en plus de luminaires respectueux du ciel étoilé et de l'environnement nocturne arrivent sur le marché, et ils sont esthétiquement aussi intéressants que les autres. Pour plus d'informations sur comment protéger la nuit, vous pouvez consulter le site Internet de l'ASTROLab. astrolab-parc-national-mont-megantic.org/fr/pollution-lumineuse.htm

www.astrolab.qc.ca

1 AVANT ET **2** APRES L'IMPACT POSITIF DE LA CONVERSION SUR LA SECURITE ET L'ESTHETIQUE **3** AVANT ET **4** APRES À LA PATRIE, L'ÉCLAIRAGE DE RUE ANTÉRIEUR PÉNÉTRAIT MÊME DANS LES MAISONS **5** AVANT (2006) ET **6** APRES (2008) LES EFFETS DE LA CONVERSION DANS LE VILLAGE DE LA PATRIE
PHOTOS 1-6 PARC NATIONAL DU MONT-MEGANTIC, GUILLAUME POULIN

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NEIL DAWE + PAMELA MURPHY, TRACT CONSULTING INC.

THE GROS MORNE CHALLENGE:

Is Newfoundland immune from light pollution?

1 GROS MORNE SKY **2** SUNSET AT BROOM POINT FISHING EXHIBIT | **1** LE CIEL DE GROS MORNE **2** COUCHER DE SOLEIL À L'EXPOSITION DE PÊCHE DE BROOM POINT
PHOTOS 1 SHELDON STONE/PARKS CANADA **2** DALE WILSON/PARKS CANADA | **1** SHELDON STONE / PARCS CANADA **2** DALE WILSON/PARCS CANADA

IT WAS ANOTHER brilliant fall evening in Bonne Bay, Gros Morne National Park, with the stars providing a potpourri of sparkle. To the south, the silhouette of the mountains, illuminated by the waters of Western Arm, invited welcome relaxation and contemplation. But tonight something was amiss, the tranquility ruptured. Sharp shafts of white light pierced the evening sky: the harsh light that of a recently opened Inn – a place developed to allow visitors to enjoy the splendor of this marvelous place. Such irony! I thought. Surely we can do better!

Indeed, light polluted skies are ubiquitous. Since Mr. Edison's bulb turned Chicago into the "white city" at the World's Fair in 1893, our cities have become increasingly "white." Today, the light from large cities is visible up to one hundred miles away, and it affects about 60 per cent of our world's people and about one-fifth of the world's terrain. We are led to believe that new lighting technology uses less energy and is environmentally friendly, so we use more lighting and think it's safe.

WHITE NIGHTS

Yet we are compromising our existence as diurnal creatures, according to Verlyn Klinkenborg, author of the *National Geographic* article, "Our Vanishing Night." We've engineered the night to receive us by filling it with light, yet much of that light is wasted. Light pollution represents an estimated $2 billion per annum in lost energy, even if we ignore its impacts on human health and the environment.

The Dark Sky Association categorizes light pollution as Clutter, Glare, Light Trespass and Urban Sky Glow. "Clutter" is bright, confusing and excessive groupings of light sources, commonly found in over-lit urban areas. "Glare" is excessive brightness that causes visual discomfort. "Light trespass" is light falling where it is not intended, wanted or needed. "Urban sky glow" is the brightening of the night sky over inhabited areas.

Today, rather than identifying a light bulb according to the power it consumes, lumens identify a light bulb's perceived brightness. Dark Sky ordinances limit the lumens (luminous flux) per acre, and ensure streetlights are shielded to focus light downward, to make streets brighter but the sky darker. This strategy, and other new planning and design approaches for neighbourhoods can help control the misuse of light.

There are many inventive solutions to explore: for example, research confirms that good planting design on city streets can reduce glare and increase visibility – and this is just one informative nugget that can be shared with our clients. The emerging role of landscape architects, then, is to offer information and creative options to their clients and communities, to use lighting design professionals, and to be in the forefront of inclusive lighting design.

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NATALIE WALLISER, SALA

CYPRESS HILLS: LAND OF THE LIVING SKIES

From the city we see about 100 stars. Lost in the glow are about 3900 other stars that are visible with the naked eye.

FR_

CYPRESS HILLS : OÙ LE CIEL S'ANIME

Le parc interprovincial de Cypress Hills est l'une des réserves de ciel étoilé les plus obscures et les plus accessibles au monde. C'est aussi l'une des plus vastes avec 39 600 hectares de terres protégées. Les petites villes bordant la réserve se sont efforcées de réduire la pollution lumineuse et d'autres villes des Prairies ont emboîté le pas.

EN_

THINK ABOUT LIGHT pollution, and your mind may take you to Times Square, Tokyo's Shibuya district or perhaps even the growing skyline of a city like Mumbai. Yet light pollution is not just an issue for the metropolis. Turn your thoughts to small town Canada – even the streets of small prairie hamlets – and everywhere, there is a clutter of artificial light.

On the Saskatchewan-Alberta border, however, there is stellar exception to the rule in towns such as Maple Creek, Fort Walsh and Elkwater. The towns border the Cypress Hills Interprovincial Park, home to the Cypress Hills Dark Sky Preserve – one of the darkest, easily accessible dark sky preserves and one of the largest with 39,600 hectares of land protected. In August 2011, Cypress Hills opened a Dome Observatory. It was just in time for the annual gathering of over 100 astronomy enthusiasts for the Summer Star Party.

The Star Party coincides with the Perseid Meteor Shower, where a decade earlier, one amateur astronomer made the discovery of his life. On August 18, 2001, at the Star Party, Vance Petriew of the Regina Centre of the Royal Astronomical Society of Canada (RASC)

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made international news when he discovered a comet. This year, the Comet Petriew (P/2001 Q2) returns – and at the Star Party, Vance will revisit his discovery.

From sundown to sun-up, the star party is a red-light only zone. Red and green lasers, which do not show on astrophotos, are used to guide participants on secluded star walks, held nightly. Public Star Nights begin at dusk, attracting up to 250 stargazers, as does the Living Skies Public Lecture. "The stars just seem closer here," said Chris Beckett of Regina.

There is no lighting throughout most of the Cypress Hills Dark Sky Preserve, and both provinces have worked to reduce light pollution in nearby Elkwater and the core area of Saskatchewan. Dark sky preserves (DSPs) are set aside to capture, as closely as possible, the natural nocturnal environment. Canada's reserves are subject to more

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Star Party Dates: August 8–11, 2013; August 21–24, 2014

stringent regulations than in other jurisdictions, with standards based on work by the RASC. Canada also leads the world in designations. Of 35 formally recognized dark sky preserves in the world, 15 are in Canada.

MEANWHILE, IN THE CITIES...

Saskatchewan is planning a permanent observatory and a campground dedicated specifically to star gazing, but although the thrills of star gazing can create enthusiasm for the Dark Sky movement, the abatement of light pollution has to start at the source, with responsible lighting policies in our communities.

Other prairie towns have shown significant interest in preventing light pollution. Saskatoon passed a Dark Sky Policy in Council some years ago, and although a written policy has yet to materialize, progress has been made. Local utility companies are implementing street-lighting changes. For example, Saskatoon's Central Avenue in the Sutherland district now uses shielded, downward-oriented street lights that are consistent with a dark sky policy.

A leader in engaging the community in best practice for lighting is Alberta's Strathcona County. Their Dark Sky and Energy Efficient Lighting Community Handbook provides a model for public engagement in promoting a Light Efficient Community. The handbook advocates "lighting the night-time environment only when and where it is essential." The recommendations not only increase the aesthetic appeal of public spaces and restore night-time sky visibility; they also reduce energy consumption – a major benefit to residents. The handbook covers health and public safety issues as well, discussing the effects of night lighting on sleep cycles and the danger of glare.

This is where the true strength of a responsible dark sky policy is seen. To ask our culture to wean itself from artificial light and return to the night-time sky of our ancestors is unreasonable. Rather than simply lamenting the loss of the night sky due to artificial lighting and mass urbanization, the sensible path forward lies in making better lighting choices for the Urban Millennium.

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1 FROM A SASKATOON BACKYARD: THE ORANGE GLOW (BOTTOM) IS LIGHT POLLUTION FROM A NEWLY BUILT SUBDIVISION **2** EASTHILL STREET IN SASKATOON | **1** VU D'UNE ARRIÈRE-COUR DE SASKATOON : LE HALO ORANGE (DANS LE BAS) EST LA POLLUTION LUMINEUSE D'UN QUARTIER RÉCEMMENT CONSTRUIT **2** LA RUE EASTHILL DE SASKATOON
PHOTOS 1+2 COLIN CHATFIELD OF CHATFIELD PHOTOGRAPHICS 2012

PETER HARNIK, RYAN DONAHUE, JORDAN THALER

TO LIGHT ... OR NOT TO LIGHT?

FOR URBAN PARKS, THAT IS OFTEN THE QUESTION.

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ÉCLAIRER OU NE PAS ÉCLAIRER ?

LES NOUVELLES MÉTHODES D'ÉCLAIRAGE RÉPONDENT AUX PRÉOCCUPATIONS DES DÉFENSEURS DU CIEL ÉTOILÉ

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AN EARLY NIGHTTIME flight over a city clearly reveals the dichotomy. Within the fabric of pulsing roads and faintly shimmering neighborhoods, the patches of complete blackness are almost invariably parks—the only spaces that retain the ancient vestige of total darkness in our modern, artificial world. And the pools of dazzling white light are usually also parks— venues where baseball, football or other organized games are being played.

In the past, the debate over lighting seemed to admit no compromise. Advocates claim that parks obviously need lights for safety: the more bulbs, the fewer criminals, the less vandalism. Opponents lament losing the beauty and primordial romance of nature in the dark. Organizations such as the International Dark-Sky Association (IDSA) and National Dark Sky Week battle light pollution, and say it disrupts patterns of behavior for nocturnal animals and prevents humans from enjoying the wonders of the nighttime sky. Even dark parks aren't always dark enough. In December 2010, when a ranger took a group of New Yorkers out to a remote park at midnight to watch what was expected to be a spectacular meteor shower, the shooting stars weren't visible because of the overwhelming ambient glow from the city.

Park managers are caught between the politics and the significant expense of installing lighting and paying utility bills. Fortunately, technological advances are helping to bridge the gap. Some programs are showing that lighting can help purge parks of criminal behavior, and new technology enables light to be confined to the ground without blurring the cosmos—at lower cost.

One proponent of bright parks is Los Angeles, known for its shortage of parkland in crowded, low-income communities and also for a gang turf culture that frequently spills over into parks. Harvard Park in Inglewood, historically a flashpoint for gang conflict, was perennially shunned after dark by all but the bravest of residents. Thanks to an initiative called Summer Night Lights, things have been different for the past three years. The city, by ratcheting up nighttime visibility and adding programming such as athletic leagues, arts initiatives and family programs at Harvard Park and 23 others, has helped use gang loyalties to spur healthier organized competition and to diminish vandalism, drug use and violence.

Because of the lights and programs, other members of the community now feel comfortable there at night, too, which improves Harvard Park's usership and safety. Alicia Avalos, the director of Summer Night Lights, says: "The program is not about changing someone's identity, but rather curbing violent behavior. Out of 24 sites, we have not had to pull out of one." Compared with statistics from before the program, she notes, there has been a 40 percent reduction in gang activity and a 57 percent reduction in gang-related homicides. The success of the program has made it a priority at city hall. Even as Los Angeles struggles with a budget deficit, the program has been expanded to include eight more parks. (About half the $6.2 million program is funded by private companies.) Other cities are seeing the light, too—Long Beach, California, and Jacksonville, Florida, have recently started similar programs.

Although the Los Angeles program is a success, it's not universally agreed that maximizing lighting is the key to safety. Some people believe that programming and community building do more than bulbs, and they challenge the notion that brighter parks are necessarily safer.

"Based on before-and-after studies of crime statistics, there is no clear evidence that outdoor lighting reduces crime." That's the verdict of a March 2008 study by the Royal Astronomical Society of Canada, which found that many criminal activities, such as theft, are "more prevalent during daytime hours," and that "artificial lighting can encourage certain types of vandalism, such as graffiti, as individuals are better able to see what they are doing." In the United Kingdom, a 2009 study by the Royal Commission on Environmental Pollution suggested that badly designed street lighting can lead to glare and dark shadows that may promote rather than hinder criminal activity. A meta-analysis by British researchers looked at eight American studies, finding that they split evenly on the topic of whether lighting reduces crime in parks. When the results of the studies aggregated, they did show a seven percent reduction in criminal activity—but that figure is barely statistically significant.

In some cases, leaving a park dark can make it safer by not giving users a false sense of security. Greenway designers argue that if lighting is going to be placed haphazardly, it is better to make its absence conspicuous, clearly signaling that the area is not meant for use after dark. Also, if only certain paths are lit, criminals can more easily predict the paths of pedestrians. (These are sometimes referred to as "channelized routes" or "movement predictors.")

Whether lighting actually increases safety or not, it certainly makes people *feel* safer;

lighting is regularly one of the most requested new features. And if people begin to feel more comfortable in a park, it will become safer simply by being better used. The stellar crime reduction that accompanied Summer Night Lights cannot be fully attributed to lighting; the presence of gang interventionists and professionally supervised recreation programs surely played a role.

Even beyond crime reduction, there are plenty of reasons to better equip urban parks with more – and more efficient – light technology. Lighting maximizes the efficiency of the existing park stock by allowing considerably more use. In New York City, the lighting of fields allows two more hours daily use in the summer and four more in the winter or fall.

Astronomical organizations and other dark sky efforts recognize, of course, that humans demand brightness and that urban areas will always require lighting. Thus the groups call for more research into the specific types of light rays that are emitted and better design to put the right amount of light where it is needed. "Some level of artificial lighting is required for nighttime activities," says Robert Dick, the chair of the Light Pollution Abatement Committee of the Royal Astronomical Society of Canada. "But this lighting must be designed to increase visibility. Paradoxically, more light can reduce visibility, especially for persons over 40 years of age."

The IDSA offers help in buying, installing, and using lights. Its website gives lists of approved lighting fixtures and encourages the use of such "dark-sky features" as shields that prevent fixtures from projecting light into the atmosphere.

As a result, the seemingly unbridgeable gulf between crime fighters and dark-sky enthusiasts may be shrinking. Driven by the growing efficiency gap between old high-pressure sodium and new light-emitting diode (LED) lights, cities are transforming their lighting stock, and some of the benefits are spilling over into parks. Major cities making the switch include Los Angeles, New York, Anchorage, San Jose and Pittsburgh.

New York City's Department of Transportation (DOT) oversees the largest municipal lighting system in the country, including 12,000 lights in parks (and 262,000 on streets). In 2009, the DOT began a pilot program in Central Park to test LED lights as a replacement for standard 100-watt metal halide park lights. It found that LED lights last two to three times as long, while allowing for better visibility at lower light intensity, which would save $94,710 per year in that one park.

In Santa Fe, New Mexico, the city parks department has installed new LED lights along the pathways of Frenchy's Field, a 17-acre (6.9 ha) recreation park. They turn on by way of motion sensors and change brightness depending on ambient conditions. They also have broader wavelengths, according to Santa Fe Parks Division Director Fabian Chavez, so that they illuminate better, even with less light. There are other benefits, too. Since LEDs use only a fraction of the power of incandescent or sodium-vapor bulbs, they can be powered by solar panels, meaning that they can be erected without any connection to the electrical grid. "I can install them with my own crew," says Chavez.

The advent of LEDs has also allowed landscape architects to just plain have more fun. Some have bathed center-city parks in kaleidoscopic public art displays, allowing parks to become more prominent civic landmarks and draw more tourists. Phoenix's Civic Space Park has a stunning LED-clad 145-foot (44m) sculpture in its center. Gold Medal Park in Minneapolis, part of a revitalized Mill District, features blue-lit benches that echo the facade of the adjacent Guthrie Theater, from which it draws visitors. Simon and Helen Director Park in Portland, Oregon, has a glass canopy lit with multicolor LED lights, which creates a new downtown nighttime focal point.

This article originally appeared in the November 2011 issue of Landscape Architecture Magazine. Peter Harnik is director of The Trust for Public Land's Center for City Park Excellence, based in Washington, D.C., and author of Urban Green: Innovative Parks for Resurgent Cities (Island Press, 2010). Ryan Donahue is the center's research director. Jordan Thaler, formerly with the center, is now office administrator for New York City's Bryant Park Corporation. The Trust for Public Land conserves land for people to enjoy as parks, gardens, and other natural places, ensuring livable communities for generations to come. For further information, please see page 48.

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PROMENADE SAMUEL-DE-CHAMPLAIN, VILLE DE QUÉBEC : (2009 CSLA NATIONAL HONOUR AWARD - WAA, OPTION AMÉNAGEMENT + CONSORTIUM DAOUST LESTAGE INC.)
A STUNNING INVITATION TO VISIT THE RIVER | UNE ÉTONNANTE INVITATION À VISITER LE FLEUVE
PHOTOS COURTESY WILLIAMS ASSELIN ACKAOUI (WAA)

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FONDATION CLU*

LIGHTITUDE

ÉCLAIRER LES VILLES AU-DELÀ DU CERCLE POLAIRE

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LIGHTING COMMUNITIES NEAR THE ARCTIC CIRCLE

Lighting design, a knowledge gap for many design professionals, is the raison d'être of the Fondation Concept Lumière Urbaine (CLU), led by Philips Lumec, a recognized leader in outdoor lighting. (For Board members, see page 34.) Since its founding in 2004, the CLU has held an annual lighting competition to attract new talent to the discipline. The 2012 competition invited designers to illuminate far northern areas. The competition resonated strongly with a wide audience: 117 participants from 38 countries presented ideas for lighting. Check the Web for next year's contest: www.lumec.com/company/fondation_clu.html

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LE DESIGN D'ÉCLAIRAGE, parfois méconnu, est en quelque sorte le cheval de bataille de la Fondation Concept Lumière Urbaine (CLU), chapeautée par Philips Lumec, un chef de file en éclairage extérieur. Depuis sa fondation en 2004, la Fondation a mis sur pied un concours d'idées annuel ayant pour mission d'intéresser la relève à cette discipline.

AU-DESSUS DU CERCLE ARCTIQUE

Le concours d'idées 2012 *LIGHTITUDE, Éclairer les villes au-delà du cercle polaire* a invité les designers à éclairer des régions nordiques, ponctuées de périodes d'ensoleillement atypiques, tour à tour très longues ou très courtes. Ce défi de taille a été relevé par de jeunes designers, professionnels ou étudiants des quatre coins du globe, qui se sont penchés sur ces régions situées au nord du cercle polaire, à 66° 32' de latitude Nord. La vie y est bien différente que sous des ciels plus cléments. Les Scandinaves ont développé de grands centres urbains malgré le climat, les Canadiens du Nord, majoritairement autochtones, habitent principalement dans de petits villages isolés, tout comme les Alaskiens. Mais tous, vivent sous un soleil capricieux, qui en été ne se couche parfois pas, et qui en hiver brille peu.

Au total, ce sont 117 participants de 38 pays qui ont imaginé des systèmes d'éclairage pour ces peuples du Nord. Ceux des États-Unis ont été les plus nombreux à le faire, suivis par ceux du Canada, des Pays-Bas, de l'Espagne, de l'Italie, de la Grande-Bretagne, de la Roumanie, de la Pologne, de l'Indonésie, de l'Australie, de la Grèce, de la Hongrie, du Mexique, d'Israël, de la Serbie, de la Malaisie, de l'Estonie, de l'Islande, du Japon, de la France, de la Suisse, de la Latvie, de l'Ukraine, de l'Inde, de la Belgique, de la Russie, de la Turquie, de la Croatie, de Hong-Kong, de l'Autriche, du Chili, de la Colombie, de Taïwan, de l'Iran, de l'Écosse et enfin de l'Égypte. Les designers appartenaient à diverses disciplines du design dont l'architecture, le design industriel et de produits, l'architecture de paysage, le design d'intérieur, le design graphique, etc.

1 ROGER TREMPE - ARCTIC BLOSSOM (3RD TIE) | 3E PRIX EX AEQUO) **2** SERGIO RAMOS - COLOR CLOUD (GRAND PRIZE | PREMIER PRIX) PROTOTYPE TESTED AT -9°C| PROTOTYPE TESTÉ LA NUIT À -9°C

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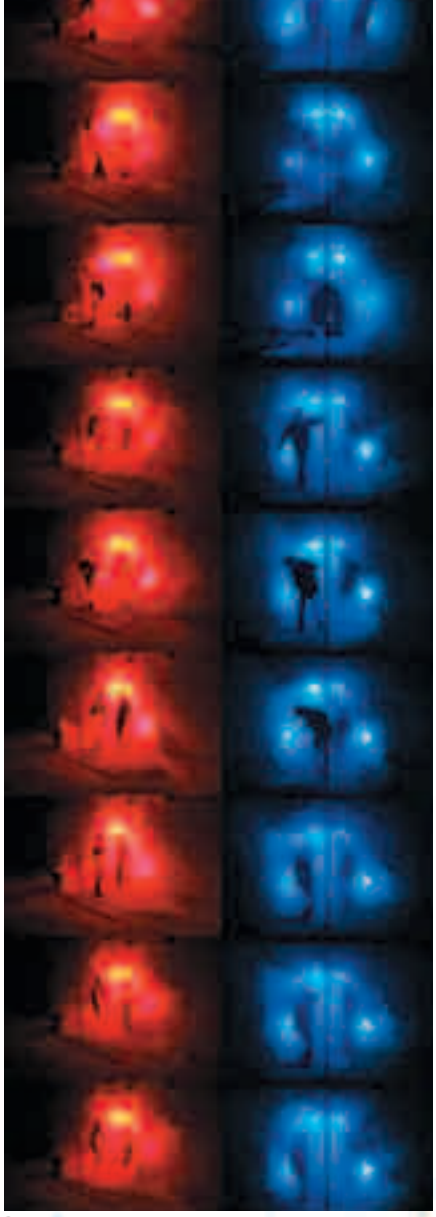

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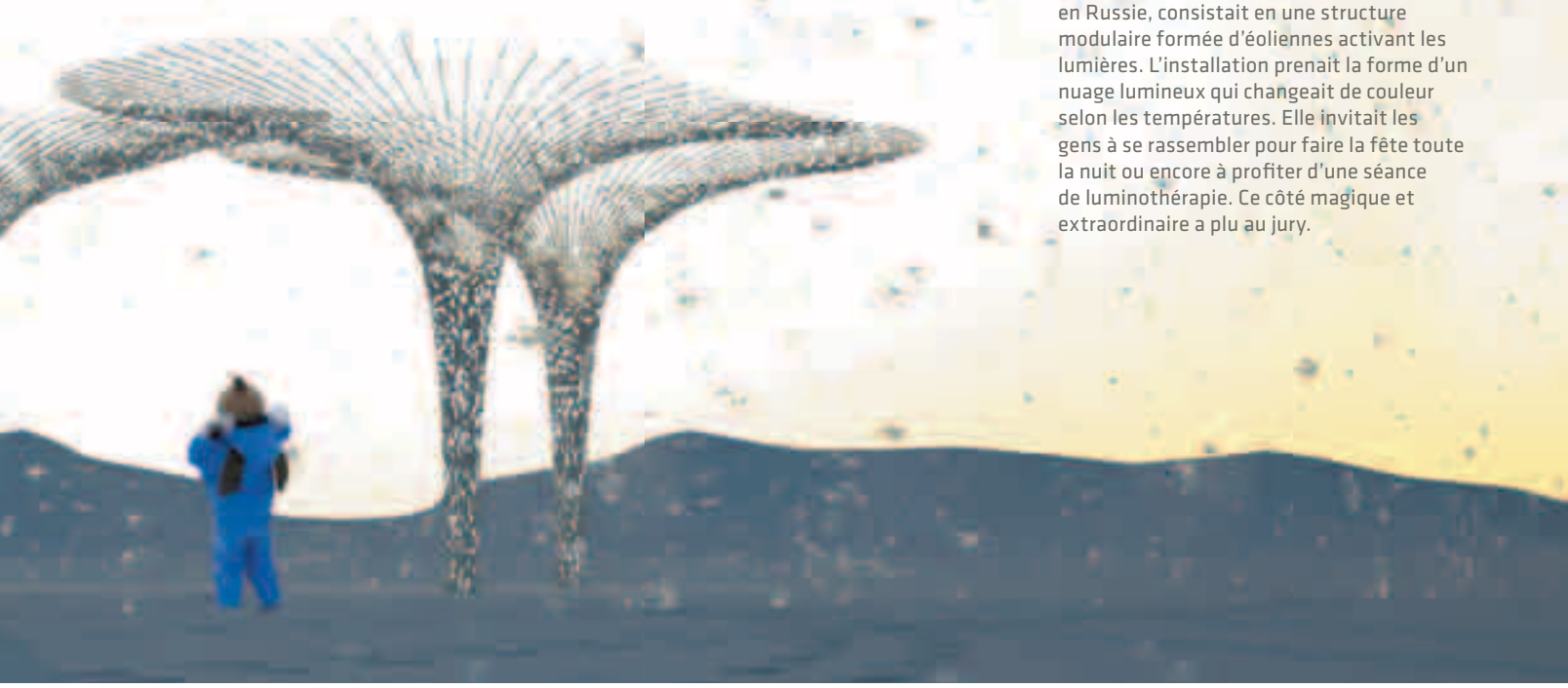
66° 32’ N: Northern light
…éclairer des régions nordiques

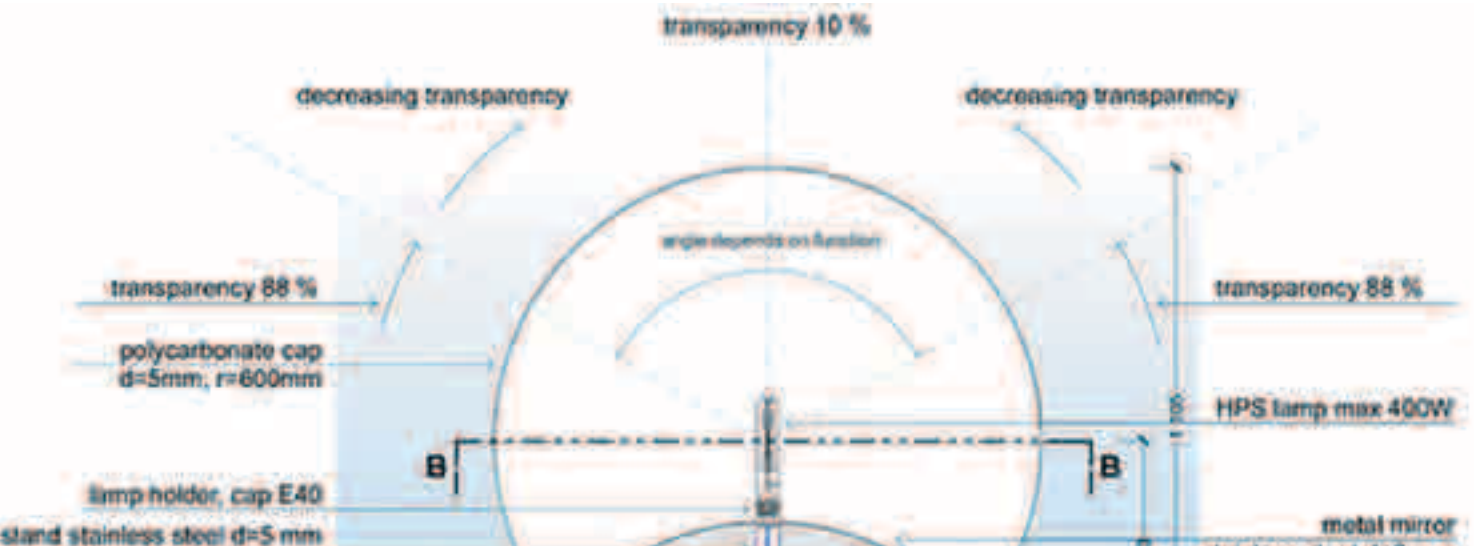
THÉRAPIE ET SPECTACLE

Le jury était composé, d’une part, de spécialistes de l’éclairage et du design et, d’autre part, de personnes ayant une expérience de ces régions nordiques. Les solutions proposées par les finalistes ont soulevé un débat animé parmi les jurés. D’un projet à l’autre, la lumière prenait des formes distinctes et inspirantes. Elle s’adaptait à l’environnement. Elle répondait à des critères de développement durable. Elle était souvent thérapeutique. Elle devenait parfois arbre lumineux dans la nuit noire ou encore tige luminescente sortant du sol. Elle prenait le ciel d’assaut dans des ballons, nomade et libre. Elle se faisait espace et oasis pour réunir les gens dans un lieu autre que leur demeure. Elle prenait les airs des aurores boréales et des *inukshuks* typiques du Grand Nord. Elle remplissait plusieurs fonctions, celle de pont permettant la marche sécuritaire tout en éclairant celui qui y déambule. Elle était mobile, facilement transportable comme l’est une canne pour marcher. Elle recouvrait parfois la ville à la façon d’une couverture. Elle devenait fête et spectacle. Elle était structure lumineuse ou boule de lumière placée dans le paysage lunaire du Nord…

Les jurés ont tenu compte de la distinction entre les territoires nordiques du Grand Nord et ceux de la Scandinavie. Ils ont particulièrement aimé l’idée que la lumière éclaire tout en rassemblant les gens. Ils ont apprécié ses vertus thérapeutiques. Ils ont aussi été séduits par le côté spectaculaire et festif de certaines propositions. Enfin, ils ont beaucoup aimé la diversité, l’ingéniosité et la singularité de ces idées.

Le premier prix est allé à Sergio Ramos pour son projet *Color Cloud, emotional system for public spaces.* Son installation lumineuse qui prenait place à Mùrmansk en Russie, consistait en une structure modulaire formée d’éoliennes activant les lumières. L’installation prenait la forme d’un nuage lumineux qui changeait de couleur selon les températures. Elle invitait les gens à se rassembler pour faire la fête toute la nuit ou encore à profiter d’une séance de luminothérapie. Ce côté magique et extraordinaire a plu au jury.





Le second prix est allé à Ivan Rodriguez de la Colombie pour son *Oasis lumineuse*. Celle-ci répondait magnifiquement à un critère auquel les jurés tenaient unanimement : celui du rassemblement. Cette oasis apportait le mieux-être avec une bonne dose de luminothérapie. Les luminaires nimbaient l'espace de réunion d'une lumière bleue.

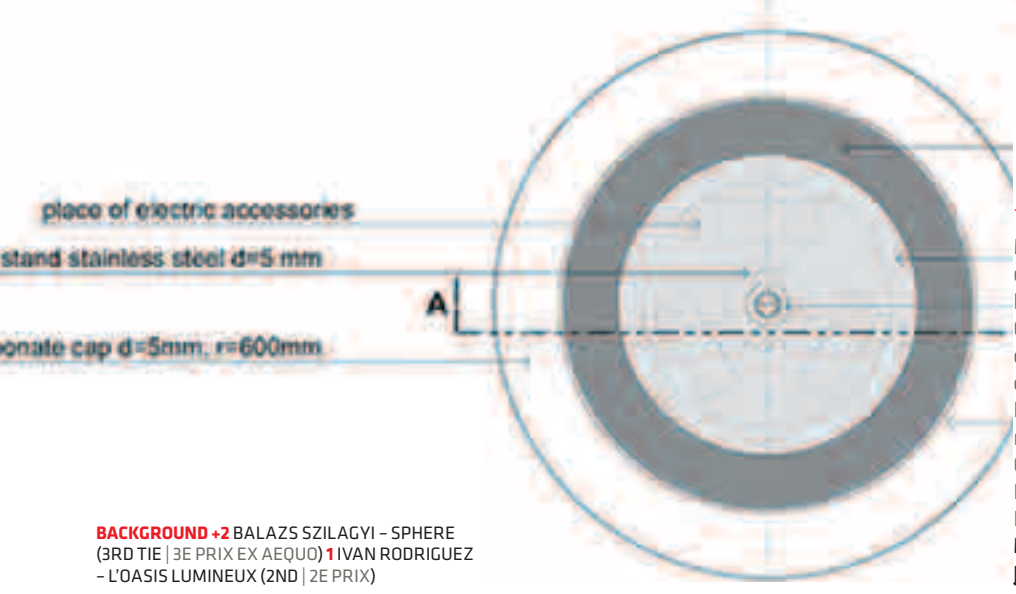
Le troisième prix a été remis *ex æquo* à Balazs Szilagyi, pour son projet *Sphère* et à Roger Trempe pour sa proposition *Artic Blossom*. Intégrés de bien belle façon au territoire nordique, leurs luminaires prenaient respectivement la forme d'une sphère et d'un arbre lumineux.

La Fondation CLU souhaite que ces propositions originales servent d'exemples dans le cadre de projets. Elle peut se vanter d'avoir intéressé les participants 2012 au design d'éclairage, pouvant ainsi dire «Mission accomplie. »

LIGHTITUDE...invited designers to illuminate far northern areas.

LIGHTITUDE... invitait les designers à illuminer les régions nordiques

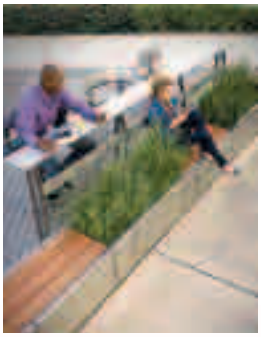
Visitez le site du concours de 2013
www.lumec.com/company/fondation_clu.html



BACKGROUND +2 BALAZS SZILAGYI – SPHERE (3RD TIE | 3E PRIX EX AEQUO) **1** IVAN RODRIGUEZ – L'OASIS LUMINEUX (2ND | 2E PRIX)

***FONDATION CLU**
Mathieu Casavant, Nip Paysage + président de la Fondation; Patrick Morand, atelia barda + vice-président; Jean-Philippe André, Cardinal et Hardy; Fabien Lasserre, Cardinal et Hardy; Alexandre Guilbeault, Cardinal et Hardy; Jean-François Duquette, Philips Lumec; Pascale Savard, consultante en marketing et communications; Cynthia Gauthier, Philips Lumec; Samuel Landry, Philips Lumec et Jean-Philippe Villeneuve, Philips Lumec.
Mathieu@nippaysage.ca
Jean-Francois.Duquette@philips.com

What if
we thought about urban spaces in a new way?



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RYAN JAMES WITH JIM SNELGROVE

A PRAGMATIST'S GUIDE

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1 JIM'S PORTRAIT 2 DRAMATIC LIGHTING FOR *THE VESSEL*, A 5.7M WATER SCULPTURE BY ILAN SANDLER, AT TADDLE CREEK PARK 3 SNELGROVE PRINCIPLES ANNOTATED ON PLAN DRAWING | 1 PORTRAIT DE JIM 2 ÉCLAIRAGE SPECTACULAIRE POUR *THE VESSEL*, SCULPTURE D'EAU DE 5,7 M SIGNÉE ILAN SANDLER AU PARC TADDLE CREEK 3 PRINCIPES DE SNELGROVE EN ANNOTATION SUR LES PLANS
PHOTOS| ART 1+3 RYAN JAMES 2 ILAN SANDLER

"I CANNOT TELL you how many landscape architects Jim Snelgrove knows in the Greater Toronto/Golden Horseshoe Areas, but I am confident that it would be easier to list the ones that he does not know," writes our interviewer Ryan James. W.J. (Jim) Snelgrove is a Partner in MJS Consultants Inc., which specializes in lighting for exteriors of municipal facilities, sports fields, streetscapes and landscapes. The company has completed in excess of one thousand projects in fifty-five different municipalities, working as sub-consultants to landscape architects or as consultants directly to Parks and Recreation Departments. Jim, who is a full member of the Illuminating Engineering Society of North America, has become sensitive to the concerns of the landscape architect during his thirty years in the industry.

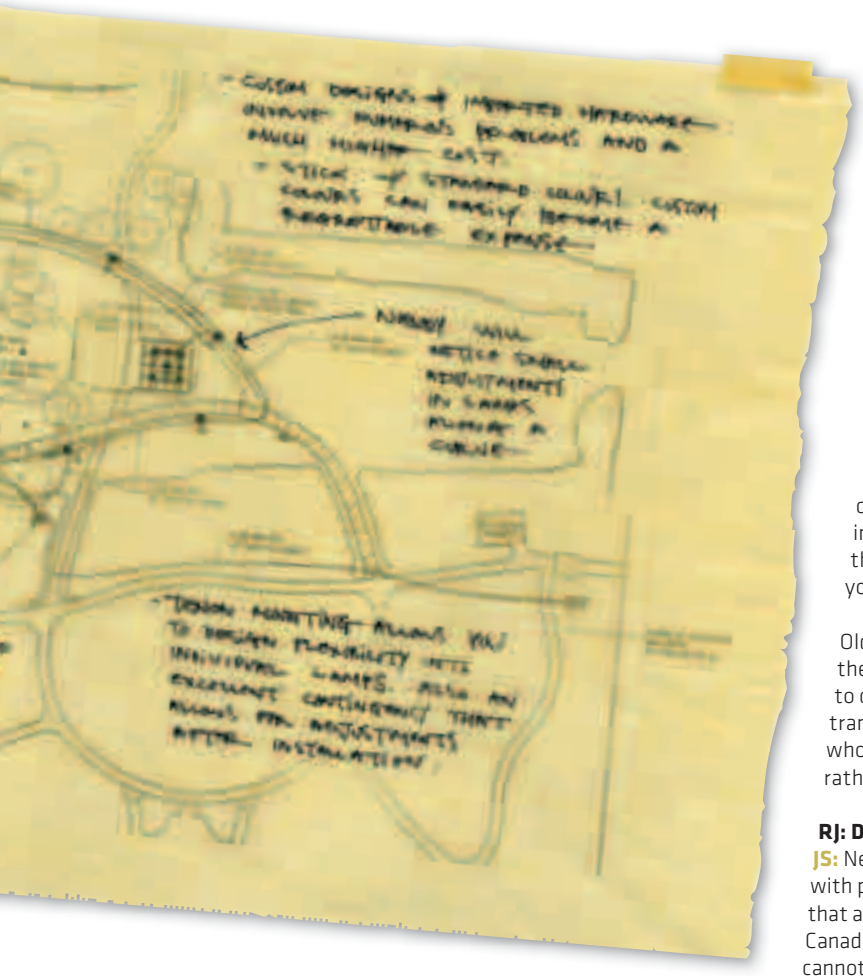
About the portrait: "Jim suffers the undocumented fate of every family photographer," writes Ryan James. "He is always on the wrong end of the lens. So we've rendered a likeness of Jim and the sensible choice for illumination seemed to be high pressure sodium. Our choice of illumination may not have been the best – and that's why we call Jim when we need the job done right."

RJ: Many designers insist on pure white light for landscape lighting. Is that your first choice for public spaces?
JS: Not at all. There are rare cases where a landscape does require white light, but the vast majority of parks do not. What they require is functional, serviceable, cost-effective lighting. This always comes down to high pressure sodium lamps (HPS), which... give you a decidedly yellow light that really does do a terrible job of colour rendering, but we have to look beyond that.

RJ: What is your first concern? The construction budget?
JS: No. Budgets for capital construction are easier to come by [than budgets for upkeep.] Sure, there's an annual budget for maintenance too, but this money is always stretched too thin. You've got to design for parks that are going to last: a park really should last for 30 years or better.

RJ: So the spec always goes to high pressure sodium?
JS: HPS lamps are commonly rated for 30,000 hours of service. (One year works out to roughly 4,000 hours.) And the efficacy of that lamp holds fairly consistently across the lifespan. At 30,000 hours, an HPS lamp will still be putting out about 80 percent of the light that it was designed to provide. That's pretty good. That's very important too because maintenance crews won't be coming around to replace that bulb until it's actually burnt out.

RJ: How does that compare with metal halide bulbs?
JS: Metal halide bulbs are commonly rated for 20,000 hours of service and you get a white light that does do a good job of colour rendering. Some landscape architects would say that this is the only acceptable light for any park. However, a MH bulb will deteriorate on a steady mortality curve that starts almost immediately. After one year, a bulb simply cannot function as it was intended to. The real problem is that the bulb is still working – just not very well. But the maintenance staff is never going to replace a bulb that is still working.



The first priority for professional lighting is to eliminate glare.
La grande priorité de l'éclairage professionnel est de prévenir l'éblouissement.

RJ: Does this compromise safety standards over time?
JS: Members of the Illuminating Engineering Society typically work towards a standard of a half foot candle of light for a typical path in a typical park. This standard is observed by every single municipality in the GTA. The lamps in any given park really ought to meet the standard. This is why HPS lamps are so common in the landscape: this lamp continues to perform as it was designed to do. Who among you would specify a particular tree if you knew that it would only grow well for a short period before it started into a slow decline to an early death?

RJ: Why not LEDs then?
JS: In recent years I faced immense pressure to specify LED lights but I really could not justify the cost. The product just wasn't there yet, and the technology became obsolete every 6 months. You can't be confident about designing a park that will last for 30 years if you're specifying technology that will be out of date in 6 months. Now it is conceivable that the development curve is more moderate. LED lights are commonly rated for 50,000 hours of service, and they have a good mortality curve: at the end, they'll still be operating at about 85 percent of original design capacity. Two years ago the colour rendering was terrible; it was a very cold white light. Now they've got the colour rendering well in hand. I am comfortable that it works from a functional perspective, but just as importantly, it works from a cost perspective. Do you remember when the first LED TV's came out? Those were about $12,000 each. Today you can buy an LED TV that gives you better performance for $600.

Cost and performance aside, there are still concerns for vandalism. Older lighting technology generally has a vandal-proof shield to protect the light source. Not so with LED. An array of LED prisms must be free to cast its light directly on the ground without the interference of a transparent shield. Consider what happens if a vandal throws a rock: the whole array would have to be replaced. That's a part worth about $250, rather than $20 for an old lens or an old bulb.

RJ: Do you ever search for better products abroad?
JS: Never import products from some exotic country. The nightmare begins with product labeling that is unclear, safety and construction standards that are nonexistent or suspect, manufacturing that cannot withstand the Canadian climate, parts that have to be shipped from overseas, servicing that cannot be sourced, warranties that cannot be exercised, and the list goes on...

Stick to manufacturers that are well represented here. Testing on this continent is very rigorous and all the product testing is standardized. A good lighting consultant can give you a handful of reputable manufacturers on this continent that give you long term value. If you pool all of their catalogs together you've got about 10,000 products available. If you can't find something in there that will suit your project, then you'd better check your ego at the door.

RJ: In terms of design, what is your first priority?
JS: The first priority for professional lighting is to eliminate glare. The human eye is very adaptable; it can operate in almost any context. If you go to a park in broad daylight, your eye happily operates with 12,000 to 14,000 foot candles. If you walk through the same, professionally lit park at night, then you'll have about 0.5 foot candles.

Glare is essentially an intense point-source of light. You can't help but look at the lights, and once you do that, your iris contracts and the darkness becomes absolute. The eye is blinded for the moment and this is a dangerous condition. Shield the light source. Full cut-off lamps are essential.

RJ: You have told me you have an unscientific safety test. Can you describe it for us?
JS: The test is this: would I feel comfortable if my wife were here alone? To answer the question you have to look at how much light is provided and *where* it is provided. Part of this is about the light on a path, but equally important is the light to either side of that path. You have to be confident that nobody is hiding in the shadows. Of course this also means that you can't have a bank of shrubs running along the side of a path either.

At the start of any project, I look at the existing conditions of the site. Is there a lot of vandalism and tagging around? If there is, this is probably due to poor sight lines. This problem needs to be addressed first. Otherwise supplemental light may only provide a false sense of security.

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KEVIN CONNERY

3 RIFFS ON CUSTOM DESIGN
IDIOSYNCRATIC – AND INSPIRED!

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PARTICULIÈRES ET INSPIRÉES! TROIS APPROCHES DU DESIGN PERSONNALISÉ

LES LUMINAIRES PERSONNALISÉS ne doivent pas forcément causer des dépassements budgétaires. Avec un peu d'ingéniosité et de collaboration entre fabricants et concepteurs, les AP peuvent explorer des options d'éclairage personnalisé respectant les budgets du secteur public. L'auteur examine trois solutions uniques remontant à ses années chez PWL Landscape Architects.

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AS LANDSCAPE ARCHITECTS we regularly peruse lighting catalogues resplendent with choice: at times too much choice. Hundreds of pages illustrate thousands of fixtures from manufacturers around the world. A recent check of Philips Lumec's web site reveals thirty plus lines of outdoor luminaires, each with numerous variants, dozens of pole and bracket options, several surface finishes and colour options and four primary lighting sources. Other companies are similarly rich with offerings.

IDIOSYNCRATIC STATEMENTS

What is not on offer, however, are the idiosyncratic possibilities of place-specific design. For example there are no cut sheets for the playful 'squatting legs' pole base we see alongside the Arno River in Florence which undoubtedly reflects Florence's opulent history. Nor will we find a catalogue page dedicated to the light balls that line the edge of Taranaki Street Wharf in Wellington, New Zealand. And I guarantee that the string of lights that span New Bridge Road in Singapore every Chinese New Year are not found on a shelf.

In a globalizing world where the same light pole and fixture selected for a project in Toronto may well be found in São Paulo, there appear to be fewer and fewer local lighting solutions on display despite a plethora of lighting products. Rarely does the lighting design transcend mere illumination and contribute to a more comprehensive design narrative, imbuing the space it occupies with character by day AND night.

Understandably project budgets are often perceived as too tight to afford higher end fixtures, and this results in a standardization of pole and fixture. Yet custom designed light fixtures need not break budgets. With some ingenuity and collaboration between lighting manufacturers and designers, opportunities for unique, place specific responses abound. When I worked at PWL Landscape Architects we explored several custom lighting design options within the limitations of public sector project budgets.

1 CONJURING A COMPASS

In 1989 Kwantlen Community College (now Kwantlen Polytechnic University) began planning for a new campus in Richmond, B.C. that included an interior design program. To help distinguish the new campus, we embedded several features in the landscape that spoke to the College's design program. Most prominent are the 'compass' lights perched on top of 'concrete book bases' at the main entry. Through several design iterations we were able to design a compass-inspired frame using off-the-shelf flat bars of steel to receive a standard Lumec 'Westminster' series luminaire. Conduit was integrated into the legs of the compass to receive the electrical service. The formwork for the base was constructed to imprint the impression of a book spine and cover on the concrete. We also specified a tooled radius reveal on the top of the book base to suggest the turning of the compass. These custom lights were integrated into the design of the front entry to provide both lighting and seating. Hence, there was no significant extra cost beyond conventional light and seating options.

2 OBELISKS FOR SCIENCE WORLD

At the eastern end of Vancouver's False Creek sits the geodesic dome that is Science World. The dome was Expo Centre during the City's highly successful Expo 86 World's Fair. In 1990, the City of Vancouver commissioned PWL to design the second phase of park development adjacent to Science World. Mindful of Science World's mission to engage British Columbians in science, we pondered how the landscape could reinforce the mission. We thought about the origins of science and mathematics, which took us to Pythagoras and Ancient Egypt for inspiration.

Fortuitously Lumec was simultaneously developing a prototype for a pyramidal shaped luminaire. This led us to explore the obelisk as a potential form for custom designed light fixtures. After several iterations, including drawing the light with its base at 1:1 scale on butcher paper hung off the side of our office building, we arrived at an

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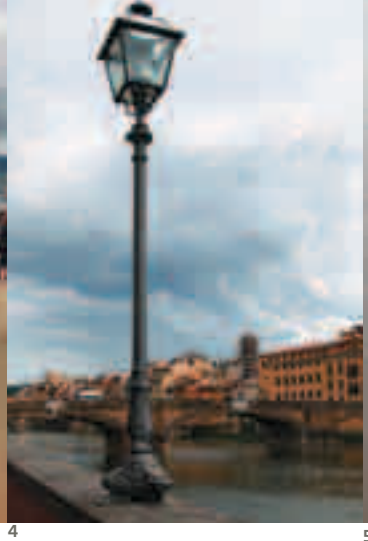

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appropriate proportion and materiality for an obelisk light that could refer to Science World's lineage and mark the arcing promenade that spans the site. Unfortunately, a decision was made during construction to shift from a precast obelisk base to a cast in place. In the process the pyramidal luminaire was set too high at the top of the obelisk, undermining the elegance of the obelisk form. Twenty years later, when I walk or ride by the fixture I still feel the urge to climb the obelisks and lower their luminaires.

3 BOUY OH BOUY

When Canadian Pacific determined their Coal Harbour railyard was superfluous, it was redeveloped into one of Vancouver's newest waterfront neighbourhoods. The heart of the neighbourhood is Harbour Green Park with its panoramic views of Stanley Park, the Northshore Mountains, and of course, the harbour with its ubiquitous boats and float planes. The Bute Street promontory at the Park's centre is a hub of activity that includes a water play park, café and connections back into the city. Unsatisfied with the available off-the-shelf fixtures, in 1995 we worked with Lumec to custom design a distinct light to appropriately mark this special location. Similar to Kwantlen's compass light and Science World's obelisk light, we sought inspiration from the context, studying the form and character of the navigation bouys in the harbour. To keep costs within budget we used widely available and relatively inexpensive steel tubing to develop a frame that could receive a polycarbonate cylinder housing the light source that Lumec manufactured for the project. Once again much of the modelling was tested at full size on butcher paper to ensure the proportion of the base was right. As well we worked with the Lumec's lighting design team to ensure the performance would not be compromised.

Ultimately designing custom light fixtures has more to do with the clarity of the design narrative and the desire to weave it throughout all design elements than it does with budgets. As key elements in framing the evening landscape, both the fixtures and the ambience they create warrant the time spent exploring and crafting lighting options. If you are unwilling to abrogate your design eye to a catalogue, don't reach for off the shelf products too quickly. Rather, consider how custom lighting can become an important physical feature with the powerful ability to affect our experience of place.

kconnery@richmond.ca

1 LIGHT BALLS ON THE WATERFRONT IN WELLINGTON, NZ **2** COMPASS LIGHT AT KWANTLEN POLYTECHNIC UNIVERSITY **3** OBELISK FROM B.C. SCIENCE WORLD **4** LIGHT POLE IN FLORENCE (NOTE THE BASE) **5** CHANNEL BUOY **6** BEACON LIGHT HARBOUR GREEN PARK | **1** BOULES LUMINEUSES DANS LE PORT DE WELLINGTON, NZ **2** LUMINAIRE BOUSSOLE À L'ÉCOLE POLYTECHNIQUE KWANTLEN **3** OBÉLISQUE DE B.C. SCIENCE WORLD **4** RÉVERBÈRE DE FLORENCE **5** BOUÉE **6** BALISE DE HARBOUR GREEN PARK

PHOTOS KEVIN CONNERY

For more online images! www.csla-aapc.ca

BRENDA J. BROWN

SEEING LIGHT

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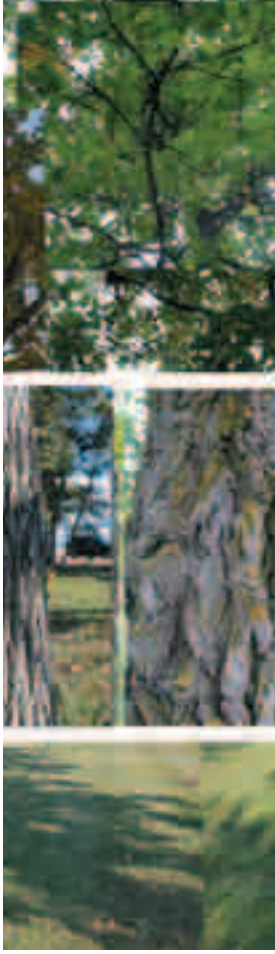

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FR_VOIR LA LUMIÈRE

À L'AUTOMNE 2009, Brenda Brown a animé un atelier de maîtrise en architecture de paysage à l'Université du Manitoba. Son intention était de préparer les étudiants à des interactions significatives avec les concepteurs d'éclairage et de renforcer leur prise de conscience de la lumière et de ses possibilités. Les résultats impressionnants obtenus sont présentés brièvement ci-dessous. Pour une analyse plus approfondie, consultez notre numéro en version numérique ou les pages de LP sur www.csla-aapc.ca.

EN_

LIGHT IS FUNDAMENTAL to landscapes and the landscape experience. When we create landscapes we alter and shape experience of light, whether or not we are aware that we are doing so.

In landscape architecture education, light's fundamental role is most commonly acknowledged by the study and use of sun charts and shadow diagrams. However valuable, these tools only hint at the rich poetic, social and experiential range of this medium.

In fall 2009, I taught a master's level landscape architecture studio at the University of Manitoba. My intention was not to divert students to lighting design, or even to inculcate agility in selecting lighting equipment. I sought rather to prepare them for meaningful interactions with lighting designers and to enhance their awareness of light and its possibilities. I also suspected, and the course confirmed, that informed considerations of light would illumine other aspects of landscape architecture.

In the first weeks, we discussed in depth Wolfgang Schivelbusch's *Disenchanted Night* (Berkeley: University of California Press, 1988), which describes the development of artificial light through the nineteenth century. It provided a base from which to reflect on light (and other) technologies' interactions with culture and landscape. Copious slide presentations portrayed a wide range light conditions, effects and manipulations in landscapes. We considered works by photographers, installation artists, architects and lighting designers as well as landscape architects. There were films on the works of great cinematographers and on animal luminescence. There were guest lectures – one primarily concerned lighting technology; another, theatre lighting. A third lecture, by Linnaea Tillett of Tillett Lighting Design, emphasized philosophical and psycho-physiological aspects of light and her firm's work on landscape architecture projects. Field trips included an evening boat ride on the Red River and a night-time walk downtown.

OBSERVATION...REFLECTION... EXPERIMENTATION...

Students undertook observation, analysis and documentation exercises, as well as two major design problems, all situated on a site they had selected within the city. All sites were adjacent to one of Winnipeg's three rivers, in part so that the effect of light on water could be explored.

The first field assignment was a prescribed sequence and documentation of in-situ observations of changing natural landscape light. Supplied with a Benjamin Moore fan deck, employing paint-chip matching and photography, each student documented his or her site at four different times at least five hours apart over at least two days. **[Image series A]**

DESIGN PROBLEM 1: NATURAL LIGHT | DESIGN INTERVENTION

Students then tackled the first problem: an intervention to heighten visitors' awareness and/or experience of natural light on the site. They could employ any form and material, but no artificial lighting. Although light was the focus, students were expected to be sensitive to other aspects of the site's context, its users and its characteristics.

Devin Segal, for example, was drawn to a pair of Assiniboine River bridges and the spaces between them. He was particularly intrigued by the old railroad bridge and how its forms shaped light. He transmuted those forms into groups of long, horizontal, suspended acrylic boxes, which, though highly contrasting in weight and material, nonetheless evoked the railroad bridge forms. The boxes would cast shadows as the bridge does, but also filter, reflect and redirect sunlight. **[Image B]**

Bret Mack proposed four groves for Whittier Park on the Red River, each dominated by a different species – Schubert chokecherry, bur oak, Swedish aspen, paper birch – each species visibly and differently affecting and affected by light. Mack noted the Schubert chokecherry's red glow in the early morning and its deep purple canopy in the afternoon, the paper birch's intense white and golden yellow and the Swedish aspen's deep green that, within a few seconds, changes to four different shades of green as the sun sets. Differently coloured benches in each grove would further highlight the ambient, shifting colours of its trees. **[Image series C]**

DESIGN PROBLEM 2: DAYLIGHT | NIGHTLIGHT – RIVER | TOWN

To tackle the bigger design problem, students used light and other landscape design to strengthen connections between the river and adjacent parts of the city. These connecting spaces were to be in some sense *about* light – both daylight and nightlight. Students considered light's affective and effective aspects: its potential for facilitating way-finding, enhancing security, symbolizing power, supporting community building, building a city or neighborhood image, creating spectacle, and/or enhancing aesthetic experience of place.

Students undertook an extensive site analysis, including more light/colour studies and shadow diagrams, but they also had to map many other things. The final designs addressed materials, light types and fixtures. Catalog items were not specified; however, students were expected to specify bulb types and describe how fixtures would affect the light.

One student, Wu Huijun (June), designed a new path system and expanding and contracting illuminated fan-forms that would provide better river access and become part of the night-time river light-scape. **[Image D1]** Shawn Stankewich focused on the railroad lift-bridge in Winnipeg's Forks Park already converted to pedestrian use. To connect the area beneath the bridge, the bridge surface, the adjacent forest, the riverbank and the river, he redesigned and extended the bridge, and created a lower level promenade, a cutaway, a river launch, a concrete plinth and a connecting boardwalk. Each area was distinguished by its quality of natural light, but also was artificially lit to accentuate distinctive night-time experiences and provide for safe circulation. **[Image series E]**

Jori Pincock became very interested in the homeless community on her site. In both her designs she sought to support their activities while accommodating the general public. Her initial intervention defined the site's gathering spaces with a recycled glass mosaic retaining wall that, depending on conditions, would cast both reflections and shadows. **[Image series F]** Her final design included artificial light tuned to support different night-time activities in different areas.

Chelsea Synchych's design, located where the Seine and Red Rivers meet, was an exercise in minimal and indirect lighting. Hidden lighting, backlighting, temporal lighting, dim light sources, and reflection were all strategically employed. Seeking to maintain some of the site's darkness and "all its mystery", she connected areas by contrasting light and dark spaces, revealed the Seine's mouth, and designed a simple lamp so night-time visitors could partially control the light themselves.

The beams of metal halide spot lights would spread upward through the bridge's rail ties to be interrupted by passing trains, but also deflect down through perforated metal to create "pixie light" on the proposed pedestrian bridge below. A system of blue fibre optic lights on the bridge's underside would enhance the experience of those passing beneath – in winter skaters and skiers, in summer canoers and kayakers . **[Image series G]**

I was quite pleased with the students' work: I credit them and thank them for their thoughtful hard work and their permission to use their images here. As an educator I am of course concerned with residual effects, so I surveyed students a year later. Several reported that consideration of light had become much more integral to their design processes. Others observed that in thinking about light they came to more deeply understand their site's changing functions over time (whether a day or a year), and to better comprehend emotional, social and ecological issues and safety concerns related to artificial lighting and night-time landscape use. The studio's focus on natural and artificial light, far from excluding other design considerations, enhanced them.

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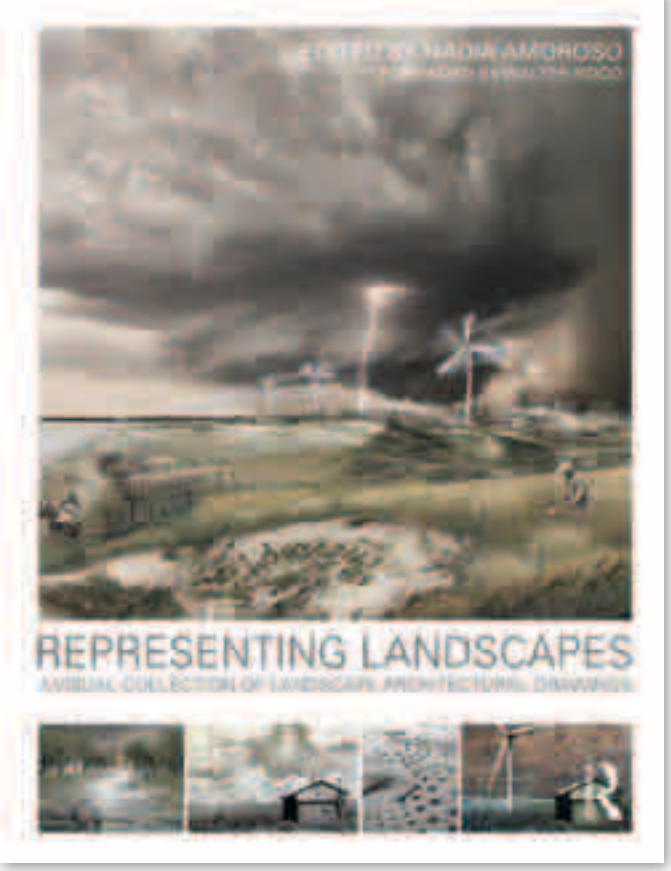
1 FROM "FOREST LIGHT SWITCH" BY WU HUIJUN
2 "LIGHT AND LANDSCAPE" BY BRET MACK



Each chapter possesses its own unique atmosphere.

Book info:
Representing Landscapes:
A Visual Collection of Landscape Architectural Drawings
Nadia Amoroso, Editor
Routledge 2012
ISBN: 0415589576

DANIEL ROEHR, CHAPTER CONTRIBUTOR*

DRAWING INSPIRATION

***REPRESENTING LANDSCAPES* INTRODUCES** a new methodology for the study of media techniques for the representation of landscape architecture. Historically, most pedagogical books on this subject focused on topics like "how to sketch and draw landscape architecture", and were written by one or two authors, with the intention of teaching skills such as perspective drawing, rendering techniques and analytical drawing. Those books engaged readers mainly in drawing exercises, encouraging them to practice different representational techniques.

Editor Nadia Amoroso takes a different approach. She has invited educators from twenty accredited institutions to take part in her publication, including Walter Hood (Berkeley), Chris Reed (GSD), Mikyoung Kim(RSID) and Sean Kelly (University of Guelph). (I am one such contributor.) The book's carefully orchestrated content is therefore a journey through accepted novel representational practices taught by educators around the world. *Representing Landscapes* is the first international book of its kind, exhibiting student work exclusively with supplemental text by their educators.

The book's layout invites the reader to flip through its pages at random, but the power and immense variety of media presented encourages a deeper engagement with the compelling images. Insightful commentary is provided by the contributors, who explain each project's content, assignments, exercises and research approaches in detail, as well as the theoretical processes behind the images.

A RICH CANON OF TECHNIQUES

The strength of the book lies in the effective assembly of different representational techniques. Each chapter possesses its own unique atmosphere, in accordance with the media technique presented. The layout of the book is in itself a lesson in exploring landscape architecture through representation. Examples reach into the rich canon of traditional charcoal drawing techniques, collages and photography, and tease the mind with state-of-the-art GIS mapping research examples. Because the book has no structural hierarchy, the readers are free to take their own reading approach and explore their own representational style without focussing pedantically on exercises alone. Many existing instructional books are problematic in that the exercises are designed to be copied by rote, leaving little leeway for nurturing creativity.

Representing Landscapes is suggestive rather than prescriptive. It presents an extensive palette of representational possibilities, approaches and solutions to solve given problems, without suggesting a precise method. In this way, it encourages unrestrained and investigative thought. Moreover, the book presents serious and complex content, challenging the reader with all facets of media representation taught in the global community. It is the missing link in a comprehensive discussion of today's practice: a must-have for everyone interested in an overview of media techniques in landscape architecture worldwide. The book not only raises awareness of how traditional sketching techniques continue to be relevant today and how they have merged with contemporary digital techniques, but it also demonstrates how representational techniques continue to influence both the design and perception of landscapes.

***FULL DISCLOSURE: DANIEL ROEHR, with Matthew Beall, contributed the chapter, *"Envisioning Landscapes"*. droehr@sala.ubc.ca**

COVER: TOP PASTORAL SCENE OF SANDHILLS SITE (COLLAGE USING PHOTOSHOP), BY ERIK PRICE BOTTOM **LEFT TO RIGHT: 1** RIO GRANDE KAYAK PARK (PERSPECTIVE PHOTOMONTAGE USING PHOTOSHOP FILTERS + MASKS),BY JOHN OLIVER **2** RELIC FARMLAND (CHARCOAL DRAWING ON TEXTURED PAPER), BY KAREN MAY **3** WET/DRY, DORMANT/ACTIVE MOUNDS IN DESSERT (DIGITAL FABRICATED MODEL USING CNC PROCESS + DIGITAL MODEL CREATED IN RHINOCEROS), BY JOE KUBIK **4** FARMLAND SCENE ALTERNATIVE (ORIGINAL IMAGE #2 TEXTURED IN PHOTOSHOP, BARN REMAINS IN CHARCOAL), BY KAREN MAY

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NIGHT LIGHTS | LUEURS NOCTURNES


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FR_COLLABORATEURS
www.csla-aapc.ca

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2 GILLES ARPIN practiced theatrical work for 20 years, and while touring, he became passionate about cities and the emerging field of urban lighting design. In 1996 he founded EclairagePublic, a firm dedicated to lighting public spaces indoors and out. EclairagePublic treats architectural and landscape space as a whole to achieve a unique nocturnal ambience. garpin@eclairagepublic.ca

3 NATHAN BRIGHTBILL, MLA (University of Washington), CSLA, BCSLA, ASLA, WASLA, is a landscape architect at Phillips Farevaag Smallenberg. As well as his involvement in western projects, he has been involved over the past five years in the West Don Lands neighbourhood development in Toronto, and was project manager for Underpass Park. nbrightbill@pfs.bc.ca

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6 AXEL MORGENTHALER is an international visual designer and lighting artist who has collaborated with many performance companies around the world including Cirque du Soleil. Axel also designed the award winning lighting signature for the Quartier des Spectacles of Montreal and has created architectural lighting for many of Montreal's cultural landmarks. www.photonicdreams.com www.axelmorgenthaler.com

7 JEAN LANDRY est architecte paysagiste depuis plus de 30 ans. Il se consacre à la gestion de projets intégrant une participation active de parties prenantes. Cet intérêt pour une offre de services en espaces libres et verts adaptée aux besoins de clientèles diversifiées est complété par une passion pour la photographie documentaire et artistique. landryjean@videotron.ca

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9 MAUDE M. SÉVIGNY a remporté, en 2008, le prix Enviro-Action pour son projet de lutte contre la pollution lumineuse sur la Côte-Nord (Québec). Partisane de la préservation du ciel étoilé depuis son adolescence, elle occupe présentement le poste de stagiaire aux communications pour la réserve internationale de ciel étoilé du Mont-Mégantic. sevigny.maude@astrolab.qc.ca

10 NEIL DAWE BD Ep, MLA, is a past president of the CSLA. He has over 25 years experience in planning, design and management and has consulted with numerous rural municipalities in NL. Neil is President of Tract Consulting Inc, the province'slargest planning and design firm. neil@tract.nf.net

11 PAMELA MURPHY, the Senior Administrator with Tract Consulting, has over 10 years experience in office administration and consumer relations. She is also studying at Memorial University. info@tractconsulting.com

12 NATALIE WALLISER, SALA is a landscape architect working as a campus planner at the University of Saskatchewan. As the Chair of the 2013 CSLA Congress, she invites you to experience living skies and "Winds of Change" in Regina from July 10-14. nwalliser@gmail.com

13 LA FONDATION CONCEPT LUMIÈRE URBAINE (CLU) is led by Philips Lumec, a recognized leader in outdoor lighting. CLU holds an annual competition to encourage young designers to develop innovative lighting concepts for exterior public spaces, and to encourage the development of global solutions that link humans to their environment by means of light. Mathieu Casavant of Nip Paysage is President of the Board. Mathieu@nippaysage.ca

14 (no photo) THE TRUST FOR PUBLIC LANDS (TPL) is the only U.S. national conservation group dedicated to protecting land in and near cities for people to enjoy as parks, playgrounds and other public spaces. TPL's Center for City Park Excellence (CCPE) produces the widely cited annual report, *City Park Facts*, and *The Excellent City Park* System report, both critical tools for park advocates and planners. In partnership with the *City Parks Alliance*, CCPE also publishes the *City Parks Blog*. http://www.tpl.org/research/parks/ccpe.html

15 RYAN JAMES has worked with Jim Snelgrove several times in recent years. Ryan doesn't really care for the yellow light of high pressure sodium, but he does appreciate Jim's sensitivity to the humble plight of the landscape architect, and he knows that all of this has been carefully considered when Jim's spec goes to high pressure sodium anyway. ryan@basterfield.ca

16 BRENDA J. BROWN of Brenda Brown Landscape Design Art Research, lives and works in Winnipeg where she is Assistant Professor at the University of Manitoba. Her research deals with eco-revelatory design, with a particular focus on sound. Recent projects include Spring Ice (Winnipeg, 2010) which incorporated five sound and video installations and collaborations with composers, and, currently, a hummingbird habitat

JUDGING A BOOK BY ITS COVER

Despite the stellar images that have graced our last two covers, LP must admit to a major failing in photo attribution. In considering possible cover contenders, we juggled too many names and identities, and thus failed to clearly identify the photographers in both summer and fall. Summer's shot of PFS's National Award winning image of Sherbourne Park should have been credited Tom Arban Photography specifically, the firm which was also credited for images in the story. And in fall, the Place d'Armes photo on our cover was by Steve Bilodeau-Balatti, who was credited within the story itself.

restoration in Michoacán, Mexico.
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17 DANIEL ROEHR is Assistant Professor at the School of Architecture and Landscape Architecture at UBC and founder of greenskins lab.
droehr@sala.ubc.ca

18 VINCENT DUMAIS obtient en 1986 son diplôme en architecture de paysage de l'UDM. Après quelque années à la Ville de Montréal, il se joint à Philips Lumec en 1990 comme représentant auprès des architectes paysagistes. Nommé au College of Fellows en 2001, il travaille actuellement comme Canadian Sales Manager chez Philips Color Kinetics. Vincent.Dumais@philips.com

19 BILL PECHET, BFA, BA, B ARCH traverses the fields of architecture, landscape architecture, urban design and public art. In 2006, under the banner of Pechet and Robb Art and Architecture, his studio represented Canada at the Venice Biennale of Architecture. Bill is also a faculty member of the School of Architecture and Landscape Architecture at UBC.
bill@pechetstudio.ca | info@pechetstudio.com

VINCENT DUMAIS

NOUVELLE DONNE : QUATRE DECENNIES EN LUMIERE

GAME CHANGERS... FOUR DECADES IN THE LIGHT

FR_

RAPPELEZ-VOUS... LES ANNÉES soixante-dix et quatre-vingts, des centres commerciaux font leur apparition partout au Canada ce qui a d'importantes conséquences sur la vitalité des centres-villes. Devant ce phénomène sans précédent, les municipalités, avec l'aide des gouvernements provinciaux, contre-attaquent en opérant des cures de rajeunissement de leurs rues principales, ce qui permet l'éclosion d'une toute nouvelle forme pratique de l'architecture de paysage au Canada : les projets de ***ReviCentre*** au Québec et les ***BIA*** (Business Improvement Area) ailleurs au Canada.

À cette époque, une jeune entreprise commence à s'affirmer en matière de design et fabrication de mobilier d'éclairage décoratif : Lumec de Boisbriand au Québec. En 1982, le portfolio de Lumec est relativement limité. Un trio de jeunes designers industriels – les Galipeau, Bertrand et Simard – a la responsabilité de faire évoluer la gamme de produits. Je me suis joint à la firme en 1990. Il était gratifiant de la voir répondre aux demandes des architectes de paysage en concevant des luminaires alliant design novateurs, flexibilité et modularité.

LA CANDELA ET SES SUITES

De tous les produits conçus à cette période un modèle en particulier retient l'attention des architectes paysagistes : la CANDELA. Cette famille d'appareil d'éclairage fut pendant de nombreuses années la « spécialité » de Lumec en Amérique du Nord et certainement le modèle le plus fréquemment retenu par les architectes paysagistes dans le cadre de leurs projets.

Ainsi durant les 30 dernières années les architectes paysagistes ont été des acteurs de premier plan dans le développement du mobilier d'éclairage décoratif. Cette influence relève surtout de leur exceptionnelle maîtrise des notions d'échelle qui permet d'harmoniser les fonctions piétonnière et véhiculaire. L'industrie de l'éclairage a dû, tant bien que mal, s'adapter à ces nouveaux besoins, mais a souvent fait l'objet de critiques touchant les proportions des luminaires, l'échelle des détails et surtout la taille des appareils. Même si les architectes paysagistes ont longtemps prêché l'adoption de nouveaux paradigmes stylistiques, il aura tout de même fallu une avancée technologique pour y parvenir. L'arrivée récente des DEL, leur petite taille et leur performance auront permis cette révolution. Ainsi, il est maintenant possible de concevoir des luminaires extrêmement filiformes qui s'harmonisent parfaitement aux nouveaux canons de style en vogue aujourd'hui.

OÙ ALLONS-NOUS MAINTENANT?

Au-delà des nouveaux produits à développer, formes, style et applications nouvelles, il est clair que l'avenir de l'éclairage au Canada passera par les changements de couleur, l'animation, la mise en lumière et les images vidéo à grande échelle. On peut maintenant dire... il n'y a pas de limite!

EN_

THINK BACK TO the 70s and 80s, when shopping centres sprung up all over Canada, with significant repercussions for the vitality of our cities' downtowns. In response to this unprecedented phenomenon, municipalities, with provincial support, went on a Main Street revitalization spree, which in turn created the conditions for the emergence of a new practical branch of landscape architecture: the ReviCentre projects in Quebec and the BIAs (Business Improvement Areas) in the rest of Canada.

In those days, a new company was starting to carve out an important niche in the design and manufacture of decorative street lighting: Lumec of Boisbriand, Quebec. In 1982, Lumec's portfolio was fairly modest. A trio of young industrial designers – Galipeau, Bertrand and Simard – were responsible for fleshing out the company's product line. I joined the firm in 1990, and it was gratifying to watch the company respond to the pleas of landscape architects, who were often responsible for selecting street lighting equipment, and develop lights that combined innovative design, flexibility and modularity.

THE CANDELA AND BEYOND

Of all the products designed during that period, one model in particular is still prized by landscape architects: the CANDELA. For at least 20 years, this family of lighting products was Lumec's signature design in North America, and without a doubt the model most frequently chosen by landscape architects for their projects.

Over the last 30 years, landscape architects have been at the forefront of decorative street light development. Their influence stems especially from their exceptional grasp of scale, which makes it possible to harmonize pedestrian and vehicle spaces. The lighting industry adapted to their needs, but often drew criticism from professionals about their products' proportions, scale of details and especially fixture size. Landscape Architects advocated new stylistic paradigms, but they did not get their wish until a technological development opened the door. The recent arrival of LED lighting with its small size and high efficiency signalled a design revolution. It is now possible to design extremely slender lights in perfect harmony with today's stylistic trends.

WHERE DO WE GO FROM HERE?

The industry promises new products, new shapes, styles and applications, but above all, it is clear that the future of lighting in Canada will involve changing colours, movement, illumination and large-scale video projections. Now we can truly say: the sky is the limit!

vincent.dumais@philips.com

THE CANDELA, BY PHILIPS LUMEC | LA CANDELA, PAR PHILIPS LUMEC
PHOTO VINCENT DUMAIS

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