A nighttime photograph of a city park. In the foreground, a stone wall is illuminated from below, casting a warm glow. The middle ground features a grassy area with several trees whose leaves are lit up with a golden light. In the background, a large, ornate building with a dome is illuminated with a blue light, and a modern, dark building stands to the right. The sky is dark, and the overall atmosphere is serene and modern.

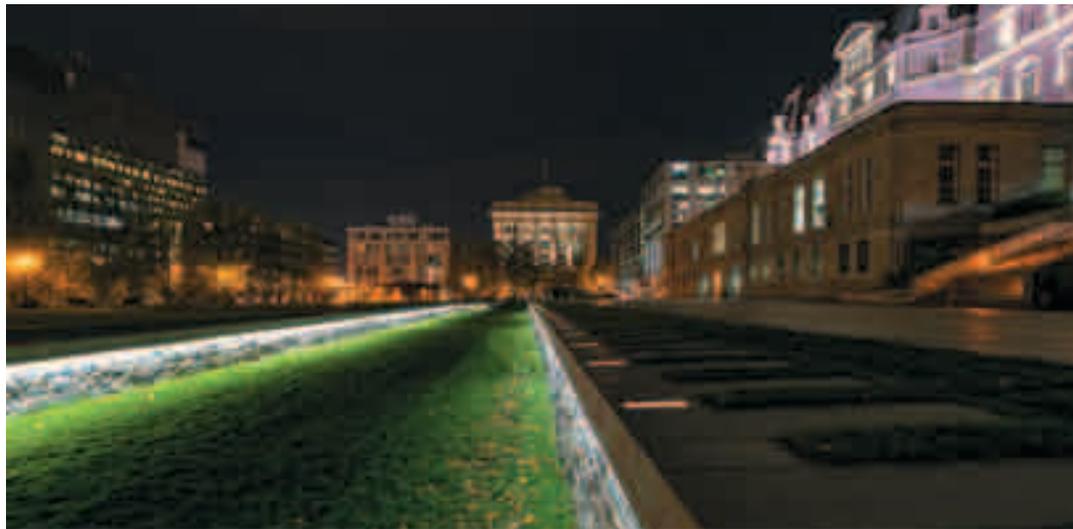
LANDSCAPES PAYSAGES

LANDSCAPE
ARCHITECTURE
IN CANADA

L'ARCHITECTURE
DE PAYSAGE
AU CANADA

WINTER | HIVER 2013
vol.15_no.1 | 8.00\$

leurs nocturnes
night lights



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

CHAMP-DE-MARS : SHEDDING LIGHT ON HISTORY

 [FR_www.csla-aapc.ca](http://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



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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 NOCTURNAL 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 ABRUPT 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.

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

...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.

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.

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