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A LUMINOUS RHYTHM

URBAN PORTICOES

FR_ PORTIQUES URBAINS EN LUMIÈRES

Les viaducs et autoroutes de nos villes peuvent-ils prendre une nouvelle résonance inattendue dans le paysage public? Deux projets du Ministère des transports du Québec illustrent comment une approche axée sur le paysage peut adoucir les formes peu engageantes de ces structures urbaines dominantes, les transformant en une partie significative de notre expérience visuelle. Dans les deux cas, l'éclairage a été la clé des stratégies de conception qui ont donné aux formes simples des structures de génie civil un visage plus animé.

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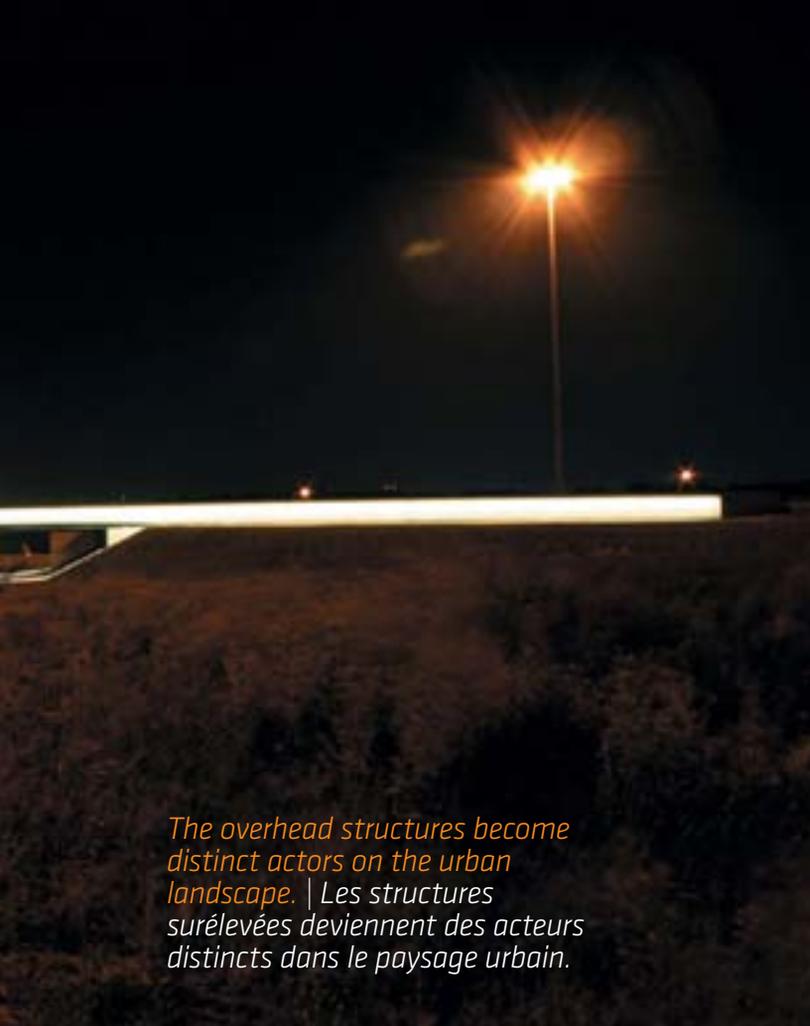
HIGHWAY INFRASTRUCTURE IS a ubiquitous feature of the modern landscape. Despite our desire to change our transportation habits, these intrusive structures will no doubt continue to be part of everyday experience for the foreseeable future.

Can urban overpasses and expressways take on a new, unexpected resonance in the public landscape? Two projects for Quebec's transportation department (MTQ) illustrate how a landscape-oriented approach can soften the uninviting shapes of these dominant urban structures, transforming them into a meaningful part of our visual experience. In both cases, lighting was the key to design strategies which gave the simple shapes of civil engineering structures an animated, spirited face.

SEVEN CEREMONIAL OVERPASSES

The architectural treatment of overpasses on Quebec City's Félix-Leclerc interchange was part of a larger study of the Duplessis freeway corridor launched in 2001. The study resulted in a description of the urban-, landscape- and highway-design principles that would make it possible to integrate the Sainte-Foy plateau, an urbanized district crossed by the portion of the provincial capital's ceremonial routes

1-4 THE FIRST OVERPASS OF QUEBEC CITY'S FÉLIX-LECLERC INTERCHANGE
| LE PREMIER VIADUC DE L'ÉCHANGEUR FÉLIX-LECLERC À QUÉBEC
PHOTOS TRANSPORT QUÉBEC



The overhead structures become distinct actors on the urban landscape. | Les structures surélevées deviennent des acteurs distincts dans le paysage urbain.

FELIX-LECLER INTERCHANGE

running from Jean-Lesage Airport to the National Assembly. The seven overpasses along the route were targeted for a design refresh for purposes of better integration and general urban revitalization.

Below the Sainte-Foy plateau, the first of the overpasses is part of the Félix-Leclerc interchange. Here, a natural valley at the foot of the Laurentians is given over entirely to highway infrastructure. From a design standpoint, this was a challenging site. Since people primarily experience the landscape while travelling at high speed, the architectural approach relies on simple concepts based on an analysis of the dominant features of the place. Northbound, toward the airport, a “line” structure highlights the successive layers of the landscape. Southbound, a “frame” structure pulls the gaze toward the Sainte-Foy plateau and signals the beginning of the ceremonial route. The framing of the civil engineering structures with reference to the landscape casts the highway corridor space as a place with symbolic resonance.

OF LIGHT, TIME AND SPACE

At night, as the visible setting blurs, the lighting brings out the meaning of the structures as public, even civic, works. The infrastructure becomes an event in time-space. At the sensory level, paradoxically, the strong, plastic dichotomy between the two structures is brought out by the intangible nature of the illumination.

The project, which was realized in 2004, adhered to all design criteria (which had been drafted by Urban Soland, including criteria for the illumination of the new structures.) The project was executed by the SNC-Lavallin / Cima+ consortium in collaboration with the Daoust-Lestage architectural and urban design firm.

RAMPING UP NEIGHBOURHOOD IDENTITY

We revisited these ideas in a more urban context in 2007 when the MTQ took on the elevated ramps of the Dufferin-Montmorency highway above the Saint-Roch quarter in Quebec City. The Dufferin-Montmorency expressway hugs the Beauport shoreline and connects towns east of Quebec City with the capital and legislature. At the time of its construction in the 1970s, the expressway met stiff opposition owing to its route which runs beside the St. Lawrence River, and in some places, on fill in the river. Its end point, just beside the National Assembly grounds, was also problematic. Originally, an underground link was supposed to allow the highway to cross the tip of the city. Until very recently two freeway ramps – symbols of the abortive megaproject – abutted the rock face of Sainte-Geneviève Hill in spectacular fashion.

More than three decades later, the MTQ began demolition of these impractical ramps, along with a complete reconstruction of the parapet walls on the remaining elevated structures. The work was done in conjunction with the redevelopment of land under the structures. This urban territory, known as the *îlot fleuri* or “flowered island,” had long been an unofficial artists’ canvas. Large murals on the highway support pillars gave the space its signature look. The site continues to be the subject of studies aimed at unifying the urban fabric and integrating public, community and cultural programs in keeping with the wishes of neighbourhood residents and the new identity of the entire Saint-Roch district.

Sensitive to the site’s value to the public, the MTQ sought a distinctive architectural treatment for the new concrete parapet walls. The lighting concept, in fact, came about in recognition of the site’s popularity for events. The remaining ramps will continue to soar above the ground, marking the urban landscape with the structures’ kinetics and monumentality.

URBAN PORTICOES

The project incorporates nearly 200 LED custom-designed light fixtures into the new parapet walls. Mounted in stainless steel cases, they are arranged in several different patterns, with the lights spaced at varying distances depending on the path of the ramps and the surrounding urban environment. Drivers or pedestrians who catch even a fleeting glimpse of the ramps now experience animated streaks of light. The inert structures stretching over local streets have been transformed into urban porticoes. The dynamic lighting rhythm becomes an urban signature; the overhead structures become distinct actors on the urban landscape.

The project’s aim was to create white streaks rather than intense points of light. A certain restraint in the design thus avoided overly aggressive visual affects, even though technology made it possible to use effects like pulsing or multi-coloured lights. In a night landscape already heavily bathed in artificial light, the project sought the right tone, creating an urban event at once sensitive and relevant, and almost enigmatic.

WARMING THE NIGHT

The design of the Félix-Leclerc interchange overpasses and the lighting of the Dufferin ramps are true urban lighting projects. In both cases the use of light affects perception of the environment, inflects its meaning and bestows a new urban function on the infrastructure. The lighting



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*The lighting transforms these starkly shaped structures.
L'éclairage transforme ces structures aux formes austères.*



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1+3 THE "FLOWERED ISLAND" OF QUEBEC CITY'S SAINT-ROCH QUARTER LIES UNDER THE ELEVATED RAMPS OF THE DUFFERIN-MONTMORENCY HIGHWAY
2 CIRQUE DU SOLEIL PERFORMS BELOW THE NEWLY ILLUMINATED RAMPS |
1+3 SOUS LES BRETÈLLES SURÉLEVÉES DE L'AUTOROUTE DUFFERIN-MONTMORENCY : L'« ÎLOT FLEURI » DU QUARTIER SAINT-ROCH. **2** LE CIRQUE DU SOLEIL DONNE UN SPECTACLE SOUS LES NOUVELLES BRETÈLLES ILLUMINÉES.
 PHOTOS PETER SOLAND

transforms these starkly shaped structures: they are no longer objects disconnected from their site. Inevitably, they continue to dominate the landscape, but the lighting accents give them warmer, lighter urban personalities.

THIS, TOO, IS PUBLIC SPACE

The projects can also be characterized as design of public space, if we think of public space in the broadest sense, including not only tangible places hosting urban activity, but also the visual environment of the city and our phenomenological experience of the entirety of the landscape.

The new approach and passage under the Félix-Leclerc overpasses transform a mundane nocturnal drive into a distinctive event that marks the site as a significant public space. A night-time encounter with the illuminated Dufferin ramps, via the pedestrian walkways crossing the site, inspires myriad impressions that renew the meaning we try to give to all of the structures around us. The environment created by the ramps has an event-oriented character: it is a site that invites community activities. Seen in this way, the illumination helps rejuvenate the old "flower island" as a well-defined cultural space within the city, distinct from conventional urban space. An indicator of the site's appeal, the Cirque du Soleil has for the past three years set up its Tin Kingdom performance below the elevated and newly illuminated ramps.

Using simple means of expression that in no way strip the civil engineering structures of their specificity, the illumination of the Dufferin ramps and the design of the Félix-Leclerc interchange overpasses illustrate, like a handful of other projects in Quebec, how integrated infrastructure design can make a rich contribution to cities and landscapes, and give an urban site or a highway zone a modern, symbolically rich signature.