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THE RIPPLE EFFECT

YANN KERSALÉ'S
SEA MIRROR
WOWS IN SYDNEY

VENICE ARCHITECTURE BIENNALE • CHARLES STONE INTERVIEWED
MAY DESIGN SERIES & LIGHTFAIR INTERNATIONAL ROUND-UPS



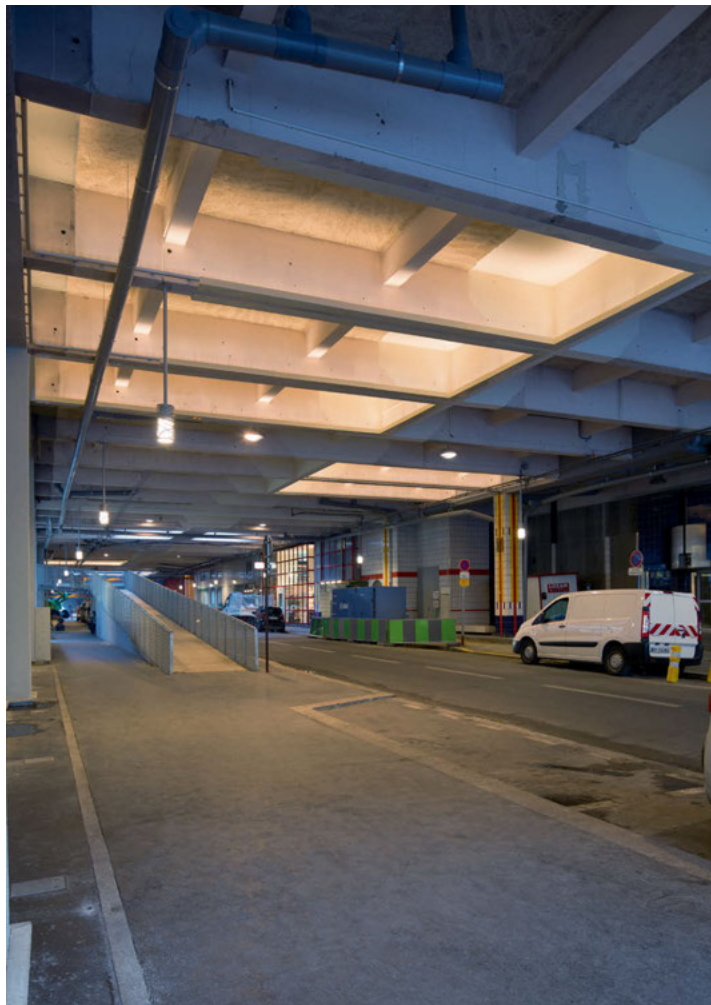
THE PHASES OF AWAKENING

The Rue Robert de Flers was a demure street in the most demure of Parisian neighborhoods, the 15th arrondissement. Roger Narboni's Concepto Studio were commissioned to create a lighting scheme that would reinvent the neglected crosscut, developing, in assistance with LEC Lyon, an innovative lighting arrangement based upon biological rhythms.



The 15th arrondissement in Paris, in comparison with its bejeweled compatriots in other parts of the city, is something of a cultural wasteland. It has its defenders, some people even call it meditative, the residential and office blocks passing by in an unending grey smudge as you drive around the area in a taxi, the repetition lulling you into a suburban slumber.

The Rue Robert de Flers is a covered road and walkway that can be found in a wealthy portion of the 15th, running alongside the River Seine towards Beaugrenelle, a new shopping centre, the opening of which the new lighting was timed to coincide with. The grey, unremarkable street makes a particularly unfitting monument to de Flers, one of France's most lively playwrights. As part of the area's renovation, the walkway was given a much needed facelift last year, with a new up-lighting scheme being developed to light the tunnel.



Concepto, design veterans well used to creating lighting schemes in the French capital, developed an innovative lighting plan based upon human biological rhythms. The lighting adapts to suit the time of day, progressing from sky blue in the morning to a warm white colour in the evening.

Roger Narboni's Concepto lighting studio, fresh from developing a lighting scheme for the Tour Eiqho in Paris's La Défense, were commissioned to create the new scheme, while LEC Lyon provided the necessary technology.

Concepto developed a lighting scheme based on the human biological rhythm, the lighting adapting its intensity and colours to suit the time of day, making the tunnel less jarring for those who use it.

The design agency carried out a number of on-site tests to further research the use of colour and to define the best colours to use on the project.

In the morning the tunnel is lit in sky blue, a colour chosen because it helps to stimulate the phases of awakening the body goes through after a good night's sleep. The transition from sleep to wakefulness entails reduced awareness and performance, or sleep inertia as it is termed, which can differ in its effect depending on how abruptly a person wakes up. Studies into sleep inertia have suggested that exposure to blue enhanced white light after sleep can speed up the body's recovery.

During the evening the tunnel is up-lighted in a warm white colour because

of the warm and relaxing atmosphere it encourages. The colour transition from sky blue to warm white is subtle and gradual, a transition that is enabled by the use of a DMX control system.

"This is the first time that we have achieved this type of lighting," says Floerence Serre from the Concepto agency, "the lighting outlines the stages of the day and the lighting develops from a stimulating light first thing in the morning, to a warm light in the evening."

LEC Lyon, working in cooperation with Concepto, decided that their LED lightbar technology would be the best luminaire to

JAPANESE

Conceptoは、一日の時間帯に合わせた明暗度や色合いを調整する照明である、人体の生物学的リズムに基づいた照明スキームの開発をおこないました。朝、トンネルは、夜間の質の良い眠りの後の身体の目覚めを促進するため選択されたスカイブルーに輝きます。夜になるとトンネルは、温かくリラックスした雰囲気を促進するため、温かい白い色にライトアップされます。スカイブルーから暖かいホワイトへの色の変化は、徐々に表れて行きますが、この変化はDMXコントロールシステムの使用により可能になります。Conceptoとのコラボレーションに取り組んでいるLEC Lyonは、自社のLEDライトバーテクノロジーが本プロジェクトに適し、最適な光源となると考えました。LEC Ligny-5635ライトバ

ーは、カスタマイズされた緑、青、温かい白の特注のカラープロフィールを搭載し設置されました。様々なコンクリート構造物のレイアウトプランに適する様、ライトバーは様々なサイズで製造されています。バーはまたトンネルの中を通過する人々に見えないような光源となるよう、本当の意味での溶け込んだ照明として機能する様に作られています。

CHINESE

Concepto 开发了一种基于人体生物节律的照明系统，该系统能够在每天的不同时间调整光线强度和颜色。早晨，整个建筑通道都沉浸在天蓝色的光芒中，这种颜色有助于刺激身体在一夜睡眠后恢复活力。夜晚，暖白色灯光从上方进入通道，之所以选择白色，是因为它能营造出温暖轻松的氛围。从天蓝色过渡到

暖白色是渐进式的微妙过程，这种过渡采用 DMX 控制系统实现。

与 Concepto 合作的 LEC Lyon 认为，其 LED 灯条技术是适合该项目的最佳照明设备。LEC Ligny-5635 灯条能以定制的色彩种类进行配备和安装，可以根据要求做成绿色、蓝色和暖白色。灯条制作成多种尺寸，以适应具体架构的安装计划。灯条也通过设计施工，提供真正的照明集成，确保人们在通过建筑通道时不会看到灯光设备。

FRANÇAIS

L'agence Concepto a mis au point un système d'éclairage basé sur le rythme biologique humain, ajustant l'intensité des couleurs en fonction de l'heure du jour. Dans la matinée, le tunnel s'éclaire d'un bleu ciel, choisi parce qu'il contribue à stimuler les phases d'éveil du corps

après une bonne nuit de sommeil. Au cours de la soirée, le tunnel est inondé d'un blanc chaud en raison de l'atmosphère chaleureuse et relaxante qu'il favorise. La transition du bleu ciel au blanc chaud est subtile et progressive grâce au système de contrôle DMX. La société LEC Lyon, travaillant en collaboration avec l'agence Concepto, décida que leur technologie de guidage à DEL était le meilleur type d'éclairage pour ce projet. La barre lumineuse Ligny-5635 de LEC a été équipée d'une gamme de couleurs choisie sur mesure, personnalisée en vert, bleu et blanc chaud. Ces suspensions lumineuses ont été fabriquées en plusieurs tailles afin de s'adapter à la structure en béton. Également conçues pour offrir une véritable intégration de l'éclairage, les lampes restent invisibles pour les personnes passant par le tunnel.



LEC Lyon worked closely with Concepto on the Rue Robert de Flers, providing the Ligny-5635 for use in the project. The lightbars were created with a bespoke colour profile installed, customised in green, blue and warm white. Schreder also provided pedestrian suspended luminaires for use in the tunnel space.

deal with the different demands the project placed on the lighting, due to their ability to allow the emission of multiple colours from a relatively small fixture.

The LEC Ligny-5635 lightbar was equipped and installed with a bespoke colour profile, customised in green, blue and warm white, as opposed to the standard RGB colour palette. The lightbar was also created to emit an extensive beam of light, guaranteeing homogeneous colours.

“We used the LED lightbars because they could easily be adjusted in length,” commented Virginie Carreno from the Concepto agency. “They allowed for an accurate lighting outcome and smooth colour alternatives and their long-lasting life of at least 15 years also acted in their favour.”

The lightbars were manufactured in multiple sizes in order to fit the layout plan of the concrete structure. The bars were also engineered to provide genuine lighting integration, ensuring that the luminaires remain invisible to people passing through

the tunnel, this was achieved by positioning the equipment behind aluminum covers.

Schreder also developed a suspended luminaire especially for the project.

The fixture is a declination of the Phyllos pedestrian luminous column range that Roger Narboni designed for Schreder some years ago and the fixtures have been placed on both sides of the street in front of the residential buildings. They were designed to create a lounge style ambiance on the street and were an alternative to proposing a more basic blend of functional pedestrian lighting.

“Residents have seen their neighbourhood change instantly,” says Karine Bonnefoy, the official responsible for roads in the 7th and 15th districts at the Ville de Paris. “Prior to this project residents simply did not want to use the street, so the feedback from this project has been very positive, especially given that the lighting was unveiled to coincide with the opening of the new shopping centre. District officials now want to apply the lighting scheme to the rest of

the street. Nothing has been signed yet, but we are optimistic that we will be able to extend this type of lighting elsewhere in the city.”

The history of Paris is one of continuous reinvention and revision and the updating of Rue Robert de Flers is a compact mirroring of this story. The unimpressive road, once avoided by residents rather than enjoyed, now has a refreshed feel and a talking point lighting scheme to boot. If the city authorities carry on like this then the 15th arrondissement could well become a by-word for civic surprise rather than suburban practicality.

www.lec.fr

PROJECT DETAILS

Rue Robert de Flers, Paris, France

Client: Ville de Paris

Lighting Design: Concepto

Lighting Specified: LEC Lyon LEC Ligny - 5635 lightbar

DEUTSCH

Concepto entwickelte ein Beleuchtungskonzept, das auf den biologischen Rhythmus des Menschen beruht. Die Beleuchtung passt ihre Intensität und Farben je nach Tageszeit an. Morgens wird der Tunnel himmelblau beleuchtet, einer Farbe, die ausgewählt wurde, weil sie die Stimulierung der Aufwachphasen unterstützt, die der Körper nach einem guten Nachtschlaf durchmacht. Abends wird der Tunnel in einer warmen weißen Farbe wegen der warmen und entspannenden Atmosphäre, die dadurch gefördert wird, ausgeleuchtet. Der Farbverlauf von Himmelblau zu einem warmen Weiß ist subtil und erfolgt stufenweise, ein Übergang, der durch die Verwendung eines DMX Steuersystems ermöglicht wird. LEC Lyon, die mit Concepto zusammengearbeitet haben, haben beschlossen, dass ihre LED Lightbar Technologie für die Beleuchtung dieses Projekts am besten geeignet ist. Die LEC Ligny-5635 Lightbar wurde mit einem maßgeschneiderten Farbprofil mit

Grün, Blau und Warmweiß ausgestattet und installiert. Die Lightbars wurden in mehreren Größen hergestellt, damit sie an den Lageplan der Betonstruktur angepasst werden konnten. Die Leisten wurden ebenfalls so entwickelt, dass sie eine authentische Leuchtenintegration verschaffen und somit gewährleisten, dass die Beleuchtungskörper für die Benutzer des Tunnels unsichtbar bleiben.

ITALIANO

Concepto ha sviluppato un sistema di illuminazione basato sul ritmo biologico umano con un'illuminazione che adatta la sua intensità e ed i suoi colori a seconda dell'ora del giorno. Al mattino il tunnel è illuminato nel cielo blu, un colore scelto perché aiuta a stimolare le fasi del risveglio attraverso le quali passa il corpo dopo il sonno notturno. Durante la serata il tunnel è illuminato in alto da un colore bianco caldo proprio per l'atmosfera calda e rilassante che questo colore

favorisce. La transizione dal colore blu cielo al bianco caldo è delicata e graduale ed è resa possibile grazie all'uso di un sistema di controllo DMX. LEC Lyon, lavorando in collaborazione con Concepto, ha deciso che la loro tecnologia di barre luci a LED sarebbe stata la luminaria perfetta per questo progetto. La barra luci LEC Ligny-5635 è stata dotata e installata con un profilo di colore su misura, personalizzato in verde, blu e bianco caldo. Le barre luci sono state fabbricate in più dimensioni per adattarsi alla planimetria della struttura in cemento. Le barre inoltre sono state progettate per fornire una vera integrazione di luci, in modo che le luminarie rimangano invisibili a chi passa attraverso il tunnel.

ESPAÑOL

Concepto desarrolló un proyecto de iluminación basado en el ritmo biológico humano, con una iluminación que adapta su intensidad y colores para encajar en cada

momento del día. Por la mañana, el túnel está iluminado en azul cielo, color elegido porque ayuda a estimular las fases del despertar del cuerpo luego de una buena noche de descanso. Por la tarde, el túnel se ilumina con una luz blanca cálida debido a que genera una atmósfera cálida y relajante. La transición de color entre el azul cielo y el blanco cálido es sutil y gradual, una transición que se lleva a cabo utilizando un sistema de control DMX. LEC Lyon, que trabajó en colaboración con Concepto, decidió que su tecnología de barra de luces LED serían la mejor opción para el proyecto. La barra de luces LEC Ligny-5635 fue equipada e instalada con un perfil de color a medida, en verde, azul y blanco cálido. Las barras fueron fabricadas en varios tamaños para que pudieran encajar en la disposición de la estructura de concreto. Las mismas también fueron diseñadas para ofrecer una integración de iluminación genuina, asegurándose que las luminarias permanezcan invisibles ante los ojos de quienes atraviesan el túnel.