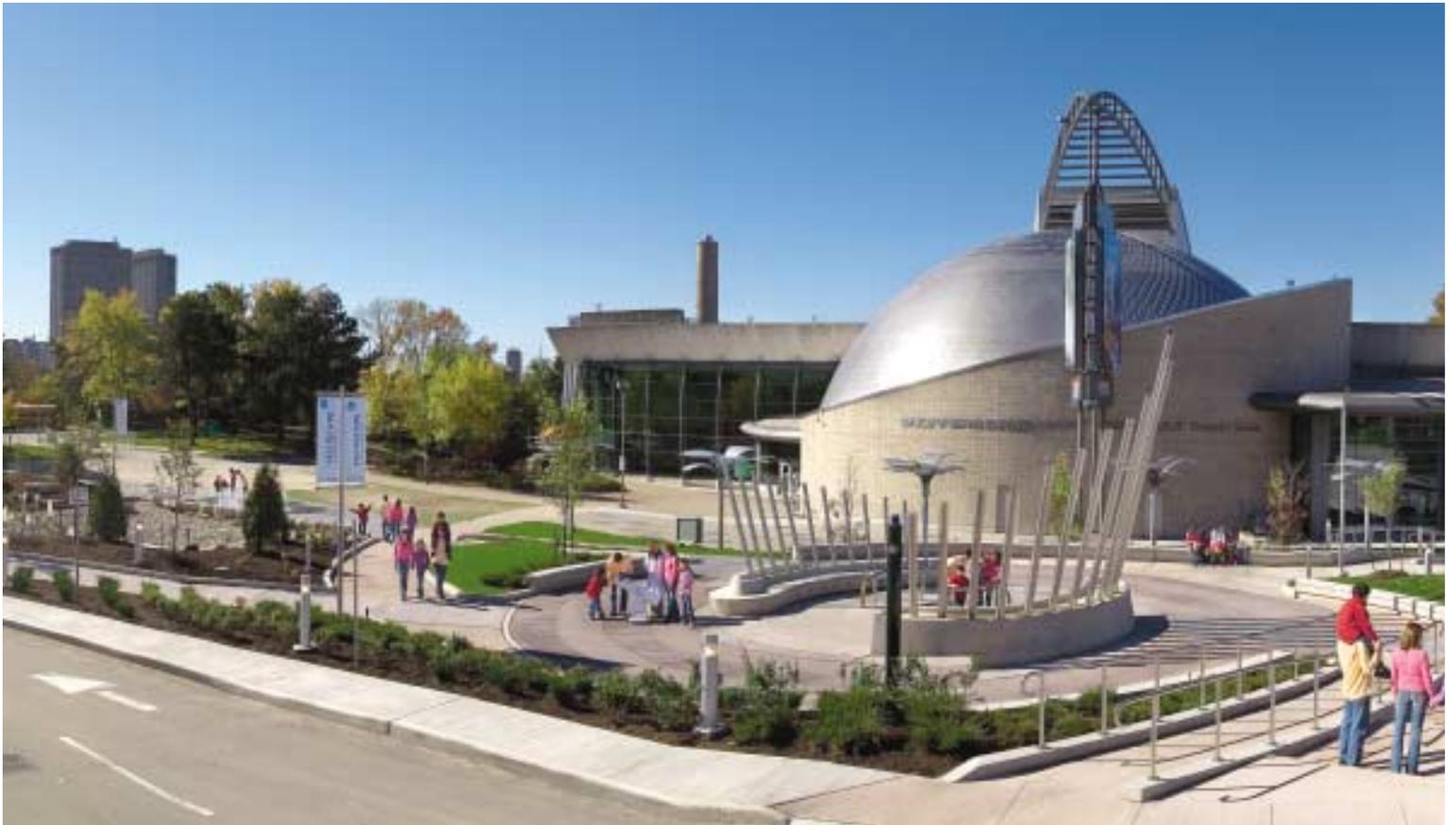


Reich + Petch Design International

Exploration Plaza "Teluscape" at the Ontario Science Centre
加拿大多倫多 Toronto, Canada
5,200 平方米 / sq m



Exploration Plaza "Teluscape" at the Ontario Science Centre, Canada



四周環境包含了豐富的園景設計
意念與特色。
The landscape design and key
features are embedded into the
surroundings.



平面圖 Floor Plan

TELUSCAPE不僅僅是公園，更是能讓你體驗興奮和樂趣的風景勝地。拱形的設計主題是要遊客通過心有靈犀的體驗以及城市和自然元素的轉換來「向風景區發問」。這些體驗是來自風景區的設計和融入周圍環境中的主要特徵。遊客可通過互動、遊戲和試驗的方式勘測和調查環境四周。

按計劃，廣場的一側是可容納350人的室外圓形劇場，中部是螺旋型廣場，另外一側是濕地。它們由一條延伸的水路相連接。置身整個廣場會有種類繁多的體驗，例如藝術大師Steve Mann創作的互動式音樂雕塑噴泉；不會讓孩子濺濕衣服的水迷宮；五個可與手機互動的雕像樹，而這些樹會隨著用戶與樹發送資訊而變換燈光；一個自然樹林與人造LED蘆葦和樹樁相間的燈光照明濕地；三個迥異的白天可看見且會隨著移動感應器變換色彩的LED燈光岩洞；三個好玩的攀爬球體，可培養距離感和深度感。

噴泉是一座互動式音樂雕塑，它會堵住雕塑上各種各樣的洞，其運作原理就像吹奏笛子一樣的樂器。小洞會噴出一小股水流，當人們堵住小洞便會發出聲音。每個小洞的水流對應著音階中的一個音符。冬季可以用氣流來演奏這個樂器。

水中迷宮由很多路面組成，顏色不僅像極了棋盤，還可從視覺上限定邊界。路面的結合點上有狹長帶孔的不銹鋼條。鋼條上的孔可以射水來營造出水的立面效果。水流噴出的高度達750至900毫米，這樣訪客可以從視覺上找到路徑，但是這個高度又不能橫跨而過。裝置的外圍長期有水流動，形成了一道邊界。內部水牆的程式通過變換模式營造出幾種迷宮樣式。目標是讓人們在迷宮模式發生變化之前穿過而不濺濕衣服。

如果訪客使用的是TELUS手機，他們就能向那五個手機互動式雕塑樹上的短碼發送資訊。通過輸入編碼，用戶就開始與雕塑樹進行對話，瞭解一些關於樹木和自然環境有趣的事情以及解答一些考反應的小問題。在用戶的對話過程中，不同答案會令樹上的燈光產生變化。當樹木沒有使用時，它會顯示出屏幕保護裝置，如真正的樹木會隨著季節變化一樣。

濕地是一塊自然化的區域，它從廣場的地面收集了暴風雨的雨水。不同的區域種植著高山草坪和沼澤，而沼澤也展示了這裡的自然影響力。池塘的水位也會隨著幹濕狀況的不同而變化，蒲菜、防波堤和山茱萸等植物會對這些變化有反應。相間於真正植物中的是一系發光的蘆葦和樹樁。這些元素被LED燈光照亮，並且隨著用戶在固定控制面板面上的操作改變色彩和模式。當沒有訪客控制時，程式設置燈光會在每小時以較大的靈活性發生變化。

「杆池塘」遊樂區毗鄰，新圓形廣場的West Retaining牆上嵌入了三個水泥圓柱體。移動感應器有人路過時會啟動洞內的LED燈。不同方向的動作會啟動每個洞內四個不同的燈光展示模式。其中一個洞好像一個萬花筒、另外一個像哈哈鏡，而最後一個是變幻莫測的圖像。

三個風機安裝在新圓形廣場的頂部，他們有如行人從北面停車場進入廣場時的燈塔。LED燈的環形光圍繞著每個風機。中心風機頂部的天氣感應器測試風速和風，向並發出燈光信號以改變色彩和模式。這個元素利用了這一地區非常重要的現有條件。

三個攀登式球體排列在橡膠安全層的頂部，營造了趣味性強的兒童遊戲區。成年人可以坐在遊戲區附近放置的有扶手長座椅上觀望孩子。由於球體的半徑從3吋到5吋不等，所以他們適合不同年齡的人參予。在現有OSC IMAX 拱形建築的映襯下，球體提供了有趣的視角效果，還提出了距離和深度感知的問題。星座舞台是一塊纖維光學發光裝置，它在秋分那天在OSC座標上形成星座圖案。





FUNtain 不僅是樂器，也是互動的發聲雕塑。
FUNtain is an interactive sound sculpture which functions as a musical instrument.





TELUSCAPE不僅是公園，更是能讓你體驗
興奮和樂趣的風景勝地。
Teluscape is not just like a park, but an
exciting and fun landscape experience.



TELUSCAPE is not just a park, but an exciting and fun Landscape Experience. The over arching design theme is to make visitors “Question the Landscape” through the use of counter intuitive experiences and transitions between urban and natural elements. These experiences come from the landscape design and key features that are embedded into the surroundings. Visitors are invited to explore and navigate their surroundings through interactions, explorations and experimentation.

Programmatically the plaza includes a 350 seat outdoor amphitheatre on one end, a central spiral plaza in the middle and a wetland on the other end, all of which are connected by a continuous water walk. Dispersed throughout the plaza are a variety of integrated experiences. These experiences include: the Funtain - an interactive sound sculpture by artist Steve Mann, a modulating Watermaze that kids can navigate without



getting wet, five Cell Phone Interactive Sculptural Trees that change light shows when users send “text messages” to the trees, an illuminated Wetland that includes natural planting amongst artificial LED reeds and stumps, three different LED light caves that are visible throughout the day and change colours with motion sensors and three climbing spheres that are fun to play with and set up interesting perspectives that question distance and depth perceptions.

The FUNtain is an interactive sound sculpture which functions as a musical instrument that is played like a flute when blocking the holes along the body of the sculpture. The small holes each spray out a fine stream of water and when people block the various jets, it makes sound in response. Each jet of water corresponds to a note on the musical scale. In the winter months the instrument can be played using air instead of water.

Water Maze is made up of pavers coloured to resemble a checkerboard to visually define the edges. The joints between the pavers are narrow strips of stainless steel that contain holes for water jets to create vertical planes of water. The water sprays up to 750 to

900mm so that visitors can visually see over to help figure out the path and it is high enough to avoid being stepped over. There is an outer perimeter of water that runs continuously as a constant boundary. The interior walls are programmed to change patterns to create a number of different maze variations. The objective is to get through the maze without getting wet and to do so before the pattern changes to a different configuration.

Users approaching the five Cell Phone Interactive Sculptural Trees will see short codes that they can text if visitors have TELUS cell phones. By texting the number the user engages in a dialogue with the Sculptural Trees that includes fun facts about trees and the natural environment and short questions that the user needs to text responses to. The lights on the trees will change during the user’s dialogue depending on the answers given. When the trees are not in use, they will play a “screen saver” light show that will change seasonally just as a real tree would.

The wetland is an assimilated natural area that collects storm water from hard surfaces of the plaza. Trees are planted in zones of upland meadows and inundated marshes which demonstrate the natural



當雕塑上的小孔注入了水，發聲雕塑便像笛子般奏出音樂。
The sound sculpture is played like a flute when water block the holes along the sculpture.

influences on the site. The pond level will fluctuate depending on dry or wet conditions, with planting material like cattails, bulrushes and dogwoods, they respond to these changes. Interspersed between the real planting materials are a series of illuminated reeds and stumps. These elements are lit up with LED lights that will change colours and patterns for users from a fixed control panel. When not being controlled by a visitor, the lights will be programmed to change throughout the day with greater vibrancy at the top of the hour.

Three concrete cylinders are embedded into the West Retaining wall of the Amphitheatre adjacent to the existing Lever-Ponds play area. Motion sensors will activate the LED lights within the caves as visitors pass by. Movement from different directions will activate four different light shows in each cave. One cave is lit like a Kaleidoscope, another is an Infinity Mirror and the last is a pixilated image.

Three wind turbines are mounted at the top of the new amphitheatre hill. They act as a beacon to pedestrians entering the site from the North Parking lot. A circular ring illuminated with LED lights surrounds each turbine. Weather sensors atop the central turbine measures wind speed and direction, and signal the lights to change colours and patterns. This element takes advantage of an important existing condition of the site.

Three Climbing Spheres are located atop a colourful rubber safety floor to create a fun children's play zone with armourstone benches close by for adults to sit and supervise. As the sizes of the spheres range from 3 inches to 5 inches in diameter, they cater for a wide range of age groups. The spheres set up interesting perspectives set against the backdrop of the existing OSC IMAX dome and introduce questions of distance and depth perception.

Constellation Stage is a field of Fibre Optic Lights which creates the Star Chart of the OSC coordinates on the Autumnal Equinox.



高山草坪和沼澤種植著樹木，展示了大自然在這個地方的影響力。

Trees are planted in zones of upland meadows and inundated marshes which demonstrate the natural influences on the site.

Led 燈可以轉顏色和圖案。
Led lights can change colors and patterns.



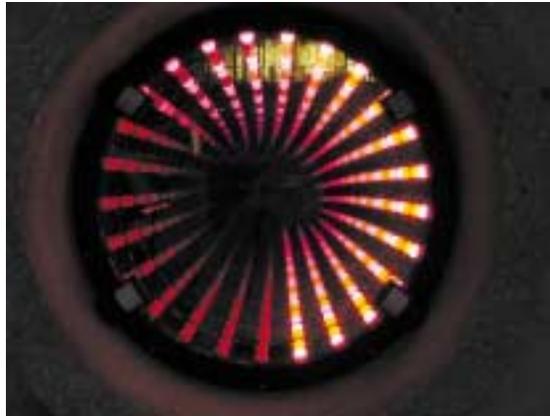
遊客的反應會影響五個手機互動式雕塑樹上的燈光。
The lights on the five cell phone interactive sculptural trees can change along with the responses of visitors.



三個攀爬球體向遊客帶出距離和深度的問題。
Three climbing spheres introduce question of distance and depth perception.



Led 燈的光在洞內也清楚可見，顏色隨著感應器的反應而變化。
Led light caves are visible throughout the day and change colors with motion sensors.





三個攀爬球體坐落在顏色顯眼的安全膠墊上，為小孩子提供了玩樂的地方。
The three climbing spheres are located atop a colorful rubber safety floor to create an interesting children's play zone.



客戶 Client
Ontario Science Centre

總承辦商 Main Contractor
Bultcon Construction

設計顧問 Design Consultant
Krause & Johnson,
Independent Exhibits,
Science Projects

園林建築師 Landscape Architect
EDA Collaborative

瀑布顧問 Fountain Consultant
Richard Van Seters

燈光顧問 Lighting Consultants
TPL Lighting

燈具 Lighting Fixtures & Fittings
Color Kinetics

藝術品 Artwork
Steve Mann (Fountain)



Over 25 years, we have evolved our viewpoint about design to create extraordinary moments and opportunities for people to have experiences that change their understanding and perspective of the world they live in.

REICH+PETCH

1867 Yonge Street Toronto, ON Canada M4S 1Y5
TEL (416) 480 2020 FAX (416) 480 1881
www.reich-petch.com
info@reich-petch.com