



<b>Title</b>	<b>Hong Kong boundary crossing facility project - Published international design competition entry</b>
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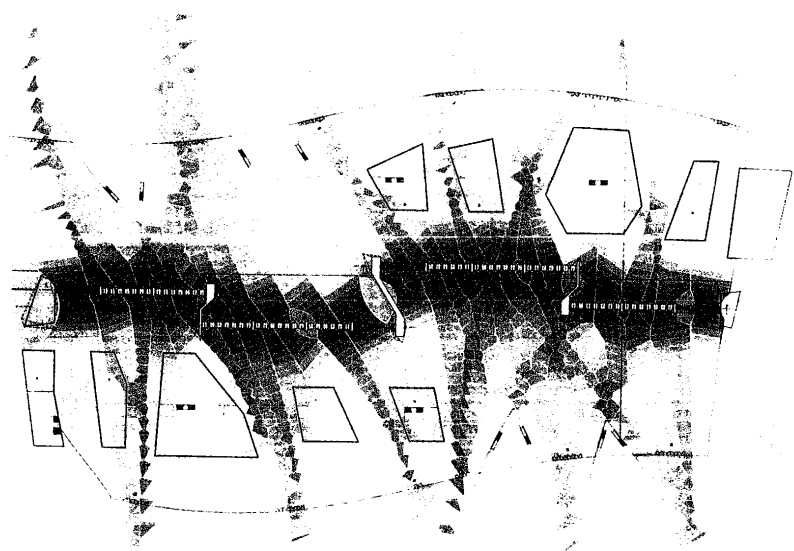
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港珠澳大桥·香港口岸国际概念设计大赛参赛作品

这是一个港澳珠跨海大桥香港口岸的概念设计。基地位于比邻香港国际机场的填海人工岛上, 四下空旷, 因为地处飞机起落的航线上, 它有严格的高度限制。我们的初衷是创造一个地标光塔, 它光彩斑斓, 形态舞动, 无论从陆地还是海上, 空中还是山上, 看上去它都会成为一个令人过目难忘的香港门户。

为了突破对于“海关”——这个作为权力监管终极象征之一的屏障形象, 考虑便捷通关的心理和功能需求, 我们强调建筑的穿透性, 通过把建筑主体和车站雨篷这两种不同类型、体量的形体融合成一个连续的大屋顶, 延伸了建筑的力场, 同时模糊了建筑本身突兀的形象。同时, 集中塑造边境线上的竖向结构, 通过大面积横向和点状竖向的对比, 在已有高度的限制下, 强化竖向“灯塔”的标志性。这些“巨石”灯塔, 犹如一系列阀门, 减缓并引导人流迅速通过; 它们同时展现了一种开放性和渗透性, 迎接和目送进出香港的人们, 弱化边境的隔离感, 强调友谊和交流, 展现海纳百川的新边境形象。如果把人流和车流比喻成水流, 那么关卡就像一排溪石, 过滤并疏导流过它的“溪水”, 而非阻断妨碍其通行。这个新的地标, 并非出于哗众取宠的形式追求, 而是源自我们对于流体系统、空间形态和视觉效果的科学、艺术探求。至于我们的历史情结, 可以归结于人类对于流水几世纪不减的热忱。从以达芬奇为代表的文艺复兴时期的艺术家们对于水流的动态空间效果的执著追求, 到中国传统书法和水墨画的绵绵运笔, 以及不同文化对于流体媒介、墨水、水彩画的延承, 都体现了人们企图通过静止的形态, 凝固动态现象的渴望。

此方案把原有提案在基建和边境程序方面的图解关系, 作为形态系统设计的固定参数。步行过境的流线被重新组织, 使得入境和离境安置在地面层而非原有的两层, 同时把办公等辅助用房全部移到地下。通过两侧的下沉空间, 在满足地下工作空间通风采光的要求(参考剖面)同时, 影射了“过境”犹如“过桥”的心理暗示。这样布置, 除了充分利用了自然光满足大空间采光的需求, 另外一个好处是可以让连续的屋顶完全暴露于过往人流的视线中, 让人们清楚地望到目的地, 而不是像已有的过境大楼(比如深圳罗湖口岸)那样, 完全靠指示牌的指引才能疏导人流。沿途我们还设计了一系列相关的空间、视觉和结构效果, 强化一种崭新愉悦的过境体验。总体来讲, 我们着眼于三个不同尺度的物料组合上, 即支撑屋顶的结构构件, 处理过境人流和车流的岗亭, 以及为未来进一步开发设定的构筑物。

运算化编码在这个方案中的应用, 主要体现在生成屋面构件的局域变化, 从而控制全局有序的渐变模式。进一步讲, 我们通过区分屋顶构件的节奏和波动起伏尺度的变化, 以及颜色浓烈程度和色相的不同, 营造了过境前、过境时与过境后的相异却连续的空间氛围。波状起伏的结构元素在跨境前承载着屋顶的负荷, 待到

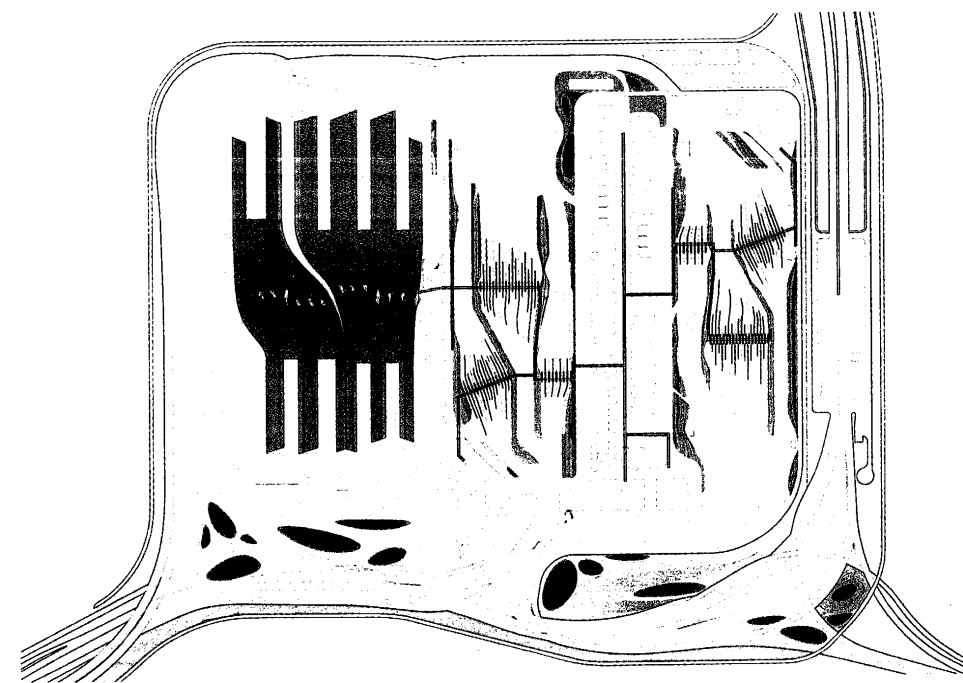
This entry to the Hong Kong Boundary Crossing Facilities (HKBCF) International Design Ideas Competition proposes an iconic beacon of dazzling light, colour and geometrical dynamics, visible as a gateway to Hong Kong, from the approach of both directions of the HKZM Bridge, from the air along the flight paths to HK airport, and the hills of Lantau Island and the New Territories.

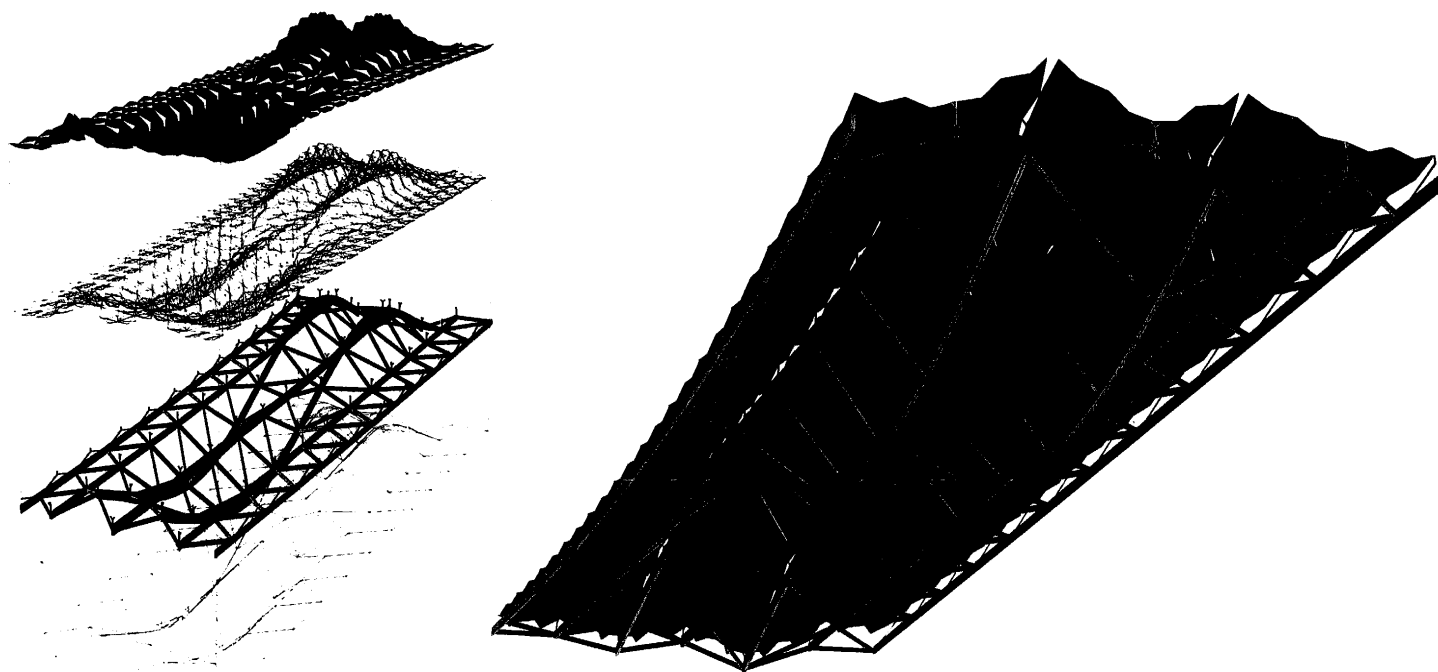
Rather than a concretised border designed to symbolise the authoritative power of exclusion, this proposal aims to articulate the HKZM Bridge boundary crossing as a porous, aggregate series of valves, which slow and reorient flows of people and vehicles, while conveying openness, permeability and a sense of welcoming. In our contemporary world, national, regional and geographic boundaries can install overly artificial cultural differences. This scheme invites voyagers through the boundary crossing, attenuating the journey across the bridge, which is a symbol of friendship and exchange, while the proposed

“跨境时”的建筑室内时, 便转换成为由缆绳悬拉的无柱大空间。通过对于屋面构件的尺寸、形状、方向和颜色的参数化控制, 日光可以有效地照进建筑内。舞动变化的屋面, 配合位于关卡线上“巨石”般的竖向承重通风体块, 这个方案必定呈现一个令人难忘的跨越香港边境的动态空间体验。


great roof instils a sense of togetherness across a threshold. The flow of water articulates a potent spatial metaphor, where crowds and vehicles are matter with collective intelligence which flow through and are filtered by this border. As a theme for this important landmark, we continue the scientific and artistic enquiries into fluid systems, spaces and effects, which have persisted throughout several centuries across the world. Leonardo Da Vinci and other renaissance artists were fascinated with spatial dynamics of the flow of water, while traditional Chinese calligraphers and watercolour painters embed the dynamics of hand gestures and inherently fluid media, ink and water-based paint, into static representations of mobile environmental phenomena.

This scheme maintains the “fixed parameters” of the infrastructural diagram and immigration procedures of the preliminary design proposal. The pedestrian flows on ground level have been reorganised, to deploy the arrival and departure hall on one single level, lowered in section to cre-





ate a storm surge flood levee at the perimeter of the new artificial island. By creating one level for the arrival and departure hall include, navigation through the boundary crossing is enabled by the continuous visibility of the roof, as an orienting device, which maximises daylight to both arrival and departure halls. Proposed is a unique experience of continuous yet filtered flows through the boundary crossing, supported through a set of dynamic spatial, visual and structural effects. Three scales of differentiated masses aggregate along the linear border: structural elements supporting an undulating roof; kiosks for processing pedestrians and vehicles; and proposed buildings for future development.

Computational coding generates the local transformation of roof components, causing a range of coherent global patterns. Iterative geometric textures and dynamic colour fields of the roofing components cause phase-state transitions between the pre-border and post-border zones. Undulating structural elements manage the roof load before the border, followed by tension cables creating a column-free space beyond the border. Through the parametric control of the size, shape, orientation, and colour of roofing components, gradients of porosity wash the interior with daylight. Through a field of hundreds of roof openings, interrupted by solid masses marking the line of the border, a memorable experience of mobility is created at the HKBCF boundary crossing. 

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