



1. 总体鸟瞰图：三组树状立柱支撑起整座桥梁，利用集装箱结构来延展其跨度。
1. General view: three tree-columns support the bridge, using the container's structure to span the lengths.

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从废弃地到生命线

——以色列生态集装箱桥

From Waste Land to Life Line

— EContainer Bridge in Israel

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摘要 ……

阿里埃勒沙龙公园意在成为一个注重生态的、自然而富饶的城市中心，因此在集装箱桥的设计中，我们将“再利用”的原则融入方案中。这些废弃的、老旧的钢铁集装箱经过改造，被重新塑造为一座在交通、景观、文化与教育方面扮演着重要角色的景观桥。

关键词 ……

再利用；集装箱；展示

Abstract …

Since the Ariel Sharon Park is planned was a natural, rich urban center with emphasis on the ecology, the principle of "Reuse" is incorporated into our proposal of the Container Bridge. The abandoned, old steel containers are transformed and shaped into a bridge that will play a role in transportation, landscape, culture and education.

Key words …

Reuse; Container; Display

项目地址：以色列阿里埃勒沙龙公园

项目面积：长160m

项目委托：阿里埃勒沙龙公园管理委员会

建筑设计：Yoav Messer建筑事务所、Iftah Hayner联合建筑事务所

首席设计师：Iftah Hayner

项目团队：Hagar Admi (Yoav Messer 建筑设计事务所)、结构工程——Dani Vainer (Jacob & Yoval Achbart)、平面设计——Bluhm & Tal工作室

所获奖项：阿里埃勒沙龙公园桥梁竞赛一等奖

Location: Ariel Sharon Park, Israel

Area (size): 160 m in Length

Client: Park Ariel Sharon

Architecture: Yoav Messer Architects, Iftah Hayner Associate Architect

Chief Designer: Iftah Hayner

Project Team: Hagar Admi (Yoav Messer Architects), Structural Engineering — Dani Vainer (Jacob & Yoval Achbart), Graphic Design — Bluhm & Tal

Award: First Place in the Ariel Sharon Park Bridge Competition

万个集装箱)。经过改造，它们将成为一座集通行、观景和展示功能于一体的桥梁——从堆积的废料变为生命线。

利用集装箱进行建造的优点在于：1) 对这种现有的搁架式箱体进行再利用，使之成为可持续建筑；2) 超过70%的建造工作可以在(场地外的)工厂中完成；3) 建设周期和 workflows 较短；4) 施工简便；5) 易得性强；6) 便于运输；7) 有多种体积可供选择，从而能够实现多样化连接；8) 原材料适合根据人体尺度来量身定制构筑物。

可持续性

景观桥的框架完全使用废旧集装箱，它们是桥体建造的基本单位。我们将与一家结构顾问公司共同完成这一计划。桥梁的景观桥墙体(展示墙)、大部分顶棚(用于遮荫)以及木质铺装的小径等装饰材料也同样来自于这些废旧集装箱。

集装箱的原有顶棚经过再利用成为桥梁的顶棚，并且在顶棚上设有百叶窗，以合适的角度提供理想的遮光效果。安装在这些百叶窗上的太阳能光伏电池能够提供“清洁”的电能，照亮景观桥及其周边环境。

根据“绿色”的要求，大量的工作集中在改造陈旧的集装箱以使其适于新设计，并且大部分的操作将会在(场地外的)工厂中进行，这将最大程度地降低对

自然场地的干扰。

功能

流动：在这座桥梁的设计中，我们与结构及交通咨询顾问合作，从而可以使重量较轻的机动车、自行车与行人可在桥梁上的所有区域和通道自由通行。

观景平台：景观桥任何方位的任意方向都拥有绝佳的风光，包括望向天空(透过百叶窗)以及地面(透过铺地网孔)。此外，在桥梁这一层设有两个观景台，安置着可供个人或群体使用的座椅区，在屋顶层还设有一个单独的观景步道。这座景观桥不仅可用于通行，也将成为一个游览胜地。

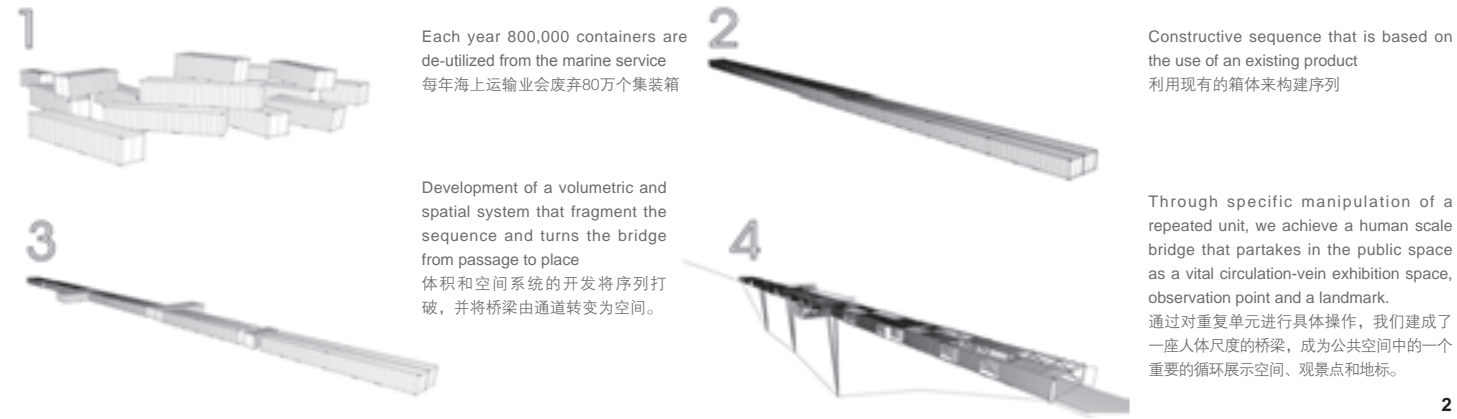
视野：在多个地点都可以欣赏到这座景观桥，例如从4号公路或从空中俯瞰(这里是到达机场的主要线路)。箱体不同水平面上绘制的图形都向远近的观赏者传递着生态讯息。

展示：沿着景观桥设有各种展板，可供不断变换的有关环境主题的展览使用。

文化与教育：正所谓“建筑是一种教育”，景观桥开启了对于材料回收、消费以及再利用的教育，成为文化和教育的平台。

灵活的形式

设计师设计了一些可以自由变化的



Each year 800,000 containers are de-utilized from the marine service
每年海上运输业会废弃80万个集装箱

Development of a volumetric and spatial system that fragment the sequence and turns the bridge from passage to place
体积和空间系统的开发将序列打破，并将桥梁由通道转变为空间。

Constructive sequence that is based on the use of an existing product
利用现有的箱体来构建序列

Through specific manipulation of a repeated unit, we achieve a human scale bridge that partakes in the public space as a vital circulation-vein exhibition space, observation point and a landmark.
通过对重复单元进行具体操作，我们建成了一座人体尺度的桥梁，成为公共空间中的一个重要的循环展示空间、景观点和地标。

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模块单元。作为一种结构与功能单元，集装箱可以被不断重复，这带来了极大的灵活性。这些集装箱有多种长宽规格可供选择。我们也已经研发了链接和局部加固的细部处理方式，从而能够根据需求提供一系列技术方案。

人都能融入景观之中，成为屋顶长廊中的风景。同时，景观桥利用集装箱的构造优势，每160m仅需使用4根柱子进行支撑，从而实现对环境最低程度的影响。

建筑的卓越之处与启示

集装箱的使用量在世界各地都在与日俱增。集装箱景观桥是一个在经济、教育和设计层面多赢的项目。与此同时，在我们的设计概念中，也开创了将集装箱作为建造一个桥梁的主要元素的先河。这座桥

梁展示了施工效率、经济节约与可持续发展之间难能可贵的结合，同时也运用了现代而优雅的设计语言。这座桥梁以人及人与自然的的关系为核心，这也正是建筑的精髓所在。LAF

- 2. 形式变换示意图
- 3. 从桥下的小路望向桥体
- 4-1. 平面图
- 4-2. 剖面图
- 2. Form diagram
- 3. View from the lower path
- 4-1. Plan
- 4-2. Section

与周边环境的关系

这座桥梁能够形成框景，并使之“如画”。同时，它也具有一览无余的开阔视野。无论从桥体主轴线还是观景台上，



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Background

Since the Ariel Sharon Park was planned as a natural, rich urban center with emphasis on the ecology, we chose to base our proposal on the idea of REUSE. Inspired by the mountain that is being rehabilitated these days, from an urban rubbish dump into a flourishing park, using the old steel containers that are no longer being used (there are more than 800,000 containers emitted from maritime transport every year). They can undergo a transformation and be shaped into a bridge that will provide a foundation for movement, observation and display — a **conglomeration of waste to a life line.**

The advantages of building containers:

- 1) Re-using existing shelf products — a sustainable building;
- 2) Over 70% of the construction work done at the factory (off site);
- 3) Fast construction and work process;
- 4) Ease of construction;
- 5) High availability;
- 6) Efficient transportation;
- 7) A range of volumetric options, allow for various connection options;
- 8) Raw material which is adaptable to create tailor made structures for the human scale.

Sustainability

The skeleton of the bridge is based entirely on the reuse of old containers. They are the units for the construction. The planning will be coordinated with a structural consultant. Other finishing materials, including bridge walls (display walls), most of the roof (for shade) and a wooden substrate path will be based on the same principle of reusing old containers.

The roofs are the original roofs of the containers — REUSE. In addition to this, there will be louvers at suitable angles for ideal shading. On these louvers there will be Photovoltaic Solar Cells which will provide “clean” electricity to illuminate the bridge and its surroundings.

According to the “green” requirements, the bulk of work will be adapting the old container to the new design and operations will be done at the factory (off site). This is to minimize the damage to the natural site.

Functions

Movement: The bridge was planned in conjunction with structural and traffic

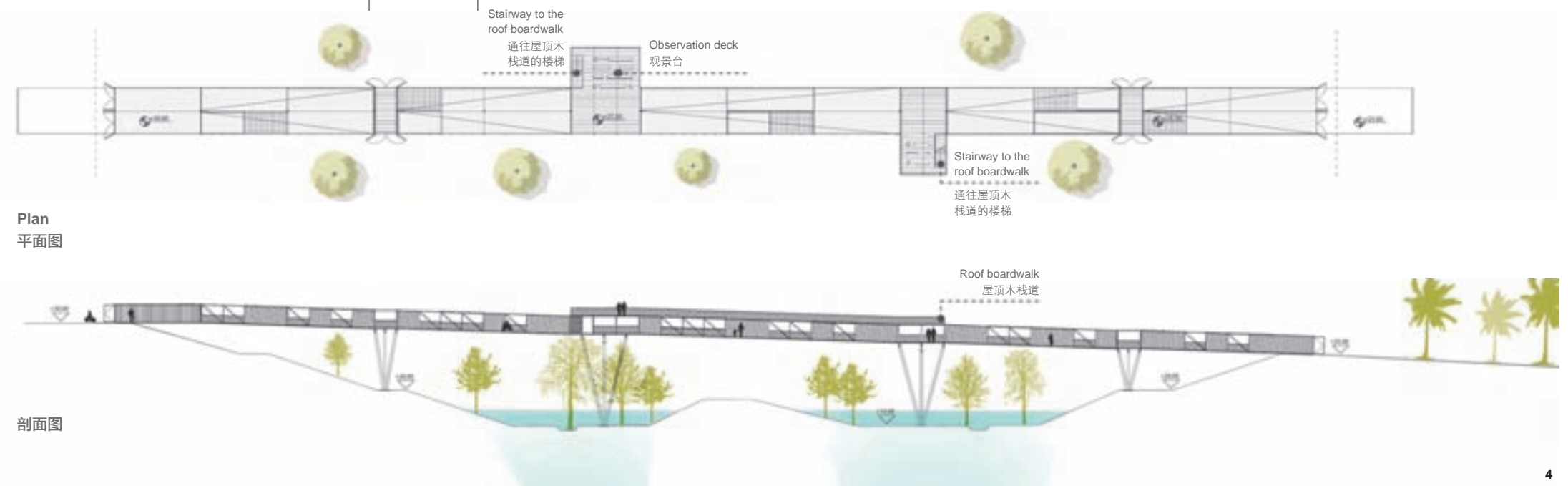
consultants, allowing the movement of light weight vehicles, bicycles and pedestrians. It also allows for a free flow of traffic on all areas and lanes of the bridge.

Viewing Platform: All along the bridge there are various options for views in all directions, including towards the sky itself (through the louvers) and the ground (through the treading mesh). In addition, there are two balconies placed with seating areas for individuals or groups on the bridge level and an additional viewing promenade on the roof. The bridge is not only a place to pass through but also a destination.

Observation: The bridge is visible from various locations such as Highway 4 and an aerial view (main route leading to the airport). The graphic design of all elevations demonstrate an ecological message to near and distant audiences.

Display: Along the bridge, various display panels have been incorporated, for changing exhibitions on environmental issues.

Culture and Education: “Architecture is an educational tool” (Jean-Jacques Rousseau). Starting from education on



Plan
平面图

剖面图

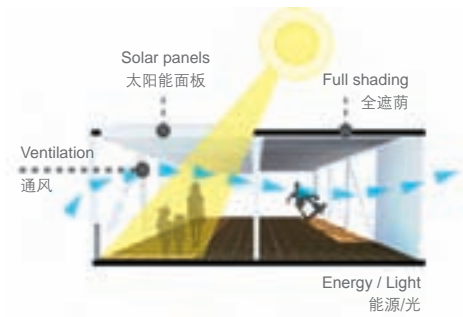
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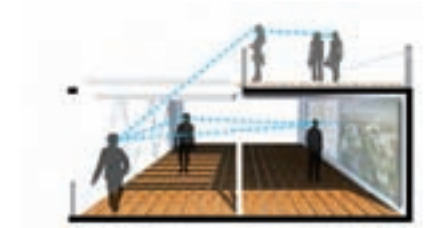
视野



展示



气候



Interaction
互动



建筑结构

5. 功能示意图
6. 观景台及屋顶长廊
5. Function diagram
6. Observation deck and upper promenade

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recycling, consuming and re-used materials through creating spaces for gatherings and events, the bridge constitutes as a cultural and educational platform.

Flexibility to Change

Some modular units were designed with high flexibility to change. The repetitive use of the container as a constructive and functional unit allows for total flexibility. The containers have a variety of dimensions in widths and lengths. We have developed connection and local strengthening details, thus it is possible to provide an array of technical solutions as required.

Relationship to the Surroundings

The Bridge provides framed views and emphasizes them as “picturesque views”, but also allows for unobstructed views. Both from the main bridge axis, and from balconies which place the passerby in the view and as part of the roof promenade. Also, taking

advantage of the construction of the container, only four columns are installed for every 160 meters to minimize the impact on the environment.

Architectural Excellence and Inspiration

The container bridge is a win-win project in economy, education and design, as the use of containers is gaining momentum all over the world. Building a bridge using containers

as its primary element sets precedent in our opinion. The bridge illustrates a rare connection between construction efficiency, economical savings, and sustainability which goes hand in hand with a modern up-to-date, graceful design language. The bridge puts people and their relationship with the environment in the center; this is the essence of architecture. **LAF**



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探索与过程 Experiment and Process

“人类纪”中的景观

雷蒙德·威廉斯在《论物质主义和文化的问题》一文中指出，“人类的劳作已经与地球的运动混杂在一起，二者的力量已经如此紧密地交织为一体，以至于没有一方可以从其中抽离或被分割出去。”他批驳那些“孤立的抽象概念”——比如“社会”与“自然”——因为它们湮没了人类与自然世界其他部分之间长久以来的联系。雷蒙德提出了一种新的理解方式，其以人类与客观世界的复杂“关系”，而非从“关系”中提取出的孤立“产物”为前提。

本期刊登的两个项目，分别是布雷特·巴特纳的“排泄物景观：孟买的临界性景观”——提出一个基于利用人类排泄物的功能性景观的规划；以及“疏浚研究合作组”的“类设计：沉积物基础设施的关键过程”——提出“疏浚”是一系列人为处理沉积物的活动中的关键点。这两个项目认为，“人类干预”应该并且有能力作为一种积极的推动力，被策略性地纳入环境改造机制中，从而改善退化的生物地球化学循环过程，并为人类和其他非人类群体构建更好的、更具包容性的自然系统。两个项目都是介于由自然物理生物过程所塑造的“自然景观”与人为构建的“人造景观”之间的“临界性景观”。“人类排泄物”以及“疏浚物”不再被看作“废物”，而是被巧妙融入到浩大的景观生态及其他过程的网络之中，成为丰富且可持续的资源。这两个项目通过提出一系列新的设计问题，并使原本相互割裂的群体建立起沟通联系，从而为“人类纪”创建了新景观、新生态系统，以及新基础设施。

Landscape in the Anthropocene / Age of Man

In “Problem in Materialism and Culture”, Raymond Williams states, “We have mixed our labour with the earth, our forces with its forces too deeply to be able to draw back and separate either out.” He criticizes those “singular abstractions” — society and nature — that obscure the historical relations between humans and the rest of nature, and outlines an alternative approach premised on humanity’s “complex dealings with the physical world”, rather than the isolated “products” coming out of these relations.

Two projects contained within this issue, “Sh*tscapes: Mumbai’s Landscape In-Between” by Bret Betnar, which proposes the making of an entirely functioning landscape built from human excreta, and “Quasi Designed: The Throttle of Sedimentary Infrastructure” by Dredging Research Collaborative, which positions dredging as the key activity within a set of anthropogenic sediment-handling practices, advocate the idea that human inputs can and should be opportunistically designed to improve degraded biogeochemical systems and build better and more inclusive natures for both human and nonhuman communities. They are both somewhere between landscapes that arise through natural and physical biophysical processes and human intervention. Between the two projects, human feces and dredged material have been recognized as an abundant and renewable resource, networked within a vast array of other processes and landscapes, rather than waste products. New design questions are framed and connections between disparate communities are built to generate new landscapes, new ecosystems, and new infrastructures in the Anthropocene.