

景观即工作场所 ——旧金山湾区Facebook总部设计 WORKPLACE AS LANDSCAPE — DESIGN OF FACEBOOK HEADQUARTERS IN SAN FRANCISCO BAY AREA

1 项目背景

CMG景观设计事务所是一家拥有强烈使命感的设计机构，致力于公共空间的复兴与改造，并通过艺术化的设计提升社会及生态福祉。通过不断探寻针对开放空间和基础设施的创新性设计方法，我们期待提升城市的宜居性，并打造充满活力的市民社会及文化生活——社区即是在公共空间中营建共享生活。公共空间设计的挑战在于如何吸引人们前来并在此停留。找到正确的设计方法以及唤起景观认同感是达成这一目标的关键。

广义上的“社区”（community）既指场所，也指社会活动。家庭、邻里、商业区、大学、中学、公立或私营机构，都是社区的不同形式。但“community”一词在生态学上的含义（即“群落”）也同样重要，因为我们共存于同一个生态系统之中。所有充满活力的社区/群落都是经过一代又一代人的努力逐渐建立起来的。通过维持项目的长期愿景并预测其随时间发生的演变，我们一直在践行这一理念。

1.1 Facebook总部：充满挑战的景观

位于硅谷旧金山湾周边地区的Facebook总部处于快速演进且充满挑战的景观之中。北部的壮观盐滩逐渐被海湾开发建设所侵占，而南部的铁路则将海湾园区与周边的一个住宅区割裂开来。项目场地曾是南湾地区重要潮汐湿地系统的一部分；自20世纪初，场地周边的海湾地区开始修建防护堤，并被分割为一块块的盐滩用于工业盐生产。随着硅谷的发展，铁路和海湾之间的地块被不断开发，一条新的高速公路建造落成，而场地主要被用作轻工业和办公场地。21世纪初，在几

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摘要

本文概括介绍了位于加利福尼亚州门洛帕克市的Facebook总部规划设计，以及正在修建中的海湾园区。该项目基于生态原则，旨在将一片后工业棕地修复为一处具有生物多样性的韧性景观，并将工作场所文化的功能需求与建立自然系统所创造的栖息地相结合。MPK20和MPK21是三座新建筑中已落成的两座，其建筑与景观浑然一体。它们共同构成了一个丰富的复合园区，该园区不仅可以促进人与人、人与自然之间的交流、减少及处理雨水径流，还可将热岛效应降至最低，并实现开放空间的最大化。作为对施工现场和项目需求的回应，我们对MPK20（2015年落成）进行了一系列观察和意见收集工作，这些反馈为优化MPK21（2018年落成）提供了宝贵经验。该设计提供了丰富的景观服务，不仅增强了人们对于加利福尼亚州本土植物的了解，也使人们可以进行沉浸式体验——放松心灵、增强体验，并激发想象力。

关键词

工作场所；景观；社区；海湾园区；公众可达性；连通性；棕地；自然；生物多样性；活动

ABSTRACT

This article is broadly about Facebook Headquarters in Menlo Park, California, with a focus on the planning, design, and ongoing construction of the Bayfront Campus. The project is rooted in ecological principles, restoring a post-industrial brownfield site to a biodiverse and resilient landscape. It reaches to merge the functional needs of workplace culture with habitat created by the establishment of natural systems. Two of three new buildings — MPK 20 and MPK 21 — are now completed, fluidly integrating the architecture and landscape. Together, they form a rich and complex campus landscape that brings people close to each other and to nature, reduces and treats stormwater runoff, minimizes heat island effects, and maximizes open space. Responding to ongoing site and program needs, the observations and feedback from MPK 20 (completed in 2015) provided valuable insights on the improvement of MPK 21 (completed in 2018). The design provides abundant landscape services, not only enhancing the knowledge of species that define local California native habitats, but also allowing people to learn through osmosis — relaxing the mind, expanding perception, and stimulating imagination.

KEY WORDS

Workplace; Landscape; Community; Bayfront Campus; Public Access; Connectivity; Brownfield; Nature; Ecological Diversity; Activity

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1-1. 海湾园区内三座建筑中的两座已经落成，这一进展使得园区距离创建韧性城市生态的目标更近了一步。

1-2. 位于加利福尼亚州门洛帕克市旧金山湾周边地区的Facebook总部处于快速演进且充满挑战的景观之中。

1-1. With two of the three new buildings now completed that will eventually comprise the full Bayfront Campus, the ambition to create a complex and resilient urban ecology is one step closer to realization.

1-2. Located on the edge of San Francisco Bay in Menlo Park, California, the Facebook Headquarters is situated in a rapidly evolving and liminal landscape.

家创新公司落户此地之前，这里曾是一处未被充分利用的棕地。场地的周边的盐滩于20世纪90年代终止使用，并逐渐演变为一些珍稀物种的栖息天堂。之后，这里成为了工业、生态和基础设施交织杂糅的空间——一处被边缘化、碎片化且满目疮痍的后工业遗址。在这一背景下，Facebook总部规划设计项目希望通过一系列基于Facebook企业文化的创新性设计来应对场地中的种种挑战，从而创建一个充满活力的、具有可持续性的工作场所。

1.2 海湾园区

Facebook海湾园区与其早期园区仅一路之隔，此处占地面积约32hm²的场地在过去7年间经历了一系列演变。在与盖里建筑设计事务所的密切合作下，CMG率领由生态学家、工程师、树木学家和土壤学家组成的项目团队为场地制定了修复方案，并对其进行了重新定位，提出了新的愿景目标。在一系列渐进式框架的指导下，园区设计通过将单个项目一一串联而强调了整体性，并整合了多样化的空间和体验。场地的功能布局兼顾了移动性、灵活性和交互性等当代工作场所的构成要素，并强调了文化和场所对于企业的重要性。项目场地最终将从一片以不透水铺装为主的不毛之地转变为一个包含城市空间和景观的网络，这不仅可以增加园区的连通性、提高公众的可达性，还为动植物创建了栖息空间。

通过对繁忙高速公路下方的废弃隧道加以重新利用，早期园区和海湾园区之间的连通性得以增强。海湾园区周边的街景提升计划优先考虑自行车骑行者和行人的安全，MPK21和MPK22这两座重要建筑之间将修建一条横跨海湾高速公路的桥梁，以使贝拉黑文社区与海湾相连接。在园区一侧的桥头处为占地面积约0.8hm²的公共公园和广场；广场上的开放空间可被灵活使用，为农贸市集、流动餐车、电影之夜、小型演出及其他活动提供场地。

“环境包括自然世界、由人类关系构建的社交世界，以及由人工事组成的建成世界。”^[1]

海湾园区的规划设计秉承生态原则，创造出了一个满足生物多样性、社会、自然及城市需求的多层环境。通过棕地修复打造韧性景观，项目设计藉由创建自然系统，将工作场所的文化功能需求与栖息地营建相整合。

2 设计过程

2.1 MPK20与MPK21：建筑与景观的融合

海湾园区中的两座已落成建筑——MPK20和MPK21坐落于海湾之滨，为人们提供了多样化的户外空间及丰富的场所体验。建筑和景观的融合兼顾了办公和活动需求。景观延伸至建筑之中，形成了办公区内生机勃勃的庭院和花园、引入了耐旱及抗风植物群落的露台，以及

屋顶上开阔的野趣公园。这条动线上的景观设计既展现了建筑与自然系统的融合，也促进了员工与办公环境的融合。艺术、生态和社交空间交织在一起，创造出了一处绿意盎然且拥有丰富生物多样性的环境。

MPK20被设想为一个“大房间”，灵活而开放的工作区域被安排在一层之中，建筑下方是停车场，上方是一个面积约3.6hm²的绿色屋顶。紧邻工作区域的宽敞的露台可作为休息区和户外就餐空间。建筑中的楼梯、坡道和电梯都可通往屋顶花园，而一系列下弹式或快闪式设施和下沉式花园则增加了景观的形态变化，加强了与室内空间的视觉联系。尽管MPK20视野开阔、屋顶种植空间充足，但鉴于人们甚少有机会从建筑内部去往屋顶花园，设计还是无意中限制了能够同时使用屋顶花园的人数。MPK21的设计方案在MPK20的基础上进行了优化，以改善动线、采光、社交空间、步行舒适度，以及种植设计。

2.2 连续的、基于反馈的设计

“一般而言，间接迂回的方法有助于我们看清那些通常难以界定的复杂目标（因为其中包含了许多不必要或杂糅的元素），也可帮助我们了解目标的本质及在达成目标的方法中所蕴含的实验和发现过程。”^[2]

项目制定的景观框架可支持园区的未来发展。呼应Facebook公司的企业文化、考虑场地条件、满足交通功能要求、优化功能布局、提升空间体验、调控视线，运用丰富的种植设计和营建生态多样性——这些在MPK20项目中的设计细节考量已扩展到整个海湾园区的设计当中。由于多个项目同时开展，设计团队能够观察并收集建成项目的直接反馈，以了解哪些工作需要进一步的探索或调整。

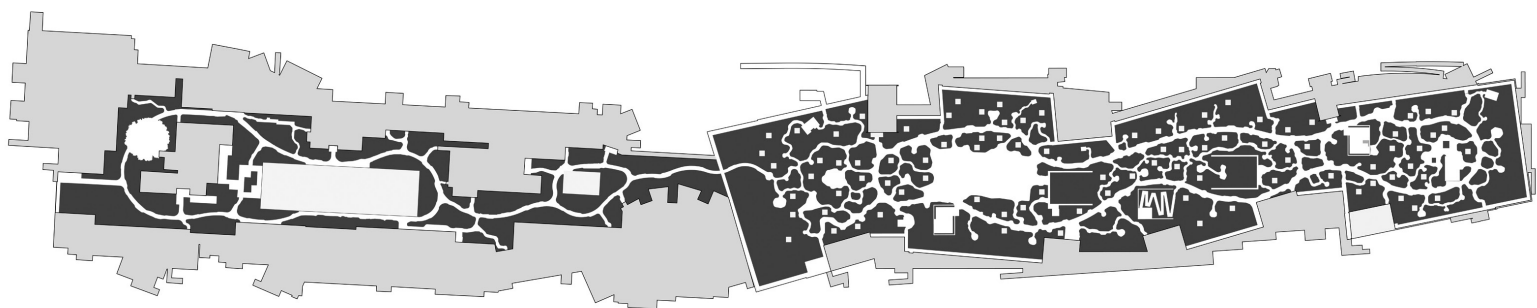
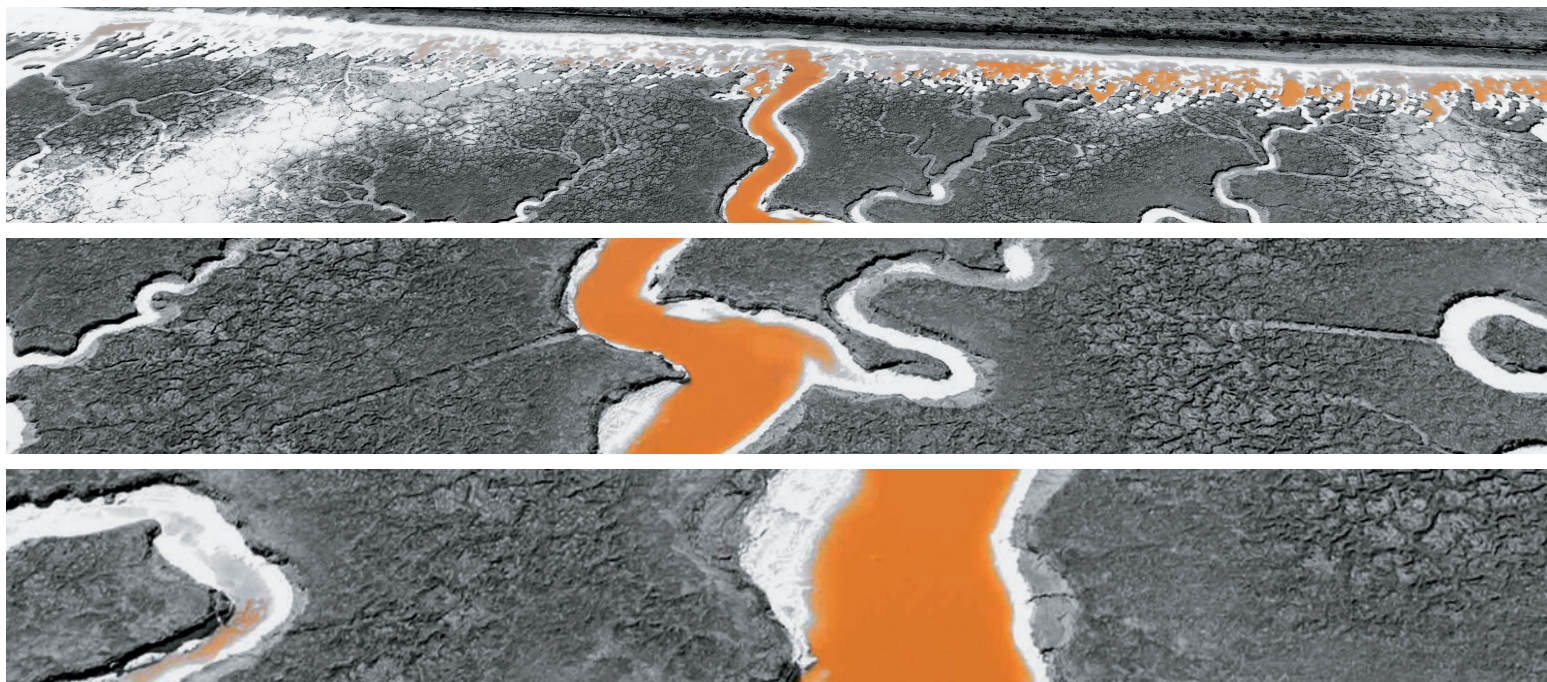
虽然现在MPK20和MPK21共同构成了一个长约0.8km的建筑群，但它们原本是两个单独的项目。受到MPK20设计思想的影响，CMG希望建筑群能够营造出一种流畅的空间体验。项目真正的挑战在于如何对这些细节进行调整和优化、增加新的体验，并创造出一种统一而连续的景观。与盖里建筑设计事务所的密切合作促使我们思考如何在整合建筑与景观的同时，提高空间功能布局，并对系统进行技术提升，从而使项目设计更加完善。

对MPK20项目进行观察及反馈收集，为推进MPK21的设计工作提供了宝贵经验。设计团队在以下几个关键点进行了创新性探索，包括：

- 1) 多层次景观：将更多的景观引入建筑；
- 2) 交通：形成一个更加集中的走廊，以优化空间的导向性、促进交际互动；
- 3) 可达性和视野：从每个楼层都可以看到景观；

2. 早期园区（已于2012年建成）和海湾园区（预计将于2020年完工）
3. 以周边盐滩的树状形态为灵感，景观呈现为分形般的几何肌理。
2. Classic Campus (completed in 2012) and Bayfront Campus (projected completion in 2020)
3. Drawing on the dendritic language of the adjacent salt flats, the ground plane is informed by the fractal-like geometries.





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4) 可用空间：设计更多不同尺度的户外集会和社交空间；

5) 步行舒适度：在屋顶花园中布置更多构筑设施，以形成遮蔽空间，抵挡海风；

6) 自然采光：增加建筑的自然采光。

每天，数千名Facebook公司员工和访客在地面层景观中穿行，因此景观需要具有导向性，并保障行人、自行车和摆渡车在园区间的安全通行。了解园区内的员工数量及动线优化方向以确定人车分离的需求，有助于厘清设计思路。地区性交通枢纽主要位于园区北部，而当地交通站点则主要分布在园区南部。地面层景观的设计更综合考量了交通、水文和自然环境等因素。

MPK20的环形回廊和MPK21的中央走廊共同构成了一条联系起建筑核心区的东西向动线，串联起了各个庭院、露台、工作区、会议室和各种便利设施。在MPK21的中心，建筑后撤形成一个面积约0.24hm²

的城市广场，直接将景观引入工作区域中。巨大的北美红杉（*Sequoia sempervirens*）为人们提供了浓浓绿荫，其下方的木质平台形成了一个开敞而灵活的空间，摆放的可移动桌椅可被随意拖动使用。树池中种植的地被植物和小型观花树种共同构成了北美红衫植被群落。在MPK21和MPK20的交汇处，朝南的碗状结构使屋顶与地面层景观相连，其上方是巨大的遮阳设施。这样的设计不仅丰富了空间设计，也在功能上衔接了两座建筑。以澳大利亚植物为特色的混凝土种植墙为花园休憩空间提供了绿意盎然的背景，也为在此举办的各种活动营造了舒适怡人的环境。

MPK21拥有一个面积约为1.5hm²的屋顶花园，如何让这个花园被更多的人享用是整个项目设计面临的一大挑战，也是激活花园的关键所在。屋顶花园中设置了一系列锯齿状的天窗，不仅增加了室内空间、将更多自然光源引入工作区域，也可使员工能够从办公层透过天窗观

赏屋顶景观。一系列楼梯、夹层和露台的设置方便人们在上下楼层和不同建筑间穿梭。屋顶花园中还设计了一条环状小径，沿路种植了各色本土植物和适应性植物，既形成了一种连续的景观，也丰富了栖息地和生物多样性。为了与景观融为一体，设计将一些室内功能移至屋顶花园之中。花园中的构筑物不仅遮挡了海风，也塑造了一处可使人流连其中的舒适空间。

2.3 电影效果般的景观

对电影效果般景观的早期研究有助于设计团队在自然环境中塑造人与人之间的关系。经过精心设计的景观——无论是花园自身的景致，还是从花园眺望远方——形成了一幅幅如电影剧照般的框景。花园中或私密或开阔的空间吸引着人们沉浸其中。经过巧妙安排的前景、中景和借景既营造了开放感和围合感，又突出了功能分区。Facebook公司倡导自由的企业文化，受“散步会议”的启发，景观如同画卷般沿着小径徐徐展开，时而开阔，时而紧凑。以周边盐滩的树状形态为灵感，景观呈现为分形般的几何肌理。园中的植被形态各异，吸引着人们前来观赏。

2.4 活动和使用的

虽然设计团队不断调整MPK20和MPK21的建筑及景观设计方案，

但创造互动空间的文化需求始终没有改变。对园区使用方式的观察及园区设计优化的过程激发了新理念和新方法。城市广场和碗状空间是办公区域中面积最大、最为综合的户外空间。多种功能的整合为场地注入了活力，同时，透明的建筑外墙增加了室内外的视觉联系和空间可达性。而屋顶花园的设计则鼓励人们在其中停留并进行移动体验，其中，与景观相结合的小露台和花架为人们提供了休憩场所。花园内的一系列艺术装置则旨在鼓励人们亲近自然、探索自然。

2.5 种植设计与生态多样性

“观察色彩缤纷的河岸真是太有趣了！种类繁多的植被，鸟儿在灌木丛中鸣唱，各种昆虫飞来飞去，蠕虫爬过湿润的土壤……转念一想：这些奇妙的天造之物是多么的不同，它们以如此复杂的方式相互依存，且都是由自然法则塑造而成的。”^[3]

该项目利用加利福尼亚州的本土植物进行设计。特色花园中的植物具有异国情调但也能够适应当地的生态环境。办公区和屋顶花园中的景观将MPK20和MPK21连接在一起，形成了连贯的社交体验。在MPK20中，加利福尼亚州的本土植物如加州蒿（*Artemisia californica*）、狼尾酒神菊（*Baccharis pilularis*）、加州倒挂金钟

4. 建筑和景观的结合是对场地环境的诗意回应，不仅可以实现开放空间的最大化，降低城市热岛效应，还可以有效减少和处理雨水径流。
4. The integration of architecture and landscape is a poetic and purposeful response to the program and its context, maximizing open space, minimizing heat island effects and significantly reducing and treating stormwater runoff.



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5. 在MPK21的中心，建筑后撤形成一个面积约0.24hm²的城市广场，直接将景观引入工作区域之中。
6. 在MPK21和MPK20项目的交界处，朝南的碗状结构使屋顶与地面层景观相连，其上方是巨大的遮阳设施。这样的设计不仅丰富了空间设计，也在功能上衔接了两座建筑。
5. At the heart of MPK21, the structure pulls back and cracks open to the 0.6-acre Townsquare, bringing the landscape directly into the workplace environment.
6. Where MPK 21 joins MPK 20, the south-facing Bowl connects continuously from the roof down to the site. Covered by a heroic shade structure, the tiered space fills the residual void, spatially and programmatically tying the two buildings together.

(*Epilobium canum*) 等沿海蒿属植物、加州紫丁香 (*Ceanothus* sp.) 和熊果属植物 (*Arctostaphylos* spp.) 占据主导地位，而MPK21则引入来自南非和澳大利亚或新西兰的新奇物种以及北美红杉等其他加州特色物种以营造完全不同的环境。项目的种植策略是广泛种植本土的及能够适应加州气候条件的乔木和林下植被，以创建一个沉浸式的、多样化的、仅需适度维护的景观，同时满足水资源的可持续性。

为了在多风的场地中成功构建一处韧性景观，项目参考了大量案例研究，将生长于湾区悬崖峭壁上的已适应了贫瘠土壤、排水不畅、抗风性强的耐旱植物物种引入场地。通过对本土植物和引种植物物种进行混合种植，可以为鸟类和昆虫提供栖息地。通过与美国奥杜邦鸟类及栖息地保护协会合作，屋顶景观的设计便于对鸟类的育种、筑巢和觅食行为进行监测和管理。在MPK20建成后的三年中，月度调查表明场地内已有超过50种鸟类，且鸟类数量显著增加。Facebook公司已举办了数场观鸟活动以及员工研讨会，一些公民科学家表示，通过观察和展示景观所提供的一系列生态惠益，其固有的教育和保护价值得以充分实现。

2.6 技术、可持续性和管理

基于CMG在各种大型园区和重建项目方面的经验累积，我们提出了一种将开放空间和整合的场地系统作为土地使用决策和项目改进的框架。绿色基础设施、城市森林和生态、交通，以及社会生活等因素是制定项目计划的关键。

设计、技术和管理的融合深刻塑造了MPK20和MPK21的景观。

这些景观都是项目团队与建筑师、结构工程师及电气、机械、水暖工程师密切合作和技术协调的成果。项目的规模和时间跨度决定了设计和施工的系统性方法。项目亦可模拟自然条件——土壤、排水、灌溉——这些都是景观长期维护的必要条件。各级排水系统网络实现了与灌溉系统和土壤混合设计的共同运作。

项目伊始，根据结构参数确定景观荷载是设计工作的重中之重。一个大型屋顶花园的重量相当于两层楼的负重。要支撑整座建筑及其上的景观需要超过3 200个螺旋钻孔灌注桩，钻孔深度从18.3m到22.4m不等。

项目的建造、维护和规划离不开有计划且长效的管理。尽管项目已交付使用，CMG仍然关注园区的发展并积极配合Facebook公司对未来园区景观的构建和适应性管理进行指导。通过持续性地参与园区管理，我们收集到了诸多反馈，学习到了更多经验，这不仅有利于持续提升海湾园区的景观，也为未来我们开展其他设计工作提供了借鉴。

3 讨论和回顾

CMG致力于创造持久而永恒的空间、创新而独特的景观。我们为每个项目都注入了实用主义方法和创新：实用主义适用于项目日常的方方面面，从设计到预算，再到建造和运营；创新使我们能够通过新思路和新工具重新审视既有问题。这一设计方法旨在将景观效益最大化，并密切关注人、空间、独特的文化条件，以及人们所处的生态环境。换句话说，我们希望所有设计项目立足于此刻、此地。

随着工作特点的变化，工作环境也会相应发生变化。厘清企业的文化需求和愿景对于项目的规划设计非常重要。对于Facebook公司而言，这意味着需要通过物质空间体现企业的核心价值，其中，连通性赋予空间以机动性，开放性意味着灵活度和转变，透明度则有助于社交活动。该设计旨在通过社交创造一种培养好奇心的环境，并鼓励人们对建筑和景观进行探索。

在这个快速发展但越来越缺乏人性关怀的时代，与自然的接触对于人类福祉而言至关重要，自然环境赋予我们内心的平静和片刻的喘息，也促使我们思考如何保护它的健康和美丽。过去8年间，CMG有幸在Facebook总部营造了一个极具野趣的园区景观，同时也增进了我们对于加利福尼亚州本土物种的了解。

身处自然中的人们可以进行沉浸式体验——放松心情、增强体验，并激发想象力。通过工作场所将人与自然联系在一起使我们认识到发现日常之美是多么重要。我们相信如果在日常生活中更加亲近自然，人们将会更加尊重自然并收获更多愉悦。此外，鼓励人们参与设计的日常管理也至关重要。大多数人在自然环境中进行社交的机会非常有限。在Facebook总部，我们特意将景观引入工作空间，以使接触自然成为人们日常体验的一部分。

“这就是我想表达的：对于那些擅于学习的人来说，大自然的体验是神奇的。画得越多，可画的就越多。在最初身处野外环境时，你可能会错过一些有趣的事情。随着你发现得越多，了解得越多——你会开始查阅观察到的植物名称，并随之了解更多的细节。你终会发现，每个物种本身都是一个故事。”^[4]

CMG注重公共空间和生命系统的营造，即建成环境如何影响人类的社交行为，何种创新方法可以塑造欣欣向荣的自然环境。在协作与迭代的过程中，我们根据自身研究以及客户和利益相关方的反馈对设计进行持续的改进。我们的设计包含了对技术要求、客户意见和共同原则目标的透彻理解，包括：

1) 社区营造：公共空间的核心是使用和管理空间的人。只有与他们进行合作才能产生设计。识别和理解这些利益相关方是至关重要的第一步；

2) 创造真实的场所：每个场所独特的物理、生态和文化历史背景都是其潜在的发展基础，也是实现其未来身份认同感的核心；

3) 营建有意义的场所：将实用主义和创新引入项目有助于解决现有问题，同时创建令人印象深刻的独特场所，以满足其所在社区的特殊需求；

4) 注重材料品质与工艺水平：丰富的体验感取决于人们如何与场所互动以及设计的形式和材料品质。引入具有魅力的、令人兴奋的、可触摸的、好玩的、美观的、高度体验性的，以及耐用的设计对于空间的成功至关重要。

景观的特征和品质以及景观之中可容纳的活动极大地促进了人们

的认同感。一个周密的设计必须可以提供各种活动场所以满足人们的多种需求。通过平衡能动性和灵活性，Facebook总部的规划设计使我们认识到开放空间既需要满足社交需求，也需要设置有待人们自行探索的静谧空间，以充分支持园区内的社区生活以及不同的价值观。

正如拉尔夫·沃尔多·爱默生在《论美国学者》一文中所说，“自然加速向人类展示自身”，从而产生一种“统一的本能……将事物联系在一起，隐去差异，探寻事物的共同根源。藉于此，天南海北、毫无联系的事物被联系在一起，如同生长在同一枝干上的花朵，各自绽放。”^[5] LAF

项目信息

项目地址：美国加利福尼亚州门洛帕克市
项目面积：MPK 20: 8.1hm², MPK 21: 9.7hm²
项目委托：Facebook
景观设计：CMG景观设计事务所
项目负责人：Chris Guillard
首席景观设计师：Rayna deNiord
合作伙伴：Gehry建筑设计事务所（建筑设计）；Forell/Elsesser结构工程公司（结构工程）；PAE咨询公司（机械、电气、水暖、技术）；Level 10建造公司（承包商）；Cumming咨询公司（项目管理及成本控制）
景观设计团队：Lisa Daye、Jason Rowe、Nico Wright、Matt Arnold、Jamie Yousten、Paul McGhee
设计时间：MPK 20: 2012年9月-2013年4月，MPK 21: 2015年3月-2016年1月
建造时间：MPK 20: 2014年7月-2015年3月，MPK 21: 2017年9月-2018年6月



© Lisa Daye
7-1



© Marion Bremner
7-2

- 7-1. 为方便员工进行“散步会议”或随意交谈，园区内设计了一条长约1.6km的环形路，其上分支出的花园小径沿着种植区蜿蜒，将隐蔽的角落、视点、谈话空间及聚会活动区串联在一起。
- 7-2 曲折的小径将导向、活动、体验、植物特性识别等基本功能串联在一起。
8. 经过巧妙安排的前景、中景和借景既营造了开放感和围合感，又突出了功能分区。

- 7-1. Designed primarily to accommodate walking meetings and casual conversations that are common among employees, the park is organized around a fluid mile-long loop with smaller garden-like paths that weave erratically through planting areas to small nooks, viewpoints, meeting rooms, and gathering areas.
- 7-2. The meandering pathway links the basic function of circulation to wayfinding, program, experience, and character.
8. Foreground, middle, and borrowed views are carefully composed to heighten the sense of openness and enclosure and accentuate syncopation.



© Marion Bremner

1 Background

CMG Landscape Architecture (CMG) is a mission-oriented studio working to increase social and ecological well-being through artful design. Revitalizing and transforming the public realm is at the core of this practice. We continually seek new ways to design open space and infrastructure, improve livability, and make venues for civic, social, and cultural life to thrive. Shared life in shared space is how community is formed. The challenge in the creation of public spaces is how to inspire people to visit, and how to encourage them to stay. Finding the right design approach and landscape identity is the key to supporting this endeavor.

“Community” in its broadest context and meaning is both a place and a social activity. Families and homes, residential neighborhoods, commercial districts, universities, high schools, public and private institutions — each of these reflects a form

of community. But, there is another facet of its definition that is essential to our work: the ecological one that we all share by nature of being alive. All vital communities are places of accrual and transformation built incrementally over lives and generations. We recognize and embrace this dynamism by maintaining a long-term vision of projects and anticipating their evolution over time.

1.1 Facebook Headquarters: A Liminal Landscape

Facebook’s Headquarters, located on the fringe of San Francisco Bay in Silicon Valley, is situated in a rapidly evolving and liminal landscape. To the North, a sublime expanse of salt flats gives way to the Bay. To the South, a rail corridor divides the Bayfront Campus from a residential neighborhood. Historically, the site was part of a tidal wetland system that defined much of the South Bay. Beginning in the early 1900s, the adjacent bay lands were diked and divided into salt flats for the



9. 场地的功能布局兼顾了移动性、灵活性和交互性等当代工作场所的构成要素，并强调了文化和场所对于企业的重要性。
10. 巨大的红杉树为人们提供了浓浓绿荫，其下方的木质平台形成了一个开敞而灵活的空间，摆放的可移动桌椅可被随意拖动使用。
11. 以澳大利亚植物为特色的混凝土种植墙为花园休憩空间提供了绿意盎然的背景，也为在此举办的各种活动营造了舒适怡人的环境。

9. The programming and design strategies reflect the mobility, flexibility, and social interaction that define contemporary technology workplaces and the importance of culture, place, and design to business.
10. Redwood trees provide shade and scale, emerging through an open and flexible wood deck populated with moveable furniture that can easily be reconfigured.
11. A unique Australian planting palette set against a backdrop of heavily textured concrete garden walls and break-out spaces helps to form a comfortable environment for a variety of gatherings, supporting a range of activities from small groups to large events.

production of industrial salts. As Silicon Valley grew, the fringe between the rail corridor and bay was filled, a new expressway was built, and the site was developed for light industrial and office uses. Several innovative companies occupied the site before relocating in the early 2000s, leaving an underutilized and brownfield site. The adjacent salt flats were decommissioned in the 1990s, and have become habitat for several endangered species in the intervening years. The result is a complex mosaic of industry, ecology, and infrastructure — a post-industrial site that is in many respects of marginal, disconnected, and unforgiving. The planning and design of the Headquarters responds to this challenging context with a series of inventive solutions that build on Facebook’s culture to create a vibrant and sustainable workplace.

1.2 Bayfront Campus

Adjacent to Classic Campus and across the Expressway, Facebook’s 80-acre Bayfront Campus has evolved iteratively over the last seven years. Working in close collaboration with Gehry Partners, CMG has led a range of ecologists, engineers, arborists,

and soil scientists to remediate, repurpose, and re-envision the site. A series of unfolding frameworks guide the landscape design, creating a continuity that ebbs across individual projects and ties diverse spaces and experiences together. Programming reflects mobility, flexibility, and social interactions that define contemporary workplaces and highlight the importance of culture and place to business. The development of the campus will ultimately convert a largely impervious and sterile site into a network of civic spaces and landscapes that increase community connectivity, provide public access, and create habitats.

An abandoned tunnel below the busy Expressway was repurposed to improve circulation flowing between Classic and Bayfront campuses. Adjacent streetscape improvements around the Bayfront Campus perimeter prioritizes bicycle and pedestrian safety while a future bridge, set in the middle of the campus between MPK 21 and MPK 22, will span across Bayfront Expressway and provide an elevated passageway linking Belle Haven neighborhood to the Bay. A 2-acre park and plaza will provide a threshold and landing to the bridge on the campus side and will be dedicated to public use. The open and flexible

12. 花园内的一系列艺术装置旨在鼓励人们亲近自然、探索自然。
12. A series of art installations placed within the garden enrich the experience of being within the landscape and encourage further exploration.

plaza space is envisioned to be used for farmer's markets, food trucks, movie nights, and small performances or events.

"Environment includes the physical world, the social world of human relations, and the built world of human creation."^[1]

The planning of the Bayfront Campus is rooted in ecological principles, creating a layered environment that is bio-diverse and social, natural, and urban. Focused on restoring a brownfield site to a resilient landscape, the design merges the functional needs of the workplace culture with habitat created through the establishment of natural systems.

2 Design Process

2.1 MPK 20 and MPK 21: Integration of Building and Landscape

Stepping from the edge of the bay, MPK 20 and 21 — the two completed buildings on the Bayfront Campus — provide opportunities for diverse outdoor spaces and a range of ways to experience them. The integration of the buildings and landscape responds to the site and program needs. The landscape pulls through the buildings to active courtyards and gardens at the office level, climbs up terraces where drought and wind tolerant plant communities cluster along the edges, and emerges onto the roof as a wild and expansive park. This movement reveals

the synthesis of built and natural systems and helps foster connections between employees and their broader environment. Art, ecology, and social spaces are thoughtfully interwoven to create a vital and bio-diverse habitat.

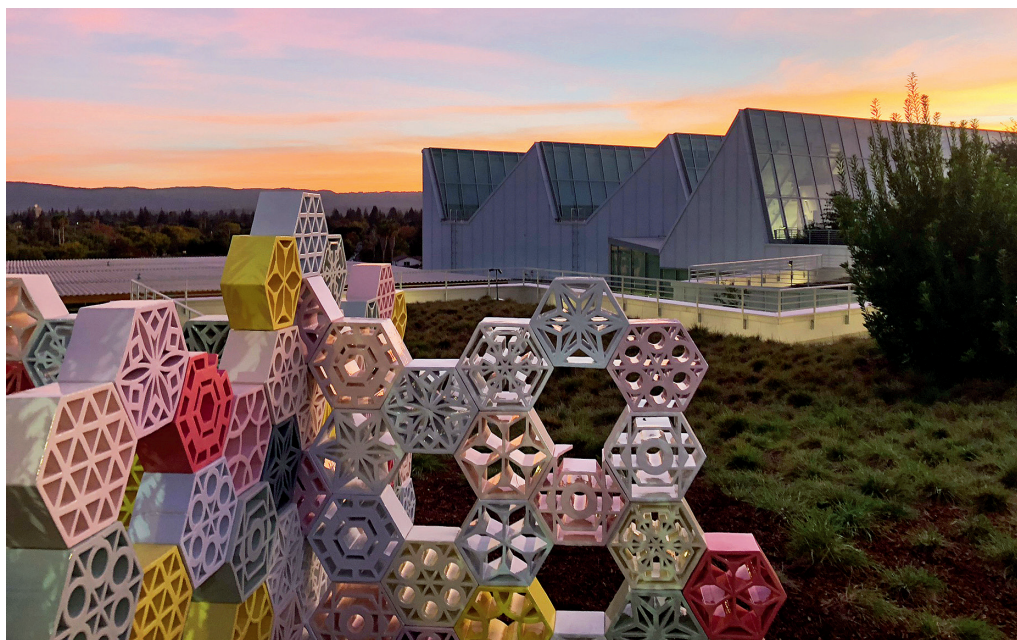
The first building, MPK 20, was conceived as one big room. Its flexible and open workspace is designed on a single level with parking set below the structure and a sprawling, 9-acre green roof above. A series of wide terraces allow breakout spaces and outdoor dining directly off the workspace. Stairs, ramps, and elevators distributed throughout the building provide access to the roof and a series of pop-downs, pop-ups, and sunken gardens animate the landscape, visually connecting it with the interior. While this strategy opens up wide view opportunities and allows more roof space for deeper and continuous planting, it also inadvertently limits the number of people using the park, as there are few opportunities to physically access the roof garden from within the building. MPK 21 elaborates and expands upon these initial gestures, intelligently adapting approaches to circulation, light volume, social spaces, pedestrian comfort, and plant selection based on valuable performance observations at MPK 20.

2.2 Continuity and Iteration

"In general, oblique approaches recognize that complex objectives tend to be imprecisely defined and contain many elements that are not necessarily or obviously compatible with one another, and that we learn about the nature of the objectives and the means of achieving them during a process of experiment and discovery."^[2]

As the campus grows, landscape frameworks continue to provide a scaffold for future ideas. Springing from a response to Facebook culture, site context, the functional needs of circulation, the invention of program, the imagined experience, the controlling of views, and the establishment of rich botanical and ecological diversity — these gestures that began as conceptual inklings on MPK 20 have extended across the entire Bayfront Campus. As multiple project schedules and phases overlap, the team is able to observe and collect direct feedback from the built environment about what works and what should further be considered and adapted.

While MPK 20 and 21 now combine to form a single half-mile long building in completion, they were designed and documented as separate projects. Developing strategies for how they would come together to create a fluid experience was influenced by ideas initially established at MPK 20. The real challenge was in how to adapt and evolve the ideas, to make



adjustments and add new experiences, while still creating a cohesive landscape. Close collaboration with Gehry Partners pushed our teams to respond and strategize on how the building and landscape could further work together to sharpen utility, anticipate program, improve the technical development of systems, and overall create a better project.

Observations and feedback from MPK 20 provided valuable insights on how to proceed with MPK 21. The team honed in on a few key objectives that translated into exploring alternate approaches, including:

- 1) Multiple levels: Pull more of the landscape down into the building;
- 2) Circulation: Create a more centralized corridor to increase directness and social interaction;
- 3) Access and views: Make the landscape more visible from the workspace at all levels;
- 4) Usable spaces: Develop more outdoor meeting and social spaces at a variety of scales;
- 5) Pedestrian comfort: Let the architecture emerge on the roof with more program and amenities while also providing enclosure and wind protection from the bay environment;
- 6) Natural light: Bring more light volume into the building.

At the site level, the landscape provides direction for thousands of employees and visitors arriving to campus every day, as well as safe inter-campus movement for pedestrians, bikes, and shuttles. Understanding desire lines and volume of employee movement around campus helps clarify the design by identifying the need for clear separation. Regional transportation hubs are weighted to the North of the site while local flow runs along the South edge. The site level is geared towards circulation, hydrology, and habitat.

A combination of a looping (MPK 20) and centralized (MPK 21) corridor runs east-west through the building's core, acting as a social artery off which courtyards, terraces, workspaces, meeting rooms, and amenities are located. At the heart of MPK 21, the structure pulls back and cracks open to the 0.6-acre Town Square, bringing the landscape directly into the workplace environment. Coast Redwood trees (*Sequoia sempervirens*) offer shade and scale, emerging through an open and flexible wood deck populated with moveable furniture that can easily be reconfigured. Planters punctuate the space and are filled with understory species and smaller flowering trees indicative of Coast Redwood plant communities. Where MPK 21 joins MPK 20, the South-facing Bowl connects continuously from the roof down to the site. Covered by a heroic shade structure, the tiered space fills the residual void spatially and programmatically tying the two buildings together. A unique Australian planting palette

set against a backdrop of heavily textured concrete garden walls and break-out spaces helps to form a comfortable environment for a variety of gatherings, supporting a range of activities from small groups to large events.

Providing both visibility and accessibility to the 3.6-acre roof level landscape at MPK 21 is important to the overall project design and activation of the park. Massive sawtooth skylights push through the roof garden, creating interior volume, bringing natural light down into the workspace, and opening views up to the roof from the office level. The frequency of stair locations, mezzanines, and terraces encourage vertical movement and circulation between buildings and levels. On the roof, a looping pathway weaves through a continuous landscape framework of native and adaptive species. The cadence of these planting palettes expands habitat and diversity. The building intentionally engages with the landscape and brings more interior program to the roof. Pushing the architecture to the perimeter protects the park from wind and makes it a more comfortable environment for people to spend time in.

2.3 Cinematic Landscapes

The early study of cinematic landscapes helped explore the relationship of characters within nature. Moving around the park, the landscape is choreographed to frame views within and beyond. A sequence of immersive experiences unfold from intimate garden rooms to wide vistas. Foreground, middle, and borrowed views are carefully composed to heighten the sense

13. 该项目主要利用加利福尼亚州的本土植物进行设计。特色花园中的植物既具异国情调，也能够适应当地的生态环境。
14. 这一大型综合性景观的最终实现很大程度上取决于设计、技术和管理的无缝衔接。

13. The design draws upon natural regional environments with extensive California-native based plantings. Specialty gardens focused on exotic but locally-adaptive ecologies occur within this larger fabric.
14. The realization of this large and complex landscape is deeply informed by the bridging of design, technology and stewardship.



of openness and enclosure and accentuate syncopation. Inspired by the tradition of Facebook's peripatetic culture of walking meetings, the landscape unrolls along the path, expanding and contracting. Drawing on the dendritic language of the adjacent salt flats, fractal-like geometries informed the ground plane. The framework of plant typologies, each with their own character and story, invites people to observe, listen, and notice.

2.4 Activity and Use

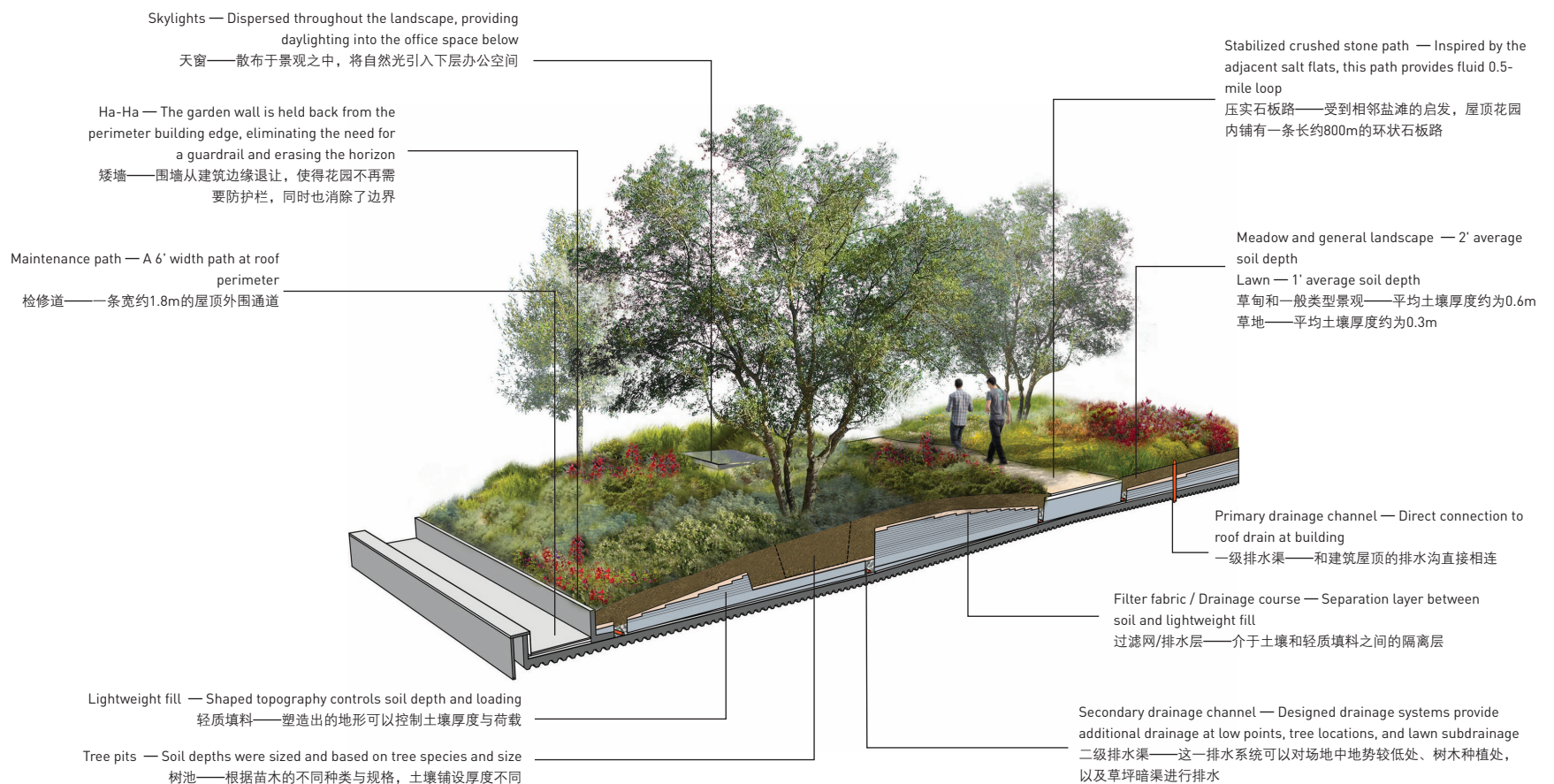
While the mechanics and components of building and landscape program have evolved throughout the design of both MPK 20 and 21, the cultural need for places that create social interactions has remained constant. Observing how the campus is used and considering how it could be further improved informed ideas and new approaches. The Town Square and the Bowl are the most expansive and integrated outdoor areas within the office level workspace. The complexity of overlapping program boosts activity while visual connections and physical access points are increased with transparent and porous building edges. On the roof, the park is more immersive. While the pathway

encourages movement, smaller decks and trellises extend where the architecture engages with the landscape and provide pause. A series of art installations placed within the garden enrich the experience of being within nature and encourage further exploration.

2.5 Botanical and Ecological Diversity

"It is interesting to contemplate an entangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent on each other in so complex a manner, have all been produced by laws acting around us."^[3]

The design draws upon natural regional environments with extensive California-native based plantings. Specialty gardens focused on exotic but locally adaptive ecologies occur within this larger fabric. The landscape of MPK 20 links to MPK 21 on the site, office, and roof levels, providing a continuous experience



at the interfaces. While California native typologies like coastal sage scrubs (*Artemisia californica*, *Baccharis pilularis*, *Epilobium canum*, etc.), California Lilac (*Ceanothus* sp.), and Manzanita (*Arctostaphylos* spp.) dominate MPK 20, MPK 21 interrupts this framework with exotic palettes drawing from South Africa and Australia / New Zealand, as well other unique California natives like Coast Redwood forests. The planting concept is botanic with extensive native and regionally adapted tree and understory plantings. The intent is to create a landscape that is immersive, diverse, and moderate in its maintenance requirements, and sustainable from a water use standpoint.

To successfully build a resilient landscape in a windy, on-structure location, reference sites were considered and cues were taken from the drought-tolerant plant communities adapted to the thin soils, erratic drainage, and windswept environments that define coastal bluffs around the Bay Area. Native and adapted species are combined in cultured but ecologically coherent arrangements to provide avian and pollinator habitat. Working with the Audubon Society, the roof landscape was designed to facilitate monitoring and management of breeding, nesting, and foraging. Monthly surveys completed during the establishment of the MPK 20 landscape over the past three years revealed more than 50 species and significant increases in the number of birds. Facebook has hosted several birding events of its own and discussions with employees, and citizen scientists suggest that the ecological and botanical benefits the landscape provides through

observation and exposure possess inherent educational and conservation value.

2.6 Technology, Sustainability, and Stewardship

CMG's work on a variety of large-scale campus and redevelopment projects has allowed us to advocate for open space and integrated site systems as the framing device for land use decisions and enhancement opportunities. Green infrastructure, urban forest and ecology, mobility, and social life are key concerns with the development of these plans.

The bridging of design, technology, and stewardship deeply informs the mosaic-like landscape of MPK 20 and MPK 21. Both of these landscapes are the result of intensive collaboration and technical coordination with the architects and structural and MEP engineers. The scale and schedule of the projects dictated an elegant and systemic approach to design and construction. The profile simulates natural conditions — integrating soils, drainage, and irrigation — all of which are imperative to the long term success of the landscape. A network of primary, secondary, and sub-drainage systems work in concert with the irrigation system and soil mix design.

Defining landscape loads relative to structural parameters was an important consideration to wrap our heads around from the beginning. The weight of an extensive green roof of this nature equates to an additional two stories of building. Over 3,200 auger-cast piles ranging from 60 to 80 feet deep were



15. 随着工作特点的变化，工作环境也会相应发生变化。

16. 通过工作场所将人与自然联系在一起使我们认识到发现日常之美是多么重要。

15. As the character of work changes, so do the work environments that support it.

16. Connecting people with nature through the workplace helps build vocabulary, description, and discussion about how important it is to celebrate the beauty of life existing around us.



needed to support the building and landscape.

Establishment, maintenance, and programming require a plan for stewardship and ongoing management. As the projects take on a life of their own, CMG continues to be engaged, monitoring the site and coordinating with Facebook to help guide the establishment and adaptive management of the landscape over a longer time horizon. The feedback loops and lessons gleaned from ongoing participation in the stewardship of the campus are valuable not only in the evolution of the landscape, but also in how we plan and design new ones.

3 Discussions and Review

CMG strives to create enduring and timeless places, as well as innovative and distinctive landscapes. We bring

pragmatism and invention to each of our projects: pragmatism accommodates the everyday realities of a project from designing to budget, to construction and daily operations, while invention allows us to revisit old problems with new insight and new tools. Our design approach seeks to maximize the purpose of the landscape, with careful attention to people and place, their unique cultural conditions, and the ecological environment they inhabit. In other words, we want our projects to be authentic to their place and time.

As the character of work changes, so do the work environments that support it. Uncovering and clarifying institutional cultural needs and desires deeply informs program and the design process. For Facebook, this means translating core mission statement values expressed into a physical space, where connectivity grants directness and mobility, openness

allows flexibility and transformation, and transparency encourages social activity. The design reaches to invent an environment that cultivates curiosity through interaction, encouraging exploration of the building and landscape.

In these fast and increasingly dehumanizing times, connecting with nature is essential to our well-being, and it offers calm, respite, and reflection on how to preserve the health and beauty of the natural world. Over the last eight years, CMG has had the good fortune to cultivate a wild campus landscape at Facebook Headquarters while simultaneously enhancing our knowledge of species that define our local California native habitats.

Being within nature allows for learning through osmosis — it can relax the mind, expand perception, and stimulate imagination. Connecting people with nature through the workplace helps build vocabulary, description, and discussion about how important it is to celebrate the beauty of life existing around us. We believe that if people are brought closer to nature within their everyday experiences, there will be more respect and joy for it. It is vital to motivate people to participate in its stewardship. The daily occasion for most people to interact within a natural environment is limited. At Facebook, bringing the landscape into the workspace is intentional and deliberate — encounters with nature become a part of daily experience.

“This is the point I want to make: the experience of nature, to those who have learned to absorb it, is magic. The more you draw, the more there is to draw. In early visits to wilderness environments, you will miss out most on what is interesting. You will subsequently spot more, and then more, and begin to put names on what you see. Then will come still more details. Each species, you will learn, is a story in itself.”^[4]

At the core of CMG’s work is an attention to public space and living systems — to how the built environment shapes human interaction, and to the way human innovation can foster a thriving natural world. Embracing a collaborative and iterative process, we continually refine and improve ideas through ongoing study as well as review and input from clients and stakeholders. Our design incorporates a thorough understanding of technical requirements, client input, and a shared understanding of principles and goals, including:

- 1) Empowering communities: At the center of the public realm is the people who use and steward the spaces. Designs emerge from our collaborations with them. Identifying and understanding these stakeholders is an important first step;
- 2) Creating authentic places: Considering each site’s unique physical, ecological, and cultural histories as the foundation of

its potential is the key to its future identity;

- 3) Making meaningful destinations: Bringing pragmatism and invention to projects helps address familiar problems while creating memorable and idiosyncratic places that address the particular needs of the communities they serve;

- 4) Material honesty and craft: Experiential richness is based on how people interact with places and the formal and material qualities of design. Making things that are inviting, provocative, tactile, playful, beautiful, highly experiential, and durable are important to the success of a space.

The character and quality of the landscape, and the activity it supports, contributes significantly to institutional identity. A thoughtful design must provide a variety of programs and destinations to accommodate the many reasons one may have to linger. By balancing activation and flexibility, the design and programming of Facebook’s headquarters recognizes that open space needs both social attractions and restorative, un-programmed moments of discovery to fully support campus community life and values.

As Ralph Waldo Emerson opined about nature in his essay *The American Scholar*, “nature hastens to render account of herself to the mind,” engendering a “unifying instinct... tying things together, diminishing anomalies, discovering roots running underground, whereby contrary and remote things cohere, and flower out of one stem.”^[5] **LAF**

PROJECT INFORMATION

Location: Menlo Park, California, USA
Area (Size): MPK 20: 20 acres, MPK 21: 24 acres
Client: Facebook
Landscape Design: CMG Landscape Architecture
Principal in Charge: Chris Guillard
Chief Landscape Designer: Rayna deNiord
Collaborators: Gehry Partners (Architect), Forell / Elsesser Engineers (Structural Engineer), PAE (Mechanical, Electrical, Plumbing, Technology), Level 10 Construction (Contractor), Cumming (Project Management and Cost Management)
Landscape Design Team: Lisa Daye, Jason Rowe, Nico Wright, Matt Arnold, Jamie Yousten, Paul McGhee
Design Period: MPK 20: September, 2012 – April, 2013, MPK 21: March, 2015 – January, 2016
Construction Period: MPK 20: July, 2014 – March, 2015, MPK 21: September, 2017 – June, 2018

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