

建筑实践

ARCHITECTURAL PRACTICE

中国建筑师学会刊 THE JOURNAL OF ASC

9

2022

特辑：工业遗存，价值重塑

Feature: Reshaping the Value of Industrial Heritage

798CUBE 美术馆

798CUBE ART MUSEUM

设计：朱镭建筑设计事务所
地点：北京市朝阳区

Design: Studio Zhu Pei
Location: Chaoyang District, Beijing

主入口 Main entrance © 朱润资 ZHU Runzi



业主
北京七星华电科技集团有限
责任公司

主持建筑师
朱锴

设计团队
Shuhe Nakamura、由昌臣、
张顺、刘伶、王立言、贾彬、
丁新月、常江

室内、景观设计
朱锴建筑设计事务所

结构、机电顾问
中国美术学院风景建筑设计研究院

照明顾问
北京宁之境照明设计有限责任公司

总承建商
邯郸第二建筑安装有限公司

基地面积
3,321 m²

建筑面积
3,541 m²

设计周期
2015.8—2016.8

建造周期
2017.4—2020.12

798CUBE 美术馆是一个改造项目，位于 798 艺
术区内，与毗邻的佩斯美术馆和民生现代美术馆一道，
是朱锴建筑近些年来以工业遗产为主题的一系列实验
性的创作实践。

美术馆的构思始于对特定地段环境敏感深入的观
察，尽最大的可能保留原有老的工业厂房，在此基础
上，再注入新的建筑，从而塑造出新老建筑之间的张
力，并与周边工业建筑彼此缝合，相互补充。

美术馆的设计遵循原有工业遗产的肌理，采用一
系列的“盒子”空间，塑造正交几何形体的秩序。一
方面，这些盒子空间严格地按照原有老厂房建筑的基
础和轮廓排布；另一方面，也映射 798 地区工业厂房
平铺直叙的规划思想与朴素的建造逻辑。特别值得一
提的是如有魔术般可变的中心院落，它的轮廓也是按
照原有装卸货空场而界定的，南侧借助一道独立的现
浇混凝土高墙，将佩斯美术馆西侧的广场区隔开，在
强化自身内向的领域感的同时，也将原有的、被厂房
三面围合的装卸货空场转换成相对封闭的中心院落，
巨大的钢梁式滑动吊车横跨在南北的混凝土墙上，它
不仅可以悬挂艺术装置，也是张拉一个个自然下垂、
近似反拱、形态可变的帆布的机械牵引装置。根据天
气、阳光角度，这些反拱形态的帆布可以任意开合，
遮阳避雨。独立混凝土墙体上藏有可以水平移动的大
门，以利于超大艺术装置运输到院落中。中心院落是
人流聚集的场所、开幕式的场地，也是户外展场。

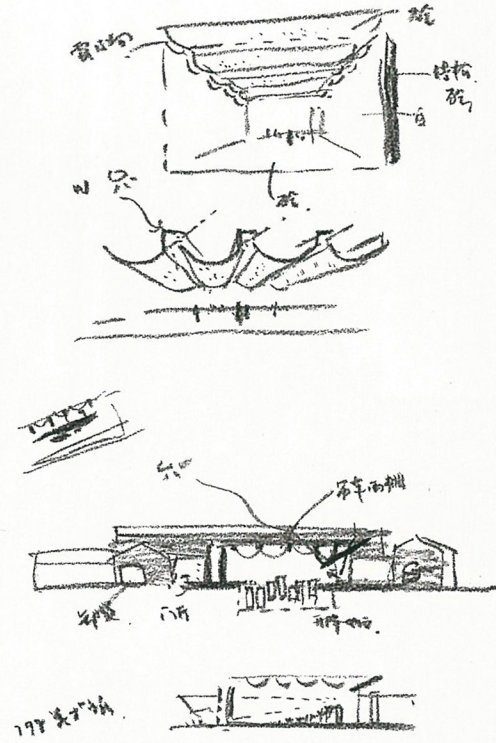
美术馆的设计再次探索了无柱、水平延伸的结构
形式和材料的表现力。新建造的两个展厅都采用无柱
大跨现浇混凝土结构，一个采用巨大的倒拱式曲面横
梁，伴随着自然天光从比邻的两个拱之间漫射下来，
也和中心院落的形似倒拱的帆布的机械装置相呼应。
从结构角度上看，倒拱式曲面横梁被两侧的混凝土结
构剪力墙体所支撑，展厅内部的白色美术馆墙与倒拱
式曲面横梁留有一定宽度的缝隙，可以清晰地表达结
构体系和受力关系；另一个是混凝土密肋式大跨横梁
结构体系，密肋横梁薄而高，凸显钢筋混凝土结构和
材料特性。

在新建造的两个展厅与老的红砖厂房之间，插入
了一个近 14m 高、有着自然天光的垂直竖向的立方
柱体空间，东侧是中性的白色墙体，北和西侧是老
的红砖砌筑墙体，南侧是宽大透明的客货两用电梯，它

近似美术馆内部空间的中枢，连接着位于不同标高
的空间。它又像一个光井，直接插在建筑最深、暗的
部位。当人们置身于此，可以清晰地感知新旧建筑之
间的关系以及各个空间的标高变化。一个薄薄清水混
凝土“天桥”伴随着高低变化的踏步，游离于四面的墙体，
蜿蜒螺旋而下，逐渐演变成楼梯，把门厅、上层展厅、
报告厅前厅、下层展厅自然连接在一起。

视线穿越透明玻璃的客货两用电梯，可以看到艺
术品在装卸货区域的工作状态，是一次将美术馆背后
神秘的工作场景融入公共空间的尝试。

美术馆的设计也捕捉了 798 工业厂房的材料特点，
以朴素的现浇混凝土、红砖为主要材料，着力突出这
两种材料在结构形式与围护墙体之间的交接、转换的
建造特点，蕴含着 798 工业建筑所特有的建构文化。



朱锴草图 ZHU Pei's sketches
© 朱锴建筑设计事务所 Studio Zhu Pei



改造前广场 Square before renovation
© 朱锴建筑设计事务所 Studio Zhu Pei



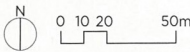
改造前室内 Site interior before renovation
© 朱锴建筑设计事务所 Studio Zhu Pei



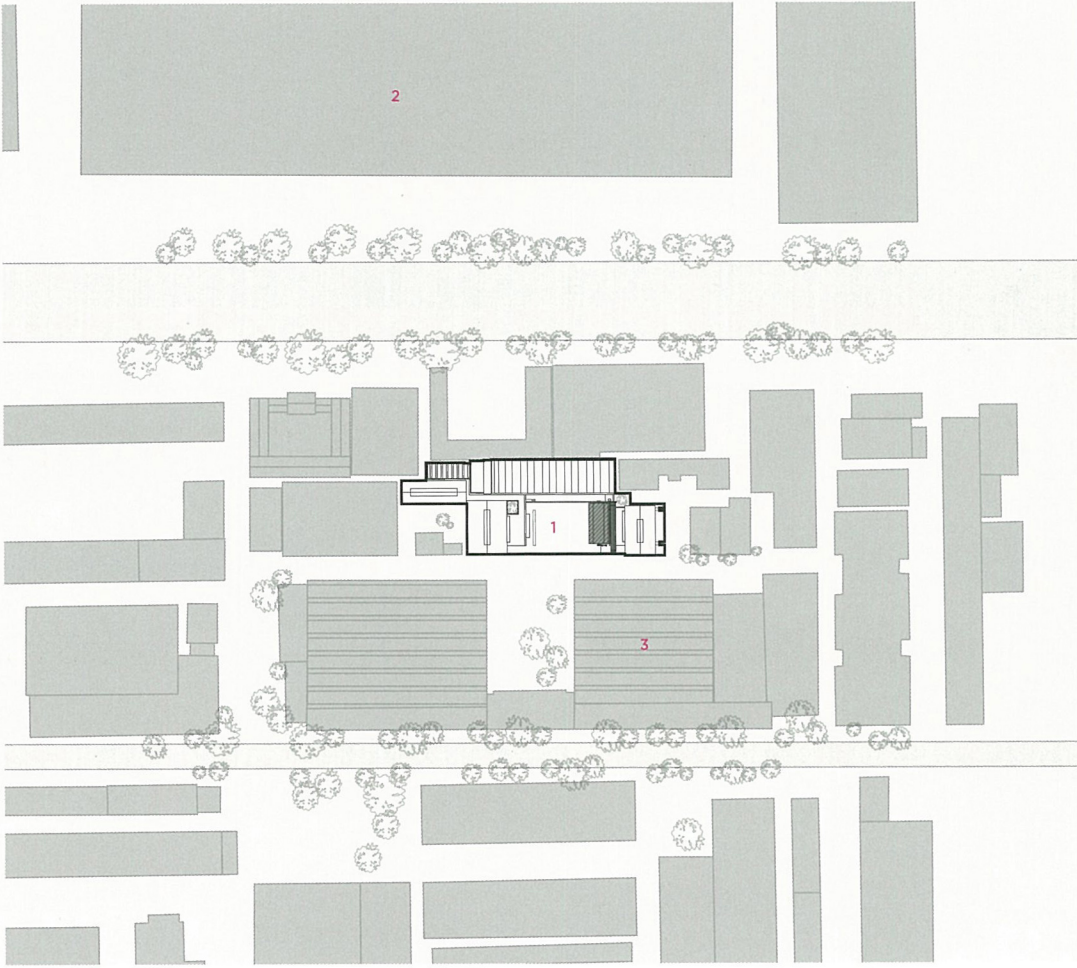
从入口看向合院 View from the main entrance to He courtyard © 朱润资 ZHU Runzi

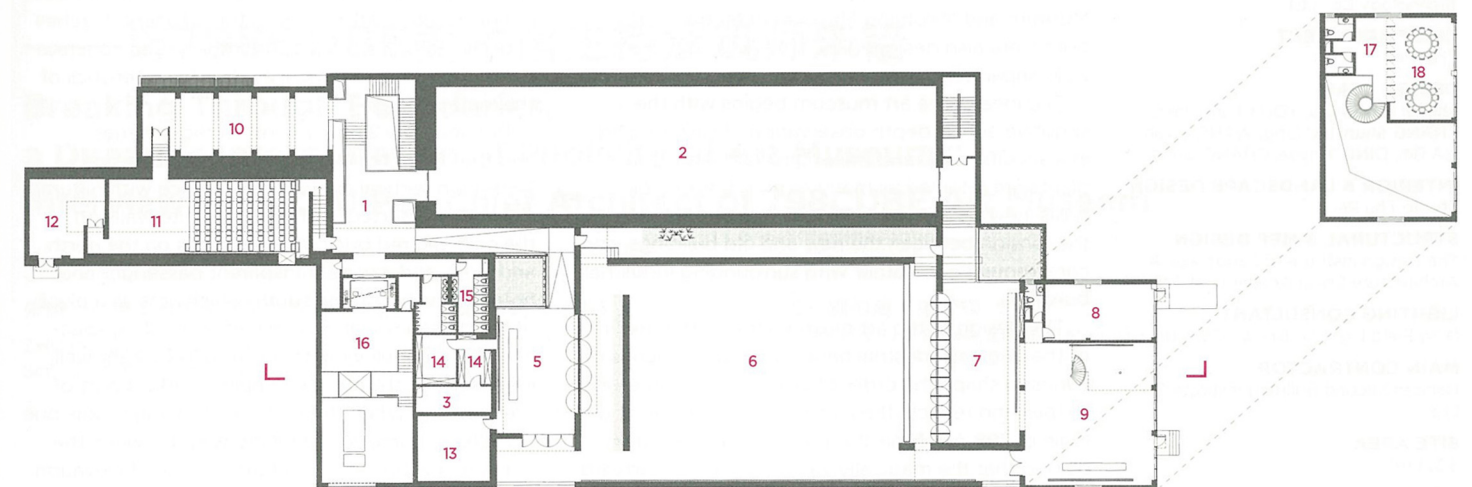
- 1 798CUBE 美术馆
- 2 北京民生现代美术馆
- 3 佩斯美术馆

- 1 798CUBE Art Museum
- 2 Minsheng Museum of Modern Art
- 3 Pace Art Museum

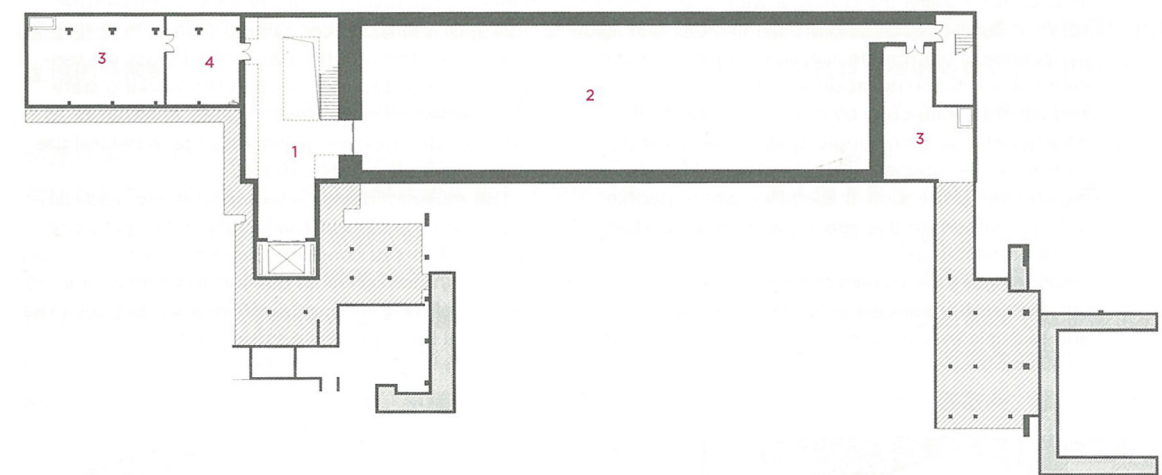


总平面图 Site plan





一层平面图 First floor plan



地下一层平面图 Basement floor plan

- | | | | | | |
|--------|-----------|-----------|-------------------|-----------------------------|--------------------------|
| 1 序厅 | 7 艺术商品 | 13 办公 | 1 Foyer | 7 Art retail | 13 Office |
| 2 主展厅 | 8 厨房 | 14 存衣 | 2 Main exhibition | 8 Kitchen | 14 Coat check |
| 3 设备用房 | 9 主题餐厅 | 15 卫生间 | 3 Equipment room | 9 Restaurant | 15 Restroom |
| 4 工具间 | 10 儿童艺术教育 | 16 装卸货和仓库 | 4 Tool room | 10 Children art education | 16 Unloading and storage |
| 5 门厅 | 11 展厅/报告厅 | 17 走廊 | 5 Lobby | 11 Exhibition/ lecture hall | 17 Corridor |
| 6 盒院 | 12 监控室 | 18 包厢 | 6 Courtyard | 12 Monitoring room | 18 Private room |



CLIENT
Beijing Qixing Huadian Science and Technology Co., Ltd.

CHIEF ARCHITECT
ZHU Pei

DESIGN TEAM
Shuhei Nakamura, YOU Changchen, ZHANG Shun, LIU Ling, WANG Liyan, JIA Bin, DING Xinyue, CHANG Jiang

INTERIOR & LANDSCAPE DESIGN
Studio Zhu Pei

STRUCTURAL & MEP DESIGN
The Design Institute of Landscape & Architecture China Academy of Art

LIGHTING CONSULTANT
Ning Field Lighting Design Co., Ltd.

MAIN CONTRACTOR
Handan Second Building Institute Co., Ltd.

SITE AREA
3,321 m²

GROSS FLOOR AREA
3,541 m²

DESIGN PERIOD
2015.8-2016.8

CONSTRUCTION PERIOD
2017.4-2020.12

798CUBE Art Museum, a renovation project, is located inside 798 Art Zone adjacent to Pace Art Museum and Minsheng Museum of Modern Art, both were also designed by ZHU Pei in 2009 and 2016 separately.

The idea of the art museum begins with the sensitive and in-depth observation of surroundings in a specific area, and the original old industrial plants are retained as many as possible. On this basis, new buildings are injected, so as to create the tension between the new and old buildings, and complement each other with surrounding industrial buildings.

The design of the art museum traces the texture of the original industrial heritage, adopts a series of cubes to shape the order of orthogonal geometric shapes and reflects the construction and planning logic of 798 Art Zone. It is particularly worth mentioning that the magically variable central courtyard transforms the original square surrounded by the 3 sides of industrial plants into a relatively closed central courtyard with the help of an independent cast-in-situ concrete wall. The huge steel beam sliding crane spans the concrete walls from north to south. It can not only hang art installations, but also a mechanical traction device, which opens canvas with natural drooping, approximate inverted arch and variable shape one by one. According to the weather and sunshine angle, these inverted arch canvas can be opened and closed at will for shading and rain protection. It is a place where people gather, a venue for the opening ceremony and an outdoor exhibition.

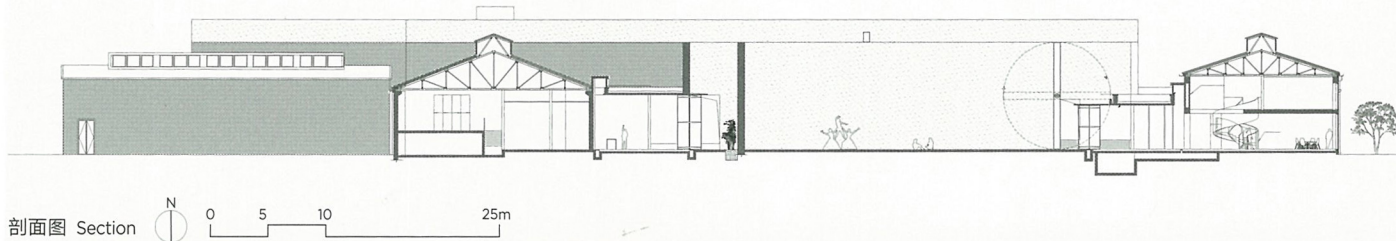
Once again, the design concept explored columnless, horizontally extended structural forms and tectonic expressiveness. The 2 newly built exhi-

bition halls adopt the columnless long-span cast-in-situ concrete structure. One is the arched curved beam, which is diffused from the adjacent 2 arches with the natural sky light. The other is the concrete multi ribbed beam to convey the characteristics of the material itself.

Between the 2 newly constructed galleries and the old red brick factory building, a nearly 14-m-high vertical cubic column space with natural sky light is inserted, with neutral white walls on the east, old red brick masonry walls on the north and west, and a wide transparent passenger and freight elevator on the south, which acts as a pivot of the museum's interior space, connecting spaces at different elevations. It is also like a light well, inserted directly into the deepest, darkest part of the building. When the visitor is standing inside, one can clearly perceive the relationship between the old and new buildings, and the change of elevation of each space. A thin fair-faced concrete "skywalk", accompanied by steps of varying heights, wanders away from the 4 walls, winding and spiraling down, gradually evolving into a staircase that naturally connects the foyer, the upper gallery, the lecture front hall, and the lower gallery.

The view through the transparent glass passenger and cargo elevators reveals the working state of the artworks in the logistics area, an attempt to integrate the mysterious working scene behind the museum into the public space.

This museum design also captures the material characteristics of industrial plants in 798 Art Zone, takes cast-in-situ concrete and red brick as the main materials, and highlights the construction characteristics of the joint and transformation between the structural form and the partition wall.



序厅 Foyer © 金伟琦 JIN Weiqi



地下一层前行 Foyer on basement floor © 金伟琦 JIN Weiqi

突破边界，美术馆公共性的动态演绎 ——访798CUBE美术馆主持建筑师朱锴

Breaking Through Boundaries,
a Dynamic Interpretation of Publicity of Art Museums:
Interview with ZHU Pei, Chief Architect of 798CUBE Art Museum

朱锴：中央美术学院建筑学院院长、教授，朱锴建筑设计事务所创始人
ZHU Pei: Dean and Professor of the Central Academy of Fine Arts,
School of Architecture; Founder of Studio Zhu Pei

采访：戴伯威、张梦蝶
Interviewers: DAI Bowei, ZHANG Mengdie

随着 798CUBE 美术馆的竣工和开馆，您在北京 798 片区的第 3 座工业遗产改造作品正式与大众见面，可否谈一谈您与 798 这片土地的渊源呢？

2003 年，我与一位重要的中国策展人皮力约在 798 会面，这是我第一次感受 798。那时园区内艺术家并不多，798 工业厂房所具有的粗犷、朴素、真实的特质给我留下了深刻印象。

2005 年，古根海姆基金会（Guggenheim Foundation）邀请我去做阿布扎比的古根海姆艺术馆，所以我很有缘地参观了一些全球范围内的优秀美术馆建筑，特别是在威廉斯敦（Williamstown）参观了马萨诸塞州当代艺术博物馆（MASS MoCA）。工业建筑的朴素、简单、平铺直叙的特质和美术馆空间所应该具有的中性、包容的属性不谋而合。这一点在 20 个世纪 80、90 年代所涌现的成功案例中得到充分的证明。1980 年第一届威尼斯建筑双年展，阿森纳（Arsenale）军火库被作为临时的泛展览空间，而马萨诸塞州当代艺术博物馆则是把旧工业建筑改造为完整美术馆的成功先例。其逐渐奠定的先锋地位，让我深深地感受到工业遗产所蕴藏的巨大潜力，也为接下来的民生现代美术馆和 798CUBE 美术馆的建筑创作提供了启发。

从 2005 年起到 2016 年，我一直专注于美术馆、博物馆建筑的研究、设计，尤其是改造实验项目上，走访、调研了世界上的很多美术馆。在我的美术馆改造项目中，位于 798 片区的佩斯美术馆、北京民生现代美术馆、798CUBE 美术馆同属于工业遗产，其创作实验都受益于和艺术家、艺术策展人之间的合作。798CUBE 美术馆的构思始于我和皮力、侯瀚如之间针对 798 工业遗产的潜力和未来美术馆构想的交流、探讨。我们都对 798 工业厂房所具有的特质感兴趣，那种粗犷、朴素、真实的状态，为定义新的美术馆概念提供了机会。同时，我们也清醒地意识到，在 798 园区内，大大小小的画廊和美术馆不胜枚举，像尤伦斯当代艺术中心、佩斯美术馆、常青画廊，以及隔街相望的民生现代美术馆等一批高质量的艺术空间，都在不同程度上拓展了美术馆的边界。

伴随着 798 园区的发展，我不仅一直在思考、研究美术馆发展的可能性，也做了很多与美术馆、与遗产相关联的工作。几方面因素交织在一起，我与 798 这片土地还是颇有渊源的。

工业遗产价值包括固有价值 and 创意价值，在工业遗产改造项目中重塑原有建筑的价值是一项重要的内容。您认为 798 片区的工业建筑遗存，有哪些固有价值 and 特色？

798 片区的工业建筑遗存中有些是经典的、拥有红砖维护、混凝土结构以及北向天窗拱顶的建筑；有些是一般的库房。佩斯美术馆原来是个经典的车间，具有良好的结构和构造体系，坚固度和质量也过硬。这组建造于 20 世纪 50 年代，由东德建筑师设计完成的工业遗存很真实地呈现在人们面前，结构形式就是建筑形式，现浇的钢筋混凝土就是建筑的结构，红砖就是建筑的非承重维护结构，没有虚伪的包装，很具有批判性，强烈地反映出出现代主义建筑的价值取向。看到这些经典的建筑，你肯定会被感染。从建构文化的角度来看，这对于没有经历现代主义建筑历程的中国来说，无论是 20 世纪 50、60 年代，还是在高度城市化的今天，都是罕见、稀有的经典案例。我认为建筑要回归本源，去追求真实，我们要向这些保留了建筑艺术特点的工业建筑学习。798 的工业建筑遗产，应该是立志成为优秀建筑师的年轻学生很重要的课堂。

而 798CUBE 美术馆的原址坐落在 798 艺术园区的北部边缘地区，在一个小型卸货空场的东、北、西三面环绕着简陋的临时库房。我第一次去看时院子已经成了废墟；更有甚者，这些库房又经过了数次改造，大量的玻璃墙、玻璃屋顶和钢结构交杂在一起，缺少建造逻辑和构造概念，呈现出简陋与时髦之间的无奈和挣扎。置身其间，又有近似花房和蔬菜大棚的感受，既无法抵挡夏季的酷暑又不能抵御冬季的寒风，很难说它还有什么价值。因此我认为，真正的价值恰恰是必须得从看不到的地方去寻找。原场地的中间是装卸货的货场，周围环绕着库房，我们完整地保留并沿用这种肌理，去挖掘工业建筑的价值。

作为“自然建筑”的倡导者和实践者，您的诸多设计作品都非常注重场域、气候与建筑之间的血缘关系。在 798CUBE 美术馆项目中，可否进一步谈谈您的理念是如何在本项目中的建造逻辑中体现出来的？

“自然建筑”是我提出的理念，它包括 2 个线索和 5 个维度，其中 2 个线索就是根源性和创造性。



马萨诸塞州当代艺术博物馆室内 Interior of the MASS MoCA
© 朱怡晨 ZHU Yichen

根源性指的就是场地特有的文化，比如 798 有自己的文化，或称之为 DNA，798CUBE 美术馆继承 798 地区工业厂房所特有的平铺直叙的规划肌理和朴素的建造逻辑、严格遵循原有建筑的基础轮廓，塑造一系列正交几何的矩形立方体空间体系，像一个个立起的盒子一样，我们称之为 CUBE。798CUBE 美术馆基于 798 特有的建造文化和根源性，体现了诗意化的建筑形式。向观众展示了拱顶和密肋梁的受力是如何传递到钢筋混凝土剪力墙的结构关系，也展现了砖和混凝土的材料关系，空间上水乳交融，建造逻辑非常清晰。

“自然建筑”的线索还有创造性，也就是要创造新的美术馆体验。798CUBE 美术馆不能突破原有建筑的三维轮廓，如何在有限的空间轮廓包裹下寻找新的突破点？这和佩斯美术馆和民生现代美术馆的设计思考过程迥然不同。在两个维度上将美术馆推向极致：一个是 12—16m 宽、5m 净高、顶光、室内呈立方体形状的经典美术馆空间，主要展览现代绘画、雕塑等视觉艺术作品；另一个是灵活可变、没有高度限制的空间，主要用于展示大型装置作品。在“自然建筑”理论的实践中，798CUBE 美术馆做出了很多自身独特创造性的贡献。

我们注意到，您在馆内设计了透明玻璃的客货两用电梯，让参观展区的游客也能看到装卸货的公共场所。这种融入公共空间的尝试是出于什么考虑呢？

传统美术馆需要藏起来的東西，今天就有可能被展示出来。我们把过去美术馆幕后的操作过程展现给公众，这样公众就了解了美术馆的艺术品是怎么运输、怎么装卸、怎么修复的。

为什么大家要前往美术馆？是为了观赏艺术家的作品，还是通过跟作品的交流感受文化艺术的氛围，还是一起参与讨论和活动？公众不仅仅是美术馆的使用者，也是建造者。把美术馆跟公众完整地交融在一起，是我很重要的想法。在很多设计中，我都试图把所谓的私密变成公共，就是想突破建筑的定义和边界。

798CUBE 美术馆中的巨大透明的艺术品货梯被赋予了多功能使用的可能，既可以作为艺术品货梯，也可以作为客梯。它位于竖向中庭和装卸货平台区域之间。站在中庭，公众不仅可以看到艺术品在透明电梯里上下穿梭，还可以看到在装卸货区域的艺



马萨诸塞州当代艺术博物馆室内 Interior of the MASS MoCA
© 朱怡晨 ZHU Yichen

术品的工作状态，是一次将美术馆背后神秘的工作场景融入公共空间的尝试。

作为城市的公共艺术空间，美术馆建筑和城市之间存在怎样的互动关系呢？

今天的城市缺少系统化的公共空间，这恐怕是城市空间最重要的核心问题。我们的城市空间都是被割裂的、没有公共性的，绝大部分的空间都有一种权属，用围墙作为明确的边界，除了马路是公共的，其他空间几乎都不是公共的。但是美术馆作为文化建筑，应该要突破边界的束缚，应该为社会、为公众服务，成为城市的公共空间，不应设置有形的和无形的明确边界，而应通过建筑和展览的内容，把人吸引进来，从而修补今天城市的问题。

798CUBE 美术馆建成后，相当的一段时间里没有对外开放，但已经引来了很多人在院落里驻足、摄影、舞蹈等，去演绎他们所理解的空間的使用。这就在建筑和城市之间塑造了一个灰色的地带，整个院落对公众是一种欢迎的姿态。正式开馆后，这里是一种很日常的氛围，大家可以看展览、参加活动、举行小规模的表演、展示行为艺术等等。这与当代艺术所探索的包容、开放、共生的特质不谋而合。

您认为建筑应当如何帮助美术馆实现可持续的运作？798CUBE 美术馆已经开馆，可以谈一谈您对这座美术馆的期待吗？

我认为，美术馆自身的展览内容和主题很关键。传统的美术馆以文艺复兴时代的传统绘画为主题，架子上的绘画都比较小一些；现代主义的绘画、小型装置与雕塑中，有些尺寸就偏大；当代的艺术展陈，特别是极简主义和大型装置艺术，甚至于大地艺术作品，尺寸就更大了。798CUBE 美术馆是一个现当代美术馆，它要应对经典的和现代主义的绘画雕塑，以及当代的大型装置。798CUBE 近期携手中央美院发起北京艺术与科技双年展，以“合成生态 (Synthetic Ecology)”为题，邀请来自全球 50 位著名艺术家、科学家、生态学家，运用生物技术、材料科学、数字技术、新兴媒体等多种前沿科技手段，启发大众对人与自然如何共生的思考。接下来还有一些展览的策划，798CUBE 的馆方也正在做，都与现当代有关。

从建筑的空间而言，美术馆建筑还可以为公共活动设置一些可变空间。798CUBE 美术馆有着魔术般可变的中心院落，它的轮廓也是由原有装卸货空场而界定的，南侧借助一道独立的现浇钢筋混凝土高墙，与佩斯美术馆西侧的广场区隔开来，在强化了自身内向的领域感的同时，也将原有的、被厂房三面围合的装卸货空场转换成相对封闭的中心院落。结合混凝土墙需要分期分时段进行浇筑的建造原则，墙体上留有若干条水平直角正交的分割凹槽，这些凹槽纹理捕捉的正是 798 这个区域工业建筑秩序而简练的平面肌理，也与外部广场之间保持视线和空气的连接。在南北向的现浇钢筋混凝土墙上横跨着巨大的钢梁式滑动吊车，吊车上张拉着自然下垂、反拱形态的帆布可以根据天气和阳光角度任意开合，遮阳避雨。面西朝向院落的咖啡厅、书店有着巨大透明玻璃墙体，一个介于屋顶和墙体之间的机械装置可以任意旋转角度，在夏季它可以旋转成斜墙，遮挡强烈的西晒；在冬季它可以旋转成水平屋顶，让温暖的阳光照射进屋内，在夜间还能作为投影艺术的背板墙体。此外，独立的钢筋混凝土墙体上藏有可以水平移动的大门，便于超大艺术装置运输到院落中。这些可变性，令这个中心院落既是人流聚集的场所、开幕式的场地，也是可遮阳避雨的户外剧场和展场。

艺术家、策展人驾驭不确定空间的欲望会被经典美术馆空间与灵活可变的多功能空间之间的张力所激发，进而把美术馆空间作为自己创作作品的一部分，来实现公众、艺术作品、建筑空间之间的同构血缘关系。在 798CUBE 的首次展览开幕现场，传统美术馆中最被人背弃的装卸货区被布置为开幕酒会的场所，艺术品货梯也保持着常开的状态，参观者于其间穿梭驻足，觥筹交错，人声鼎沸，俨然成为激发交流与碰撞的场域。通过收起学术报告厅的

观众席得到宽阔而明亮的空间，嘉宾可以在此参加开幕后的晚宴。报告厅入口前的开阔区域为行为艺术的青年舞者提供了充足的表演空间，而大量观众则汇聚在中庭原本用于交通的混凝土“天桥”上。不同场景下艺术家、策展人对于功能的再创作会反复激发公众对于美术馆空间更深刻的解读，进而囊括更多的可能性。

艺术形式是多样的，艺术表达也在不断发展。美术馆最重要的概念，就是如何通过可变的和不明确的、不完整的空间，去实现未来美术馆发展的灵活性。通过以小的方式实现多的可能，建筑就可以适应艺术家的作品、承接不同的展览，帮助美术馆延续生命，实现可持续的运作。

您认为，中国的美术馆和艺术空间的设计，在未来会呈现怎样的趋势呢？

艺术的呈现形式愈加多元化，艺术作品的内涵也愈加丰富：从经典的雕塑，到大地艺术、大型装置，甚至多媒体艺术。很显然，未来美术馆的发展，要去适应这些新的艺术内容，拓展美术馆的边界。798CUBE 美术馆主要是通过未来的展览内容，与当代、或者是跟人的文化生活息息相关，这是我们建立美术馆最初的想法。

过去的美术馆都像殿堂一样，它是小众的，而不是大众性的公共场所。今天我们从公众的角度、从城市的角度出发，为艺术和文化赋予了越来越重要的角色。所以美术馆需要进行突破并且适应多元的发展，变得更加公共、更加大众、更加宽泛。它除了有展览的功能之外，也是青少年了解艺术、了解文明的重要场所，它更是学术的平台，要有能力把一些艺术家、策展人、文化人士聚集在一起。

朱锞在 798CUBE 美术馆开幕式上发表致辞 ZHU Pei delivered a speech at the opening ceremony of 798CUBE Art Museum © 朱锞建筑设计事务所 Studio Zhu Pei



With the completion and opening of the 798CUBE Art Museum, your third industrial heritage renovation work at 798 in Beijing now officially meets the public. Could you share with us your story with the 798 Art Zone?

In 2003, I met with an important Chinese curator, PI Li, at 798, which was the first time for me to be there personally. Back then there were not many artists in the area. I was impressed by the nature of the 798 industrial buildings, unpolished, simple, and authentic.

In 2005, I was invited by the Guggenheim Foundation to work on the Guggenheim Abu Dhabi project, so I was fortunate to be able to visit some of the best art museum buildings around the world, especially the Massachusetts Museum of Contemporary Art (MASS MoCA) in Williamstown. The austere, simple, and straightforward qualities of the industrial buildings coincide with the neutrality and inclusiveness that art museum spaces should have, which were amply demonstrated by the success of a number of projects that emerged in the 1980s and 1990s. If the Arsenale armory was used as a temporary pan-exhibition space at the first Venice Architecture Biennale in 1980, then MASS MoCA was a successful precedent of transforming an old industrial building into a fully-functioning art museum. Its pioneering status established gradually through the years, allowed me to see the great potential hidden in industrial heritage, which has subsequently become an inspiration for the architectural

design of the Minsheng Museum of Modern Art and the 798CUBE Art Museum.

From 2005 to 2016, I focused on the study and architectural design of art galleries and museums, especially on renovation experiments. I visited and investigated many art museums around the world. Among my museum renovation projects, the Pace Art Museum, the Minsheng Museum of Modern Art, and the 798CUBE Art Museum, all of which are located in the 798 Art Zone and are part of the industrial heritage, have benefited from collaborations with artists and art curators. The idea of the 798CUBE Art Museum came into shape during my discussion with PI Li and HOU Hanru on the potential of the 798 industrial heritage and the future of art museums. We were all very interested in the unique qualities of the industrial buildings at 798. Their austerity, simplicity and authenticity provided an opportunity to define a new concept for art museums. At the same time, we were keenly aware that the numerous galleries and art museums, large and small, within the 798 zone, including a number of high-quality art spaces, such as the UCCA Center for Contemporary Art, Pace Art Museum, Galleria Continua, and the Minsheng Museum of Modern Art which sits just across the street, have expanded the boundaries of art museums in varying degrees.

With the development of the 798 Art Zone, I have always been reflecting on and studying the possibilities of art museums. At the same time, I have been working on projects for art museums and heritage buildings. Therefore, the different aspects were interrelated with one another and there is a strong tie between me and the 798 Art Zone.

The value of industrial heritage buildings includes the inherent and the creative, while reshaping the value of the original buildings is an important element in such renovation projects. In your opinion, what are the inherent values and characteristics of the industrial heritage building at 798?

Some of the industrial building that remains at 798 are classic, including those with red brick for outer wall cladding, concrete structure and north-facing skylight vaults, while others are common warehouses. The Pace Gallery was originally a classic factory workshop, its structure well-designed and constructive with a high level of solidity and quality. Built in the 1950s, this group of industrial buildings was designed by architects from the then East Germany in a straightforward approach. Its structural form was the architectural form; the cast-in-place reinforced concrete formed the structure of the building; and the red bricks made for the non-load-bearing outer wall cladding. It had no hypocritical pretense but offered a very critical perspective, which strongly demonstrated a value approach of modernist architecture. If you see those classic buildings, you will definitely feel the power. From a cultural perspective, it has also been a rare and unparalleled classic project for China, a country that has not experienced the modernist architecture movement, either back in the 1950s and 1960s or today, when the country has become highly urbanized. I think architecture is



装卸货与仓库 Loading dock and storage © 朱润资 ZHU Runzi

really about returning to the origin and seeking truth. There is a lot that we could learn from these industrial buildings that have preserved the characteristics of architecture and art. The industrial buildings at 798 should be an important lesson for young students who aspire to become good architects.

The original site of the 798CUBE Art Museum was located on the northern edge of the area, in a small unloading yard surrounded by temporary warehouses on the east, north and west sides. The yard was completely abandoned when I first visited. What's more, these warehouses have been through several renovations. A large number of glass walls, glass roofs and steel structures were all intermingled with no logic of construction or tectonic concept, which presented a sense of frustration and struggle between the crude and the chic. What was on the inside resembled a flower greenhouse and a vegetable shed at the same time, which could neither withstand the summer heat nor the winter wind. There was hardly any value left. Therefore, I think that real value must be found in unseen places. In the middle of the original site was the loading and unloading area, surrounded by warehouses. We choose to keep and follow this context to explore the value of industrial buildings.

As an initiator and practitioner of “Architecture of Nature”, many of your projects focus on the relationship between site, climate and architecture. Could you tell us more about how your philosophy is reflected in the construction logic of the 798CUBE Art Museum project?

“Architecture of Nature” is an architectural philosophy I proposed, which consists of 2 clues and 5 dimensions. The 2 clues are root and innovation.

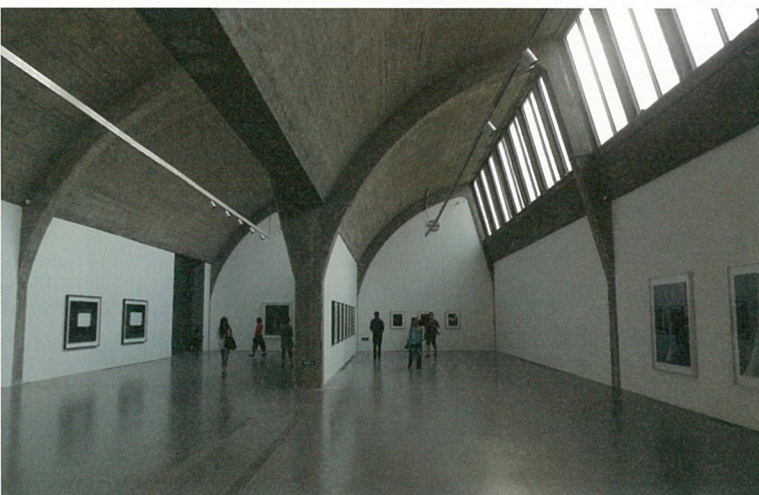
Root refers to the unique culture of the site. For example, 798 has its own culture or DNA. 798CUBE Art Museum inherits the unique straightforward planning context and simplistic construction logic of the industrial plants at 798. By strictly following the form of the original buildings, the design shapes a series of cube systems with orthogonal geometry, like a number of boxes standing. It is therefore named the CUBE. Based on the unique construction and root of 798, the CUBE embodies a poetic architectural form. The viewers are shown the structural relationship of how the forces in the vault and ribbed beam are transferred to the reinforced concrete shear wall, as well as the material relationship between brick and concrete, with an organic spatial integration and clear logic of construction.

Another clue in “Architecture of Nature” is innovation, which is to create a new art gallery experience. Can the 798CUBE Art Museum find a breakthrough point within the restrictions of the three-dimensional form of the original building? The approach has been entirely different from the design process of Pace Art Museum and Minsheng Museum of Modern Art. The gallery is pushed to the extreme in two dimensions. One is a top-lit, cube-shaped classic gallery space with a width of 12-16 m and a clear height of 5 m mainly for exhibiting visual artworks, such as modern paintings and sculptures. The other is a flexible space with no height limitation, mainly for large-scale installation works. In the practice of the philosophy of “Architecture of Nature”, the 798CUBE Art Museum has made many unique and creative contributions.

We noticed that you have designed a transparent glass passenger and cargo elevator in the pavilion so that



民生现代美术馆室内 Interior of Minsheng Museum of Modern Art
© 方振宁 FANG Zhenning



佩斯美术馆室内 Interior of Pace Art Museum
© 朱锺建筑设计事务所 Studio Zhu Pei

visitors to the exhibition area can also see the public place where goods are loaded and unloaded. What are your considerations for this attempt of integrating into the public space?

What traditionally needs to be hidden away in an art museum has the potential to be displayed today. We show the public how a museum used to operate behind the scenes so that the public understands how the artworks in the museum were transported, loaded and unloaded, and restored.

Why do people go to art museums? Is it to see the artists' works, experience the cultural and artistic vibes by interacting with the artworks, or engage in discussions and activities together? The public is not only the user of the museum but also the builder. It is a very important idea for me if we can bring the museum and the public into an integral whole. In many of my projects, I try to make the so-called private public, that is, to break through the definition and boundary of architecture.

The huge transparent freight elevator for artworks in the 798CUBE Art Museum offers the possibility of multifunctional use, both as a freight elevator and as a passenger elevator. It is located between the vertical atrium and the loading platform area. Standing in the atrium, the public can not only see the artworks going up and down in the transparent elevator, but also observe the status of artworks in the loading and unloading area. It has been an attempt to introduce the mysterious work scene in the museum into the public space.

As a public art space in the city, what kind of interaction exists between the museum building and the city?

The lack of systematic public space in today's cities is, perhaps, the most important and essential problem of urban space. Most of our urban spaces are fragmented and non-public. Most of the spaces carry a kind of ownership, using walls as clear boundaries. Roads are public, whereas almost all other spaces are non-public. However, as cultural buildings, art museums should break through the boundaries and benefit society and the public. They should become public spaces in the city. Instead of setting a clear boundary, be it visible and invisible, art museums should bring people in through the building itself and exhibitions, thus offering a solution to the problem of the city today.

The 798CUBE Art Museum has not been open to the public for quite some time since its completion. However, it has attracted many people to come to the courtyard. They stop by, take photos, and dance, etc., interpreting what they understand to be the use of space. This has shaped a gray area between the building and the city. The entire compound offers a welcoming gesture to the public. After the official opening, it still features an everyday community style, where people can see exhibitions, attend events, hold small-scale performances, and put one performance art, etc. This coincides with the inclusive, open, and symbiotic qualities that contemporary art explores.

From your perspective, how may architectural design help an art museum to be sustainable and what are your expectations for 798CUBE?

I believe that the contents and themes of the art museum's own exhibitions are critical. Traditional art museums focus on traditional paintings from the Renaissance era, where the paintings on the shelves tend to be relatively small. Modernist paintings, small installations and sculptures are often somewhat larger. Contemporary art exhibitions, especially minimalist and large-scale installations, and even earth artworks are even larger. 798CUBE is a contemporary art museum. It deals with classic and modernist paintings and sculptures, as well as large-scale contemporary installations. 798CUBE recently joined hands with the Central Academy of Fine Arts to launch the Beijing Art and Technology Biennale, titled "Synthetic Ecology". The biennale featured 50 renowned artists, scientists, and ecologists from around the world to use cutting-edge technologies such as biotechnology, material science, digital technology, and emerging media to inspire the public to reflect on how human beings and nature may co-exist. Some subsequent exhibitions are being planned by 798CUBE, all of which are about contemporary art.

In terms of the space of the building, the museum is also able to offer variable spaces for public activities. The 798CUBE has a magically flexible central courtyard, defined by the original loading site. The south side is separated from the square on the west side of the Pace Art Museum by a separate high reinforced concrete wall. The layout reinforces its internal domain while transforming the original empty loading yard, surrounded by the factory on three sides, into a relatively enclosed central courtyard. As the concrete walls needed to be poured in phases and at different periods, the walls were left with several horizontal right-angle orthogonal split recesses. These textures capture the orderly and concise quality of the industrial buildings at 798 while maintaining a visual and airflow connection to the square on the outside. A huge steel-beam sliding crane spans across the north-south cast-in-place reinforced concrete wall. The naturally sagging, anti-arched canvas stretched on the crane can be opened and closed depending on the weather or the angle of the sun to act as a sun and rain shade. The cafeteria and bookstore facing west towards the courtyard are equipped with huge transparent glass walls. A mechanical device between the roof and the wall can be rotated at any angle. In summer it can be adjusted into a tilted wall to offer protection against the setting sun. In winter it can form a horizontal roof, introducing warm sunlight into the room. At night, it also serves as a background wall for projected art. In addition, a door that can move horizontally is hidden on the standalone reinforced concrete wall, which is convenient for transporting super-large art installations to the courtyard. Such flexibility makes this central courtyard not only a place for people to gather, a venue for the opening ceremony but also an outdoor theater and exhibition site that can be shaded from the sun and rain.

The desire of artists and curators to navigate uncertain spaces will be stimulated by the tension between the classic museum space and the flexible multi-functional space, thus making the museum space a part of their creative works to realize the co-creative relationship between the public, artworks,

and architectural space. At the opening ceremony of the first exhibition at 798CUBE, the loading and unloading area, which is traditionally abandoned in art museums, was set up as the venue for the opening reception, and the artwork freight elevator was also kept open. Visitors pass through the spaces and stopped by, drinking wine and having heated discussions, making the place a field that stimulates exchanges and sparks inspiration. By removing the seating area in the lecture hall, a wide and bright space was obtained for guests to attend the dinner after the opening ceremony. The open area in front of the entrance of the lecture hall provided ample performance space for young dancers, while a large number of audiences gathered on the concrete "overpass" originally used for traffic circulation in the atrium. The re-creation of functions by artists and curators in different scenarios will repeatedly stimulate the public to have a deeper interpretation of the museum space and then introduce more possibilities.

Art forms are diverse and artistic expression is constantly evolving. The most important concept of art museums is about how to achieve flexibility in future development through variable and unspecified, incomplete spaces. By realizing multiple possibilities in the details, the building can adapt to the artists' works, take on different exhibitions, and help the art museum to extend its life, thus achieving sustainable operation.

In your opinion, what are the future trends in the design of art museums and art spaces in China?

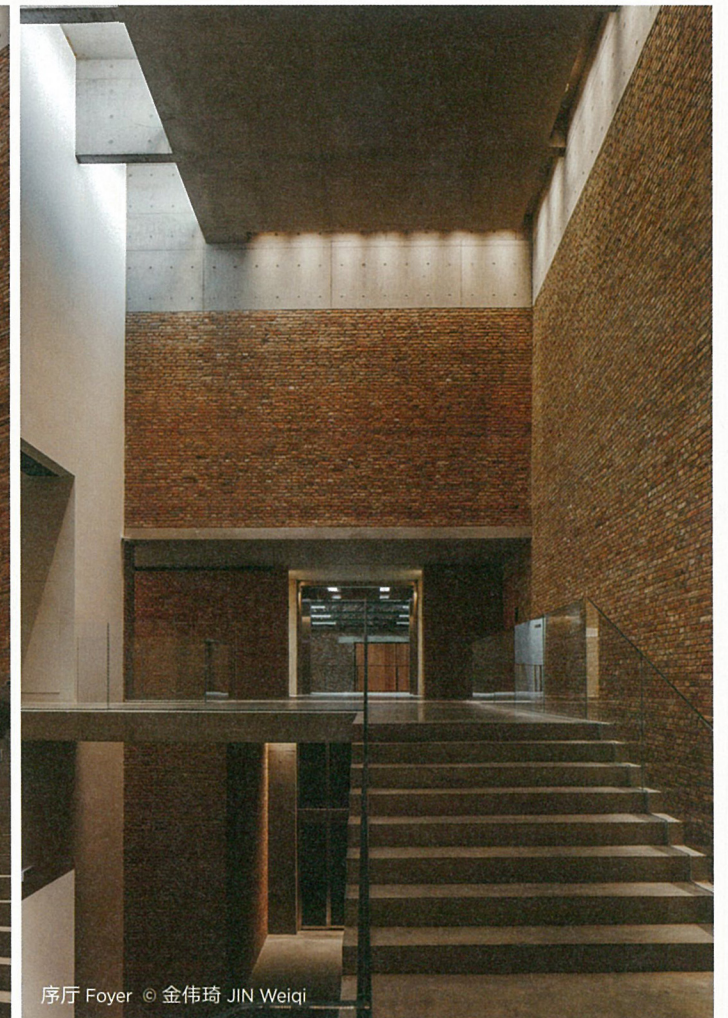
How art is presented is becoming more and more diverse, and the concepts of artworks are also becoming increasingly richer: from classic sculptures to earth art, large-scale installations, and even multimedia art. The future development of art museums will have to adapt to these new art contents and expand the boundaries. The 798CUBE Art Museum aims to stay relevant to contemporary times or to people's cultural life through future exhibitions, which was the initial intention of building the museum.

In the past, an art museum was like a sacred temple. It was a niche rather than a public place for ordinary people. Today an increasingly important role has been given to art and culture from a public perspective and an urban development perspective. Therefore, art museums should break boundaries and adapt to the diversified development, becoming more public, more popular, and more inclusive. In addition to the exhibition function, it is also an important place for young people to learn about art and about human civilization. It is also an academic platform that has the capacity to bring artists, curators, and cultural figures together.

(The article is translated by LIU Zilun)



中庭 Atrium © 金伟琦 JIN Weiqi



序厅 Foyer © 金伟琦 JIN Weiqi