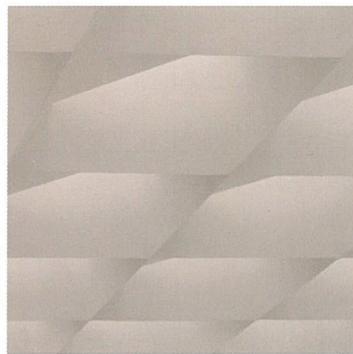
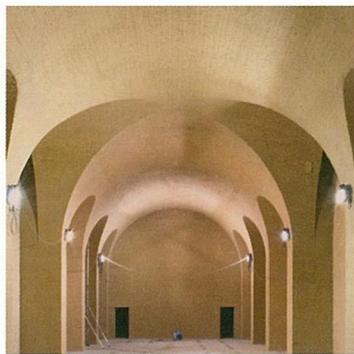
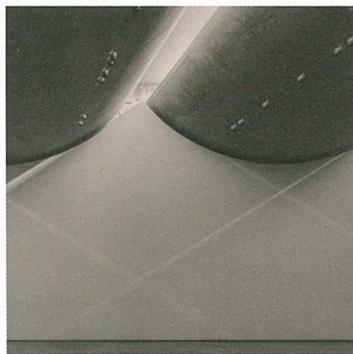
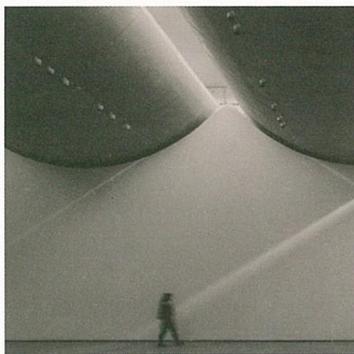
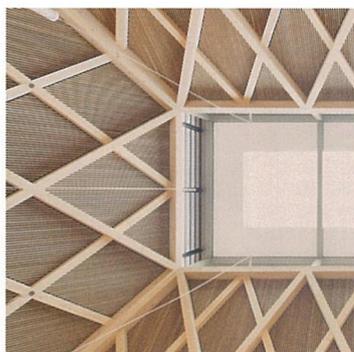




# 世界建筑 World Architecture

## 顶棚 | Ceilings

顶棚：作为生命结构存在 | 实用与象征：天花板作为建筑的试金石 | 礼用之间：中国建筑、文献与图像中的顶棚 | 基于可持续发展的公共建筑顶棚设计策略研究 | 技与艺的融合：可持续太阳能建筑“R-CELLS”的顶棚设计 | 不同功能空间的声环境需求与顶棚声学性能的关系研究 | 西安国际足球中心的设计概念与设计定型：超大跨体育场的建筑结构协同创新设计 | 798CUBE美术馆 | 新南威尔士州美术馆扩建 | 安特卫普皇家美术馆 | 阿克伦艺术博物馆 | 圣玛利卡恩学校图书馆 | 伊布斯托克学校 | 重庆·1949大剧院 | 阿尔福国立兽医学校亚戈拉大楼 | 景山学校图书馆改造



# 798CUBE美术馆，北京，中国

798CUBE Art Museum, Beijing, China, 2020

朱镛建筑设计事务所

Studio Zhu Pei

业主：北京七星华电科技集团有限责任公司

总承包商：邯鄲第二建筑安装有限公司  
建筑、室内、景观设计：朱镛建筑设计事务所

主持建筑师：朱镛

设计团队：Shuhei Nakamura, 由昌臣, 张顺, 刘伶, 王立言, 贾彬, 丁新月, 常江

结构形式：钢筋混凝土框架结构  
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

建筑面积：3541m<sup>2</sup>

基地面积：3521m<sup>2</sup>

设计时间：2015.08-2016.08

建造周期：2017.04-2020.12

摄影：金伟琦, 朱润资, 朱镛建筑设计事务所

798CUBE 美术馆是一个改造项目，位于798 艺术区内，与毗邻佩斯美术馆和民生现代美术馆一道，是朱镛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观察，尽最大的可能保留原有的工业厂房，在此基础上，再注入新的建筑，从而编织出新老建筑之间的张力，并与周边工业建筑，如佩斯美术馆、民生现代美术馆等建筑，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，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。特别值得一提的是有着魔术般可变的中心院落，是借助一道独立的现浇混凝土墙，在强化了自身内向的领域感的同时，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水平移动的大门，以利于大型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建构表现力。新建造的两个展厅都采用无柱大跨现浇混凝土结构，一个是采用倒拱式曲面横梁，伴随着自然天光从毗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机械装置相呼应；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。

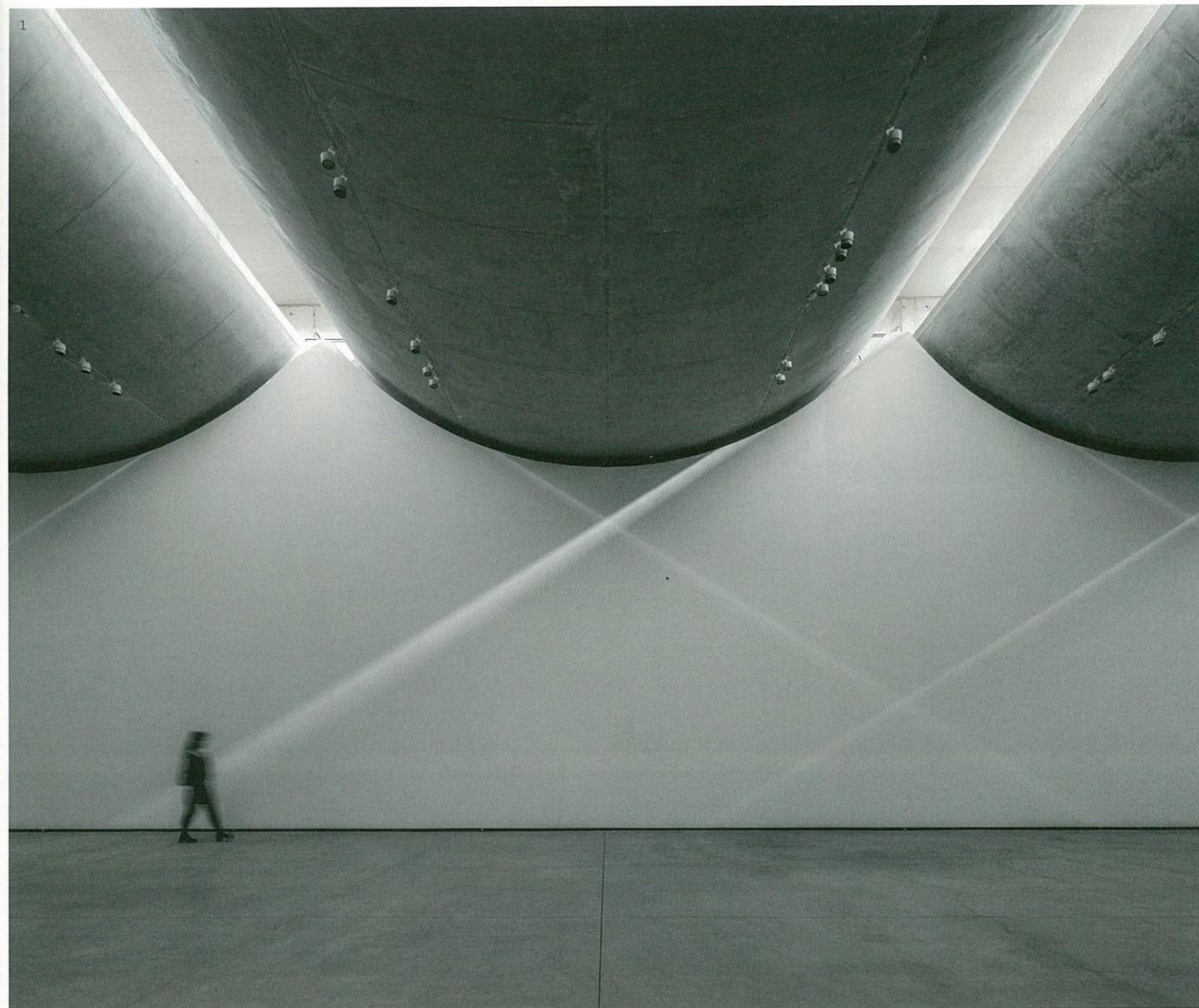
美术馆的设计也捕捉了798 工业厂房的材料特点，以现浇混凝土、红砖为主要材料，着力突出这两种材料在结构形式与围护墙体之间的交接、转换的建构特点。□

798CUBE Art Museum, a renovation project, is located inside 798 Art Zone adjacent to Pace Art Museum and Minsheng Museum of Modern Art. These three projects are a series of experimental works by Studio Zhu Pei on the theme of industrial heritage in recent years.

The idea for the art museum begins with a sensitive and in-depth observation of surroundings of a specific area and the original old industrial plants are retained as much as possible. On this basis, new buildings are injected to create a tension between the old and the new, and to complement the surrounding industrial buildings such as Pace Art Museum and Minsheng Museum of Modern Art.

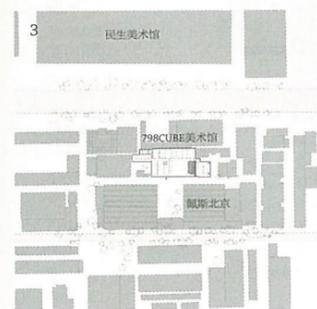
The design of the art museum traces the texture of the original industrial heritage,

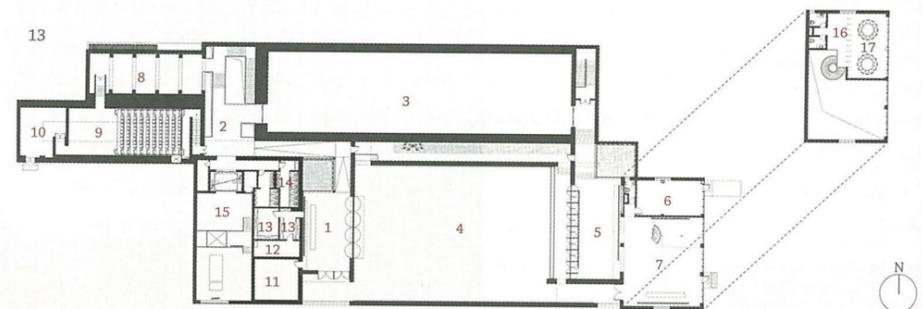
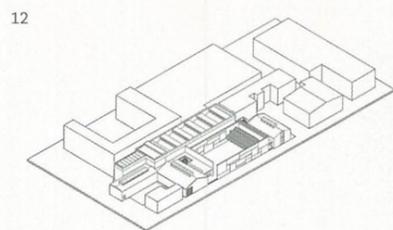
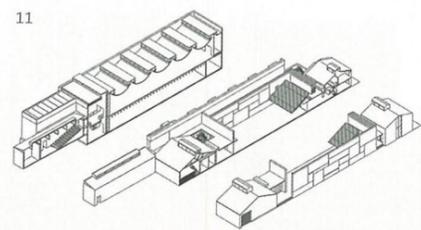
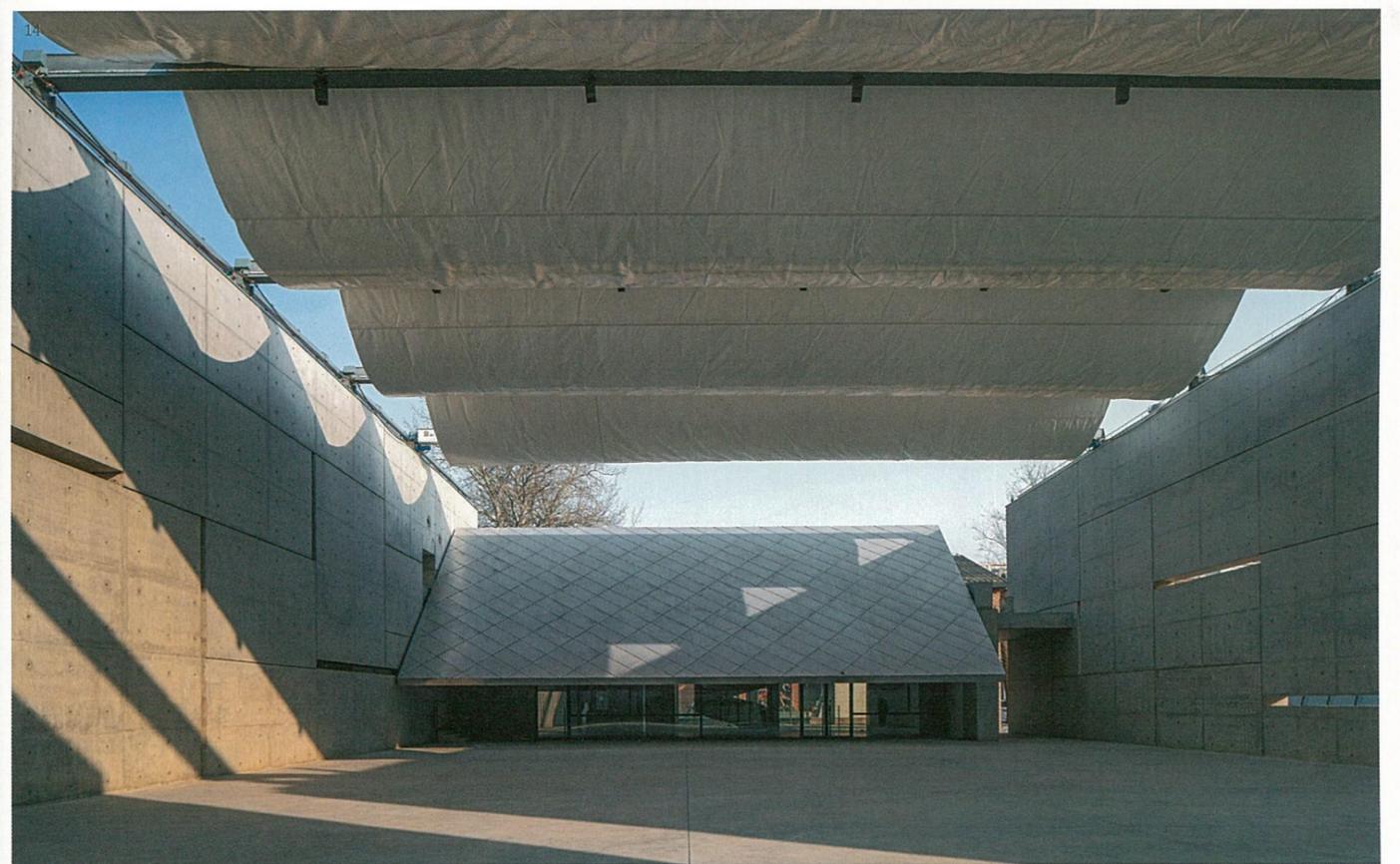
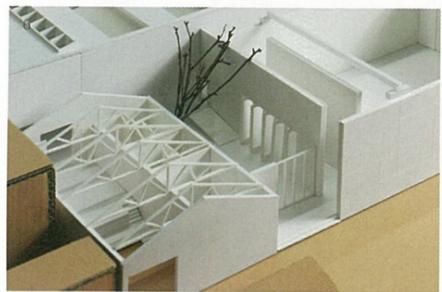
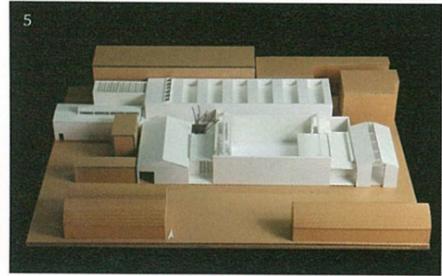
adopts a series of cubes to shape the order of the orthogonal geometry and reflects the construction and planning logic of the 798 Art Zone. It is particularly noteworthy that the magically changeable central courtyard has been transformed into a relatively enclosed central courtyard with the help of a freestanding cast-in-place concrete wall, which not only strengthens its inward sense of domain, but also transforms the original loading and unloading empty yard enclosed by three sides of the factory into a relatively closed central courtyard. A huge steel beam sliding crane spans the concrete walls from north to south. It can not only hang art installations, but is also a mechanical traction device, which opens canvas with natural drooping, approximate inverted arch, and



Construction Period: 2017.04-2020.12  
Gross Floor Area: 3541 m<sup>2</sup>  
Site Area: 3321 m<sup>2</sup>  
Photos: JIN Weiqi, ZHU Runzi, courtesy of Studio Zhu Pei

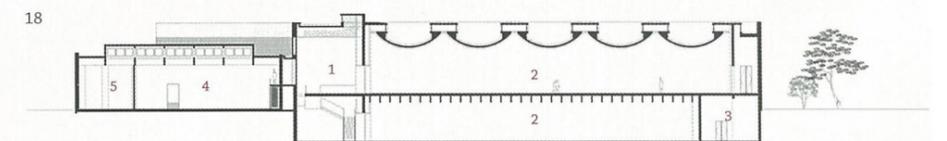
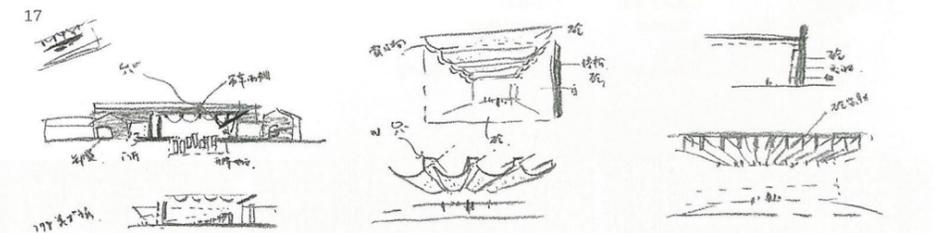
- 1 主展厅  
Main exhibition
- 2 主入口  
Main entrance
- 3 总平面  
Site plan



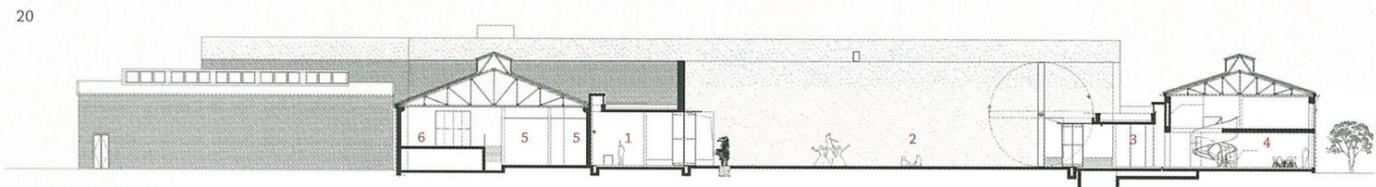
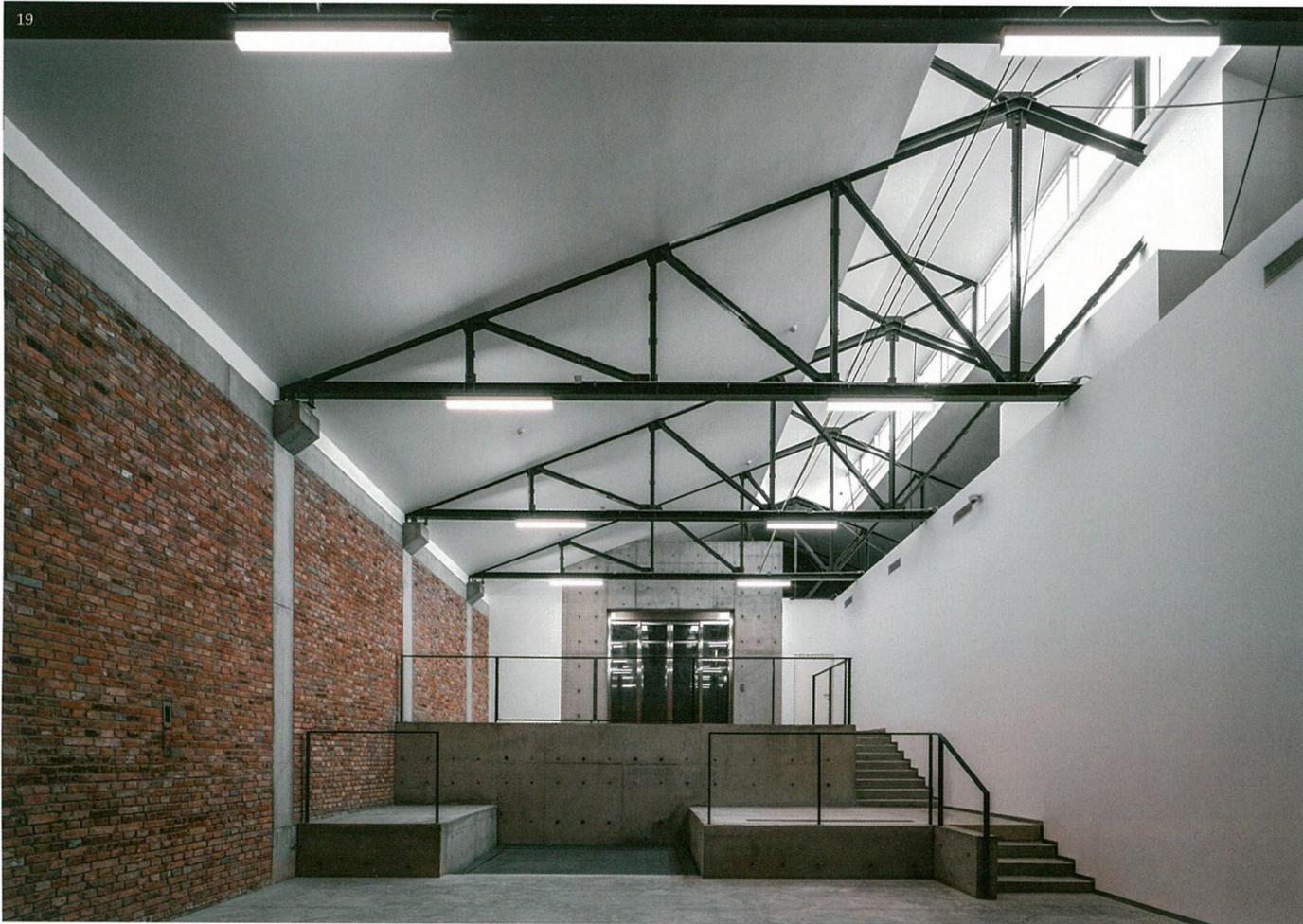


- |                          |                                    |                                     |                                    |                       |
|--------------------------|------------------------------------|-------------------------------------|------------------------------------|-----------------------|
| 1-门厅<br>Lobby            | 5-艺术品商店<br>Art shop                | 9-展厅/报告厅<br>Exhibition/Lecture hall | 13-存衣<br>Coat check                | 17-包间<br>Private room |
| 2-序厅<br>Foyer            | 6-厨房<br>Kitchen                    | 10-监控室<br>Monitoring room           | 14-卫生间<br>Rest room                |                       |
| 3-主展厅<br>Main exhibition | 7-主题餐厅<br>Restaurant               | 11-办公<br>Office                     | 15-装卸货和仓库<br>Unloading and storage |                       |
| 4-盒院<br>Courtyard        | 8-儿童艺术教育<br>Children art education | 12-设备用房<br>Mechanical room          | 16-走廊<br>Corridor                  |                       |

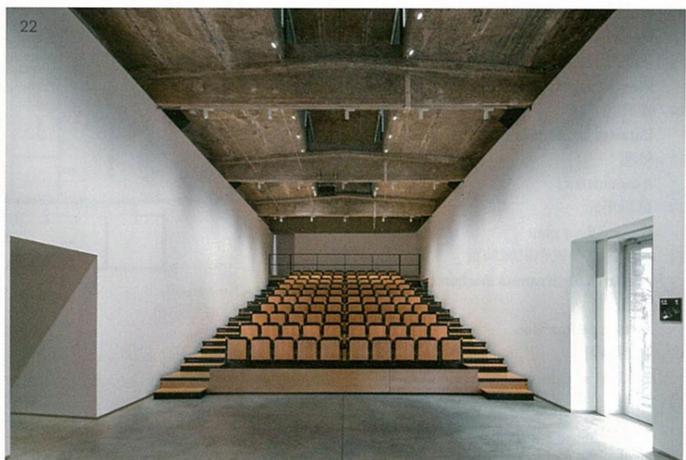
- 4-6 研究模型  
Study models
- 7 主展厅  
Main exhibition
- 8 混凝土墙细节  
Concrete wall details
- 9 盒院  
He courtyard
- 10 从广场看向美术馆  
View from plaza to the museum
- 11 剖轴测  
Cutaway axonometric
- 12 轴测  
Axonometric
- 13 首层平面  
Ground floor plan
- 14 反拱形态的帆布机械装置  
Anti-arch form canvas mechanics
- 15.16 剖透视图  
Section perspective
- 17 朱镕草图  
ZHU Pei sketches
- 18 剖面  
Section



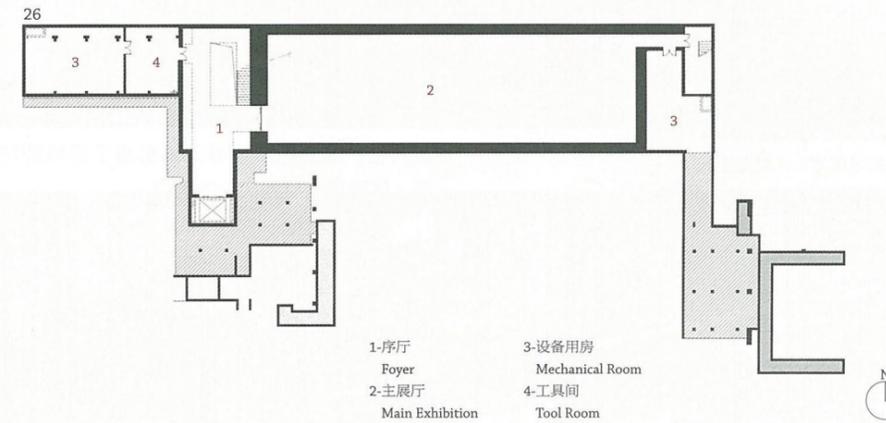
- |                          |                                    |                          |
|--------------------------|------------------------------------|--------------------------|
| 1-序厅<br>Foyer            | 3-设备用房<br>Mechanical Room          | 5-监控室<br>Monitoring Room |
| 2-主展厅<br>Main Exhibition | 4-儿童艺术教育<br>Children Art Education |                          |



- 1-门厅  
Lobby
- 2-盒院  
Courtyard
- 3-艺术品商店  
Art retail
- 4-餐厅  
Restaurant
- 5-存衣  
Coat check
- 6-仓库和装卸货  
Storage and unloading



- 19 装卸货与仓库  
Loading dock and storage
- 20 剖面  
Section
- 21 地下一层展厅  
Exhibition hall on basement 1F
- 22 学术报告厅  
Lecture hall
- 23.24 序厅  
Foyer
- 25 中庭  
Atrium
- 26 地下一层平面  
Basement 1F plan



- 1-序厅  
Foyer
- 2-主展厅  
Main Exhibition
- 3-设备用房  
Mechanical Room
- 4-工具间  
Tool Room



variable shape one by one. According to the weather and the angle of sunlight, the canvas in reverse arch can be opened and closed at will to provide shading and protection from the rain. It is a place for people to gather, a venue for the opening ceremony and an outdoor exhibition.

The design concept again explores the expressive power of column-free, horizontally extended structural forms and tectonics. The two new exhibition halls feature column-free, large-span cast-in-situ concrete structures. One is the inverted-arch curved beam that diffuses from two adjacent arches to create a natural skylight

and echoes the inverted-arch shaped canvas mechanical device in the central courtyard. The other is the concrete multi-ribbed, large-span beam structure. The multi-ribbed beam is thin and high, highlighting the characteristics of reinforced concrete structure and materials.

This museum design also captures the material characteristics of industrial plants in the 798 Art Zone, using cast-in-situ concrete and red bricks as the main materials, highlighting the construction characteristics of the joint and transformation between structural forms and the partition walls. □