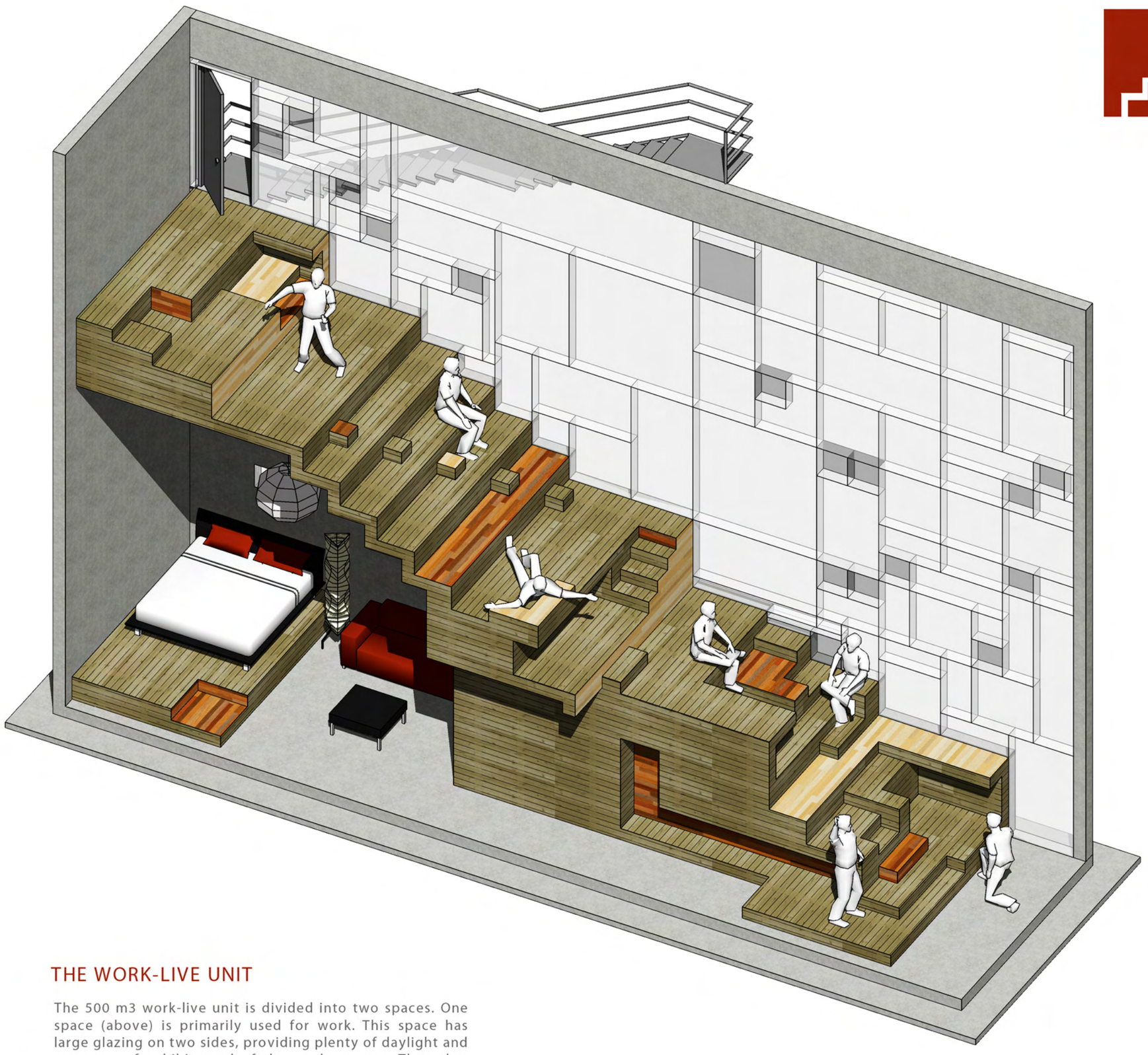
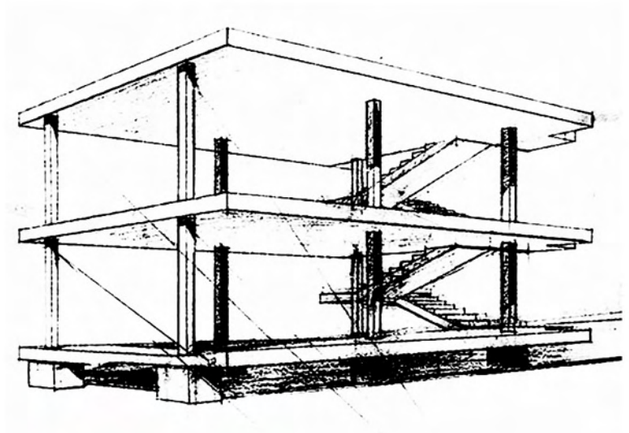
MANIFOLDS A

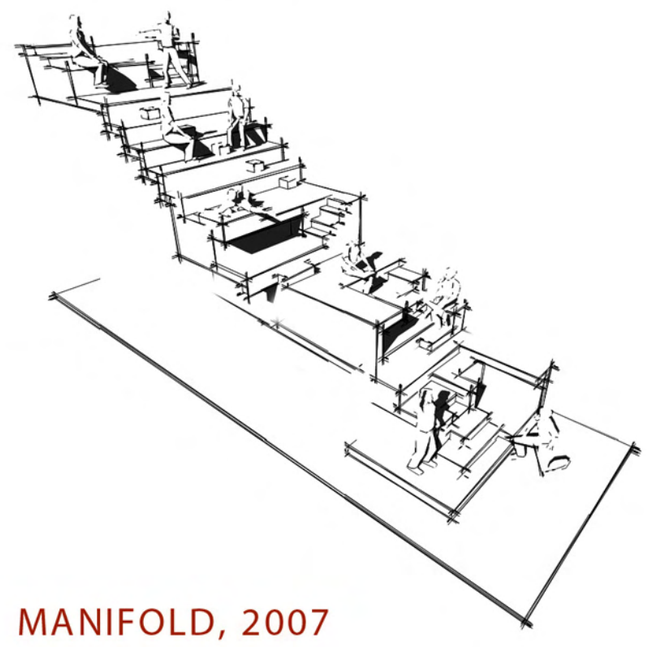




DOMINO, 1914

The Domino House by Le Corbusier is the icon of the industrilized production methods and the flexible open space of the 20th century building structure.

勒柯布西耶1914年创造的多米诺住宅是工业化大生产和20世纪开放性大空间建筑构架的标志。



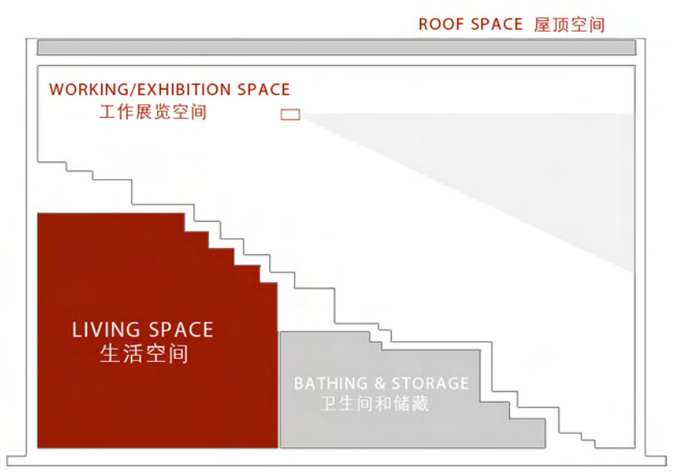
MANIFOLD, 2007

The Manifold structure is the proposal of a 21st century building structure, which provides flexibility through diversity and individuality through mass customazition.

“多重”构架是21世纪建筑构架的一个尝试，它通过差异定义空间，并且通过模块的罗列分割空间。

THE WORK-LIVE UNIT

The 500 m3 work-live unit is divided into two spaces. One space (above) is primarily used for work. This space has large glazing on two sides, providing plenty of daylight and exposure of exhibits and of the work process. The other space (below) is primarily used for living. This space is enclosed and has only a few windows to provide sufficient privacy. Both spaces have direct external access on ground level. In addition, the workspace has direct access to the roof via an external staircase.



工作生活单元

500立方米的工作生活单元被分成两个空间。其中一个空间（上面）主要用于工作。这个空间两侧有大面积的玻璃窗，提供了良好的采光，并展示了艺术家的展品和工作过程。另外一个空间（下面）主要用于起居生活。这个空间相对封闭，仅有一些小窗来提供生活所需要的采光。两个空间均直接通向室外地平面。此外，他们也可以通过外挂楼梯通往屋顶花园。

THE MANIFOLD STRUCTURE

By inserting two horisontal decks you divide the 500 m3 space into three separate levels. The most obvious solution, which will provide the maximum floor area, but maybe not the most interesting spaces. You therefore begin to cut and bend the two decks. At a certain point, they become a single coherent structure folded in many ways - a manifold structure*.

*A manifold is an abstract mathematical space in which every point has a neighbourhood which resembles Euclidean space, but in which the global structure may be more complicated. www.dictionary.com

“多重”的构架

通过插入两个水平的板，你就可以将500m³的空间变成三个独立的层面。这种最简单的处理方法可以提供最大的建筑面积，但是却不是最趣味的空间形式。你因此会切割并弯折这两个楼板。从该点出发，这些楼板就变成了一个通过弯折而来的独立连贯的构架，这就是“多重”构架。

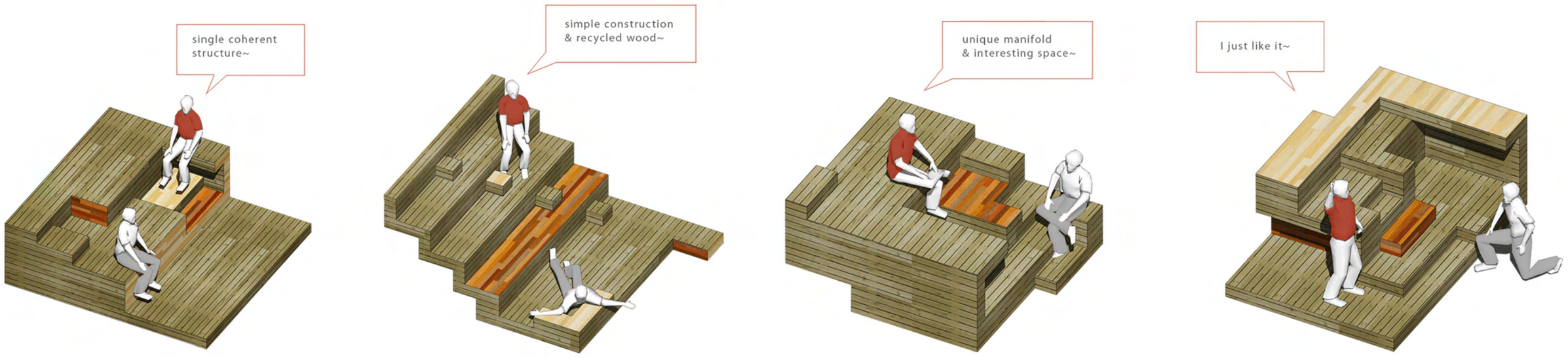
*“多重”是英文Manifold的意译，他指一个抽象的数学模型，每一个点都有一个与其相似的欧几理空间，但是从整体构架来看，它却变得十分复杂。www.dictionary.com

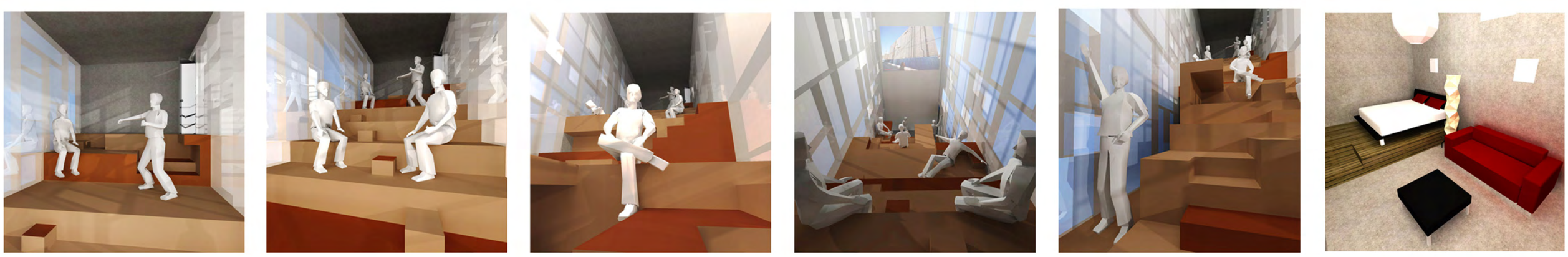
FLEXIBILITY THROUGH DIVERSITY!

Instead of an open empty space, which can theoretically be altered in all possible ways, but usually never is, the manifold structure provides a wide range of different spatial possibilities. The same section of the manifold can be used for different activities – or the same activity can unfold on different sections of the manifold.

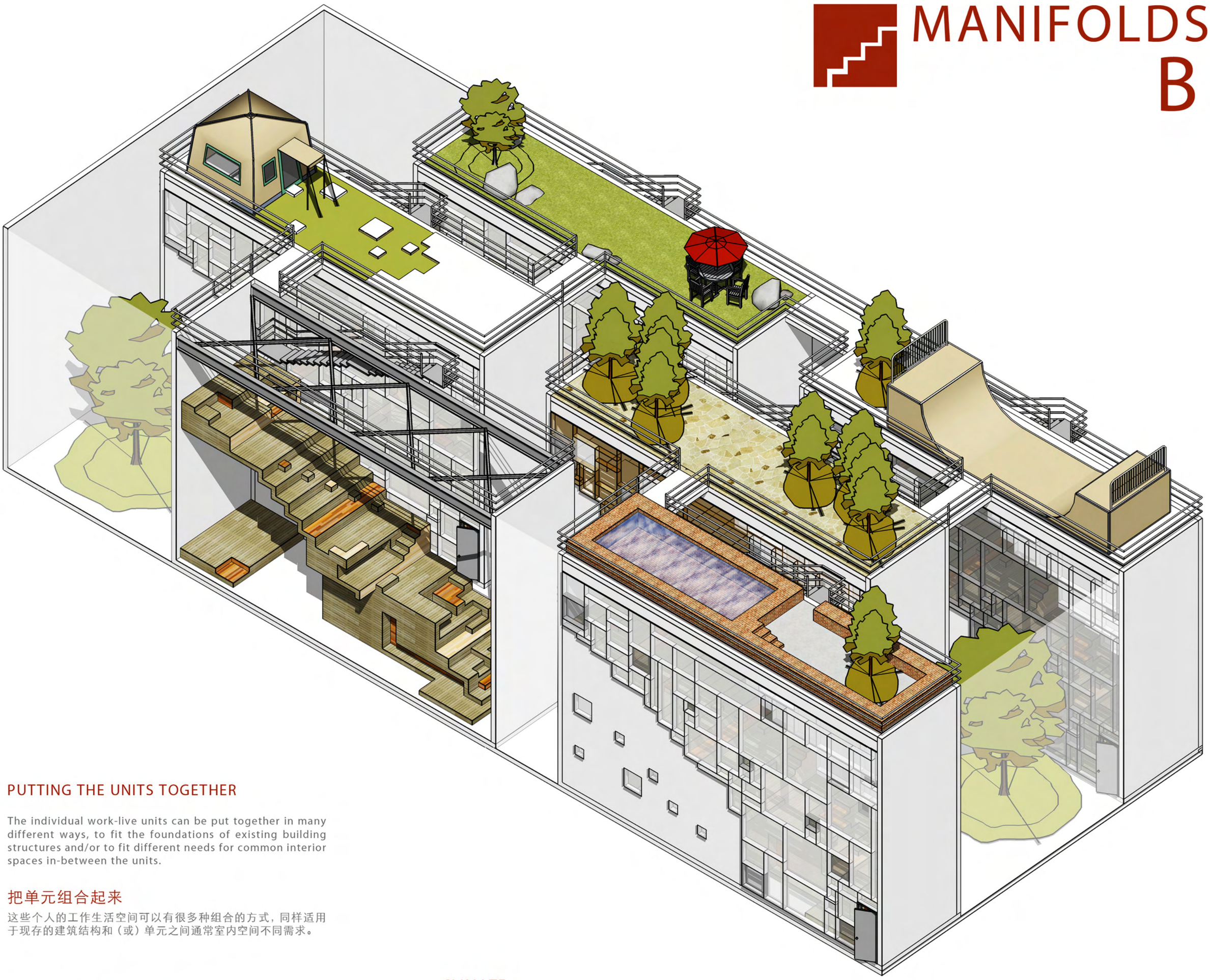
通过多样性来定义!

宽敞空旷的大空间似乎理论上可以融入所有的可能，但是事实上永远都不是。取而代之的是“多重”构架，他可以提供各种各样不同的可能。同样的剖面可以用于不同的活动，同样的活动也可以发生在“多重”的不同剖面上。





MANIFOLDS
B



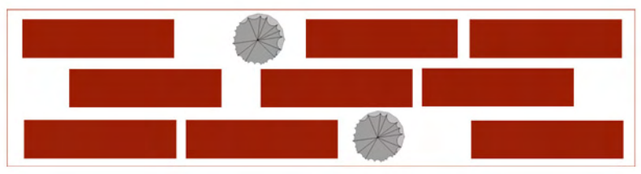
PUTTING THE UNITS TOGETHER

The individual work-live units can be put together in many different ways, to fit the foundations of existing building structures and/or to fit different needs for common interior spaces in-between the units.

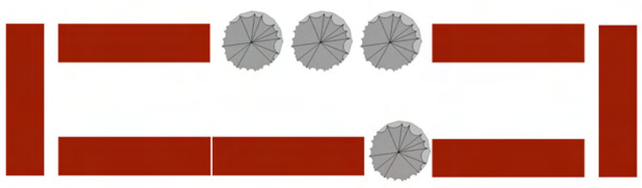
把单元组合起来

这些个人的工作生活空间可以有很多种组合的方式，同样适用于现存的建筑结构和（或）单元之间通常室内空间不同需求。

POSSIBILITIES IN EXISTING BUILDING
已有建筑中的可能



MORE POSSIBILITIES · · ·
更多可能 · · ·



CLIMATE

The work-live units have floor heating on ground floor. The heat of the living space becomes passive floor heating for the work space. Windows are used for natural ventilation.

The large glazing is single layered when facing an interior corridor and double layered when facing the exterior. Likewise, the enclosed wall of the living space is not isolated when facing an interior corridor but isolated when facing the exterior.

The glass roof between the units provide skylight to the spaces in-between the units and the spaces inside the units.

气候

工作生活单元拥有暖气地热系统。生活区的热量成为工作区的被动地热。窗户被用于自然通风。

巨大的玻璃窗面对室内走道时，采用单层结构；当面对室外空间时，采用双层结构。同样，生活区的封闭墙面对室外时采用隔热结构，而面对室内走廊的时候则不需要。

单元之间的玻璃顶为单元之间以及单元空间提供天光。

MASS CUSTOMIZED SPACES

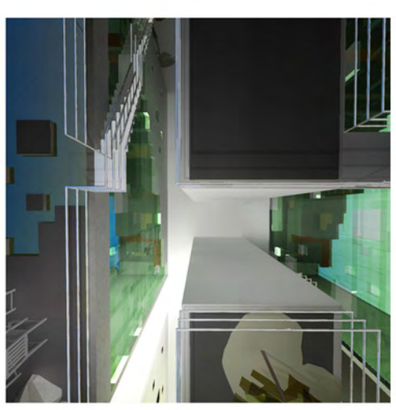
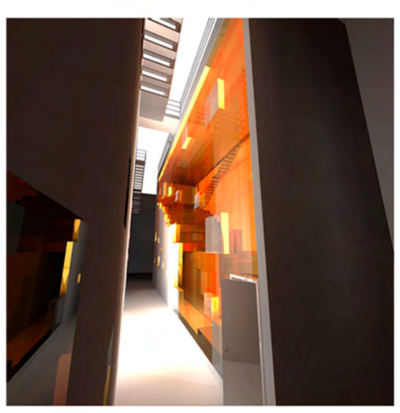
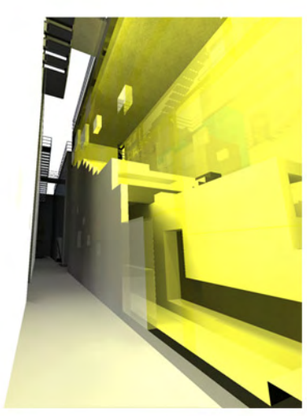
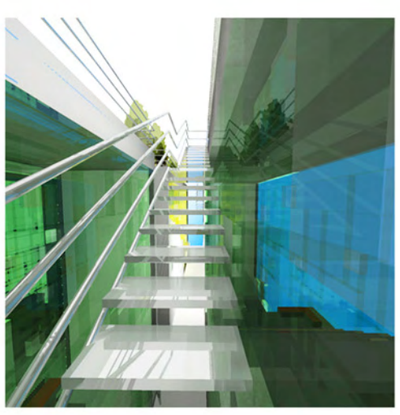
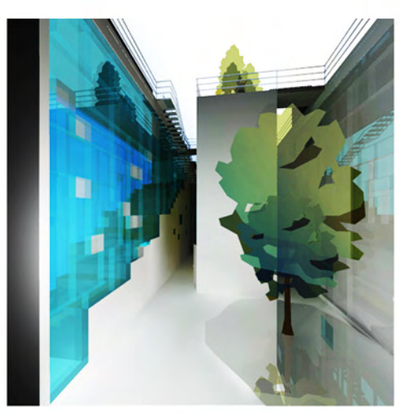
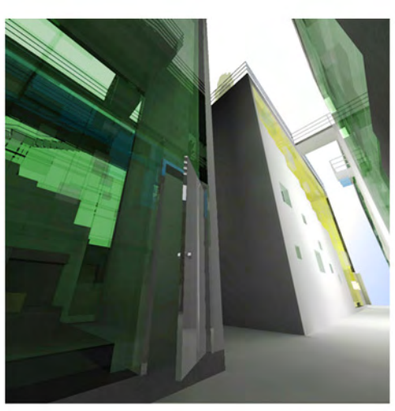
The roof of each work-live unit consists of a simple longitudinal steel structure between two load bearing concrete walls. The large glazing can be freely composed of individual pieces of (second hand) glass, thereby making each facade unique.

The manifold structure of each unit can be folded in its own unique way. It is a simple steel construction which can be covered by recycled wood, thereby making not only the structure but also the surface of each manifold unique.

Each work-live unit has its own private roof which can be designed according to individual needs and desires. The individual roofs are connected to each other by small bridges and can be accessed directly from the work space of each unit.

模块空间

每一个工作生活单元的屋顶建议使用长方向的钢结构联系两个称重混凝土墙体构成。大面积的玻璃窗可以自由的用不同大小的（二手）玻璃来构成，这样使得每一个立面都与众不同。

没有单元的“多重”构架可以用他们喜欢的方式折叠构成。它是简单的钢结构，表面可以使用回收木材等廉价材料覆盖。这样使得不仅仅每个单元的构架不同，而且每个单元的材质也独一无二。

每一个居住生活单元都有他们自己独立的屋顶，他们可以有用户自己的需求进行设计。这些私人花园通过小桥将彼此连接，所以你可以从你的工作空间直接前往其他人的工作空间。