## 刊首语

城市荒野与城市生境



城市的生态系统非常复杂,生境条件也极为多样。 城市生境包含了绿地、林地、农田、湿地、水体、荒地 这些自然或近自然的区域,同时也包括了建筑、桥梁、 各种管网、轨道等构筑物或基础设施。

在各种城市生境中,我更关注城市中的荒野。城市 生境的大量消失,栖息地和生物物种的减少都与荒野的 消失相关。所以,城市生境和栖息地的问题,关键在荒野。

中国城市建成区绿地率已达 30% 以上,但大多数 城市生物多样性的表现却非常弱,实际上城市绿地面积 的增加并不一定意味城市生态功能、特别是生境和栖息 地质量的增强。麦克哈格在《设计结合自然》一书中写到, "城市中重要的系统有两个,一个是自然的系统,一个 是人工的系统,一个好的城市中这两个系统是互相平衡 的。而自然的系统并非指绿色的自然,而是能够真正按 照自己的演变进程发展的自然"。城市中的荒野就属于 这一类自然。

城市荒野指城市中以自然而非人为主导的土地,这 片土地能够在人的干预之外进行自然演替,它的主人是 土地本身和其上自由栖息的生命。

荒野之于城市的价值体现在其经济和高效的生态服 务功能。在城市中,由自然过程主导的荒野是一种最接 近原生状态的稳定的生态系统,具有低维护、低影响、 可持续的特性。自然状态下的植物群落能够自发生长, 相互竞争适应,从而形成适宜场地环境和气候条件的种 群形态和稳定、优越的生态系统。荒野为当地动植物群 落提供了适宜的生境条件,它是城市中最重要的生物栖 息地类型之一。

城市文明和工业文明的繁荣发展使劳动创造的事物 显现出更多的价值,而自然原生事物的价值却往往被人 们忽视。人们普遍认为荒野与"荒蛮""杂乱""野蛮" 等消极的意象相关,在城市中的荒野更是荒芜的野地, 与城市生活和城市景观格格不入,没有保留和维护的必 要。随着城市的发展与技术的进步,人类对土地的改造 变得更加容易,在城市的迅速更新和扩张过程中,城市 及周边大量的原生或次生的荒野地被彻底开发用于城市 建设。长期生活在城市环境中,人们习惯于欣赏静态的、 人工的、可控的景观,并将自然环境视为凝固的景象而 忽视其时间变化的维度,因而逐渐失去对生命自然状态 的关注和对自然景物变化的敏感。一些原来的荒野地被 进行大规模地"美化",改造为公园绿地。城市中能够 按照自然本身的进程进行演变的土地日益减少,在城市 中,荒野早已逐渐淡出人们的视野。

幸运的是,在城市发展中,有时一些荒野地会由于

特殊的原因被保留了下来。城市中也会有一些土地由于 各种因素而被废弃多年,从而演变成一种次生荒野。这 为我们在城市中保护和维护荒野创造了机会和条件。

如1999—2003年间,杭州西湖一次大规模疏浚的 淤泥输送到了一个名叫江洋畈的山谷里,形成了容积约 100万m<sup>3</sup>的淤泥库。随后植物在淤泥上逐渐萌发出来, 并随着地表含水量的变化呈现出明显而有趣的自然演替 过程,形成了城市中一片由自然主导的次生荒野,后来 依托这片土地建造了江洋畈生态公园。这是一个自然系 统能够按照自身的规律进行演替的公园,是一个将人类 活动与荒野景观和谐统一在一起的公园。今天,有几十 种鸟类栖息于此,泥塘中生活着野生的鱼、小龙虾和蟹, 科学家们在这里共发现了42种蝴蝶。

江洋畈位于一个山谷之中,周围有优越的自然条件,不过即使在高密度的城市街区里,一些面积较小的 类似荒野的绿地也具有独特的生境与栖息地价值。如位 于英国伦敦伊斯林顿区 (London Borough of Islington) 的吉莱斯皮公园 (Gillespie Park)最早曾是一片农地, 后来成为铁路边的一片工业原料堆积地,1960年废弃后 开始了数十年的自然演替过程。21世纪初,这片土地被 保留并建成了一个面积仅为1.6hm<sup>2</sup>的野生动植物公园 (Wildlife Park),公园中有200余种植物,包括一些 在城市中十分罕见的植物,并栖息着大量的鸟类和昆虫。 这里还成为人们第一次记录到长尾蓝蝶繁殖的地方。

其实早在 20 世纪 70 年代, 欧洲的一些城市公园 里就开始专门划出一片区域, 使之成为不受人为干扰的 类荒野地, 为当地的动植物提供栖息的场所。而到了 21 世纪, 欧洲许多城市公园在满足市民休闲活动的前提下, 更是放任自然过程在公园中自由发展, 最大限度地维护 土地的自然演替状态, 并使自然演替成为公园自主设计 的一部分, 让植物依条件自我选择, 自由地萌发、生长 和变化, 以此来为城市创造出适应当地环境的生境和栖 息地。

城市生境和栖息地是城市生态与生物多样性的重要 基础,而荒野在城市生境和栖息地的维护方面具有不可 替代的价值。我们应该认识到,城市中不仅需要绿地, 也需要按自然本身演替过程繁衍的绿地,需要城市中的 荒野。



## PREFACE

## Urban Wilderness and Urban Habitat

The ecosystem of city is highly complex, and the habitat condition is also extremely diverse. Urban habitats include green space, forest, farmland, wetland, water bodies, wasteland and other natural or near-natural areas, as well as structures or infrastructures such as buildings, bridges, pipe networks, railways, etc.

Among all kinds of urban habitats, I pay special attention to the spaces with wildness feature in the city (here termed with urban wilderness). The vanish of urban habitats and biological species are related to the loss of wilderness. Therefore, the key to urban habitat is wilderness.

The green space ratio of urban built up area in China has reached 30%, but the biodiversity performs infirmly in most cities. In fact, the increase of urban green space area does not necessarily indicate the enhancement of urban ecological function, especially the enhancement of habitat quality. Ian Lennox McHarg, in his book *Design and Nature*, regard it so: There are two important systems in the city, one is the natural system, the other is the artificial system, and the two systems are balanced in a well-developed city, the natural system does not mean the green space, but the space that can develop according to its own evolution process. The wilderness in the city falls into this category of nature.

Urban wilderness refers to the land in a city dominated by nature rather than human beings, which is capable of natural succession beyond human intervention, and is owned by the land itself and the life upon which lives freely.

The value of wilderness to the city lies in its efficient ecological service function. In cities, the wilderness, dominated by natural processes, is a stable ecosystem closest to its native state, with lower maintenance, lower impact, and sustainable characteristics. The plant communities in natural state can grow spontaneously and compete with each other to form a stable and advantageous ecological system suitable for the site environment and climate conditions. Wilderness provides suitable habitat conditions for local animal and plant communities, and it is one of the most important habitat types in urban areas.

The prosperity of urban civilization and industrial civilization make the things created by labor show more value, but the value of natural or original things is often ignored. It is widely believed that wilderness is associated with negative images such as "Savage", "Disorder", and "Barbarism", etc., or wilderness is desolate field, which is incompatible with urban life and urban landscape feature, and is not necessary to preserve and maintain. With the development of cities and the progress of technologies, transforming land becomes much easier. A large number of primary or secondary wilderness land around the city is thoroughly developed for urban construction in the process of rapid urban renewal and expansion. After living in urban environments for a long time, people are used to appreciating static, artificial, controllable landscapes, and viewing the natural environment as a solidified landscape, ignoring its dimension of temporal change. As a result, the attention to the natural state of life and the sensitivity to the changes of natural scenery are gradually lost. Some of the original wilderness areas have been extensively "beautified" and transformed into urban park. The land that can evolve according to the process of nature itself in the city is decreasing gradually, the urban wilderness has gradually faded

out of people's view.

Fortunately, some wilderness land sometimes survives in urban development for special reasons. Also, some land in the city, being abandoned for years for a variety of factors, turns into secondary wilderness, creating opportunities and conditions for us to preserve and maintain the wilderness in our cities.

For instance, between 1999 and 2003, a large amount of dredged-silt from West Lake in Hangzhou was transported into a valley called Jiangyangfan, forming a silt reservoir with a capacity of about 1 million cubic meters. Then the plants germinated gradually from the silt, with the change of water content on the land surface, obvious and interesting natural succession processes occurred, a secondary wilderness dominated by nature was formed in the city. Later, with this piece of land, Jiangyangfan Eco-Park was built. This is a park in which the natural system can follow its own laws, and a park that harmonizes human activities with the wilderness landscape. Today, dozens of species of birds inhabit here, the bog is home to wild fishes, crayfishes and crabs, where scientists have found also 42 species of butterflies.

Jiangyangfan is located in a valley, surrounded by superior natural environment, but even in high-density urban neighborhoods, some smaller wilderness-like greenbelts have unique value of habitat. For example, Gillespie Park in London Borough of Islington was originally a piece of farmland, later became an industrial storage area for raw material along the railroad, and since it was abandoned in 1960, decades of natural succession began. At the beginning of the 21st century, the land was preserved and built into a small 1.6-hectare Wildlife Park with more than 200 species of plants, including some species rare to be seen in the city, also a large number of birds and insects. It is the first urban space to record the breeding of longtailed blue butterflies.

In fact, as early as the 1970s, some urban parks in Europe began to line out a special area as undisturbed wilderness, providing habitat for local animals and plants. Still in this century, on the premise of satisfying the leisure activities of the citizens, many urban parks in Europe allow the natural process to develop freely in the parks, maximize the maintenance of the natural succession of the land, and make succession progress a part of the park's autonomous design, allowing plants to compete and germinate themselves according to the site environment, to grow and transform freely, so as to create biotopes and habitats which are adaptive to the local environment in the cities.

Urban biotope and habitat are important foundations for urban ecology and biodiversity, while wilderness has irreplaceable value in its maintenance. As we should realize, the city needs not only green space, but also the green space that able to develop according to the succession of nature itself, and the wilderness in the city is indispensable.

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