



EDITORIAL
主编寄语

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公元前7世纪和公元前5世纪兴起的德丹王朝和利恩王朝曾拥有阿拉伯西北部地区的整片绿洲，并控制着整个地区的政治和经济。如今这里却只留下戈壁荒滩上的一片废墟，供人凭吊。它似乎在拷问我们：如何修复和管理流域，才能使绿洲持续充满生机，避免历史悲剧的重演？

Date July 5, 2019 Location Al-Ula, Saudi Arabia Photographer Yu Kongjian

The whole oasis around the northwestern Arabia that was politically and economically controlled by the Dedān and the Liḥyān kingdoms rising in the 7th and 5th century B.C. respectively now has remained nothing but ruins in the desert. So how can we restore and manage the watershed so as to keep the oasis vibrant and avoid a recurrence of such kind of tragedy?

欧拉绿洲与消失的文明

俞孔坚
哈佛大学设计学博士；美国艺术与科学院院士；北京大学建筑与景观设计学院教授

翻译 萨拉·雅各布斯 肖杰

摘要

笔者首先介绍了阿拉伯半岛西北部城市欧拉如何在降雨有限的条件下形成了沙漠中的绿洲以及绿洲文明，并回顾了绿洲文明更替的历史。通过探究绿洲的奥秘，笔者发现，对流域内有限水资源的滥用使得绿洲的承载力不断下降，人和自然之间的微妙平衡被打破，最终导致绿洲文明相继消失。最后，笔者提出，绿洲及滋养绿洲的流域是一个完整系统，修复水循环是维持这一系统的关键；而探讨以水文特征定义的流域的生态修复和可持续治理，恰是景观设计学科的核心内容之一。

关键词

世界文化遗产；欧拉；绿洲；文明；流域

2019年7月，应沙特阿拉伯欧拉皇家委员会之邀，我和其他专家学者一同来到位于阿拉伯半岛西北部城市欧拉的世界文化遗产地——石谷（玛甸－沙勒）考古遗址。对我来说，这是一个遥远的地方——不仅因为它在空间上和我的祖国距离遥远，还因为它的景观和文化对我而言也十分遥远。它的存在冲破了我所能想见的历史的地平，并将我的思绪拉伸至浩渺的宇宙和星空，以及憧憬已久的伊甸园。空间、时间和精神的距离，使欧拉之于我犹如史前人类眼中的星空明月般神秘而美丽。

欧拉在阿拉伯语中意为“布满村庄的干河谷”。这条“河谷”夹在东西两条岩石山脉之间，南北延伸，其核心区域为一片绵延20km的欧拉绿洲以及散布在绿洲边缘的多处世界级遗址。广义的欧拉则是一个漏斗状的、面积约为2.9万平方千米的流域，而欧拉绿洲就位于“漏斗”狭长的尾部。尽管年降雨量只有50mm左右^[1]，但由于两侧山地都是不透水的岩体，且降雨集中在冬季的几天之内，流域内的雨水最终都汇聚在欧拉的谷地之中，逐渐形成了这片沙漠中的绿洲以及绿洲文明。

在盛夏的烈日之下，我们走遍了绿洲及其周边的自然和历史遗址。据当地向导介绍，人类在这里的活动至少可以追溯到20万年前的旧石器时代。此后，这里被不同的文明相继占据，包括分别于公元前7世纪和公元前5世纪兴起的两个阿拉伯西北部王朝——德丹王朝和利恩王朝^[2]，其曾在政治和经济上控制着整个阿拉伯西北地区，如今却只留下了戈壁荒滩上的一片废墟和刻在岩壁上的图文。之后，主宰这片绿洲的是公元前1世纪兴起的纳巴泰人^[3]，其遗址分布在绿洲北端沙漠中的一处高地之上，是这处世界文化遗产中最璀璨的明珠。纳巴泰人因善于经商而闻名，纵横驰骋于阿拉伯半岛，但最终从这里神秘消失，只留下凿在岩壁上的高大的贵族墓室和宽敞的议事大厅。

此地距离当代最近的古代文明遗迹是因伊斯兰政权的兴起而建造的欧拉古镇，这座阿拉伯古香道和朝圣线路上的重镇曾繁华一时，据说伊斯兰教创始人穆罕默德也曾踏上过这片土地。这里曾是阿拉伯人的冬居场所，其夏季居所位于地势较低的绿洲之中。通过掘土堆墙形成的下沉式庭院里种满了枣椰树（*Phoenix dactylifera*），房屋院落交替布局，形成村落，绵延在枣椰树冠之下。遗憾的是，这片曾被誉为“绿荫中的夏都”的农庄，而今只留下断墙残垣和枯死的树干。由于古镇的荒废，最后一户当地居民也于1983年离开。我钻入迷宫般的古镇街道，仿佛进入了《一千零一夜》遥远而凄凉的故事场景之中。

在欧拉的日子里，一个问题始终萦绕在我的脑海中：那些古老的文明是如何消失的？它们的主人到哪里去了？人们为什么相继离开这里？带着这些问题，我开始探究绿洲的奥秘。贯穿绿洲的干河在冬季会偶发洪水，并淹没河床。原本溢流可以很快渗入沙漠中，但在绿洲下游的平坦沙漠地带，宽阔的干河谷沙滩已被渠化，高高的水泥防洪堤绵延数公里，而机场和新城建设又进一步侵占了原本可渗水的广袤沙漠。据说当局正准备修建一条排水渠，将洪水直接排入红海。虽然通过迷宫般的土墙仍可清晰地辨认绿洲复杂的产权边界，但大部分农庄实际上已被撂荒，即便有人管理，也只是作为城里人周末的休闲场所，原来的农耕生活方式已经消失，而那些茂盛生长的枣椰林则大部分由商业公司种植并管理。

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AL-ULA OASIS AND THE LOST CIVILIZATION

YU Kongjian

Doctor of Design at Graduate School of Design, Harvard University; Honorary Foreign Fellow of the American Academy of Arts and Sciences; Professor of College of Architecture and Landscape, Peking University

TRANSLATED BY Sara JACOBS XIAO Jie

ABSTRACT

This article firstly explores how Al-Ula, an ancient city in northwestern Arabian Peninsula, thrived historically despite little rainfall, and reviews the historic civilizations ruled this oasis. Then, it points out that the misuse of limited water resource degraded the environmental capacity of the oasis, resulting in the imbalance between humans and the land and eventually the decline of civilizations. Finally, the article concludes that the oasis and the watershed it depends on is an integral system, whose lifeblood is maintained by water cycle restoration. It is also one of the key tasks of Landscape Architecture to explore ecological restoration and sustainable management of watershed in the sense of hydrology.

KEYWORDS

World Cultural Heritage; Al-Ula; Oasis; Civilization; Watershed

The Royal Commission for Al-Ula invited experts and scholars, including myself, to the Al-Hijr Archaeological Site (Madain Saleh) in July 2019. The site, a World Cultural Heritage in Al-Ula, located in the northwest of Arabian Peninsula, was physically and psychologically distant for me — its history, landscape, and culture are beyond my horizon, inviting me to think of the vast universe and a Garden of Eden which I have long fascinated for. To me, the spatial, temporal, and spiritual distance made the city mysteriously charming.

Al-Ula means “valley of villages” in Arabic. The core area of the north-south “valley” between two mountain ranges was an oasis stretching 20 kilometers, along the periphery of which there are many World Heritage Sites. Al-Ula can be roughly seen as a funnel-like watershed of 29,000 square kilometers, and the oasis was at its narrow tail. Thanks to the impermeable rock mass on both sides of the area and concentrated rainfall in winter though the annual precipitation is only 50 millimeters^[1], the steep geology of the area funnels water into the valley and subsequently supports the oasis and towns.

Under the scorching midsummer sun, we wandered through the oasis and surrounding heritage sites. The local guide said that human activity here can trace back over 200,000 years, beginning with the Old Stone Age. Over centuries, this area has been ruled by different civilizations, including the Dedān and the Lihyān kingdoms rising in the 7th and 5th century B.C. respectively^[2]. These once-mighty powers controlled the territory politically and economically, but they left only some remnant town fabrics in the desert with stone inscriptions and palisades carvings. Later, Nabataeans emerging in the 1st century B.C. dominated the oasis^[3]. Their ruins lie on the northern highlands of the oasis, shining among the adjacent heritage sites. The Nabataeans mysteriously vanished after a prosperity through the Arabian Peninsula, leaving no traces but huge coffin chambers and a meeting hall chiseled in the cliffs.

Most recently, the ancient town that emerged at the dawn of the Islamic period occupied the Al-Ula oasis. As a key hub in the ancient incense trade and pilgrimages routes, it is said that Mohammed, the founder of Islam, visited the town. The ancient town was mostly occupied in winter as the Arabians moved to the lower oasis during summer, where the date palms (*Phoenix dactylifera*) were grown in sunken courtyards made of rammed earth. The last family had left in 1983, leaving this once verdant village only dilapidated walls and trunks of dead date palms. Immersed in the mazy streets in this ancient town, I felt lost as if they were the remote and desolate scenes of *The Thousand and One Nights*.

During my time in Al-Ula, my mind was occupied by several questions: How did those ancient civilizations disappear? Where did the residents go? Why did they leave? I explored the site with these questions. Winter floods may occur occasionally in the oasis. However, the overflow from the river can hardly be infiltrated into the downstream desert as the broad sand beach has been channelized with high and long cement floodwalls. Worse, in addition to the construction of airports and new towns that have encroached on the desert, more engineering projects are undergoing, including constructing a channel to discharge flood water directly to the Red Sea. The historic earthworks of farms form a complicated array of property lines that continue to define the landscapes, but most of them are facing a shrinking population. Those remaining populated farms are primarily run as weekend entertainment places for urban residents, while most of the date palm plantations are run for commercial uses.

当我走进其中一户由当地人维护的传统农庄，感觉完全进入了另一个世界。与农庄外不堪忍受的43℃的干热环境相比，这里湿润而凉爽，满眼葱绿，空气中弥漫着青草的芬芳。农庄还保留着传统的三层种植方式：上层是枣椰树，中层是各类果树，下层是蔬菜绿草；绿洲两侧高峻的岩体倒映在一汪汪薄水面之中——这是对枣椰树进行漫灌而形成的水面；鸟儿们欢快的鸣唱从各个方向传来，一群山羊啃食着枣椰树下的大叶苔草，零散分布的夯土房掩映在枣椰树下……这不正是我所想象的伊甸园中的景象吗！当我询问农场主人水的来源时，他把我带到一口井边，这水来自75m深的地下，抽取之后再通过管道引至各户农庄。当地向导告诉我，20多年前，这里的地下水埋深不到10m。更早的时候，这里还曾流淌着泉水。而近年来，地下水位却正以每年3m的速度下降。之后，我又来到一片枣椰树种植园，眼前的枣椰林郁郁葱葱，浓密而整齐的树冠几乎完全遮蔽了阳光，林下没有果木和地被，免费的地下水被毫无节制地抽取出来用于漫灌。

看到这一景象，我不禁担忧：再过20年，哪里还有水资源来滋养这片如伊甸园一般的绿洲？我似乎明白了为什么20万年来，一个接一个的绿洲文明相继消失，一拨又一拨的绿洲占有者最后都从这里神秘离去——对流域内有限水资源的滥用导致绿洲的承载力不断下降，并形成了恶性循环；最终，人和自然之间的微妙平衡被打破，人类不得不迁徙他方另谋生路。于是，强占绿洲、争夺有限的水资源便成为解读中东乃至世界历史的一个视角。经过与同行的国际考古学家进行交流，并参考有限的历史资料，这一猜想得到了高度验证。

基于此，我找到了保护和发展欧拉，并解决其所面临的众多问题的路径：绿洲及滋养绿洲的流域是一个完整的系统，其中的水循环一旦失去平衡，必将使整个系统发生不可逆的恶化，最终导致人与土地和谐关系的破裂。所以，修复水循环是重建人地关系的不二选择。而探讨以水文特征定义的流域的生态修复和可持续治理，恰是景观设计学科的核心内容之一。**LAF**

Entering one farm managed by the local, I was immediately attracted by a cool breeze and luxurious green vegetation. It was a welcome reprise from the dry and hot conditions outside. The farm maintains a traditional three-layered planting pattern, with date palms as the canopy, under which are various fruit trees, and vegetables and grasses grown on the ground. The steep rocks that line the oasis are reflected in the shallow puddles formed by the flood irrigation for date palms. The birds are singing all around while goats are grazing along the vegetation, and rammed earth houses are scattered among the date palms. Is not this what the Garden of Eden is like! When asked about the water source, the farmer showed me a 75-meter-deep well where the groundwater is pumped up into channels for farming uses. The local guide told me that there were springs in early years; two decades ago the groundwater level was as high as 10 meter deep; but in recent years it is decreasing by 3 meters annually. Later that day, when I visited a monoculture date palm plantation, I saw no fruit trees or ground cover, but date palms are planted in an extremely high density and irrigated immoderately with groundwater.

I was shocked by the scenes and started to concern that there would probably not be any water left to support this oasis and the cities in two decades. It occurred to me why so many civilizations had disappeared over the past 200,000 years: the misuse of limited water resource degraded the environmental capacity of the oasis, breaking the balance between humans and the land. People would have to move, or conflict for the scarce oases and water resource. This offers a perspective to understand the history of the Middle East and even the world, which has been soon proofed by my further conversations with archaeologists and historical studies.

Then I have come to the solution to protecting and developing Al-Ula, and addressing its challenges: the oasis and the watershed it depends on should be regarded as an integral system; a balanced water cycle must be maintained, otherwise the system will deteriorate, irreversibly disrupting the human-land relationship. This means that water cycle restoration must be the top priority. It happens that one of the key tasks of Landscape Architecture is to explore ecological restoration and sustainable management of watershed in the sense of hydrology. **LAF**

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