

# 景观能否拯救亚洲都市主义？

凯利·香农 [比利时鲁汶大学建筑、城市与规划学系教授]

## 摘要…

本文简要回顾了亚洲城市化所面临的3个挑战，包括前所未有的尺度、速度和范围，经济VS环境，以及气候变化。然后回顾了该地区本土的景观都市主义实践，包括风水、“水利文明”和城乡过渡带（desakota）。此后，通过一系列项目发展出7种当代景观都市主义策略，最终得出结论：亚洲可以作为新城市范式的潜在孵化器。

## 关键词…

景观都市主义；亚洲；设计策略

## 挑战

当前亚洲的城市发展模式需要另辟蹊径。该地区所面临的挑战是巨大的，其复杂程度也要求我们三思而后行，才能提出切实可行的方案和战略项目。

### 挑战之一：前所未有的尺度、速度和范围

亚洲的城市正在急剧膨胀，毫无减弱。该地区正在以前所未闻的尺度、速度和范围经历现代化和城市化的过程。随着当前层次丰富的中心区被新型的大众化的建筑形态所“现代化”，空前数量的新城如雨后春笋般地——从四周的稻田、低地、脆弱的岸边湿地甚至从海上——拔地而起。当代亚洲的城市发展以项目为导向，具有资本集中化的特点，并宣告了一系列新鲜词汇的诞生，包括“世界级城市”、“经济特区/自由经济区”、“投资友好型基础设施”等。抱着“巢既筑之，凤必来之”的前提想法，亚洲国家的首要发展计划都是大型巨资项目。因此，不计其数的具有全球经济后盾和完备基础设施的工业区和新居住区（封闭社区），以上升的中产阶级和上层人士为客户群，往往在动工之前就已售罄。经济自由化以及居住限制的取消导致了大量的人口从农村涌向城市。国与国之间的城市竞争开始出现，缘于所有城市都力求成为不断扩张的全球社会网络集群中的活跃点。目标直指“世界之城”——创造令人麻木的千篇一律的整洁城市环境（库哈斯，1995）和一个扁平的社会和文化领域。理查德·马歇尔（Richard Marshall）认为亚洲这

样的全球化城市项目都有一个共同的特征——对于“缺失的都市主义（Absent Urbanism）”的恣意追求。在他看来，“缺失的都市主义通过对建筑、道路、街巷、公园、人行道等的布置，刻意建构城市形式，而从不试图营造一种社会领域。这种回避确保了全球性的计划不会遭到破坏”（马歇尔，2003，p192）。

### 挑战之二：经济VS环境

不幸的是，“缺失的都市主义”往往与环境恶化相伴而生。亚洲的经济野心几乎难以驾驭，不惜代价的发展压倒一切。历史上，亚洲城市的发展具有与生产性景观密切联系的特征——无论在水域还是在陆地——如山坡台地的作物种植（大米、茶叶、咖啡、橡胶），低洼地区的水稻种植，滨水区域的鱼虾养殖。生产性景观的对立面则是象征性景观——祖先膜拜和由土地精神激发出的根深蒂固的传说，对土地的礼仪化依附在亚洲景观中得到了体现。更具体的说，在亚洲的大部分地区，城市化与水之间的联系非比寻常。水与土之间的相互依赖而又独立自主对于理解该地域的实践和文化都至关重要。然而，现在有了技术和资金的支持，过去无法逾越的河流今天也可轻易架桥而过，因而城市与水的联系也获得了新的含义。在整个亚洲地区，为了满足城市化的需求，低地被胡乱地填埋，而并没有形成综合的水管理策略。而其滨水区域的复垦通常也是为建造基础设施和新开发项目获取土地。复垦过程不仅从根本上改变了景观，超越了其生态承载力，



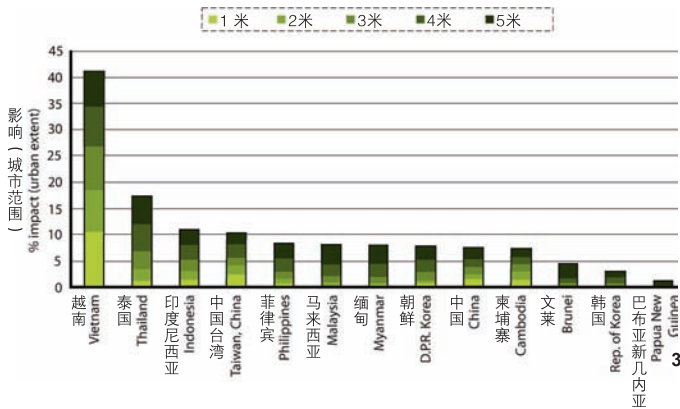
1. 挑战1：前所未有的尺度、速度和范围。城市化快速发展正在侵占亚洲城市曾经丰产的城市周边地区（越南河内）。©K. Shannon

2. 挑战2：经济VS环境。大规模的经济增长很大程度上忽视了环境问题，2005年孟买洪灾提醒人们警惕这一问题的严重后果（印度孟买）。©D. Chakraborty

1. Challenge 1: Unprecedented Scale, Speed & Scope. Urbanization is rapidly consuming Asia's (once productive) urban periphery (Hanoi, Vietnam). ©K. Shannon

2. Challenge 2: Economy versus Environment. Massive economic growth has been largely indifferent to the environment. The 2005 flood in Mumbai was a potent reminder of the consequences (Mumbai, India). ©D. Chakraborty





3. 挑战3：气候变化（重新绘制的图表）。亚洲城市随海平面的上升面临严峻的形势。（根据世界银行政策研究工作文件4136，2007年2月，第32页重新绘制）

3. Challenge 3: Climate Change (re-draw chart). There are daunting prospects for urban areas in Asia with the predicted sea level rise (re-drawn from World Bank Policy Research Working Paper 4136, February 2007, p. 32)

还造成了海岸线及其水文动态的深刻变化——沙土的沉降作用（沉积与侵蚀）的变化带来地形的改变。同时，对于水体的非法侵占不仅改变了生态，还不可避免地加重了洪水的严重程度和频繁程度，更不用说环境恶化与污染的加剧。尽管有大量的滨水项目在当地得到了支持，但是更多的水道被当作厕所或是工厂和家庭手工业的垃圾场。水污染本身已成危机，而随着中产阶级有车一族把摩托车和小汽车驶入已拥挤不堪、功能低下的街道中，空气污染也急速加剧。将项目用装饰性的绿色或是生态技术遮盖起来，既不是对于资源的有效管理，也不是留给后代的有意义的馈赠。亚洲令人瞠目结舌的城市增长远景混杂着该地区快速工业化和城市化的环境警钟。令人关注的污染和资源退化远远脱离了环保主义的追求。为了满足开发商的野心，政府往往对当地城市亟需的生态方面的平衡睁一只眼闭一只眼。城市所需要的是一种环境响应机制来调节现代化进度，同时平衡这些发展所带来的巨大环境影响。

### 挑战之三：气候变化

除了承受农村涌向城市的移民、城市增长、全球化的经济影响及其带来的环境后果的压力外，亚洲也不可避免地受到气候变化的影响。在亚洲的季风区，暴雨的强度和集中程度都将加大，而干旱地区则需要做好准备迎接更频繁的另一个极端。气温升高和海平面上升给农业、食物、供水，当然还有城市化，带来了严重的威胁。世界银行最新发表的报告——《气候弹性城市：增强抗灾能力初级读本——2009》预测，气候变化会给亚洲地区的人口、国内生产总值、城市范围和湿地等带来影响，

从而使其蒙受巨大的损失。该地区曾有的“水利文明”因经济自由化而迅速转变。亚洲很多正在进行的滨水复垦项目，改变了海岸的水文动态，削弱了海洋吸收季节性洋流的能力。这又加剧了内陆的季节性洪涝。吸水纳水的城市肌理和景观因城市化的疏忽而被侵占，或是直接被不断蔓延的硬质道路基底所替代，从而破坏了城市应对自然洪水周期和气候相关洪水的能力。城市规划与设计并没有与时俱进。顽固的部门划分依然存在，现有的、涵盖一切的总体规划 and 毫无弹性的土地利用布局无力引领城市环境的可持续发展。尽管如此，它们凭借僵化的组织制度和立法构架仍然持久不变。气候变化的结果，尤其是持续泛滥的洪水，将会给城市发展带来巨大的挑战。因此，亚洲的城市规划与设计迫切需要转变。

### 启示

为了在亚洲都市主义中树立一个新的典范，我们必须去了解这个地区的历史，并吸取教训。当代景观都市主义的土地设计项目，通过塑造景观来引导土地的占有、使用和城市化，可以借鉴古代亚洲城市化模式和其与周围景观的相互关联。

### 启示一：风水

风水，关于“风和水”的一门科学（在汉朝初年，公元前206年就被普遍接受。Needham, 1956, p359~63），是指一种通过调整文化景观的特征将负面影响最小化，并通过有利的形式组合将优势最大化的技巧。它源于风水先生对地表事物的“气”（宇宙的呼吸）的形态和空间的表象分析。风水关注的是

如何给“天下万物”，给景观中所有人造之物（从坟墓到整座城市）带来吉利。风水追求的是建造自然与社会环境之间的联系。从国土到城市再到住宅，各个尺度上的形态是宇宙信仰的表达，附着于风水谋求吉利的做法。而风水师，即福地的占卜者，是指那些有天赋的人，能发现风水宝地中特定地形特征的动态力量，以及它们与天体之间的关联。景观和建筑环境之间的联系（在亚洲文化中，这对于在世的人和已故的人同等重要），是被精心设计出来的。风水中宇宙力量的象征意义不仅仅是仪式上的，也形成了对任何一个地点的地形特征的精准理解。

关于亚洲建筑和规划实践的神圣性和独特性的众多传说都与风水密切相依，例如备受标榜的城市与水的姻缘。关于城市建造的传说、神的干预和充满传奇色彩的君王传说，都是这个地区的城市遗产的根基。除了因地形而排列规则的轴，许多风水“规则”都是符合逻辑常识的，如：靠近河流上游定居（这里给人们带来干净的水源、丰富的矿物、海鲜，以及由交通和交流连接带来的繁荣）；（通过山丘和树木）抵御呼啸的北风和邪神；地基朝南或建于高地（以获得足够的阳光和空气，并能抵御洪水）。风水学说与水利工程、洪水控制的联系，导致了更大范围的关于景观的社会政治组成的讨论。

说到其在当代的重要性，风水并不是一种值得复制的方法或是系统。在历史上的特定时期和特定背景下，风水是宇宙学的一个重要方面，它与（儒家所谓的）人的等级层次，以及人与整个世界的关系是紧密联系的。尽管象征主义和神秘主义的风水是以文化为媒介的，我们仍可以从其关于自然干预的普遍联系逻辑中有所获益：城市与景观的联系，物质/空间的现实与象征领域的联系，以及社会——文化与更加实际的（经济的）逻辑之间的联系。

### 启示二：水利文明

水利文明指的是需要大量集中的水文调控工作的社会“存在的理由”，这些理由转而在政治力量和领导权力上反映出来。在20世纪50年代，“城市革命”之风兴起的背景下，法兰克福学派的历史学家和汉学家卡尔·魏特夫（Karl Wittfogel）提到古典经济学家“不同程度地认识到：高度的‘东方’农业文明和他们的城乡状况遵循着一种与西方截然相反的发展模式”（Wittfogel, 1956, p152）。对于魏特夫来说，亚洲鼓吹的城乡统筹，是一种基于自

身力量，以及与水利工程和调控相关的生产的中央集权的特殊社会形态。

综合的“水利文明”系统需要大量的劳力（从而带来了持续的增加人口的压力），不仅是为了创造生产性的水利工程（用于农业灌溉和排水）和防御性的水利工程（用于治理洪水），也为了提供饮用水和交通渠道。挖坑、掘泥和筑坝导致了严重的地平面变化。亚洲城市控水的历史地理揭示了高度发达的乡村和城市（土地）系统，这些从物质层面和象征层面上与当时的科技水平、宗教信仰、社会文化情况和权力机构关联的系统都与水密切相关。有人认为在一些地区许多大尺度（和国家兴建的）土地系统主要是具有宗教功能，而非农业方面的（Boomgaard, 2007, p16）。

水利文明的概念，抛开它与政治的关联来讲，对当今世界来说，拥有极其宝贵的意义和启发。由于水被标榜成这个世纪的“石油”（因为其宝贵和有限，并且被视作引发未来战争的核心），对水利网络和定居点有意识的设计和布置变得越来越重要。魏特夫关于“水利文明”的假设表明人类与自然、汇水区和定居点的关系将会再一次地成为需要我们去理解、诠释和（再）设计的一系列基础关系。

### 启示三：城乡过渡带

城市乡村或是农村都市的概念——生产型和消费型景观的混合相间背后其实是Desakota这个印度尼西亚单词的文字游戏。这个词最早是由地理学家Terry McGee在1987年使用的，来源于印度尼西亚语。这个单词可以分解成两部分：desa即乡村，kota即市或镇（McGee, 1987）。Desakota最初是被McGee用于描绘雅

加达周边的情况。McGee的研究表明，难以用传统的城市化模型来解释大雅加达都市区的周边地区——因为它是从城市核心地区向农村腹地渗入并发展而形成了城郊地区。与人口从农村向城市转移相反，雅加达的就地城市化实际上是通过工业（或后工业）活动向已经人口稠密的农村地区发展而实现复兴。空间上破碎的外围聚落形态缘于功能独立实体的相互重叠，表现为传统农业与工业（包括资本密集型工业和家庭手工业）、娱乐（包括电影、主题公园和高尔夫球场）、零售（包括商场和商业片区）和居住（从违建住宅到封闭社区）相伴而生。

McGee提出了一个图表化的Desakota的组织结构模型。然而，为了让这个模型在空间上真正成立，需要包含景观/地形和基础设施等因素。McGee在对Desakota进行经济分类时所认识到的区别，与特定地区逻辑结构相结合时，确实会产生一系列不同的空间表达。尽管如此，McGee还是用5个要素总结并定义了他所假设的空间结构：

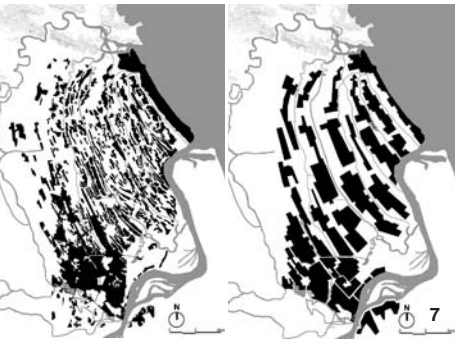
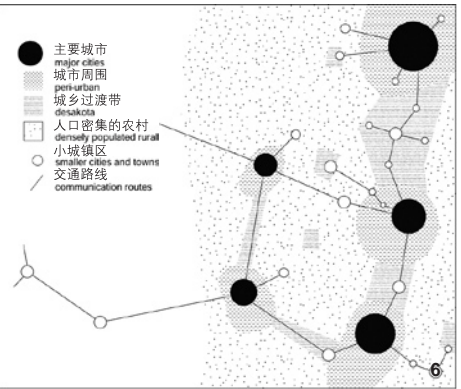
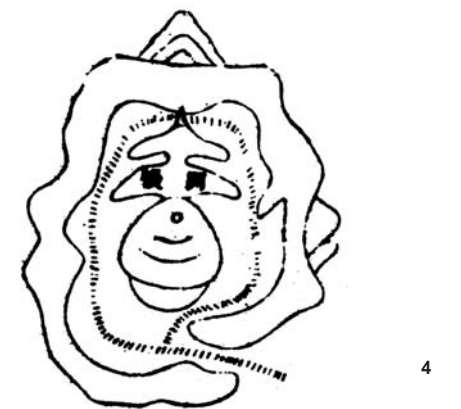
（1）亚洲的城市序列中的主要城市，通常为一至两个超大城市。

（2）城市外围的地区，通常指那些在城市周边搭乘交通工具在一天之内可到达市中心的地区。在亚洲的一些地方，这样的地区可以远在市中心30km以外。

（3）被称为Desakota的地区，通常是指那些沿着大城市核心区之间的走廊地带而形成的明显混杂有农业和非农业活动的地区。这些地区之前为人口密集的农业地区，大多数情况下（但并不绝对）以种植水稻为主。

（4）人口密集的农村地区，在亚洲国家非常普遍，尤其是那些种植水稻的国家。

- case of a grave) is protected, particularly from the north and west, be a sinuous range of hills. It is also nourished by small streams that combine to flow through an opening to the south, the region from which beneficial influences radiate. (image and caption source: Harley and Woodward, 1994:220)
5. Lesson 2: Hydraulic Civilizations. A sophisticated relationship between agricultural and reservoir systems, built form and the natural landscape of ancient settlements (Anuradhapura, Sri Lanka). ©K. Shannon
6. Lesson 3: Desakota. A hypothetical Asian city displays McGee’s desakota model. Major cities are surrounded by peri-urban zones and linked to one another via a road network. Along these corridors, desakota zones contain a hybrid of urban and rural spatial types and programmes. (image redrawn from McGee, 1991)
7. Project 1: Rationalization of cut-and-fill process (Vinh, Vietnam). ©K. Shannon 2004





（5）最后，在亚洲人口分散的国境边界地区，为土地殖民计划和多种形式的农业发展提供了机会。（McGee，1991：6-7）

理论家Stephen Cairns曾经提出3个引人注目的关于Desakota的反响：“第一，Desakota地域辽阔并且难以操控以至于它们成为了管理上的‘盲点’，导致许多规划条例难以统一执行。其次，Desakota地区形成了一种商品和服务高流动性和居住临时性的特点。第三，也是非常重要的，Desakota地区会抵制变成那种相对规范的、相互联系的、功能专一的地区（Cairns，2002，p118）。并且，这个概念至今仍然具有进一步的潜力来描述一些背景现象。重新认识和抽象化城市和农村、消费型和生产型景观共同协作的理念，将成为新城市化中的指导性原则。”

#### 景观都市主义的备选策略

当代亚洲的城市化进程，一方面是官方的、总体规划性的，往往无视具体场所现有的区域和社会背景；另一方面，却又是自发的、无序的。城市规划中现有的法律机制无法解决地区官方发展和现实的矛盾，理由很简单，因为它们脱离了现实。但是，在很多情况下，景观本身是可以被规划的。自然和基础设施（该地区最大的投资）可以被合理利用起来——反过来指导发展。景观的“软”结构可以实现最小干预下的巨大影响，也可提供优化“场地信息”的钥匙。景观都市主义能够确立可操作的战略手段，来强化保证景观现有多样性和质量的基本结构特征，并能抵消负面倾向，同时为

进一步城市化提供可持续发展的手段。这些战略也可以应对根本性的挑战，并从城市化和都市主义的本土模式中积累经验教训。在孟加拉国、印度、斯里兰卡、印度尼西亚，特别是越南，许多设计研究项目被用来阐明大量的景观都市主义策略。在特定的背景下，这些研究项目也为更全面地了解城市和自然之间、消费型和生产型土地之间以及都市和农村之间的脆弱关系，提供了一些想法和参考。

#### 景观都市主义策略1：填挖之间的平衡

亚洲的许多城市地区和农村地区一样，都是水和土之间、透水和不透水的地表之间微妙又脆弱的平衡结果。这种平衡由必不可少的水资源管理和土壤稳定的水土系统组织起来。洪水水位决定了截然不同的土地利用类型，因此，分清楚土地版块中的湿与干、生产与居住以及安全与不安全的构成部分是至关重要的。在一些土地上，几厘米的差异会产生完全不同的情况，早期的地形处理会成为非常有效的工具。在亚洲的低洼三角洲和沿海地区，水的传统塑造能力的原始逻辑还是非常明显——尽管它正在淡化。传统中，地形上的边缘高差决定了什么地方可以建设，什么地方不可以建设。但是，城市化对于土地近乎无止境的需求导致了填海造地过程的出现，使得土地的整体吸收能力有了显著的变化。典型例子如1~3m厚的土壤被填入低地以造出“安全”的高地。当然，该过程当然可以合理化，而景观可以恢复其自然状态，因其事实上就是一块海绵——大片能够吸收和流出多余水份的透水陆地。这样，低地和高

地之间、干湿地区之间、生产型和消费型土地之间以及可渗透和不可渗透地表之间可以（重新）形成有力的辩证统一。

#### 项目1——越南荣市

位于越南北部沿海的荣市，地形构造明显：狭长的高地相互交错，干燥的高地呈弧形分布在高于潮湿的水稻低地水平面上1.5~1.7 m处。这种特殊的地形源于水流的运动，水从该省西北部的崇山峻岭流向宽阔的兰河（位于荣市的北部和东部）。该地区现有的图式呈现出放射性的带状图案，其中图式密集的地方是城市化地区，掩映在丰产的低地稻田中。同时，城市中心也有小片的低地，形成城乡并存的态势。在荣市和炉门港（离城市中心19km远的工业港和旅游区），高地“图式”区范围更大，随着房地产的日益发展，湿地不断地被征用填埋。设计师设想要建设一个“海绵城市”，让荣市一炉门港未来的城市化进程与自然过程相一致。交错的高低地狭长带，可以让兰河和荣河的季节性洪水（在两个季风期）渗透到整个区域，但在非季风期时又不破坏区域的土地构造。在荣市中心的临近区，有人提出进行一定程度的重建工程，以使开放空间除了作为水流/吸收区之外，还能成为连续的公园和花园系统。2020年城市总体规划的备选方案提出，不应该抑制荣市一炉门港之间丰富的生物混合状态，而应当鼓励其蓬勃发展。

#### 项目2——孟加拉孙德尔本斯

在水系交错的孟加拉国西南部三角洲地

区，有世界上最大的红树林——孙德尔本斯，它覆盖了孟加拉湾三角洲地带约1.0×10<sup>6</sup>hm<sup>2</sup>的面积，其中孟加拉国占60%，印度占40%。同样，在这片地区，地形上轻微的差异会产生不同的居住形态。最主要的农村居住形态，往往沿着淤泥堆成的水路两岸成线性分散，这与生产型经济的传统有关。这种有组织的线性散居有利于形成小村落，并进行专门的农业生产。现代规模化经济和占主导地位的水稻种植业向更加有利可图的农业生产转移的趋势，正在改变城市和农村的集中度、社区的阶层以及土地的面积和结构。在库尔纳的城市边缘区，人们利用密集化策略来应对大规模的农村人口向城市迁移的趋势。打破并重建土地平衡的新系统正在形成。人们填造高地用来定居，在这个过程中，会自然而然产生临近的深水体。反过来，大量的水储存起来，可以进行水产养殖，既有利于生态保护又能促进经济发展。通过重塑地形，这种设计方案可以提供更高（或者说更安全）的居住空间，不仅分散了低地三角洲地区的人口密集度，也重新界定了水系的开放空间。

#### 景观都市主义策略2：水质净化公园+住房区

洁净水已经被标榜为本世纪的“石油”。由于太阳强度，亚热带的许多地方有可以替代艰苦工程进行水质净化的可行方法。人工湿地和曝气池在该地区变得越来越实用。因为利用纯自然的程序，所以其成本和保养费用都比较低。在人造湿地系统中，水质经过泥沙沉积得到改善。整个过程中，悬浮泥沙和与沉积物相关的污染物会由于缓慢的水速下沉，而湿地中各种生物反应、化学反应以及茂密的植被，可以转化或者清除水中的某些化学物质。经过这两种方式净化的水都适宜灌溉，曝气池中的最后一个熟化池也可作为鱼塘加以利用。人工湿地除了提供鱼类、贝类和其他粮食资源，也执行着生态系统的功能，为人类产生直接的经济收益。这些功能包括地下水的补给和排泄、蓄洪、自然侵蚀力的削弱、沉积物和营养物的保留和搬迁、野生动物的栖息地、渔业的发展和水的净化。整个过程不产生气味或噪音污染。人工湿地还作为临时的储水系统用于防洪，湿地植被可以阻碍地表水的流动，从而阻碍洪水从下游通过。此属性可以减少洪水流量和峰值，并延长减弱了的水流的持续时间。被称为景观之“肾”的人工湿地和曝气池可以兼任公园系统的职能。湿地中被大量界定的自然属性

以及被部分控制的水体，保证了许多广阔的休憩空间的完整性——这在亚洲许多横向迅速扩张的城市外围中是非常少见的。

#### 项目3——越南芹苴市

在越南，许多设计类的研究项目力求围绕水质净化来确定未来的城市化的结构。芹苴市是湄公河三角洲的中心，在其被划为生态区的峰田区，基础设施体系是住宅发展的框架。公园网络与水道相连，集中处于污水处理区域（能处理3 000~4 000人的生活污水）。每个公园都配有水净化系统、公共项目、娱乐区和果园。公园有不同的特征，它们与地方或区域的项目组合在一起，这些项目设在公园内或边缘处，以证明在城市地区合理使用公有土地。新建的果园（种植柑桔、香蕉、芒果和鳄梨）在附近的公共区域被开垦出来，提供遮荫纳凉之所，同时可加强农业经济，还能阻止城市的过度扩张。

#### 项目4——越南胡志明市

在越南南部大城市——胡志明市已竣工的一个项目展示了用水文基础设施来引导城市化的可行性。33.2hm<sup>2</sup>的曝气池本身是一个天然湿地，位于36.6hm<sup>2</sup>的农村区域。该区域是胡志明市西北边缘最后一块开放空地。在城市的总体规划中，这块区域本来是被划批为公园用地。但是，不受控制的城市化挪用现有的莲花池进行建设只是一个时间问题。因此，该项目的目标有两个：探索可行的方案以解决城市运河中的污水处理问题，同时为未来发展冻结大块城市建设用地。设计师设计了两个平行的系统来处理现有的12万户居民所产生的生活污水（预计到2020年，该地区的居民数将到达20万户，这也是曝气池的设计容量）和纺织印染业、海产品加工业以及造纸业产生的工业废水。运河里的黑水首先被抽高2m到达曝气池，池里的曝气装置开始第一轮的处理。其后，在重力作用下，水流经一个沉降池，最后经过3个连续的熟化池。整个过程需要11天，不产生气味或噪音污染。净化后的水适宜灌溉，当地居民也可以将最后一个熟化池当做鱼塘。沿着整个处理区的周长，将设计一个20m长的公园作为缓冲区。公园包括圈住曝气池的围墙区和为当地居民设立的娱乐区。曝气池东部被项目管理415单元开发为住房用地，来重新安置因Tan Hoa Lo Gom城市运河改善工程而搬迁的119户家庭。

#### 景观都市主义策略3：构建绿色城市化生产

景观都市主义策略也可以用于城市和农村的交界处，目的是充实现有的不连续、不同类和多极的聚集群（这可称为城市乡村化或农村都市化），而不是人为地制造城乡差距。城市的消费空间和生产空间应该平衡。城市农业的空间可以位于战略性的位置，同时起到多项功能，比如，作为低地的表面吸收多余水份，在高密度的建筑中起到空间减压的作用，为邻近地区创造适宜的小气候，并通过相连的市区公园扩展到公共领域。城市农业园区不仅仅是生产景观，而且也是有意义的公共空间。此外，城市农业可以为城市和农村的日常活动提供直接的联系。现代农业的市场体系要求规模化经济生产。因此，为了扩大亚洲部分生产景观的规模，进一步产生效益和提高竞争力，现有的城市化应该进行合并，以便空出大量可用于生产的区域。沿着水路和铁路/公路的线性开发的加强需要基础设施和公共运输系统（比如说船只、铁路和公共汽车）的大量投资。起公共空间作用的生产和生态廊道可以打破沿线性基础设施分散的或存在于城市聚居区中聚集群的进一步密集。

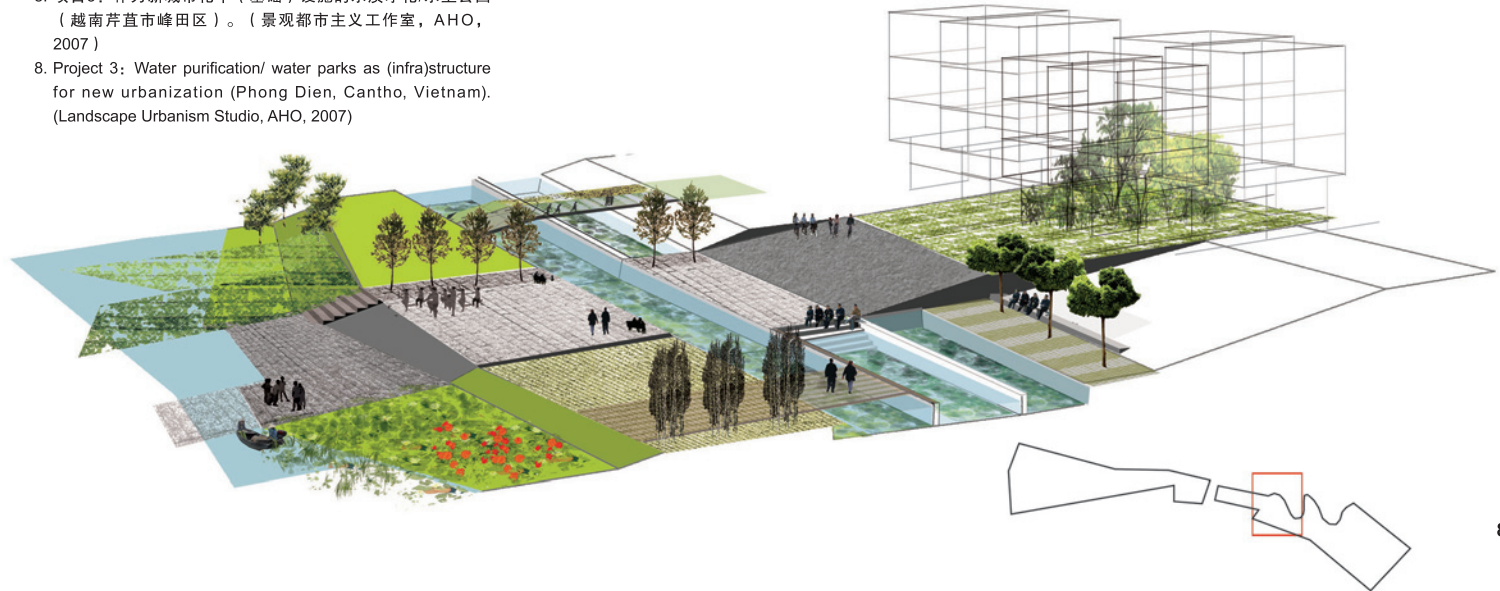
#### 项目5——印度尼西亚马辰市

以水路为基础的商业城市马辰市是印度尼西亚南加里曼丹省的首府。方案提出在该市发展一种水陆共存的策略，即河流和道路作为城市的经纬线共同起作用。该项目重新限定了现有的城市范围以及城市与三角洲地区107条河流、小溪及运河的关系，同时开发了新的辅助性平台，发展沿路网路的经济。该提案（重新）创建了一个充满活力的蓝色和绿色的制度——强化了景观在调整现有的和指导新的城市化中的潜力。河流和公路网确定蓝色和绿色的层级，并有助于提高景观的生产力。地区高速公路以东，是一个密集的、合理的产业化生产景观。由雨水沟渠和一系列泄洪池塘围成的农业和水产养殖区域，可以保护城市。临近公路以西是一个农业公园，该公园具有与众不同的特征：1）在北部，规划好的现有水系主导并联系着一些校园和城市区域；2）在中部，即高速公路进城的入口，多产的果园与中央公园相接；3）在南部，城市农业区作为土地储备，用以未来发展。

#### 项目6——斯里兰卡Ahangam低地

在斯里兰卡西南海岸，Ahangam低地位

8. 项目3：作为新城市化中（基础）设施的水质净化/水上公园（越南芹苴市峰田区）。（景观都市主义工作室，AHO，2007）  
8. Project 3: Water purification/ water parks as (infra)structure for new urbanization (Phong Dien, Cantho, Vietnam). (Landscape Urbanism Studio, AHO, 2007)





于加勒和马特勒之间。在打造“项链式中间景观”的提案中加强了景观的“软”结构（小片的椰子林），明显划分了建筑区域和未建区域的边缘，为高地的排水系统建立了二级的海绵系统。通过确定边缘以指导和规划未来的城市化建设，生产用地得到保障、扩张与加强。在这一框架内，引入了在宏观和微观范围内同时起作用的新项目。

#### 景观都市主义策略4：造林+工业平台

亚洲三角洲景观是城市化最典型的地区。除了解决居住问题，旅游业和工业的发展也对海岸提出了很高的要求。当然，我们没有必要排斥与港口有关的经济活动。但是，应该可以找到合适的方法，能让经济发展与生态保护恢复平行发展。传统中，该区域的大部分海岸拥有大量的黑色泥浆和红树林。海岸与热带雨林相接，地表上升，远离了洪水泛滥的平原。每年随着雨季的到来，河流水位和海平面不断上涨，不过排水运河可以保护人们免受洪水的侵害。随着经济的增长，这种情况正在迅速改变。人们已经清楚地认识到必须将城市中心港口搬迁到离海岸更近的地方。滨海工业活动的发展策略可以概念化为“填造”建筑用的平台。这些人工的“土方”可以作为土地准备，满足不同时期内的投资承诺。平台的高度取决于不同的平台拓展项目。工业平台可以辅以红树林的再造。红树林是耐盐的潮汐森林群落，沿着受保护的热带海岸线生长。它们充当天然的防波堤，化解海浪的力量，从而极大地减轻了自然破坏力。红树林在稳定海岸和俘获沉积物中起着基础的作用，因此被称为“陆地建设者”。由于水文条件、地形、盐度、土壤的差异及其相互作用，红树林聚集区的环境异质性非常高，所以生物的多样性也很丰富。此外，这些植物还是重要的二氧化碳吸收器。

#### 项目7——胡志明市协福

协福位于胡志明市南部和东海之间的一个重要的战略位置，是整个城市的南大门。其农业生产区位于Soai Rap河畔（该河连接Thi Va河和Long Tau河）。其潮汐涨落的河滩中有Can Gio红树林，它是联合国教科文组织承认的一个重要的生物圈保护区。丰富和复杂的水系网络由众多的河流和支流组成，并辅有一个由人造运河和灌溉水道组成的广阔系统。在港口发展的设想中，沿着Soai Rap河，希望创建一个建筑体与非建筑体交错的空间序列，并强调其特殊

的地理位置。城市化发展策略和环境保护/生态保护策略同步实施，以减轻对该地区社会福利的不利影响。港口物流平台和造林地点交替排列，以固定海岸，并保护其免受侵蚀、原油泄漏和暴风巨浪的影响。根据河流的水文状况，该港口/物流区和造林区是最适宜相关活动的地区。设施先进的Soai Rap港区将成为胡志明市的海路交通和经济活动枢纽。同时，Can Gio有可能成为越南各地红树林造林项目的示范基地。目前，该地区已有大量恢复红树林的活动。

#### 项目8——孟加拉国孙德尔班

2007年11月，孙德尔班成了一片废墟。强热带风暴锡德席卷该地，卷起6m的大浪，造成了严重的破坏。该地区的人遭受了巨大损害，很多人生命受到危害，其他人生活没有着落。据位于库尔纳的海洋环境保护中心的报道，12个地区中7百万人受到影响，其中5百万人失去住所。138km的防潮大堤也被摧毁。风暴时速达到250km，飓风破坏了基础设施网络，整个村庄都消失了！2008年5月，孟加拉国提出一项国家计划，即种植1亿棵树作为海岸的天然屏障以减少自然灾害（法新社，2008）。该计划在声明中明确提出：在孙德尔班斯地区，植树造林是该国南部地区重要的环境保护战略工程。重新造林与“社会造林”的概念相结合，平民可以种植树木、维护闲置土地和休耕地以及收获粮食。这样，公众在参与自然资源管理的过程中得到经济回报。特别是“延伸林业”，即在运河、公路和铁路旁种植，这样不仅能改善生态环境、美化城市区域、创造新的经济机会，最终还能形成一个扩大化的绿色公共网络。选取的策略所在地也可以主办一些旅游项目和研究项目。

#### 景观都市主义策略5：重建生态+扩大公共领域

景观都市主义可以同时解决许多问题。其中，也许最重要的是明确地重建生态构造，并以此扩大公共领域。以景观为动力机制这一概念的重新确立可以服务于城市化的进程。适当的干预措施旨在减轻自然灾害，比如侵蚀、洪水以及人类产生的污染，与此同时还可以通过相连的公共休憩区构建热情的绿色城市景象。

#### 项目9——越南芹苴市

在越南芹苴市，城市/农村交界处现有的兴旺，可以通过“果园般的城市”概念得到加强。城市周围环绕着细长的果园带，沿着该地

区的水道，到达孝河（Hau River，湄公河下游的支流）岸边，然后穿越芹苴到达新开发的地区。可将尚未开发的小岛也建成果园。这个欣欣向荣的部分可以成为城市及其延伸区的公共空间系统内重要的一环，连接城市与农村、陆路与水路以及娱乐区和生产区。城市的拥塞现状可以通过在城市内设立生产型的绿色区域得到缓和。果园还可以进一步强化芹苴市作为湄公河三角洲农业中心的地位。鲜花绽放的公共休闲网络可以直接将周围的地区连接成一个持续发展的城市生态网。

#### 项目10——越南河内市

对越南首都河内市这个千年古都以及红河三角洲而言，河水既是神的福赐也是诅咒。随着大量新的开发项目落户现有市中心的西部，人们重点关注如何在大洪水平原进行发展。基本的假定是Day河和Tich河重新汇于红河后再次自然流动。与此相关的是灌溉水渠系统、农田、泄洪池和大型湖泊与基础设施的“梯形系统”（包括公路、堤坝和生态设计过的景观）以及用于城市化的高地协调一致。再生的生态系统会与植被、水体处理一起发展，形成一个分层级的休憩空间，服务于整个地区。策略项目可以与生态、经济和娱乐共同发展。

#### 景观都市主义策略6：防洪+滨水地区发展

我们需要了解与水文动态相关的各种自然过程（暴风巨浪、沉淀、侵蚀、塌陷、洪水和造成海堤破坏的过程），并将其整合发展成为新的工具，用以处理该地区最紧迫的气候变化的挑战，特别是海平面上升，它使得土地越来越没有能力有效地吸纳季风降雨。发展缓解水灾措施的同时，可以集中加固和提升滨水地区的质量（像海滨、河滨、泻湖和湖泊）。滨水地区可以（再次）被重塑为土地的主要组织者，其独特的生态系统可以（再次）为地区提供识别特征，特别是对经济和社会文化活动而言。防洪滨水地区的发展一个主要目标是扩大公共领域，这反过来会加强地域的一致性以及其他零碎用地的空间结构。新发展项目将受益于沿水道的相互联系。

#### 项目11——越南荣市

在越南荣市，兰河（Lam River）和荣河（Vinh River）（城市起源地）将重新配置，不仅加强“海绵城市”的生态功能，还能通过连通的开放空间增加公共领域，并扭转河流位于

9. 项目10：不同的景观形态可以组织起城市的不可避免地向西扩张（越南河内）。（景观都市主义工作室，比利时鲁汶大学，2009）  
9. Project 10: Different landscape morphologies could structure the city's inevitable westward expansion (Hanoi, Vietnam). (Landscape Urbanism Studio, KU Leuven, 2009)

城市后方的现状情形。兰河将成为城市新的正面，拥有公共空间和多样化的项目，以及建筑（建筑由底层架空的结构高高抬起）和非建筑的交替空间。空间的交替可以让下陷的土地作为季节性洪水储备空间或者开发为混合发展项目中的娱乐休闲带。

#### 项目12——印度孟买

从生态学的角度看，孟买市湿地和水域网络的恢复可以看作是伴随着城市的升级、新的城市化和基础设施的发展。这里要特别注意米提河（Mithi River）和东北部沼泽地带。由公共和私营部门的共同投资来完成设想中两大湿地系统之间的生态走廊。新的边界得到开发，生态效益得以提高。社会基础设施在战略地点提供，如在达拉维（Dharavi）——亚洲最大的贫民区，并且，其他对生态系统的投资预计将增加该地区附近的地产价值。连接米提河（Mithi River）和东部湿地的生态走廊由池塘和绿地的互联系统组成。此外，富有争议的东部码头区也将同时发展成为一个顶级的滨海商业区，提供大量的社会基础设施并创造更多的水面空间。

#### 项目13——斯里兰卡马塔拉

该项目将马塔拉（Matara）提升为尼勒沃勒（Nilwala）流域上富有活力的滨水城市，它作为一个跨区域的生态区项目具有重要的意义，整个广阔的水域结构将内陆连接到遥远的海滨。水系的承载力发挥了海绵一样的功效，增强了区域防洪和水体净化的机制，并有利于排水和城市结构的划分。一个新的大型水体为城市及从翻垦的低地蔓延出来的街区创造新的适宜住宅的区域。河边地区因为经济发展项目（水产业）、休闲活动、船舶停靠和新兴商业区而充满活力。在河湾东部地区，利用新建高速公路的投资机会而将新建一个研究和教育走廊，并将马塔拉大学与河流联系起来。一条横向连接北部湿地与海边的水道将影响小型工业居住混合区的建设。河流和湿地的设计则是为了应对不同程度洪水的影响。

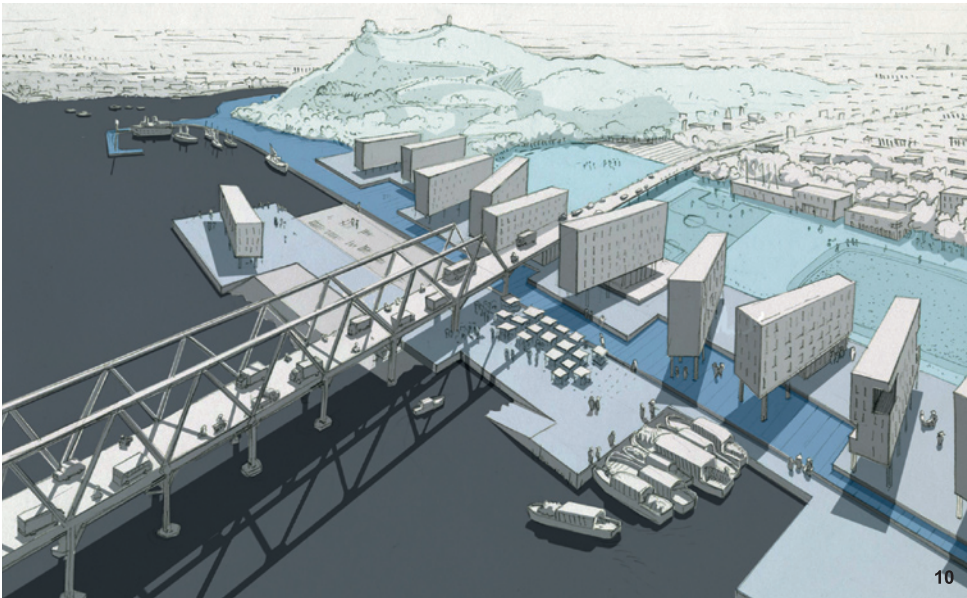


#### 景观都市主义策略7：水路运输

全亚洲不计其数的水道网络也可以设计成一个生态的、并且造价不过份昂贵公共交通体系。在整个亚洲，以水为依托的文明转变为以道路为依托的文明的过程中，家庭及工业废料将城市水道转变为开放的下水道，并且处于一个绝对的城市背面。滨水区将通过在水域边缘的公共空间以及其他沿河的多样化的项目而改头换面，并且与内陆地区形成强有力的联系。所选的交通系统可利用现有的景观体系。如果地铁对于城市，特别是对于二级城市，没有经济意义，那么这种公共汽车路线和水路汽艇

/的士可以进一步加强现有的交通网络基础设施。在许多情况下，形成网络的系统会比目前简单叠加缺乏联系的道路系统或只在战略地点增加桥梁和轮渡的方式更加有效。水路运输不仅在生态环境方面有利，并且具有独特的内在个性。水路运输顺应多样的公共运输用途——它可慢可快、可大可小、可以传统、可以现代多种方式共存。这种持久的景观都市主义的战略最重要的方面是它确实具有“战略”意义。通过基础设施的建造形成对未来城市化最强有力的控制。同时，高成本致使基础设施建设缓慢——特别是在资源极有限的情况下。除了一





些双边合作项目，亚洲发展银行和世界银行目前正在致力于开发各国在全国范围内新的公路系统和大型桥梁/隧道系统。景观都市主义工作的理念可以在改善现有交通网络方面和战略性地加强全国交通网络体系层面上发挥更大的作用。

#### 项目 14——越南芹苴市

在芹苴，沿着复杂水系的线性增长空间，可以由一个有效的公共交通系统来加强。“汽艇”网络可以充分利用孝河和芹苴河（Cantho River）汇合和运河密网的优势。一系列循环的河道将偏远的城市边缘和农村腹地与熙熙攘攘的城市中心潜在地连接起来。转运码头和渡口位于水路和陆路的交叉处，从而促进新的战略性用地的开发。一系列高速公路和地方车站可以形成一个高效的公共交通体系。该地区水路的恢复也有利于加强城市的可识别性。水路交通将混合多种用途和使用者，将传统的撑船技术与新的公共船运系统结合起来，使人们可以享受到快速或慢速的水上旅行。通过在运河和道路重要的交叉处建设公共平台和设施，丰富了居住在水路沿岸的公众生活。

#### 项目 15——越南顺化

越南顺化是联合国教科文组织审批的一个世界遗产城市，现有的水系网络将经过治理发展为水路交通，方便旅游和本地使用。项目将为水路修建一系列的船运码头，许多其他的项目可以依靠其发展，具体的项目取决于码头所

在地的特点。对于当地政府急于消除的船工社区，将给与他们一定的水上工具来改善他们的生活状况（与消除这一社区的策略相反），他们将从旅游基础设施的发展来获利。鼓励灵活的水上生活，并且建议建设一个用于船屋停靠的基础码头网络。香水河边和泻湖上喧嚣的生活不应该消失。目前，社区将重新安置在洪水易发的地区，但这是更合理的：让船工留在船上，他们仍然能够应付水位的自然变化。

#### 亚洲是新城市范式潜在的孵化器

亚洲正处于城市历史的爆炸时期。城市的许多类型正在被市场推动型发展的最新阶段取代。虽然试图尽快运转城市化和房地产建设的规范系统，但仍然存在一些瓶颈。同时，一项大胆的举措试图改变旧的市场模式，即在当下一些进行狂热建设的空白处，发展实验性的新城市范式。目前它们并不能融于已规划好的城市体制性结构内，但是众多特别的项目在质疑中日益凸显出来，这些项目由不同的公共和私营部门、地方和上级的委托方以及自上而下或自下而上的程序驱动着。尽管如此，这些城市范例代表着人们有机会从根本上重新思考，就城市建设模式和方法进行实验。国家支持的城市设计和规划竞赛正在转为常规机制，会采纳一些特色鲜明的新城建设和城市扩张方案。

然而，很多时候，对全球范围的城市形象的贪求无度，导致了城市幻想和当代文明真实梦想缺失的奇异组合。新的区域都是速建的

- 项目 11：荣市兰河的滨水区既是利润丰厚的地产，又是城市的门户以及季风期的泛洪平原。（比利时鲁汶大学研究 LA21，联合国人居署，2004 年）
- Project 11: Vinh's Lam Riverfront as lucrative real estate, a gateway to the city and with monsoon flood basins. (KU Leuven research for LA21, UN-Habitat 2004)

城市——网格化的城市，高楼林立的中心城以及全都被压缩到一个现成的、模板的卫星城。隐含的经济隔离围墙在传统土地使用的持续发展表现非常明显。市场经济完全改变了全球的景观，国际金融和跨国资本主义的强大力量似乎完全不受文化差异和民族性格的影响。亚洲景观——曾经建立在定居结构基础上的重要景观，正在被城市化淹没。城市被设想为拥有一点绿色，一点蓝色（这至少在计划中出现，而在具体执行过程中往往消失殆尽）、游憩区（包括高尔夫球场）、多样并可供选择的住宅（一居室、都市别墅和高层住宅）、成片的工业区和零星的高级城市商业区。

但是，一般的城市不是上述的模式。亚洲还可选择另外的城市化发展方式。在这种方式中，地方文化与全球化相碰撞，景观和城市化共生互助，各种土地使用方式互相结合，生产性的景观也被包括在城市系统中。毫无疑问，亚洲众多的本土传统可以为今天的景观都市主义提供宝贵的经验。景观和城市化可以齐头并进，这一古老技术和逻辑，可以激励人们在不同领域之间、人类定居点之间展开关联。城市化与水、地形、景观生产力和生态系统产生的相互影响，可以补充居住结构对基础设施的内生要求。纵观全球，最大的投资是用于土地和基础建设，因此不难想象，智能景观基础设施的发展应该能顺应土地的需求开发。景观都市主义有潜力发展为亚洲城市规划和城市建设的救世主。■（许译 译，钱瑾、周明艳校）

## Can Landscape Save Asian Urbanism?

Kelly SHANNON [Professor of Urbanism at the Department of Architecture, Urbanism and Planning of the Katholieke Universiteit Leuven]

#### Abstract...

The paper briefly reviews three main challenges of urbanization in Asia (the unprecedented scale, speed & scope; economy versus environment; and climate change), then reflects back on the region's indigenous practices of landscape urbanism (feng shui; "hydraulic civilizations;" and desakota) before developing seven contemporary landscape urbanism strategies through a series of projects. The conclusion develops the notion of Asia as a potential incubator for new urban paradigms.

#### Key words...

Landscape urbanism; Asia; design strategies

#### The Challenges

The present-day urban development paradigm in Asia demands an alternative approach. The challenges to the region are immense and need to be understood in all their complexity in order to then propose feasible alternative visions and strategic projects.

#### Challenge 1: Unprecedented Scale, Speed & Scope

Asian cities are exploding. Unabated. The region is witnessing a process of modernization and urbanization previously unseen with regards to scale, speed and scope. As richly layered existing centers are "modernized" by a new scale and generic building typologies, an unprecedented number of spanning new cities are also rising – literally from peripheral paddy fields and low-lying lands, fragile coastal wetlands and even from the sea itself. Contemporary Asian urban development is project-driven, capital intensive and has heralded a new vocabulary, which includes (amongst others) "world class cities", "special/free economic zones" and "investor-friendly infrastructure". At the forefront of Asia's national development agendas are large and expensive projects – many working on the premise of "if you build it, they will come". As a result, there are numerous globally financed and well-infrastructure industrial zones and new housing enclaves (gated communities) – fed by an emerging middle and upper class – which are sold before construction has even begun. A liberalized economy and disappearance of restrictions on residence permits, has led to a massive rural-to-urban migration. City competitiveness now exists within nations as cities strive to become vibrant nodes in the ever-expanding global network society constellation. The goal is the "global city" – generating a numbing sameness of the sanitized urban condition (Koolhaas 1995) and a flattening of social and cultural spheres. According to Richard Marshall, such global urban projects in Asia share a common characteristic – the conscious pursuit of an "absent urbanism". According to him, "absent urbanism is the deliberate

construction of city form through the articulation of buildings, roadways, streets, parks and sidewalks without any attempt to foster a social sphere. This avoidance guarantees that the global agenda will not be undermined"(Marshall 2003:192).

#### Challenge 2: Economy versus Environment

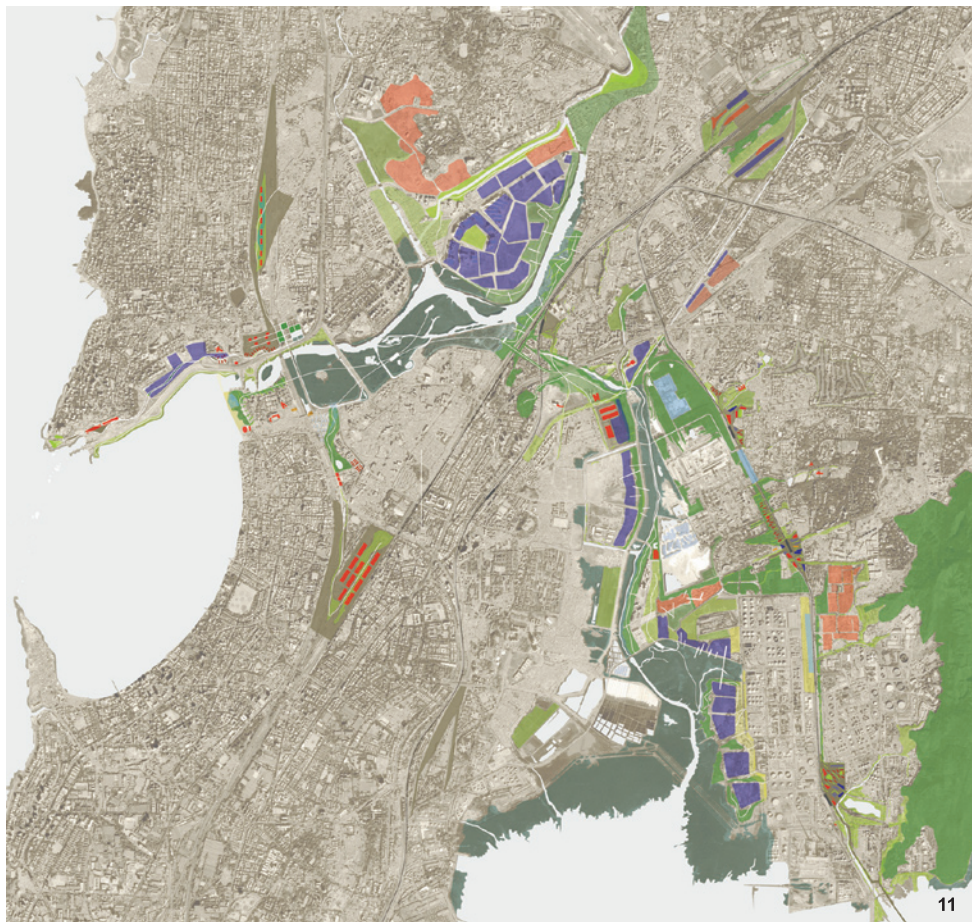
Unfortunately, "absent urbanism" is often also complemented by a parallel process of environmental degradation. Economic ambitions in Asia are seemingly untamable and development at any costs seems to prevail. Historically, urbanization in Asia has been marked by its relation to productive landscapes – either water- or land-based: terraced mountain slopes for agriculture (rice, tea, coffee and rubber), wet paddy cultivation in the low-lying territory and fish- and shrimp-farming in the coastal zones. The flip-side of the productive landscape has been the symbolic landscape – where ancestors are worshipped and spirits of the earth inspire deep-rooted legends; ritualized attachment to the territory is embodied in the Asian landscape. More specifically, in a large part of the region, the relation of urbanization to water holds a privileged position. The interdependency, yet autonomy, of earth and water is essential for both a pragmatic and cultural understanding of the region. However, as technology and money now allows, bridges are spanning the once un-bridgeable rivers and the relation of city to water is acquiring yet a new meaning. Throughout the region, lowlands are indiscriminately filled to support urbanization and there is no comprehensive water management strategy. Reclamation projects along the region's coasts are regularly initiated for the purpose of obtaining land for new developments and for infrastructure. The reclamation processes not only fundamentally changes landscapes and overloads ecological carrying capacities, but also cause profound changes to coastlines and their hydrological dynamics – where changes in sand deposition (sedimentation

and erosion) modify the topography. As well, illegal encroachment of water-bodies further alters ecologies and inevitably affects the severity and frequency of flooding, not to mention an increase in environmental degradation and pollution. Although there have been a spate of waterfront projects championed in the region, many more waterways serve as toilets and formal and cottage industry dumping grounds. Water pollution is presenting itself as a crisis and air pollution is growing exponentially as middle-class car owners add motorbikes and cars to already congested and under-serviced streets. Despite reality, the mantra of the day is "sustainability" and there are a number of so-called eco cities on the boards. However, the sustainability of such development is highly questionable and, more often than not, the marketing of sustainability is camouflaging reality. The wrapping of projects in ornamental green and/or eco-technology is neither about the efficient management of resources nor the creation of a meaningful patrimony for future generations. Asia's daunting prospect of managing urban growth is compounded by the region's environmental toll of rapid industrialization and modernization. Arresting pollution and resource degradation far outpaces the pursuit of environmentalism. In order to satisfy the aspirations of developers, the governments often turn a blind eye to the ecological checks and balances that the region's cities so desperately demand. What is required is a context-responsive approach that reconciles the push towards modernization while balancing the enormous ecological impact of such development.

#### Challenge 3: Climate Change

In addition to the pressures of rural-urban migration, urban growth and the economic impact of globalization and its consequences for the environment, Asia cannot escape the impacts of climate change. In monsoon Asia, the intensity and severity of storms is set to increase, while dry regions need be braced for more extremes in the opposite direction. Higher temperatures and rising sea levels pose risks for agriculture, food, water supply and – of course – urbanization. A recent report by the World Bank (Climate Resilient Cities: A Primer on Reducing Vulnerabilities to Disasters – 2009) predicted that the region will suffer immensely in terms of climate change's impact on population, GDP, urban extent and wetland areas. The once "hydraulic civilization" of the region is mutating rapidly since economic liberalization. The many ongoing reclamation projects along Asia's coast are changing coastal water dynamics, decreasing the ocean's capacity to absorb seasonal water flows. This reduction in the ocean's absorptive capacity exacerbates the effects of the monsoon floods in inland areas. Absorbent water-borne urban fabrics and landscapes are encroached upon by negligent urbanization or simply replaced by hard covered road-based extensions, destroying their capacity to absorb natural flood cycles and their resilience to climate change-related flooding. Urban planning and design





11. 项目12：岛市和米提河拟建新的开发，生态恢复和水空间（印度孟买）。（景观都市主义工作室，2007）

11. Project 12: Island City and Mithi River proposals for new development, ecological restoration and space for the water (Mumbai, India). (Landscape Urbanism Studio, 2007)

of cities, the interventions of the gods and the fanciful tales of kings are a fundamental part of the region's urban heritage. In addition to the ordering axes established by the relation to topography, many of the "rules" of *feng shui* follow common-sense logics: proximity to a upstream flowing river course (supplying clean water, minerals, seafood and prosperity through transportation and communication links); protection from cold northerly winds and malignant spirits (by way of mountains, hills or trees), a south-facing platform or high ground (to have ample access light and air and protection from flooding). Geomancy's connection with hydraulic engineering works and water-control, leads to the larger discussion of the socio-political formation of the landscape.

In terms of contemporary relevance, *feng shui* is not so much a method or system to be replicated. In a particular moment in time, in very specific contexts, it was an important aspect of an overall cosmology that was very much related to a hierarchical (Confucian) ordering of men and man's relation to the larger world. Although the symbolism and mysticism *feng shui* is culturally mediated, there are lessons to be learned from the common sense logics of the relational values placed on interventions in the natural world: the relation of city to landscape, the relation of the physical/ spatial reality and symbolic realm and the relation of socio-cultural aspects to more pragmatic (economic) logics.

#### Lesson 2: Hydraulic Civilizations

Hydraulic civilization refers to the *raison d'être* of societies which required substantial and centralized works of water control – in turn, are reflected in political power and leadership. In the context of the 1950s provocation of an "urban revolution," the Frankfurt School historian and sinologist Karl Wittfogel referred to classical economists, "who with varying consistency recognized that the higher agrarian civilizations of the 'orient' and their urban rural conditions followed a pattern of development decidedly unlike that of the West" [Wittfogel 1956:152]. For Wittfogel, Asia boasted a juxtaposition of urban and rural, a specific type of social formation founded upon centralized state authority with its own forces and relations of production emerging out of water engineering and control.

The comprehensive system of the "hydraulic civilization" which employed extensive *corvée* labour (which placed a constant upward pressure in the level of population growth) to not only to create productive water works (for irrigation and drainage) and protective water works (for flood control), but also to provide of drinking water and communication conduits. Digging,

dredging and damming led to the significant remolding the ground-plane. The historical geography of urban water control in Asia reveals highly structured rural and urban (territorial) systems that are physically and symbolically linked to technologies, religious beliefs, cultural and social practices and power structures all related to water. It has even been argued that many the large-scale (and state sponsored) systems that could be encountered in some regions had primarily religious functions, not agricultural ones (Boomgaard 2007:16).

The notion of a hydraulic civilization – beyond its ties to politics – holds invaluable lessons and inspiration for the contemporary world. As water is touted as this century's oil (valued for its finite quantity and predicted to be a core of battles to come), the conscious design of water networks and settlement becomes more and more urgent. Wittfogel's hypothesis of a 'hydraulic civilization' clarified a nature/ man, water catchment/ settlement relationship which needs to once again become a fundamental series of relationships to be understood, interpreted and (re)designed.

#### Lesson 3 : Desakota

The concept of an urban countryside/ rural metropolis – the mix of consumptive and productive dispersed landscapes is behind the Indonesian word-play of *desakota*. The term was dubbed by geographer Terry McGee in 1987, coming from Bahasa Indonesia. The word breaks down into *kota* for town or city and *desa* for village (McGee 1987). *Desakota* was first proposed by McGee to describe the condition of Jakarta's periphery. McGee's research showed that the peripheral regions around the extended metropolitan region of Jakarta (*Jabotabek*) were not amenable to the conventional models of urbanization – whereby suburban development from a metropolitan core penetrates into agricultural hinterland. Rather than drawing a population from rural areas to the city, Jakarta's *in-situ* urbanism was in fact reinvigoration by industrial (or post-industrial) activities into already densely populated agricultural regions. A spatially fragmented peripheral settlement pattern resulted with the overlapping of functionally independent entities, materializing in traditional agriculture exiting alongside industry (capital intensive and cottage industry), entertainment (film, themes parks and golf courses), retail (malls and strip shopping) and housing (from squatter housing to gated communities). McGee has presented a diagrammatic organizational model of *desakota*. However, for the model to truly be a spatial one, it needs to include elements such as landscape/topography and infrastructure. No doubt the difference McGee recognizes in his economic classification of *desakota* types, when coupled with the logics of particular places, indeed result in a series of different spatial expressions. As it is however, McGee generalizes and defines the hypothetical spatial structure with five components:

(1)The major cities of the urban hierarchy, which are often dominated in the Asian context by one or two

extremely large cities.

(2)The peri-urban regions, which are those areas surrounding the cities within a daily commuting reach of the city core. In some regions of Asia, these regions can stretch for up to thirty kilometres away from the city core.

(3)The regions labelled *desakota*, which are regions of an intense mixture of agricultural and non-agricultural activities that often stretch along corridors between large city cores. These regions were previously characterized by dense populations engaged in agriculture, generally but not exclusively dominated by wet-rice.

(4)Densely populated rural regions, which occur in many Asian countries, particularly those practicing wet-rice agriculture.

(5)Finally, the sparsely populated frontier regions found in many Asian countries that offer opportunities for land colonization schemes and various forms of agricultural development. (McGee, 1991:6-7) Theorist Stephen Cairns has recognized three noteworthy repercussions of *desakota*: "First, *desakota* regions are so vast and difficult to navigate that they produce administrative 'blind spots' in which planning regulations are not enforceable in any uniform way. Second, *desakota* regions feature a high mobility of goods and services and a transient pattern of settlement. Third, and closely related, *desakota* regions resist being taken-up into a more formal system of inter-connected, functionally specialized zones" [Cairns 2002:118]. As well, there lies a further potential in the concept, that to date has remained useful in terms of describing the context. Recognition and abstraction of the idea of synergy between urban and rural, the consumptive and productive landscapes, can become a guiding principle for new urbanization.

#### Possible Landscape Urbanism (LU) Strategies

The contemporary process of Asian urbanism is, on the one hand, official, master-planned and often oblivious to the existing geographic and social contexts of particular sites and, on the other hand, spontaneous and unplanned. The contradiction between the region's official development and reality cannot be solved by the existing legal mechanisms of planning for the simple reason that they are disconnected from the context. However, in many instances, the landscape itself can be planned. Nature and infrastructure (the region's largest investment) can be mobilized – which, in turn, can guide the development. The "soft" structure of the landscape offers ground for minimal intervention with tremendous impact and may provide the key to optimizing the "intelligence of the place". Landscape urbanism can define operative devices to accent the basic structuring characteristics capable of guaranteeing the existing diversity and quality of the landscape and to counteract negative tendencies, while concurrently providing a sustainable means for further urbanization. Such strategies can also address fundamental challenges and build upon lessons from indigenous forms of urbanization and urbanism. A

number of design research projects in Bangladesh, India, Sri Lanka, Indonesia and particularly Vietnam are used to illustrate a number of landscape urbanism strategies which, while context-specific, also give ideas of a more general approach towards the fragile relation between city/ nature, consumptive/ productive territories and urban/ rural.

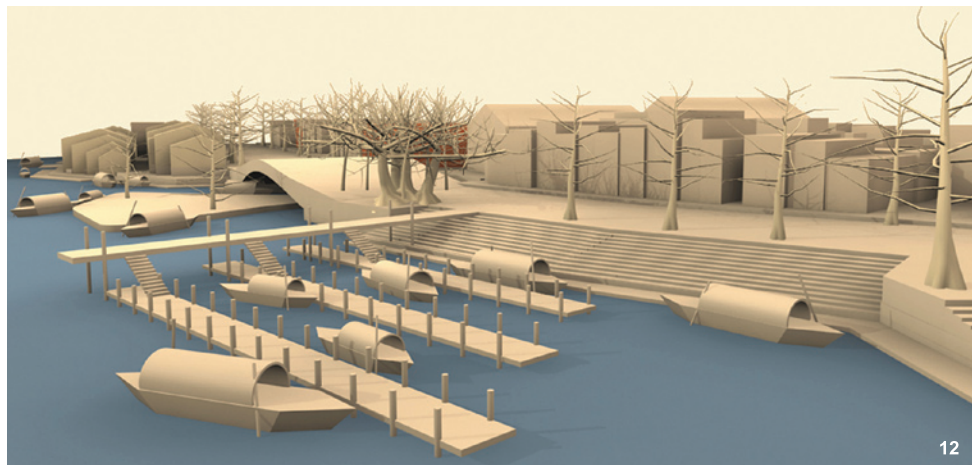
#### LU Strategy 1: Cut & Fill Balance

Many of Asia's urban and rural areas alike are the result of a subtle and fragile balance between water and land, permeable and impermeable surfaces, organized by the necessary hydraulic territorial systems for water management and soil stabilization. Levels of inundation determine distinct land uses and therefore the definition of wet/ dry, productive/ inhabited, safe/ unsafe component parts of the land mosaic are essential. In lands where the difference of a few centimeters creates completely diverse conditions, the primitive manipulation of topography becomes a powerful tool. In Asia's low-lying delta and coastal areas, the primitive logic of the traditional structuring capacity of water remains evident – yet is fading. Traditionally, marginal height differences in topography dictated where to build and where to not build. However, the seemingly insatiable need for land for urbanization has led to a process of land-filling where the overall absorbcency of the territory is significantly modified. Quite typically, 1-3 meters of earth is dumped on low-lands to create "safe" higher grounds. The process could certainly be rationalized and the landscape returned to its natural state wherein it literally functioned as a sponge – a permeable land mass able to absorb and shed excess water. A potent dialectic can be (re)produced between low- and high-land, wet and dry regions, productive and consumptive land, absorptive and non-permeable surfaces.

#### Project 1—Vinh, Vietnam

In Vinh, a coastal city in the north of Vietnam, there remains visible the underlying logic of a system of alternating high-land strips, with an arcing distribution of dry, high-land (1.5 to 1.7m above the level of the rice fields) in the otherwise wet, low-land paddy plain. The peculiar character of the land-form is the result of water run-off from the higher mountains of the province's northwest towards the broad Lam River (north and east of Vinh). The existing figure-ground of the region is thus revealed as a radial pattern of strips, where the more dense "figures" are urbanized areas within the "ground" of low-land productive paddy. At the same time, there are pockets of low-land in the urban core, creating a simultaneous urban-rural condition. The size of the high land "figure" is greater in Vinh and Cua Lo (the coastal industrial/ tourism area 19 km from the city core), where wetlands continue to be progressively filled as real estate speculation mounts. Proposed is a "City as Sponge" which envisages the future urbanization of Vinh-Cau Lo in congruence with natural processes. A system of alternating low-land and high-land strips could allow





seasonal floods (during the two monsoon periods) of the Lam and Vinh Rivers to penetrate the territory, yet not destroy urbanity in its wake. In Vinh's immediate urban area, there is proposed a certain degree of re-building proposed in order to allow the open space to work as a continuous system of park and gardens spaces, in addition to water flow/absorption areas. In an alternative proposal to the master plan to 2020, the rich hybridity of Vinh-Cua Lo is not bridled, but allowed to flourish.

#### Project 2——Sundarbans, Bangladesh

Similarly, in the inter-lacing cross channels of the watery mosaic of Bangladesh's southwestern delta (the area of the Sundarbans – the world's largest mangrove forest (approximately covering one million hectares) on the Bay of Bengal in the delta of Bangladesh (60%) and India (40%)), the slightest differences in topography reveal different settlement morphologies. The most dominant form of (rural) settlement is linear dispersion along the banks of waterways raised by silt deposits and linked to a long tradition of a productive economy. While the organized dispersal is consistent with the structuring logics of hamlets linked to agricultural production, the contemporary economies of scale and shift from predominantly wet-rice cultivation towards more lucrative aquaculture is changing the urban/rural concentrations, settlement hierarchies and sizes and structure of plots. In the peri-urban periphery

of Khulna, strategies of densification are developed in order to counter the tendency of massive rural-urban migration. A new tissue is developed which begins from the rudimentary tool of cut and fill, as higher ground is created for settlement, creating, by default, adjacent and deeper water bodies. In turn, a number of water storage, aqua-culture farms are created, serving both ecological and economical purposes. By re-molding topographic conditions, the design provides higher (safer) spaces, allowing for new densities in the low-land delta and defining open spaces for water.

#### LU Strategy 2: Water Machine Parks + Housing Settlements

Clean water has been touted as the “oil” of this century. In many parts of tropical Asia, due to the intensity of the sun, there is a realistic alternative to hard engineering for water purification. Constructed wetlands and aerated lagoons are gaining relevance in the region. They are low-cost and low-maintenance since they capitalize on natural processes. In constructed wetlands, improved water quality is due to from sediment deposition, as suspended sediments and sediment-associated pollutants drop out of the water column with reduced stream velocities and a variety of biological and chemical reactions in wetlands, as well as dense vegetation, can also transform and/or remove certain chemicals from the water. In both methods, the cleansed water is suitable for irrigation purposes

12. 项目14：“汽艇”网络与公交系统相交，为芹苴市提供了可行的公共交通系统。（景观都市主义工作室，比利时鲁汶大学，2005；AHO景观都市主义工作室，2007）
- 13, 14. 项目15：轮船白天运送游客，晚上成为船工的平台（越南顺化）。（K. Shannon博士研究，2004）
12. Project 14: “Vaporetto” network crossed with a bus system could provide Cantho with a viable public transport system. (Landscape Urbanism Studio, KU Leuven 2005 and Landscape Urbanism Studio, AHO 2007)
- 13, 14. Project 15: Boat transport for tourists by day and serviced platforms for “sampaniers” by night (Hue, Vietnam). (K. Shannon PhD research, 2004)

and the last maturation ponds of aerated lagoons can be used as fishponds. In addition to providing fish, shellfish and other food resources, wetlands also perform ecosystem services of direct economic benefit to humans, including groundwater recharge and discharge, flood storage, dissipation of natural erosion forces, sediment and nutrient retention and removal, wildlife and fishery habitat, and water purification. Neither odor nor noise pollution is generated by the process. The constructed wetlands also work for flood control: they act as temporary storage systems for water discharge. Wetland vegetation also retards surface water flows, thereby hindering the downstream passage of flood waters. This property can both reduce flood flows and peaks, and increase the duration of reduced floodwater flows. Constructed wetlands and aerated lagoons, also known as “kidneys” of the landscape, can double as park systems and the very nature of their being large defined and partially controlled water bodies, guarantees the integrity of a number of expansive open spaces—a rare fact in the periphery of Asia's rapidly (and horizontally) expanding cities.

#### Project 3——Cantho, Vietnam

In Vietnam, a number of design research projects have sought to structures future urbanization around water cleaning machines. In the “eco-zoned” Phong Dien area of Cantho (hub of the Mekong Delta), a system of infrastructure was developed as the frame for residential development. A network of public parks – centred upon water treatment areas (designed to each treat household wastewater for 3 000~4 000 persons) – was proposed in connection to waterways; each park consists of water cleaning system, public programs, recreation areas and orchards. Each park has different identities, with a mix of local and regional programs, situated on the edge of, or inside the parks, in order to justify the use of land for public domains in the urban areas. New orchards (citrus, banana, mango and avocado) are cultivated near the public space, providing shade while strengthening the agricultural economy; they also work as obstacles to urban sprawl.

#### Project 4——Ho Chi Minh City, Vietnam

In the country's southern megacity, Ho Chi Minh City, a realized project reveals the true possibilities of

hydrological infrastructure to guide urbanization. The 33.2hm<sup>2</sup> aerated lagoon, already a natural wetland, located (within a 36.6hm<sup>2</sup> area) in a rural district was identified as one of the last remaining open spaces in the northwest of the city's periphery. It was slated to be a park in the city's approved master plan however, it was only a matter of time before the existing lotus ponds were informally appropriated by uncontrolled urbanization. The objective of the project was therefore twofold: to explore an alternative solution to wastewater treatment of a polluted canal of the city while to freeze the urbanization of a large plot of land for eventual future uses. Two parallel systems were designed to treat the domestic wastewater of present-day 120 000 Den Canal-vicinity inhabitants (the estimated number of residents in the area is expected to reach 200 000 people by 2020 and the lagoon has been designed to this capacity), as well as the area's industrial waste (primarily from textile dyeing, seafood processing and paper mills). The black water of the canal is firstly pumped two meters higher than its original level up to a pond where aerators hasten the first respiration process. The water then crosses, by gravity, a sedimentation pond followed three consecutive maturation ponds. The entire process takes a total of eleven days. The cleansed water is then suitable for irrigation purposes and local residents also use the last maturation pond as a fishpond. Neither odor nor noise pollution is generated by the facility. The site was designed with a 20m liner park along its perimeter. This buffer zone includes discreet fenced areas of the lagoon for security purposes and the area has been programmed as a recreation area for local inhabitants. The eastern portion of the lagoon has been developed by Project Management Unit 415 as a sites-and-services area for 119 families that were relocated from on of the Tan Hoa Lo Gom canal urban up-grading projects.

#### LU Strategy 3: Productive Green Structuring Urbanization

Landscape urbanism strategies can also address the urban/rural interface, aiming to enrich the existing discontinuous, heterogeneous and multi-polar agglomerations which may be termed either urban countryside or rural metropolis, as opposed to developing an artificial disparity between city and country. The consumptive spaces of the city could be counter-balanced by productive spaces. Spaces for urban agriculture could be strategically located to serve multiple functions simultaneously – working as low-land absorptive surfaces for excess water, acting as spaces of decompression in dense fabrics, creating desirable microclimates for adjacent areas and providing an enlarged public realm through a series of interconnected urban parks. Urban agriculture parks could be envisioned not merely as productive landscapes but also as meaningful public space. As well, urban agriculture could provide a direct link between urban and rural daily-activities. At the same time, the contemporary market system

of agriculture demands an economy of scales. In order to increase the size and therefore cost effectiveness and competitiveness of parts of Asia's productive landscapes, existing urbanization could be consolidated, leaving large expanses of territory available for production. Linear development, along water-ways and rail/roads could be strengthened by investment in infrastructure improvements and public transport systems (with boats, railroads and buses). Densification of existing agglomerations along linear infrastructure lines (ribbon development), at nodes, or within well-defined urban massing could be interrupted by productive and ecological corridors which double as public space.

#### Project 5——Banjarmasin, Indonesia

A proposal for the water-based merchant city of Banjarmasin, the capital of South Kalimantan Province in Indonesia, develops a strategy of co-existence between river and road – acting as warp and woof of the fabric of the city. The project simultaneously re-qualifies the existing city and its relationship to the delta of 107 rivers, creeks and canals and develops complementary new platforms for development and economies along the road-based network. The proposal (re)creates a vibrant blue and green system – strengthening the potential of the landscape to restructure existing and guide new urbanization. The river and road networks determine the hierarchy of blue and green and contributes to the productivity of the landscape. East of the regional highway, is an intensive, industrialized and rationalized productive landscape (agri- and aqua-culture, edged by a storm-water canals and a series of flood retention ponds – protecting the city. Immediately west of the highway is an agricultural park that has different characters – 1) in the north the existing and organic water system dominates and hosts number of campus like/ urban enclaves; 2) in the center, at the highway entrance to the city, the productive orchard meets a city central park; 3) in the south, urban agriculture also serves as a land bank for future development.

#### Project 6——Ahangam Lowlands, Sri Lanka

In the southwest coast of Sri Lanka, between Galle and Matara, are the Ahangam lowlands. A proposal of “necklacing a middle landscape” strengthened the “soft” structure of the landscape (the coconut patches), clarified built and unbuilt edges and created a secondary sponge system for the drainage of highland water. Productive lands were safeguarded, expanded and intensified through the creation of distinctive edge conditions which guide and frame future urbanization. Within this frame, new programming is introduced which functions at both macro- and micro-scales.

#### LU Strategy 4: Reforestation + Industrial Platforms

Asia's delta landscapes are its most urbanized territories. In addition to supporting settlement, tourist and industrial development places high demands

on coasts. Of course, there is no need to deny port related activity, however there can be methods to allow economic growth and ecological conservation/ recovery in parallel. Traditionally, much of the region's coasts boast a waterlogged world of black mud and mangrove trees, bordered by thick tropical forests where the land rises away from the flooded plain. Drainage canals protect from the annual floods that come with the rainy season and the steady rise of both river and sea levels. The condition is rapidly changing as economies grow and there is as well a recognized need to relocate city-center ports further towards coasts. A strategy for the development of industrial waterfront activities could be conceptualized with using “fill” to making buildable platforms. These artificial “earthworks” could be ground preparation and can be built to accommodate investment commitments at various moments in time. The heights of platforms can vary in relation to the programs which are to colonize the platforms. The industrial platforms can then be off-set by mangrove re-forestation. Mangroves are inter-tidal forests that are salt-tolerant and grow along sheltered tropical coastlines. They act as natural breakwaters and dissipate the energy of waves, thereby playing an essential role in mitigating the devastating forces of nature. Mangroves are also fundamental in stabilizing shores and trapping sediment – for this they are referred to as “land builders”. Mangrove forests are also rich in biodiversity thanks to the very high habitat heterogeneity due to the differences in hydrological conditions, topography, salinity, soil and their interaction. Moreover, these plants are significant carbon dioxide absorbers.

#### Project 7——Hiep Phuoc, HCMC

Hiep Phuoc is strategically located at an important hinge between the southern extents of HCMC and the Eastern Sea; it is the city's southern gateway. Its productive agricultural area is on the Soai Rap River (linking Thi Vai and Long Tau Rivers) and its tidal flats estuary boasts Can Gio Mangrove Forest, an important, UNESCO-recognized biosphere reserve. The rich and complex existing water networks – the liquid geography of the area – with numerous rivers and tributaries, is complemented by an extensive system of man-made canals and irrigation waterways. The envisioned port development creates a spatial sequence of a built, non-built rhythm along the Soai Rap River, accentuating its exceptional location and following the river bends. The urbanization strategy works in tandem with strategies of environmental protection and ecological preservation to mitigate adverse impacts on social welfare activities in the area. Port logistic platforms alternate with reforestation sites – stabilizing the coast and providing protection against erosion, oil spills and storm surges. The port/logistic areas and the reforestation sites correspond with most suitable areas for activity according to the hydrology of the river. Developed as a state-of-the-art port area the Soai Rap ports will be HCMC's hub of seaway transport and economic growth. At the same time, Can Gio



has the potential to become a demonstration site for mangrove reforestation projects throughout Vietnam and to date there have been a number of mangrove rehabilitation activities in the area.

#### Project 8——Sundarbans, Bangladesh

In November 2007, the Sundarban became a landscape of ruin. It suffered massive devastation from the 6-meter tidal surge of Cyclone Sidr. The territory's population suffered tremendously – many with their lives, others with livelihoods. The Centre for Coastal Environment Conservation, based in Khulna, reported seven million people of twelve districts affected, of which five million lost their shelter; 138 km of embankments were destroyed. The storm's 250 kilometer/hour wind ruined infrastructure networks and entire villages disappeared. In the area of the Sundarbans, reforestation was envisioned as an important strategic project for the environmental protection of the southern part of the country and was justified by the May 2008 announcement of a national program of planting 100 million trees as a "natural fence" along the coast to mitigate disasters (AFP 2008). The re-forestation could be coupled with the concept of "social forestry" whereby unused and fallow land is planted, maintained and harvested by the common man with economic returns profiting the community participation in the management of natural resources. In particular "extension forestry" – where plating alongside canals, roads and railways – was viewed to be interesting in order to not only improve ecology, but also beautify areas, create economies and eventually lead to a green network of an expanded public realm. Strategic sites could as well host a series of touristic and research-oriented programs.

#### LU Strategy 5: Re-constituted Ecologies + Expanded Civic Realm

Landscape urbanism can address a number of issues at once – with perhaps the most important being the explicit re-constitution of ecologies together with expansion of the civic realm. The re-establishment of landscapes' dynamics can serve as a foil to processes of urbanization and interventions can be designed to mitigate the natural and human threats of erosion, pollution, and flooding, amongst others while, at the same time, strengthen the vision of green, tropical cities, through interconnected public open spaces.

#### Project 9——Cantho, Vietnam

In Cantho, Vietnam, the existing richness of the urban/ rural interface could be enhanced the concept of "orchard city" – with the spindly figure of the surrounding mesh of orchards extended along the territory's waterways to the bank of the Hau (lower branch of the Mekong) River and across the Cantho River to the newly planned development. The undeveloped islands could also have orchards. The new flowering fingers could become an important component of a system of public spaces throughout the existing city and its extension – connecting urban to

rural, land to water and recreation to production. The existing urban congestion could be counterbalanced by inclusion of productive green zones into the urban fabric. The orchards could also ground Cantho more firmly to its identity as an agricultural center of the Mekong Delta. The network of flowering public promenades could directly tie the surrounding territory into a continuous ecological mesh with urbanity.

#### Project 10——Hanoi, Vietnam

For the city of Hanoi, the millennium old city and capital of Vietnam, and the Red River Delta, water is both a blessing and a curse. As massive new development is planned to the west of the existing center, a central concern is how to develop in the large flood plain. A basic assumption one scenario is that the Day and Tich Rivers are reconnected to the Red River and again following a more natural flow. Connected to this could be a system of irrigation canals, agricultural fields, drainage ponds and large edge lakes that work in congruence with a "ladder system" of infrastructure (roads, dykes and ecologically engineered landscapes) and raised high-lands for urbanization. The reconstituted ecologies could be developed with vegetation and manipulation of water-bodies and interlock with a system of recreation spaces that work as a hierarchical system to serve the regional to the neighborhood scales. Strategic projects could be developed to interweave ecology, economy and recreation.

#### LU Strategy 6: Flood control + Waterfront Development

The natural processes related to water dynamics (storm surge, sedimentation, erosion, subsidence, inundation and processes causing sea dike destruction) need to be understood and integrated into the development of new tools to deal with the regions's most pressing challenge of dealing with climate change, specifically the sea water rise and an increasing incapacity to effectively absorb monsoon rains. Measures for flood mitigation can be developed hand-in-hand with a focus on the strengthening and quality up-grading of waterfronts (oceanfront, riverfronts, lagoons and lakes). Waterfronts can (once again) be (re)established as the primary organizers of territory and their distinct eco-systems adopted to (once again) provide regions with identity, particular economic and socio-cultural activities. A main objective should be to expand the public realm which would, in turn, strengthen the coherency and spatial structure of otherwise fragmentary sites. New development projects would profit from the interconnections along waterways.

#### Project 11——Vinh, Vietnam

In Vinh, Vietnam, the Lam and Vinh Rivers (locations where the city originated) could be reconfigured to strengthen not only the ecological functioning of the "sponge city", but also increase the public realm via interconnected open spaces and reverse the imagery of the rivers as backslides. The Lam River could become a new façade of the city – with public

spaces and a diversity of programs and an alternation of built (buildings raised on pilotis) and unbuilt spaces which could allow for the sunken land to act as a reserve basin for seasonal flooding and otherwise act as a recreational strip behind the mixed-use development.

#### Project 12——Mumbai, India

In an ecological vision for Mumbai, recovery of the city's wetlands and water networks are seen to go hand-in-hand with urban up-grading, new urbanization and infrastructure development. Special attention should be paid to the Mithi River and the marshland area on the northeast. Envisioned is a corridor between the two wetlands systems formed by an ecological spine where investment coalitions between public and private sectors can evolve. New edges are developed and ecologies enhanced. Social infrastructure is provided at strategic locations (such as in Dharavi – Asia's largest slum) and otherwise the investment in ecological systems is expected to increase nearby real estate values. The ecological corridor, connecting the Mithi River and the eastern wetlands is recreated by the establishment of an interconnected system of ponds and green spaces. As well, the contentious Eastern Dockland sites could simultaneously be developed as a top-class commercial waterfront, provide a significant amount of social infrastructure and create more space for the water.

#### Project 13——Matera, Sri Lanka

A project for promoting Matera as a resilient water city focused on the Nilwala River, which is highly significant as a supra-regional ecological zone, having enormous watershed structure connecting distant hinterlands to the coast. The river systems natural capacity to function as a sponge was exploited and enhanced as a mechanism for flood protection and water purification as well as for drainage and urban structure delineation. A large new water body would create a new residential front to the city and blocks sprawl from overtaking low-lands. The riverfront was activated by economic programs (aquaculture), leisure activities, boat stop platforms and areas for new commerce. East of the river bend, a new research and education corridor would capitalise upon investment possibilities afforded by the new expressway and connect Matera University to the river. New transversal spines (connecting the northern wetland to the ocean by waterways) could guide development of mixed settlements with small industries. The river and wetlands were choreographed to respond to different levels of flooding.

#### LU Strategy 7: Water-based Transport

Asia's innumerable water networks could also be designed as an affordable and ecological alternative for public transport. Throughout Asia, the shift from a water-based civilization towards a road-based one has made urban waterways open sewers – of domestic and industrial waste – and an absolute backside. Riverfronts could once again be conceived of as new façades–

with public spaces and a diversity of programs along the water's edge and accessed via strongly articulated transversals connecting inland. Alternative transport systems can take advantage of the existing logics of the landscapes. Where metros do not make economic sense, particularly in secondary cities, networks of both public bus routes and water-based vaporetto/ taxis could enhance existing infrastructures. In many instances, systems could operate more as networks than they presently do by the simple addition of missing-links in the road system or by the strategic addition of bridges and/or ferries. Water transport not only provides benefit in terms of ecology but also stresses an inherent identity issue. Water-based transport accommodates multiple and non-exclusive uses – allowing slow/fast, traditional/modern and small-scale/large scale craft to co-exist. The most important aspect of this last landscape urbanism strategy has indeed to do with its "strategic" aspect. The formative capacity of the territory through infrastructure remains one of the most powerful devices for directing future urbanization. At the same time, high costs render the process of building infrastructure as slow – particularly in contexts of severely limited resources. The Asian Development Bank and the World Bank, in addition to a host of bi-lateral cooperation projects, are presently pursuing the development of new highways systems and large bridges/tunnels throughout the country. The landscape urbanism proposals could work more from the perspective of improving existing networks and strategically accenting a hierarchy of systems across the territory.

#### Project 14——Cantho, Vietnam

In Cantho, linear growth along the intricate water system could be strengthened by the elaboration of a public transport system. A "vaporetto" network could take advantage of the river confluence (Hau and Cantho Rivers) and the dense mesh of canals. A series of circuit loops could potentially link the far reaches of the city's territory and rural hinterlands with the bustling urban core. Transfer stations and stops could correspond with intersections of waters and roads – thus encouraging new strategic development sites in the territory. A series of express and local stops could create an efficient public transport system. The reactivation of the region's waterways could also strengthen the city's identity. Water-based transportation could allow for multiple use and users, combining "traditional craft" with new pubic boat systems, slow-speed and higher-speed travel, etc. Public life along the waterways could be strengthened by the development of public platforms and amenities at important intersections of canals and roads.

#### Project 15——Hue, Vietnam

In Hue, a UNESCO World Heritage city on Vietnam, the existing water network could be cleaned and promoted as a water-based transport, for tourism and local use. A series of boat stop platforms could be developed for the waterways and various programs could be attached

to them, depending on the site specificities of each place. The city's community of "sampaniers" (boat people), which the authorities are anxious to remove, could be given facilities to up-grade their lifestyles (as opposed to eradicating the community) – paid for by the development of the tourist infrastruture. Mobile water-based living is encouraged and proposed is a network of infrastructure piers in which the boat-houses can plug into. The bustle of life on the Perfumed River and in the lagoons need not be lost. Presently, resettlement communities are being located in flood-prone areas; it is much more logical to allow sampaniers to remain in boats and thereby remain able to cope with the natural changes in water level.

#### Asia as a Potential Incubator for New Urban Paradigms

Asia is in an explosive period of its urban history. The numerous layers of its cities are being superseded by the latest phase of market-driven development. Yet, despite the attempts to set in motion a regularized system of urbanization and real-estate, there remain a number of bottlenecks. At the same time, there is an admirable will to change business as usual and, in the margins of the present-day building frenzy, experimental new city paradigms are being developed. They are often not (yet) aligned with established institutional set-ups, but emerge as exceptions in a multitude of ad-hoc occasional projects driven by very diverse public and private actors, local and supra-local sponsors, top-down and bottom-up programs. Nonetheless, they present opportunities to fundamentally re-think paradigms – to experiment in city building forms and methods. State-sponsored urban design and planning competitions are becoming a regular mechanism employed for a handful of high-profile projects – including new cities / city extensions. Yet, more often than not, the insatiable drive for a global city image is resulting in a bizarre combination of urban fantasy and absence of any real dream of contemporary urbanity. The new areas are instant cities – where the gridded city, city of skyscrapers and the suburban city are compressed into a "ready-made." Implied walls of economic segregation are all too evident in the continuing of age-old land-use traditions. The market economy is completely changing the global landscape and the mega-forces of international finance and multi-national capitalism are seemingly impervious to cultural distinctions and national character. The Asian landscape – so important, once upon a time, in the very foundation of settlement structure is being overrun with corporate urbanism. Cities are envisaged as a bit of green, a little less blue (at least in plans – it often disappears during implementation) recreation areas (including golf courses), a "variety" and choice of housing (single-family, urban villa and high-rise), carpets of industry and clusters of high-rise CBD (central-business district) fragments. However, generic city is not the penultimate model; Asia has the opportunity to develop an alternative urbanity – one where "place culture" meets

globalization, where landscape and urbanism re-enforce one another in a new symbiosis, where richness of its complex land use patterns are embraced, and productive landscapes are enveloped in the urban system. Without a doubt, numerous 'indigenous' traditions of Asia hold valuable lessons for today's landscape urbanism. Age-old techniques and logics – where the landscape and urbanization worked hand-in-hand – can inspire the evolving relationship between and organization of territories and human settlements. New interplays of urbanization to water, topography, the productivity of landscapes and eco-systems could complement the innate attraction of settlement structures to infrastructure. Since across the globe, the largest investments being made are those of a territorial and (infra)structural scale it is not unfeasible to imagine the development of an intelligent landscape infrastructure to frame the development of the territory. Landscape urbanism has to potential to indeed become the saviour to Asia's urban planning and urban design. ■

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