



Delft University of Technology

不只是“城市，让生活更美好”

创造2010 年上海世博会后的可持续城市遗产

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不只是“城市，让生活更美好”

——创造 2010 年上海世博会后的 可持续城市遗产

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遗产研究已成为超大型活动研究的重要组成部分。它由国际奥委会（IOC）首次提出，其目的是评估奥运会对主办城市的长期影响，因为它见证了一场超大型活动是如何让像巴塞罗那这样在当时深陷经济危机的工业城市，因成为世博会的主办城市而发生巨变¹。主办城市希望通过举办奥运会创造一系列的物质、经济和社会效益。这些效益包括促进城市经济的发展，重新定位城市在全球旅游市场中的地位，促进城市的更新换代，使交通和服务基础设施得到改造，创造国际化的城市形象和充满活力的文化街区，并建立一个高级的设施网络，作为未来竞标的基础²。



2010年世博会期间的黄浦江畔

主办城市往往在活动结束后又要承担起财政和管理的重担。时间上的压力意味着在投资和会后策略之间的平衡并不总是经过仔细考虑。除了设施使用不足、活动园区空闲之外，主办城市往往还背负着巨额债务和场馆运营成本，需要数年时间才能还清。城市管理需要仔细考虑他们期望大型活动对城市环境产生什么样的影响，以及如何最好地利用这些活动创造长期的积极影响³。“遗产”一词的定义是指超大型活动所产生的任何净影响，无论是好的还是坏的变化或转变⁴。多年来，对遗产的考虑越来越重视环境和社会问题。1994年，环境问题和世博园区的再利用被列入国际展览局（BIE）大会的决议中⁵。2003年，国际奥委会在其任务声明中增加了遗产和可持续发展的内容，以确保在大型活动开始前就考虑到环境问题和长期的积极影响⁶。现在的研究者们谈到了超大型赛事所带来的有形影响（场馆或建筑、基础设施建设、新的就业岗位等），即遗产的“硬性”“原生要素”，也谈到了无形影响，或者说是主办城市在后赛事时代所承受的“人的因素”（形象、技能、经验、社区认同等）。因此确立全面的遗产创建战略，以涵盖会前、会中和会后的整个发展阶段，成为

主办城市的一项艰巨任务。

上海有志于成为“全球城市”，已经制定了一个雄心勃勃的计划，将上海建设成为国际经济、金融和贸易中心。作为2010年世界博览会的主办城市，上海世博会是第一个在发展中国家举办的此类活动，上海将这一大型活动视为一个绝佳的机会，将其黄浦江畔的滨江大道改造成新的文化和会展聚集地。此外，上海也看到了文化产业升级的机会。此次世博会以“城市，让生活更美好”为主题，描绘了上海对未来的愿景：以新的思维方式，运用新的技术，以创新的方式实现繁荣的生态环境。此次世博会将上海置于全球媒体的关注之下，展示了上海作为世界各国领导人、企业高管、科技先锋、名人、国际和国内游客的首选目的地的风貌。此次世博会共有200多个国家和国际组织参展，吸引了7300万人次的国内外游客。上海世博会的成功举办，促使我们提出一个更耐人寻味的问题：上海是否利用世博会为其带来了积极的可持续发展的遗产？如果是，世博会到底创造了哪些遗产？在本文中，我将着重介绍世博会为上海创造的具有积极意义和可持续性遗产的四个主要

方面。它们包括：世博会作为上海城市结构调整进程的催化剂；世博会作为知识的创造者，推动了当地规划体制的变革；世博会作为社会进步的铺路石；世博会作为长三角区域一体化的推动者。

世博会作为上海城市结构调整进程的催化剂

世界博览会是展示主办城市艺术、文化和技术最新或未来发展的大型活动⁷。经过多年的发展，世博会已经逐渐发展成为一项复杂的经济、政治、规划等方面的活动，历时3~6个月。在短短的时间内，接待来自世界各地的数百万名游客。作为第一个新兴经济体的城市举办这样的世界性盛会，上海起初想把世博会作为城市品牌建设的有力载体，展示其城市建设的成果及在创新和前沿科技领域不断提升的地位。当上海开始筹建世博会时，城市领导层就意图更加凸显以世博会作为城市结构调整的驱动力。从20世纪90年代开始，上海以其经济的快速增长和物质的转型让世界惊讶。它的城市转型从较不发达但空间较大的上海郊区开始，如位于黄浦江东侧的浦东新区（黄浦江是分割浦东与外滩，即浦西城市中心区域的主要河流）。此外，各种大型城市（再）发展项目，如外滩地区重建、人民广场重建、虹桥商务区开发等，都是为了振兴上海的内城、基础设施节点和城市边缘地带而进行的战略性发展⁸。为了适应新的发展，上海需要为居民、商业和游客寻找新的城市空间，而离市中心不远的黄浦江畔就提供了这样的空间。



2010年世博会之前，上海黄浦江畔的造船厂

长期以来，黄浦江边只有3km长的一段黄浦滨江路可供市民通行，而113km长的滨江大部分区域被上海的重工业部门所占据，包括中国最著名的造船厂、各种港口工业、钢铁厂、化工厂等。然而要改造工业格局是一项艰巨的任务。这些与港口有关的企业都是中央政府管理的国有企业，地方发展规划不一定适用于他们。

上海的灵感来自于利用黄浦江畔的滨江区域作为世博园区，因为这个位置最能体现上海的去、现在和未来的发展，也最符合世博会的主题。由于上海获得了2010年世博会的举办权，上海有理由请求中央协调，说服这些位于世博园区内的有实力的国有企业搬迁到郊区其他更宽敞的地方。上海与这些企业就搬迁和补偿问题进行了长期谈判，最终达成协议。例如，江南造船厂搬迁到长兴岛的船厂基地。在一些情况下，由于举办世博会的时间限制，涉及企业不得不暂停争议，直至事后再谈。通过世博会的筹备，黄浦江两岸的滨江土地价值大幅提升，使其在世博会后对民间投资者更具吸引力。此外，世博会创建了文化设施和必要的基础设施，包括地铁线路、完善的道路系统等，意味着世博会后的世博园区可以成为具有文化、服务型城市功能的优质城市用地。

在城市层面，上海世博会的筹备工作起到了推动城市结构调整的作用，重点是黄浦江滨水区和浦东与浦西中心城区的融合。早在中国获得2010年世博会举办权之前，上海



市政府在 2002 年 1 月就成立了项目组，负责协调黄浦江滨江开发。随后，上海黄浦江滨江开发小组成立，协调黄浦江两岸分属不同城区的滨江开发。同时成立了上市公司——上海申江两岸开发建设投资（集团）有限公司，负责基于公共目的的黄浦江滨江开发的土地开发、融资和建设。

为了在世博园区筹备过程中引入新的规划理念和创意，上海市城市规划管理局在 2000 年和 2001 年组织了一系列的设计理念比稿，对黄浦江 41.2km 的滨江线和 91km² 的滨江区域进行重新设计。根据获奖团队 SOM 建筑事务所提供的概念设计方案，最终确定了《黄浦江滨江区域总体规划》。该规划将黄浦江滨江区域分为中部、北部延伸段和南部延伸段。中部沿江岸线 20km，面积 22.6km²，其中核心区面积 6.68km²，用于筹备世博会⁹。关于黄浦江滨江改造，该总体规划确定了五个方面的目标。

- ◎ 功能改造：将两岸的码头、厂房、仓库全部搬迁，建设集居住、工作、文化、休闲、旅游等功能于一体的滨水区。
- ◎ 环境保护：在治理工业污染的同时，在两岸建设绿化带，提高城市环境的生物多样性。
- ◎ 改善生活质量和交通条件，使滨水区与城市的联系更加顺畅。
- ◎ 以新的城市功能保护城市历史文化遗产。
- ◎ 重构城市空间景观，协调黄浦江两岸不同城区的滨江发展。

以世博会为催化剂，上海在改造黄浦江两岸滨江区域时，以新的、可供市民享受的城市功能，获得了利益相关方和现有利益群体的共识。为加快滨江改造，上海在 2013 年首次发布了《黄浦江两岸地区发展五年行动计划》。该行动计划确定了世博园区及周边七个区的具体目标，包括徐汇区和杨浦区在世博园区以外的一系列滨江街区的目标。

两区进一步制定了各自的五年规划，明确了如何实现目标的措施。这些五年规划显示了当地领导层实施规划并将其变为现实的决心。除了城市转型之外，世博会的筹备工作使上海能够对基础设施系统进行大量投资，这被认为对城市的全球经济地位至关重要。到世博会开幕时，上海的基础设施系统已经取得了巨大进展，新增了五条地铁线、一个新的机场航站楼、黄浦江下的无数条新的道路隧道、完善的道路网和超过数平方千米的城市黄金地段，这些都是再开发的条件¹⁰。731hm² 的徐汇滨江是首批快速发展的超大型项目之一，包括长廊、博物馆、展览中心、大型住宅区和高端写字楼等。该地块交通便利，有新建成的地铁、多条城市高速路和隧道，因此吸引了众多投资者和开发商的参与。

世博会作为知识的创造者，推动了当地规划体制的变革

超大型活动的遗产往往是以地域层面进行讨论，而将活动遗产作为知识来对待则越来越被认可¹¹。奥运会主办城市不仅对奥运会的遗产和地方影响进行了研究，而且相互之间也进行了知识共享，以便更好地了解不同地方背景下的遗产创造。Oliveira 等人认为，活动主办城市不仅获得“包括技术和科学知识的显性知识”，还通过经验获得了隐性知识。在许多情况下，主办城市会从以往的主办城市借鉴专业知识¹²，以确保更好地吸取遗产的经验教训，并有效适应当地的遗产计划。作为亟须学习和做好 2010 年世博会的主办城市，上海非常重视从以往主办城市吸取遗留教训，因此上海从历届世博会主办城市中广泛学习借鉴往届世博会主办城市与城市发展的关系。在研究中，如何采用新的规划理念、新的规划方法和新的规划技术，创造可持续发展的遗产和高品质的生活环境成为重中之重¹³⁻¹⁴。

为确保上海从世博会中获益，在制定城市发展战略时，市政府的主要智库——上海市发展改革研究院与当地各高校共同研究了世博会后对上海向国际化城市发展的各种影响，包括上海服务业、文化产业、知识经济、区域一体化、低碳经济及世博会后资源的再利用等。相应的世博后战略

世博园区指南

Expo Site Map



确定了如何利用土地、创造新的城市功能、处理世博场馆、打造滨水景观、完善公共设施等步骤¹⁵。大部分研究成果被纳入上海世博园区的总体规划中。除了研究之外，上海还在 2002 年和 2004 年举办了两次国际设计比稿，邀请国际建筑工作室对世博园区进行创意设计。这种学习的过程在后世博会时期仍在继续，各地方智库和大学研究人员继续对世博会后的优化发展进行专题研究，如文化产业的发展等。

遗产规划

筹备 2010 年上海世博会的重要策略是，从一开始就将遗产规划纳入世博园区规划中。对于整个世博园区和每一个重要的世博设施，总体规划不仅确定了设计的基本原则，而且还确定了世博会后的使用和运营管理策略¹⁶。重点包括：

- ◎ 世博会规划实际上是结合临时性世博筹备工作的世博园区总体规划。

- ◎ 根据上海的城市战略，确定永久性建筑，避免拆除临时建筑。

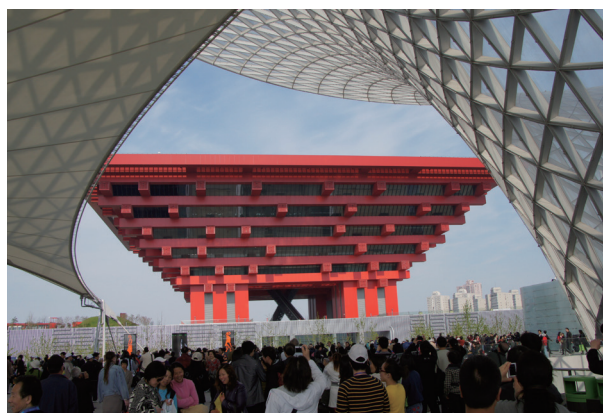
- ◎ 保护历史工业建筑，从工业功能向文化、展览功能转变。

- ◎ 结合世博道路系统、地铁系统、其他基础配套设施、绿化和公共空间的开发，结合黄浦江滨江再开发，在黄浦江两岸打造世博园区新的城市中心。

- ◎ 应用先进的生态技术，在建筑、城区和城市层面上进行水循环利用、可再生能源的循环利用。

总体规划将整个区域划分为五个区域：

- ◎ A 片区：浦东东区（43hm²），规划为世博会期间的外国展馆区，并改造成国际文化商务区。



2010 年世博会中国馆，现为中华艺术宫

- ◎ B 片区：浦东中区（96hm²），规划为世博园区核心区，规划有世博文化中心、世博主题馆、世博中心等一批永久性建筑，并改造成会展和商务区。

- ◎ C 片区：浦东西区（103hm²），规划为展馆、主题馆区，利用现有工业厂房和后滩湿地公园，并作为预留扩建区。

- ◎ D 片区：浦西中区（54hm²），规划将江南造船厂用地改造为企业馆和滨江绿地，拟改造为工业展览中心、海事博物馆、水族馆，用于展览和文化交流。

- ◎ E 片区：浦西东区（15hm²），规划将江南造船厂厂区厂房改造为各类企业馆。预留后世博园区扩建。

为确保世博会筹备活动得到有效协调，成立了由中央和上海市政府 24 个相关委员会代表组成的 2010 年上海世博会执行委员会。成立了上海世博会事务协调局（简称“上海世博局”），作为核心机构，负责世博园区的日常运营和发展，协助落实国家政策和上海世博会组委会的各项政策，直至 2012 年任务结束。此外，2004 年 1 月成立了上海世博土地控股有限公司，负责世博园区的征地、土地开发和拆迁工作。当时，上海申江两岸开发建设投资（集团）有限公司与上海世博局合作，负责除世博园区以外的黄浦江滨江区域的土地开发建设。因此世博会的筹备工作从土地管理到建设都由各责任单位负责，确保世博会的顺利进行。

世博会后的建筑使用情况

活动设施可分为四类。一类是由世博会主办方建造的永久性设施（表 1），在活动结束后保留下来，作为上海未来设施的一部分，如 2 万 m² 的中国馆、12.9 万 m² 的世博主题馆和世博中心等。世博大道作为世博园区的主要通道，注定将成为现代商业走廊和旅游景点。而世博村则是为接待参展国家和组织的官员及工作人员而建的，后来改建成了酒店中心。此外，还有 150 个属于其他参展国家、非政府组织或企业的展馆。其中很多展馆都是由世界著名的建筑师设计，以展示参展国家的创意，因此获得了各种创新建筑设计的奖项。此外，上海还为 50 个发展中国家的临时展馆建设提供了补贴，使他们也能参加世博会。

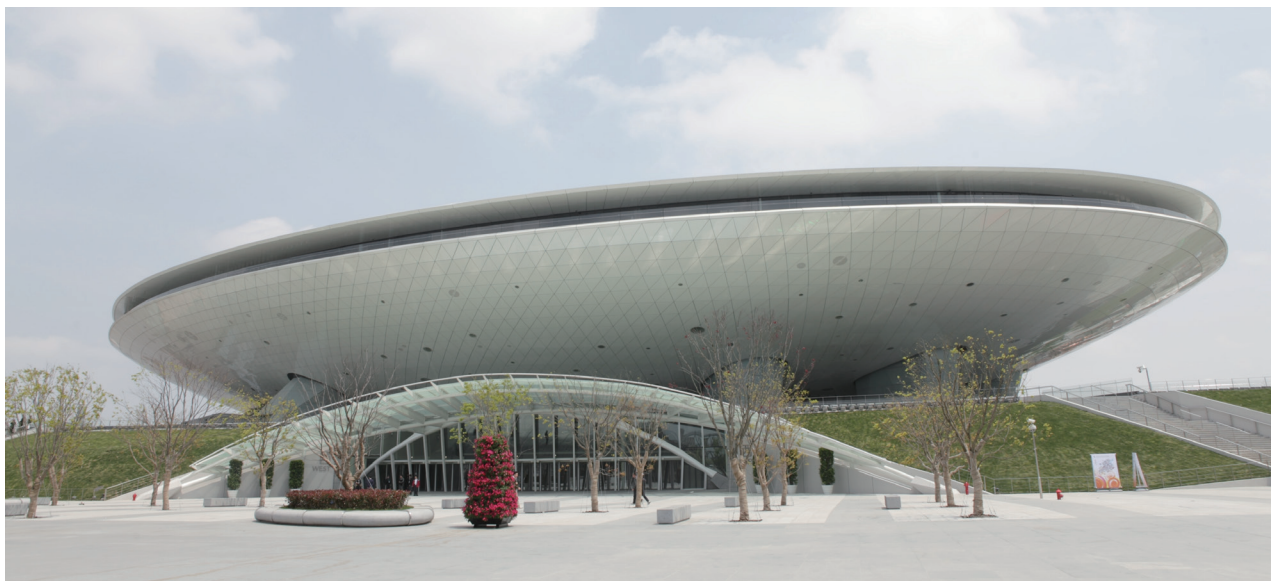
根据遗产规划，新建成的场馆及一些经过改造的建筑，在世博会结束后经修改后，已按计划移交给新业主，以适应其新功能。大多数建筑成为博物馆和展览中心，向公众免费开放。世博会结束后的最初几年，由于附近施工和客流有限，世博园内及附近地铁站都被关闭，削弱了这些文化设施在浦东的可达性。相比之下，原世博文化中心改建为梅赛德斯 - 奔驰文化中心，在商业上取得了非凡的成功。它全年可提供多达 1.8 万人次的现场音乐表演，其丰富多

彩的文体活动也吸引了不少年轻人和家庭前来参观。除了永久建筑，社会上的热议焦点是如何运用可持续发展的原则，将最能吸引当地中国人的优秀场馆进行再利用。因此上海市政府决定在接下来的五年内保留一些展馆原貌，等待再利用的想法。例如，意大利馆被改造成展示意大利艺术的展览中心。

尽管对遗产规划和战略做了大量的准备工作，但世博会后的发展仍面临着几个瓶颈。一是缺乏较为详细的实施指导意见，导致世博园区重点区域的开发进度缓慢。二是不同城区之间在世博园区的发展上缺乏协调，导致城市功能非常相似，没有细微差别和地方特色，导致世博园区的发展有可能出现非常相似的城市功能。三是由于转变规划理念的力量有限，开发企业对世博园区的开发犹豫不决。相反，他们选择了在世博园区附近开发城区。此外，各区政府在招商引资方面竞争激烈，结果是一些滨江地段在早期就得到了很好的发展，而另一些则因缺乏投资而落在了后面。上海认识到了这些瓶颈，并努力寻找解决方案。在 2012 年，世博园区安排了一系列的设计完善工作，创新发展理念，并在 2012 年启动了公众参与进程，完善发展理念。例如，引入了绿谷概念，将新的可持续发展的解决方案融入城市

表 1 世博会后主要保留建筑设施及其功能

世博设施	世博会后功能
中国馆	中华艺术宫
世博轴	基础设施枢纽、地下购物中心
世博文化中心	除文化设施外，还演变为梅赛德斯 - 奔驰文化中心
世博主题馆、世博中心	除酒店和餐饮外，还成为上海世博展览馆
世博场馆	将有创意设计的场馆进行保留，并改建为外国领事馆机构场所及促进国际交流的商务与文化中心
城市最佳实践区	上海创意产业区
城市未来馆（原南市电厂）	上海当代艺术馆
世博企业馆	中国近代工业博物馆群
世博公园	城市滨江绿地
世博美食广场	五星级酒店



世博文化中心，现为梅赛德斯-奔驰文化中心



2010年世博会意大利馆，现为上海意大利中心



城市最佳实践区的阿尔萨斯馆

设计和单个建筑中。

技术创新

自世博会项目启动以来，城市可持续发展一直是重点。可持续发展的关注点体现在将新技术和新的规划理念应用到阳光、水、风、噪声、能源、资源和废物等方面¹⁷。

大部分的分析是通过计算机辅助生态模拟来了解世博会期间和之后如何在公共空间和单个建筑中创造最理想的微环境。循环利用的概念被考虑并应用于可再生能源、水循环利用、减少废物和废物再利用等方面。例如，世博园区公共空间的用水经过过滤、沉淀、沙滤、旋转刷子过滤等工

序后，构造了湿地、活化气区等，完成了水的净化过程¹⁸。后来这种净水技术革新也被应用到黄浦江畔的其他涉水公共空间。

在城市和建筑上广泛采用科技创新规划世博会的同时，2010年上海世博会首次设立了城市最佳实践区（UBPA），以展示解决世界性挑战的切实可行的解决方案，并引入成功案例。城市最佳实践区的概念为城市提供了一个生动的知识交流平台，并被历届世博会所复制¹⁹。这些由UBPA所展示的解决方案，与低碳理念一样，在世博园区和全市的城市项目中不断被采用。

世博会作为社会进步的铺路石

过去，超大型活动的社会影响往往被忽视。时下，主办城市越来越重视活动对当地社区的影响。这是因为社区支持不仅是超大型活动成功举办的一个重要方面，而且社区群体往往更容易受到活动带动的影响²⁰。“吸引超大型活动的城市区域，同时提供规划和发挥空间，往往都是政府和商业利益攸关的区域²¹。”通常情况下，在该地区生活工作的人和当地的小企业可能会感受到最大的影响，但却没有强大的声音来代表他们的利益。在讨论世博园区筹备工作时，社会责任感从项目开始就被提出来，因为上海认为世博会是为每一个生活在城市中的人服务的。这种社会关怀体现在三个方面：一是在搬迁过程中，上海采取了以人为本的方式来处理与社会相关的问题；二是努力将黄浦江沿岸的工业景观改造成服务于全体市民的城市滨水景观，并付出了巨大的代价；三是努力让市民参与到世博会和后世博时代的决策过程中来。

以人为本的征迁方式

园址选择在黄浦江畔，意味着世博园区的设施准备工作从浦东、卢湾、黄浦三区的拆迁户和当地企业开始。上海世博园区内有 270 家现有的工厂和企业、20 世纪 70 年代建成的工厂宿舍和各个居民区，其中有不少是附近企业的工人新村。经过调研，规划小组建议，在不影响世博园区主体活动的前提下，在世博园区内实际保留 8 个街区（浦东新区 0.88km²，浦西中心区 0.52km²）。这样一来，15000 户居民就可以避免搬迁。在世博专项资金的支持下，这些居民区的公共空间、绿地和新地铁站等公共交通设施得到了改善。不过 2004—2010 年，在 5.28km² 的世博园区内的 18 个社区（浦东新区 3.93km²、浦西 1.35km²）中，仍有 18000 户住户经历了搬迁。为确保搬迁户受到的影响最小，上海及时启动了动迁小区建设。闵行区的浦江镇和浦东的三林永泰花园在 2005 年 10 月底前完成了浦东一侧的大部分搬迁户的搬迁工作。浦江世博园也于 2005 年 12 月投入使用，接收来自浦西卢湾、黄浦区的搬迁居民。在补偿标准普遍较高的情况下，大部分住户在空间、功能和设施上得到了质的改善，小区的公共空间也

得到了很好的设计，居住条件得到了质的提升。搬迁方案也考虑到了当地社区的团结问题，尽量将老小区的同住户安置在同一小区。然而由于新房距离市中心较远，公共交通系统最初并不发达，因此搬迁户需要时间来适应新的生活环境。

再开发过程中的社会融合

在上海举办世博会的主要目的之一，就是要以世博会为契机，将所有沿江地区的码头、工厂、仓库等全部搬迁，建设一个集居住、工作、文化、娱乐、旅游等功能于一体的滨江新区，供当地市民享受。为实现这一目标，上海在世博会前投入了大量资金，在人行道设施、园林绿化、文化设施及基础设施网络等方面进行了大量投入。作为世博项目的一部分，世博公园、后滩公园和白莲泾公园这三个主要绿地占据了浦东新区黄浦江沿岸 50 个足球场大小的范围，形成了一条滨江绿廊。世博会结束后，上海继续努力将黄浦江沿岸的滨江绿地改造成公共空间。例如，在外滩与世博园区、南外滩之间，共打造了长达 8.3km 的长廊带，总绿化面积达 10 万 m²，为当地市民提供了步行、慢跑、骑行、休闲空间。

随着上海逐步明确打造世界级高品质黄浦江滨江公共空间，让本地市民在日常生活中享受到世界级的高品质公共空间的目标，上海组织了一次国际设计比稿，邀请全球专家为黄浦江东外滩开放空间的设计出谋划策。为了用这些创意设计理念实现滨江改造，上海出台了首个《黄浦江两岸公共空间建设三年行动计划（2015—2017 年）》。该行动计划旨在打通杨浦大桥与卢浦大桥之间的关键瓶颈，到 2017 年底，将杨浦、徐汇、浦东三个城区 30km 的滨江岸线连接起来，为市民提供连续的黄浦江沿线绿色公共空间，为市民提供休闲和运动场所。行动计划中共确定了 75 个项目，并指定了实施主体。实践证明，该行动计划有效地实现了打造 45km 滨江公共空间的目标，让当地市民在日常生活中享受到了公共空间的乐趣。随着越来越多的本地市民开始利用滨江岸线进行运动、散步、休闲等活动，上海于 2017 年底发布了第二轮《黄浦江两岸公共空间建设三年行动计划（2018—2020 年）》，上海更是将

打造精品滨江岸线的目标列入《上海市总体规划（2017—2035年）》。

后世博规划编制过程中的公众参与

让社会对于各种大型活动投入关注，就是要找到一个合适的策略，让社区居民参与到活动中来，并表达自己的兴趣。在世博会期间，60万名社区志愿者参与到世博会的日常活动中来，并为每家每户居民提供了一张参观世博会的门票。在这样的参与下，当地市民逐渐了解了世博会，也感受到自己是这场大型活动中的一员。世博会结束后，上海先是注意到关于能否保留一些有特殊魅力的场馆的讨论，然后将这一想法调整为B片区更详细的规划指导意见。为进一步鼓励公众参与，上海决定在世博园区A片区和B片区更详细的规划时征求公众意见。该公开征求于2011年五六月间进行。在此经验的基础上，举行了一系列的公众咨询，让公众参与到规划过程中来。这些工作是上海在规划过程中践行以人为本的理念，寻求更具包容性的解决方案的第一步。

世博会作为长三角区域一体化的推动者

虽然超大型活动的主办城市往往会制定遗产战略，并从越来越全面的角度评估影响，将经济、社会、环境和其他方面的问题结合起来²²，但这些问题大多集中在主办城市的范围内。在主办城市范围之外，研究者大多关注活动在提升区域基础设施体系、重塑区域旅游方面的作用，而有的研究者则注意到活动对区域层面的投资和经济部门的再分配效应²³⁻²⁴。与以往世博会主办城市的关注度有限相比，上海从一开始就研究长三角一体化发展可能带来的影响。由上海市、江苏省、浙江省及后加入的安徽省组成的长三角地区，面临着过度竞争、重复投资和体制瓶颈阻碍合作的挑战²⁵。因此世博会成为区域一体化进程的触发器，刺激政府、企业和社会团体在城市转型、经济升级、资源再分配、社会融合和科技/社会创新方面的合作。

2003年，长三角地区各城市签订了合作筹备世博会的协议，开始讨论区域合作的具体措施。成立了世博筹备工作

小组，联合各方力量共同举办世博会，协调旅游服务和设施建设。苏州、杭州、宁波等六大城市就宜居城市、数字化、城市发展等重要议题举办了世博论坛。此外，在世博会期间，每隔十天举办一连串友谊日活动，让区域内各城市都有机会接待来自不同国家的游客，进行交流。对于每一个参与城市来说，世博会的举办带动了城市的发展和美化工作，向外界展示了城市的最佳形象。因此2010年上海世博会成为第一个区域内所有周边城市都积极参与筹备的世博会，并在世博会项目中发挥了重要作用²⁶。按照区域一体化的理念，上海长三角区域内的一小时交通网络体系方案出炉。沪杭高铁成为区域合作的第一个区域性基础设施。它在短短20个月内建成并于2010年10月开通。

各城市以世博会为助推，在城市规划、区域基础设施、生态保护、营商环境、部门发展、旅游发展、信息共享、安全保障等方面加强制度协调。同年，浙江省提出了建立区域协作与经济发展年度互动体系的建议。从2005年开始，长三角各城市每年都会召开会议，商讨打破行政边界限制的具体措施，推动长三角区域一体化。为推动区域一体化进程，国务院在2008年的政策文件中首次提出了长三角区域一体化的目标。2010年5月，《长三角区域规划》获国务院批复，提出了以世博会为催化剂，发展区域竞争力，提升区域内服务业和先进制造业的目标。2016年和2018年先后召开了两次研讨会，就基础设施、物流、资源和市场的整合进行了探讨。因此，2018年6月，《长三角一体化发展三年行动计划（2018—2020年）》与另一个政策文件《长三角区域合作短期重点》一同发布。该行动计划在交通、能源、部门创新、信息网络、环保、公共服务、市场开放等方面提出了更加具体的一体化规划。2018年1月，长三角区域合作办公室成立，负责协调落实上述计划²⁷。显然，世博会引发了区域一体化的推动力，激发了参与城市寻找共赢方案，克服地方保护主义、体制障碍和过度竞争等问题。长三角各城市参与世博会项目，从游客和旅游产业的大幅增加中获利，并将世博会筹备工作作为区域协作措施的试验田。



世博公园

结论

作为发展中国家中第一个举办世博会的城市，上海通过向以往的主办城市学习，全面了解了世博会主办城市的遗产创造，包括空间、经济、技术和社会等方面的有形和无形遗产。上海在筹备世博会的各种策略中，一个重要的关注点是如何平衡好世博会的短期目的和城市的长期目标。

本文作者重点介绍了四个重要的遗产：第一，上海实现了重要的城市结构调整过程，以世博会为催化剂，将强大的国有企业从黄浦江滨江地区迁出。世博会项目还引发了雄心勃勃的城市更新计划，特别是 113km 的黄浦江滨江开发。世博会为黄浦江滨江开发项目中的重点区域提供了可供开发的城市土地，促进了黄浦江滨江开发项目的发展。第二，世博会作为知识的创造者，逐渐推进新的规划理念、规划方法、创新技术和以人为本的可持续发展和创新来改善当地的规划体制。上海以世博会为契机，向以往的主办城市学习。同时，国际规划专家通过设计比稿，引入了新的规划理念和技术进步，帮助上海完善世博遗产规划和滨江发展愿景。第三，这届世博会特别关注上海的活动筹备和会后遗产创造的社会视角。我们看到，无论是活动的策

划还是后期开发，都不断呈现出社会参与、公众参与的趋势。第四，以世博会为试验田，探讨区域一体化的可能性，以及各参与城市如何落实区域一体化的具体措施。这是首次区域内各城市积极参与世博会的筹备和世博会活动。这些合作引发了区域一体化在基础设施、经济、环境、信息等方面的合作力度的加强。

值得强调的是，主办城市在学习过程中，对学习和改进充满了好奇，并决心改善自身和市民的生活环境。上海所创造的这些积极遗产，以及对城市未来、环境、市民及更多方面有更全面的关注，有助于这座城市继续走好未来的发展道路。

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Not Just “Better City, Better Life”

—Creating Sustainable Urban Legacy Beyond World Expo 2010 in Shanghai

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Legacy research has become an important part in megaevent studies. It was first raised by the International Olympic Committee (IOC) to assess the longer impact of the Olympic Games on host cities, after witnessing how a mega-event could drastically transform host cities like Barcelona, an industrial city in the midst of a deep economic crisis.¹ Host cities have the intention of creating a series of physical, economic and social benefits. These benefits include boosting the urban economy, permanently repositioning the city in the global tourist market, facilitating regeneration, allowing the revamping of transport and service infrastructures, creating a cosmopolitan urban image and vibrant cultural quarters, and establishing a network of high-grade facilities to serve as the basis for future bids.²

On the other hand, host cities are often saddled with financial and management burdens after the event. Time pressure means that the balance between investment and post-event strategies is not always carefully considered. Besides underused facilities and empty event parks, host cities are often left with substantial debts and venue operating costs that take years to pay off. Cities thus need to carefully consider the kinds of impacts they would like mega-events to have on their urban environment and how best to exploit those events to create longterm positive impacts.³ The term legacy is thus defined as any net impact arising from a mega-event, for better or worse changes or transformation.⁴ Over the years, legacy consideration paid increasing attention to environmental and social issues. In 1994, environmental concern and the reutilisation of Expo site was included in the Resolution of the General Assembly of the Bureau International des Expositions (BIE).⁵ In 2003, both *legacy and sustainability* were added to the mission statement by the IOC to ensure the environmental issues and long-term positive impact considered even before the mega event starts.⁶ Researchers nowadays speak of both tangible impact (venues or building, infrastructure development, new jobs and so on) due to mega events, which is the “hard”, “proto-elements” of legacy, but also intangible impact or the “human factors” (images, skills, experience, community identity and so on) that host cities endure in post-event era. Creating comprehensive legacy creation strategies to cover the whole development phases before, during and after events has thus become a gigantic task for host cities.

Aspiring to become a Global City, Shanghai has mapped out an ambitious plan to build the city into an international economic, financial and trade centre. As the host city of World Expo 2010, the first event of its kind hosted in a developing country, Shanghai viewed the mega-event as a great opportunity to regenerate its waterfront along the

Huangpu Riverbank into the host city's new cultural and exhibition agglomeration. Furthermore, Shanghai saw the opportunity to upgrade its cultural sector. The theme, “Better City, Better Life”, depicted Shanghai's vision of its future: a new way of thinking, using new technology, and an innovative approach towards realising a thriving, ecofriendly urban environment. The Expo put Shanghai under global media attention and showcased the city as the go-to destination for world leaders, business executives, technology pioneers, celebrities and international as well as domestic tourists. With more than 200 countries and international organisations participating, the World Expo attracted 73 million domestic and foreign visitors. The success of Shanghai's event prompts us to ask a more intriguing question: Has Shanghai used the World Expo event to help achieve positive sustainable legacy for its host city? If so, what exact legacy has been created? In this paper, I will highlight four main areas in which the World Expo led to the creation of a positive sustainable legacy in Shanghai. They include the World Expo as the catalyst for urban restructuring process in Shanghai; the World Expo as a knowledge generator to transform the local planning regime; the World Expo as a trigger for social progress; and the World Expo as the facilitator for regional integration in the Yangtze River Delta (YRD).

World Expo as a Catalyst for the Urban Restructuring Process in Shanghai

The World Expo is a mega-event that showcases the latest or future advances in the arts, cultures and technology of host cities.⁷ Over the years, World Expos have gradually grown into complex economic, political and planning events that last for three to six months and receive, in a short time span, millions of visitors from all over the world. As the first city from an emerging economy to host such a world event, Shanghai initially wanted to use the World

Expo as a strong vehicle for city branding and to show off its achievements in city building and its rising status in innovation and cutting-edge technology. But when Shanghai started to prepare its project, the drive of using the Expo as a catalyst for urban restructuring became more prominent for city leadership. From the 1990s, Shanghai surprised the world with its rapid economic growth and physical transformation. Its urban transformation started with the less-developed but more spacious suburban Shanghai, such as the Pudong New Area on the eastern side of Huangpu River (the main river that separates Pudong from the Bund in the downtown Puxi area). Besides, various large-scale urban (re)development projects, such as the Bund area redevelopment, the People's Square redevelopment and the Hongqiao Business District development, have been strategically carried out to revitalise its inner city, infrastructure node and urban fringe.⁸ To accommodate new growth, Shanghai needed to look for new urban space for inhabitants, business and tourists, and the banks of the Huangpu River offered such space not far from the city centre. For a long time, only a three-kilometre stretch of the Huangpu waterfront could be accessed by the public, while most parts of the 113 km waterfront were occupied by Shanghai's heavy industrial sectors, including China's most prominent shipyards, various harbour industries, steel factories, chemistry factories, etc. However, it was a daunting task to transform the industrial landscape. These harbour-related enterprises were state-owned under the administration of the central government, and the local development plan did not necessarily apply to them.

Shanghai was inspired by the idea to make use of the waterfront along Huangpu River as the Expo site, as the location could best reflect Shanghai's past, present and future development, and fit well the Expo theme. Because Shanghai obtained the right to host World Expo

2010, the city had the legitimacy to ask for coordination from the central government to persuade these powerful state-owned enterprises located within the Expo site to consider relocating to other more spacious location in suburban areas. There was a long negotiation between Shanghai and these enterprises on the relocation and compensation to reach an agreement. For example, Jiangnan Shipyard would relocate to the shipyard base on Changxing Island. In some cases, the time constraints of hosting the Expo obliged involved parties to suspend the dispute until afterwards. Through Expo preparations, the land value of the waterfront on both sides of Huangpu River increased substantially, making it more appealing to private investors after the Expo. Furthermore, the Expo created cultural facilities and necessary infrastructure including metro lines and an improved road system, meaning that the Expo site could be transformed into high-quality urban land with cultural and service-oriented urban functions in the post-Expo era.

At the city level, Shanghai's World Expo preparations served as a catalyst to facilitate the urban restructuring process, with a focus on the Huangpu River waterfront and the integration between Pudong and downtown Puxi. Even before China was awarded the right to host Expo 2010, the Shanghai Municipal Government established a project team in January 2002 to coordinate the development of the riverbank. Later, the Shanghai Huangpu Riverbank Development Group was established to coordinate the waterfront development of both banks of Huangpu River that belong to different urban districts. Meanwhile, a public company – Shanghai Shenjiang Riverbank Development and Construction Investment (Group) Ltd – was established to take charge of land development, finance and construction of the Huangpu Riverbank Development with public aims.

To invite new planning concepts and creative ideas in the preparation of the Expo site, the Shanghai Urban Planning Administrative Bureau organised a series of concept design competitions in 2000 and 2001 to redesign the 41.2 km riverbank line and 91 km² waterfront area along the Huangpu Riverbank. A Master Plan for the waterfront area of the Huangpu River was finalised based on the concepts provided by the winning team, SOM. The plan divided the Huangpu Riverbank into the central part, northern extension and southern extension. The central part covers 20 km along riverbank line and an area of 22.6 km², including a 6.68 km² core area to prepare the Expo.⁹ There are five objectives defined in the Master Plan regarding the transformation of the Huangpu River waterfront:

- ④ Functional reform: moving all docks, factories and warehouses on the banks and building a waterfront integrating housing, work, culture, recreation, tourism and other functions.
- ④ Environmental protection: treating the industrial pollution and at the same time building greenbelts on both banks to improve biodiversity in the city environment.
- ④ Improving quality of life and traffic conditions to allow a smooth connection between the waterfront areas and the city.
- ④ Protecting the historical cultural heritage of the city with new urban functions.
- ④ Reconstructing the space landscape of the city and coordinating the waterfront development of both banks of the Huangpu River in different urban districts.

Using the Expo as a catalyst, Shanghai gained the consensus of stakeholders and existing interest groups

in transforming the Huangpu Riverbank waterfront with new urban functions for citizens to enjoy. To speed up waterfront transformation, Shanghai first issued the *Huangpu Riverbank Waterfront Development Five-year Plan* in 2013. This action plan identified seven districts on the Expo site and adjacent neighbourhoods with specific targets, including targets for a series of waterfront neighbourhoods outside of the Expo site in Xuhui and Yangpu Districts. Both districts further developed their own five-year plans to specify the measures on how to achieve the targets. These five-year plans demonstrated the determination of local leadership to carry out the plans and turn them into reality. Besides urban transformation, Expo preparations allowed the city to invest heavily in the infrastructure system, considered crucial to its global economic status. By the time the Expo opened, Shanghai had made great progress in its infrastructure system, adding five new metro lines, one new airport terminal, a myriad of new road tunnels under the Huangpu River, an improved road network and more than several square kilometers of prime urban area ripe for redevelopment.¹⁰ The 731 ha Xuhui Waterfront was one of the first mega projects to be rapidly developed, including a promenade, a museum, exhibition centres, large-scale residential districts and high-end office buildings. The location is well accessible via the newly-built metros, various city highways and tunnels and therefore attracted the participation of numerous investors and developers.

World Expo as a Knowledge Generator to Transform the Local Planning Regime

While the legacy of mega-events is often discussed geographically, approaching event legacy as knowledge has increasingly gained ground.¹¹ Host cities of the Olympic Games not only carried out research on legacies of the Olympic Games and local impact but also shared

knowledge with each other to gain a better understanding of legacy creation in different local contexts. According to Oliveira et al,¹² event host cities not only acquire “explicit knowledge, including technological and scientific knowledge”, but also tacit knowledge obtained through experience. In many cases, host cities borrow expertise from previous host cities to ensure better legacy lessons are learned and adapted effectively to local legacy plan. As the host city of World Expo 2010 that was eager to learn and do well, Shanghai valued legacy lessons from previous host cities and therefore made extensive efforts to study the relationship between event and city development from previous Expo host cities. Among the studies, how to adopt new planning concepts, new planning methods and new technologies to create a sustainable legacy and high quality of living environment were high on the agenda.¹³⁻¹⁴

To ensure the urban development strategies that would allow Shanghai to profit from the Expo, the Municipal Government's main think tank – the Shanghai Development and Reform Research Institute – and various local universities investigated various post-Expo effects on Shanghai's development towards a global city, including the development of its service sector, cultural sector, knowledge economy, regional integration, low-carbon economy as well as the reuse of post-event resources. The corresponding post-event strategies define steps on how to make use of land, create new urban functions, deal with Expo pavilions, create waterfront landscapes, and complete public facilities.¹⁵ Most of the research results were incorporated in the Master Plan of the Shanghai Expo site. Besides research, Shanghai organised two international design competitions in 2002 and 2004 to invite international architect studios to design the Expo site with creative ideas. This learning process continued in the postevent period, with various local think tanks and university researchers continuing to investigate thematic

research for optimal post-event development, such as the development of the cultural sector.

Legacy Plan

The important strategy used in the preparation of Expo 2010 Shanghai was to incorporate a legacy plan in the Expo site plan from the beginning. For the whole Expo site and each of the key Expo facilities, the Master Plan defines not only the basic principle of design but also their post-Expo use as well as strategies for operation and management.¹⁶ Main highlights include:

- ◎ The Expo plan is actually a Master Plan of the Expo site that incorporates temporary Expo preparation.
- ◎ Defining permanent buildings based on Shanghai's urban strategies to avoid demolishing temporary buildings.
- ◎ Conserving historical industrial buildings from their industrial function to cultural and exhibition functions.
- ◎ Combining the development of the road system, the metro system, other infrastructure facilities, green and public space for the Expo with the development of Huangpu Riverbank redevelopment to create a new urban centre on the Expo site on both sides of Huangpu River.
- ◎ Applying advanced ecological techniques for recycling water, renewable energy sources at the building, district and urban scales.

The Master Plan divided the whole area into five zones:

- ◎ Zone A: Pudong East Area (43 ha), planned for foreign pavilions during the Expo and to be transformed into an international cultural and business district.

◎ Zone B: Pudong Middle Area (96 ha), planned as the core of Expo site with a number of permanent buildings such as the Expo Cultural Centre, the Expo Theme Exhibition, the Expo News Centre, and to be transformed into an exhibition and business district.

◎ Zone C: Pudong West Area (103 ha), planned for pavilions, theme pavilions using existing industrial plants and the Houtan Wetland Park, and to be used for a reserved extension area.

◎ Zone D: Puxi Middle Area (54 ha), planned as a transformation of the Jiangnan Shipyard site into corporate pavilions and a green area along waterfront, and to be transformed into the industrial exhibition centre, maritime museum, aquarium, for the purpose of exhibition and cultural exchange.

◎ Zone E: Puxi East Area (15 ha), planned as a transformation of the Jiangnan Shipyard factories into various corporate pavilions. Reserved for extension in the post-Expo era.

To ensure the Expo preparation activities were coordinated in an effective and efficient way, the Shanghai 2010 World Expo Executive Committee was established, consisting of representatives from both central government and 24 related committees of the Shanghai government. The Shanghai World Expo Coordination Bureau was established as a core institution in charge of the daily operation and development of the Expo area, and to help implement national policies and the policies of the Shanghai World Expo Organizing Committee until its tasks ended in 2012. Besides, the Expo Land Company was established in January 2004 to take charge of land expropriation, land development and relocation. The Shanghai Shenjiang Riverbank Development and Construction Investment

(Group) Ltd was then in charge of the Huangpu Riverbank except for the Expo site, in cooperation with the Shanghai World Expo Bureau. Thus, the preparation of the Expo, from land management to construction, were assigned to responsible entities to ensure a smooth process.

Post-Expo Use of Buildings

The event facilities could be divided into four categories. The first is permanent facilities constructed by the Expo Organiser (Table 1), to be retained after the event as part of future facilities for Shanghai, for example, the 20000 m² China Pavilion, the 129000 m² Theme Pavilion, and the World Expo Centre. The Expo Boulevard was built as the main access to the site, destined to become a modern commercial corridor as well as tourist attraction. The Expo Village, on the other hand, was constructed to accommodate officials and staff from participating countries and organisations before turning into a hotel centre. Besides, there were 150 pavilions belonging to other participant countries, non-governmental organisations or corporations. Many of them had been designed by world-famous architects to show off the creativity of the participating countries and thus received various prizes for their innovative architecture design. Additionally, Shanghai also subsidised the construction of temporary pavilions for 50 developing countries so they could also participate in the Expo.

In line with the legacy plan, the newly-constructed buildings as well as a number of transformed buildings, following revisions, were adapted to their new functions after the Expo and transferred to their new owners as planned. Most of the buildings serve as museums and exhibition centres with a mandate to open freely to the public. In the first few years after the Expo, the metro stations within and nearby the Expo site were closed due to nearby construction and limited passengers, which

Table 1 Main preserved buildings and facilities and their post-Expo function

Expo facility	Post-Expo function
China Pavilion	China Art Museum
Expo Axis	Infrastructure knot, underground shopping mall
Expo Cultural Centre	Addition of cultural facilities, becoming the Mercedes-Benz Arena
Expo Theme Pavilion, Expo Centre	Addition of hotels and restaurants, becoming the Shanghai World Expo Exhibition & Conference Centre
Expo Pavilions	Keep pavilions with creative design concept and transform them into agency setting of foreign consulates, business and cultural centres for international exchange
Urban Best Practices Area	Shanghai Creative Industry Zone
Urban Future Pavilion (former Nanshi Electricity Plant)	Power Station of Art
Expo Enterprises Pavilions	China Industry Museum Group
Expo Park	Urban Waterfront Green Area
Expo Food Square	Five-star hotels

weakened the accessibility of these cultural facilities in Pudong. In comparison, the former World Expo Cultural Centre, which was converted to the Mercedes-Benz Arena, enjoyed exceptional commercial success. It provides live-music shows for up to 18 000 visitors throughout the year and its diverse cultural and sports activities also attract young people and families to visit. Besides the permanent buildings, hot debate in society focused on how sustainable principles could be applied so as to reuse the outstanding pavilions that were most appealing to the local Chinese population. As a result, Shanghai Municipality decided to keep a number of pavilions as they were for the following five years, pending ideas for their reutilisation. The Italian pavilion, for example, was transformed into an exhibition centre to showcase Italian arts.

Despite extensive preparation of the legacy plan and legacy strategy, the post-Expo development still faced

several bottlenecks. The first was a lack of a more detailed guidance for implementation, which slowed down the development of key areas on the Expo site. The second was the lack of coordination on the development of the Expo site between different urban districts, leading to the risk of having very similar urban functions without nuance and local identity. The third was the hesitation of the private sector to get engaged in the development of Expo site due to the limited power of changing planning concepts. Instead, they chose to develop urban districts adjacent to the Expo site. Furthermore, District Governments competed fiercely for investment, with the result that some waterfront locations were well developed at an early stage while others fell behind due to a lack of investment. Shanghai recognised these bottlenecks and made efforts to find solution. A series of design completions were arranged to invite innovative development concepts for the Expo site and in 2012, a public engagement process was

launched to improve the development concept. The green valley concept, for example, was brought in to integrate new sustainable solutions in both the urban design and the individual buildings on the site.

Technological Innovation

Since the start of the Expo project, urban sustainability was the main focus. The sustainability concern was reflected in terms of applying new technologies and new planning concepts to sunlight, water, wind, noise, energy, resource and waste.¹⁷ Most of the analysis was computer-aided eco-simulation to understand how the most optimal micro-environment in public spaces and individual buildings could be created during and after the Expo. The concept of circularity was considered and applied in renewable energy, water recycling, waste reduction and waste reuse. For example, the water used in public space at the Expo Park went through square filtering, precipitation, sand filtering, rotating brush filtering, constructed wetland and an activation gas area to complete the water purification process.¹⁸ Later, this technological innovation in water purification was also applied to other water-related public space along Huangpu Riverbank.

While Shanghai widely adopted technological innovation in planning the Expo at the urban and building scale, Expo 2010 Shanghai was the first Expo to have an Urban Best Practices Area (UBPA) to demonstrate tangible solutions to the world's challenges and invite cities to learn from successful cases. The UBPA concept provided a vivid platform for cities to exchange knowledge, which has been reproduced by all Expos since.¹⁹ These solutions demonstrated by the UBPA, like the low-carbon concept, continue to be adopted in urban projects on the Expo site and citywide.

World Expo 2010 as a Stepping Stone for Social Progress

The social impact of mega-events was often neglected in the past. Increasingly, host cities pay attention to the influence of events on local communities. This is due to the fact that not only is community support an essential aspect of a successful megaevent, but also that community groups tend to be more vulnerable to, and more affected by, event-led development.²⁰ "The urban areas which attract the promoters of mega events to a city-offering space to plan and play with – are often the same areas which have had serial government and commercial interest."²¹ Often people living and working in the area and local small businesses may experience the greatest impact but do not have a strong voice to represent their interests. In the discussion of Expo site preparations, social responsibility was raised from the beginning of the project as Shanghai believed that the Expo was intended for everyone living in the city. This social concern was reflected in three areas: first, the city adopted a people-centred approach to deal with societal-related issues in relocation; second, the city strived to turn the industrial landscape along Huangpu River into an urban waterfront serving all citizens at a substantial cost; third, efforts were made to engage the public in the Expo and in the decision-making process for the post-Expo era.

People-Centred Approach to Relocation

Choosing the waterfront of the Huangpu River meant that the preparation of event's facilities began with the demolition and relocation of households and local enterprises in three districts of Pudong, Luwan and Huangpu. Shanghai's Expo site contained 270 existing factories and enterprises, factory dormitories built in the 1970s and various neighbourhoods, many of which were workers' villages from the enterprises in

the neighbourhood. After investigation, a group of planners suggested that eight neighbourhoods (0.88 km² in Pudong New Area and 0.52 km² in downtown Puxi Area) could actually be preserved within the Expo site without disturbing the main Expo activities. In this way, 15 000 households could avoid relocation. With special Expo funds, these neighbourhoods were enhanced with improved public space, green areas and better access to public transportation such as new metro stations. Some 18 000 households from the 18 neighbourhoods within the 5.28 km² Expo site (3.93 km² in Pudong New Area and 1.35 km² in downtown Puxi Area) still experienced relocation between 2004 and 2010. To ensure the households experience minimum impact, Shanghai started the construction of neighbourhoods that could accommodate relocated households in time. Pujiang Township in Minhang District and Sanlinyongtai Garden in Pudong were completed by the end of October 2005 to relocate most of the relocated households from Pudong side. Pujiang Expo Garden was also put into use in December 2005 to receive relocated residents from Luwan and Huangpu Districts in Puxi. With a generally high standard of compensation, most households experienced a quality improvement in living conditions in term of space, functions and facilities, and well-designed public space in the neighbourhoods. The relocation plan also took into consideration the unity of the local community, trying to relocate the same households from the old neighbourhood in the same neighbourhood. Nevertheless, the relocated households required time to adapt to new living environment, especially because the new houses are located far from the city centre and the public transportation system was not initially well developed.

Social Integration in Redevelopment Practice

One of the main aims of hosting the World Expo in Shanghai was to use the event as a stimulus to move all

docks, factories and warehouses along the river, and to develop a waterfront integrating housing, places of work, culture, recreation, tourism and other functions for local citizens to enjoy. To realise this goal, Shanghai invested heavily in facilities for pedestrians, landscaping, and cultural facilities as well as in the infrastructure network before the Expo. The three main green areas realised as part of the Expo project-Expo Park, Houtan Park and Bailianjing Park – covering an area of 50 football fields in Pudong New Area along the Huangpu River, have formed a riverside green corridor. After the Expo, Shanghai continued its efforts to transform the waterfront along Huangpu River into public space. For example, a total of 8.3 km of promenade strips were created to connect the Bund area with the Expo site and South Bund area, with a total green area of 100 000 m², offering walking, jogging, cycling and relaxation space for local citizens.

As Shanghai gradually defined its goal of creating world-class high-quality public space along the Huangpu River waterfront for its local citizens to enjoy in their daily life, the city organised an international design competition to invite experts from across the world to contribute to designing the open space at the East Bund of the Huangpu River. To realise the waterfront transformation with these creative design concepts, the city issued the first *Three-year Action Plan in Developing Public Space along the Huangpu Riverbank (2015-2017)*. The action plan aimed to unlock the key bottlenecks between Yangpu Bridge and Lupu Bridge so as to connect the 30 km waterfront from three urban districts – Yangpu, Xuhui and Pudong – by the end of 2017, offering citizens continuous green public space along the Huangpu River for relaxation and sport. In total, 75 projects were defined in the action plan, and the entities responsible for the implementation were appointed. It is proved that this action plan was effective in reaching its goal of creating a total of 45 km of public space along the

waterfront for local citizens to enjoy in their daily lives. As more local citizens started to use the waterfront for sport, walking and relaxation, Shanghai issued the second-round *Three-year Action Plan in Developing Public Space along Huangpu Riverbank (2018- 2020)* at the end of 2017, and the city has even included the goal of creating a high-quality waterfront in the *Shanghai Master Plan (2017-2035)*.

Public Participation in the Post-Expo Planning Process

The social concern for various mega-events is to find a proper strategy to engage communities in participating and voicing their interest. During the Expo, 600 000 volunteers from local communities were encouraged to take part in the event's daily activities, and each household was provided with a ticket to visit the Expo. With such participation, local citizens gradually got to know the Expo and felt themselves as part of the mega-event. After the Expo, Shanghai first noticed discussion as to whether some exceptional appealing pavilions could be preserved and then adapted this idea to a more detailed planning guidance in Zone B. To further encourage public engagement, Shanghai decided to involve public opinion in the more detailed planning of the Expo site Zone A and Zone B. The consultation was held in May-June 2011. Based on this experience, a series of public consultations were held to engage public participation in the planning process. These efforts were the first step for Shanghai in carrying out its people-centred approach in the planning process to look for a more inclusive solution.

World Expo as a Facilitator for Regional Integration in the Yangtze River Delta

While host cities of mega-events tend to establish legacy strategies and assess impacts from an increasingly comprehensive approach, combining economic, social, environmental and other concerns,²² these concerns

are mostly focused within the boundaries of the host city. Beyond the host city territory, researchers have mostly paid attention to the role of event in enhancing regional infrastructure system and reshaping regional tourism, whereas some notice the effect of the event on redistributing investment and economic sectors at the regional level.²³⁻²⁴ Compared with the limited concern from previous Expo host cities, Shanghai started right from the beginning to examine the possible impact on integrated development in the Yangtze River Delta (YRD). The YRD, consisting of Shanghai, Jiangsu Province, Zhejiang Province and later, Anhui Province, was challenged with over-competition, repetitive investment and institutional bottlenecks preventing collaboration.²⁵ As a result, the World Expo carried the potential to serve as a proper trigger for the regional unification process and stimulate collaboration among governments, business and social groups in urban transformation, economic upgrading, resource redistribution, social integration and tech/social innovation.

The discussion of concrete measures in regional collaboration regarding the World Expo started in 2003, with an agreement signed by cities in the YRD to collaborate on Expo preparations. A working group for Expo preparations was set up with joint force to host the Expo together and coordinate tourism service and facilities. Six major cities in the region including Suzhou, Hangzhou and Ningbo organised Expo forums on important issues such as liveable cities, digitalisation and urban development. Besides, a series of friendship days were organised every ten days during the Expo so each city in the region had the chance to welcome Expo visitors from different countries for exchange. For each of the involved cities, the Expo triggered urban development and beautification efforts to present the best image to the outside world. As a result, Expo 2010 Shanghai became

the first Expo where all neighbouring cities in the region were active participants in the preparation of the event and played an important role within the Expo programme.²⁶ Following the regional integration concept, the one-hour transport network system within YRD Shanghai was proposed. The Hangzhou High-Speed Train became the first regional infrastructure resulting from the regional collaboration. It was built in just 20 months and opened in October 2010.

The cities used the Expo as a catalyst to improve institutional coordination in urban planning, regional infrastructure, ecological preservation, business environment, sector development, tourism development, information sharing, and security. In the same year, a proposal was submitted by Zhejiang Province to establish an annual interaction system in the region for collaboration and economic development. Since 2005, cities in the YRD have met annually to discuss concrete measures to break up administrative boundary constraints and to promote regional integration in the YRD. To stimulate the regional integration process, the State Council stated for the first time the goal of regional integration in the Yangtze River Delta in its 2008 policy document. In May 2010, the *Yangtze River Delta Regional Planning* was approved by the State Council, stating its goal of using the Expo as a catalyst to develop the region's competitiveness and improve the service sector and advanced manufacturing sector in the region. In 2016 and 2018, two workshops were held to discuss the integration of infrastructure, logistics, resources and markets. As a result, The *Yangtze River Delta Region Integration Three-year Action Plan* (2018-2020) was issued in June 2018, together with another policy document *Short-term Yangtze River Delta Region collaboration focus*. This action plan suggested more concrete integration plans for transport, energy, sector innovation, information network, environmental

protection, public service and market openness. The YRD collaboration office was established in January 2018 to coordinate the implementation of the above plans.²⁷ It is clear that the World Expo triggered the drive for regional integration and motivated involved cities to look for a win-win solution to overcome local protectionism, institutional barriers and over-competition. The cities in the YRD participated in the Expo project to profit from the dramatic increase in tourists and the tourism sector and used the Expo preparations as a testbed for regional collaboration measures.

Conclusion

As the first city from a developing country to host a World Expo, Shanghai obtained a comprehensive understanding of legacy creation in Expo cities, both tangible and intangible, and in spatial, economic, technical and social perspectives, by learning from previous host cities. A key concern in the various strategies Shanghai established for its Expo preparations was to balance the temporary short-term purpose of the event and the long-term post-event ambitions of the city. I highlighted four key legacies in this article: first, Shanghai realised its important urban restructuring process, using the Expo as a catalyst to expel powerful state-owned industries from the Huangpu River waterfront. The Expo project also triggered an ambitious urban regeneration program, notably the 113 km Huangpu Riverbank Development. The Expo facilitated the development of the key areas in the Huangpu Riverbank Development project by delivering ready-to-develop urban land. Second, the Expo served as a knowledge generator to transcend the local planning regime with new planning concepts, planning methods, innovative technologies and a people-centred focus on sustainability and innovation. Shanghai used the Expo as a good opportunity to learn from previous host cities. At the same time, international

planning experts introduced new planning concepts and technological advancements through a design competition to help Shanghai improve its vision of the Expo legacy plan and waterfront development. Third, the Expo paid special attention to the social perspective of the event preparations and post-event legacy creation in Shanghai. We have seen a continuous trend of community involvement and public participation in both the planning of the event and post-event development. Four, the Expo was used as a testbed to examine the possibility of regional integration and how the implementation of regional integration can be carried out in concrete measures by all cities involved. It is the first Expo in which cities in the region were actively involved in Expo preparations and Expo activities. These collaborations triggered intensified regional integration efforts in infrastructural, economic, environmental and information-related collaboration. What is worth highlighting is the learning process of the host city, curious to learn and improve, and determined to improve itself and the living environment for its citizens. These positive legacies Shanghai has created helps the city continue its development path towards the future, with more comprehensive concerns for the city's future, for the environment, for its citizens and beyond.

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