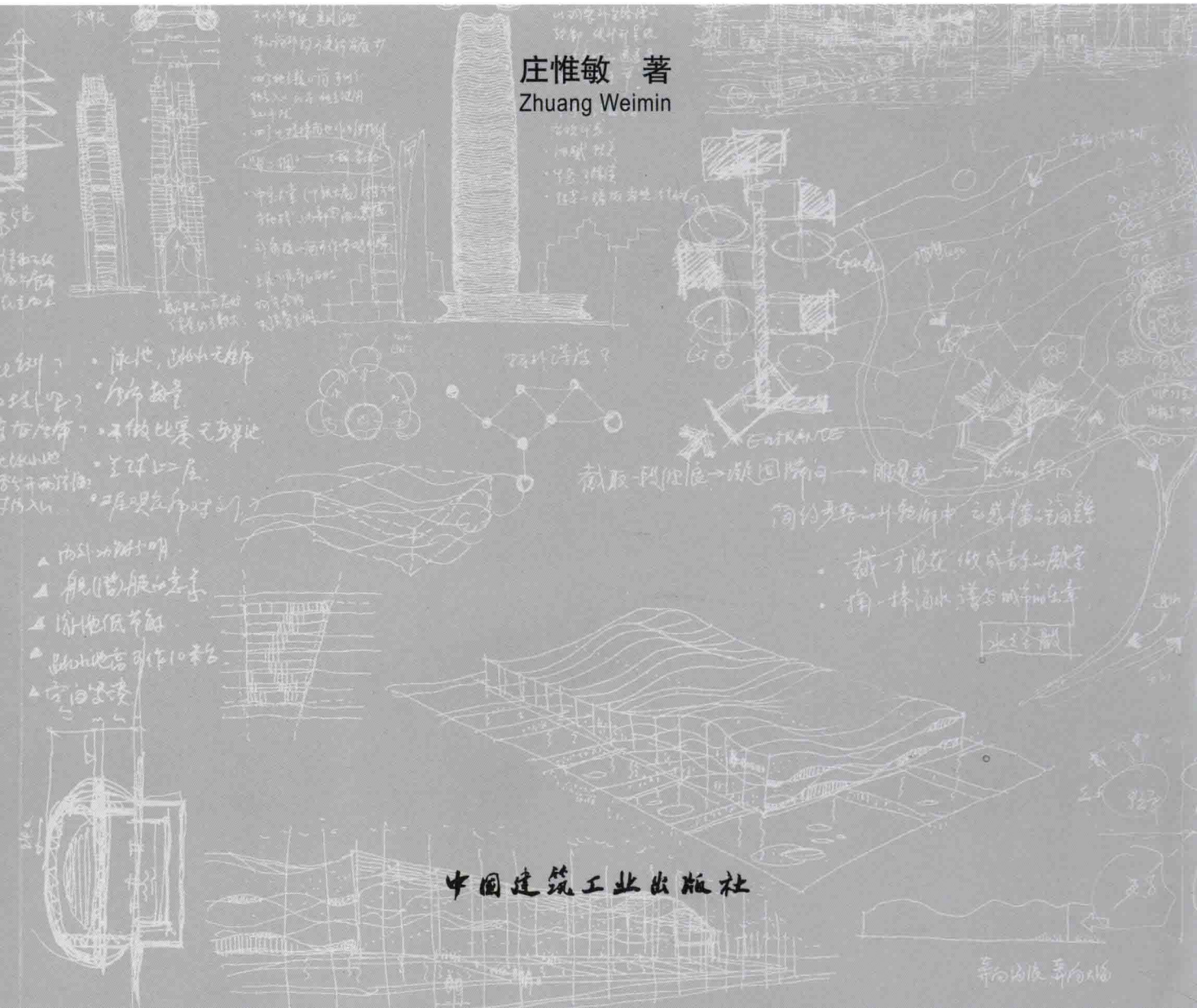
建筑策划与设计

Architectural Programming and Design

庄惟敏 著

Zhuang Weimin



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序

工业时代之前的那种将理论与工法相融会、固守人文与科技并举的经典建筑学连同那个时代的传统建筑师们，正被因知识膨胀而越来越精细化分工的时代导向一种逐渐被人们遗忘的境地，建筑学的学术边界变得越来越模糊，建筑设计有被描述为一种意识形态上的艺术创作行为的趋向。在这一潮流的背景下，建筑策划似乎是一个“非建筑”问题，许多创作型的建筑师们对此鲜有关注。然而，我们不会忘记20世纪战后重建以及欧洲城市化进程中，那些强调理论囿于实践，注重创作思想与技术实证相结合的伟大的建筑师们曾坚实地推动了城市、乡村与建筑人工环境的发展，我们看到了其中建筑策划思想的闪现。今天我们依旧持续地思考和延伸建筑策划的理论与实践并致力于广泛传播，正是源于我们执着地认为：科学合理的设计任务书是保障当下中国最广泛、最大量的城市与乡村建筑公众利益诉求的核心。

2000年笔者在博士论文研究的基础之上出版的《建筑策划导论》距今已有16年了。2014年由科学出版社出版的、全国科学技术名词审定委员会公布的《建筑学名词》一书已经将建筑策划列为建筑学专有名词。建筑策划的概念、理论、方法不仅为业界所接受，而且近几年建筑策划的实践以及建筑师将建筑策划与建筑设计结合开展的业务实践也日益增多，极大地完善和丰富了建筑策划的学科体系。

但我们也必须看到，建筑策划的理论研究和实践在中国开展得并不理想，许多建筑师仍在传统的运行模式中被动地按照业主所拟定的设计任务书进行设计，显得缺乏科学性与逻辑性。建筑师作为绘图员，很多时候只是帮助业主或领导来完成他们头脑中想象的某种建筑外形的困境仍没有消除。建筑空间和内容设置的非理性、功能组织的不合理，以及将建筑设计曲解为仅仅是造型外观的营造，这都直接或间接地导致了我们的建筑使用功能不合理，经济效益、环境效益和社会效益低下。同时，因缺乏建筑策划而带来的建筑短命的现象一点都不亚于建造质量问题，它已经变成了我国当今造成社会资源巨大浪费的关键性问题。这些都从根本上否定了建筑学的基本价值，在这一语境下探讨建筑策划与设计便具有时代的意义。

建筑策划在国外已有法律可循。法律规定，政府投资的公共建筑，如养老院、学校、医院等，在规划设计之前必须要进行建筑策划研究，设计任务书必须要经过政府认可的建筑策划研究机构的审查，后续承担这类项目设计任务的建筑师要求具备相应的建筑策划的专业知识。实际上，建筑策划原本就应该归属于建筑师的职业范畴，这一点在国外已经得到了普遍认同。UIA的章程里有明确规定，建筑师要为业主提供全方位的服务，这种服务不仅包括建筑设计，也包括前期研究；或者说，

广义的建筑设计本来就是涵盖前期研究的。建筑师作为自由职业者，就像医师、律师、会计师一样，建筑师也是业主的置业顾问，就应该研究建筑项目的设计到底怎么做、设计依据是什么。设计依据所具有的理论特质，包括更深刻的社会、经济、人文因素等的研究都应该作为建筑师的业务范畴。建筑策划作为国际化职业建筑师的基本业务领域之一，其理论已成为建筑学理论的基本组成部分，多学科融合的建筑策划方法也将成为当今职业建筑师的一项基本技能。

对照16年前《建筑策划导论》中的建筑策划框架，其理论核心和原理没有变化，但是方法及实践随着建筑学及建筑实践的开展又有了一定的丰富。本书将视野扩大到整个人居科学的范畴，旨在为读者提供一个建筑策划的更新版。在16年研究及实践的基础上，重新梳理和界定建筑策划的概念和原理，并结合大数据、模糊决策等跨学科的研究，对建筑策划的操作程序和方法进一步进行论述和引介。本书的重点是结合近年来建筑策划的研究案例以及在策划指导下的建筑设计的案例分析，尽量为读者呈现出建筑策划与建筑设计互动关联的研究成果。

本书不是简单地再版《建筑策划导论》，而是一次研究的升级。部分章节源于笔者近年发表的一些论文以及笔者指导研究生完成的与建筑策划相关的理论、方法研究及实践成果，对其进行系统地编纂、梳理，形成这本专著。它的意义在于要改变当下中国建筑师的职业范围和职业习惯，顺应世界的潮流，符合当下新型城镇化的发展需要，使我们建筑师的知识结构更加健全，让我们建筑师的职责更加明确，此外，也使我们的城市建设的决策者和开发商们能够了解和熟悉如何理性、客观地推进我国的城镇化建设，避免一个错误的开始，使我们的建筑具有更强的生命力，使我们的城市更能体现人文关怀。

如果说半个世纪以来的建筑策划研究成果教会了我们作为职业建筑师以“用最少的钱，盖最好的房子”的职业精神为目标的建筑策划技能和方法，那么今天我们在人居科学理论的指导下，在大数据、互联网、模糊决策等相关科学领域发展成果的基础上，推进的对建筑策划理论、方法和实践的研究将是对建筑师核心业务、技能和方法的体系性的拓展，更是对建筑师职业概念和职业使命的升级。

本书并未涉及建筑策划的收费标准、委托方式和验收标准，这些问题也是我们未来研究的方向之一。

庄惟敏

2016年1月30日于清华园

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Preface

The classic architecture before the industrial age, which celebrates the integration of theory and practice, and that of humanity and science, is being forgotten due to the contemporary trend of more and more detailed labor division resulting from knowledge expansion, along with traditional architects of that age. The subject boundary of architecture is becoming more and more obscure and there is a rising trend to describe architecture design as an ideological behavior of art creation. In this context, architectural programming seems to be an un-architectural issue, thus many creative type architects seem to pay little attention to it. However, the great architects who emphasized theory comes from practice and valued the combination of creative thoughts and technology, have firmly promoted the development of urban and rural architectural environment in the post-war reconstruction and the European urbanization process. They are not to be forgotten and we can see the idea of architectural programming shining among them. Today, we keep thinking and expanding the theory and practice of architectural programming, and devote ourselves to spreading the thoughts, based on our clinging belief that a scientifically rational design specification is the core to the public interest demands of urban and rural architecture environment contemporarily in China.

It's been 16 years since the author published the *Architectural Programming Guide* based on the doctoral dissertation research in 2000. The *Chinese Terms in Architecture*, published by the Science Press and the Chinese National Committee for Terms in Sciences and Technologies in 2014, has listed architectural programming as an architectural proper noun. Not only are the concept, theory and method of architectural programming accepted by the industry, the practice of architectural programming and that of architects combining architectural programming and designing is increasing in recent years, which vastly perfect and enrich the discipline system of architectural programming.

But it also has to be our awareness that the research and practice of architectural programming in China are not ideal. A lot of architects are still in the traditional operation mode that are neither scientific nor logical, in which architects design passively according to the design specification written by clients. Architects nowadays are still facing the difficulty that they're operating merely as drawing tools that help clients realizing the architectural features from their own imagination. The irrational arrangements of architectural space and content, the unreasonable function organization and the misinterpretation of architectural

design as only the construction of its appearance, have all led to the malfunction and inefficiency economically, environmentally and socially in our architecture, directly or indirectly. At the same time, the problem of short-lived buildings resulting from lacking architecture programming is nothing less important than the construction quality problem. It has become the key problem that cause huge waste of resources contemporary in China. All of these facts are fundamentally denying the basic value of architecture, hence the discussion on architectural programming and designing will be significant under the circumstances.

There are already certain laws to follow for architectural programming abroad. By law, government funded public buildings, such as nursing homes, schools and hospitals, have to conduct an architectural programming research; the design specification has to be reviewed by government-approved architectural programming research institution; and the architects undertaking such projects are required to have relevant expertise. In fact, architectural programming should be part of professional architecture design, and this has been widely accepted abroad. The UIA charter includes clear regulations that architects should provide clients with comprehensive services which include architecture design as well as preliminary study. Or we can say that a generalized architecture design process should include preliminary researches all along. Architects, as freelancers, are like doctors, lawyers and accountants. Architects are their clients' property consultants, and should do their research on the proper designing method and basis of the project. The theory specialty of the design should be included in the service areas of architects, including researches on more profound social, economic and humanity factors. Architectural programming theory has become one of the basic components of architecture theory, and the multi-disciplinary architectural programming method will also become a basic skill for contemporary professional architects.

In comparison to the architectural programming framework in *Architectural Programming Guide* 16 years ago, the core theory and principle haven't changed, but the method and practice have been enriched with the development of architecture and practice. This book include human settlements science into the field of vision, aiming to provide the readers with an updated version of architectural programming. Based on 16 years' researches and practices, this book redefines the concept and theory of architectural programming. Also it further discusses and introduces the programs and methods of architectural programming, combining with multi-disciplinary researches such as big data and fuzzy decision. The key point of the book is presenting to the readers the research results of interacting architectural programming with architectural designing, combining recent architectural programming research cases and case analysis of architecture design with guidance of architectural programming.

This book is not a simple republication of *Architectural Programming Guide*, but

an update of research. Some chapters in this book are based on recent publication of the author and the research and practice results on architectural programming related theories and methods of postgraduates tutored by the author, which are systematically compiled and reviewed. The meaning of this book, is to change the professional scope and habits of Chinese architects so that they can keep up with the world trend and meet the needs of new urbanization developments, to perfect the knowledge structure of architects, and to further clarify the responsibility of architects. Besides, this book also aims to tell the decision makers and developers how to promote the construction of urbanization in a more rational, reasonable and logic sense, how to avoid a wrong start, and how to make our architecture more vital and our city more humane.

The research results of architectural programming in the last half century have taught us the programming skill and method of how to "build the best with the least" as a professional architect. Nowadays, under the instruction of human settlements science, it' ll be an update of architects' professional concept and responsibility to further promote the research on architectural programming theories, methods and practices, combining with the developments of related fields of science such as big data, internet and fuzzy decision. The study will not only help expand the architect core business, skills and methods, but also update the concept of practicing and professional mission of architects. This book does not cover architectural planning fees standard, method of authorize and acceptance criteria, these issues are also our research direction in the future.

Zhuang Weimin
Jan 30th, 2016

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1 问题的提出与建筑策划的定义

1.1 当今建筑学发展的背景与问题的提出

1.1.1 建筑学发展的简要回顾

原始人类最早栖身于洞穴。《韩非子·五蠹》中有记载："上古之世，人民少而禽兽众，人民不胜禽兽虫蛇，有圣人作，构木为巢，以避群害。"随着农业的发展，人类开始定居，以土石草木等天然材料建造简易房屋。这是人类最早的把自然环境改造成为适于居住的人工环境的所谓建筑活动。人们在这种有意识地创造环境的活动中，积累知识，总结经验，不断创新，逐步形成了建筑学这门学科。建筑学与人类同时产生，同时发展，它诞生于人类为生存而改造自然的创作活动中，更为人类改造自然而服务。

"建筑学是研究建筑物及其环境的科学。它旨在总结人类建筑活动的经验，以指导建筑设计创作，进行形体环境的创造。它既包括营造活动中的技术、原理，又包含时代风格的艺术体现，是艺术和技术的系统知识。"（《中国大百科全书》建筑分册）随着社会的发展，科学技术的日新月异，城镇化进程的加快，建筑学也前所未有地拓宽着它的领域。社会学、环境学、城市学、环境行为心理学、生态学、人体工效学、市场经济学、系统工程学、数据科学等都逐步渗入建筑学这个古老的学科中。传统的建筑学正发生着变化，不仅在理论体系上越来越多地与自然科学、人文艺术学相融合，更在方法与技术层面，与信息论、运筹学、统计学等近代科学方法，以及当代计算机等高科技手段相结合，进入了一个更新与再发展的新时期。

1.1.2 人居科学架构下的建筑学体系构成

建筑活动是人类文明发展的最重要的活动之一。古典的建筑学是以建筑设计为核心，将其作为一种技艺，积累经验，制定法式。它包括建筑构造、建筑历史、设计规范、建筑技术等分支，是一门古老的综合学科。建筑科学从我们的祖先开始有意识地进行简单的营造，积累经验和师徒传承，发展到今天已经形成了由建筑学、城乡规划、风景园林三个一级学科和建筑科学工程技术这个二级学科等组成的系统科学。

传统建筑学科的研究对象包括建筑物、建筑群、室内家具设计，以及城市村镇和风景园林的规划设计。随着建筑学科的发展，城乡规划学和风景园林学逐步从建筑学中分化出来，成为相对独立的学科。

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