



ILLUSTRATION Zhifang WANG

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Practical thinking and scientific thinking exhibit fundamental differences. In landscape planning and design, practitioners must address multifaceted issues of a site comprehensively to make “holistic” site-oriented decisions. In contrast, current research deconstructs site issues, breaking them down into distinct research questions, each of which aligns with a variety of research methods.

A Call for Holism Research in the Realm of Territorial Spatial Planning and Landscape Design

Zhifang WANG*

College of Architecture and Landscape, Peking University, Beijing 100080, China

*CORRESPONDING AUTHOR

Address: No. 3, North Street, Yandongyuan, Haidian District, Beijing 100080, China

Email: zhifangw@pku.edu.cn

ABSTRACT

Nowadays, territorial spatial planning and landscape architecture face a perplexing paradox: research in these realms often directly adapts the research paradigms and methods from other disciplines, gradually losing its connection with planning and design practices. To address this dilemma, this article advocates for the strengthening of holism research by acknowledging the disparity between the demands of holistic decision-making in planning and design practice and the reductionist framework of modern scientific research. It suggests three ways in response to the disparity: enhancing the systematic extraction of practical experiences, strengthening the holistic exploration of system science, and promoting the synthesis of interdisciplinary knowledge.

KEYWORDS

Territorial Spatial Planning;
Landscape Design;
Planning and Design Practice;
Holism;
Reductionism

EDITED BY Yuting GAO, Ying WANG

TRANSLATED BY Yuting GAO, Tina TIAN

Nowadays, territorial spatial planning and landscape design face a perplexing paradox: research in these practical realms often directly adapts the research methods from other disciplines, gradually losing its connection with planning and design practices. This results in a contradiction between the “scientific nature” of research and its “relevance” to authentic practices. This dilemma stems from the fact that the demands of holistic and integrative decision-making in planning and design practice differ fundamentally from the reductionist framework of modern scientific research.

Reductionism and holism represent two fundamentally divergent epistemological approaches to understanding complex systems. In contemporary scientific inquiry, reductionism is often the predominant paradigm, grounded in the assumption that the intricacies of complex phenomena can be unraveled by dissecting them into their constituent elements. In contrast, the practice of planning and design is inherently holistic, requiring practitioners to respond to multifaceted site problems, develop solutions, evaluate

feasibilities, so as to make “holistic” site-oriented decisions. This has led to the disjunction between modern research and the practices of planning and design. The solution to the disjunction lies in highlighting holism research for related practices, focusing on the following three aspects.

First, enhancing the systematic extraction of practical experiences. Although the professional of planning and design is inherently practice-oriented and always makes holistic decision-making, there is still a lack of refining and synthesizing the knowledge and lessons learned from practical processes. Throughout Chinese cultural history, knowledge has been imparted largely through the systematic extraction of experiences, particularly in Chinese cuisine. In contrast to the specific measurement of salt by grams in Western recipe for scientific accuracy, Chinese recipe often use phrases such as “little salt” to convey the amount needed. This tradition has been passed down through generations, contributing to unique culinary flavors. We should learn from the wisdom of our

ancestors and continuously summarize and synthesize lessons from practical experiences in planning and design. Relevant experiences can be better promoted and passed down by refining them into principles similar to those of Chinese cuisine.

Second, strengthening the holistic exploration of system science. We should focus more on related research methods and approaches related to complexity science, to probe into the urban–rural relationships from a more systematic and holistic perspective. While the technological barriers of complexity science may be formidable, future research can at least embrace some relatively comprehensive concepts, including ecosystem services (to explore different types of services), trade-offs and gaming (to explore relationships between different demographics or functions).

Third, promoting the synthesis of interdisciplinary knowledge. Relevant disciplines in both ecology and humanities have made substantial achievements in modern reductionist research. It is necessary to assimilate, integrate, and apply existing interdisciplinary knowledge and research outcomes, then transform them into principles and guidelines for planning and design practices. Reductionism views systems as a combination of different parts. Therefore, synthesis and translational research play a pivotal role in assembling reductive results in order to make decisions based upon existing research.

Planning and design practices require holistic decisions. Reductionist research offers insights into specific phenomena, but only holism research can truly support the practices of territorial spatial planning and landscape design.

适用于国土空间规划和景观设计行业的整体主义研究倡议

王志芳*

北京大学建筑与景观设计学院, 北京 100080

*通讯作者

地址: 北京市海淀区燕东园北小街3号

邮编: 100080

邮箱: zhifangw@pku.edu.cn

摘要

当下, 在城乡规划和景观设计领域存在一大困惑与悖论, 即相关跨学科研究在整合其他学科的科研路径和研究方法的过程中, 逐渐失去了与规划设计实践的联系。面对这一困扰, 本文从规划设计实践的整体性决策需求与现代科研的还原主义体系之间的差异入手, 提出强化整体主义研究的倡议, 并建议强化“实践经验的规律提炼”“系统科学的整体探究”及“跨学科的知识集成”来辅助未来国土空间规划和景观设计实践。

关键词

国土空间规划; 景观设计; 规划设计实践; 整体主义; 还原主义

编辑 高雨婷, 王颖

翻译 高雨婷, 田乐

当下, 在城乡规划和景观设计领域都存在一大困惑与悖论: 相关学术研究常常直接走入其他领域, 在适应其他学科科研路径和研究方法的过程中, 逐渐失去了与规划设计实践的联系, 进而导致研究“科学性”与实践“相关性”之间产生矛盾。这其中的根源在于, 规划设计实践的整体决策需求与现代科研的还原主义体系存在根本差异。

还原主义和整体主义一直都是相对的研究复杂系统的思维模式, 然而现代科研的主体是还原主义——相信可以将复杂世界的整体现象解构成不同的部分进行描述和理解。而规划设计实践却完全不同, 它需要从业者综合考量多重场地问题、解决思路及其可行性, 从而进行场地导向的“整体”决策。由此可见, 现代研究和规划设计实践之间形成了沟通不畅和衔接不足的问题。而其解决之道, 就是要在实践行业的研究中强化整体主义思维, 具体可以从以下三个层面开始。

首先, 强化实践经验的规律提炼。虽然规划设计是典型的实践行业, 也一直在做整体主义决策, 但依然缺乏对相关实践过程中经验与教训的提炼与整理。自古以来, 中国文化的传承一直依赖的是经验提炼, 其中最具代表性的是中餐。相较于西餐“盐几克”的精确性与科学性, 中餐“盐少许”的经验时至今日依然有效, 且成为家庭餐桌独特风味的基础。我们应该学习古人, 不断总结规划设计实践经验中的智慧和教训, 并与现代科研手法相结合, 将其提炼成与中餐烹饪相似的经验规律——只有这样, 才能更好地传承相关的经验。

其次, 强化系统科学的整体探究。我们应该更加关注复杂科学的相

关研究方法与技术, 尝试从更为系统、整体的视角来研究城乡关系; 同时在现有研究的基础上, 更关注于相对整体性的概念, 以更好地理解城乡系统。复杂科学的相关技术壁垒或许较高, 但在未来的研究中, 至少可以纳入一些较为综合的概念, 比如生态系统服务(探究不同类型的服务)、权衡和博弈(探究不同人群或功能之间的关系)。

再次, 强化跨学科的知识集成。无论是在生态学还是人文学科方向, 相关专业都已在现代还原主义研究过程中取得了大量成果。我们要学会集成使用其他学科现有的知识与成果, 并将其转化成能够指导规划设计实践的原则与导则。还原主义将整体系统看作不同部分的组合, 其中集成性与转译性研究就是这一组合的核心环节。因而, 当我们在已有研究的基础上做决策时, 集成性知识便成为这一过程的关键。

规划设计实践是整体性的决策。尽管还原主义研究能解释局部现象, 但只有整体主义研究才能真正辅助国土空间规划和景观设计实践。

文前图片说明

绘制 王志芳

图片来源 土人设计

实践思维和科研思维存在根本差异。对景观规划设计而言, 其实践需要综合考虑场地中的多重问题, 进行场地导向的“整体”决策; 而目前的相关研究则是对场地问题进行解构, 细分成不同的研究问题, 每一个问题均对应诸多研究方法。