

## 空间冗余

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摘要：空间冗余不仅是当下建筑实践的既有环境，也是以城市为代表的建成环境的自然属性。这是将发展和进步作为主要导向的当代社会和建筑学科常常忽略的事实，至少迄今尚未正视。研究空间冗余，是试图将建筑学放置到更长远历史周期，更广泛的存在状态下进行审度和反思，从中发掘的特征和规律或可成为建筑学理论和实践具有启发的方向。

关键词：冗余；积累；改变；调整；应用

## ***Possibilities towards an Urban Architecture: Notes on the Seminar of “Hongkou 1617 Exhibition and Urban Study”***

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*Abstract: Spatial Redundancy is not only the context for contemporary architectural practice, but also the nature of urban built environment. This is a fact barely valued, if not totally ignored in the scope of society as well as architectural field, both of which are still under the domination of ideology with evolution and progressiveness as domination. By putting Architecture discipline into a longer historical period and a broader circumstance, the study of spatial redundancy aims at academic inspecting and reflecting, through which, new rules and directions may be explored to guide further practice and theoretical research.*

*Key Words: Redundancy; Accumulation; Change; Adjustment; Application*

空间冗余 (spatial redundancy) 是当代城市的普遍状态，是当下建筑学实际面对的普遍状态，而我们则把它当作我们建筑学实践研究的既有现实和出发点。

## 1 空间冗余的定义

冗余 (redundancy) 的字面解释是多余，不必要的重复，通常会被联系到无用、低效和有待精简。选用冗余来描述当代建筑现象具有特定的意义。作为信息理论、计算机科学、工程学，乃至生物学中的专门术语，冗余的影响可负可正。一方面，冗余可能造成低效、破坏和不必要的浪费，一般来说应该在设计中尽量避免；但另一方面，冗余也可能是专门设计的保障措施，重复的软件或硬件配置，不仅可以降低突然遭受致命破坏所带来的风险，而且因为不需要过于纯净严密的环境条件，或者说容错能力更强，实施起来也可能更加便捷可靠。这表明，很多看似消极的事物也可能具有积极合理的一面。

在习惯中反思，用新鲜的眼光打量既有。我们认为，这正是研究城市与城市建筑时需要被重视的认知态度。也因为如此，我们用“冗余”来描述城市建筑空间的重复，多余，残留，错位等状态。这些现象通常会被冠以“剩余”，“过量”，“溢出”等带有无效价值意味的判断词，我们却认为，这种通常被当作不纯净，不高效，不完美的状态，某种程度上并非多余，而是必然的，必需的，它们可以被看作复杂、共存的自然状态。引入“空间冗余”这一新概念，一方面是为了纠正旧有的，量化的价值评判，另一方面也是为了将物质空间中文化符号的积累意义也纳入其内。简言之，空间冗余是一种城市常态，它既是物质空间上的，也是文化符号上的。

同样值得反思的是，专业领域对于类似“空间冗余”这样的“多余”现象的刻意回避和忽略，认为是不良的，阻

*Spatial redundancy is ubiquitous in modern cities. It is what the field of architecture commonly faces in reality, and we treat it as the reality and starting point in architectural practice and research.*

## *1 Definition of Spatial Redundancy*

*The word redundancy literally means surplus and unnecessary repetition. It is usually associated with characteristics such as useless, low-efficient, and to be refined. There is special meaning in choosing redundancy to describe contemporary architecture. As a technical term in information theory, computer science, engineering and even biology, the influence of redundancy can be both negative and positive. On one hand, redundancy could result in low-efficiency, destruction, and unnecessary waste which should normally be avoided as much as possible in design. But on the other hand, redundancy perhaps could serve as specially-designed protective measures. Redundant softwares or hardwares not only lower the risks brought by sudden deadly destruction, but are probably more convenient and reliable in use, since they require less rigorous environment or they have higher tolerance to errors. This shows that things that appear negative might have positive and reasonable sides.*

*To evaluate the ordinary with a fresh eye is exactly the cognitive attitude we emphasize when studying urban and urban architecture. It is also out of this reason that we choose to use 'redundancy' to describe the phenomenons such as recurrence, surplus, residue, dislocation in urban space. Usually these descriptions carry unworthy connotations such as being 'leftover', 'overdue', 'overflowed', but we think this state of being which is usually treated as less pure, less*

碍前进，至少也是缺乏价值的，这种认知同建筑学科过于受发展与进步的现代思想主导有关。我们研究空间冗余，是希望从另一个角度审视城市建筑的生存规律，将建筑学放置到更长远历史周期，更广泛的存在状态下进行审度和反思。

在现代社会的生产消费体系中，在现代技术的支持下，在当下越来越纷繁快速的城市活动与日常生活中，空间冗余在建成环境中突显出来的。其既涉及城市物质空间和符号的激增和改变，也涉及当代建筑学实践与理论的不断生产和发展：信息、知识、理论过剩，设计语言自我演变，持续不断地产生新的多余、碎片与自说自话的形式，各种意义指涉断裂、错位的存在物。这些都构成了方便的条件，让我们通过对日常建成环境，尤其是像上海这样具有典型表现的城市的观察，去研究空间冗余，从中发掘的特征和规律或可成为建筑学理论和实践具有启发的方向。

## 2 空间冗余：时间向度上的变化与积累

时间性是建筑和城市的固有属性，但其意义在不同的历史阶段不尽相同。

时间性曾经是单体建筑和局部城市空间中层层累积的痕迹，建筑史中此类案例可谓屡见不鲜，比如，那些利用历史遗迹，经过漫长周期修建的，各部分风格不尽相同的教堂，那些在中世纪致密的城市肌理上兴建的城市广场和林荫大道，等等。时间具体而绵延，空间充满矛盾性和复杂性。现代主义时期主张确定的计划和精确的目标，建筑最理想的状态是凝固在实现概念的瞬间，只有这样才能实现建筑的纯粹性和完整性。时间变化对物质空间的影响被忽略，至少是被淡化了。在这样的思想观念作用下，单体建筑和局部空间被抽象成代表凝固点时刻的孤岛，时间的连续感只能由这些孤岛连接起来的虚线构成。在当代建筑的

*efficient, and imperfect, to some degree, is not redundant, but unavoidable and necessary. They can be seen as a complex and co-existing natural state. By introducing the new concept 'spatial redundancy', we are to rectify the old and data-driven judgements; on the other hand, we want to include the accumulated meaning of cultural symbols in physical space. In a word, spatial redundancy is a common phenomenon in urban areas, both in physical space and cultural symbols.*

*It is also worth reflecting that in specialized areas, phenomena such as spatial redundancy are deliberately avoided and neglected and thought of as inadequate, impeding, or at least useless. This perception has unduly succumbed itself to the dominance of modern developing and progressive ideologies in architecture. By studying spatial redundancy, we hope to inspect from another angle the developing pattern in urban architecture and place architecture in a longer historical period and broader scope for investigation and reflection.*

*With the support from modern technology, in a production-consumption system in modern society, spatial redundancy stands itself out in the built environment in increasingly fast-paced and various city activities and daily life. It involves the blooming and changing in urban space and symbol as well as the continuous production and development of modern architectural practice and theory, as can be seen in info surplus, knowledge surplus and theory surplus, in self-development in design language, in forms that constantly produce fresh surplus, in fragments and peculiarities, in broken meaning and misplaced existence. These all conveniently enable us to study spatial redundancy by observing commonly-built environment, especially a typical city like Shanghai, and to illuminate architectural theory and practice through studying*

城市化状态中，个体和局部的孤立属性又发生了改变：城市活动的密度不断增加，城市建筑日常使用的变量增大，改变和调整日益频繁，在时间向度上加速积累空间的变化，从而形成了空间冗余。

我们对空间冗余的研究，就试图从当代建筑或城市空间诞生之后的状态作为出发点。通常，作为实践者，城市规划师和建筑师们关心的是从设计开始到建造完成的周期，检验结果和目标的吻合程度，以此印证设计工作的必要性和合理性。而建成以后的时间性，则往往被设定为一种可预期的状态，不论是以超越时间，达到永恒为理想目标，还是以有计划，可把控的变化为主要动向，建筑学者们在概念上完成了建筑的纯净性。然而，建筑物和城市空间的真正生命周期，无论是对使用者还是周边环境的影响，事实上都始于建造完成以后，体现在使用者的具体要求及其变化，与建筑物的斗争与融合，接受与调整之中。纵使建筑师努力提高设计功能的精确性与使用的弹性，后续的生活依旧很难全盘遵循计划。由于时间发展的绝对性，积累和变化是建筑存在的常态。基于这样的视角，设计和建造不再是确定的因果诉求，而是转化为一种过程，起点和终点均成为动态的瞬间，短暂性和不确定性成为必然。

所谓空间冗余，关注的就是这种在历史中逐渐形成的建成环境的整体特征。它既是历时性的：反映了动态的生成过程，是在不同力量的博弈中，在较长的周期内完成的物质和符号空间的不间断的改变和聚集；它也是共时性的：反映了这种累积、叠加和变化随时呈现出来的复杂状貌，以及这些状貌背后的共同特征：摆脱了作为新建物的初始意义后的独立状态。正是这种历时性与共时性的同时并存构成了空间的冗余状态。

在考虑时间向度上的变化与积累情况之后，我们今天习以为常的建筑价值判断，即建筑和城市的功能与它们的实

*its patterns and features.*

## ***2 Spatial Redundancy: Change and Accumulation based on the Vector of Time***

*Timeness is inherent in architecture and city, but its meanings differ at different historical stages.*

*Timeness embody itself in the continuous accumulation in a single building or partial urban space. The cases in architectural history for this are numerous, such as the churches with parts in different styles restored over a long period on previous historical sites, the city squares and avenues built on condense urban texture in middle ages, etc.. Time is tangible and extending. Space is contradictory and complicated. During modernism, it was urged to make definite plan and accurate goals because the most desired state of a building was in the moment of achieving the concept. Only then could people realize the purity and completeness of the building. The impact of change in time on physical space was neglected, or at least obscured. Under the influence of such perception, single buildings and partial space are abstracted into isolated islands representing the moments. Continuity in time can only be sensed through the dotted line connecting these islands. In urbanization status of contemporary architecture, the isolation of single and partial space has changed: frequent changes and adjustments, coming with increasing density of urban activities and bigger capacity of building usage, have accelerated spatial accumulation along time, forming spatial redundancy.*

*Our research on spatial redundancy sets contemporary architecture or the status after the urban space were born*

体空间之间确定的关联及对应方式，将一一被突破。既有的物质空间和符号意义成为一种中性的存在，在后续的改变和调整中可以等同视之。这是一种新的价值视角与工作研究的出发点。

我们关注上海的城市建筑研究，正是因为，在冗余空间的研究内容里，上海可以作为一个典型的对象。其一，同样是时间向度的积累和变化，也可进一步区分为徐变和突变两种状态。前者在较长时间内循序渐进地完成，具有较好的计划性和延续性，后者因为种种原因缺乏长期的计划，或者实施过程鲜有连贯性。跟社会不同阶段的工业化相对同步的欧美城市的现代化发展很大程度上可以归为徐变。比如纽约的城市规划控制，在曼哈顿这么高密度拥挤，全盘私有化的城市里，虽然表面变化多端，各自为政，但仅仅是考察它那些有效且系统的私有化公共空间（privately owned public space），就会发现这是建立在分区（zoning）制度上的一个经过长时间积累控制建设的旧有计划。在中国近代以来的城市发展中，突变的状况比比皆是。比如像上海这样的城市，从开埠以来，经历过租界和国民党政府时期的土地开发私有化，新中国成立以后的土地国有化，改革开放以来高速度的房地产开发，新时期新常态中土地新的转型与城市内部的改造，这一切都发生在不足180年的时间内，其中最大的城市与建筑的改变发生在20世纪初和20世纪末前后的两个30年。经济社会发展的不连续性造成了很多突变的城市空间。其二，因为时空高度压缩，中国城市的空间冗余更为典型，状况也更复杂。一方面是快速增长产生的积累，错位，重复，大量堆积甚至闲置，另一方面是因为不科学，不连续的规划，粗放管理而导致的错误，不适用，快速的调整 and 改变的需要。与增长同样备受瞩目，但备受诟病的是中国建筑的快速改变，衰败和消亡。在这样的语境下，将经过历史积累和改变而形成的复杂的建成环境作为我们研究和实践的出发点，就变得更加迫切和具有普遍性了。

*as starting point. Usually as practitioners, the concern of the urban planners and architects are the designing and construction cycle and how well the result meets the goal, so as to assess the necessity and reasonableness of their design. The state of the building after construction is intended to be predictable. Architects, no matter they aim to surpass time to reach eternity, or aim to make planned and controllable changes, conceptually achieve the purity. However, the real life cycle of architecture and urban space, in fact starts after the construction, reflected in the impact they have over their users and surroundings and reflected in the clashes and combination, tolerance and adjustment between the users' changing requirements and the buildings. Even if the architects strive to improve the accuracy and flexibility in design, it is hard to achieve full accomplishment. Accumulation and change are constant in architecture due to the absoluteness in time progression. From such perspectives, design and construction are no longer linked by certain causal-effect relationship, but they are turned in to a process in which both the start and the end become dynamic moments, making transience and uncertainty definite.*

*By studying spatial redundancy, we pay attention to the overall features in the built environment formed gradually with time. It is historical, reflecting a dynamic process in which physical and symbolic space are constantly changing and combining under competition of various forces within a relatively long period. It is present as well, reflecting the complicated appearance as a random result of and commonalities among such accumulation, combination, and change. Such commonality is an independent state after the buildings get rid of their initial meaning for existence. It is the space being historical and present at the same time that spatial redundancy is formed.*

### 3 空间冗余：建成环境的自然属性

空间冗余并非局部的、偶然的不完美，而是以城市为代表的人类建成环境的普遍状态，既不可避免，也无法消除。客观条件和主观动机的复杂性和矛盾性，两者在时空中的持续作用，都会造成这种绝对的状态。很大程度上，它是无法控制的，也并不存在去除冗余，实现纯净完善的终极目标。在我们看来，城市的变化与冗余状态仿佛生长中的珊瑚礁，不停地产生，不停地固化。城市建筑呈现出的自然状态就是指将城市的既有空间与物质存在看作是一种即时的自然状态，不同时间，不同来源，不同性质的空间和物质同时并存，具有同等的意义。

无论何种学科，随着时间的进行，越来越多以往不受关注，不受重视的内容被发掘出新的意义，从而推动着学科知识和实践策略的拓展。从勒·柯布西耶对飞机、轮船的赞美，文丘里夫妇主张向波普文化学习（learning from pop），到库哈斯从拥挤文化（Culture of Congestion）、垃圾空间（Junkspace）中发现新的城市生长规律，等等，都是这样的新视角。我们越来越关注的则是这种以冗余为特征的自然、完整的城市与建筑状态。

一直以来，专业领域非常重视建筑从概念到图纸到建成的过程，并将之视为建筑学研究的核心，完美的城市应该是尽可能广泛，持久地实现和保持设计的理想状态。然而，城市的建筑一旦产生，就进入到一种“被城市化”的状态。所谓的“被城市化”，其实就是使用者利用现状条件或既有资源，对城市环境与建筑物进行再调整的过程。这种调整是局部的，有效性是其最大原则，城市空间与建筑的既有条件与不断累积的现状成为每一次改变的新基础，空间的冗余就在这样的情况下逐渐累积。

具有冗余特征的空间在这样的利用中不会再回复到其产

*After considering change and accumulation along time, the evaluation systems, or the accurate associations in architectural value we are used to between the function of buildings and city and their physical space will be broken through one by one. The current physical space and its symbol will become neutral and can be treated equally in ensuing change and adjustment. Such is a new perspective and our starting point for research.*

*The reason we pay attention to urban architecture in Shanghai is because Shanghai could be seen as a prototype for studying spatial redundancy. Firstly we need to clarify that accumulation and change along time can be further divided into two states: incremental and abrupt. The former is relatively better planned and extended and thus accomplished gradually in a rather long period; the latter lacks consistency in implementation due to lack of long-term plan. Modernization in European-American cities where industrialization took place relatively at the same time as different social development, could be called, to a great extent, incremental. If we take a look at the urban planning in Manhattan, New York, which is highly condensed and privately-owned, although the city appears varying and incompatible, if you examine its systematic and effective privately-owned public space, you will discover this is built over a long period of controlled accumulation and construction upon a historical design in which zoning is the system. In recent decades of urban development in China, abrupt changes have been everywhere. Take Shanghai for example: after its port opening, it went through privatization of land development during foreign settlement and Kuomintang sovereignty, it went through nationalization of land after P.R.C was founded, it experienced fast-paced real-estate development after reform and opening-up policy, it experienced land transformation and urban internal transformation during economic renovation;*

生的初始状态，后续使用者将根据自己的需要选择保留或者修改既有空间。更重要的是，后续的使用者会在利用中逐渐适应并发现既有空间对其使用的匹配性。这样一来，空间的冗余不再是一种消极的多余，而是成为利用的一种效率。这样的活动并非只出现在普通民众的个体行为之中，而是遍及在社会生活的各个层面。因为通常没有设计专业的目的和手段介入，这种“被城市化”以使用和调整为主要内容，其结果大部分是无序混杂的，甚至不乏庸俗丑陋。对此，主流建筑学迄今尚未加以研究，即使关注，也常常被当作是“反乌托邦”（dystopia）的，只能用于批评，不值得提倡，至少不可能从中获得系统的启发。然而，对我们来说，这种所谓“被城市化的建筑”，恰恰是建筑的自然完整状态，其价值不应该被排除与忽视。

随着全球城市化程度的不断提高，“被城市化的建筑”及其构成的城市空间是未来建筑实践的重要领域。将这种城市的自然状态及其演变当作我们研究与工作的基础，意味着将历史的痕迹和当下的需求等同视之，接受绝对状态的冗余，将其作为新的设计的出发点和结果。这种将既有空间看作是自然状态的视角，也可以被看作是适应于建成环境的变化积累过程的随时定格的一种方法，无论是从设计到建造的过程，还是此后的使用、调整和改变，不过都是这样的瞬间凝固。

#### 4 改变 vs. 进化

空间冗余，以空间的不断改变为特征。

这种改变更大程度上是一种没有价值偏向的客观属性，既非我们今天已经习以为常的更新换代，也不是设计师念念不忘的进步与革命。

就像歌德在《浮士德》中所描述的，现代社会将发展作

*all of these changes happened within 180 years and the two greatest urban and architectural changes occurred in the 30 years at the beginning and the end of the 20th century. Inconsistency in economic and social development has led to numerous abrupt changes in urban space. Secondly, since these changes occurred within such a short periods and in limited space, spatial redundancy in cities in China is even more conspicuous and complicated. Redundancy on one aspect has come from accumulation, misplacement, repetition, pile-up and even disuse due to rapid growth, on the other aspect, it has been due to mistakes and misfit resulted from unscientific and discontinuous planning and unlearned management and due to the need for fast adaptation and change. As conspicuous as these growth is the change, decaying, and destruction of Chinese architecture, which have received enough criticism. In such a context, the fact that we base our research and practice on the complex built-environment formed through historical accumulation and change becomes even more urgent and generally applicable.*

#### 3 Spatial Redundancy: a Nature of Built Environment

*Spatial redundancy is not partial or accidental imperfection but a common situation in human-built environment exemplified by cities. It is unavoidable and irremovable. Such an absolute state results from the constant interaction between complicated and contradictory objective conditions and subjective motivations in time and space. To a great extent, it can't be controlled and there exists no ultimate goal such as removing redundancy and realizing purity and perfection. To us, change and redundancy in city design are like coral reefs, constantly reproducing and solidifying. When we describe urban architecture as natural, we see existing space and materials as current natural being,*

为唯一正确的方向，孜孜以求，不惜代价。今天建筑学的理念和方法很大程度上也建立在这样的进步观念基础上。而中国当代建筑的大拆大建，其合法性也建立在“发展是硬道理”的指导思想基础上。然而，单向度的进步思想不仅会屏蔽多样的传统沉淀，也容易无视复杂的现实可能，表面上可能壮观刺激，长久下去却只能留下片面单调的结果。比如，后现代时期提出的“建筑的矛盾性和复杂性”就源于对现代主义建筑过于纯净的进步建筑价值观的反思和批判。而中国当代建筑的大拆大建，其合法性也建立在“发展是硬道理”的指导思想基础上。

“改变意味着进步”和“改变是为了进步”潜移默化地影响着现代社会的整体价值观念，今天，建筑学的主流思想和方法也十分强调这种意义和价值的评判。虽然在建成环境中，我们可见的改变多种多样：既有轰轰烈烈的大规模城市建设和更新，也有建筑本身的生老病死，自然更替，更普遍的还有无孔不入，乏善可陈的日常改造，甚至是违章搭建。但是，主流建筑学的讨论主要集中在具有进化意义的，完美独立，概念清晰，形式新颖的创造上，即使没有突出的艺术创新，至少也是投入大量人力物力，精心规划和建设的成果。而对生活中的这些断断续续，缺乏特征，或好或坏，非进化式的改变，即使注意到，也会认为是无意义的，不值得讨论的。

研究空间冗余，关注这些日常的改变，挖掘其规律和特征，反思其价值和潜力，尽管一时还难以获得精确的，体系化的认识，但是对我们而言，只有先抛开先入为主的价值评判，才可能从进化的思想束缚中解脱出来，去寻找建筑学的新方向和新方法。

## 5 调整 vs. 创新

空间冗余，促使我们去思考调整这种策略。

*which means space and materials from different time and origins, and of different nature could co-exist and share equal value.*

*No matter in which disciplines, as time goes on, content that so far has received little attention and importance has increasingly been explored to find new meanings, which promote extension in disciplinary knowledge and practical strategies. Such new perspectives can be seen in the praise of airplanes and ferries from Le Corbusier; in the claim by the Venturis to learn from pop; in the discovery of new urban growth patterns by Koolhaas after he studied Culture of Congestion and Junkspace, etc.. we are delivering increasing attention to the natural and complete urban and architectural state featured by redundancy.*

*As it has always been, the professionals put great emphasis on bringing a concept to a blueprint then to a construction and see these as the core of architectural study. A perfect city should have reached its desired aim in design and could widely and durably maintain such design. However, once urban buildings are built, they will enter a state to be urbanized. This will happen when the users, with the help of current conditions and existing resources, try to adapt their environment and building. Such adjustment is partial and is principled by effectiveness. The existing conditions and accumulating conditions of urban space and architecture offer new foundations for new changes each time and spatial redundancy is slowly piled up under such situations.*

*With these kinds of usage, space featured by redundancy will not return to its initial condition when it was first created, because the following users will keep or adapt the existing*

经过多年的快速城市化积累以后，当下和未来中国建筑实践或是继续创新，刺激新的空间生产与城市化，或是对或新或旧的城市和建筑空间进行利用和调整。当然，后者并不等同于在新增建设用地控制越来越严格的情况下，对城市内部存量空间进行改造和更新，也不止是要对数十年粗放型发展造成的缺失和错误进行整改和补救。如果说创新趋向于一种强制性介入和重型改变的话，调整的立场则基于顺应性介入和弱的控制。

调整是一种司空见惯的空间实践，可能是因为旧有空间与使用需求不匹配；可能是出现了新的需求；可能是基于某种外力，也可能仅仅是自然的兴衰。调整无时无刻不在建成环境中发生着作用，可能出于设计师之手，也可能完全是民间自发。跟全新的系统化创造和生产不同，调整或许并没有显著的改变，因此也不容易产生明显的进步，甚至都难以被注意到。但调整是对旧有和新增资源的价值的发掘和利用，并在此基础上进行灵活有效的组织。

今天的社会更推崇创新。因为在以经济增长为主导的生产消费体系中，创新是发展的重要动力，像电子产品那样永无止尽地更新换代已经成为主流的生活方式。这种创造倾向于系统式的“重型”行为，动辄提出系统化，令人耳目一新的解决方案。这不仅涉及城市空间的大拆大建，也包括醉心于强烈的视觉冲击和宏大的理论建树，对于实用但不显著的微小改变缺乏兴趣。

当空间冗余成为常态时，调整并非只是被动的规整和清洁的工作，更是一种积极的组织和利用的行为。具体的实践主张采用“轻改变”的策略，对既有空间仅实施轻微操作，充分利用前期资源，与新的使用提出的具体需求紧密结合进行整理，强调实效，包容混杂、临时、普通等特征。

在经历时空高度压缩的城市增长和更替阶段以后，基于

*space based on their needs. What's more important, during usage, future users will gradually adapt themselves and discover how well the space coordinates with their usage. In this way, spatial redundancy is no longer negative surplus, but contributing to efficiency in use. Such activities appear not only among ordinary individual behaviors, but permeate every aspect of social life. Their results are mostly orderless and even vulgar and unattractive because such 'being urbanized' focuses mainly on using and adjusting without objectives and means from specialized designers. Mainstream architects so far has not researched about this and even if they shift their attention to it, the phenomenon is usually treated as dystopia and can only be for criticism, not for promotion, or at least won't be expected to produce systematic inspirations. But for us, this so-called 'urbanized architecture' lies in the heart of natural and complete architecture, whose value should not be ridded or neglected.*

*With increasing degree of global urbanization, urbanized architecture and the urban space it constitutes are important for future architectural practice. To base our research and study on the natural state of these urban areas and state changes means to treat equally historical imprints and current needs, to accept the absolute state of redundancy, and to use it as the starting point and end of new designs. This perspective sees existing space as natural. It can also be seen as a method in which a snapshot is taken randomly during the process of changing and accumulating in built environment. The early design and construction process and the later usage, adjustment, and change are all these fleeting snapshots.*

#### **4 Change v.s. Progress**

中国人口多，资源少，总体经济水平有限的现状，针对空间冗余的调整将成为我们不可避免的工作内容，不抱陈见地进行实践，态度和动作虽轻，成果却未必不佳。

## 6 应用 vs. 引用

日常城市的改变与调整通常只关注局部或临时的利益和效率，倾向于灵活有效的策略和手段，往往信手拈来，少有条法。具体如形式、材料和建造，抽象如概念、原理和方法，一概不问出处，不求系统。这种基于实用主义的应用（application）策略是日常城市变化与积累的主要法则，它源于空间冗余的既有现实，也造成了未来的空间冗余。

今天的主流建筑学更重视的是引用（quotation）的方式，即在可以归类的系统里进行较为确定的选择，有清晰的价值导向和概念，有纯净的风格和形式，有可辨的技术和方法。至少那些可以被归入可识别系统的，具有正统性，目标性，纯粹性的被赋予了合法的也是更高的价值，对于理念混杂，特征模糊的日常应用现象则缺乏足够的兴趣，以及关注和研究的意识。

然而，除了极少部分以外，空间冗余是一种不纯粹的状态，其中既包含计划统筹和专业设计的结果，也有不受约束的日常改变产物，本身具有很大的复杂性和多变性，如果先入为主的引用确定的模式，很可能或者不适用，或者产生僵硬的结果。更进一步，中国的建筑学科先天具有来源和影响多样混杂的特点，其演化，现状和目标也较少自主性和连续性，尚未形成原创性的理论和方法，将之纳入一个系统的框架是不现实的，也是不必要的。针对这种情况，没有预设地将各种理念、技术和手段视为等价之物进行选择，不深究其背后特定的意义，不追溯其来源的正统与乡野，灵活、糅杂地加以应用，是我们认为现实和可能的实践方式。相对于已经确立的建筑学系统，这种策略以及由此获得的

*Spatial redundancy, with ever-changing space as character.*

*This change to a greater extent is objective. Neither is this change the replacement we are used to, nor is it the improvement and revolution desired by designers.*

*Just as how Goethe described in Faust, development is the one and only correct direction in modern society, doggedly sought at all cost. The ideologies and approaches in architecture are, to a great extent, based on such progressiveness -based concept. The legitimacy of those destructions and constructions in China is also based on such ideology with "development is the hard core idea". Nevertheless, people who focus narrowly on progressiveness may not only block out diverse traditions formed through time, they are also more likely to neglect the complex possibilities in reality. Their design might look magnificent and stimulating on the outside, but as time goes on, only monotone rings. The idea of contradiction and complexity in architecture raised in post-modern time originates from reflection and criticism of the excessively pure progressive philosophy of modernism architecture.*

*The mindsets that 'change is progressive' and 'change is for progressiveness' are unconsciously influencing the the overall values in society. Today, the mainstream ideas and approaches in architecture also emphasize criticism of the values of such mindsets. Although in built environments, we see different changes, including urban construction and renovation on a large scale, the life cycle of buildings themselves, common adjustment of poor quality everywhere, or even illegal construction on-site, the discussions in mainstream architecture focus mainly on creations that are progressively meaningful, perfect, independent, conceptually clear, and innovative in*

结果可以不甚严密地被称为“非识别体系”(unrecognizable system)。如果冗余是我们所研究的城市与建筑空间的特征总结的话,非识别体系就是针对空间冗余所采取的设计方法以及相应的结果的描述。

## 注释

1. 如数据库系统中,数据冗余(data redundancy)是指一个字段在多个表里重复出现,可能导致数据异常和损坏。
2. 计算机中的数据多重备份,工程中的超静定结构,多路电源配置等都是这样专门设计的防范性措施。
3. Jerold S. Kayden, *the New York City Department of City Planning, the Municipal Art Society of New York. Privately Owned Public Space: The New York City Experience*. John Wiley & Sons, 2000: 7-19.
4. Denise Scott Brown. "Learning from Pop". *Casabella*(December 1971): 359-360.
5. Rem Koolhaas. "'Life in the Metropolis' or 'The Culture of Congestion,'" *Architectural Design* (August 1977). 转引自 K.Micheal Hays, ed. *Architecture Theory since 1968*. Cambridge: The MIT Press. 2000: 320-330.
6. Rem Koolhaas. "Junkspace". *October* (Spring 2002): 175-190.
7. 庄慎、华霞虹. 日常·改变·非识别体系 [J]. 新建筑, 2014 (06) : 16-19.

*form or on carefully-planned and built results that cost huge amounts of human resources and materials, even though there are no artistic breakthroughs in them. But for the changes that are continual, featureless, neither good nor bad and non-evolving in life, even if they are noticed, would be considered as meaningless and unworthy of discussion.*

*Even though within a short period of time it is hard for us to acquire accurate and systematic knowledge by studying these daily changes about spatial redundancy and by exploring its patterns and features and reflecting on its values and potentials, to us, only when we get rid of preoccupied judgements, can we free our mind from progressiveness-based ideas to look for new directions and approaches in architecture.*

## 5 Adjustment v.s. Innovation

*The existence of spatial redundancy urges us to think about how we can adjust strategies in architectural practices.*

*After rapid accumulation in urbanization through years, current and future architectural practices in China either keep innovating to stimulate fresh spatial production and urbanization, or keep utilizing and adjusting existing urban and building space. With an even stricter control over added construction sites, the latter certainly contains not only to change or renovate urban spatial capacity, but also to rectify and modify the deficiencies and mistakes resulted from decades of under-planned development. If innovation tends to impose interferences with heavy changes, then adjustment is complementary interferences with lighter control.*

*Adjustment is not uncommon in spatial practices, maybe due to the incoordination between existing space and needs, maybe due to new needs, or because of some outside forces, or maybe just because of natural life cycle. Adjustment forever exerts its influence on built environment, maybe out of designers or citizens themselves. Different from systematic creation and production, adjustment may not be conspicuous, and thus improvement can not be easily produced or even noticed. But adjustment is to explore and make use of existing and newly-added resources and to conduct flexible and effective organization based on that.*

*Society today adores innovation even more, because innovation is the driving force for development in a production and consumption system dominated by economic growth. Replacement such as that in electronics market has become a main lifestyle. This kind of innovation is more of heavy-handed change, raising systematic and totally new solutions which involve both construction and deconstruction in urban space on a large scale and creation of strong visual impact and grand theory building. It takes little interest in practical but trivial changes.*

*When spatial redundancy becomes common, adjustment is not only passive regulation and clearing but positive organization and utilization. In practice, it is suggested to take 'light change' in which people only bring slight change to existing space and make full use of previous resources; closely adapt the space to new requirements; focus on being effective, tolerant, temporary and ordinary.*

*Since urban booming and alternation have happened in highly condensed time and space in China, based on the fact that*

*there is a huge population, limited resources, and restricted economic situation in our country, we see adjustments targeting spatial redundancy as our necessary job. The accomplishment might not be bad if we could unbiasedly practice with moderate attitude and action.*

## **6 Application v.s. Quotation**

*Usually people making daily changes and adaptations in cities are only concerned with partial or temporary interest and efficiency, they tend to adopt flexible and effective strategies that are effortless without rules. Such strategies with no origins or systems can be found in concrete fields such as form, material and construction, or in abstract fields such as concept, theory, and approach. Strategies based on pragmatism is the major principle of daily urban change and adjustment. They are derived from reality while creating potentials for future spatial redundancy.*

*Nowadays mainstream architectural studies put much more emphasis on quotation in which people choose rather with certainty in a categorizable system which provides clear guiding values and concepts, pure styles and forms and discernible technologies and approaches. At least those included in some recognizable systems are legitimate, goal-oriented, pure and highly-valued but they are not applicable in featureless daily phenomena of hybrid ideologies, which mainstream field are less motivated to research.*

*However, in most cases, spatial redundancy is impure. It is highly complicated and variable because it is a result of both previous planning and professional design and daily adjustment*

*out of control. If we are preoccupied with certain theories, it is very likely the theories won't apply or lead to misfit. To take it further, it is unrealistic and unnecessary to try to fit architecture in our country into a systematic frame because: this discipline is inherently diverse in origins and influence; its development, current situation, and future goal are relatively lacking in motivation and continuity; there have not been original theories and methods formed. In this context, we think it is practical if we treat all theories, techniques, and approaches equally by not digging too deep for the legitimacy of their origins and flexibly and holistically using them. Compared with established architectural systems, this strategy and its results thus acquired can be loosely termed as 'unrecognizable system'. If redundancy is the summary of the characteristics of urban and architectural space we study, unrecognizable system is to describe the design targeting spatial redundancy and its result.*

## Notes

1. For example, in databases, data redundancy refers to a repetitively present field, which may lead to data anomalies and corruption.
2. Multiple backup of data in computer, statically indeterminate structure in the project, multi-channel power configuration, etc.. are especially designed as preventive measures.
3. Jerold S. Kayden, the New York City Department of City Planning, the Municipal Art Society of New York. *Privately Owned Public Space: The New York City Experience*. John Wiley & Sons, 2000: 7-19.
4. Denise Scott Brown. "Learning from Pop". *Casabella*(December 1971): 359-360.
5. Rem Koolhaas. "'Life in the Metropolis' or 'The Culture of Congestion,'" *Architectural Design* (August 1977).
6. Rem Koolhaas. "Junkspace". *October* (Spring 2002): 175-190.
7. Zhuang Shen, Hua Xiahong, *Everyday, Change, and the Unrecognizable System [J]*, *New Architecture*, 2014 (06): 16-19