

L'ARCHITETTURA DELLE CITTÀ
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Società Scientifica Ludovico Quaroni

WU LIANGYONG

INTEGRATED ARCHITECTURE

Foreword by Lucio Valerio Barbera

Translations by Anna Irene Del Monaco, Liu Jian, Ying Jin
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Afterword by Anna Irene Del Monaco

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Index

Foreword by Lucio Valerio Barbera, The 'harmonious city' of Wu Liangyong / I
Preface to Italian/English Edition by Wu Liangong / 1
Introduction / 3

Chapter 1. A Theory on human settlements / 5

- 1.1 Human Settlements / 5
- 1.2 Settlements – City – Urbanization / 9
- 1.3 Urban development in China / 11

Chapter 2. A theory on regionalism / 15

- 2.1 Architecture and Region / 16
- 2.2 City and Region / 19
- 2.3 Architecture, city/town and the regional resources / 20

Chapter 3. A Theory on culture / 29

- 3.1 An integral and heterogeneous global culture / 29
- 3.2 A Cross-sectional view of contemporary architectural culture / 32
- 3.3 Cultural assimilation regional identity / 38

Chapter 4. A Theory on science and technology / 45

- 4.1 Technological possibility and Economic Feasibility / 45
- 4.2 The level of technological-scientific development of Chinese urban architecture / 47
- 4.3 Formulation of Technical Policies / 48
- 4.4 Technologicalism and Ecologicalism / 52

Chapter 5. A Theory on policy and legislation / 55

- 5.1 Scientific Research: the basis for technical policy / 55
- 5.2 Legislation: the outcome of scientific research / 57
- 5.3 Administrative management of the planning project / 57
- 5.4 Policy and Legislation as major components in the Reform of China / 61
- 5.5 'Top-down' in Management and 'Bottom-up' in Development / 62

Chapter 6. A theory on profession / 65

- 6.1 The development of the architectural profession / 65
- 6.2 Career development in China / 70
- 6.3. Architectural praxis and public participation / 75

Chapter 7. A theory on education / 81

- 7.1 Architectural education in the West / 81
- 7.2 Architectural education in China / 83
- 7.3 Several proposals / 86

Chapter 8. A Theory on Art / 93

8.1 The work of art "*par excellence*": the urban settlements / 93

8.2 Necessity vs Freedom, Science vs Art / 99

8.3 Architectural creation based on Urban Design / 102

Chapter 9. A Theory on methodology / 109

9.1 Development of systematic thinking in Architecture / 109

9.2 Modern systematic thinking and trans-disciplinary approach / 111

9.3 The application of 'A General Theory of Architecture' / 116

Chapter 10. Construction of 'A General Theory of Architecture' / 125

10.1 Development of architecture from a wider social perspective / 125

10.2 The departure and arrival point of the general theory of architecture / 128

10.3 The accomplishment of an architect / 134

Epilogue / 139

Final remarks / 141

Acknowledgements / 143

Afterword by Anna Irene Del Monaco, The development of 'A General Theory of Architecture': Wu Liangyong's Programmatic Mission in Favour of an 'Integrated Architecture' / 145

Foreword

by Lucio Valerio Barbera

The 'harmonious city' of Wu Liangyong

A General Theory on Architecture is both a historical and contemporary work. The book was first published in 1989 by Wu Liangyong, one of contemporary China's most influential architects and theoreticians. His eminence is also recognised by the international architectural community, above all, the group of architectural and urban planning theoreticians battling for a more decisive reform to the concepts, methodologies and practices presiding over the construction and requalification of the contemporary metropolis. I first met professor Wu Liangyong in 2005 at the Faculty of Architecture at the Tsinghua University of Beijing; his Faculty. Wu Liangyong founded the school in 1949 – at the age of 24 – together with Liang Sicheng, the father of modern Chinese architectural studies. From this moment – more than sixty-seven years ago – professor Liangyong has remained a central figure in Beijing's academic community. He remains a constant source of inspiration, not only national, to education reforms and, above all, theoretical, methodological and operative research into architecture, the city and the territory. He is a rare figure, present throughout a lengthy historical period witness the world over to tumultuous upheavals in society and its cities. A period whose most dramatic and exalting manifestations were perhaps to be found in China; a period of war, of hope, of revolutions, of great leaps forward, of presumptions, horrors, errors, new leaps forward and incomprehensible economic growth; of irreversible social and cultural metamorphoses and – what interests us most as architects – of staggering urban growth and territorial transformations. The intellect of this minute and genteel figure held fast against the storms of history. The observation of events and the humanist and scientific principles of his personal culture continuously nourished an increasingly more effective reflection on the meaning of architecture in today's world. He also clearly saw its inextricable ties to the substance of the city and the impossibility to substitute the figure of the architect – scientist, humanist and artist. A few years after our meeting, having absorbed direct lessons from Wu's work as an architect and theoretician, I proposed an Italian translation of an anthology of his writings. The material was to be drawn from his many books and essays on architecture and the city published continuously over the course of his incomparable career. Professor Wu Liangyong responded with a challenge: in lieu of this anthology of texts he proposed a full translation, in Italian and English, of a book published twenty years ago: 1989's *A General Theory on Architecture*. Given the pace of cultural debate it would not have been out of place to imagine a book firmly sedimented in history. I understood, instead, that it was a milestone in the expression of Wu Liangyong's ideas; a benchmark that, in all likelihood, served as the starting point for his later theories, even the most recent. Published in other fundamental essays, they range across the vast field of human settlements, touching on all components of the man-made environment. I mention only a few: the fundamental early essay from 1994 on the *Sciences of Human*

*Settlements*¹; the 1999 English translation of *Rehabilitating the Old City of Beijing: A Project in the Ju'er Hutong Neighbourhood*²; from 2001 *Introduction to Sciences of Human Settlements*³; the 2002 *UIA Beijing Charter: The Future of Architecture*⁴; from 2006 the *Second Research Report on the Rural and Urban Spatial Development Planning for the Greater Beijing Region (Beijing, Tianjin and Hebei)*⁵; from 2009 *Architectural and Urban Culture of China*.⁶; in 2010 *Development Tendencies of Sciences of Human Settlements*⁷; 2011's *Integrated Architecture*⁸; and the 2012 text *Beijing 2049, Research on the Spatial Development Strategy*.⁹

The date of the first Chinese edition of Wu Liangyong's book, 1989, is also significant. It represents a historical fulcrum in the development of today's People's Republic of China. It is the year of the events of Tiananmen Square, marking the end of the first phase of the great reforms and the opening up toward successive phases of growth and transformation that continue to this day. The first decade of great transformations began in 1978, when Deng Xiaoping launched the Four Modernizations: agriculture, industry, national defence, science and technology, together with the slogan "emancipate the mind and seek truth from facts". It was a clear call for experimentation in all fields. Society entered a period of ferment and the economy geared up for sweeping changes. The GNP began to grow at a constant rate of 9% per year. The dynamics of reforms rapidly began to profoundly modify the individual and collective habits of the Chinese population. Yet, as Henry Kissinger stated, "what Deng labelled 'Reform and Opening Up' was not only an economic but also a spiritual endeavour"; the years after 1978 were a period of great movement also in the fields of theory, the arts and architecture. "The historical debate on the destiny of China and its relations with the West were rekindled".¹⁰ However, along the way the great debate shifted decisively from the relationship between East and West to that between tradition and modernity. In almost all of the arts modernity appeared to be essentially a problem of language, or better yet a problem of new languages, of their meanings, of their functions. Naturally, even architects – who often consider their discipline only in terms of expression – were drawn into the centre of a discussion raised by many voices. However, as always, the questions for architecture were much more complex; during this decade the discipline was directly involved in the beginnings of the largest territorial and urban transformations ever seen in human history. The first Special Economic Zones were established in 1980 along the southern coast of China, immediately witness to an astounding rise in production and urban growth. In 1984, midway through

¹ with Zhou Ganzhi and Lin Zhiqun, published in the second issue of the *Bulletin of the Chinese Academy of Sciences*, 1994.

² Wu Liangyong, *Rehabilitating the Old City of Beijing. A project in the Ju'er Hutong Neighbourhood*, Canada UBC Press, 1999.

³ China Architecture & Building Press, Beijing 2001.

⁴ Tsinghua University Press, Beijing 2002, (English and Chinese Versions).

⁵ Tsinghua University Press, Beijing 2006.

⁶ Tsinghua University Press, Beijing 2009.

⁷ China City Planning Review vol. 19, n° 3, 2010.

⁸ Tsinghua University Press, Beijing 2011.

⁹ Tsinghua University Press, Beijing 2012, developed with Wu Weijia et al.

¹⁰ Henry Kissinger, *On China*, Penguin Books, 2012, p. 398.

the phase of reforms, a further 14 Special Economic Zones were created; five years later the great deltas of the Yangtze River (Shanghai) and the Pearl River (which also includes Hong Kong and Macao) were declared Special Zones in their entirety, together with the exceptionally vast territories of the peninsulas of Shandong and Liadong, to name only a few of the most well-known territories. This same period was also witness to the beginnings of a radical reform of the "home" that, from a collective asset included in the overall compensation paid to each worker became the fundamental private investment capital for families, but also for mixed capital or entirely private companies. This change was not without its difficulties in adaptation and disparities in treatment. The result was a truly differentiated real estate market with the consequent emergence from among the vast number of Chinese workers of a middle class of managers, professionals and important functionaries.

Between 1978 and 1989 all of the tools for creating a profound and incredibly rapid transformation of the Chinese city, territory and society had been developed and thrown into the enormous crucible of reforms, where they tumultuously interacted with one another. In only a few years almost the entire Eastern coast, its cities, its rich fertile fields and the nation's capital, Beijing, were overrun by extraordinary transformations to production and unparalleled growth in demographics and settlement that, for anyone even remotely interested in architecture, the city or the territory, constituted the largest, most impressive living field of observation and, if possible, of study. For those observing and studying it was impossible not to be astonished by the dimensions, vastness and multitude of problems that participated in making the contemporary Chinese metropolis an unprecedented phenomenon in the history of the city, an event whose characteristics appeared to render the notion of architecture as an autonomous work of art irrelevant. What stood out, instead, was the insufficiency of tools – conceptual, disciplinary, design – that architects and planners were accustomed to using when programming and controlling the growth of the modern city.

Wu Liangyong's book thus appeared at a crucial moment in contemporary Chinese history. It was considered, developed and written during most of this revolutionary decade, with Wu himself among the most important witnesses and protagonists. His aim was to offer a profoundly realistic – and thus innovative, organic, multidisciplinary, scientific and difficult – response to the problems of design and the quality of the environment and architecture raised by an urban explosion without any possible terms of comparison. The book is not only a historical milestone in the development of scientific and design theory on the architecture of the Chinese city; it is also a fundamental treatise for comprehending and attempting to resolve the general problems, both present and future, of the modern metropolis. Undoubtedly, in China this condition is expressed and conveyed to the attention of administrators and designers with an exceptional energy. Precisely for this reason the country serves as a laboratory for more critical and advanced experiments. Experiments that include any prophecy on the development or decadence, the success or failure of any other metropolitan system, of any other territorial constellation comprised of human settlements, anywhere in our world.

Wu Liangyong belongs to the first generation of Chinese architects educated in China. During the first phase of the Second World War, still very young, he worked with Liang Sicheng to identify historical and monumental heritage in Beijing to be protected against attack. After founding the Faculty of Architecture at Tsinghua University in Beijing, Wu dedicated himself to research and teaching in the fields of urbanism, architecture and design. The history of architecture, the study of the city and design at all scales thus constituted, from the outset, the arena of his interests, the natural and vast horizon of his manner of intending the profession of the architect, or better yet: his mission. I was struck and convinced by the words of Alexander Tzonis who stated that "As a very young man, professor Wu witnessed the unprecedented massive material destruction and murders that occurred during the Second World War, when Japan invaded China ... It was there, within this devastation that the seeds of his belief in design creating order out of a world in disorder was found."¹¹ I too am convinced that to the eyes of a sensitive young man, a vision of ruin is more capable of exposing the material complexity of human settlement. Even to a young man not yet fully conscious of its richness and complexity. Prior to the total destruction of each and every element, these settlements were home to the harmonic unfolding of daily life. The vision of war – the destruction of stone, concrete, steel, wood, ingenious inventions, cultivated fields, traditional and modern equipment, memories and meanings, mercilessly stripped bare, coupled with the remnants and fixtures of everyday life and the desperation of survivors – is more powerful than the image of any lively city or beautiful landscape. Thus Wu Liangyong, with the acute lucidity of a genuine, future architect, was able to draw a positive certainty from this condition of desolation. The certainty that architecture, the art of constructing the spaces of individual and collective life, giving them meaning, dignity and beauty, cannot be other than an act of supreme individual expression, despite being the fruit of a synthetic intuition of collective feelings. This is the prerogative of pure art. In Wu's conception, in order to construct and reconstruct the spaces of life and give them meaning, architecture must instead be above all a space of understanding: an understanding of the needs and aspirations of its inhabitants, of the values of place, of the best methodologies and techniques for responding to those needs and respecting those values; an understanding, finally, of the formal and symbolic language with which to fully and humanistically express the individual dignity of each inhabitant and the harmony of the community, large or small as it may be. I believe that Alexander Tzonis was also right when, projecting the figure of the young Wu, now far from the theatre of war, concluded "It was there that what he would later call 'a General Theory of Architecture' was first envisaged".¹² Immediately after the Second World War, Wu Liangyong travelled to the United States where he studied and worked with the great Finnish architect and town planner Eliel Saarinen at the Cranbrook Academy (Cranbrook Educational Community), in many ways considered the American equivalent of Walter Gropius' Bauhaus. It was with Saarinen that Wu probably dictated the conceptually more complete form of his vision of architecture as an activity focused on comprehending and designing the city as an organic whole. His General Theory on Architecture undoubtedly

¹¹ Alexander Tzonis, Foreword to Wu Liangyong: *Reflections at the Turn of the Century: the Future of Architecture* for the Beijing Charter for the 20th UIA Congress, 1999, p. 11.

¹² Alexander Tzonis, *ibid.* p. 12.

contains the echo of Saarinen's principles: "every object, in the human environment, is architecture". Yet Wu Liangyong also folded Saarinen's teachings into his own way of interpreting academic and institutional commitment. Other than traces of the skill of Liang Sicheng, it is also easy to perceive the presence of the Finnish master, with his great trust in the "institutions of research ... responsible for maintaining the quality of production in line with new discoveries and new needs".

Approaching the period of the great reforms, at the end of the Cultural Revolution, Wu was once again offered the possibility to travel abroad. His international activity would continue uninterrupted from this moment onward; an activity that – also via his important roles with the International Union of Architects – was fundamental to the construction of his identity as an architect and architectural theoretician, a full member of the generation of new masters continuing the work of a special group of great pioneers – such as Patrick Geddes, Lewis Mumford and, precisely, Eliel Saarinen – who assumed the city as the subject against which to measure the effectiveness of a humanist and scientific vision of modernity. In this framework, Wu's originality lies in the fact that, since his debut, he had worked to construct, and later refine and continuously update, a broad general methodology of designing. The role of the architect was re-evaluated to the point of assuming the value of an indispensable director of any physical transformation of the territory or the city. It is an almost a Renaissance vision, one could even say "Da Vinci-esque", of the designer, in equal parts scientist, humanist and artist. In reality, I believe that Wu Liangyong's great trust in the search for a general method of designing is animated by and keeps alive the entire history of Chinese thinking. It is founded on the obligation to continuously build and rebuild the equilibrium of the world with method and patient strength, passing from the accurate analysis of objects to the harmonic synthesis of the whole. Hence a special, I would say philosophical added value is acquired by Wu's logical design grids with respect to comparable examples – the "Thinking Machines" of Patrick Geddes, the "Global Ecology Thinking" of John McHalle and the "Yale Grid" of Serge Chermayeff. The same could even be said of the extremely complex and multidisciplinary grids of Costantino Doxiadis, to whom Wu, by his own admission, is indebted for his systemic approach.

With this intense educational experience behind him, and with an obvious projection toward a global and complete theoretical organisation of design, Wu Liangyong actively participated, in his role as architect, professor and theoretician, in the first decade of reforms and the "cultural fever" that accompanied it. As affirmed by P. Rowe and S. Kuan¹³, it was an uncertain and inebriating period. There was a flowering and overlapping of diverse cultural approaches: from logical positivism – which appeared closest to the needs of reformers inside the government – to a sort of renewed Confucianism, re-elaborated around the Academy of Chinese Culture presided over by Tang Yijie and supported by a dynamic vision of tradition; from the commitment to a humanist reform of modernism pursued on the basis of Chinese traditions, and in so doing returning

¹³ Peter G. Rowe, Seng Kuan, *Architectural Encounters with Essence and Form in Modern China*, Massachusetts Institute of Technology, 2002.

to the enlightenment inspiration of the May Fourth Movement¹⁴, to the affirmation of tradition as an integral part of contemporary cultural production based on the critical theory of Hans-Georg Gadamer and Martin Heidegger. A controversial intellectual, Li Zehou, known above all for the 1988 text "Essays on Modern Chinese Intellectual History"¹⁵, appeared to mark the end of the lengthy debate on Essence and Form (Ti and Yong) – that is, between substance and the applied and communicative interface – that characterised modern Chinese culture. He overturned the assumption made by Chinese reformers during the nineteenth and early twentieth centuries, claiming the justness of the affirmation "modern content and Chinese form"¹⁶. The realisation of the Fragrant Hills Hotel designed by the famous Chinese-American architect I.M. Pei in the periphery of Beijing in 1982 appeared to support his claims. Architectural *postmodernism*, which gradually became known in China sometime around 1986, served to feed an already lively debate on the association between history and architecture. The relationship between different disciplines was liquid: contextualism, always the object of passionate defense or criticism from the world of architects, became a theme to be elaborated and discussed in disciplinary contexts linked not only to the form and structure of the physical environment. In this incredibly rich, though often contradictory situation it is not possible to fully disentangle the comprehensive experience of Wu Liangyong. Speaking on his behalf are a number of fundamental projects realised during this time, evidence of his activity as a scholar – demonstrated, among many other things, by the foundation, in the early 1980s, of the scientific journal *Urban Planning Review*. However, the most eloquent text is that presented here.

A text whose every chapter and page appears to be filled with Wu's unsurpassable desire for a general synthesis of the reality of architecture, consistently conceived as the *architecture of the city*, a multiple material, complex, multidisciplinary *par excellence*. Context is not limited to the elements of the physical environment; more than history, it also includes the life of each and everyone one of us, the spirit of the present, as well as the past and future – as Mumford would say – of the culture of the city. It almost appears as if Wu, while actively participating in the great debate, never forgot the reality of China's cities. In the midst of the philosophical and idealist discussions occupying intellectuals, the country's cities were transforming and revealing the unknown potentialities of the forces brought into play by reforms. They were revealing the fragility and inadequacy of any present method of administration, of any tradition of design. Hence Wu's book is aimed at two privileged groups of readers; firstly, those responsible for governing the city, in order that they are able to recognise the necessity to consider the metropolis and the territory

¹⁴ The May Fourth Movement was an anti-imperialist, cultural, and political movement growing out of student demonstrations in Beijing on May 4, 1919, protesting the Chinese government's weak response to the Treaty of Versailles, especially allowing Japan to retain territories in Shandong which had been surrendered by Germany after the Siege of Tsingtao. These demonstrations sparked national protests and marked the upsurge of Chinese nationalism and laid the groundwork for the founding of the Chinese Communist Party in 1921 in Shanghai.

¹⁵ *Zhongguo gudai sixiang shi lun* (Essay on modern Chinese intellectual history) Dongfang chubanshe, Beijing 1987.

¹⁶ Peter G. Rowe, Seng Kuan, *Architectural Encounters with Essence and Form in Modern China*, Massachusetts Institute of Technology., 2002, Chapter *The culture fever*, p. 137.

as living organisms, impossible to divide into *traditional modern sectors*, functional and mono-disciplinary. To administrators Wu indicates the need to consider planning in favour of the city and territory as a unitary multidisciplinary process that is complex, difficult and radically innovative with respect to *modern customs*. On the other hand, the forces at play, the vastness of populations, the speed of changes, no longer permit us to place any trust in the synthesis of ancient wisdom. A new process of synthesis must be projected with farsightedness, patience and broad objectives. It must be marked by elasticity and precision. It must be possible to explore – and modify – analytically and in detail, during all of its phases. It must be able to respond to and converge the contributions brought by any discipline related to the environment, construction and mankind, including the arts. This is the Science of Human Settlement, the true identity of architecture today, the new mission of the modern architect without which no valid synthesis is possible. The second group of privileged readers consists, precisely, of architects. First and foremost the body of professional Chinese architects, but also – I would say – any modern architect who comprehends the marginality his role has assumed in the now deeply rooted functional subdivision of responsibilities, in the exasperated separation of competencies. In this sense, Wu Liangyong's book is a loud and passionate cry to the contemporary architect, to our anonymous colleagues forced back into the limited space of daily professional life and, at best, sterilely debating the adhesion to "chaotic informality" or "authoritarian formalism". Wu's book is thus also an educational work, perhaps his greatest didactic piece; if we look carefully it exactly resembles the treatises of our ancient masters, focused on helping architects to comprehend the actual truth of architecture, the perennial necessity for its renewal. From this point of view, *A General Theory on Architecture* is truly a modern treatise. The fruit of a lengthy maturation overlapped with a complex biography. Published in 1989, it fully traced a new, perennial itinerary of research. Our lives evolve at a velocity unknown in the past; epochal changes are no longer measured in centuries, but instead in years. For this reason we must consider the book presented here as the matrix of a constant flow of innovative ideas. It should thus come as no surprise to find Wu, today, involved in decisively broadening his conception of the Science of Human Settlement; from 1989 to the present, economic crises, climate change, the rising tide of population growth and the physical and forecast scale of urban phenomena, all push for a renewal in the conceptual and methodological latitude of his theories. Thus 2010 marked the birth of the methodological renewal of his *A General Theory on Architecture*, the theoretical substance of his Science of Human Settlement: a new theme that is inherently multiple, which can be synthesized in a fascinating slogan: "A Greater Science, a Greater Humanism, a Greater Art"¹⁷. I can only hope that I will not have long to wait before being able to present the translation of a new crucial book by Wu Liangyong, the architect.

It is always the case that the work of a true master stimulates reflections on our own country, our culture, our conceptions, our masters. Beyond the imposing intellectual nature of his theory and the architectural value of his projects (which I can only briefly mention here), my interest in the work of Wu Liangyong has been constantly nurtured also by the power

¹⁷ Wu Liangyong, *Development tendencies of Science of Human Settlement*, "China City Planning Review", Vol 19. No.3 2010, p. 11.

lines, in some cases buried in some cases exposed, that feed his conceptions and those of some of Italy's great masters. Is the complexity of Wu's idea of "architecture" not perhaps the same that emanated from the ideas of Ludovico Quaroni? Is Quaroni's passionate interest in the city, intended as the final, and perhaps sole aim of architecture, not perhaps the same as Wu's? Is Quaroni's vision of the city of the future as an organic unit fused with its territory, the generator of an integral urbanism, without distinctions between planning, architecture and historical and figurative imagination, not perhaps the same vision that stems from every page and every architectural or territorial project developed by Wu? Does Wu's constant attention toward a process of design that involves, from the bottom-up, from the truth of mankind, design decisions not correspond with the attention toward the richness of "the lowest and most ancient" humanity that not only Ludovico Quaroni, but all great Italian architects and the most sensible among them put into practice during the hope-filled years of the second post-war period known as "neorealism"? What of Wu's masterpiece of true urban architecture, the Ju'er Hutong residential neighbourhood in the historic centre of Beijing, structured as the organic evolution of the ancient single-family dwelling in a modern multi-family settlement; does it not appear to follow the lines of the typological and linguistic development refined by Saverio Muratori in his search for an "operative history", treated as a science of human settlement, in Venice and Rome? Finally, could it not be said that Wu's familiarity, necessary and pressing, with ancient and contemporary philosophical thinking resembles Giuseppe Samonà's ability to fascinate his young pupils and impose his ideas of *evolutive city* on politicians and administrators, from Palermo to Venice? I will stop here. There are times when I catch myself imagining being present during an impossible dialogue between our Italian masters and Wu as I stand enchanted before them.

Preface to the Italian-English edition

by Wu Liangyong

This book recorded my explorations into the theory of architecture in China in the 1980s. A whole 20 years have passed since the publication of the Chinese Edition in 1989. In the 1980s, China saw a transformation of political thinking from the mistakes of the 1960s and 1970s, and an initiation of the opening-up and reform policies. At that time, every walk of life was searching for a new way of development, resulting in the continuous rising of different thoughts. It is under that background that the Chinese Edition of this book was written. It intended to look to developed countries for experiences and lessons, and to the Chinese tradition for wisdom and insight, and sought to resolve the pressing issues of the accelerating development. The issues that became the focus of the book included, amongst others, the care for land resources amidst rapid urbanization, the protection of cultural and historic heritage, and appropriate housing for all. Personally, it is deeply regrettable to see that many of the concerns we spoke about over and over again 20 years ago have actually materialized as facts today.

De Architectura by Marcus Vitruvius Pollio of Ancient Rome, *De Re Aedificatoria* by Leon Battista Alberti of the early Renaissance, and the development of theories of Modern Architecture in the 20th century all indicated that architecture must reach out as it develops. This is in the nature of its development. In our times when numerous disciplines are growing in parallel, it becomes even more important to reach out beyond the traditional scope of architecture via a conscious effort of trans-disciplinary research. That is what I call 'A General Theory of Architecture'.

After the publication of the Chinese edition of this book in 1989, I turned to a research framework that is based on an outlook of the Sciences of Human Settlements (SHS). In a sense, the Sciences of Human Settlements framework further broadens the proposal of the General Theory of Architecture. In fact, many issues had already been discussed from an emerging SHS perspective in the 1989 book. Since the 1990s, the concepts set forth by the General Theory of Architecture and the Sciences of Human Settlements have gained momentum in China. It has increasingly drawn attention worldwide in the field of architecture. For instance, the *Beijing Charter* from the 20th Congress of the International Union of Architects (UIA) advocated "the development of a general theory of architecture" and "the building of better human settlements of sustainable development is the common goal and ideal of the humankind".

Several years ago, I met Professor Lucio Barbera, Dean of the Faculty of Architecture at Sapienza University di Rome, when he led a team to study the scenic areas around the Fragrant Hill and the Summer Palace in Northwest Beijing. Under his leadership, the joint studio of 21 days produced works that feel like a breath of fresh air, which I appreciate and admire. We became good friends then. I especially acknowledge his kind efforts to see the English and Italian editions through to publication. I look forward to the feedbacks of these editions.

WU Liangyong, 1st March 2009

Afterword

by Anna Irene Del Monaco

The development of a 'General Theory on Architecture': Wu Liangyong's Programmatic Mission in Favour of an 'Integrated Architecture'

Wu Liangyong's text, published in China under the title *A General Theory of Architecture* by Tsinghua University Press in 1990, presents the sum of the theoretical ideas – to some degree also 'poetic' or 'creative' if we consider the meaning of the Greek word *poieo*¹ – of one of the most authoritative representatives of post-war modern architecture and urbanism in China. Wu's intense academic activity – spanning more than sixty years, unfolded – and continues to do so – inside the School of Architecture at Tsinghua University in Beijing. A school he contributed to founding as a very young man in 1946, following the suggestions of Liang Sicheng, the principal innovator in scientific studies of Chinese architecture. Shortly after its publication the book received the Award for Scientific and Technological Progress from the State Education Commission of the Chinese Government. The work is presented in the form of a canonical "treatise" comprised of ten chapters – highly reminiscent of Vitruvius' *Ten Books on Architecture*, mentioned many times in the text – and organised based on the structure of a broad-ranging systematized recursive line of reasoning.

The idea of translating the original Chinese text of *A General Theory of Architecture* into Italian and English – presented here – was suggested by professor Lucio Barbera some time in 2004. I had brought a copy of the book to Rome, borrowed from the library of the Tsinghua University School of Architecture. Our original intention was to publish selected portions to create an annotated anthology of ideas. Counselling directly by professor Wu himself, I successively decided to proceed with the integral translation and publication of the text. The book will be released in Italy under the titles *Architettura integrata* (Italian version) and *Integrated Architecture* (English version), personally selected by professor Wu Liangyong. While the books will be released in two separate volumes, the work of translation was a coordinated effort, involving crosschecks of all three versions (Chinese, Italian, English) by a team of scholars and translators: mother tongue scholars, language and architecture scholars from the Sapienza University in Rome – Anna Del Monaco, Michael Riddel, Roberta Tontini – and Tsinghua University in Beijing – Liu Jian and Ying Jin.

The change to the title should not be interpreted as a simple editorial revision by the author, but instead as a demonstration of the incessant re-elaboration and detailed critical refinement to which the Wu subjects his own work since the outset of what is now a lengthy period of activity; Wu clearly conceives and approaches his research, both in theory and practice, as an open process. Broadening the observation from the pages of Wu Liangyong's text to his entire *oeuvre* and the context in which it is situated, provides an understanding of the special value of this book. It is a fundamental benchmark in the itinerary of an architect, theoretician, researcher and professor that has been travelled

¹ Transliteration from Greek *poieō*; simplified transliteration: *poieo*.

with patient dedication. Above all it has been verified against the reality of the exceptional historical events of modern and contemporary China: a nation of continental dimensions, a theatre of dramatic and rapid metamorphoses, consistently macroscopic and with increasing effects on the destiny of the rest of the globe. In many passages of the book, the concept of "integrated or integral architecture" is a recurring objective to be pursued. Similar to a fundamental vector, it orients Wu's theoretical and experimental studies of human settlements in China. Some twenty years after the first edition of *A General Theory of Architecture* there is no doubt that Wu's ideas, with all the elements of a laic prophecy, have proved indispensable to comprehending and interpreting the tumultuous processes of urbanisation in modern-day China, and for formulating possible organic hypotheses of correction. Yet what may have most touched the Italian – and more in general Western – reader is Wu's profound participation, direct or indirect, in an international, scientific and humanist movement in favour of the city and architecture; a movement that is an integral part of the most solid modernist culture that occurs beneath every sky, far from the abstract and individualist competition between architectural languages intended uniquely as a means for "communicating" personal intuitions through artistic design. Hence Wu's ideas, while always passionately focused on and compared with the urban condition in China, are directed at each one of us. At the architects and urban planners of any nation who see architecture as the language of the city and who study this language as the result of a structural reading of the history, economy and collective culture of place. In this manner, Wu openly reveals – and to an even greater degree weaves into the filigree of his essay – his belonging to an international network of ideas and actions comprised of intellects or – as we now say – *Scholars* who personally or indirectly collaborate to re-establish – or reinforce – a modern "culture of cities". A condition in which each national culture must and can participate with the richness of its "schools", and the experiences drawn from the study of an individual cultural, geographical, landscape and historical context. Within this setting, we Italians, above all we Italians, are the object of the implicit call found in Wu's "ancient" essay; beginning with the *Scuola Romana*, so rich, articulated and dialectically involved in the discourse on the relationship between the city and architecture (Giovannoni, Ridolfi, Piacentini, Muratori, Quaroni, Aymonino). Yet we must also include the others, naturally those of Milan and Venice (Boito, Muzio, Samonà, Rossi, Canella), together with other young and valuable schools, for example in Cesena, Reggio Calabria, Bari. Our "schools of architecture" must be considered among the "national" schools that have offered the greatest contribution to this diverse and vital "modern movement". Perhaps, at certain times in their history, more than their American counterparts, the University of Pennsylvania *in primis*. Hence a further merit of Wu's book: that of providing a new and extraordinary context of reference within which to frame the profile and value of the ideas and experiments of our best schools of architecture. By observing the other on its own, in fact, we are often able to more profoundly comprehend our own cultural heritage, projected within a broader framework of meanings. This can be synthetically understood and confirmed by carefully examining the list of professor Wu's publications. After an initial study of the history of planning in ancient China – published in Germany² – and the preparation of an illustrated essay on urban design

² Wu Liangyong, *A Brief History of Ancient Chinese City Planning* (English edition). Kassel:

and urban planning – and following the release of a collection of essays and a book in 1961 and 1987³ – Wu Liangyong began his work to elaborate a 'general theory', published under the name *A General Theory of Architecture*. Beijing's Tsinghua University Press initially published the book in China in 1990, and successively in Taiwan by Earth-scape Press of Taipei in 1992. Running through the list of works published by Wu, many of which I have directly examined, it is *evident* that the studies published after 1992 continue to focus on the search for a concept of human settlement, analysed and documented with respect to classical Chinese literature and Western texts – Anglo-Saxon in particular. Above all it was verified through in-situ research, as demonstrated by the many reports published by the Institute of Architecture and Urban Studies at Tsinghua University, founded by Wu himself. The work is the result of actions conducted over the past thirty years in so many of China's crucial territorial and urban realities. The important works of urban planning listed on his curriculum reinforces all of this. The study entitled *Rehabilitating the Old City of Beijing. A Project in the Ju'er Hutong Neighbourhood* was the object of considerable international attention through the edition published in 1999 by Canada's UBC Press, with a preface by Peter Rowe. The text includes a fascinating compendium of the urban history of Beijing and describes a method for 'operative' contemporary urban design beginning with the analysis and the evolution of the fabric of the courtyard house – the hutong – of the ancient imperial capital of Beijing. The study serves as the theoretical base to Wu's well-known *Ju'er Hutong Neighbourhood* pilot project, which has received numerous awards since 1987: the ARCASIA 1992 Gold Medal Award for Architectural Excellence and the UN World Habitat Award. The challenge raised by this experimental residential project is aligned with the contents of *A General Theory of Architecture*: organically 'integrating' the ancient city and new architecture. In fact, according to what Peter Rowe writes on the back cover: "Wu argues eloquently for 'organic renewal' [...] and shows that [...] it is possible to achieve a balance between ancient values and modern concepts".

The idea of 'integral architecture' is also present in one of the chapters of another fundamental text edited by Wu and presented by Alexander Tzonis: the *UIA Beijing Charter: The Future of Architecture*⁴: the proceedings of the 1999 UIA Conference held in Beijing. The intentions expressed in the *Charter* confirm the questions raised and structured in *A General Theory of Architecture*, applying them prevalently to the case of Beijing and the possibilities, for the ancient Chinese capital, to become "A better Habitat and a better Society". The candidature for the 2008 Olympics was underway at the time⁵ and Wu Liangyong was a member of the jury that selected the Master Plan for the Beijing Olympic Park. However, earlier still he had focused his studies, together with his

Gesamthochschulbibliothek, 1985.

³ Wu Liangyong and others. *Town and Country Planning* (textbook). Beijing: China Architecture & Building Press, 1961; Wu Liangyong, *Selected Essays on Urban Planning and Design*. Beijing: Yanshan Press, 1987.

⁴ Wu Liangyong, *UIA Beijing Charter: The Future of Architecture (English and Chinese Versions)*. Tsinghua University Press, Beijing 2002.

⁵ On 13 July 2001 the president of the International Olympic Committee, Juan Antonio Samaranch, announced that Beijing would host the 2008 Summer Olympic Games, the XXIX Olympiad. In May of the same year, China joined the WTO.

research team, on the Beijing 2004-2005 Master Plan. The three volumes⁶, published as a "research report" in 2002, 2006 and 2009, represent the concrete implementation of what Wu Liangyong had described in the chapter of *A General Theory of Architecture* entitled "Theory on Regionalism". The reports bring together the studies conducted by a national interdisciplinary team of approximately 50 specialists working on the coordination and integrated study of a vast regional territory of dimensions comparable to those of a medium-sized European nation.

What is more, the principles of a "multi-scalar" and "multi-layer" work of research expressed in *A General Theory of Architecture* were recently applied in the latest work published by professor Wu Liangyong, together with professor Wu Weijia⁷ – his pupil and the current director of the Institute of Architecture and Urban Studies at Tsinghua University founded by Wu – and other scholars, entitled *Beijing 2049, Research on the Spatial Development Strategy*. Following the investigation from the city to the region, he returned to the scale of the city to predict its possible developments in terms of urban space and architecture, even if at the large scale. The list of planning and urban design works by Wu and his team demonstrate his contribution to the development of the Provinces of Jiangsu, Anhui, Guangxi and Hainan. Wu also served as a consultant to many important strategic contemporary Chinese cities, such as Nantong and Shenzhen.

In 2011 the Chinese Government instituted the Wu Liangyong Foundation for Sciences of Human Settlements and, in February 2012, the President of the People's Republic of China, honoured Wu Liangyong together with the physician Xie Jialin, with the State Preeminent Science and Technology Award.

The result describes the profile of a scholar with an ability to affirm, with great determination and coherence, a long-term line of research, nationally and internationally recognised. A research developed since the era of his master Liang Sicheng, who entrusted Wu with the guidance of the Tsinghua School of Architecture. Wu has consistently resisted the "swirling torrent where it is most furious", in other words, "the cascade of events of the last half century", similar to the "stoutest and most firmly rooted oak tree". These are the terms employed by the American West Coast academic Daniel Solomon to describe Wu Liangyong in his 2003 essay "Nearness. Measure the night with bells". It is Solomon's aspiration that Beijing become a "Heideggerian place" rather than "Cartesian space", paraphrasing Wu's proposal to reactivate a part of the old city walls of the Ming Dynasty and the bell towers, in opposition to what would have resulted, instead, from the possible intervention by Rem Koolhaas, "the poet laureate of airline food, endless shopping malls, and the new Chinese cities [...] of identical high-rises". A description affirmed by the realisation of the CCTV tower complex in 2008.⁸

⁶ Wu Liangyong et al., *Research Report on the Rural and Urban Spatial Development Planning for the Greater Beijing Region (Beijing, Tianjin and Hebei)*, Beijing: Tsinghua University Press, 2002; Wu Liangyong, *Thoughts on Urban and Rural Development Transformation of China*. Beijing: Tsinghua University Press, 2009; Wu Liangyong et al., *Second Research Report on the Rural and Urban Spatial Development Planning for the Greater Beijing Region (Beijing, Tianjin and Hebei)*, Beijing: Tsinghua University Press, 2006.

⁷ Wu Liangyong, Wu Weijia et al., *Beijing 2049, Research on the Spatial Development Strategy*. Tsinghua University Press, Beijing 2012.

⁸ Curiously, the architecture of one of the two buildings of this complex, designed by Rem Koolhaas and his office OMA, in particular that which caught fire only a few months prior to the 2008 Olympics, is highly similar to a project that appears in a scene from the film *The Fountainhead* – a metaphor of the life of Frank Lloyd

The International Roots of Wu Liangyong's Research Expressed in A General Theory of Architecture (Integrated Architecture)

Aside from his profound belonging to the Chinese cultural and scientific world, and his vast influence over this latter, for many years Wu Liangyong has also been part, in a progressively more integrated manner, of a network of international references whose contact was very important to his research activities. The basic web of his international network of reference undoubtedly consists of the historic and lasting relationships between the Tsinghua School of Architecture and the United States of America, in particular, though not exclusively, with the University of Philadelphia. It was here that during the 1920s, twenty-five young Chinese scholars were taught by Paul Cret – the great French architect, director of the Department of Architecture at the University of Pennsylvania and Louis Kahn's master. The young students included Liang Sicheng and Yang Tingbao, Kahn's classmates, and both future masters and mentors of Wu Liangyong; together with Yang Tingbao, Wu graduated from the National Central University of Nanjing in the early 1940s (the first architecture school in China); with Liang Sicheng, instead, he began collaborating at the time of the foundation of the Tsinghua Department of Architecture in 1948 that initially offered only a three-year basic course. Liang was concerned, at the time, with persuading Wu and his other brilliant young pupils to attend specialisation courses in the United States to acquire the advanced scientific training suitable to the start up of a Master course that would integrate and complete the academic curriculum of the School of Architecture at Tsinghua University. Wu studied at the Cranbrook Academy of Art in Michigan with the great Finnish architect Eliel Saarinen. He returned to Beijing in 1951 (one his classmates was Edmund Bacon, the author of the brilliant essay *Design of Cities* who, among other things, apprenticed as a designer in the office of Henry Murphy, the architect of the Beida.⁹) Yang Tingbao, Liang Sicheng and Eliel Saarinen – with their ideas on architecture, their example and their works, critical or architectural – certainly constituted an incomparable and extraordinarily rich source of stimuli to the formation of Wu's personality that, enriched by an autonomous ability to develop theories and research, finds its full expression in *A General Theory of Architecture* (and thus in *Architettura Integrata*). Yang Tingbao is present with his sensitivity toward the principles of convenient and symbolic beauty, drawn from the roots of the Beaux-Arts; there is his continuous, free experimental research into the languages of modernity and history, his attention toward the relationship between form, the needs of construction and the productive capacities of the still-living tradition of Chinese artisans. Finally, he is present in an attitude toward philosophical speculation (the concepts of 'essence' and 'form' are ever-present in his theories and often cited by Wu in his book). Liang Sicheng is present with his indelible, scientifically modern intellectual imprint that led him to introduce and to exercise principles of historical, analytical and critical thinking in his study of Chinese architecture and cities; he is present in his important role as a reformer of education and champion of China's cultural heritage. His well-known posthumous text, edited by Wilma Fairbank in 1984, *A Pictorial History of Chinese Architecture (A bilingual*

Wright – repeatedly mentioned in Wu's book.

⁹ *Beida* is the colloquial name used in China to refer to Peking University (abbreviation: PKU or in colloquial Chinese 北大, Bèidà).

edition) features an introduction by Wu Liangyong, at the time dean of the Tsinghua School of Architecture. Eliel Saarinen exercises his influence above all through an idea of the city fully presented in his book *The City: Its Growth, Its Decay, Its Future*. He is also present with his natural – Nordic – conception of modernism as a continuity of collective meaning and sentiments, despite the technological and productive transformation of architecture and the city. Furthermore, as Alexander Tzonis points out in his presentation of the *UIA Beijing Charter* "like Saarinen, Wu believes that design action should run parallel to the development of design knowledge that should reside, to quote Saarinen, in a 'research institution' responsible for keeping the quality of production up-to-date with new discoveries and new needs".¹⁰

Research Open to Other Research

The book you have just read, with its vast theoretical, critical and historical implications, obvious or implicit, is also an open work. This is perhaps truest because it stimulates the reader interested in architecture to use it as a tool to trace possible itineraries for new research. This can be done by moving in at least two directions: the first, almost unavoidable, leads to a completion of the critical exploration of the figure of Wu and the results of his academic, theoretical and design investigations of the development of the "culture of cities" in China. The second, as described above, may instead be nurtured by grafting Wu's ideas and design experience onto the more general framework – general in theoretical, as well as geographical and historical terms – that in many parts of Italy serves as the backdrop to an attempt to reconstruct the international identity of contemporary Italian architecture. An identity for too long ideologically amputated of the contributions made by its "schools" and personalities, often considered imperfectly aligned, if at all, with the structuring axis of an official and conventional modernism. A modernism rigidly trapped behind the walls of a more orthodox confrontation with a so-called European "internationalist" system and the more "Europeanising" conditions in America – northern, above all, but also central and southern. What emerges from a reading of Wu Liangyong's book is that, instead, he privileges a different international version of modernism. The most obvious benchmarks here are undoubtedly Charles Correa, an Indian, Hassan Fathy, an Egyptian, and above all Constantinos Doxiadis, a Greek, and hence a Mediterranean European; while three important and distinct personalities, there are in any case the bearers of an advanced and unitary vision of the mission of architecture. A mission identified in the construction of human settlements, from villages along the Nile to the megalopolises of the future. For these three masters, humanity, with its countless needs expressed by multitudes and individuals, becomes the centre of attention, the true focus of the commitment of the modernist architect. A real humanity, with its ancient, rational and symbolic culture, profound and neglected, cared for – almost protected – by poverty.

¹⁰ Readers in search of a more defined backdrop to the outstanding personality of Wu Liangyong and those wishing to further explore the events and figures that animated architectural research in China from the late nineteenth century until 1953, may be interested in consulting the recent doctorate thesis of Min-Ying Wang – a graduated of the Tsinghua University of Beijing – defended at Columbia University, New York in 2010 and entitled *The Historicization of Chinese Architecture: The Making of Architectural Historiography in China, from the Late Nineteenth Century to 1953*.

The real humanity that populates rural and urban areas that remains, and will remain so for some time, the incalculable living and suffering body of the social city. Thus it is also for Wu, who, throughout his lengthy career as an architect and thinker, has worked to construct and refine an articulated scientific and intellectual tool. An instrument that makes it possible to harmonise all of the economic, social and cultural components that converge and overlap in the construction, precisely, of human settlements. His is a scientific and humanist method that in an era such as ours, as complex as any in human history, may offer each settlement its own identity, forever unique within the infinite constellation of cities. Each human settlement is an organism impossible to replicate under other conditions, in other geographical locations, in other cultures. It is precisely through the recognition and expression of the "biological" uniqueness of any human settlement – Wu tells us – that architecture can and must realise its contribution to the current culture of cities. Hence, how can we not sense the call to redefine, broadening it extraordinarily, the framework of the international consonances of the most important "Italian schools of architecture", recognisable in the works of such masters as Ludovico Quaroni, Saverio Muratori, Mario Ridolfi, Aldo Rossi, Carlo Scarpa, Paolo Portoghesi, Guido Canella, BBPR, Giancarlo De Carlo and Carlo Aymonino? How can we Italians avoid being tempted by the project for a new study of *our* culture of cities, which moves against the backdrop defined by the historic fabric that – beyond the consolidated official positions of critics – links Heinrich Tessenow and Mies van Der Rohe, Werner Hegemann and Gustavo Giovannoni, Richard Hudnut and Louis Kahn, the critical regionalism of Kenneth Frampton and, precisely, the complex and fascinating vision of Wu Liangyong? Wu Liangyong is thus one of our Masters.

NAME INDEX

- Abercrombie Patrick, 81
 Abrams Harry N., 66n
 Aga Khan, 18
 Alberti Leon Battista, I, 8, 66, 109
 Alexander Christopher, 27, 27n, 102, 103n
 Alexander Tzonis IV, IVn, 147, 150
 Amadu-Mahatar Muhbo, 39n, 40n
 Aristarchus, 109n
 Aristotle, 134
 Aristoxenus, 109n
 Aymonino Carlo 146, 151
 Bacon Edmund N., 60n, 76, 76n, 118, 149
 Barbera Lucio Valerio, 1, 145
 Barlow Lord Anderson, 56
 Barnett Jonathan, 60n, 102, 102n, 103n
 Bauer Catherine, 125n,
 BBPR, 151
 Behrens Peter, 35
 Bei Wei Dynasty, 50
 Bei Yuming, 41
 Berlage Peter, 35
 Bernal John Desmond, 115n
 Blackett Patrick, 115n
 Boito Camillo, 146
 Bourbaki Nicolas, 111
 Brunelleschi Filippo, 66
 Buontalenti Bernardo, 81
 Cai Yuanpei, 73, 72n, 73, 73n
 Campanella Tommaso, 141
 Canella Guido, 146, 151
 Chao Cuo, 78, 79n
 Chen Congzhou, 77
 Chen Zihua, 65n
 Chermayeff Serge, V
 Chun Li, 71
 Correa Charles, 17, 25, 26n, 33n, 36, 37, 37n, 38, 39n, 49n, 91, 150
 Cret Paul, 149
 Cuthbert Alexander R., 129fig
 Dazhuang Zhao, 117n, 119fig, 119n
 De Carlo Giancarlo, 151
 de la Hoz Raphael, 68n
 Del Monaco Anna, 145
 Deng Xiaoping, II
 Dix Gerarld, 122n
 Doxiadis Costantinos, V, 7, 7n, 21, 21fig, 22, 22n, 53, 67, 67n, 111n, 111, 112, 112n, 114, 150
 Du Fu, 24, 354
 Dürer Albrecht, 66
 Eilenberg Samuel, 111
 Einstein Albert, 111, 115
 Engels Friederich, 9, 53, 53n, 65, 65n, 133, 133n, 135n, 141, 141n
 Erskine Ralph, 17
 Fan Wenzhao, 72, 73n
 Fathy Hassan, 36fig, 37, 37, 37n, 38, 49, 91, 139, 139n, 150
 Ferris Hugh, 59

Flaubert Gustav, 100
 Fletcher Banister, 30, 31fig
 Frampton Kenneth, 151
 Gadamer Hans Georg, VI
 Gao Luqin, 136n
 Gao Lütai, 109n,
 Geddes Patrick, V, 53, 83, 129, 130n
 Giedion Sigfried, 81n
 Giovannoni Gustavo, 146, 151
 Goethe Johan Wolfgang von, 100
 Gosling David, 93n
 Gotelind Alber, 29
 Greene Charles and Henry, 17
 Gropius Walter, IV, 35, 66, 81, 84
 Gu Kaizhi, 41
 Gu Qiyuan, 82n, 100n
 Guo Daiheng, 30n
 Hackney Roderick Peter, 36
 Hall Peter, 46, 46n
 Han Dynasty 23, 23n, 70, 78, 79n, 141n
 Heckel Erich, 53
 Hegemann Werner, 151
 Heidegger Martin, VI
 Hoppenfeld Morton, 70
 Howard Ebenezer, 83
 Hudnut Richard, 151
 Hudoc report, 73, 73n
 Hugo Victor, 43
 Isomura Eiichi, 9n, 75n, 76n, 101n, 129n
 Jantsch Enrich, 113n
 Jin Ying, 143, 145
 Johnson Philip, 36
 Kahn Hassan-Uddin, 37n
 Kahn Louis, 149, 151
 Kang Youwei, 141
 Ken Yeang, 15fig, 18n, 39, 39n
 Kenzo Tange, 45
 Kirk Stephen J., 122n
 Kissinger Henry, II, II n
 Koolhaas Rem, 148, 148n
 Kostof Spiro, 66n, 81n
 Krier Rob, 101, 101n
 Laozi, 13, 13n, 141n
 Le Corbusier, 35, 66
 Le Minsheng, 123n
 Le Nôtre André, 65
 Lea F. M., 84
 Lenin, 135n
 Leon Hua, 52n
 Leonardo Da Vinci, 66
 Li Bai, 24, 34
 Li Daoyuan, 50
 Li Mingzhong, 71
 Li Xiaoming, 115n
 Li Zehou, VI
 Liang Sicheng, I, IV, V, 13, 55n, 77, 77n, 84, 90, 90n, 99n, 125, 145, 148, 149

Lin Sen, 79
 Lin Ying, 79
 Lin Zhiqun, II n, 19n, 24n, 27n, 47n, 49n
 Liu Jian, 1475
 Liu Zongyuan, 7n, 71
 Long J., 101n
 Lu Ban, 71
 Lv Yanzhi, 72
 Lynch Kevin, 114, 116fig
 Ma Zhenglin, 24n
 MacLane Saunders, 111
 Mansart Jules Harduin, 58
 McHalle John, V
 McHarg Ian, 53, 114, 116fig
 McLonghlin J.B., 123n
 Mencius, 97
 Michelangelo Buonarroti, 65, 66,
 Mies Van der Rohe, 35, 36, 59fig, 81, 151
 Ming Dynasty, 23, 23n, 51fig, 148
 Mintomo Yuasa, 30n
 Min-Ying Wang, 150n
 Morris A. E. J., 58n, 134n
 Morris Hicky Morgan, 109n
 Mumford Lewis, V, VI, 11, 11n, 17, 53, 93, 94n, 101, 101n, 134
 Muratori Saverio, VIII, 146, 151
 Murphy Henry, 149
 Muzio Giovanni, 146
 Ni Wenyan, 11n
 Noboru Kawazoe, 9n
 Ojima Toshio, 52n
 Oliver Paul, 18n
 Olmstead Frederick Law, 83
 Palladio Andrea, 66, 81
 Paulik Richard, 84
 Pei Ieoh Ming, VI, 67, 67n
 Perret Auguste, 52, 52n,
 Perret J.P.G., 63, 63n
 Pfeiffe B.B., 17n
 Piacentini Marcello, 146
 Plato, 141
 Portoghesi Paolo, 151
 Qi Baishi, 38
 Qing Dynasty, 23, 23n, 24, 34, 50, 55
 Quaroni Ludovico, VIII, 146, 151
 Rasmussen Steen E., 60n, 93n
 Rastorfer D., 37n
 Richards H., 37n, 139n
 Riddel Michael, 145
 Ridolfi Mario, 146, 151
 Robertson J., 70n, 102n
 Rossi Aldo, 146, 151
 Rowe Colin, 102n
 Rowe Peter, V, Vn, VI n, 147
 Rudolfsky Bernard, 17
 Saarinen Eiel, IV, V, 6n, 35, 66, 66n, 81, 82, 82n, 110, 100, 100n, 106, 149, 150

Samaranch Juan Antonio, 147n
 Samonà Giuseppe, VIII, 146
 Scarpa Carlo, 151
 Seng Kuan, V, Vn, VIn
 Serageldin Ismail, 37n
 Shang Dynasty, 11
 Shu Da'en, 60n,
 Sitte Camillo, 82, 82n
 Solomon Daniel, 148
 Song Dynasty, 23, 41, 55, 55n, 71
 Song Qilin, 11n
 Spreiregen Paul D., 93n
 Su Dongpo, 88
 Suha Ozkan, 18n
 Sui Dynasty, 23
 Sullivan Louis, 35, 90
 Tang Dynasty, 7n, 23, 23n, 24, 71
 Tang Yijie, V
 Tontini Roberta, 145
 Verges-Escuin Ricardo, 10fig, 68n
 Vignola Iacopo Barozzi da, 66
 Vitruvio (Vitruvius), 1, 8, 109, 109n, 110fig 122, 136, 136n, 145
 Wagner Otto, 35
 Wang Jinjin, 63n
 Wang Jinyi, 9n
 Wang Ling, 50n
 Wang Wei, 24
 Wang Xizhi, 8, 8n
 Wei Songnian, 63n
 Wei Yingwu, 24
 Weimin Lu, 60n
 Wen Yiduo, 63, 63n, 100, 137
 Wen Yu Kai, 71
 Wright Frank Lloyd, 13, 16, 17n, 26, 35, 50, 90, 130, 149n
 Wu Guangzu, 30n
 Wu Liangyong, I, II, III, IV, IVn, VI, VII, VIIIn, 1, 7n, 22n, 24n, 27n, 33n, 36n, 47n, 49n, 52n, 55n, 76n, 78n, 80n, 83n, 85n, 111n, 117n, 132n, 143, 145, 146n, 147, 147n, 148, 148m, 149, 150, 150n, 151
 Wu Weijia, II, 148, 148n
 Xia Dynasty, 11n
 Xiao He, 70
 Xie Jialin, 148
 Yang Tingbao, 50, 79, 149
 Yao Tongzhen, 143
 Ying Jin, 145
 Yu Hao, 71
 Zhao Yi, 34
 Zhang Kaiji, 77
 Zhang Xiaoming, 7n, 22n, 111n
 Zhou Enlai, 77, 80
 Zhou Ganzhi, II, 19n, 24n, 27n, 47n, 49n, 61n
 Zhou Occidental (West Zhou Dynasty), 55
 Zhou Yiguang, 17n
 Zhu Qiyin, 71